**IBM OpenPages:
Report Authoring
(v7.0)**
Student Guide Volume 2
Course Code: 1O202

IBM OpenPages: Report Authoring (v7.0)
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Contents

Conditional Variables

IBM OpenPages: Report Authoring (v7.0)

Business Analytics software

Business Analytics software

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Objectives

- At the end of this module, you should be able to:
    - create formatting based upon the report view
    - use the conditional block list tool
    - create multi-language translations for text strings based upon the user's locale setting

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NOTE: If you have not taken the pre-requisite course *IBM Cognos Report Studio: Author Professional Reports Fundamentals (v10.2)* (J2258) you may struggle completing the demonstrations in this module. Allow extra time to complete each demonstration.

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Introduction

- The IBM OpenPages GRC Platform provides many opportunities to use conditional formatting.
    - change the display characteristics of a report based upon how the report is viewed
        - HTML, PDF, or Excel
    - hide a cell of data based upon the contents of another cell in the same row
    - provide translations for text based upon the user's locale setting in the GRC Platform

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CONDITIONAL VARIABLES

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Conditional Formatting

- Many times users will view a list report differently each time they run it. Sometimes they use HTML (the default view), other times they want a PDF file and yet other times they want a spreadsheet.

- Formatting appropriate for viewing in HTML or PDF may not be suitable for viewing in a spreadsheet.

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Grouping in a list container creates merged cells in an Excel view, which is normally unwanted and requires extra work for the Excel user to re-format the worksheet to make it usable for macros and data auto filters.

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Sample HTML Display

Entity	Process	Owner	Risk
Retail Banking	RB-01	ORM Director	RB-01-Risk00191
			RB-01-Risk00192
			RB-01-Risk00193
			RB-01-Risk00194
	RB-02	ORM Director	RB-02-Risk00383
			RB-02-Risk01729
	RB-07	ORM Director	RB-07-Risk1423
			RB-07-Risk1424

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Grouping in HTML and PDF views makes the data easier to view and analyze.

Sample Spreadsheet Display

	A	B	C	D
1	Entity	Process	Owner	Risk
2	Retail Banking	RB-01	ORM Director	RB-01-Risk00191
3	Retail Banking	RB-01	ORM Director	RB-01-Risk00192
4	Retail Banking	RB-01	ORM Director	RB-01-Risk00193
5	Retail Banking	RB-01	ORM Director	RB-01-Risk00194
6	Retail Banking	RB-02	ORM Director	RB-02-Risk00383
7	Retail Banking	RB-02	ORM Director	RB-02-Risk01729
8	Retail Banking	RB-07	ORM Director	RB-07-Risk1423
9	Retail Banking	RB-07	ORM Director	RB-07-Risk1424
10	Retail Banking	RB-08	ORM User	RB-08-Risk1425
11	Retail Banking	RB-09	ORM User	RB-09-Risk1426
12	Retail Banking	RB-09	ORM User	RB-09-Risk1427
13	Retail Banking	RB-09	ORM User	RB-09-Risk1428
14	12-Jun-14		1	12:08:02 PM

Spreadsheet users typically want data dumps that have some filtering applied, typically from a prompt page. Additional data manipulation takes the form of data auto filters or macros that apply scenarios and final formatting.

NOTE: Depending upon the configuration of your IBM Cognos implementation you may see merged rows if any of the text fields exceed 155 characters. If this IBM Cognos default behavior is undesirable you can have your Cognos Connection administrator apply a configuration change that will eliminate these types of merged rows. This is covered in the module *Spreadsheet Considerations* in this training course.

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ReportOutput()

View in…	ReportOutput ()
HTML	HTML
PDF	PDF
Excel 2007 Data	spreadsheetML
Excel 2007 Format	spreadsheetML
Excel 2002 Format	XLWA
CSV	CSV
XML	XML

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When you select a view for your report output the Cognos function **ReportOutput ()** returns a string.

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ReportOutput() (cont'd)

- The **ReportOutput ()** function, along with other Cognos reporting functions, is located in the **Report Functions** folder in the **Functions** tab.

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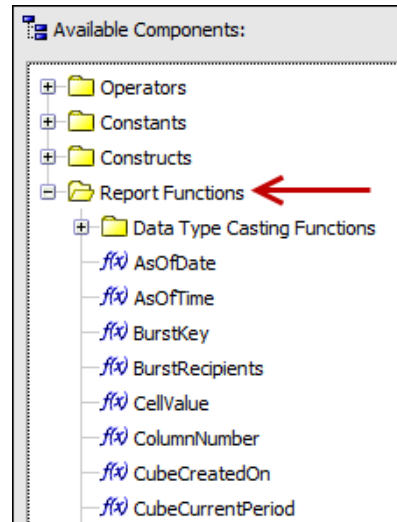
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Demo 1

Conditional Formatting

Entity	Process	Process Description	Risk	Risk Description	Control	Control Description
<CEN_NAME00>	<PR_NAME00>	<PR_DESCRIPTION>	<RI_NAME00>	<RI_DESCRIPTION>	<CN_NAME00>	<CN_DESCRIPTION>
<CEN_NAME00>	<PR_NAME00>	<PR_DESCRIPTION>	<RI_NAME00>	<RI_DESCRIPTION>	<CN_NAME00>	<CN_DESCRIPTION>
<CEN_NAME00>	<PR_NAME00>	<PR_DESCRIPTION>	<RI_NAME00>	<RI_DESCRIPTION>	<CN_NAME00>	<CN_DESCRIPTION>

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IMPORTANT

Before starting your first demo, you must prepare the IBM eLabs. Refer to the PDF file, *Preparing For a Demo* which can be downloaded from the **Materials** tab of the eLabs launch site.

Demo 1: Conditional Formatting

Purpose:
Create one report that can be viewed in HTML or PDF with grouped columns or viewed in any Excel variation with no grouped columns.

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Report Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Configure the report page body.

1. In Report Studio, start with a new list report.

2. From the toolbox, drag a Table tool into the page body.

    - **Number of columns**: 1

    - **Number of rows**: 2

    - **Maximize width**: Clear the checkbox

3. Click the list container and in the Properties ancestor selector select **List**.

4. Change the name to **Spreadsheet_List**.

5. Drag the list container into the top table cell.

6. From the toolbox, drag a List tool into the bottom table cell:

    - **Name**: HTML_List,

    - **Query Name**: Query1.

7. Select the page body and click **Center** in the tool bar.

8. Click either list container and in the Properties ancestor selector select **Table**.

9. Click **Center** in the tool bar.

Task 2. Work with the query.

1. Navigate to the report's query .

2. Change the name of the query to **List Query** and expand the following:

   - DEFAULT_REL > GRC_OBJECTS > SOXBUSENTITY_FOLDER > SOXBUSENTITY_GPC > ID_FIELDS,
   - GRC_OBJECTS > SOXPROCESS > ID_FIELDS,
   - GRC_OBJECTS > SOXRISK > ID_FIELDS,
   - GRC_OBJECTS > SOXCONTROL > ID_FIELDS.

3. Add the following:

```
Data Items
 GEN_REPORTING_PERIOD_ID
 GEN_ENTITY_ID
 CEN_ENTITY_ID
 CEN_NAME00
 PR_PROCESS_ID
 PR_NAME00
 PR_DESCRIPTION
 RI_RISK_ID
 RI_NAME00
 RI_DESCRIPTION
 CN_CONTROL_ID
 CN_NAME00
 CN_DESCRIPTION
```
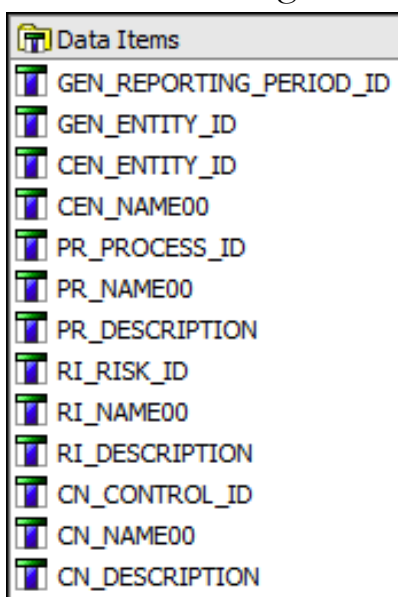
4. Using the Demo 1 slide, change the **Label** properties to match the column titles.

5. Add the following detail filters:

   - current reporting period,
   - /Global Financial Services/Asia Pac starting entity (1204)

   The results appear as follows:
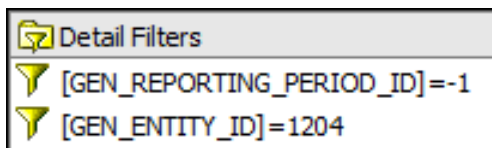
```
Detail Filters
 [GEN_REPORTING_PERIOD_ID]=-1
 [GEN_ENTITY_ID]=1204
```

6. Create a performance optimized **Is Not Null** filter:

    - from the toolbox drag a **Data Item** tool into the data items pane,

    - **Name**: Not Null,

    - create the following expression and click **OK**,

    ```
    if([CN_CONTROL_ID] is not null)
    then(1)
    else(0)
    ```

    - change the aggregate functions properties to **None**,

    - drag the **Not Null** data item into the Detail Filters pane,

    - set it equal to 1 and click **OK**.

    The results appear as follows:

    Detail Filters
    [GEN_REPORTING_PERIOD_ID]=-1
    [GEN_ENTITY_ID]=1204
    [Not Null]=1
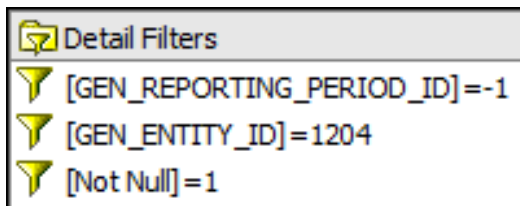
7. Save the report as **13-Conditional Formatting** in **My Folders**.

Task 3. Populate the list containers.

1. Navigate to the report pages **Page1**.

2. Populate both list containers (L-to-R):

    - Entity name,
    - Process name,
    - Process description,
    - Risk name,
    - Risk description,
    - Control name,
    - Control description.

3. Group the following columns in the bottom list container only (in order):

- Entity name,
- Process name,
- Process description,
- Risk name,
- Risk description.

4. Run the report HTML, test and validate.

5. Add the report title **Conditional Formatting**.

6. Save the changes.

Task 4. Configure the conditional variable.

1. In the **Condition Explorer**, select the **Variables** folder.

2. From the toolbox drag the **String Variable** into the **Variables** pane.

3. Create the following expression:

```
if (ReportOutput () contains 'XL')
then ('XLS')
else if (ReportOutput () contains 'sheetML')
then ('XLS')
else ('HTML_PDF')
```

4. Name the new variable **View**.

5. Click the **Add** button and add the value **XLS** to the **Values** pane.

The results appear as follows:

Variables		Values	
View		XLS	

Task 5.   Hide the bottom list container when viewing Excel.

1. Navigate to the report pages **Page1**.
2. Select any column in the <u>bottom</u> list container.
3. Select **Table Row** in the ancestor selector.
4. Set the **Style Variable** property to **View**.
5. In the **Condition Explorer** select **XLS**.
6. Set the **Box Type** property to **None**.
7. In the **Condition Explorer** select **(No variable)**.
8. Run the report Excel 2007, test and validate.
9. Save the changes.

Task 6.   Hide the top list container when viewing HTML.

1. Select any column in the <u>top</u> list container.
2. Select **Table Row** in the ancestor selector.
3. Set the **Style Variable** property to **View**.
4. In the **Condition Explorer** select **(Other)**.
5. Set the **Box Type** property to **None**.
6. In the **Condition Explorer** select **(No variable)**.
7. Run the report HTML, then PDF, and finally Excel 2007.
8. Test and validate.
9. Save the changes.

> **Results:**
> **You have created one report that can satisfy the needs of users viewing in HTML, PDF, or Excel.**

Conditional Block List Tool

- The **Conditional Blocks** tool has limited usefulness in GRC Platform reports, but it is worthwhile to learn how to use it for those rare occasions you may need it.
- The primary use of this tool is to hide data based upon some criteria.

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Using the conditional block is a three step process:

1. define a Boolean condition variable,
2. add the conditional block to the list container,
3. assign the Boolean condition variable to the conditional block list and configure the action(s).

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Demo 2

Using the Conditional Block List Tool

Conditional Block List

Entity	Control	Control Description	Design Effectiveness	Operating Effectiveness
Commercial Banking	Control 12347	Nulla sollicitudin lorem vel urna gravida, et feugiat libero venenatis. Maecenas eget sagittis velit.	Not Determined	
	Control 12348	Nulla sollicitudin lorem vel urna gravida, et feugiat libero venenatis. Maecenas eget sagittis velit.	Not Determined	
	Control 12349	Nulla sollicitudin lorem vel urna gravida, et feugiat libero venenatis. Maecenas eget sagittis velit.	Not Determined	
	Control 12350	Nulla sollicitudin lorem vel urna gravida, et feugiat libero venenatis. Maecenas eget sagittis velit.	Not Determined	

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Demo 2: Using the Conditional Block List Tool

Purpose:
The Risk Management team has requested a report which contains Control information. The report specification requests that when Design Effectiveness is not determined the Operating Effectiveness should be hidden. You will use the Conditional Block List tool to meet the reporting requirements.

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Report Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Create a list report.

1. In Report Studio, start with a new list report.

2. Navigate to the report's query.

3. Change the name of the query to **List Query** and expand the following DEFAULT_REL > GRC_OBJECTS:

    - SOXBUSENTITY_FOLDER > SOXBUSENTITY_GPC > ID_FIELDS,

    - SOXCONTROL > ID_FIELDS,

    - SOXCONTROL > ENUMERATION_FIELDS >
        o DESIGN_EFFECTIVENESS (ENUMERATIONS),
        o OPERATING_EFFECTIVENES (ENUMERATIONS).

4. Add the following to the query:

```
Data Items
  GEN_REPORTING_PERIOD_ID
  GEN_ENTITY_ID
  CEN_ENTITY_ID
  CEN_NAME00
  CN_CONTROL_ID
  CN_NAME00
  CN_DESCRIPTION
  CN_DESIGN_EFFECTIVENESS
  CN_DESIGN_EFFECTIVENESS_ID
  CN_OPERATING_EFFECTIVENES
  CN_OPERATING_EFFECTIVENES_ID
```
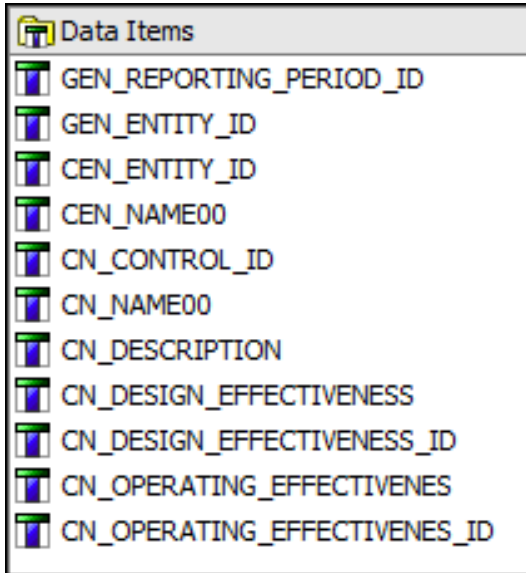
5. Using the Demo 2 slide, change the **Label** properties to match the column titles.

6. Add the following detail filters:

    - current reporting period,
    - /Global Financial Services/Asia Pac starting entity (1204)

7. Create a performance optimized **Is Not Null** filter:

    - From the toolbox drag a **Data Item** tool into the data items pane,

    - **Name**: Not Null,

    - create the following expression and click **OK**,

    ```
    if([CN_CONTROL_ID] is not null)
    then(1)
    else(0)
    ```

    - change the aggregate functions properties to **None**,

    - drag the **Not Null** data item into the Detail Filters pane,

    - set it equal to 1 and click **OK**.

8. Create a data item to set a flag for Design Effectiveness:

   - From the toolbox drag a **Data Item** tool into the data items pane,
   - **Name**: Not Determined,
   - create the following expression and click **OK** (the entire expression is one line of text),

```
[CN_DESIGN_EFFECTIVENESS_ID]+0=
#$SOXCONTROL_DESIGN_EFFECTIVENESS_DEFINITION_MAP{'Not Determined'}#
```

   - change the aggregate functions properties to **None**.

9. Populate the list container (L-to-R):

   - Entity name,
   - Control name,
   - Control description,
   - Control design effectiveness.

10. Group the Entity name column.
11. Sort the Design Effectiveness column descending.
12. Select the report page body and center it.
13. Add the report title **Conditional Block List**.
14. Run the report HTML, test and validate.
15. Save the report as **13-Conditional Block List**.

Task 2. Configure the conditional variable.

1. Click any column in the list container.
2. In the ancestor selector, select **List**.
3. Open the **Properties** property.
4. Check the box next to **Not Determined** and click **OK**.
5. In the **Condition Explorer**, select the **Variables** folder.
6. From the toolbox drag the **Boolean Variable** into **Variables**.
7. From the Queries tab of Available Components, drag **Not Determined** into the Expression Definition pane.

   Create the following expression and click **OK**:

```
[List Query].[Not Determined]=1
```

8. Name the new variable **Effective**.

Task 3. Add and configure the conditional block.

1. From the toolbox drag the **Conditional Blocks** tool to the end of the list container.

    The results appear as follows:

Design Effectiveness ▽	Conditional Blocks
<CN_DESIGN_EFFECTIVENESS>	
<CN_DESIGN_EFFECTIVENESS>	

2. Unlock the list container by clicking **Lock** in the tool bar.

3. In the conditional block column select one of the inner blocks.

    - The **Properties** title bar will display **Conditional Block**.

4. Set the **Block Variable** property to **Effective**.
    The results appear as follows:

    Properties - ▣ Conditional Block

Conditional	
Conditional Styles	
Style Variable	
Block Variable	Effective
Current Block	No

5. With **Current Block** set to **No** drag the Operating Effectiveness data item into one of the conditional blocks.

6. Change **Current Block** to **Yes**.

7. Select the **List Column Title** of the conditional block column.

8. Change the **Text** property to **Operating Effectiveness**.

9. Lock the list container by clicking **Lock** in the tool bar.

10. Run the report HTML, test and validate.

11. Save the changes.

Results:
You created a list report in which the Operating Effectiveness entry is hidden when the Design Effectiveness entry is set to 'Not Determined.'

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Multi-Language Formatting

- The GRC Platform supports many languages, or locales.

- Many components of the platform come with translations built in, but if you add text to a report it will appear only in the language in which you entered it.

- You can provide translations for all text you add to a report.

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Check the current version of the GRC Platform administrator's guide for a list of the supported locales.

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Demo 3

Multi-Language Formatting

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Demo 3: Multi-Language Formatting

> **Purpose:**
> If your company supports multiple language use with the GRC Platform you may need to provide translations for text you add to your reports.
>
> **NOTE: Due to the configuration of the GRC Platform you are using you will not be able to run reports in the various languages to verify your final results.**

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Report Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Create a list report.

1. In Report Studio, start with a new list report.
2. Navigate to the report's query.
3. Change the name of the query to **List Query** and add the following to the query:
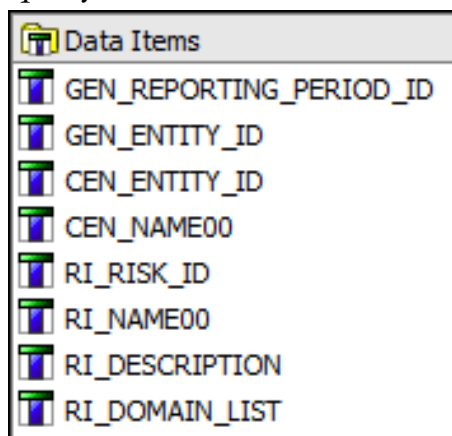
4. Do <u>not</u> modify the Label property for this demo.

5. Add the following detail filters:

- current reporting period,
- /Global Financial Services/Asia Pac starting entity (1204),
- Is Not Null using risk identifier.

The results appear as follows:
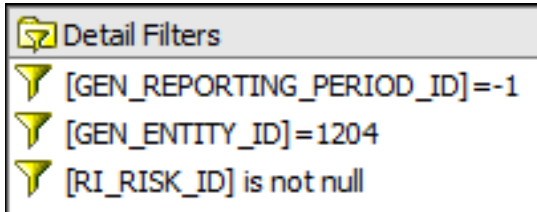
6. Populate the list container (L-to-R):

- Entity name,
- Risk name,
- Risk description,
- Risk domain.

7. Group the Entity name column.

8. Select the report page body and center it.

9. Change the page title to **Multi-Language Report**.

10. Run the report HTML, test and validate.

11. Save the report as **13-Multi-Language Report** in **My Folders**.

Task 2. Modify the list container.

1. Select the **List Column Title** of the Risk Domain column.

2. Change the **Source Type** property to **Text**.

3. Change the **Text** property to **Domain**.

The results appear as follows:
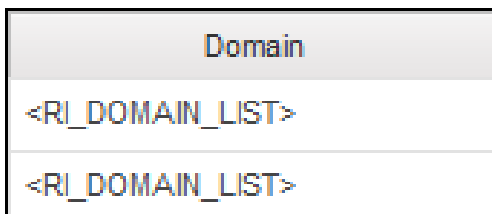
Task 3. Create a text file.

1. Open your favorite text editor (not a word processing program.)
2. Verify that it can save text using **UTF-8** encoding.
3. Create the following text file and save it using UTF-8 encoding:

```
English: Domain
Spanish: Dominio
French: Domaine
```

Task 4. Configure the conditional variable.

1. In the **Condition Explorer**, select the **Variables** folder.
2. From the toolbox drag the **Report Language Variable** into **Variables**.
3. Select the following languages:

- French (France),
- Spanish.

4. Change the **Name** property to **Localization**.

The results appear as follows:

Variables	Values
Localization	French (France)
	Spanish

Task 5. Apply conditional formatting.

1. Navigate to the list container.
2. Select the **List Column Title** of the Risk Domain column.
3. Change the **Text Source Variable** property to **Localization**.
4. In the **Condition Explorer** select **French (France)**.
5. From your saved text file copy the French phrase and paste it into the **Text** property.

    The results appear as follows:

Properties - ▲ List Column Title	
⊟ **Conditional**	
Style Variable	
Text Source Variable	Localization
⊟ **Text Source**	
Source Type	Text
Text	Domaine

6. Select **Spanish** and paste the Spanish phrase into the **Text** property.
7. Select **(No variable)** in the Condition Explorer.
8. Save the report, exit Report Studio, log off, and close all browser windows.

> **Results:**
> **You added two translations to the Risk Domain column header text using the Report Language conditional variable.**

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Summary

- At the end of this module, you should be able to:
    - create formatting based upon the report view
    - use the conditional block list tool
    - create multi-language translations for text strings based upon the user's locale setting

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IMPORTANT

Solutions for the demos in this module can be found in:

Public Folders > 1O202 Solution Reports > Module 13.

Working With Prompts

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Objectives

- At the end of this module, you should be able to:
  - create a prompt utilizing the cascade feature
  - create single- and multi-select prompts using single- and multi-value enumerated string values
  - display enumerated string values in a prompt in the same order as displayed in the platform
  - add an **All** value to a prompt
  - create a report header that displays prompt selections and the name of the person running the report
  - create an inline prompt on a report page
  - apply the **No Data Contents** property

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NOTE: If you have not taken the pre-requisite course *IBM Cognos Report Studio: Author Professional Reports Fundamentals (v10.2)* (J2258) you may struggle completing the demonstrations in this module. Allow extra time to complete each demonstration.

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Introduction

- The prompt page, and the prompts contained in it, is an important component of almost every GRC Platform Report Studio report.

- This module will introduce you to some concepts that will give you the tools to build creative prompt pages.

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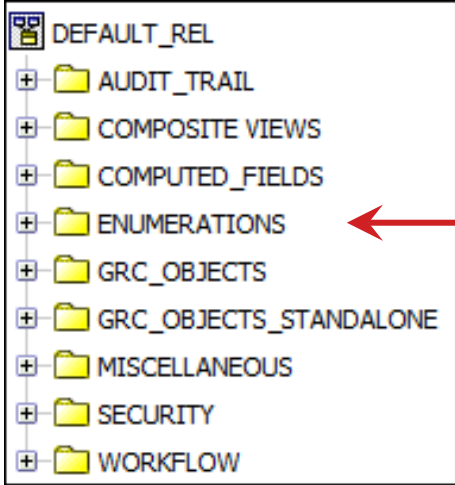
NOTE: In the following demonstrations, table cell references will be in the form of ROW# followed by COLUMN#. For example **R1C2** is the cell located at table row 1 and table column 2.

Enumerated String Value Prompts

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DEFAULT_REL
- AUDIT_TRAIL
- COMPOSITE VIEWS
- COMPUTED_FIELDS
- ENUMERATIONS ← **Use query subjects from here for enum prompts.**
- GRC_OBJECTS
- GRC_OBJECTS_STANDALONE
- MISCELLANEOUS
- SECURITY
- WORKFLOW

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Within the GRC Platform there are single-value and multi-value enumerated string data types.

These data types are convenient to use as parameterized filters and prompts.

When creating prompts using a GRC Platform enum you will use the top-level ENUMERATIONS folder in the _REL namespace.

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Sample ENUMERATIONS Query Subject

CN_CLASSIFICATION

Use Value ──────────────→ ENUMVALID

ENUMTYPEID

VALUE

NAME

Sort values ────────────→ DISPLAY_ORDER

Filter hidden values ──────→ FLAG_IS_HIDDEN

I18N_LOCALE_ID

Display Value ───────────→ CN_CLASSIFICATION

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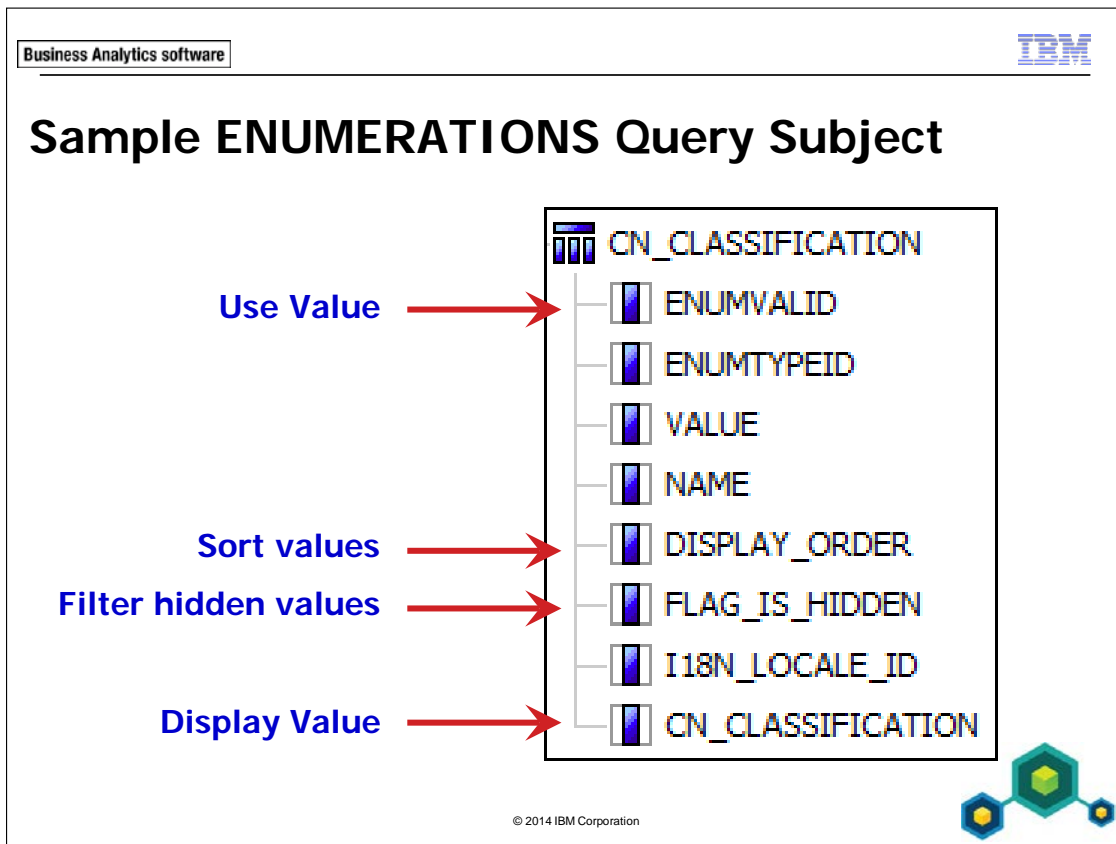
ENUMVALID: Use this query item for the **Use Value** property of a prompt, or the **Value to use** in the value prompt wizard.

<object_type>_<field_name>: Use this query item for the **Display Value** property of a prompt, or the **Value to display** in the value prompt wizard. In this example, **CN** is the abbreviation for SOXControl and **CLASSIFICATION** is the field name, which typically matches the query subject label.

DISPLAY_ORDER: Use this query item as the source to sort the contents of the prompt in the same order as they appear in the GRC Platform. This is beneficial for the user and is a best practice.

FLAG_IS_HIDDEN: This query item returns either a zero or one (1=hidden; 0=not hidden). Create the detail filter **FLAG_IS_HIDDEN=0** in the prompt's query to remove any options no longer in use in the GRC Platform. This is a best practice.
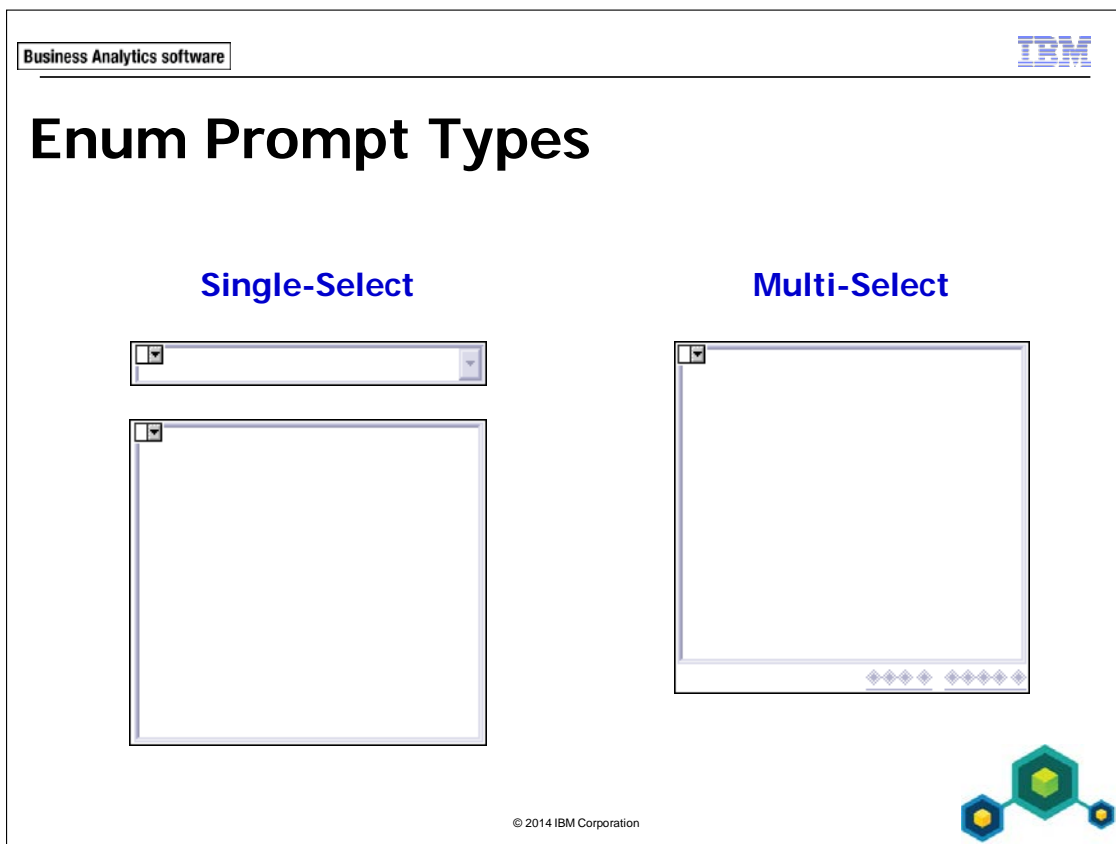
Enumerated string value data types can be used in two types of value prompts, single-select and multi-select. You can create a list box single-select prompt as shown in this illustration.

The multi-select list box has the **Select All** and **Deselect All** links in the bottom right corner.

Another option for the single-select prompt is a **Radio button group** which lets the user click a radio button instead of clicking an option.

Another option for the multi-select prompt is a **Check box group** which lets the user click check boxes instead of control-clicking multiple options.

All value prompts can be scrolled vertically by the user.

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Filter Operators

Enum Data Type	Prompt Type	Filter Operator
Single-value	Single-select	=
Single-value	Multi-select	in
Multi-value	Single-select	contains*
Multi-value	Multi-select	in

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The combination of enum data type and prompt type will determine which operator you must use in the parameterized filter.

When creating a multi-value multi-select prompt please use the following:

- The **Use Value** cannot be an identifier. Use the <object type>_<field name> query item instead,

- The parameterized filter cannot use an identifier. Use the non-ID query item,

- You must set **Auto Group & Summarize** to **Yes** for the prompt's query.

* The **Value Prompt** wizard does not have the **Contains** option. You must select an option in the wizard and then edit the parameterized detail filter in the query or queries.

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Demo 1

Single-Value Single-Select Prompt

CN_CLASSIFICATION	▼
CN_CLASSIFICATION	

Key Control Activity	
Standard Control Activity	
Not Determined	

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IMPORTANT

Before starting your first demo, you must prepare the IBM eLabs. Refer to the PDF file, *Preparing For a Demo* which can be downloaded from the **Materials** tab of the eLabs launch site.

Demo 1: Single-Value Single-Select Prompt

Purpose:
Create a single-select prompt using the single-value enum Control Classification.

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Report Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Populate the list query.

1. In Report Studio, start with a new list report.
2. Navigate to the report's query and change the name to **List Query**.
3. Expand the DEFAULT_REL namespace:

- GRC_OBJECTS > SOXBUSENTITY_FOLDER > SOXBUSENTITY_GPC > ID_FIELDS,
- GRC_OBJECTS > SOXPROCESS > ID_FIELDS,
- GRC_OBJECTS > SOXPROCESS > ENUMERATION_FIELDS > IN_SCOPE (ENUMERATION),
- GRC_OBJECTS > SOXRISK > ID_FIELDS,
- GRC_OBJECTS > SOXRISK > ENUMERATION_FIELDS > DOMAIN (ENUMERATION),
- GRC_OBJECTS > SOXCONTROL > ID_FIELDS,
- GRC_OBJECTS > SOXCONTROL > ENUMERATION_FIELDS >
  - CLASSIFICATION (ENUMERATION),
  - OPERATING_EFFECTIVENES (ENUMERATION).
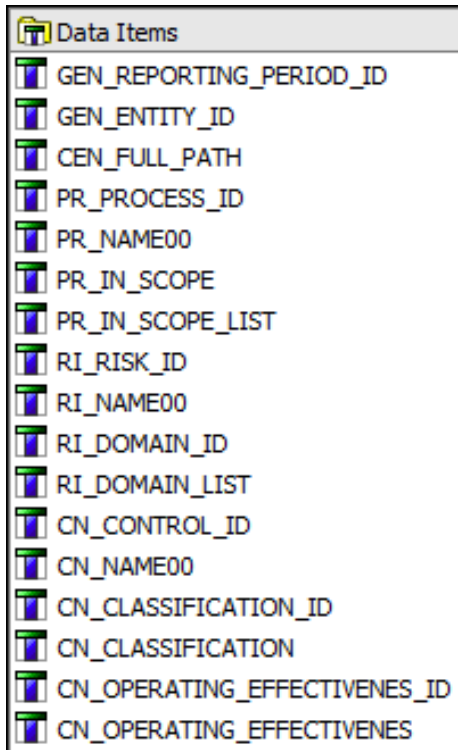
4.   Add the following:

5.   Change the following **Label** properties:

- **CEN_FULL_PATH**: Location,
- **PR_NAME00**: Process,
- **PR_IN_SCOPE_LIST**: In Scope,
- **RI_NAME00**: Risk,
- **RI_DOMAIN_LIST**: Domain,
- **CN_NAME00**: Control,
- **CN_CLASSIFICATION**: Classification,
- **CN_OPERATING_EFFECTIVENES**: Operating Effectiveness.

6. Create the following detail filters:

    - current reporting period,

    - starting entity /Global Financial Services/Asia Pac (1202),

    - Is Not Null using process identifier.

    The results appear as follows:
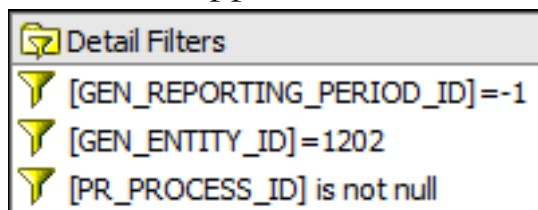
7. Save the report as **14-Enum Prompts**.

Task 2. Populate the list container.

1. Navigate to the list container.
2. Select the List and change the name to **ENUM Prompts List**.
3. Select the report page body and center it.
4. Set the page title to **ENUM Prompts**.
5. Using the List Query, populate the list:

    - Location,

    - Process,

    - In Scope,

    - Risk,

    - Domain,

    - Control,

    - Classification,

    - Operating Effectiveness.

6. Group the following, in order:

    - Location,

    - Process,

    - Risk.

7. Select the In Scope list column body (white cells) and in the **Group Span** property, select **PR_NAME00**.

8. Select the Domain list column body and in the **Group Span** property, select **RI_NAME00**.

9. Run the report, review and validate.

10. Close Cognos Viewer and save the changes.

Task 3. Create a prompt page.

1. Open **Page Explorer** and select the **Prompt Pages** folder.

2. From the toolbox, drag a page into the **Prompt Pages** pane.

3. Double-click **Prompt Page1**.

4. Set the page title to **ENUM Prompts**.

5. Select the prompt page body and center it.

6. From the toolbox, add a table to the page body.

- **Columns**: 2,
- **Rows**: 2,
- **Maximize width**: enable.

7. Format the top-left cell (R1C1):

- **Padding**: Right 15px,
- **Horizontal Alignment**: Right,
- **Vertical Alignment**: Top,
- **Size & Overflow**: Width 50%

8. Format the bottom-left cell (R2C1):

- **Padding**: Top 50px, Right 15px,
- **Horizontal Alignment**: Right,
- **Vertical Alignment**: Top,
- **Size & Overflow**: Width 50%

9. Format the R1C2 table cell:

- **Padding**: Left 15px,
- **Horizontal Alignment**: Left,
- **Vertical Alignment**: Top.

10. Format the R2C2 table cell:
- **Padding**: Top 50px, Left 15px,
- **Horizontal Alignment**: Left,
- **Vertical Alignment**: Top.

11. Into each of the four table cells, add a table:
- **Columns**: 2,
- **Rows**: 3,
- **Maximize width**: clear.

12. Format each of these inner tables as follows:
- **R3C1**
  - **Horizontal Alignment**: Right,
  - **Vertical Alignment**: Top.
- **R2C1**
  - **Size & Overflow**: Height 12px.
- **Row 1**
  - Merge the two cells in row 1,
  - **Padding**: Top 10px,
  - **Horizontal Alignment**: Center.

13. Add a **Text Item** to each inner table merged row 1 with the following text:
- **Top Left**: Single-Value Single-Select,
- **Top Right**: Single-Value Multi-Select,
- **Bottom Left**: Multi-Value Single-Select,
- **Bottom Right**: Multi-Value Multi-Select.

14. Format these text items bold and underline.

15. Add a **Text Item** to each inner table R3C1 with the following text (Note: add a space after the colon):
- **Top Left**: Select a Control Classification: ,
- **Top Right**: Select One or More Effectiveness Options: ,
- **Bottom Left**: Select a Risk Domain Option: ,
- **Bottom Right**: Select One or More Process Scope Options: .

16. Format these text items bold.

17. In the page footer:

   - remove **Next** and **Back** buttons,

   - center the footer.

18. Save the changes.

   The results appear as follows:

Task 4. Create a parameterized filter.

1. Navigate to the report's query.

2. From the Data Items pane, drag CN_CLASSIFICATION_ID into the Detail Filters pane.

3. Place the cursor at the end of the expression and type **=?CN_Class?** and click **OK**.

   The results appear as follows:

   ```
   [CN_CLASSIFICATION_ID]=?CN_Class?
   ```

4. Set the **Usage** property to **Optional**.

5. Return to the prompt page.

Task 5. Create a single-value single-select prompt.

In this task you will add a prompt to the inner table in the top left cell.

1. Add a **Value Prompt** to R3C2.
2. Use the existing parameter **CN_Class** and click **Next**.
3. Create a new query:

   - **Name**: Classification Prompt,
   - **Values to use**:
     - o Expand DEFAULT_REL > ENUMERATIONS > SOXCONTROL (ENUMERATIONS) > CN_CLASSIFICATION,
     - o Select ENUMVALID.
   - **Values to display**:
     - o Navigate to the same classification query subject,
     - o Select the CN_CLASSIFICATION query item.

4. Click **Finish**.
5. Navigate to the **Classification Prompt** query.
6. From the same SOXCONTROL (ENUMERATIONS) > CN_CLASSIFICATION query subject used above, add the following to the Data Items pane:

   - DISPLAY_ORDER,
   - FLAG_IS_HIDDEN.

7. Add a detail filter and set FLAG_IS_HIDDEN = 0.
8. Return to the prompt page.
9. Select the Value Prompt just added.
10. Open the **Sort** menu in the toolbar and select **Edit Layout Sorting**.
11. From **Data Items** pane drag **DISPLAY_ORDER** into the **Sort List** pane and click **OK**.
12. Run, test and validate the report.
13. Save the changes.

Results:
You created a single-value single-select prompt.

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Demo 2

Single-Value Multi-Select Prompt

Effective
Ineffective
Not Determined

Select all Deselect all

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Demo 2: Single-Value Multi-Select Prompt

Purpose:
Create a multi-select prompt using the single-value enum Control Operating Effectiveness.

Task 1. Create a parameterized filter.

1. In Report Studio, open the **14-Enum Prompts** report created in Demo 1.
2. Navigate to the report's query.
3. From the Data Items pane, drag CN_OPERATING_EFFECTIVENES_ID into the Detail Filters pane.
4. Place the cursor at the end of the expression and type **in (?OpEff?)** and click **OK**.

    The results appear as follows:

    ```
    [CN_OPERATING_EFFECTIVENES_ID] in (?OpEff?)
    ```

5. Set the **Usage** property to **Optional**.
6. Navigate to the prompt page.

Task 2. Create a single-value multi-select prompt.

In this task you will add a prompt to the inner table in the top right cell.
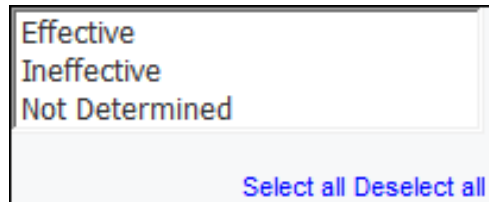
1. Add a **Value Prompt** to R3C2.
2. Use the existing parameter **OpEff** and click **Next**.
3. Expand DEFAULT_REL > ENUMERATIONS > SOXCONTROL (ENUMERATIONS) > CN_OPERATING_EFFECTIVENES:

    - **Name**: Effectiveness Prompt,
    - **Values to use**: ENUMVALID.
    - **Values to display**: CN_OPERATING_EFFECTIVENES.

4. Click **Finish**.
5. Navigate to the **Effectiveness Prompt** query.
6. From the same CN_ OPERATING_EFFECTIVENES query subject used above, add the following to the Data Items pane:

    - DISPLAY_ORDER,
    - FLAG_IS_HIDDEN.
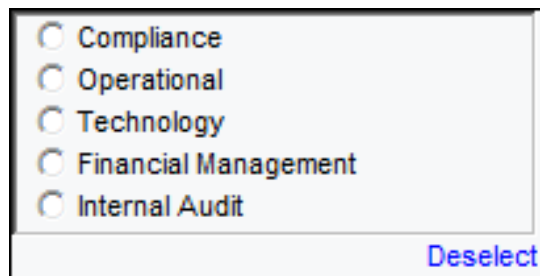
7. Add a detail filter and set FLAG_IS_HIDDEN = 0.

8. Return to the prompt page.

9. Select the Value Prompt just added.

   • **Size & Overflow**: Height 65px

10. Open the **Sort** menu in the toolbar and select **Edit Layout Sorting**.

11. From **Data Items** pane drag **DISPLAY_ORDER** into the **Sort List** pane and click **OK**.

12. Run, test and validate the report.

13. Save the changes.

Results:
You created a single-value multi-select prompt.

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Demo 3

Multi-Value Single-Select Prompt

- ○ Compliance
- ○ Operational
- ○ Technology
- ○ Financial Management
- ○ Internal Audit

Deselect

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Demo 3: Multi-Value Single-Select Prompt

Purpose:
Create a single-select prompt using the multi-value enum Risk Domain.

Task 1. Create a parameterized filter.

1. In Report Studio, open the **14-Enum Prompts** report.
2. Navigate to the report's query.
3. From the Data Items pane, drag RI_DOMAIN_ID into the Detail Filters pane.
4. Place the cursor at the end of the expression and type **contains (?RI_Domain_ID?)** and click **OK**.

   The results appear as follows:

   ```
   [RI_DOMAIN_ID] contains (?RI_Domain_ID?)
   ```

5. Set the **Usage** property to **Optional**.
6. Navigate to the prompt page.

Task 2. Create a multi-value single-select prompt.

In this task you will add a prompt to the inner table in the bottom left cell.

1. Add a **Value Prompt** to R3C2.
2. Use the existing parameter **RI_Domain_ID** and click **Next**.
3. Expand DEFAULT_REL > ENUMERATIONS > SOXRISK (ENUMERATIONS) > RI_DOMAIN:

   - **Name**: Domain Prompt,
   - **Values to use**: ENUMVALID,
   - **Values to display**: RI_DOMAIN query item.

4. Click **Finish**.
5. Select the Value Prompt just added.
6. Change the **Select UI** property to **Radio button group**.
7. Navigate to the **Domain Prompt** query.
8. From the same RI_DOMAIN query subject used above, add **DISPLAY_ORDER** and **FLAG_IS_HIDDEN** query items.
9. Add a FLAG_IS_HIDDEN detail filter.

10. Return to the prompt page.
11. Select the Value Prompt just added.
12. Open the **Sorting** property under **Data**.
13. From **Data Items** pane drag **DISPLAY_ORDER** into the **Sort List** pane and click **OK**.
14. Run, test and validate the report.
15. Save the changes.

Results:
You created a multi-value single-select prompt.

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Demo 4

Multi-Value Multi-Select Prompt

☐ Compliance
☐ ORM
☐ IT
☐ SOX
☐ Audit

Select all Deselect all

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Demo 4: Multi-Value Multi-Select Prompt

Purpose:
Create a multi-select prompt using the multi-value enum Process In Scope.

When you create a multi-select prompt using a multi-value enum, you cannot use an identifier query item in the parameterized filter as you have previously. You must use the <object_type>_<field_name> query item. This will affect the query item you select for the **Value to use** in the value prompt wizard.

Task 1. Create a parameterized filter.

1. In Report Studio, open the **14-Enum Prompts** report.
2. Navigate to the report's query.
3. From the Data Items pane, drag PR_IN_SCOPE into the Detail Filters pane.
4. Place the cursor at the end of the expression and type **in (?InScope?)** and click **OK**.

   The results appear as follows:

   ```
   [PR_IN_SCOPE] in (?InScope?)
   ```

5. Set the **Usage** property to **Optional**.
6. Return to the prompt page.

Task 2. Create a multi-value multi-select prompt.

In this task you will add a prompt to the inner table in the bottom right cell.

1. Add a **Value Prompt** to R3C2.
2. Use the existing parameter **InScope** and click **Next**.
3. Expand DEFAULT_REL > ENUMERATIONS > SOXPROCESS (ENUMERATIONS) > PR_IN_SCOPE:

   - **Name**: In Scope Prompt,
   - **Values to use**: PR_IN_SCOPE,
   - **Values to display**: leave blank.

4. Click **Finish**.
5. Select the Value Prompt just added.
6. Change the **Select UI** property to **Check box group**.

7. Navigate to the **In Scope Prompt** query.

8. Add **DISPLAY_ORDER** and **FLAG_IS_HIDDEN** query items.

   - CAUTION: Be sure to use the SOXPROCESS (ENUMERATIONS) folder.

9. Add a FLAG_IS_HIDDEN detail filter.

10. Return to the prompt page.

11. Select the Value Prompt just added.

12. Open the **Sorting** property.

13. From **Data Items** pane drag **DISPLAY_ORDER** into the **Sort List** pane and click **OK**.

14. Run, test and validate the report.

15. Save the changes.

Results:
You created a multi-value multi-select prompt.

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Add an ALL Prompt Option

- There will be times when you need to add an **All** option to a single- or multi-select prompt list.
- You will create a **Static Option** for the **All** option.
- You will also have to edit the parameterized Detail Filter to account for an **All** selection.

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An **All** option works well in a required single-select prompt.

It may seem less useful in a required multi-select prompt because of the **Select All** link in the prompt. However, report performance is enhanced by using an All option as opposed to the Select All. In addition, if any records have a null value for the field, the Select All will not display these records; the All option will display null values.
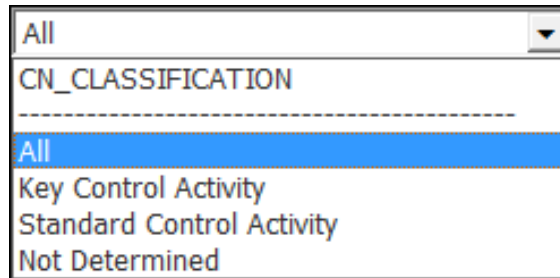
The All option may seem redundant in any optional prompt, however the report user may not intuitively understand that if they select nothing in an optional prompt they will get everything. Therefore, to reduce confusion it may be a good practice to include an All option in optional prompts as well.

A best practice is to make the All option the default selection.

WORKING WITH PROMPTS

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Demo 5

Add **All** Options

| All ▼ |
CN_CLASSIFICATION
All
Key Control Activity
Standard Control Activity
Not Determined

Demo 5: Add All Options

Purpose: **Add an All option to all of the prompts and make it the default selection.**

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Report Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Add the All option.

1. In Report Studio, open the **14-Enum Prompts** report.
2. Save the report as **14-ENUM and All Prompts**.
3. Navigate to the list container if not already there.
4. Select the List and change the name to **ENUM All Prompts List**.
5. Navigate to the prompt page.
6. Select the Control Classification prompt.
7. Open the **Static Choices** property.

8. Click the **Add** button:

Since the parameterized filter needs a number, you must specify a number for the Use value.

- **Use**: -1,
- **Display**: All,
- Click **OK**.

   The results appear as follows:
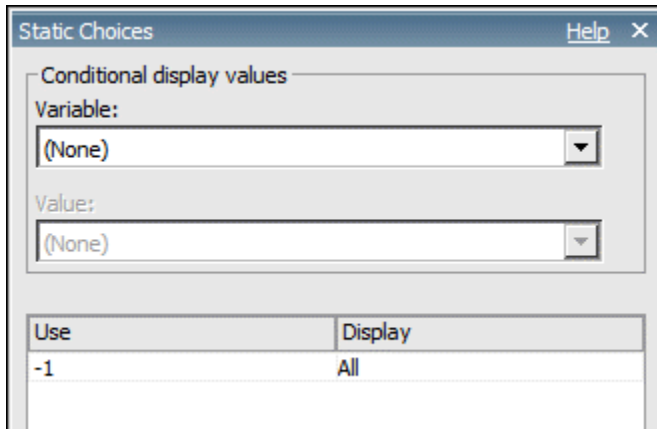
9. Click **OK** and open the **Default Selections** property.

10. Click the **Add** button.

11. Enter **-1** (the Use value) and click **OK** twice.

12. Repeat this procedure for the following prompts:

- Effectiveness Options,
- Risk Domain Option.

13. Select the Effectiveness Options prompt.

- **Size & Overflow**: Height 75px

The parameterized filter for the Process Scope Options prompt needs a string. You must specify a string for the Use value.

14. Select the Process Scope Options prompt.

15. Open the **Static Choices** property.

16. Click the **Add** button:

- **Use**: All,
- **Display**: All,
- Click **OK**.

The results appear as follows:

17. Click **OK** and open the **Default Selections** property.
18. Click the **Add** button.
19. Enter **All** (the Use value) and click **OK** twice.

Task 2. Modify the parameterized filters.

The parameterized filter must take into account the use of the **All** option, which will use the value -1 or 'All'.

1. Navigate to the report's query.
2. Open the Control Classification detail filter.
3. Add an **OR** statement to account for the possible use of the **All** option.

The results appear as follows:

```
[CN_CLASSIFICATION_ID]=?CN_Class?
or
?CN_Class?=-1
```

If you do not want null values when **All** is selected use this:

```
[CN_CLASSIFICATION_ID]=?CN_Class?
or
((?CN_Class?=-1) and ([CN_CLASSIFICATION_ID] is not null))
```

4. Open the Operating Effectiveness detail filter and add the **OR** statement.

   The results appear as follows:

   ```
   [CN_OPERATING_EFFECTIVENES_ID] in (?OpEff?)
   or
   ?OpEff?=-1
   ```

5. Open the Risk Domain detail filter and add the **OR** statement.

   The results appear as follows:

   ```
   [RI_DOMAIN_ID] contains (?RI_Domain_ID?)
   or
   ?RI_Domain_ID?=-1
   ```

6. Open the Process In Scope detail filter and add the **OR** statement. Remember, this prompt has a Use value of 'All'.

   The results appear as follows:

   ```
   [PR_IN_SCOPE] in (?InScope?)
   or
   ?InScope?='All'
   ```

7. Run, test and validate the report.

8. Save the changes.

Results:
You added an All option to four prompts.

Inline Prompt

Processes by Entity

Business Entity: * /Global Financial Services/EMEA ▼ | Finish

Location	Process
Retail Banking	RB-11
Retail Banking	RB-12
Retail Banking	RB-17
Retail Banking	RB-18
Retail Banking	RB-19

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An inline prompt is a prompt that is embedded in the report output, not on a separate prompt page.

This lets the user make an immediate change to the scoping of the report and refresh the report data without running the report from the beginning.

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Inline Prompt Considerations

- Sometimes a report with an inline prompt will not have a prompt page.

- When this occurs you need to take steps to make sure the initial report view returns quickly with no data displayed.

- You can do this by setting the **Default Selection** property to **-1**.

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Inline Prompt Considerations (cont'd)

- An inline prompt works only when viewing the report in HTML.

- When you include an inline prompt you need to take into consideration the various report views that can be selected.

- Using **Conditional Variables** you can accommodate the various report views producing elegant formatting results.

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Demo 6

Add an Inline Prompt

Processes by Entity

Business Entity: * /Global Financial Services/EMEA ▼ **Finish**

Location	Process
Retail Banking	RB-11
Retail Banking	RB-12
Retail Banking	RB-17
Retail Banking	RB-18
Retail Banking	RB-19

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Demo 6: Add an Inline Prompt

> **Purpose:**
> **Learn to add an inline prompt to a report page and use conditional formatting to accommodate HTML, PDF, and Excel report views. The inline prompt should appear only when the report is run HTML.**

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Report Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Create a list report.

1. In Report Studio, start with a new list report.
2. Navigate to the report's query and change the name to **List Query**.
3. Expand the DEFAULT_REL namespace:

    - GRC_OBJECTS > SOXBUSENTITY_FOLDER > SOXBUSENTITY_GPC > ID_FIELDS,
    - GRC_OBJECTS > SOXPROCESS > ID_FIELDS.

4. Add the following:
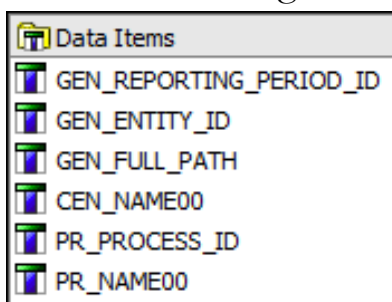
5. Change the following **Label** properties:

    - **CEN_NAME00**: Location,
    - **PR_NAME00**: Process.

6. Create the following detail filters:

    - current reporting period,
    - parameterized filter for the entity prompt,

- Is Not Null using process identifier.

  The results appear as follows:
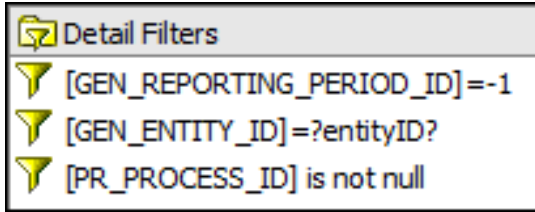
7. Navigate to the list container.
8. Select the List and change the name to **Inline Prompt List**.
9. Select the report page body and center it.
10. Set the page title to **Processes by Entity**.
11. Populate the list container:

   - location,

   - process.

12. Run the report, use entity ID 1228, and review.
13. Save the report as **14-Inline Prompt** in **My Folders**.

Task 2. Prepare the page header.

1. Add a table to the bottom of the page header, just above the red dashed line.

   - **Columns**: 3,
   - **Rows**: 1,
   - **Maximize width**: clear.

2. Select the Page Header and center it.
3. Select table cell R1C1:

   - **Font**: Bold,

   - **Horizontal Alignment**: Right.

4. Select table cell R1C2:

   - **Padding**: Left 10px,

   - **Horizontal Alignment**: Center,

   - **Vertical Alignment**: Middle.

5. Select table cell R1C3:

- **Padding**: Left 10px.

6. Add a text item to R1C1:

- **Text**: Business Entity: (add a space after the colon).

7. Add a **Prompt Button** to R1C3 and select it:

- **Type**: Finish,

- **Border**: 1.5pt, solid line, black,

- **Background Color**: Silver,

- **Font**: Bold.

8. Save the changes.

Task 3. Add an inline prompt.

1. Add a value prompt to R1C2.

- use the existing parameter **entityID** and click **Next**,
- create a new query **Entity Prompt**,
    - o **Values to use**: Grandparent entity identifier,
    - o **Values to display**: Grandparent full path.

2. Click **Finish**.

3. Select the prompt just created.

4. Open the **Default Selections** property and add a value of **-1**.

5. Navigate to the **Entity Prompt** query.

- add the Grandparent entity reporting period identifier,
- add a current reporting period detail filter.

    The results appear as follows:
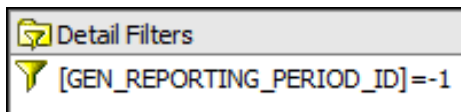
6. Run, test and validate the report.

- Run HTML, generate a report with data and note report appearance,
- View above report in Excel 2007 Format and note report appearance,
- View above report in PDF and note report appearance,
- Close Excel, Adobe Reader and Cognos Viewer.

7. Save the changes.

Task 4. Format for non-HTML views.

In the following tasks you will format the report to display the inline prompt only when the report is run HTML. For other views only the selected entity will be displayed.

1. Using the Condition Explorer, open the **Variables** folder.
2. Add a **String Variable** tool.
3. Use an IF…THEN…ELSE construct to test the ReportOutput() function for 'HTML'.

   The results appear as follows:

   ```
   if(ReportOutput ()='HTML')
   then('Yes')
   else('No')
   ```

4. Change the name of the variable to **HTML**.
5. Add two **Values**:

   - **Yes**,
   - **No**.

   The results appear as follows:

📁 Variables		📁 Values
🔤 HTML		🗒 Yes
		🗒 No

Task 5. Add business entity information item.

1. Return to the list container.
2. In the page header table, add a text item to R1C2, to the right of the prompt and click **OK**.
3. Select the text item and change the **Source Type** property to **Report Expression**.
4. Open the **Report Expression** property:

   - select the **Parameters** tab,
   - drag **entityID** into the expression definition and click **OK**.

Task 6. Apply conditional formatting.

1. Hide the entity information text item when **HTML** is **Yes**:

    - select the entity information Text Item,
    - set the **Style Variable** property to the **HTML** variable,
    - from the Condition Explorer select **Yes**,
    - set the **Box Type** property to **None**,
    - from the Condition Explorer select **No variable**.

2. Hide the inline prompt block when **HTML** is **No**:

    - select the inline prompt,
    - set the **Style Variable** property to the **HTML** variable,
    - from the Condition Explorer select **No,**
    - set the **Box Type** property to **None**,
    - from the Condition Explorer select **No variable**.

3. Hide the **Finish** button cell when **HTML** is **No**:

    - select the table cell containing the finish button (R1C3),
    - set the **Style Variable** property to the **HTML** variable,
    - from the Condition Explorer select **No,**
    - set the **Box Type** property to **None**,
    - from the Condition Explorer select **No variable**.

4. Run, test and validate the report.

    - Run HTML, generate a report with data and note report appearance,
    - View above report in Excel 2007 Format and note report appearance,
    - View above report in PDF and note report appearance.

5. Save the changes.

Results:
You added an inline prompt to a report page and used conditional formatting to accommodate HTML, PDF, and Excel report views.

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No Data Contents

- If a user makes prompt selections that result in eliminating all rows of data from the result set, an empty report will be displayed.

- You should provide feedback to the user to try again with different prompt selections.

- The **No Data Contents** property lets you create a screen with a message you find appropriate.

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Demo 7

Adding a **No Data Contents** Page

Processes by Entity

Business Entity: * | GEN_FULL_PATH ▾ | Finish

There is no data to display.
Please select a different Business Entity and click the Finish button.
Please run this report HTML before viewing in PDF or Excel.

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Demo 7: Adding a No Data Contents Page

Purpose:
Add a No Data contents page to reduce user confusion.

Task 1. Add a No Data contents page.

1. In Report Studio, open the **14-Inline Prompt** report.
2. Save the report as **14-Inline Prompt No Data**.
3. Click any column in the list container and select the entire **List**.
4. Change the **No Data Contents** property to **Content specified in the No Data tab** and click **OK**.
5. Delete the existing text item in the block.
6. Add a table to the block:

   - **Columns**: 1,
   - **Rows**: 3,
   - **Maximize width**: clear.

7. Add a text item to each table cell and configure as follows:

   > There is no data to display.
   >
   > Please select a different Business Entity and click the Finish button.
   >
   > Please run this report HTML before viewing in PDF or Excel.

8. Format for a pleasing presentation.
9. Click the **List** tab in the top left corner to return to the report page list container.
10. Run, test and validate the report.

    - Run HTML,
    - Run Excel and then PDF and note both display the No Data Contents tab with no way to generate a report with data.

11. Save the changes.

Results:
You added a No Data Contents page to a report.

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Report Page Header Display

ENUM Prompts

Run By: Report Author
Control Classification: All
Operating Effectiveness: Ineffective, Not Determined
Risk Domain: Operational
Process Scope: Compliance, ORM

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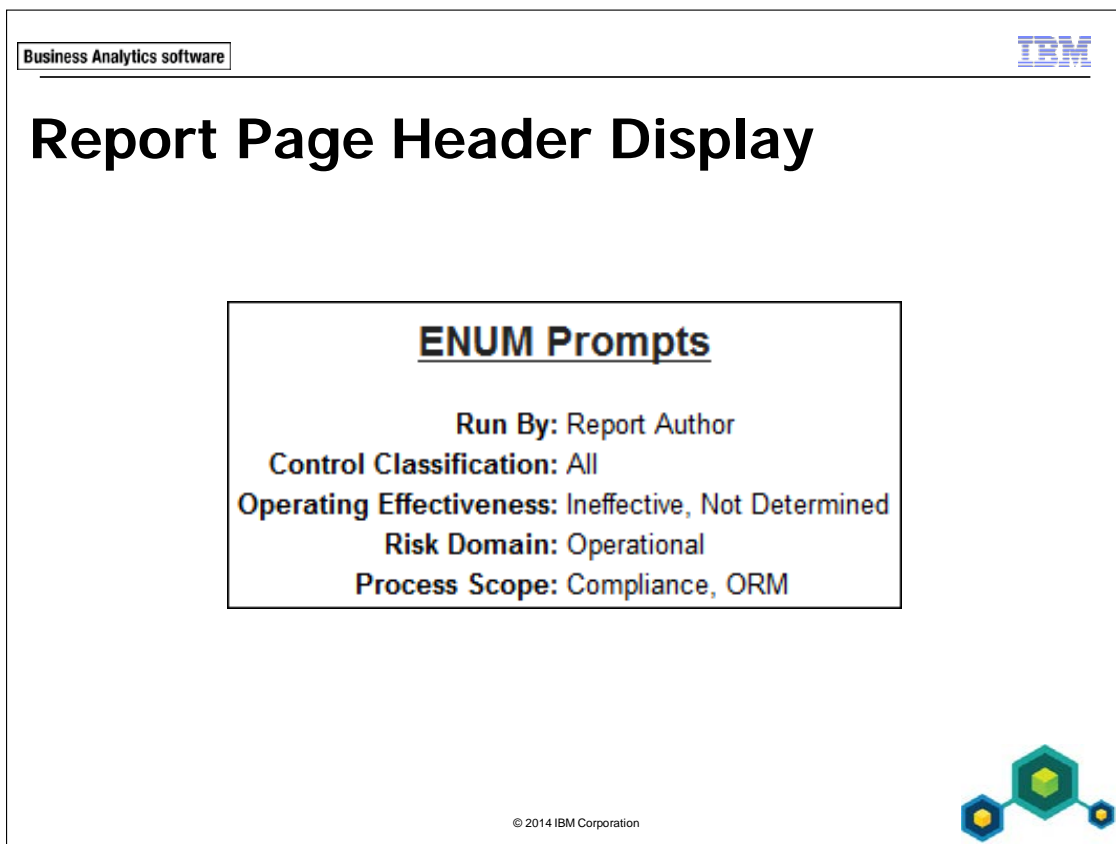
If your report is going to be printed or saved to a computer file it is a good practice to include information about the prompt selections at the time the report was run for future reference and context.

This module will explain how to add this information as well as the name of the person who ran the report.

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ParamDisplayValue()

- When the user makes a selection in a prompt the selection is stored in a parameter.

- Cognos provides the **ParamDisplayValue()** function that will take the stored parameter **Use Value** and display the associated **Display Value**.

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Capturing the User ID

- The following IBM Cognos function returns the current user's log in ID:
  - `#sq($account.defaultName)#`

- The following IBM OpenPages GRC Platform function converts the above log in ID to first and last name:
  - `"OP_ACTOR_MGR.GET_DISPLAY_NAME"()`

```
"OP_ACTOR_MGR.GET_DISPLAY_NAME" (
#sq($account.defaultName)#,
null,
'%FN; %LN;'
)
```

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The Cognos function returns a user identifier. Use the OpenPages function to convert the user ID to first and last name for display purposes.

Both functions can be combined in one data item.

This works for both Oracle and DB2 GRC Platform systems.

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IBM

Demo 8

Display Prompt Selections and User Name

ENUM Prompts

Run By: Report Author
Control Classification: All
Operating Effectiveness: Ineffective, Not Determined
Risk Domain: Operational
Process Scope: Compliance, ORM

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Demo 8: Display Prompt Selections and User Name

Purpose:
Configure the report overall header to display prompt selections and the name of the user running the report once on the first page of the report.

Task 1.   Setup the report page overall header.

1.   In Report Studio, open the **14-Enum and All Prompts** report.

2.   Save the report as **14-Display Prompt Selections**.

3.   Select the List and change the name to **ENUM Prompts and Header List**.

4.   Open the **Headers & Footers** menu in the tool bar and select **List Headers & Footers**.

5.   Select **Overall header** and click **OK**.

6.   Change the **Column Titles** property to **At start of details**.

7.   Unlock the report.

8.   Select the text item in the overall header and delete it.

9.   Select the overall header (**List Cell** in ancestor selector):

   - **Horizontal Alignment**: Center.

10.   In the ancestor selector, select **List Header**:

   - **Border**: None,

   - **Background Color**: Transparent,

   - **Foreground Color**: Black.

11.   Add a table to the page header:

   - **Columns**: 2,

   - **Rows**: 5,

   - **Maximize width**: clear.

12.   Select all 5 left table cells:

   - **Padding**: Bottom 3px,

   - **Font**: Bold,

   - **Horizontal Alignment**: Right.

WORKING WITH PROMPTS

13. Select all 5 right table cells:
   - **Padding**: Bottom 3px,
   - **Horizontal Alignment**: Left.
14. Save the changes.

Task 2. Capture the user name.

In this task you will add a data item that will display the first and last name of the user running the report.

1. Navigate to the report's query.
2. Add a **Data Item** to the query.
3. Create the following OpenPages Reporting function expression:

```
"OP_ACTOR_MGR.GET_DISPLAY_NAME" (
#sq($account.defaultName)#,
null,
'%FN; %LN;'
)
```

4. Change the data item name to **RunBy**.
5. Change **Aggregate** and **Rollup Aggregate** functions to **None**.
6. Save the changes.

Task 3. Populate the overall header table.

1. Return to the list container.
2. Add a Text Item tool to cells on the left side of the overall header table:

   Note: Add a space after each colon.

Run By:
Control Classification:
Operating Effectiveness:
Risk Domain:
Process Scope:

3. From the toolbox, drag a **Singleton** into R1C2 of the overall header table:
   - **Query Name**: List Query.
4. From the Data Items tab, drag **RunBy** into the singleton.

WORKING WITH PROMPTS

13. Select all 5 right table cells:
   - **Padding**: Bottom 3px,
   - **Horizontal Alignment**: Left.
14. Save the changes.

Task 2. Capture the user name.

In this task you will add a data item that will display the first and last name of the user running the report.

1. Navigate to the report's query.
2. Add a **Data Item** to the query.
3. Create the following OpenPages Reporting function expression:

```
"OP_ACTOR_MGR.GET_DISPLAY_NAME" (
#sq($account.defaultName)#,
null,
'%FN; %LN;'
)
```

4. Change the data item name to **RunBy**.
5. Change **Aggregate** and **Rollup Aggregate** functions to **None**.
6. Save the changes.

Task 3. Populate the overall header table.

1. Return to the list container.
2. Add a Text Item tool to cells on the left side of the overall header table:

   Note: Add a space after each colon.

Run By:
Control Classification:
Operating Effectiveness:
Risk Domain:
Process Scope:

3. From the toolbox, drag a **Singleton** into R1C2 of the overall header table:
   - **Query Name**: List Query.
4. From the Data Items tab, drag **RunBy** into the singleton.

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5. In the four remaining overall table cells on the right, add a blank Text Item tool:

    - **Source Type**: Report Expression.

6. Open each of the text item report expressions and from the **Parameters** tab under **Available Components**, drag the following into them:

    - **R2C2**: CN_Class,

    - **R3C2**: OpEff,

    - **R4C2**: RI_Domain_ID,

    - **R5C2**: InScope.

      The results appear as follows:

Run By:	\<RunBy\>
Control Classification:	\<%ParamDisplay...%\>
Operating Effectiveness:	\<%ParamDisplay...%\>
Risk Domain:	\<%ParamDisplay...%\>
Process Scope:	\<%ParamDisplay...%\>

7. Run, test and validate the report.
8. Lock the report.
9. Save the changes.

Results:
The report displays prompt selections and the name of the user running the report.
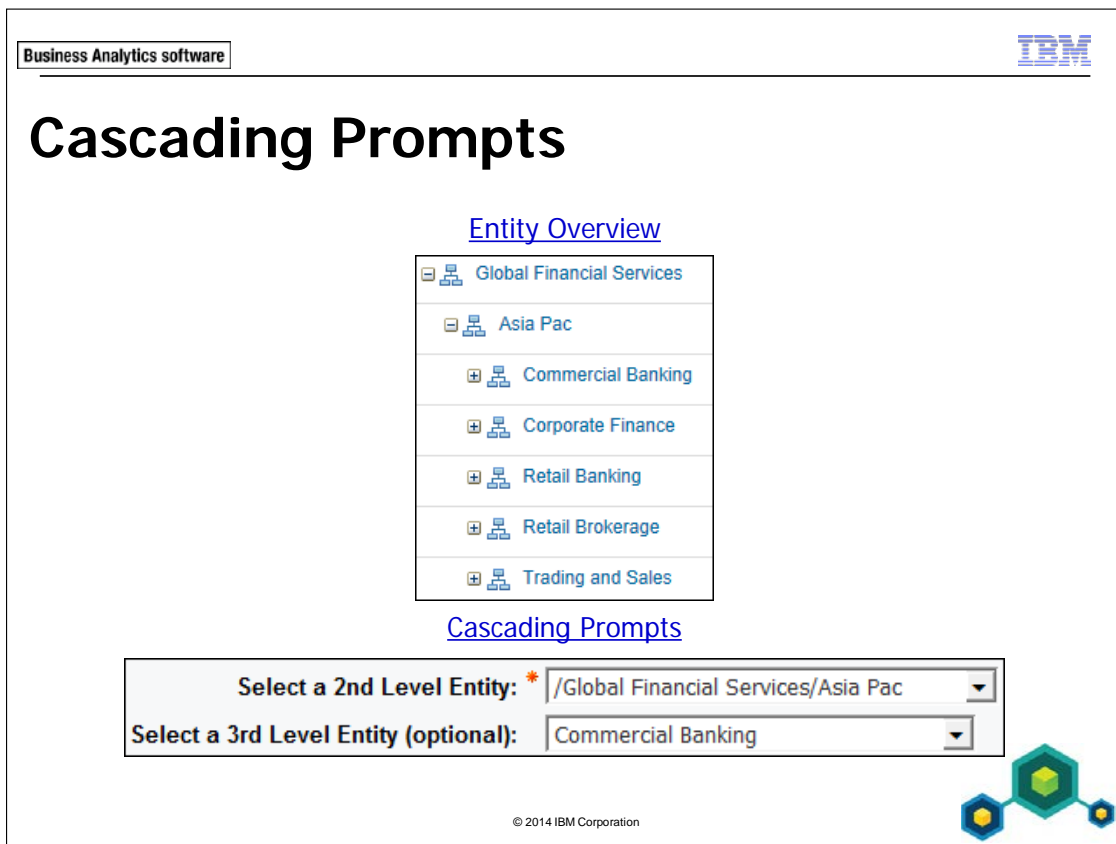
Cascading Prompts

There are many business cases for taking the user's selection from one prompt and cascading it to the next prompt, limiting the options in the second prompt. It helps the user finely tune the report output.

Some typical uses of cascading prompts include:

- cascading a reporting period selection to all remaining prompts,

- using 2 or more cascading prompts to select a business entity,

- cascading an entity selection to a process name prompt,

- cascading a selected actor to a prompt displaying records "owned" by that actor.

As a best practice, you will cascade down the object model hierarchy, starting with the reporting period, followed by the entity, etc.

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How to Cascade Prompts

- Source prompt:
    - Single-select: Set **Auto-Submit** property to **Yes**.
    - Multi-select: Add **Reprompt** button.
- Target prompt:
    - Set **Cascade Source** property to parameter from source prompt.
- Target prompt query:
    - Create an optional detail filter using the parameter from source prompt.

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The **Source Prompt** contains the selection which is cascaded to the **Target Prompt**. A target prompt can also be a source prompt for another target prompt.

Setting the cascade source for a prompt will let Cognos run prompt queries without generating any Cognos errors due to missing parameters.

No matter how many multi-select source prompts you have on a prompt page, you only need one Reprompt button, but for ease of use and to remove confusion for the end user you may wish to add multiple reprompt buttons in strategic locations in the prompt page.

Business Analytics software

Cascade Reporting Period Prompt

- Reporting Period prompt best practices:
  - make it the first prompt on the page,
  - make it required,
  - cascade the selection to all remaining prompts.

Prompt Page

Reporting Period:

Entity Level 1:

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If you do not create a reporting period prompt, you will create a reporting period detail filter for the Current Reporting Period in the report query and every prompt query requiring it. For example:

- entity prompts,
- actor prompts,
- object type record prompts.

You do not add a reporting period prompt to an enum prompt query.

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Cascade Entity to Entity Prompt

- Best practices for ease of creating cascading entity prompts:
    - use a defined entity recursive object level,
    - all entity prompts should be required,
    - at a minimum, first entity prompt should be required,
    - use last entity prompt parameter for detail filter in report query.

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If your GRC Platform does not have defined entity recursive object levels, you should request at least one be configured for your use. Trying to create cascading entity prompts without this makes the task much more difficult and time consuming.

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Demo 9: Cascading Prompts

Purpose:
Create a prompt page with a variety of cascading prompts.

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Report Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Populate the list query.

1. In Report Studio, start with a new list report.
2. Navigate to the report's query and change the name to **List Query**.
3. Expand DEFAULT_REL > GRC_OBJECTS > SOXBUSENTITY_FOLDER > GLOB_FIN_SERVICES > 2_REGION_FOLDER.
4. Add the following:

> REGION_REPORTING_PERIOD_ID
> REGION_ENTITY_ID
> REGION_NAME00
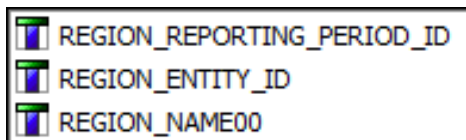
5. Expand 3_LOB_FOLDER and add the following:

> LOB_ENTITY_ID
> LOB_NAME00
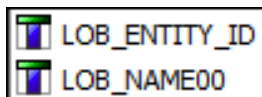
6. From the SOXPROCESS and SOXRISK query subjects, add the following:

> PR_PROCESS_ID
> PR_NAME00
> PR_STATUS
> RI_NAME00
> RI_RISK_ID
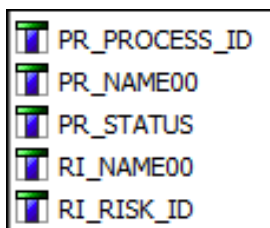
7. Change the **Label** properties:
   - **REGION_NAME00**: Region
   - **LOB_NAME00**: LOB
   - **PR_NAME00**: Process
   - **PR_STATUS**: Status
   - **RI_NAME00**: Risk
8. Save the report as **14-Cascading Prompts List**.

Task 2. Populate the list container.

1. Navigate to the list container.
2. Select the List and change the name to **Cascading EN Prompt List**.
3. Select the report page body and center it.
4. Set the page title to **Process-Risk Summary**.
5. From Data Items add the following to the list container:
   - Region,
   - LOB,
   - Process,
   - Status,
   - Risk.
6. Group the following:
   1. Region,
   2. LOB,
   3. Process.
7. Select the **Status** List Column Body (white cells) and set the **Group Span** property to **PR_NAME00**.
8. Save the changes.

Task 3. Prepare the prompt page.

1. Add a prompt page to your report.
2. Select the page body and center it.
3. Set the page title to **Process-Risk Summary**.

4. In the footer:

    - remove **Back** and **Next** buttons,
    - center the page footer.

5. Add a table to the page body:

    - **Columns**: 2,
    - **Rows**: 7,
    - **Maximize width**: clear.

6. Format all cells in the left column:

    - **Font**: Bold,
    - **Horizontal Alignment**: Right,
    - **Vertical Alignment**: Top.

7. Format the even numbered cells in the left column:

    - R2C1, R4C1, R6C1,
    - **Size & Overflow**: Height 20px.

8. Add the following text items:

    - R1C1: **Select a Reporting Period:**
    - R3C1: **Select a 2nd Level Entity:**
    - R5C1: **Select a 3rd Level Entity (optional):**
    - R7C1: **Select One or More Process Records:**

9. Save changes.

Task 4. Add a reporting period prompt.

1. Navigate to the report's query.
2. From Data Items, drag REGION_REPORTING_PERIOD_ID into Detail Filters and complete the expression to create a parameterized filter:

```
[REGION_REPORTING_PERIOD_ID]=?rpid?
```

3. Return to the prompt page.
4. Add a **Value Prompt** to R1C2.
5. Use the existing parameter **rpid**.

6. Create a new query:

- **Name**: Reporting Period Prompt,
- **Values to use**: LABELID,
    - DEFAULT_REL > MISCELLANEOUS > REPORTING PERIODS > LABELS,
- **Values to display**: NAME,
    - Same query subject.

7. Finish.

8. Do the following because this is a source prompt:

- Select the value prompt just created,
- Set the **Auto-Submit** property to **Yes**.

9. Save the changes.

Task 5. Add the second level entity prompt.

This prompt will use the selected reporting period from Task 4 to ensure that only entity names in the selected reporting period appear in this prompt.

1. Navigate to the report's query.

2. From Data Items, drag REGION_ENTITY_ID into the Details Filter pane and complete the expression to create a parameterized filter:

```
[REGION_ENTITY_ID]=?entity_1?
```

3. Return to the prompt page.

4. Add a **Value Prompt** to R3C2.

5. Use the existing parameter **entity_1**.

6. Create a new query:

- **Name**: Entity_1 Prompt,
- **Values to use**: REGION_ENTITY_ID (this is the default),
- **Values to display**: REGION_FULL_PATH,
    - DEFAULT_REL > GRC_OBJECTS > SOXBUSENTITY_FOLDER > GLOB_FIN_SERVICES > 2_REGION_FOLDER > REGION.

7. Finish.

8. Select the value prompt just created.

9. Do the following because this is the target prompt for the reporting period prompt created in Task 4:
   - Set the **Cascade Source** property to the parameter **rpid**.

10. Do the following because this is also a source prompt:
    - Set the **Auto-Submit** property to **Yes**.

11. Navigate to the Entity_1 Prompt query.

12. Add the following to Data Items:
    - REGION_REPORTING_PERIOD_ID,
    - CORPORATE_ENTITY_ID,
      - From the GLOB_FIN_SERVICES > 1_CORPORATE_FOLDER.

13. Add a current reporting period detail filter using the rpid parameter,

    The results appear as follows:

    ```
    [REGION_REPORTING_PERIOD_ID]=?rpid?
    ```

14. Add a detail filter to ensure only entities from the second level of the hierarchy appear in the prompt list:

    ```
    [REGION_ENTITY_ID]<>[CORPORATE_ENTITY_ID]
    ```

Task 6. Add the third level, optional, entity prompt.

This prompt will use the selected reporting period from Task 4 and the selected second level entity from Task 5 to ensure that only third level entity names in the selected reporting period appear in this prompt. The parameterized filter will be optional in order to create an optional prompt.

1. Navigate to the report's query.

2. From Data Items, drag LOB_ENTITY_ID into the Details Filter pane and complete the expression to create a parameterized filter:

   ```
   [LOB_ENTITY_ID]=?entity_2?
   ```

3. Set the **Usage** property to **Optional**.

4. Return to the prompt page.

5. Add a **Value Prompt** to R5C2.

6. Use the existing parameter **entity_2**.

7. Create a new query:
   - **Name**: Entity_2 Prompt,
   - **Values to use**: LOB_ENTITY_ID,
   - **Values to display**: LOB_NAME00,
8. Finish.
9. Select the value prompt just created.
10. Set the following properties:
    - **Required**: No,
    - **Auto-Submit**: Yes,
    - **Cascade Source**: entity_1.
11. Navigate to the Entity_2 Prompt query and add the following:
    - REGION entity ID,
    - LOB reporting period ID,
    - a current reporting period detail filter using the **rpid** parameter,

      The results appear as follows:

      ```
      [LOB_REPORTING_PERIOD_ID]=?rpid?
      ```

    - an entity filter to use the entity parameter from Task 5 and to ensure no second level entity names appear in the prompt list.

      The results appear as follows:

      ```
      [REGION_ENTITY_ID]=?entity_1?
      and
      [LOB_ENTITY_ID]<>[REGION_ENTITY_ID]
      ```

12. Save the changes.

Task 7. Add a prompt 'All' option.

Because the third level entity prompt is optional, an adjustment must be made to make sure that if nothing is selected 1) all of the third level entities will be used in the report, and 2) the list of process records in the next prompt is complete. The default **All** option will satisfy both requirements.

1. Navigate to the prompt page.
2. Select the third level entity prompt and open the **Static Choices** property.

3. Add a static choice:

    - **Use**: -1,
    - **Display**: All,
    - click **OK** twice.

4. Open the **Default Selections** property and add **-1** as the default.
5. Navigate to the report's query.
6. Modify the LOB entity detail filter to account for the **All** option:

```
[LOB_ENTITY_ID]=?entity_2? or ?entity_2?=-1
```

7. Save the changes.

Task 8. Add a process prompt.

This optional multi-select target prompt will display the process record names for the selected entities. This prompt will have a default **All** option.

1. Navigate to the report's query.
2. Create a detail filter:

    - establishes **processID** parameter,
    - makes the filter multi-select,
    - accounts for the **All** option,
    - combines an Is Not Null filter using the process identifier.
      The results appear as follows:

```
((([PR_PROCESS_ID] in (?processID?)) or (?processID?=-1))
and
[PR_PROCESS_ID] is not null
```

3. Set the filter's **Usage** property to **Optional**.
4. Return to the prompt page.
5. Add a **Value Prompt** to R7C2.
6. Use the existing parameter **processID**.
7. Create a new query:

    - **Name**: Process Prompt,
    - **Values to use**: use default setting,
    - **Values to display**: PR_NAME00,

8. Finish.
9. Select the value prompt just created and set the following properties:

    - **Static Choices**:
        - o **Use**: -1,
        - o **Display**: All.
    - **Required**: No,
    - **Select UI**: Check box group,
    - **Cascade Source**: entity_2,
    - **Default Selections**: -1.

10. Navigate to the Process Prompt query and add the following:

    - REGION entity ID,
    - LOB entity ID,
    - Process reporting period ID,
    - a current reporting period detail filter using the **rpid** parameter,
      The results appear as follows:

      ```
      [PR_REPORTING_PERIOD_ID]=?rpid?
      ```

    - a region entity filter to use the entity parameter from Task 5,
      The results appear as follows:

      ```
      [REGION_ENTITY_ID]=?entity_1?
      ```

    - an LOB entity filter that accommodates the All option,
      The results appear as follows:

      ```
      ([LOB_ENTITY_ID]=?entity_2?) or (?entity_2?=-1)
      ```

        - set the **Usage** property to **Optional**.

11. Run the report, test, and validate.
12. Save the changes.
13. Exit Report Studio, log off, and close all browser windows.

Results:
You created a prompt page with a variety of cascading prompts.

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Summary

- At the end of this module, you should be able to:
    - create a prompt utilizing the cascade feature
    - create single- and multi-select prompts using single- and multi-value enumerated string values
    - display enumerated string values in a prompt in the same order as displayed in the platform
    - add an **All** value to a prompt
    - create a report header that displays prompt selections and the name of the person running the report
    - create an inline prompt on a report page
    - apply the **No Data Contents** property

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IMPORTANT

Solutions for the demos in this module can be found in:

Public Folders > 1O202 Solution Reports > Module 14.

Sorting Data

IBM OpenPages: Report Authoring (v7.0)

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Objectives

- At the end of this module, you should be able to:

  - sort data in list container columns

  - sort rows in a list container by a specified column order

  - sort edge components of a crosstab container

  - apply a GRC Platform sort order

  - specify a custom sort order for enumerated string values

  - create a prompt to be used to specify a column of data by which to sort

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NOTE: If you have not taken the pre-requisite course *IBM Cognos Report Studio: Author Professional Reports Fundamentals (v10.2)* (J2258) you may struggle completing the demonstrations in this module. Allow extra time to complete each demonstration.

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Introduction

- You can organize data in list, crosstab, and chart reports by specifying a sort order.

- Sorting the data is fairly straightforward but there are some specific behaviors to be aware of when authoring reports.

- There may also come a time when a report specification requires data to be sorted based upon a prompt selection, typically in a list report.

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List Grouping & Sorting

- When you group a column in a list report the column is sorted in ascending order by default.

- You can sort an ungrouped column by using the **Sort** icon in the menu bar.

- If you group or sort multiple columns the rows will be sorted left-to-right across the list report columns.

  - You can override this behavior by using **Layout Sorting**

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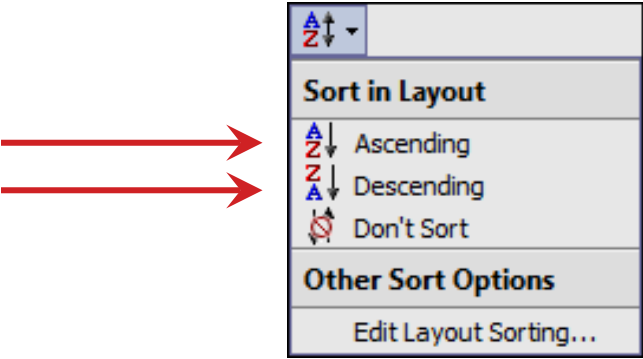
Crosstab Edges

- You can apply sorting to each edge component by using the **Sorting** icon in the menu bar.

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By default, no sorting is applied to query items added to the left and top edges of the crosstab container.

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Layout Sorting

- Use **Other Sort Options** to specify column sort order in a list container.

A↕ ▾

Sort in Layout

A↓Z Ascending

Z↓A Descending

🚫 Don't Sort

Other Sort Options

→ Edit Layout Sorting...
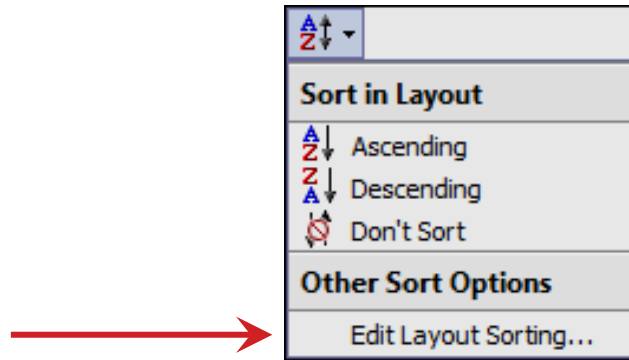
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The **Edit Layout Sorting** option is normally applied to list containers only. There is an example for crosstab and chart containers explained later in this module.

Layout Sorting (cont'd)

- Sample unsorted list container.

IS_NAME00	Type	Parent
CB-41_ISS_0000003	Process Issue	CB-41
CB-41_ISS_00087	Process Issue	CB-41
Commercial Banking_ISS_0000001	Entity Issue	Commercial Banking
Commercial Banking_ISS_0000002	Entity Issue	Commercial Banking
RB-04_ISS_0000004	Process Issue	RB-04
RB-07_ISS_0000005	Process Issue	RB-07
Retail Banking_ISS_00059	Entity Issue	Retail Banking
Retail Banking_ISS_00060	Entity Issue	Retail Banking
Retail Banking_ISS_00061	Entity Issue	Retail Banking
Retail Banking_ISS_00062	Entity Issue	Retail Banking

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In this illustration neither grouping or sorting have been applied to any columns.

Layout Sorting (cont'd)

- Advanced sorting configuration.
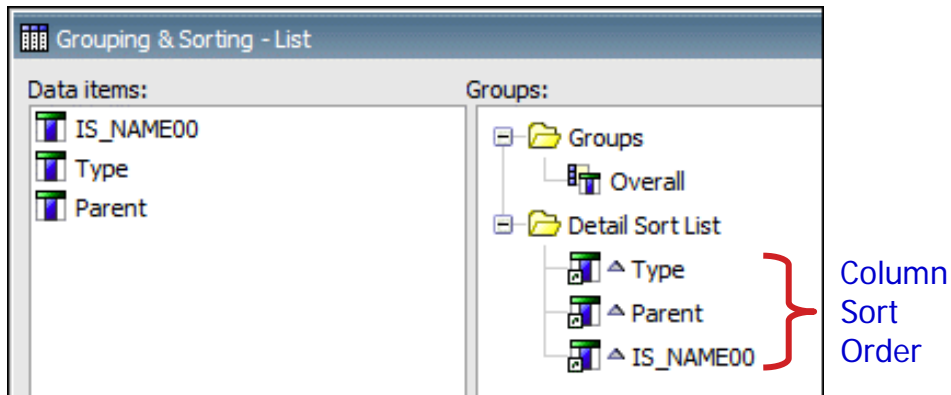
By using Layout Sorting you specify the order in which the columns are sorted and the sort direction, ascending or descending.

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Layout Sorting (cont'd)

▪ Sample sorted list container.

3	**1**	**2**

IS_NAME00	Type	Parent
Commercial Banking_ISS_0000001	Entity Issue	Commercial Banking
Commercial Banking_ISS_0000002	Entity Issue	Commercial Banking
Retail Banking_ISS_00059	Entity Issue	Retail Banking
Retail Banking_ISS_00060	Entity Issue	Retail Banking
Retail Banking_ISS_00061	Entity Issue	Retail Banking
Retail Banking_ISS_00062	Entity Issue	Retail Banking
CB-41_ISS_0000003	Process Issue	CB-41
CB-41_ISS_00087	Process Issue	CB-41
RB-04_ISS_0000004	Process Issue	RB-04
RB-07_ISS_0000005	Process Issue	RB-07

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In this illustration the Type column is sorted ascending first, followed by the Parent
column and then finally the Issue name column.

Business Analytics software   IBM

Sort Enumerated String Values

- Sort values ascending or descending.
- Sort values as they appear in the GRC Platform.
- Use a custom sort to meet a business requirement.

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The IBM Cognos Report Studio provides easy sorting of values ascending or descending.

GRC Platform users that edit records get used to seeing enum values in the same order, top to bottom. You can sort enum values in a report in the GRC Platform order.

If your business process needs a specific order to the enum values, you can use a construct function to configure the desired sort order.

All of these options are available in list, crosstab, and chart containers.

Business Analytics software

IBM

GRC Platform Sort Order

	Internal Fraud	External Fraud	Employment Practices and Workplace Safety	Damage to Physical Assets	Business Disruption and System Failures	Execution, Delivery and Process Management
/Global Financial Services	2	10	1	1	1	3
/Global Financial Services/Asia Pac	2	10	1	1	1	3
/Global Financial Services/Asia Pac/Commercial Banking	1	2				2
/Global Financial Services/Asia Pac/Retail Banking	1	8		1	1	
/Global Financial Services/Asia Pac/Retail Brokerage			1			1

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In this example the top edge of the crosstab (Risk Category) is sorted in the order viewed in the GRC Platform.

Business Analytics software   IBM

Demo 1

Use GRC Platform Sort Order

	Internal Fraud	External Fraud	Employment Practices and Workplace Safety	Damage to Physical Assets	Business Disruption and System Failures	Execution, Delivery and Process Management
/Global Financial Services/Asia Pac/Commercial Banking	1	2				2
/Global Financial Services/Asia Pac/Retail Banking	1	8		1	1	
/Global Financial Services/Asia Pac/Retail Brokerage			1			1
/Global Financial Services/EMEA/Retail Banking	1	5		1		2
/Global Financial Services/North America/Retail Brokerage	1	5	1		1	1

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IMPORTANT

Before starting your first demo, you must prepare the IBM eLabs. Refer to the PDF file, *Preparing For a Demo* which can be downloaded from the **Materials** tab of the eLabs launch site.

Demo 1: Use GRC Platform Sort Order

Purpose:

The Risk Management team has requested a crosstab report in which the rows are business entity locations, the columns are Loss Event Risk Categories, and the measures consist of a count of Loss Event records. The team has requested that the Risk Categories appear in the same order as they appear in the selection list in the GRC Platform.

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Report Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Create a crosstab report.

1. In Report Studio, start with a new crosstab report.

2. Navigate to the report's query.

3. Change the name to **Crosstab Query** and expand the following in DEFAULT_REL:

    - GRC_OBJECTS > SOXBUSENTITY_FOLDER > SOXBUSENTITY_GPC > ID_FIELDS,
    - GRC_OBJECTS > LOSSEVENT > ID_FIELDS,
    - GRC_OBJECTS > LOSSEVENT > ENUMERATION_FIELDS > RISK_CATEGORY (ENUMERATION).

4. Add the following:
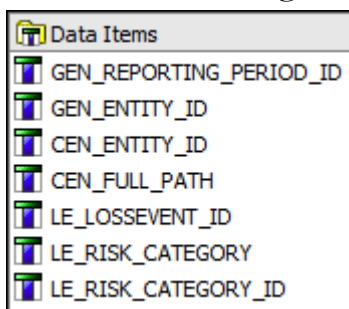
5. Add the following detail filters:

    • current reporting period,

    • /Global Financial Services starting entity (1202),

    • Is Not Null filter using Loss Event identifier.

    The results appear as follows:
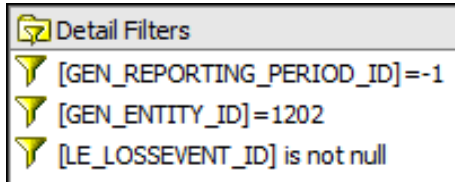
6. Navigate to the crosstab container in report pages **Page1**.

7. Select the **Crosstab** and change the Name property to **GRC Platform Sort Crosstab**.

8. Populate the crosstab container using the **Crosstab Query** data items:

    • **Left Edge**: Child entity full path

    • **Top Edge**: Loss Event Risk Category

    • **Measures**: Loss Event identifier

9. Select the measures section of the crosstab container.

10. Set the following properties:

    • **Aggregate Function**: Count Distinct,

    • **Rollup Aggregate Function**: Automatic.

11. Select the Crosstab Corner and set the **Source Type** property to **Text**.

12. Select the report page body and center it.

13. Set the page title to **GRC Platform Sort**.

14. Save the reports as **15-GRC Platform Sort** in **My Folders**.

Task 2. Apply sorting.

1. Select the entity rows.

2. Set it to **sort ascending**.

3. Run the report HTML and note the sorting of the entity rows and risk category columns.

4. Close Cognos Viewer.

5. Navigate to the report's query.

6. In the **DEFAULT_REL** namespace, expand ENUMERATIONS > LOSSEVENT (ENUMERATIONS) > LE_RISK_CATEGORY.

7. Drag **DISPLAY_ORDER** into the Data Items pane.

8. Return to the crosstab container.

9. Click the top edge of the crosstab container (Risk Category column titles).

10. Open the **Sort** tool bar menu.

11. Select **Edit Layout Sorting**.

12. Drag **Display Order** into the **Sort List** pane. (Note that by default it sorts ascending.)

13. Click **OK**.

14. Run the report HTML and note the different sorting for the risk category columns.

15. Save the changes.
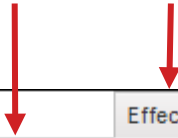
Results:
You have applied sorting to a crosstab report.

In this illustration both the left and top edges are sorted in ascending order, using the Sort menu.

Business Analytics software   IBM

Custom Sort (cont'd)

- Sample sorting construct.

Expression Definition:
```
case [CN_OPERATING_EFFECTIVENES_ID]+0
  when(#$SOXCONTROL_OPERATING_EFFECTIVENES_DEFINITION_MAP{'Ineffective'}#) then(1)
  when(#$SOXCONTROL_OPERATING_EFFECTIVENES_DEFINITION_MAP{'Effective'}#) then(2)
  when(#$SOXCONTROL_OPERATING_EFFECTIVENES_DEFINITION_MAP{'Not Determined'}#) then(3)
else (4)
end
```

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The case-when-then construct function is used in a data item to assign a numeric value to each of the three enumerated string values used in the Operating Effectiveness field. This data item is then sorted using Other Sort Options.

After applying the custom sort, the top edge now appears in the order desired.

Business Analytics software

IBM

Demo 2

Sort Enumerated String Values

	Ineffective	Effective	Not Determined
/Global Financial Services/Asia Pac/Commercial Banking	4	11	13
/Global Financial Services/Asia Pac/Retail Banking	1	2	19
/Global Financial Services/EMEA/Retail Banking	6	7	9
/Global Financial Services/North America/Retail Brokerage	7	5	10

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Demo 2: Sort Enumerated String Values

Purpose:
You need a crosstab report in which the enumerated string value columns are sorted in a non-standard manner. You need to create a custom sort to accomplish this task.

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Report Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Create a crosstab report.

1. In Report Studio, start with a new crosstab report.
2. Navigate to the report's query.
3. Change the query name to **Crosstab Query** and expand the following in DEFAULT_REL:

   - GRC_OBJECTS > SOXBUSENTITY_FOLDER > SOXBUSENTITY_GPC > ID_FIELDS,

   - GRC_OBJECTS > SOXCONTROL > ID_FIELDS,

   - GRC_OBJECTS > SOXCONTROL > ENUMERATION_FIELDS > OPERATING_EFFECTIVENES (ENUMERATION).

4. Add the following:

5. Create the following detail filters:

   - current reporting period,
   - /Global Financial Services starting entity (1202).

6. Create a performance optimized Is Not Null filter:
   - from the toolbox drag a **Data Item** tool into the data items pane,
   - **Name**: Not Null,
   - create the following expression and click **OK**:

```
if([CN_CONTROL_ID] is not null)
then(1)
else(0)
```

   - change the aggregate functions properties to **None**,
   - drag the **Not Null** data item into the Detail Filters pane,
   - set it equal to 1 and click **OK**.

   The results appear as follows:
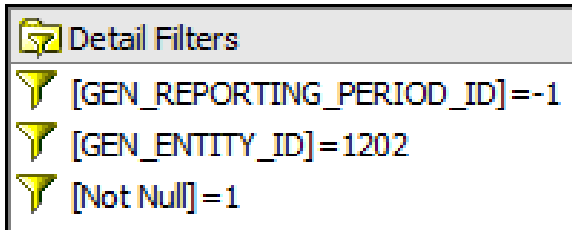
7. Populate the crosstab container:
   - Left edge: **Entity full path**,
   - Top edge: **Operating effectiveness**,
   - Measures: **Control identifier**.
     - Aggregate function: **Count distinct**,
     - Rollup aggregate function: **Automatic**.
8. Sort the left edge ascending.
9. Select the **Crosstab Corner**.
10. Under **Text Source**, set the **Source Type** property to **Text**.

    The results appear as follows:
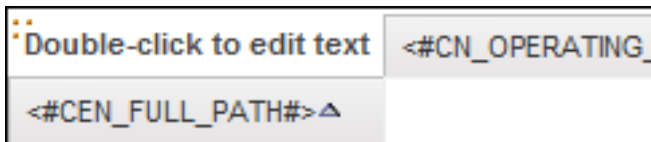
11. Select the report page body and center it.
12. Set the page title to **Custom Sort Crosstab**.
13. Select the **Crosstab** and change the Name property to **Custom Sort Crosstab**.

14. Run the report HTML, test and validate.

15. Save the report as **15-Custom Sort Crosstab**.

Task 2. Create a construct data item and apply the sort.

1. Navigate to the report's query.

2. Add a Data Item to the query.

3. Carefully create the following expression:

```
case [CN_OPERATING_EFFECTIVENES_ID]+0
  when (#$SOXCONTROL_OPERATING_EFFECTIVENES_DEFINITION_MAP{'Ineffective'}#) then(1)
  when (#$SOXCONTROL_OPERATING_EFFECTIVENES_DEFINITION_MAP{'Effective'}#) then(2)
  when (#$SOXCONTROL_OPERATING_EFFECTIVENES_DEFINITION_MAP{'Not Determined'}#) then(3)
else (4)
end
```

4. Apply the following properties:

- **Name**: OpEff Sort,
- **Aggregate Function**: None,
- **Rollup Aggregate Function**: None.

5. Navigate to the crosstab container.

6. Select the top edge (operating effectiveness).

7. Select **Edit Layout Sorting** under the **Sort** menu.

8. Drag **OpEff Sort** into the **Sort List** and verify it is sorting ascending.

9. Run the report HTML, test and validate.

10. Save the changes.
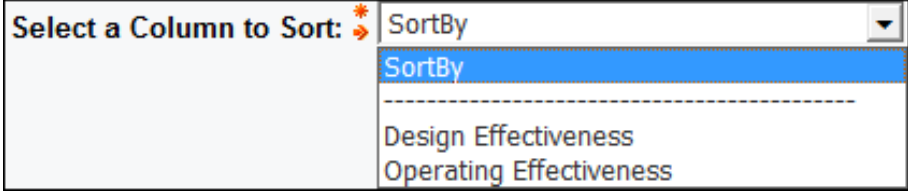
Results:
You created a custom sort and applied it to the top edge of a crosstab container to achieve the desired results in the report.

In this illustration the user running the report has the ability to sort either the Design or the Operating Effectiveness columns in the report.

Business Analytics software   IBM

Prompted Sorting (cont'd)

Entity	Control	Design Effectiveness	Operating Effectiveness
Commercial Banking	CTL-02-04-07-01	Effective	Effective
	CTL-04-03-03-02	Effective	Effective
	CTL-04-03-03-04	Effective	Effective
	CTL-04-03-03-09	Effective	Effective
	CTL-04-03-03-14	Effective	Effective
	CTL-04-03-03-07	Effective	Not Determined
	CTL-04-03-03-08	Effective	Not Determined
	CTL-41-158-015	Effective	Not Determined
	Control 12345	Ineffective	Effective
	CTL-04-03-02-17	Ineffective	Effective
	CTL-04-03-03-05	Ineffective	Effective
	CTL-04-03-03-11	Ineffective	Ineffective
	CTL-04-03-03-12	Ineffective	Ineffective
	Control 12346	Ineffective	Not Determined
	CTL-04-03-03-10	Ineffective	Not Determined
	CTL-41-158-032	Ineffective	Not Determined
	Control 12347	Not Determined	Effective
	CTL-04-03-03-06	Not Determined	Effective

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In this illustration the entity name column has been grouped, which puts it in ascending order by default. No other sorting is applied.

Business Analytics software

IBM

Prompted Sorting (cont'd)

Entity	Control	Design Effectiveness	Operating Effectiveness
Commercial Banking	Control 12347	Not Determined	Effective
	CTL-04-03-03-06	Not Determined	Effective
	CTL-41-158-001	Not Determined	Effective
	Control 12350	Not Determined	Ineffective
	CTL-41-158-044	Not Determined	Ineffective
	Control 12348	Not Determined	Not Determined
	Control 12349	Not Determined	Not Determined
	CTL-04-03-03-01	Not Determined	Not Determined
	CTL-04-03-03-03	Not Determined	Not Determined
	CTL-04-03-03-13	Not Determined	Not Determined
	Control 12345	Ineffective	Effective
	CTL-04-03-02-17	Ineffective	Effective
	CTL-04-03-03-05	Ineffective	Effective
	CTL-04-03-03-11	Ineffective	Ineffective
	CTL-04-03-03-12	Ineffective	Ineffective
	Control 12346	Ineffective	Not Determined
	CTL-04-03-03-10	Ineffective	Not Determined
	CTL-41-158-032	Ineffective	Not Determined
	CTL-02-04-07-01	Effective	Effective

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In this illustration the user selected **Design Effectiveness** to be sorted and it is sorted descending.

SORTING DATA

Prompted Sorting (cont'd)

Entity	Control	Design Effectiveness	Operating Effectiveness
Commercial Banking	CTL-04-03-03-07	Effective	Not Determined
	CTL-04-03-03-08	Effective	Not Determined
	CTL-41-158-015	Effective	Not Determined
	Control 12346	Ineffective	Not Determined
	CTL-04-03-03-10	Ineffective	Not Determined
	CTL-41-158-032	Ineffective	Not Determined
	Control 12348	Not Determined	Not Determined
	Control 12349	Not Determined	Not Determined
	CTL-04-03-03-01	Not Determined	Not Determined
	CTL-04-03-03-03	Not Determined	Not Determined
	CTL-04-03-03-13	Not Determined	Not Determined
	CTL-04-03-03-11	Ineffective	Ineffective
	CTL-04-03-03-12	Ineffective	Ineffective
	Control 12350	Not Determined	Ineffective
	CTL-41-158-044	Not Determined	Ineffective
	CTL-02-04-07-01	Effective	Effective
	CTL-04-03-03-02	Effective	Effective

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In this illustration the user selected **Operating Effectiveness** to be sorted descending.

Business Analytics software

IBM

Demo 3

Prompted Sorting

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Demo 3: Prompted Sorting

Purpose:
Create a prompt that will let the user select which column to sort in the resulting list report.

Portal:	**http://optrainvm/ibmcognos**
User/Password:	**reportauthor/reportauthor**
Studio:	**Report Studio**
Package:	**OPENPAGES_REPORTS_V6**

Task 1. Create a list report.

1. In Report Studio, start with a new list report.
2. Navigate to the report's query.
3. Change the query name to **List Query** and add the following:

> **Data Items**
> - GEN_REPORTING_PERIOD_ID
> - GEN_ENTITY_ID
> - CEN_NAME00
> - CN_CONTROL_ID
> - CN_DESIGN_EFFECTIVENESS
> - CN_DESIGN_EFFECTIVENESS_ID
> - CN_OPERATING_EFFECTIVENES
> - CN_OPERATING_EFFECTIVENES_ID
> - CN_NAME00
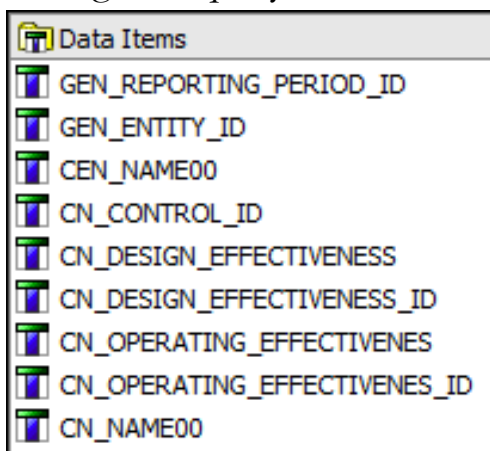
4. Change the following **Label** properties:

   - **CEN_NAME00**: Entity,
   - **CN_DESIGN_EFFECTIVENESS**: Design Effectiveness,
   - **CN_OPERATING_EFFECTIVENES**: Operating Effectiveness,
   - **CN_NAME00**: Control.

5. Create the following detail filters:

   - current reporting period,
   - /Global Financial Services starting entity (1202).

6.   Create a performance optimized Is Not Null filter:

   - From the toolbox drag a **Data Item** tool into the data items pane,

   - **Name**: Not Null,

   - create the following expression and click **OK**:

```
if([CN_CONTROL_ID] is not null)
then(1)
else(0)
```

   - change the aggregate functions properties to **None**,

   - drag the **Not Null** data item into the Detail Filters pane,

   - set it equal to 1 and click **OK**.

     The results appear as follows:
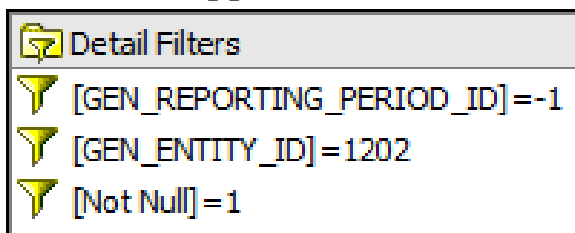
7.   Populate the list container as follows:

Entity	Control	Design Effectiveness	Operating Effectiveness
<CEN_NAME00>	<CN_NAME00>	<CN_DESIGN_EFFECTIVENESS>	<CN_OPERATING_EFFECTIVENES>
<CEN_NAME00>	<CN_NAME00>	<CN_DESIGN_EFFECTIVENESS>	<CN_OPERATING_EFFECTIVENES>
<CEN_NAME00>	<CN_NAME00>	<CN_DESIGN_EFFECTIVENESS>	<CN_OPERATING_EFFECTIVENES>

8.   Group the entity column.
9.   Select the report page body and center it.
10. Set the page title to **Prompted Sorting**.
11. Select the **List** and change the Name property to **Prompted Sorting List**.
12. Run the report HTML, test and validate.
13. Save the report as **15-Prompted Sorting** in **My Folders**.

SORTING DATA

Task 2. Setup the prompt page.

1. Add a prompt page.
2. Add a table to the prompt page:
   - **Columns**: 2,
   - **Rows**: 1,
   - **Maximize width**: Clear the checkbox.
3. Select the prompt page body and center it.
4. Add a **Text Item** tool to R1C1.
   - **Text**: Select a Column to Sort: (add a space after the colon),
5. Select table cell R1C1 and apply formatting:
   - **Font**: Bold,
   - **Horizontal Alignment**: Right.

Task 3. Create a prompt and parameter.

1. Add the **Value Prompt** tool to R1C2.
2. Create a new parameter: **SortBy**.
3. Click the **Finish** button.
4. Select the prompt.
5. Open the **Static Choices** property.
6. Click the **Add** button:
   - **Use**: 1,
   - **Display**: Design Effectiveness.
7. Click the **Add** button a second time:
   - **Use**: 2,
   - **Display**: Operating Effectiveness.
8. Run the report HTML and verify the prompt.
9. Click **Cancel**.
10. Save the changes.

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or translated into another language without a legal license agreement from IBM Corporation.

Task 4. Create a construct data item.

1.   Navigate to the report's query.

2.   Add a data item to the query.

3.   Create the following expression:

```
case ?SortBy?
   when 1 then [CN_DESIGN_EFFECTIVENESS]
   when 2 then [CN_OPERATING_EFFECTIVENES]
end
```

4.   Apply the following properties:

   • **Name**: Sort By,

   • Aggregate and rollup aggregate functions: None.

5.   Navigate to the list container and select any column.

6.   Open the **Sort** menu in the tool bar and select **Edit Layout Sorting**.

7.   Drag **Sort By** into the **Detail Sort List** folder.

8.   Set **Sort By** to sort descending by clicking the **Sort Order** button.
     The results appear as follows:
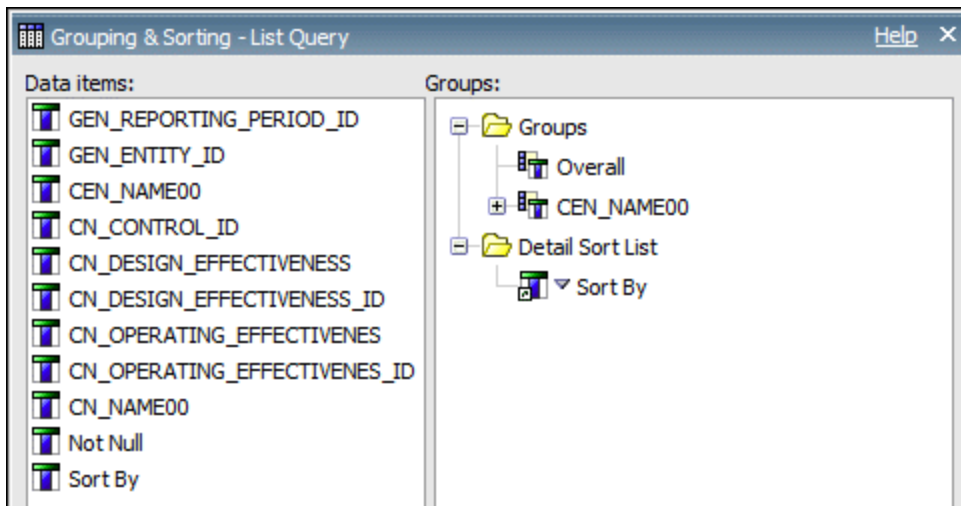
9.   Click **OK**.

10. Run the report HTML, test and validate.

11. Save the changes.

12. Exit Report Studio, log off, and close all browser windows.

Results:
You created a sorting prompt that selects the list column to sort.

Business Analytics software   **IBM**

Summary

- At the end of this module, you should be able to:
  - sort data in list container columns
  - sort rows in a list container by a specified column order
  - sort edge components of a crosstab container
  - apply a GRC Platform sort order
  - specify a custom sort order for enumerated string values
  - create a prompt to be used to specify a column of data by which to sort

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IMPORTANT

Solutions for the demos in this module can be found in:

Public Folders > 1O202 Solution Reports > Module 15.

Using Images

IBM OpenPages: Report Authoring (v7.0)

Business Analytics software   IBM

Objectives

- At the end of this module, you should be able to:

    - locate images folder on IBM OpenPages
      application server

    - add corporate logo to report

    - add GRC Platform images to report

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NOTE: If you have not taken the pre-requisite course *IBM Cognos Report Studio: Author Professional Reports Fundamentals (v10.2)* (J2258) you may struggle completing the demonstrations in this module. Allow extra time to complete each demonstration.

Business Analytics software

IBM

Image Types

- The following image types are recommended:
  - GIF
  - JPG
  - PNG
  - BMP

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IBM Cognos states in the Report Studio user guide that only GIF and JPG file types are supported. However, the GRC Platform also uses PNG and BMP with no issues.

Business Analytics software

IBM

Image Locations

- There are two locations in which GRC Platform images are stored on the application servers.

- One is on the IBM OpenPages application server.

- The other is on the IBM Cognos application server.

- When adding images to GRC Platform reports, you will use the IBM Cognos application server location.

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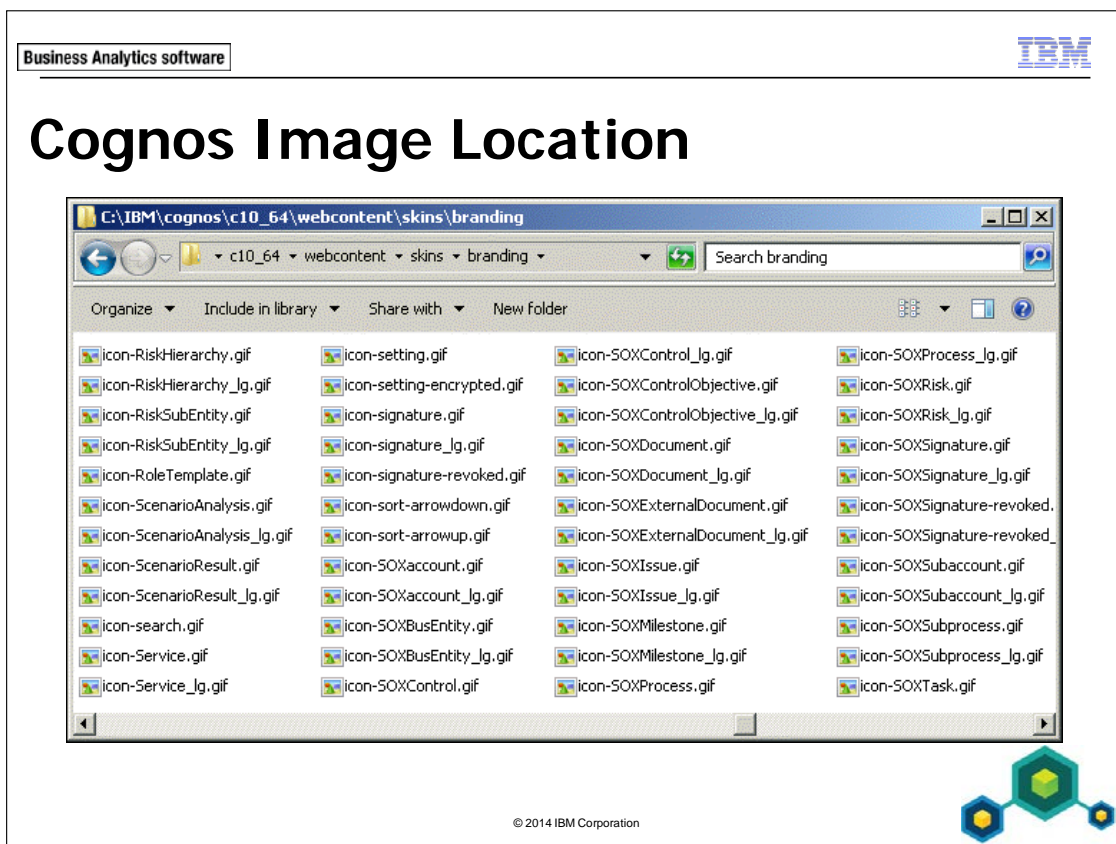
If you are adding image files to the GRC Platform system, for example your company logo, it will be placed in <Cognos_Home>\webcontent\skins\branding on the IBM Cognos application server.

Business Analytics software	IBM

Image URL

Properties - ▣ Image		—
⊟ **URL Source**		
Source Type	Text	
URL	../skins/branding/icon-SOXProcess...	

Image Browser   Help ✕

Server URL:

../skins/branding/   ▼   Browse

- ⊠ icon-SOXIssue_lg.gif
- ⊠ icon-SOXMilestone.gif
- ⊠ icon-SOXMilestone_lg.gif
- ⊠ icon-SOXProcess.gif
- ⊠ icon-SOXProcess_lg.gif
- ⊠ icon-SOXRisk.gif
- ⊠ icon-SOXRisk_lg.gif

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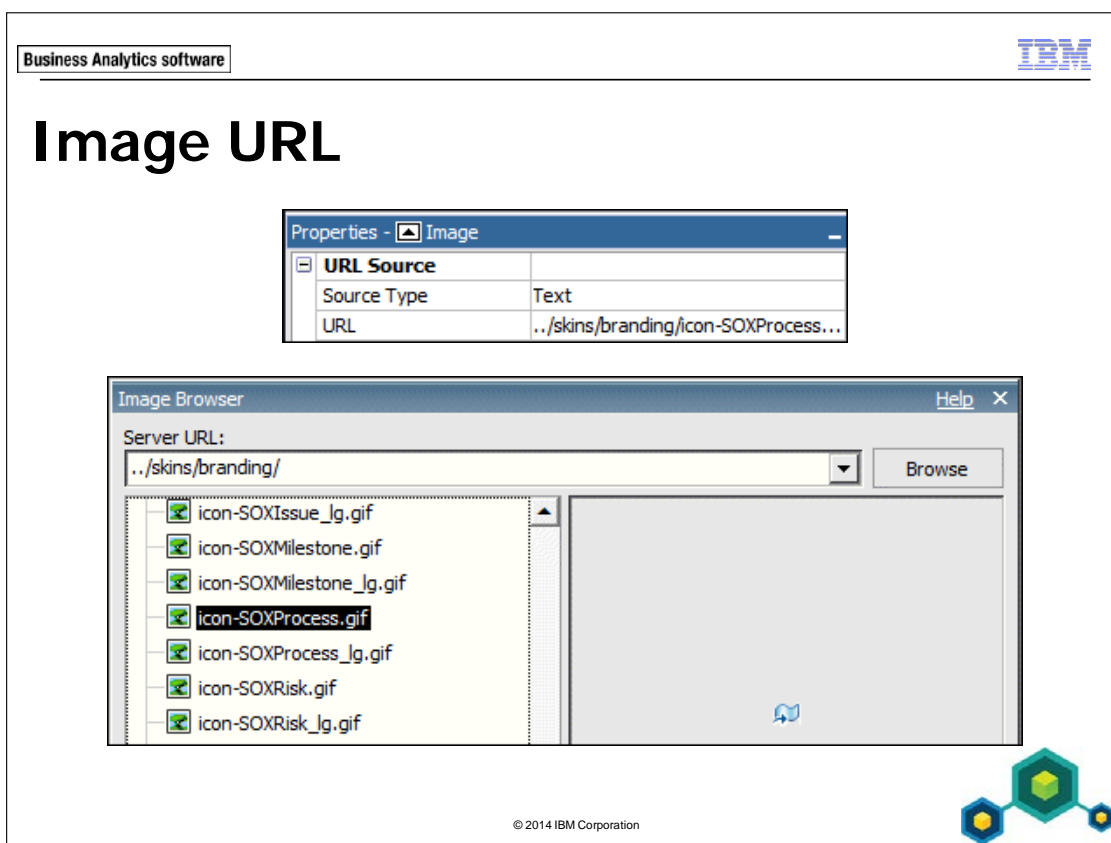
After adding the Image tool to the desired location within the report, you will format it using URL Source property to specify the URL for the image file.

In the image browser you can either type in the file name, or click **Browse** to locate and preview the desired image. Best practice is to use the small GIF file for GRC Platform icons; do not use the "_lg" files.

NOTE: If you get an error when you click the **Browse** button, that indicates **WebDAV** has not been installed and/or enabled for anonymous READ access to the /skins/branding directory on the IBM Cognos application server. Request that WebDAV be enabled for anonymous READ access to the /skins/branding directory.

Business Analytics software   IBM

Demo 1

Add Images to a Report

OPENPAGES   **Process List**

PR_NAME00	PR_STATUS	PR_DOMAIN_LIST
RB-08	Approved	Operational
CB-01	Awaiting Approval	Operational,Technology
CB-03	Awaiting Approval	Operational,Internal Audit
CB-06	Awaiting Approval	Operational,Financial Management
RB-09	Awaiting Approval	Operational

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IMPORTANT

Before starting your first demo, you must prepare the IBM eLabs. Refer to the PDF file, *Preparing For a Demo* which can be downloaded from the **Materials** tab of the eLabs launch site.

Demo 1: Add Images to a Report.

Purpose:
As the Risk Management report author, you are tasked with adding the company logo and GRC Platform icons to Report Studio reports.

Portal: **http://optrainvm/ibmcognos**
User/Password: **reportauthor/reportauthor**

Task 1. Create a List Report.

1. Start Report Studio (click **Author advanced reports** on the Welcome Page).
2. Select the **OPENPAGES_REPORTS_V6** package.
3. Click **Create New**.
4. Click **List** and then **OK**.
5. In the Source pane, expand the following under DEFAULT_REL:
   - GRC_OBJECTS > SOXPROCESS > ID_FIELDS,
   - GRC_OBJECTS > SOXPROCESS > ENUMERATION_FIELDS >
       o STATUS (ENUMERATION),
       o DOMAIN (ENUMERATION).
6. Add the following Process query items to the list container:
   - Reporting Period ID
   - Process ID
   - Name00
   - Status
   - Domain (use _LIST)
7. Cut the two identifier columns.
   The results appear as follows:

PR_NAME00	PR_STATUS	PR_DOMAIN_LIST
\<PR_NAME00\>	\<PR_STATUS\>	\<PR_DOMAIN_LIST\>
\<PR_NAME00\>	\<PR_STATUS\>	\<PR_DOMAIN_LIST\>
\<PR_NAME00\>	\<PR_STATUS\>	\<PR_DOMAIN_LIST\>

8. Navigate to **Query1**.

9. Drag the reporting period identifier data item into the **Detail Filters** pane and create a 'current reporting period' filter.

   The results appear as follows:

   [PR_REPORTING_PERIOD_ID]=-1

10. Drag the process identifier data item into the **Detail Filters** pane and create an 'is not null' filter.

    The results appear as follows:

    [PR_PROCESS_ID] is not null

11. Navigate back to the list container in page one of the report pages.

12. Center the list container on the page.

13. Add a page title: **Process List**.

14. Select the list container and change the Name property to **Process List With Logo**.

15. Save the report as **16-Process List with images** in **My Folders**.

Task 2. Prepare the page header for the company logo.

1. Add a table to the block in the page header.

   - **Columns**: 3

   - **Rows**: 1

   - **Maximize width**: Check the box

2. Drag the page title into R1C2.

3. Select the center table cell and set the **Classes** property to **Report title area**.

   The results appear as follows:

4. Select R1C1 and set the following properties:

   - **Vertical Alignment**: Top,

   - **Size & Overflow**: Width 100 px.

5.   Select R1C3:

-   **Size & Overflow**: Width 100 px.

6.   Save the report.

Task 3. Add the company logo.

1.   Drag the **Image** tool into R1C1 in the report header.

2.   Select the image tool.

3.   In the properties pane, open the **URL** field in the **URL Source** section.

4.   In the **Image URL** field, type **../skins/branding/**.

5.   Click **Browse**.

The results appear as follows:
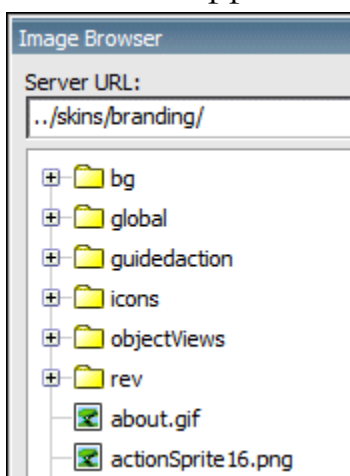
6.   Locate and select **logo.gif** and click **OK**.

7.   Save the report.

The results appear as follows:

Task 4. Add the GRC Platform process icon.

1.   Unlock the report by clicking the padlock icon in the toolbar.

2.   Drag the **Image** tool into the white details cell to the left of **<PR_NAME00>**.

The results appear as follows:
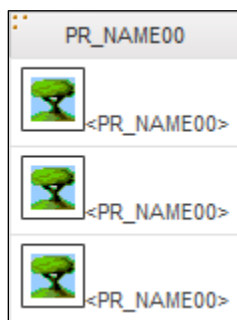
3. Select the image tool.

4. In the properties pane, open the **URL** field in the **URL Source** section.

5. In the **Image URL** field, type **../skins/branding/**.

6. Click **Browse**.

7. Locate and select **icon-SOXProcess.gif** and click **OK**.

8. Select the Process icon image and set the **Relative Alignment** property to **Middle of text**.

9. Select the **<PR_NAME00>** text item and set the **Padding** property to **Left padding=2 px**.

10. Lock the report by clicking the Lock icon in the toolbar.

11. Select the white detail cells for the Process Status column.

12. In the title bar of the **Properties** pane, set the ancestor selector to **List Columns Body Style**.

13. Set the **Vertical Alignment** property to **Middle.**

14. Save the report.

    The results appear as follows:

15. Exit Report Studio, log off, and close all browser windows.

Results: You have added a company logo and a GRC Platform process icon to a report.

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Summary

- At the end of this module, you should be able to:
    - locate images folder on IBM OpenPages application server
    - add corporate logo to report
    - add GRC Platform images to report

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IMPORTANT

Solutions for the demos in this module can be found in:

Public Folders > 1O202 Solution Reports > Module 16.

Improving Report Performance

IBM OpenPages: Report Authoring (v7.0)

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Objectives

- At the end of this module, you should be able to:
  - understand different methods to optimize report performance
  - incorporate performance optimization into your reports

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The GRC Platform generates a reporting framework that is used by IBM Cognos to create reports. The generated reporting framework query subjects have been optimized to perform well under many reporting conditions. However, there are some additional optimizations you can incorporate into the reports you create that will further enhance the performance of your reports.

NOTE: This module is intended as reference and does not contain Demos or Workshops.
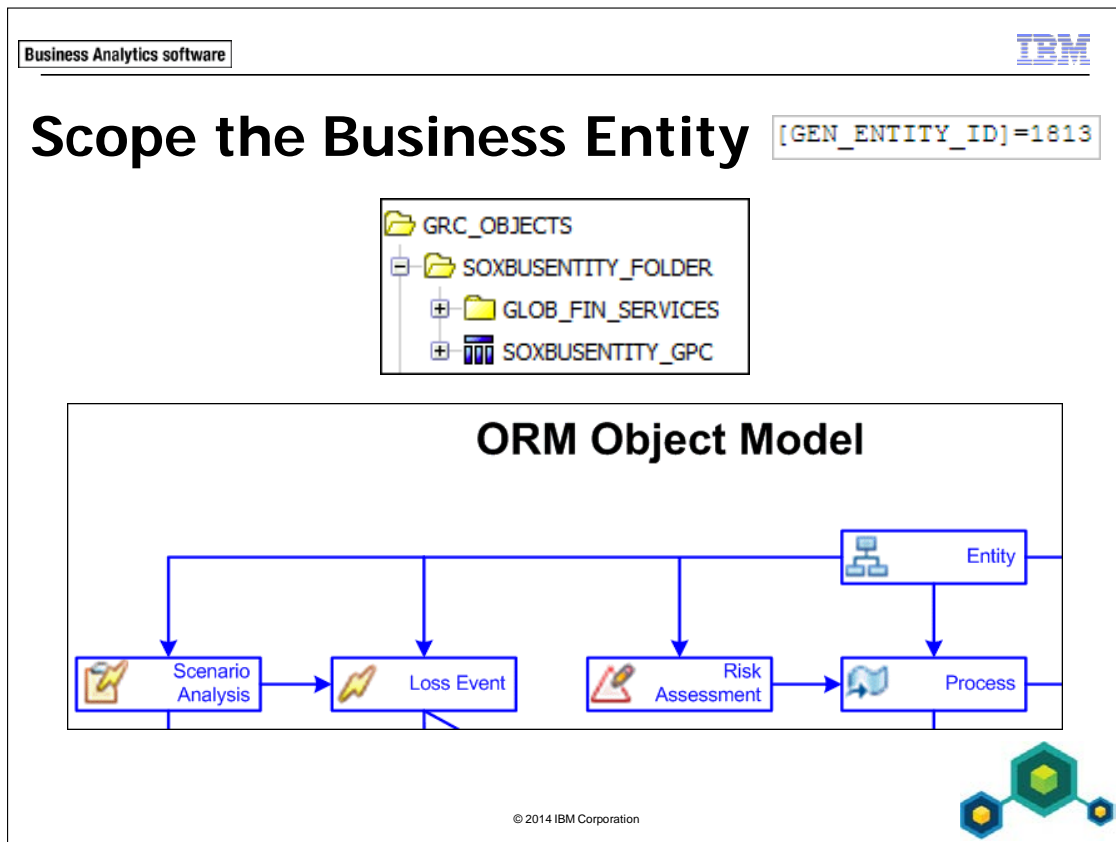
The reporting framework is driven by the SOXBusEntity object type. All records in the platform database are associated under one or more entity hierarchies. All reports should be scoped to an entity hierarchy. If a report is not scoped to an entity hierarchy the query will perform multiple searches through all entity hierarchies, which can reach hundreds or even thousands very easily.

Scoping can take one of the following forms:

- if your report will always be run for the same entity hierarchy, use a fixed detail filter,

- create a prompt and let the user running the report select the entity hierarchy,

- a single prompt displaying the full path of valid entities that can be used in the report,

- a series of cascading prompts that leads the user through a long or complex entity structure to the exact entity desired,

- a tree prompt that enables filtering on a dimensional report.

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Scope the Reporting Period

- The reporting period should be scoped in any primary or secondary object type report.

[GEN_REPORTING_PERIOD_ID] = -1

[GEN_REPORTING_PERIOD_ID] = ?RP_ID?

[GEN_REPORTING_PERIOD_ID] = ?ReportingPeriodId?

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The Reporting Period ID is part of a composite primary key in many of the database tables. There are three methods you can use to scope the reporting period:

- create a fixed detail filter to the **Current Reporting Period** (always '-1')

- prompt the user to select a reporting period

  - use the report's top-most object type for the reporting period ID query item, typically the entity

- pass the user's reporting period selection from the GRC Platform

  - use the parameter ?ReportingPeriodId?

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Use Parameter Maps

- Resolves an enumerated string value to its ID.
- When a detail filter or conditional construct uses an enum, use the parameter map.

Expression Definition:

if ([CN_OPERATING_EFFECTIVENES_ID]+0=
#$SOXCONTROL_OPERATING_EFFECTIVENES_DEFINITION_MAP{'Effective'}#)

then ([CN_CONTROL_ID])

else (null)

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For each enumerated string field definition a parameter map is created in the generated reporting framework. This parameter map returns the ID for each enumerated string value passed to it.

Using parameter maps accomplishes the following:

- improves performance of the report

- allows enumerated values to be translated into the locale of the user running the report

- allows the report to be moved between two different GRC Platforms because the enumerated string value ID is looked up in the parameter map guaranteeing the correct ID is used in each platform

The naming convention for parameter maps:

<Object Name>_<Enumerated String>_DEFINITION_MAP

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Bypassing an Index

- In the database tables, indexes are defined on all the enumerated string value identifiers.

- When you create an enumerated string value filter, instead of choosing a system index to join two object tables, Oracle will choose less efficient indexes due to the enumerated string filter.

- Bypassing the index on the enumerated string will create a faster query.

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Bypassing an Index (cont'd)

- Add a 0 (zero) to the left side of the filter expression and Oracle treats it as an expression.
- The index attached to that field will be ignored.
- **NOTE:** Applicable to filters with enumerated string IDs **ONLY**.

Expression Definition:

[DEFAULT_REL].[SOXCONTROL].[CN_OPERATING_EFFECTIVENES_ID] + 0 = ?OppEff?

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Indices are defined on all of the enumerated string value IDs. When you create a filter using an enumerated string value, Oracle will use indices that are less efficient than the system index used to join two object tables. By adding a zero to the enumerated value string ID Oracle will treat the filter as an expression and the more efficient system indices will be used.

The improvement in performance will be more noticeable when large numbers of rows are returned, as in PDF or Excel formats.

NOTE: This technique can be used with enumerated string identifiers only. Do not use with object type or reporting period identifiers.

NOTE: If you are using DB2 for your database, this method may not be needed but, if used, is not known to cause problems when generating the report.

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Query Direction

- The generated framework is set up to create joins that perform best when querying down the object model relationship tree.

- Querying up the relationship tree:

  - will result in poor computed field performance

  - can place a large strain on the database that can result in the entire GRC Platform to slow down

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A report that computes values based upon ancestors is strongly discouraged!

Build your list reports left-to-right, down the object model relationship tree. Aggregate on child objects. For example:

- number of controls by process

- total losses by entity

Avoid aggregating ancestor object types. For example:

- number of processes by control

- number of mandates by requirements

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Adding New Indices

- If you regularly create reports that involve joining two fields that are not indexed, you may gain significant report performance improvement by adding an index.

- Refer to the *IBM OpenPages GRC Platform Administrator's Guide* for more information about adding an index to a table, or contact an IBM OpenPages team member.

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This is something you should NOT do on your own.

- adding too many indices to an RT_table can harm performance

- review this with your database administrator and your IBM OpenPages team member

- test the change by manually creating the index in the database

Refer to "Reporting Schema Settings" in the *IBM OpenPages GRC Platform 7.0.0 Administrator's Guide* for more information.

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Use for Parameter Info

- This can improve performance in displaying prompt pages.
- Every query has this property.
- Setting this property to 'Yes' will cause this query to be checked for parameter information first.

Execution Method	
Use for Parameter Info	Yes
SQL Join Syntax	

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This property should be changed to **Yes** only on queries used to create prompts on a prompt page. Leave this property at its default setting, which is blank, for all other queries. You should never set this property to **No** for any query.

If you are going to create a detail filter first add the query item to the query by dragging it into the **Data Items** pane. Then create the filter by dragging the query item from the **Data Items** pane into the **Detail Filters** pane and complete the expression definition.

This method may not be valid under certain circumstances, especially when using query items from the SOXBUSENTITY_GPC query subject. Adding a query item to the data items pane can change the report output or aggregation roll ups.

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Is Not Null

- Almost every primary or secondary object report will have at least one IS NOT NULL filter.

- Always try to use an identifier query item.

[CN_CONTROL_ID] is not null

- If not possible, use the "alternative" filter.

[CN_CONTROL_OWNER] || ' ' <> ' '

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The IS NOT NULL function performs best with _ID query items. When using string query items using the alternative filter above can significantly improve performance.

NOTE: There is one space between the single-quotes in the example.

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Filter on a Flag

- Sometimes a detail filter can be the source of a poor performing report.

- When this happens there is a method you can try that will usually improve performance:

  1. move the filter logic to a Data Item

  2. set a flag in the Data Item

  3. use the Data Item in a detail filter

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Filter on a Flag (cont'd)

Data Item

if([TR_TESTRESULT_ID] is not null)

then (1)

else(0)

In this example the data item is testing the TESTRESULT_ID value. If it is not null the data item returns a 1 (the desired result.)

The resulting data item is renamed **TR Not Null**.

In this step the **TR Not Null** data item is used in a Detail Filter and set to the desired result of 1.

One of the tools available to report authors is the defined entity recursive object levels that are defined in the GRC Platform and added to the generated reporting framework. In the **Platform Entities** example above the **Starting Entity** has been defined as the root of the business entity hierarchy ('/'). Used in a report, all entity hierarchies would be exposed in the report, putting a strain on the database.

The use of this type of entity hierarchy definition should be avoided in reports whenever possible.

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Entity Recursive Object Levels (cont'd)

Recursive Object Levels

| Translate | Delete |

Name*: GFS

Description: Global Financial Services hierarchy only.

Full path to Level 1 Entity
Example: /Entity_1/Entity_1-1/Starting Entity

Starting Entity*: /Global Financial Services

Level names must be unique for all Recursive Objects

Level 1*: Corporate

Level 2: Regions

Level 3: LOB   [−] [+]

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In this example, the **Starting Entity** is a single top level entity. When used in a report this will isolate the data returned to a single entity hierarchy, greatly reducing the impact to the database server.

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Auto Group & Summarize

- By default, every query has this property set to **Yes**.
  - Cognos will apply suggested aggregations, if any exist, and produce groups and summary rows in the resulting report.
- If all you want in your report are detail rows, for example when viewing in Excel, with no groupings, summarizations, or aggregations, you can increase the performance of your report by changing the property to **No**.

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This is especially useful if your report contains nested queries, for example in Joins or Unions. The bottom queries typically do not do any aggregations or groupings, this is normally done in the top-most query associated to the report container. Setting this property to **No** in the bottom queries can significantly improve the performance of your report.

Custom Query Subject

- Work with your IBM OpenPages Managing Consultant to scope the requirements.
- Custom reports delivered by an IBM services team member will normally include a CQS.

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If you have tried all performance enhancing techniques and your report still performs poorly, contact your IBM OpenPages team member and discuss the possibility of a Custom Query Subject (CQS.)

You will also need a CQS if the reporting problem you are trying to solve cannot be solved using the generated reporting framework.

NOTE: If you are an accomplished SQL programmer you may be interested in learning how to create your own CQS. Refer to the chapter "Custom Query Subjects" in the *IBM OpenPages GRC Platform Version 7.0.0 Report Author's Guide* for more information.

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Allow Cross Product

- Under no circumstances should you set the query property **Cross Product Allowed** to anything except the default (blank).

- Allowing cross product in a GRC Platform report can cause enormous performance problems.

Properties - Query	
Cross Product Allowed	▼
Use SQL With Clause	(Default)
Use Local Cache	Allow
Execution Method	Warning
	Deny
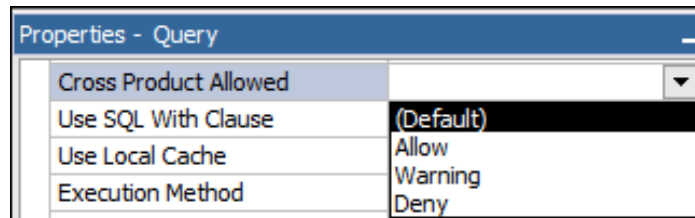
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If your report suggests or requires the use of cross product, the report has been poorly designed. You need to redesign the report. This may include any or all of the following methods:

- use joins

- use unions

- create a new namespace

- create a custom query subject

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Summary

- At the end of this module, you should be able to:
    - understand different methods to optimize report performance
    - incorporate performance optimization into your reports

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Spreadsheet Considerations

IBM OpenPages: Report Authoring (v7.0)

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Objectives

- At the end of this module, you should be able to:

  - describe best practices when creating reports for spreadsheet output

  - recognize merged cells in report output

  - describe two methods to compensate for differences in HTML, PDF and Excel output

  - describe the unique characteristics of the Excel and CSV output options

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Introduction

- When authoring reports that will be used primarily to export GRC Platform data to an Excel spreadsheet, some of your report authoring methods should be changed.

- The primary reason to view in Excel is to save report data in an editable format and to manipulate the data using common Excel features:
  - Pivot tables, auto filters, macros, and so forth.

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Considerations

- Do not group columns.
  - This creates merged cells in the Excel worksheet.
- If you group columns, do not add page breaks on them.
  - Each page break results in a new worksheet in Excel.
- Limit the use of Report Headers.

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Report Headers include:

- Overall headers,

- List headers,

- Group headers.

Forcing page breaks based upon a Group header will create multiple worksheets within the workbook, one worksheet for each page created by the Group header. This may or may not be a desirable output. Consider this action carefully when formatting your report.

If you have text fields in your GRC Platform that exceed 155 characters **View in Excel 2007** will create merged cells in the resulting worksheet.

You will probably not want Cognos to automatically create merged cells because this will make manipulating the worksheet time consuming and difficult.

In these examples, look at the Control record in row 15. In the top example, the control record uses 3 rows (15-17) because the Description field is using merged cells. In the bottom example, Cognos has been configured to display all of the text in one cell, thus eliminating the merged cells. The control record now uses just one row (15).

Allow Wrapping Single Cell

- Parameter:
  - `RSVP.EXCEL.XLS2007_ALLOW_WRAPPING_SINGLE_CELL`
- Value:
  - `TRUE`

Set advanced settings - Configuration

Specify the advanced configuration settings for this entry. By default, an entry acquires its advanced settings with the settings defined explicitly for this entry.

	Parameter	Value
☐	RSVP.EXCEL.XLS2007_ALLOW_WRAPPING_SINGLE_CELL	TRUE

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You can have your Cognos administrator add a parameter and value to the configuration of the dispatcher. This setting is located here:

Administer IBM Cognos Content > Configuration > Dispatcher and Services > Set properties - Configuration > Settings > Advanced settings.

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Demo 1

Configure the Dispatcher Settings

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Demo 1: Configure the Dispatcher Settings

Purpose:
You have received complaints from the Risk Management team that some list reports have merged cells in Excel output due to very long description fields. You will configure the dispatcher settings to remove these merged cells.

Portal: http://optrainvm/ibmcognos
User/Password: reportauthor/reportauthor

Task 1. Configure dispatcher settings.

1. Navigate to the **Welcome Page** of **Cognos Connection**.

2. Click **Administer IBM Cognos content** link.

3. Click the **Configuration** tab.

4. Click **Dispatcher and Services** link in the left margin.

5. Click the **Set properties - Configuration** button:

6. Click the **Settings** tab.

7. Click the **Edit** link for **Advanced settings**.

8. Configure the **Parameter** and **Value** fields to disable merged cells for long text strings.

    - **Parameter**: RSVP.EXCEL.XLS2007_ALLOW_WRAPPING_SINGLE_CELL

    - **Value**: TRUE

    The results appear as follows:

Parameter	Value
RSVP.EXCEL.XLS2007_ALLOW_WRAPPING_SINGLE_CELL	TRUE

9. At the bottom of the screen click **OK**.

10. Click **OK** a second time.

11. Log off, and close all browser windows.

Results:
You have configured the dispatcher settings in Cognos Connection.

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Multi-Purpose Reports

- If there is a need for a report to be used for HTML, PDF, and Excel views there are some options for the report author:

  - Create two reports. One highly formatted for HTML and PDF viewing and one with little or no formatting for Excel views.

  - Create one report with conditional formatting.

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The second option of using conditional formatting is covered in detail in the module on conditional formatting.

Once the report is displayed in **Cognos Viewer** there will be several view options available. There are four **View in Excel Options**:

- View in Excel 2007 Data

- View in Excel 2007 Format

- View in Excel 2002 Format

- View in CSV Format

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View Report Excel Options

View Excel Option	View	Email Attachment
Excel 2007 Data	XLSX*	XLSX*
Excel 2007 Format	XLSX*	XLSX*
Excel 2002 Format	XLS	MHT
Delimited Text (CSV)	TXT	CSV

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File extensions vary depending upon the Excel option selected and delivery method used.

By default IBM Cognos does not use the .XLS file extension for email attachments because many email servers will block it. Instead the file extensions listed here are used. However, your Cognos administrator can make configuration changes in Cognos Connection that will send .XLS files in email attachments.

Excel 2007 Data formatted reports contain minimal formatting, based upon the data type and assumes each column is a single data type. Does not support chart or crosstab reports.

Excel 2007 formatted reports are fully formatted reports for use in Microsoft Excel 2007 and later. Renders charts better than Excel 2002 format; more closely resembling the IBM Cognos rendering.

Excel 2002 formatted reports are fully formatted reports for use in versions prior to Microsoft Excel 2007.

- When viewed, you may see a warning that Excel is attempting to open an XLS file in a format that is not XLS. This is because IBM Cognos is using an MHT file format to be opened as XLS. Allow Excel to open the file when prompted and then **Save As** XLS or XLSX.

CSV formatted reports have the following characteristics:

- Unicode data

- UTF-16 Little Endian encoded

- tab-delimited

- strings are not enclosed in quotation marks

- new line character used to delimit rows

- when viewed, you may see a warning that Excel is attempting to open an XLS file in a format that is not XLS. This is because IBM Cognos is using a TXT file format to be opened as XLS. Allow Excel to open the file when prompted and then **Save As** either XLS or XLSX.

- does not support chart reports

When a user receives an automated email from the Cognos application server with an attached Excel report, the user must first save the file to their computer and then open.

* Users of Microsoft Excel 2002 and 2003 must install the no-charge Microsoft Office Compatibility Pack in order to open and save reports in this format.

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More Information

- For additional information about IBM Cognos BI Reports and Excel, please refer to "Appendix E: Limitations When Producing Reports in Microsoft Excel Format" in the *IBM Cognos Report Studio, Version 10.2.0, User Guide*.

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Summary

- At the end of this module, you should be able to:
  - describe best practices when creating reports for spreadsheet output
  - recognize merged cells in report output
  - describe two methods to compensate for differences in HTML, PDF and Excel output
  - describe the unique characteristics of the Excel and CSV output options

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Active Reports

IBM OpenPages: Report Authoring (v7.0)

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Objectives

- At the end of this module, you should be able to:
  - identify controls
  - define static controls
  - define data-driven controls
  - add connections between controls
  - understand formatting for tablet devices

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NOTE: If you have not taken the pre-requisite course *IBM Cognos Report Studio: Author Professional Reports Fundamentals (v10.2)* (J2258) you may struggle completing the demonstrations in this module. Allow extra time to complete each demonstration.

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Active Reports

- Active Reports are reports that provide a highly interactive and easy-to-use interface.

- Active reports make business intelligence easier for the casual user.

- Professional report authors build reports targeted at the users' needs, keeping the user experience simple and engaging.

- Active reports can be consumed by users who are offline, typically with a hand-held tablet or similar device.

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Active reports is another report container type in IBM Cognos Report Studio. You can convert existing Report Studio reports to Active Reports by selecting **File > Convert to Active Report**.
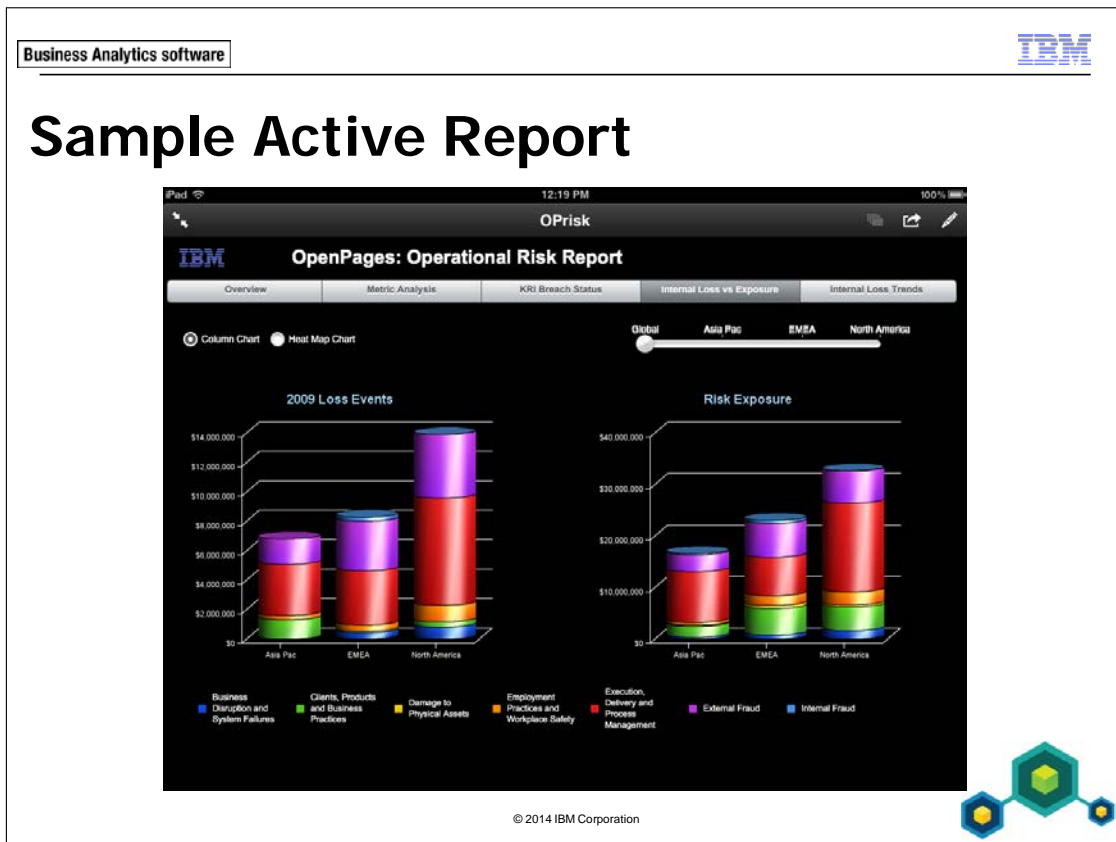
This is an example of an active report on a tablet computer. Note the following:

- five buttons across the top that let the user select different reports,
- two radio buttons (top left) that change the column charts to heat map charts,
- the slider (top right) that selects the region for both column charts.
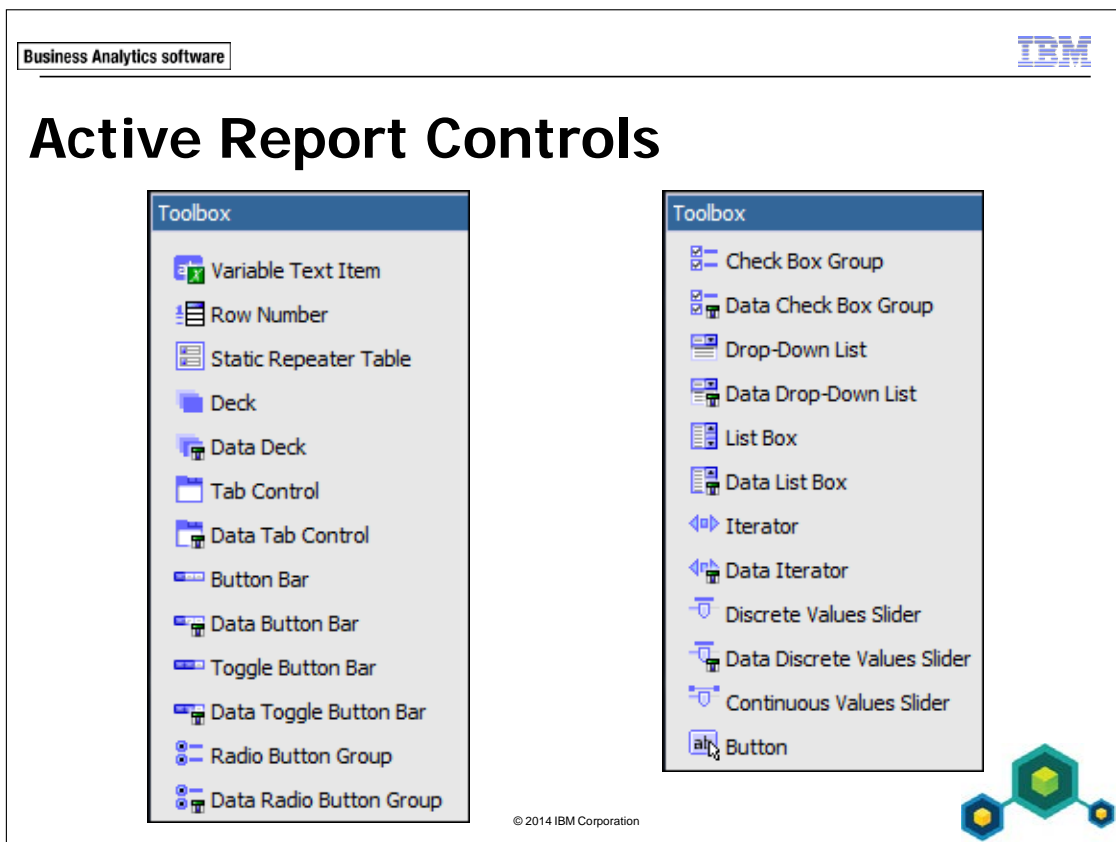
Active Report Controls are used to:

- create report layouts,

- filter layout controls,

- sort layout controls,

- navigate through data.

Containers are also considered controls:

- list,

- crosstab,

- chart,

- repeater tables.

NOTE: To view only active report items in the toolbox, right-click in the toolbox pane and select **Active Report Toolbox Items**. Learn to use this, it will be very helpful in the demonstrations.

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Active Report Variables

- Interactivity can be setup between many controls and it is all based off of Active Report Variables.

- These variables are created when connections are formed and are used to pass context between multiple controls.

- For example, a filter control is used to set filter criteria in two chart controls on the page. The user can change the filter control and the two charts change.

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Layout Controls

- Layout controls include:
    - tab controls,
    - custom button controls,
    - decks of cards,
    - hiding or displaying list columns,
    - row numbers.

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ACTIVE REPORTS

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Filtering, Sorting & Navigation Controls

- These controls include:
  - List and drop-down list,
  - radial buttons,
  - check boxes,
  - toggle buttons,
  - push buttons,
  - iterators,
  - sliders.

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Variable Text Items

- Insert this control into the report layout to display the current value of an active report variable.

Region	#
Asia Pac	5
EMEA	6
North America	13

Number of Ineffective Control Records

Region	#
Asia Pac	13
EMEA	7
North America	8

Number of Effective Control Records

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ACTIVE REPORTS

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Row Number

- Use the row number control in a list container to ensure that rows are always numbered in sequentially, starting with '1', as the list is manipulated.

	○ Effective	● Ineffective	○ Not Determined		

Row Number	Row Number	Control	Classification	Type	Owner
22	1	Control 22346	Key Control Activity	Detective	ORM User
23	2	CTL-00-00-00-11	Key Control Activity	Detective	ORM User
24	3	CTL-04-03-03-11	Key Control Activity	Detective	ORM User

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CAUTION: Report Studio has two **Row Number** tools in the toolbox. Be sure to use only the Active Report Row Number tool, otherwise the row number displayed will be based upon the entire result set, not the filtered set being viewed in the active report.

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Repeater Table

- In an active report, **Repeater Tables** can be used to create custom buttons using images or text.

Closed	Open

Closed Issues	
IS_NAME00	IS_ISSUE_TYPE
Retail Banking_ISS_00059	Regulatory
CTL-41-158-015_ISS_00089	Review Comment

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Best practice is to use an enumerated string data type in the repeater table.

Deck Controls

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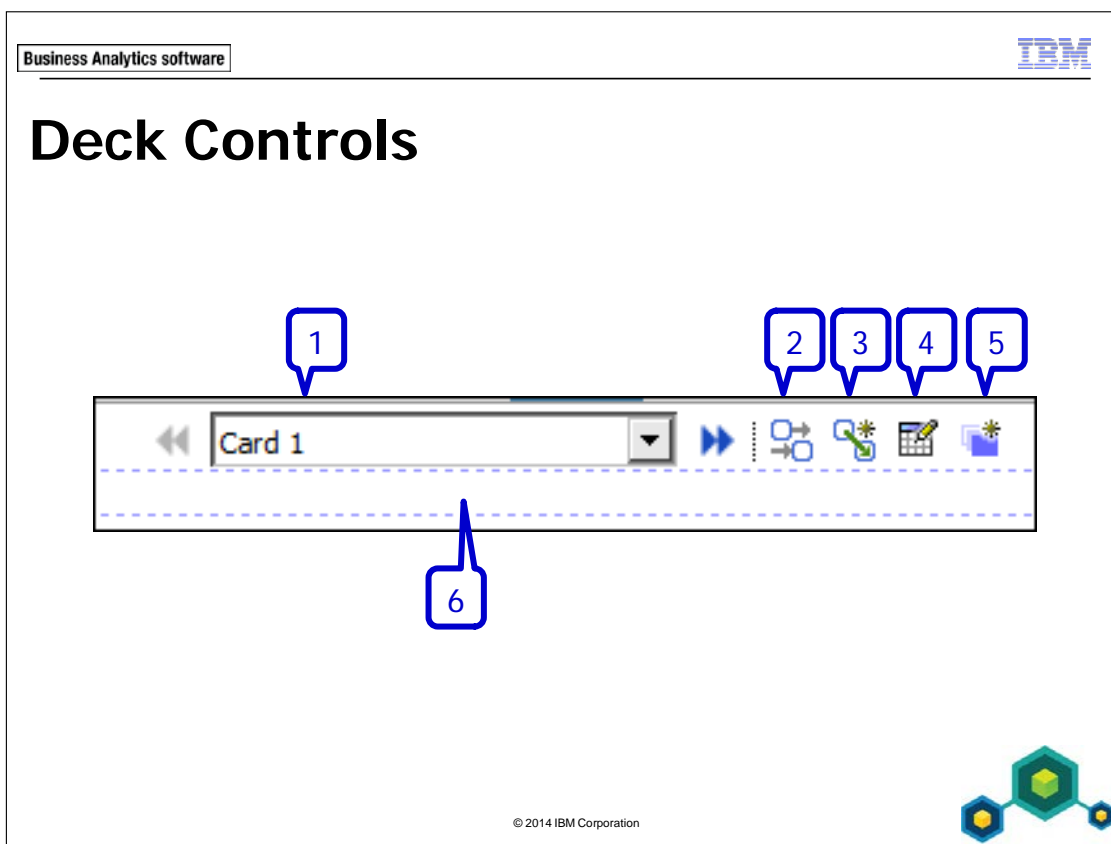
A **Deck** contains two or more cards. Each card is a self-contained report work area. There is nothing that lets a user select the cards in the deck when the user runs the report.

1. **Current Card**: Used to select a card for editing. The items on this row are not visible when the report is run. These are used for editing the deck only.

2. **Interactive Behavior**: Displays editable information about the connections to and from this deck.

3. **Create a New Connection**: Starts a wizard that is used to set up connections between controls.

4. **Deck Cards Definition**: Used to define card labels.

5. **New Card**: Can be used to add a new card to the deck. By default, the deck comes with three cards.

6. **Card**: This is the drop zone for the Current Card. You can add tables, report containers and decks to cards.

Using controls such as a button bar or radio button group, you can navigate from one card to the next in the report using the Label assigned to each card.

NOTE: Drill-through is not supported in active reports. However, creatively using decks and navigation controls, you can simulate drill-through actions.

There is also a **Data Deck** which automatically creates the number of cards needed based upon the values of a data item. For example, **Operating Effectiveness** could be used to automatically create three cards, one for each effectiveness option. You use one report container to create the desired report and the data deck will create the cards needed based upon the operating effectiveness options. Use another control to select the desired card.

The **Tab** is the only Active Report control that combines a deck and a selector in one control. It can be used to quickly create simple active reports. You still have the ability to incorporate the Tab control into a more complex active report due to the connections available.

There is also a **Data Tab Control** that uses a query item to control the tab options.

Button Bar Controls

- A single-select control using rectangular buttons.
- Similar to tab controls except there are no attached report workspaces.
- Can be used along with deck controls to provide a means of navigating between the cards in the deck.
- The report author controls the button bar options.

Button Label 1	Button Label 2	Button Label 3
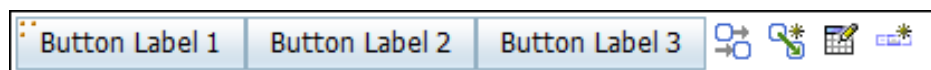
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There is also a **Data Button Bar** that uses a query item to control the button bar options.

Can be used with a report container control to change the data displayed based upon the button selected.

The icons to the right of the buttons are the same as those seen earlier in the Deck Controls slide. They do not appear when the report is run; they are for edit purposes only.

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Toggle Button Bar Controls

- A multi-select control using rectangular buttons.
- Similar to the button bar control in appearance.
- A button stays depressed (selected) until it is clicked a second time.
- Can be used to make multiple selections for filtering by clicking two or more buttons in succession.
  - Acts like a multi-select prompt.
- The report author controls the button bar options.

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There is also a **Data Toggle Button Bar** that uses a query item to control the button bar options.

For example, use the **Domain** query item to drive reports controlled by the data toggle button bar.

Radio Button Group Controls

- Another single-select control using a radio button instead of a rectangular button.
- The report author controls the radio button options.
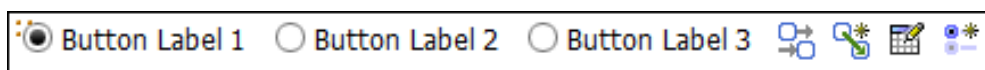
There is also a **Data Radio Button Group** that uses a query item to control the radio button options.

Business Analytics software   IBM

Check Box Group

- Another multi-select option using check boxes.
- The report author controls the check box options.

☑ Check Box Label 1   ☐ Check Box Label 2   ☐ Check Box Label 3
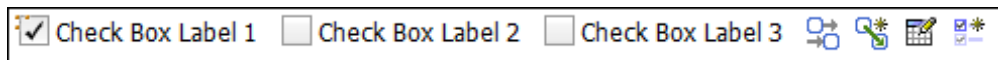
There is also a **Data Check Box Group** that uses a query item to control the check box options.

Business Analytics software   IBM

Drop-Down List Controls

- Another single-select option using a drop-down list.
- The report author controls the options in the list.

Item Label 1
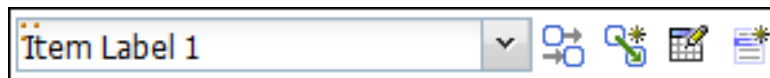
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There is also a **Data Drop-Down List** that uses a query item to control the options in the list.

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List Box Controls

- Another multi-select option using a list box.
- The report author controls the options in the list box.

Item Label 1
Item Label 2
Item Label 3
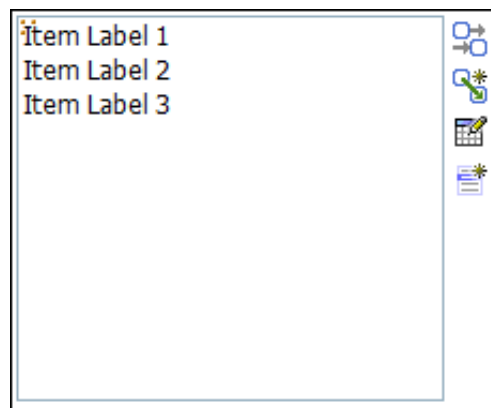
There is also a **Data List Box** that uses a query item to control the options in the list box.

Business Analytics software   IBM

Iterator

- Another single-select option that uses an iterator to display previous, next, first, and last options.
- There is also a drop-down list that can be used to make selections.
- The report author controls the options in the iterator.

| ⏮ ◁ | Value 1 | ▽ ▷ ⏭ ... |

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There is also a **Data Iterator** that uses a query item to control the options in the iterator.

Each of the five navigation components in the iterator can be hidden if desired. By default first and last are hidden.

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Discrete Values Slider

- Another single-select option that uses a slider to select discrete values.
    - Not a sliding scale, as in a volume control.
- The report author controls the discrete values in the slider.

| Effective | Ineffective | Not Determined |

Region	#
Asia Pac	5
EMEA	6
North America	13
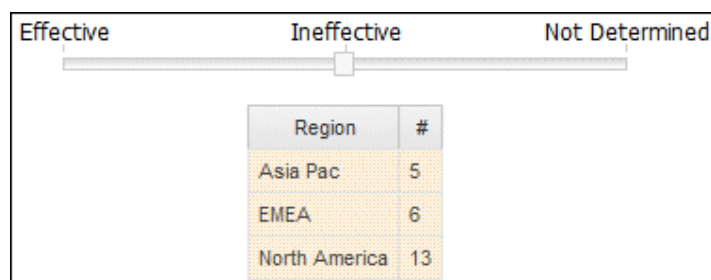
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There is also a **Data Iterator** that uses a query item to control the discrete values in the slider.
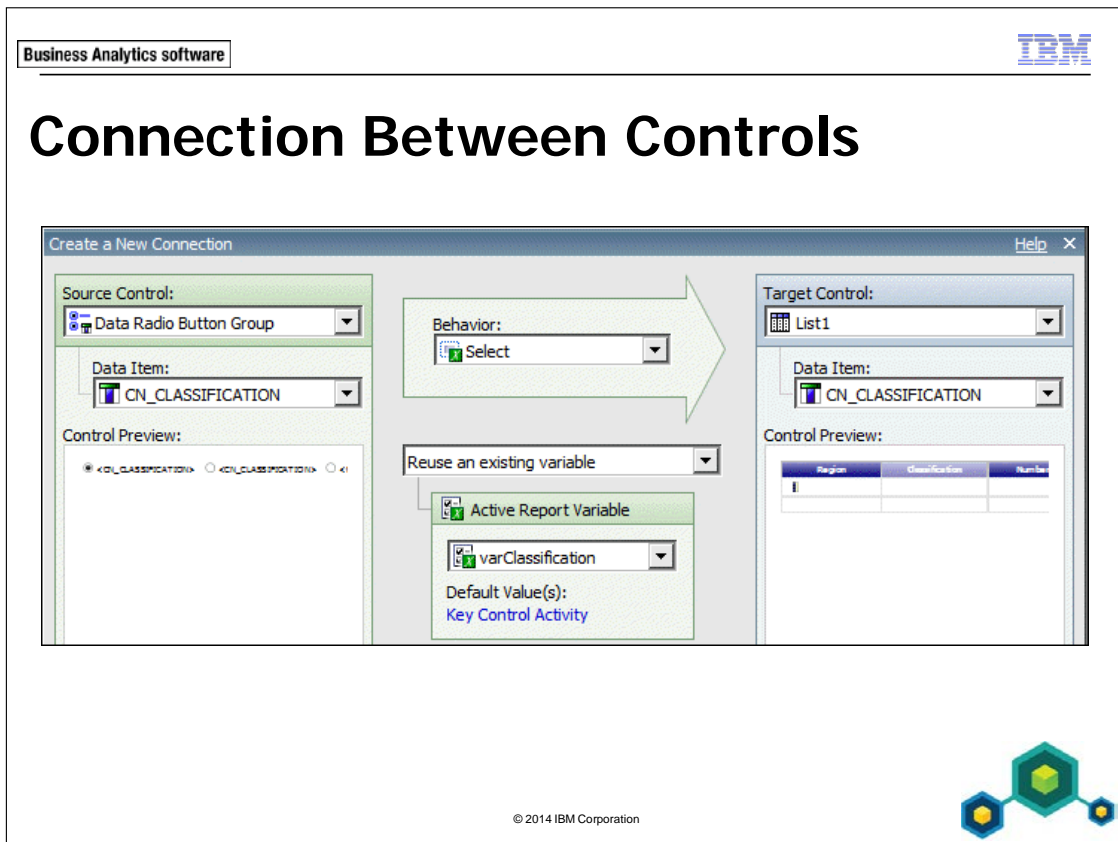
Before setting up connections between controls, make sure the two controls are of the same type.

- a **Data Deck** needs a data controller, for example **Data Button Bar,**
- a static **Deck** needs a static controller, for example **Button Bar**.

Interactive controls have the following options:

- Behavior on Selection,
- Reaction Behavior.

Behavior on Selection is used to set the state of an Active Report Variable when that control is selected. The following can be set in the Active Report Variable:

- data item values, typically from GRC Platform enums,
- static text, entered by the report author.

Reaction Behavior is used to configure how a control responds when the state of the Active Report Variable changes. There are three basic options:

- **Container Select**: Used to highlight data within a report, for example rows in a list container or columns in a chart,

- **Container Filter**: Used to reduce the result set. Think of it as a Detail Filter in any other Report Studio report.

- **Control Enable**: Used to conditionally enable or disable interaction with a control.

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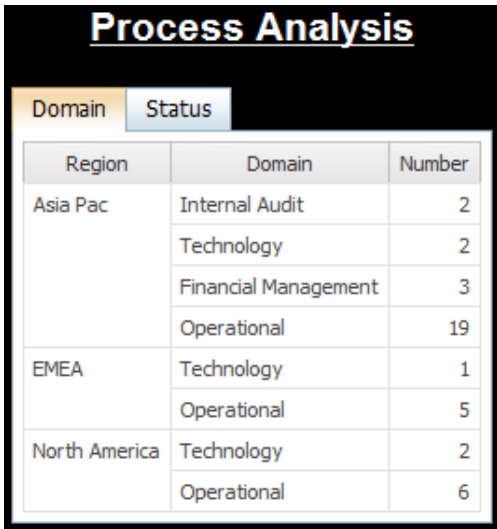
Static Controls

- Static controls are those connections that the report author specifies with static text or icons.

- For example, a button bar control has three buttons:

  - List, Crosstab, Pie Chart.

- The report author specifies the text for each button and then using connections, defines the reaction behavior when one of the buttons is clicked.

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Demo 1

Static Control Report

Process Analysis

Domain	Status		

Region	Domain	Number
Asia Pac	Internal Audit	2
	Technology	2
	Financial Management	3
	Operational	19
EMEA	Technology	1
	Operational	5
North America	Technology	2
	Operational	6

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This activity demonstrates how to create an active report in which a tab is used to select a report from a deck.

You will use the following:

- tab control,

- two independent list reports,

- a table for formatting purposes.

- NOTE: For all of the demonstrations, you will use the **Blank Active Report** template in Report Studio.

- **IMPORTANT**

Before starting your first demo, you must prepare the IBM eLabs. Refer to the PDF file, *Preparing For a Demo* which can be downloaded from the **Materials** tab of the eLabs launch site.

Demo 1: Static Control Report

Purpose:
You will learn to create a static control report using the Tab control.

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Report Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Prepare the report page.

1. In Report Studio, start with a new **Blank Active Report**.
2. Select the **Page Body** and center it.
3. From the toolbox, add a **Table**:

- **Columns**: 1,

- **Rows**: 3.

4. Select all three table cells (use CTRL- or SHIFT-click) and set **Horizontal Alignment** to **Center**.
5. Click one of the table cells and in the ancestor selector, select **Table**:

- **Name**: Static Control Table.

6. In the top table cell, add **Text Item** and type **Process Analysis**.
7. Select the Text Item and format it bold, 16pt, and underline.
8. Select the middle table cell and open **Size & Overflow**:

- **Height**: 20px.

9. Save the report as **19-Static Control** in **My Folders**.

Task 2. Add Tab control.

1. From the toolbox, add a **Tab Control** to the bottom table cell.

2. Click **Tabs Definition**:

- **Label 1**: Domain,

- **Label 2**: Status,

- delete **Label 3**.

3. Click **OK**.

4. Click the **Domain** tab and in the ancestor selector, select **Tab Control**:

- **Size**:

  - clear the number,

  - click **OK**.

- **Name**: Process Tab.

5. Save the changes.

Task 3. Add Domain list container.

1. Click **Domain** in the Tab control.

2. From the toolbox, add a **List** to the Domain tab card:

- **Name**: Process Domain List,

- **Query Name**: Domain List Query,

- click **OK**.

3. Slide open the Query Explorer and select Domain List Query.

4. In the Source tab of the content pane, Expand DEFAULT_REL > GRC_OBJECTCS > SOXBUSENTITY_FOLDER > GLOB_FIN_SERVICES > 2_REGION_FOLDER > REGION > ID_FIELDS.

5. Add the following query items to the Data Items pane:

- REGION_REPORTING_PERIOD_ID,

- REGION_NAME00.

6. From the Data Items pane, drag REGION_REPORTING_PERIOD_ID into the **Detail Filters** pane.

7. Place the cursor at the end of the expression and type **=-1**.

    The results appear as follows:

    ```
    [REGION_REPORTING_PERIOD_ID]=-1
    ```

8. In the Source content pane, expand GRC_OBJECTS > SOXPROCESS > ID_FIELDS.

9. Also expand SOXPROCESS > ENUMERATION_FIELDS > DOMAIN (ENUMERATION):

10. Add the following query items to Data Items:

- PR_DOMAIN,

- PR_PROCESS_ID.

11. From Data Items, drag PR_PROCESS_ID into the **Detail Filters** pane.

12. Place the cursor at the end of the expression and type **is not null**.

    The results appear as follows:

    ```
    [PR_PROCESS_ID] is not null
    ```

13. In Data Items, click **PR_PROCESS_ID**:

- **Label**: Number,

- **Aggregate Function**: Count,

- **Rollup Aggregate Function**: Automatic.

14. In Data Items, click **PR_DOMAIN**:

- **Label**: Domain.

15. In Data Items, click **REGION_NAME00**:

- **Label**: Region.

16. Slide open the **Page Explorer** and select Report Pages **Page1**.

17. From the **Data Items** tab of the content page, add the following to the Domain list container:

- REGION_NAME00,

- PR_DOMAIN,

- PR_PROCESS_ID.

18. Click on the white detail cells of the **Region** column (ancestor selector will display **List Column Body**).

19. In the toolbar, click **Group / Ungroup**.

20. Click on the white detail cells of the **Number** column (ancestor selector will display **List Column Body**).

21. In the toolbar, open the **Sort** menu and select **Ascending**.

    The results appear as follows:

Region	Domain	Number △		
<REGION_NAME00>	<PR_DOMAIN>	<PR_PROCESS_ID>		
<REGION_NAME00>	<PR_DOMAIN>	<PR_PROCESS_ID>		

22. Save the changes.

Task 4. Add Status list container.

In this task you will copy the Domain list container, paste it into the Status tab card, add a new query, associate the Status list container to the new query and make some minor changes to make the report run correctly.

1. Click any column in the Domain list container and in the ancestor selector, select **List**.

2. **Copy** the list.

3. Click **Status** in the Process Tab.

4. In the Status tab card, **Paste** the list.

5. Click the list container and in ancestor selector, select **List**:

- **Name**: Process Status List.

6. Open **Query Explorer** and select the **Queries** folder.

7. Click on **Domain List Query** and **Copy**.

8. Right-click in the work area and select **Paste**.

9. Select **Domain List Query1** and in the properties pane, change **Name** to **Status List Query**.

10. Open Status List Query.

11. Delete **PR_DOMAIN**.

12. In the Source content pane, expand ENUMERATION_FIELDS > STATUS (ENUMERATION).

13. Add **PR_STATUS** to Data Items.

14. Click PR_STATUS and change the Label property to **Status**.

15. Return to the report work area by opening Page Explorer and selecting Report Pages **Page1**.

16. Confirm **Status** is selected in the Tab control.

17. Click any column in the list container and in ancestor selector, select **List**:

- **Query**: Status List Query.

18. Click the top table cell to de-select the list container.

19. Right-click the PR_DOMAIN column and select **Cut**.

20. From the Data Items content pane, Status List Query, add PR_STATUS between the two columns in the list container.

    The results appear as follows:

Region	Status	Number △		
<REGION_NAME00>	<PR_STATUS>	<PR_PROCESS_ID>		
<REGION_NAME00>	<PR_STATUS>	<PR_PROCESS_ID>		

21. Save the changes.

Task 5. Format the report and test.

1.   In the top table cell, select the Text Item **Process Analysis**:

- **Foreground Color**: White.

2.   Click on the report work area and in the ancestor selector, select **Page Body**:

- **Background Color**: Black.

3.   Run the report and observe the following:

- title can be read,

- Domain is the default report,

- Region is grouped and looks similar to the example on the Demo 1 slide,

- click **Status**,

- the report changes to a new report.

4.   Close Cognos Viewer.

5.   Save the changes.

Result: **You have created a static control report using the Tab control.**

Business Analytics software   IBM

Data-Driven Controls

- Data-driven controls are those connections that are automatically determined by a data item from the GRC Platform generated framework model.

- Typical data items used in data-driven controls include:

  - enumerations,

  - entity recursive object levels,

  - date dimensions (in _DIM namespaces only).

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Demo 2

Data-Driven Control Report

Control Classifications by Region

◉ Key Control Activity   ○ Not Determined   ○ Standard Control Activity

Key Control Activity

Region	Number
Asia Pac	14
EMEA	6
North America	10
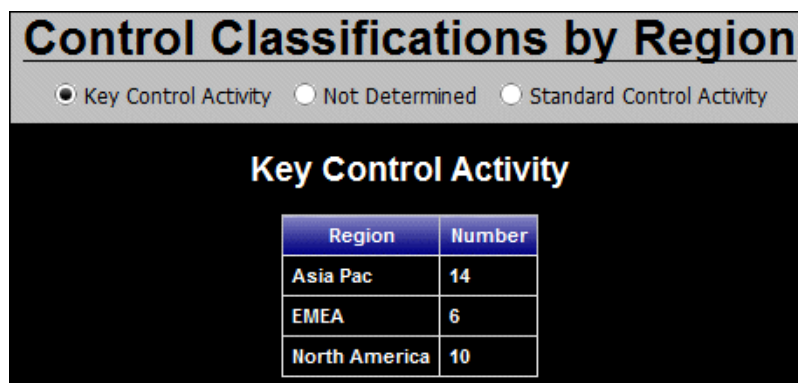
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This activity demonstrates how to create an active report in which a radio button group is used to filter data within a list report.

You will use the following:

- a table for formatting purposes,

- data button bar control,

- a single list report,

- variable text item to display the selected button.

Demo 2: Data-Driven Control Report

Purpose:
You will learn to create an active report using data-driven controls. In addition, you will learn some additional formatting to make the reports more pleasing to view, some intended for use with Apple iPad active reports.

Portal:	**http://optrainvm/ibmcognos**
User/Password:	**reportauthor/reportauthor**
Studio:	**Report Studio**
Package:	**OPENPAGES_REPORTS_V6**

Task 1. Prepare the report page.

1. In Report Studio, start with a new **Blank Active Report** template.
2. Click in the work area and in the ancestor selector, select **Page**.
3. Set the **Horizontal Alignment** property to **Center**.
4. Open the **Size & Overflow** property:

- **Width**: 1024px,

- **Height**: 704px,

- click **OK**.

5. Click in the work area again and confirm the ancestor selector is set to **Page Body**.
6. Set the **Horizontal Alignment** property to **Center**.
7. Open the **Padding** property, set all four margins to zero pixels and click **OK**.
8. From the toolbox, add a **Table** to the work area:

- **Columns**: 1,

- **Rows**: 4,

- click OK.

9.   Using SHIFT-click or CTRL-click, select all four table cells:

- **Padding**: 0px for all margins,

- **Horizontal Alignment**: Center.

10. Click one table cell and in the ancestor selector select **Table**.

11. Change the **Name** property to **Report Table**.

12. Click R1C1:

- **Padding**: bottom 7px; all others 0px,

- **Background Color**: Silver.

13. From the toolbox, add a **Text Item** to the top table cell and type **Control Classifications by Region**.

14. Select the Text Item and format bold, 20pt, and underline.

15. Click R2C1:

- **Padding**: bottom, 7px; all others, 0px,

- **Background Color**: Silver.

16. Click R3C1:

- **Padding**: top 15px; all others 0px.

17. Click R4C1:

- **Padding**: top 15px; bottom 20px; 0px for left and right margins.

18. Save the report as 19-Data Driven Control in My Folders.

Task 2. Add data-driven controls.

In this task, when you add a data-driven control, a query is also added. In this demonstration both the control and the list container will share the same query.

1. From the toolbox, add a **Data Radio Button Group** to R2C1.
2. Click the **Icon** field and in the ancestor selector, select **Data Radio Button Group**:

- **Name**: Classifications Data Radio Buttons.

3. Open query explorer and select **Query1**:

- **Name**: Radio Buttons and List.

4. In the Source content pane, use the DEFAULT_REL namespace and navigate to the **GLOB_FIN_SERVICES** folder.
5. From the **2_REGION_FOLDER** add the following to Data Items:

- REGION_REPORTING_PERIOD_ID,

- REGION_NAME00.

6. Expand GRC_OBJECTS > SOXCONTROL > ID_FIELDS.
7. Also expand SOXCONTROL > ENUMERATION_FIELDS > CLASSIFICATION (ENUMERATIONS).
8. Add the following to Data Items:

- CN_CLASSIFICATION,

- CN_CONTROL_ID.

9. From Data Items, drag REGION_REPORTING_PERIOD_ID into **Detail Filters**.
10. Place the cursor at the end of the expression and type **=-1**.
11. From Data Items, drag CN_CONTROL_ID into **Detail Filters**.
12. Place the cursor at the end of the expression and type **is not null**.
13. Click REGION_NAME00 and change the Label property to **Region**.
14. Click CN_CLASSIFICATION and change the Label property to **Classification**.
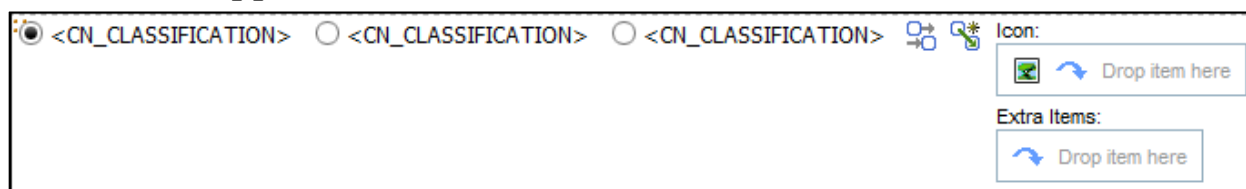
15. Click on CN_CONTROL_ID:

- **Label**: Number,

- **Aggregate Function**: Count,

- **Rollup Aggregate Function**: Automatic.

16. Return to the report work area (Report Pages, **Page1**).
17. Click the **Data Items** tab in the content area.
18. From Data Items, drag CN_CLASSIFICATION into the radio button drop zone.

    The results appear as follows:

19. Save the changes.

Task 3. Add a list container.

In this task you are adding a list container that will show the number of controls for a selected Classification for each entity region. You need to include the CN_CLASSIFICATION data item in the list report because it is the link to the radio button control. However, you do not want to show the Classification column when the report is run.
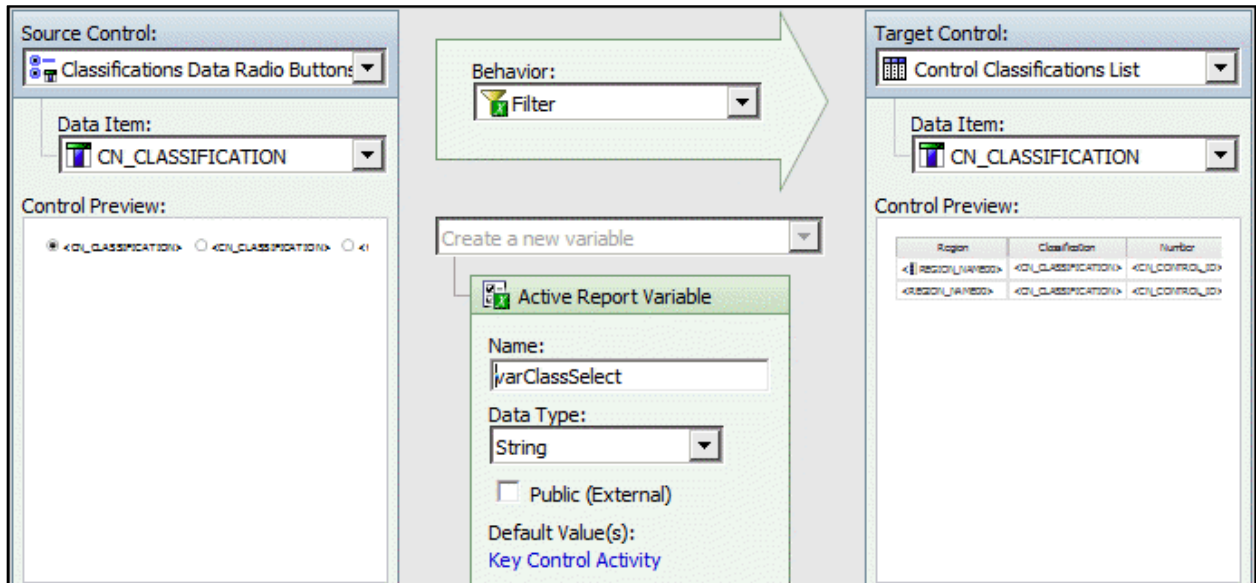
1. From the toolbox, add a **List** to R4C1:

- **Name**: Control Classifications List,
- **Query Name**: select the existing **Radio Buttons and List** query,

- click **OK**.

2. From the Data Items content area, add the following to the list container:

- REGION_NAME00,
- CN_CLASSIFICATION,
- CN_CONTROL_ID.

3. Select the List Column Body for **Region** and in the tool bar, click **Group / Ungroup**.
4. Save the changes.

Task 4. Add control connections.

In this task you will add the connection between the radio buttons and the list container. The **Source** control will set a filter on the **Target** control.

1. In the radio buttons group, click **Create a New Connection**:

- **Source Control**: Classifications Data Radio Buttons,

- **Behavior**: Filter,

- **Target Control**: Control Classification List,

- **Data Item**: CN_CLASSIFICATION for both controls,

- **Active Report Variable**: varClassSelect,

- **Default Value**: Key Control Activity.

    The results appear as follows:

2. Click **Connect**.
3. From the toolbox, add **Variable Text Item** to R3C1.
4. Select the Variable Text Item and format it bold, 14pt.
5. Save the changes.

6. Run the report and review:

- the default radio button selection is **Key Control Activity**,

- the Variable Text Item displays **Key Control Activity**,

- click **Not Determined** and then **Standard Control Activity**,

- the text item and report display change accordingly,

- the report components are centered and display as expected.

7. Close Cognos Viewer.

Task 5. Final formatting and test.

In this task you format the report to run with a black background. Text will need to be white to display well. In addition, since the radio button selection is displayed prominently by the variable text item, there is no need to display the Classification column, but it needs to remain in the list container for the report to run correctly.

1. Click R2C1:

- **Background Color**: confirm Silver is selected.

2. In R3C1, select the variable text item:

- **Foreground Color**: White.

3. In the list container, click the CN_CLASSIFICATION column (ancestor selector displays **List Column Body**).

4. In the ancestor selector, select **List Column**:

- **Column Visibility**: Hidden.

5. In the list container, click the **Region** column title (ancestor selector displays **List Column Title**).

6. In the ancestor selector, select **List Columns Title Style**:

- **Background Color:** Navy,

- **Foreground Color**: White,

- **Font**: Bold.

7. In the list container, click any column to select List Column Body.

8. In the ancestor selector, select **List Columns Body Style**:

- **Foreground Color**: White,

- **Font**: Bold.

9. Click the report work area and confirm ancestor selector displays **Page Body**:

- **Background Color**: Black.

10. Save the changes.

11. Run the report and confirm all report components are centered, visible and easy to read.

12. Close Cognos Viewer.

Result:
You created a data-driven controls active report with some formatting suitable for iPad off-line active reports.

Business Analytics software   IBM

Formatting for Apple iPad Tablet

- Page Body:
    - Height: 704 px,
    - Width: 1024 px,
    - Padding: all margins 0 px.
- Size of touch regions should be a minimum of 44 px.
- Maximum .MHT file size 5-10 MB for best response time.
- Enable swipe gesture on deck controls.
    - Instruct users to use two-finger swipe.

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Some methods to keep file size down:

- minimize number of charts,

- reuse Active Report Variables,

- push calculations and aggregations to the package if possible,

- use Layout Component References from within the active report,

- define and use Classes to format various controls, such as buttons.

iPad users need to download the free **IBM Cognos Mobile** app to view active reports.

To distribute the active report to tablets, send an email with the .MHT attached. The recipient then opens with IBM Cognos Mobile.

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Layout Planning-Outer Frame

1

2

3

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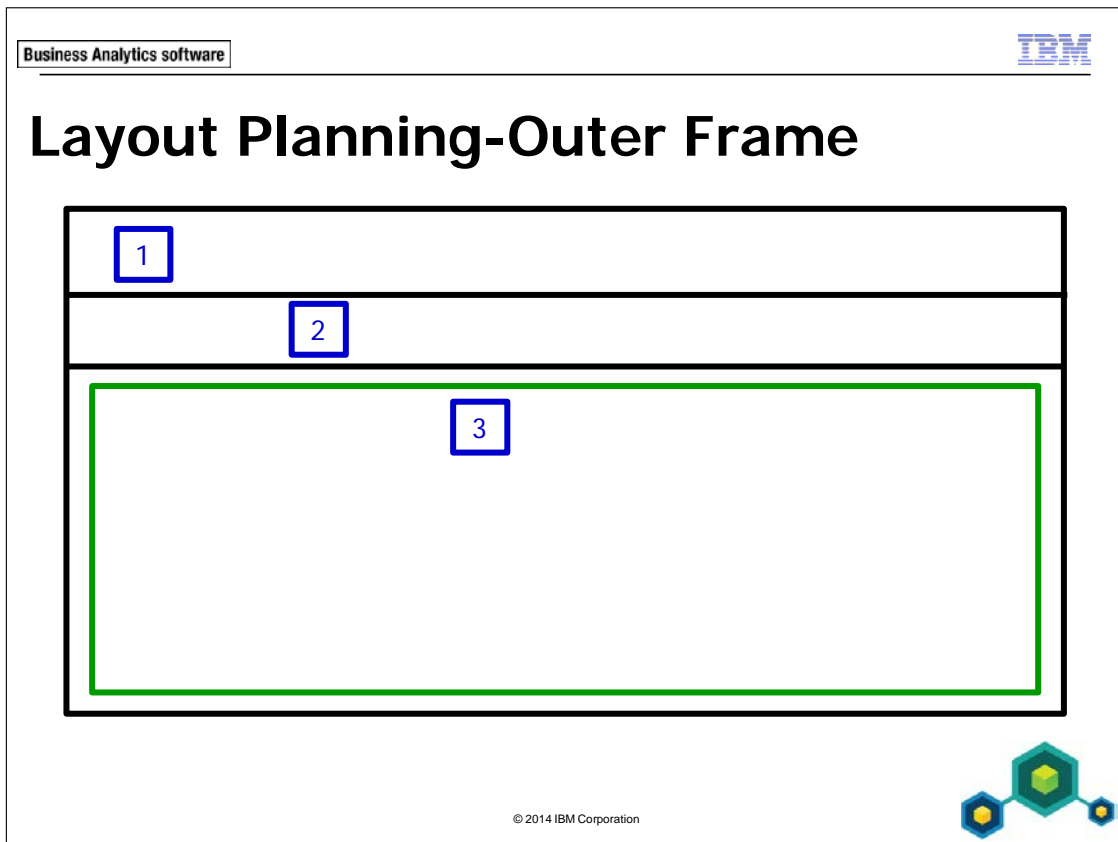
During the next three demonstrations you will be nesting tables or blocks within other tables. To help visualize the structure, start with the outer frame as illustrated here. It will be a table of one column and three rows:

1. This table cell will contain the company logo, report title, and the main button bar controlling the deck in table cell 3.

2. This table cell will be formatted to display a white line to add visual appeal.

3. This table cell will contain a deck that is driven by the button bar in table cell 1.

• One card will contain Issue summary reports.

• The second card will contain Region summary reports

The formatting of this layout will support Apple iPad use.

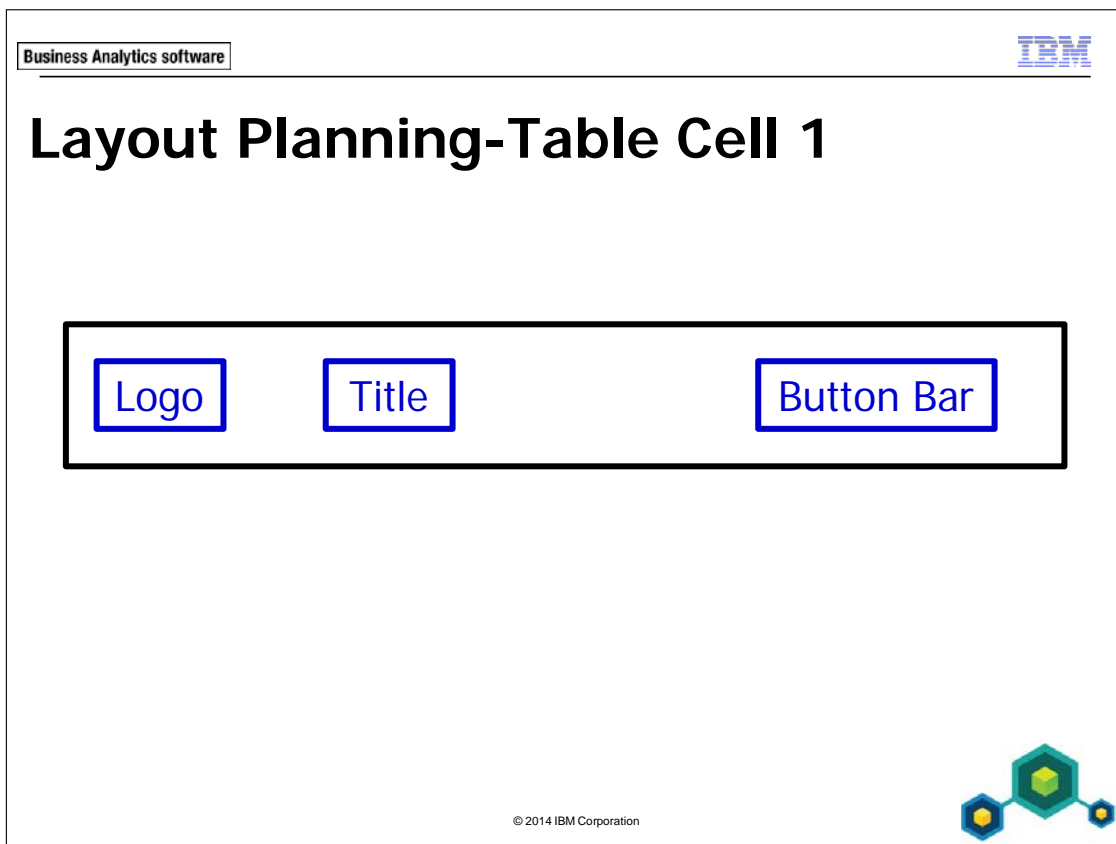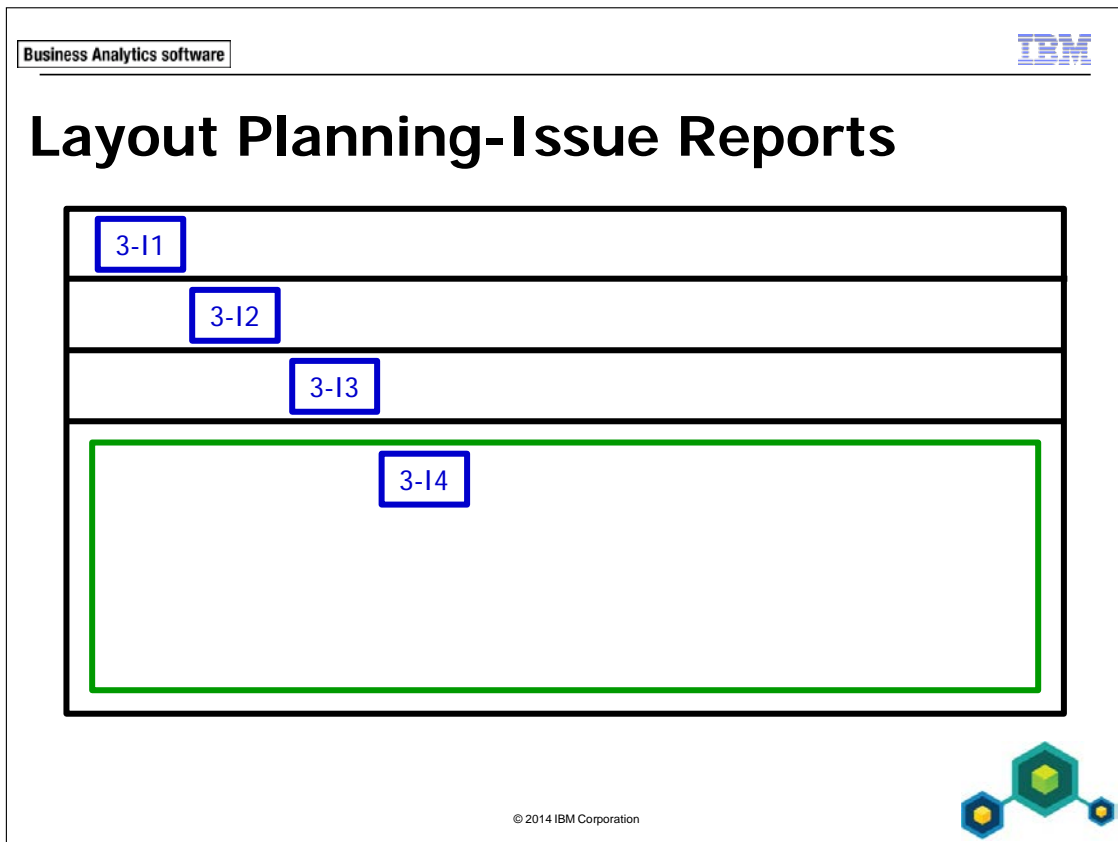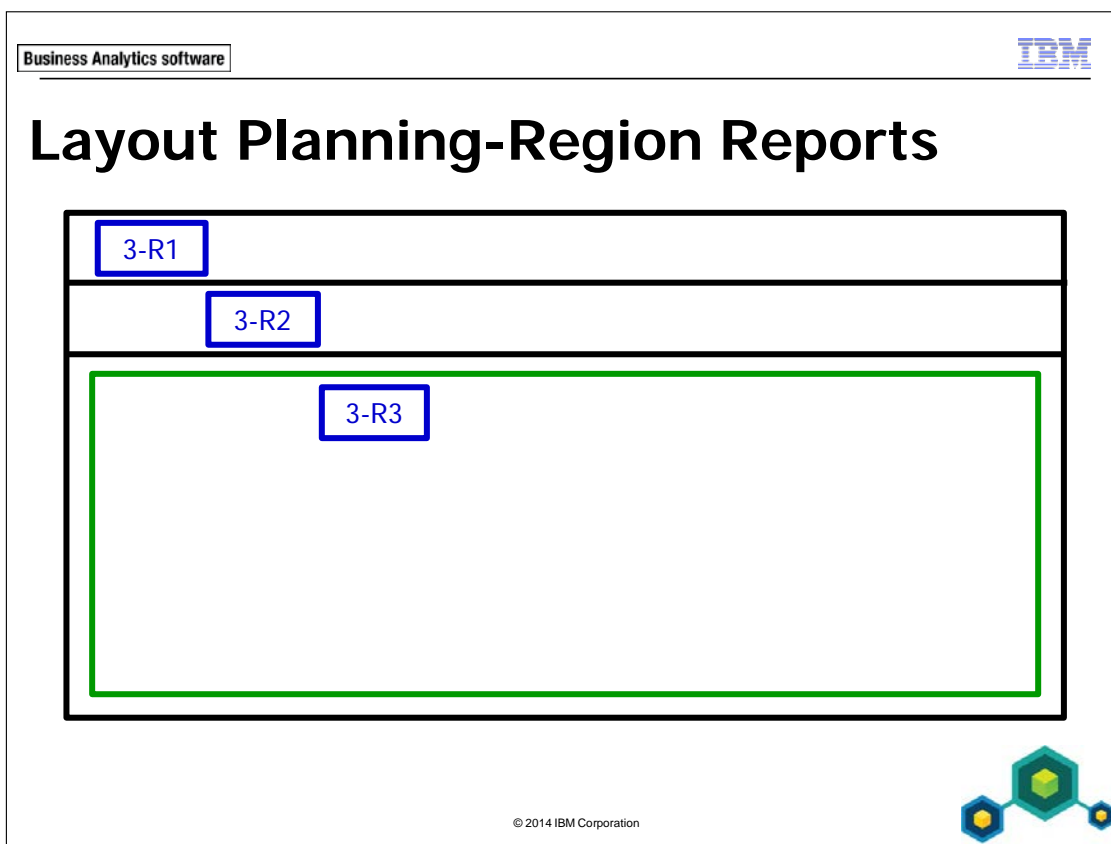Business Analytics software   IBM

Layout Planning-Table Cell 1

| Logo | | Title | | Button Bar |

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Table cell 1 will be laid out in this manner. The button bar will control the deck on table cell 3.

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Layout Planning-Issue Reports

3-I1

3-I2

3-I3

3-I4

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When the Issue Reports button is selected, the card in outer table cell 3 will contain a table with 4 rows and one column:

1. This table cell will contain the button bar controlling the deck in table cell I3.

2. This table cell will be formatted to display a white line to add visual appeal.

3. This table cell will contain text identifying what summary report is being displayed in cell I4.

4. This table cell will contain the deck controlled by the button bar in table cell I1.

- One card will contain an Issue Domain report.

- One card will contain an Issue Type report.

- One card will contain an Issue Priority report.

Each of the cards will contain a table. The reason for nesting tables and controls is due to the inability to format many controls. In order to maintain some formatting, for example centering the report on the page, you will use tables and format the table cells to meet the requirements.

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Layout Planning-Region Reports

3-R1

3-R2
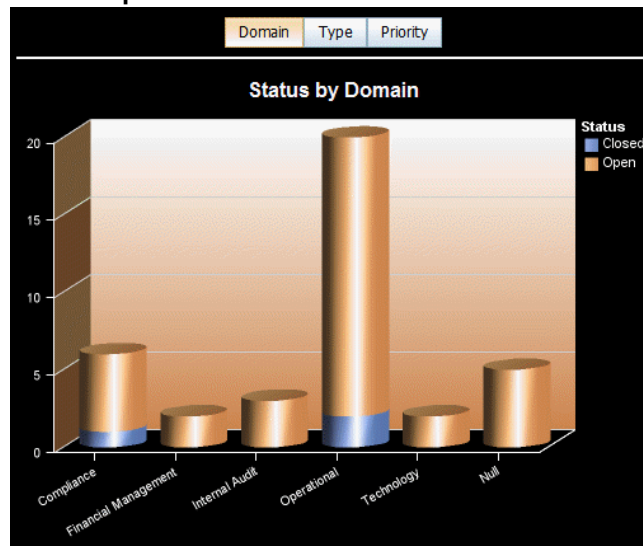
3-R3

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When the Region Reports button is selected, the card in outer table cell 3 will contain a table with three rows and one column:

1. This table cell will contain a button bar letting the user select Process or Control summary reports which will appear in table cell 3.

2. This table cell will be formatted to display a white line to add visual appeal.

3. This table cell will contain a deck controlled by the button bar in table cell 1.

- One card will contain Process Summaries with nested tables and controls,

- A second card will contain Control Summaries with nested tables and controls.

This report is a much more advanced report and the entire report will take you some time to create. It has been divided between two demonstrations. After completing them one of the report options will intentionally be left blank. You can add additional reports if you want to test your newly learned skills.

This demonstration will setup the outer frame and add the Issue summary reports.

Demo 3: Part 1: Issue Reports

Purpose:
Create an active report suitable for use on an Apple iPad. In this first of three demonstrations you will setup the outer report frame and add the Issues report frame which will have three chart reports.

Portal:	**http://optrainvm/ibmcognos**
User/Password:	**reportauthor/reportauthor**
Studio:	**Report Studio**
Package:	**OPENPAGES_REPORTS_V6**

Task 1. Prepare the outer reporting frame.

In this task you will format the work area so the finished active report will fit in an iPad screen.

1. In Report Studio, start with a new **Blank Active Report** template.
2. Click in the work area and in the ancestor selector, select **Page**.
3. Set the **Horizontal Alignment** property to **Center**.
4. Open the **Size & Overflow** property:

- **Width**: 1024px,

- **Height**: 704px,

- click **OK**.

5. Click in the work area again and confirm the ancestor selector is set to **Page Body**.
6. Set the **Horizontal Alignment** property to **Center**.
7. Open the **Padding** property, set all four margins to zero pixels and click **OK**.
8. From the toolbox, add a **Table** to the work area:

- **Columns**: 1,

- **Rows**: 3,

- click **OK**.

9. Click one table cell and in the ancestor selector select **Table**.
10. Change the **Name** property to **Outer Report Frame**.
11. Select the middle table cell:

- **Padding**: all margins set to zero pixels,

- **Background Color**: White,

- **Size & Overflow**: Height, 2px.

Task 2. Prepare the top table cell of the Outer Report Frame.

1. Add a table to the top table cell of the Outer Report Frame:

- **Columns**: 3,

- **Rows**: 2,

- click **OK**.

2. Click one table cell and in the ancestor selector select **Table**.
3. Change the following properties:

- **Name**: Report Header Table,

- **Background Color**: custom color

    - **Red**: 66,

    - **Green**: cc,

    - **Blue**: ff.

4. Select the three cells in the bottom row and click **Merge Cells**.

- Use **CTRL-click** to select the three cells.

5. Select the merged table cell and set the following properties:

- **Padding**: 0px for all margins,

- **Size & Overflow**: Height, 7px.

6. Click the top left table cell of the Report Header Table and set the following properties:

- **Padding**: 0px for all margins,

- **Horizontal Alignment**: Center,

- **Vertical Alignment**: Middle,

- **Size & Overflow**:

    - **Height**: 40px,

    - **Width**: 200px.

7. From the toolbox, add the **Image** tool to the top left table cell.
8. Click the Image tool and in the properties pane, under URL Source, open the **URL** property.
9. Type **../skins/branding/** and click **Browse**.
10. Expand **rev > branding**, click **IBM_logo_87x30.png** and click **OK**.
11. Click the top center table cell of the Report Header Table and set the following properties:

- **Padding**: 0px for all margins,

- **Horizontal Alignment**: Center,

- **Vertical Alignment**: Middle.

12. From the toolbox, add a **Text Item** to the top center table cell of the Report Header Table.
13. Type **Risk Management Summaries** and click **OK**.
14. Select the text item and format 16pt and bold.

15. Select the top right table cell of the Report Header Table and set the following properties:

- **Padding**: 0px for all margins,

- **Horizontal Alignment**: Center,

- **Vertical Alignment**: Middle,

- **Size & Overflow**:

    - **Height**: 40px,

    - **Width**: 200px.

16. From the toolbox, add **Button Bar** to the top right table cell of the Report Header Table.

17. Click **Buttons Definition**:

- change the top Label to **Issues**,

- change the second Label to **Regions**,

- delete the third Label.

    The results appear as follows:
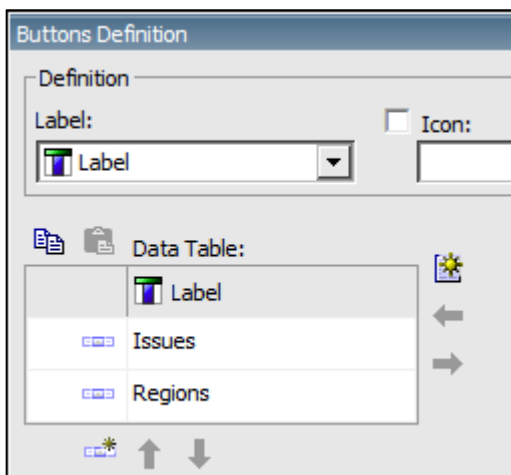
18. Select the button bar and confirm ancestor selector is displaying **Button Bar**.

19. Change the **Name** property to **Main Report Button Bar**.

20. Save the report as **19-Tablet Active Report** in **My Folders**.

    The results appear as follows:

Task 3. Prepare the bottom table cell of the Outer Report Frame.

1. Select the bottom table cell of the Outer Report Frame and set the following properties:

- **Padding**: 0px for all margins,

- **Horizontal Alignment**: Center.

2. From the toolbox, add **Deck** to the bottom table cell of the Outer Report Frame.

3. Click **Deck Cards Definition**:

- **Label 1**: Issues,

- **Label 2**: Regions,

- delete the third Label,

- click **OK**.

   The results appear as follows:

4. Click in the Card cell (below the drop-down selector).

5. In the ancestor selector select **Deck**.

6. Change the name to **Main Report Deck.**

7. In the Deck selector, confirm **Issues** is selected because you are going to work in the Issues deck card for the remainder of this demonstration.

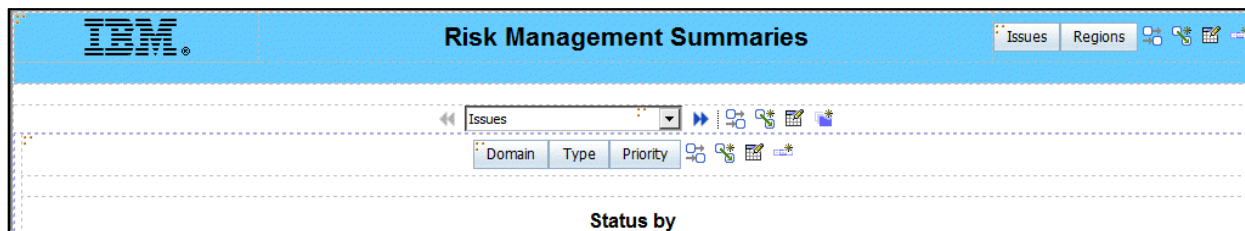   The results appear as follows:

8. Add a **Table** to the card cell:

- **Columns**: 1,

- **Rows**: 4.

9. Click one table cell and in the ancestor selector select **Table**.
10. Change the name to **Issues Table**.
11. Select the four table cells (use **CTRL-click**):

- **Padding**: 0px in all margins,

- **Horizontal Alignment**: Center.

12. Save the changes.

Task 4. Populate the top Issues Table cells.

1. Select the top cell in the Issues Table:

- **Size & Overflow**: height, 35px

2. Add **Button Bar** to the top cell in the Issues Table and click **Buttons Definition**:

- **Label 1**: Domain,

- **Label 2**: Type,

- **Label 3**: Priority.

3. Select **Button Bar** and change the name to **Issues Button Bar**.
4. Select the second cell in the Issues Table:

- **Background Color**: white,

- **Size & Overflow**: height, 2px.

5. Select the third cell in the Issues Table:

- **Padding**: top, 10px,

- **Size & Overflow**: height, 20px.

6. In the third cell, add **Text Item** and type **Status by** followed by a space.
7. Select the text item and format bold and 12pt.
8. Save the changes.

The results appear as follows:

Task 5. Configure Issues deck.

1. Add a **Deck** to the fourth cell in the Issues Table.

2. Click Deck Cards Definition:

- **Label 1**: Domain,
- **Label 2**: Type,
- **Label 3**: Priority.

3. Click the Card cell, just below the drop-down selector, and in the ancestor selector select **Deck**.

4. Change the **Name** property to **Issues Report Deck**.

5. Confirm **Domain** is selected in the drop-down card selector.

The results appear as follows:
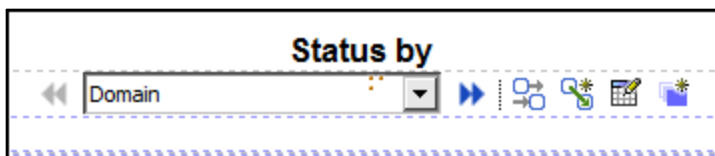
6. Add a **Table** to the Card cell:

- **Columns**: 1,

- **Rows**: 1.

7. Select the table cell and center it.

8. Select **Table** in the ancestor selector and change the name to **Domain Chart Table**.

9. From the toolbox, add a Chart to the cell in the Domain Chart Table

10. Select **Stacked Cylinder with 3-D Effects**.

11. Select the Combination Chart (confirm in ancestor selector).

12. Change the name to **Issues Domain Chart**.

13. Navigate to the chart's Query1 and change the name to **Issue Chart**.

14. Save the changes.

Task 6. Populate chart query.

Even though there are three cards with a chart, all charts will share the same query so you only need to work with this one query.

1. In the **Source** tab, expand DEFAULT_REL > GRC_OBJECTS_STANDALONE > SOXISSUE > ID_FIELDS.

- Also expand ENUMERATION_FIELDS.

2. Populate the query:
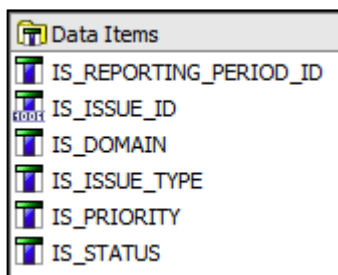
3. Change the **Label** property as follows:

- **IS_DOMAIN**: Domain,

- **IS_ISSUE_TYPE**: Type,

- **IS_PRIORITY**: Priority,

- **IS_STATUS**: Status.

4. Change the following properties for **IS_ISSUE_ID**:

- **Aggregate Function**: Count,

- **Rollup Aggregate Function**: Automatic.

5. Add the following detail filter:
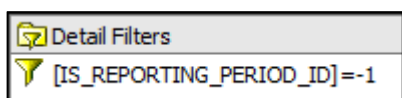
Task 7. Populate and format chart container.

To make less work, you will populate and fully format the Domain chart report and then copy and paste into the two remaining deck cards. NOTE: The final report will have a black background, which means text and grid lines will need to be formatted white.

1. Navigate to report pages **Page1**.
2. From **Data Items**, populate the following:

- **Categories**: IS_DOMAIN,

- **Series**: IS_STATUS,

- **Default measure**: IS_ISSUE_ID.

3. Select **IS_DOMAIN** in the Categories field and confirm **Chart Node Member** is selected in the ancestor selector.
4. Open the **Data Format** property:

- **Format type**: Text,

- **Missing Value Characters**: Null,

    - Some Issue records may not have the Domain field set which will cause an unlabeled column to appear in the report. This will add the label **Null** to these columns.

- click **OK**.

5. Select **IS_STATUS** in the Series field and confirm **Chart Node Member** is selected in the ancestor selector.
6. Sort ascending.
7. Open the ancestor selector and select **Bar**.
8. Change the **Borders** property to **Hide** (this removes the black lines around the columns).
9. In the ancestor selector select **Primary Axis** and note the vertical axis on the chart is selected.
10. Open the **Axis Line** property and change the color to white**.**

11. Open the **Gridlines** property:

- in the **First color band** pane, click **Color**,

- click the **Custom Color** tab:

    - **Red**: cd,

    - **Green**: 85,

    - **Blue**: 4e,

    - click **OK**.

- in the Second color band pane, click Color,

- click the Custom Color tab:

    - **Red**: e3,

    - **Green**: ae,

    - **Blue**: 6c,

    - click **OK**.

- click **OK**.

    The results appear as follows:
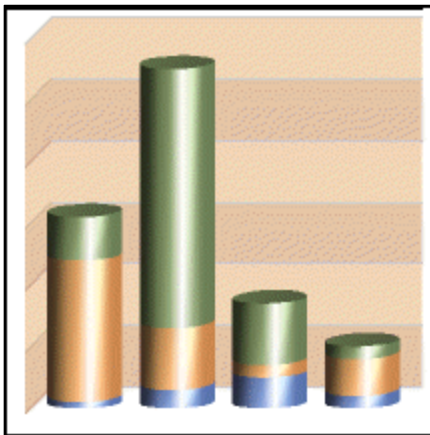
12. Select the **Combination Chart** by clicking on the chart.

13. Change the following properties:

- **Foreground Color**: White,

- **Material Effects**: Semigloss.

14. Open the Plot Area Fill property under Color & Background:

- select **Linear Gradient** fill type,

- select the top color in the **Colors** pane (marked with a zero),

- click the word **Color**,

- select **Custom Color** tab,

    - **Red**: cd,

    - **Green**: 85,

    - **Blue**: 4e,

- set **Angle** to 90 degrees,

- click **OK**.

    The results appear as follows:
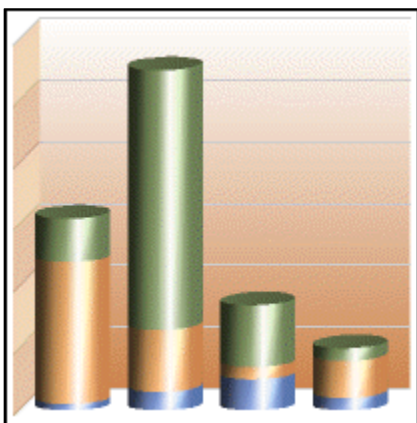
15. Expand **Axis titles** and select the top **Axis Title**:

- **Default Title**: No.

16. Repeat for the bottom **Axis Title**.

17. Select the **Axis Labels** along the x-axis.

18. In the ancestor selector, select **Category axis**.

19. Open the **Axis Line** property, change the color to white and click **OK**.

20. Save the changes.

Task 8.   Test with the black background.

You will temporarily set the page body background to black to test your final formatting before the copy and paste process.

1.   Click in the work area and confirm **Page Body** appears in the ancestor selector.
2.   Set the **Background Color** property to black.
3.   Run the report and confirm the following:

- both axis labels are white,

- one column is labeled **Null**,

- the legend text is white

- the legend labels are sorted ascending,

- the logo and main report title are visible,

- the two sets of button bars are visible and properly positioned,

- there are horizontal white lines above and below the Issue button bar (Domain, Type and Priority).

4.   Close Cognos Viewer.
5.   Change Background Color back to **Default**.

Task 9.   Populate the remaining deck cards.

1.   Using the Issues Report Deck selector (just under **Status by**), select **Type**:

- Add a table to the Card cell:

    - **Columns**: 1,

    - **Rows**: 1.

- Select the table cell:

    - **Horizontal Alignment**: Center.

2.   Repeat for the **Priority** card.
3.   Return to the **Domain** card.
4.   Select the **Combination Chart** and copy it.
5.   Navigate to the **Type** card and paste the chart into the table cell in the Card.
6.   Navigate to the **Priority** card and paste the chart into the table cell in the Card.

7. In the **Priority** card chart, cut **IS_DOMAIN** from the Categories field and add **IS_PRIORITY** from the **Data Items** pane.

8. Select IS_PRIORITY and open the **Data Format** property:

- **Format type**: Text,

- **Missing Value Characters**: Null.

9. In the **Type** card chart, cut **IS_DOMAIN** from the Categories field and add **IS_ISSUE_TYPE**.

10. Select IS_ISSUE_TYPE and open the **Data Format** property:

- **Format type**: Text,

- **Missing Value Characters**: Null.

11. In the Type and Priority cards, select the **Combination Chart** and change the name property accordingly.

12. Save the changes.

Task 10. Add Issues control connections.

In this task you will add a new connection between the **Issues Button Bar** and the **Issues Report Deck** controls.

1. In the **Issues Button Bar** (Domain, Type, Priority buttons) click **Create a New Connection**.

2. Confirm the following:

- **Source Control**: Issues Button Bar,

- **Behavior**: Select,

- **Target Control**: Issues Report Deck,

- data items for both are **Label**.

3. Change the name of the Active Report Variable to varIssueSelect.

4. Set Domain as the default selection for the Active Report Variable.
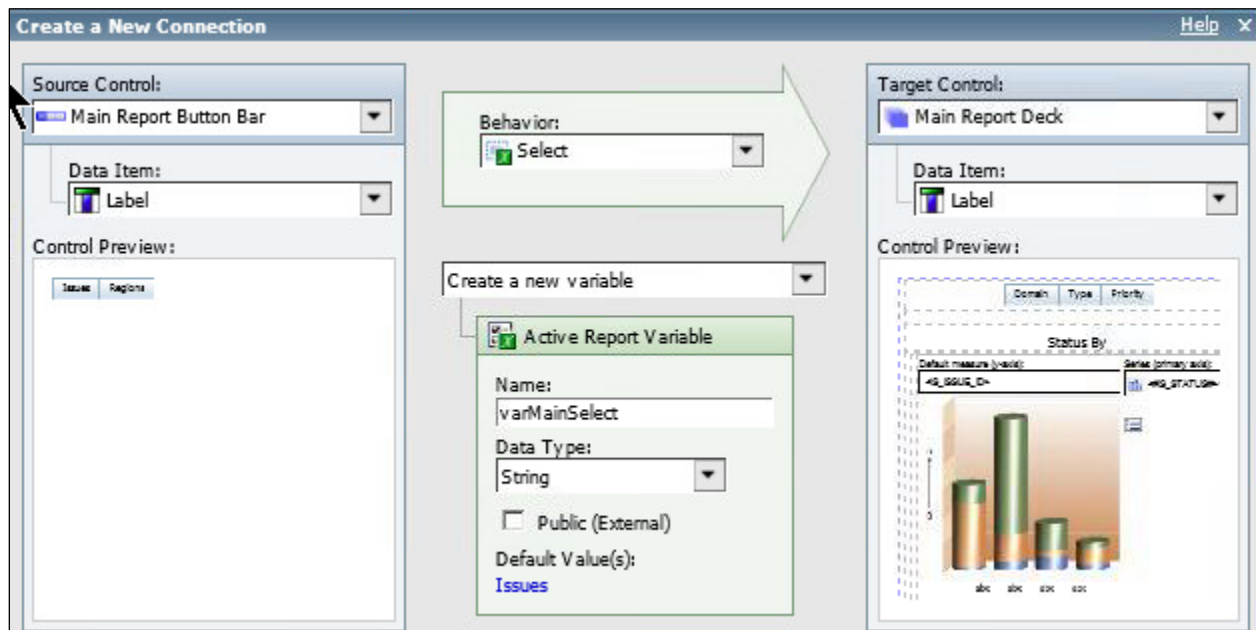
    The results appear as follows:
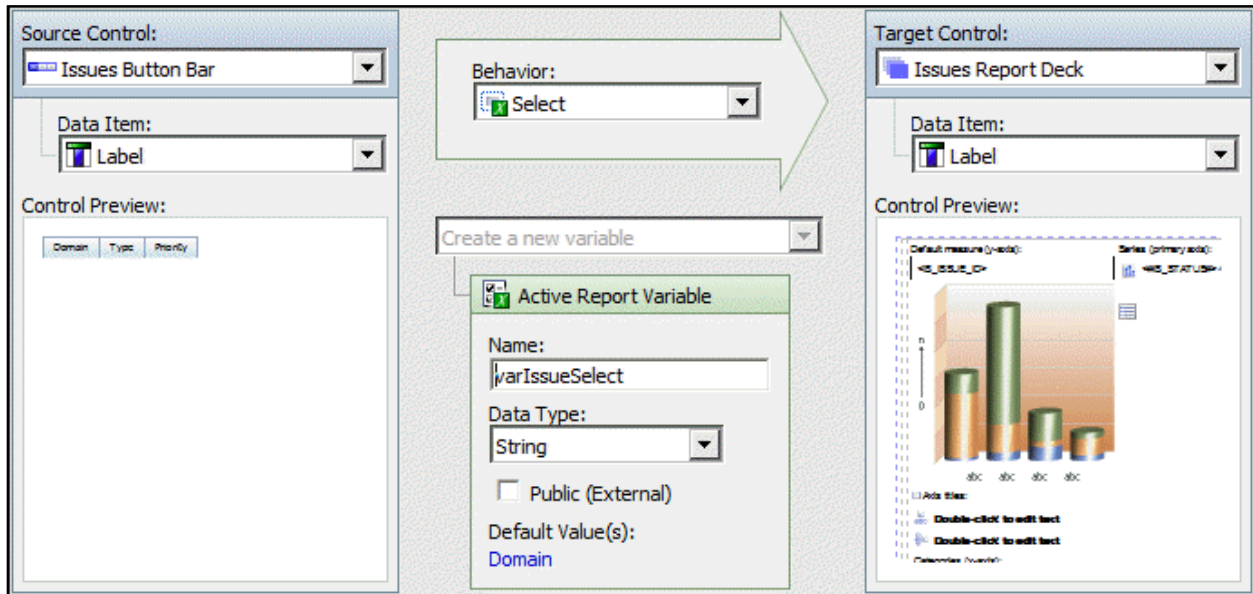
5. Save the changes.

Task 11. Add main report connections.

In this task you will add a new connection between the **Main Report Button Bar** and the **Main Report Deck** controls.

1. In the Main Report Button Bar (Issues and Regions buttons) click **Create a New Connection.**

- **Source Control**: Main Report Button Bar,

- **Behavior**: Select,

- **Target Control**: Main Report Deck,

- data items for both are **Label,**

- **Active Report Variable**: varMainSelect,

- **Default value**: Issues.

The results appear as follows:

2. Save the changes.

Task 12. Add selection text.

1. From the toolbox, add a **Variable Text Item** just after the **Status by** text item.

2. Select the variable text item and format bold, 12 pt.

   The results appear as follows:

3. Select both text items and set **Foreground Color** to white.

4. Select the **Page Body** and change background color to black.

5. Run the report and review the following:

- click the three Issue buttons and confirm the chart changes,

- confirm the **Status by** text changes when chart changes

6. Return Page Body background color to default.

7. Save the changes.

> **Result:**
> **You setup the outer report frame and added the Issue reporting frame to the risk management report.**

Demo 4: Part 2: Region Process Reports

Purpose: Add to the report created in Demo 3 by adding region reports to it. You will add embedded decks to achieve another level of sophistication. You will add two controllers to each deck. One will select the card (report) to display and the other, a slider, will select the region to view.

Portal:	**http://optrainvm/ibmcognos**
User/Password:	**reportauthor/reportauthor**
Studio:	**Report Studio**
Package:	**OPENPAGES_REPORTS_V6**

Task 1. Prepare the Regions card.

1. In Report Studio, open the active report **19-Tablet Active Report**.
2. In the **Main Report Deck** selector, select **Regions**.
3. Add a **Table** to the Regions Card:

- **Columns**: 1,

- **Rows**: 3.

4. Select the three table cells (use CTRL-click):

- **Padding**: 0px for all margins,

- **Horizontal Alignment**: Center.

5. Select one table cell and in the ancestor selector, select the next **Table** up in the list and change the name property to **Regions Table**.

6. Select the middle table cell in the Regions Card:

- **Background Color**: white,

- **Size & Overflow**: height, 2px.

7. Select the top table cell in the Regions Card:

- **Size & Overflow**: height, 35px.

8. In the top table cell, add a **Button Bar**.

9.   Select the button bar and change the name property to **Regions Button Bar**.

10. Click **Buttons Definition**:

- **Label 1**: Process Summaries,

- **Label 2**: Control Summaries,

- delete **Label 3**.

11. Select the bottom table cell in the Regions Card:

- **Padding**: top, 5px; all others, 0px.

12. In the bottom table cell, add a **Deck**.

13. Select the deck and change the name property to **Regions Deck**.

14. Click **Deck Cards Definition**:

- **Label 1**: Process Summaries,

- **Label 2**: Control Summaries,

- delete **Label 3**.

The results appear as follows:
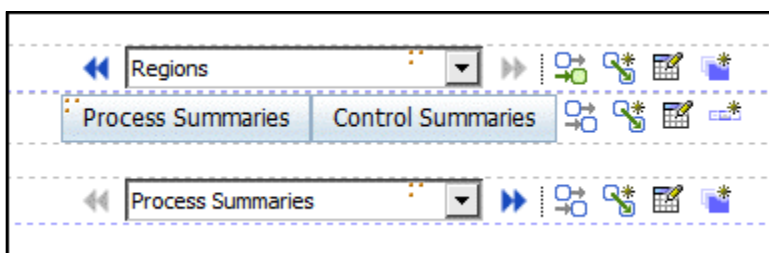
15. Save changes.

16. In the **View** menu, select **Page Structure**.

- This view lets you see the table structure for the entire report. Explore the view by expanding tables, rows, cells, button bars, decks and cards.

- When finished, select **Page Design** in the **View** menu.

17. In the Regions Deck selector, select **Control Summaries**.

18. Add a Table with one column and one row to the Control Summaries Card.

19. Select the table cell and center it.

20. Add a Text Item to the table cell and type **This is where the Control Summaries deck will appear**.

21. Format the text item bold, 14pt and white foreground color.

22. Save the changes.

Task 2. Add static controls connection.

1. In the Regions Button bar (Process and Control Summaries buttons) click **Create a New Connection**:

- **Source Control**: Regions Button Bar,

- **Behavior**: Select,

- **Target Control**: Regions Deck,

- **Active Report Variable**:

    - create a new variable,

    - **Name**: varRegionSelect,

    - **Data Type**: String,

    - **Default Value**: Process Summaries.

    The results appear as follows:
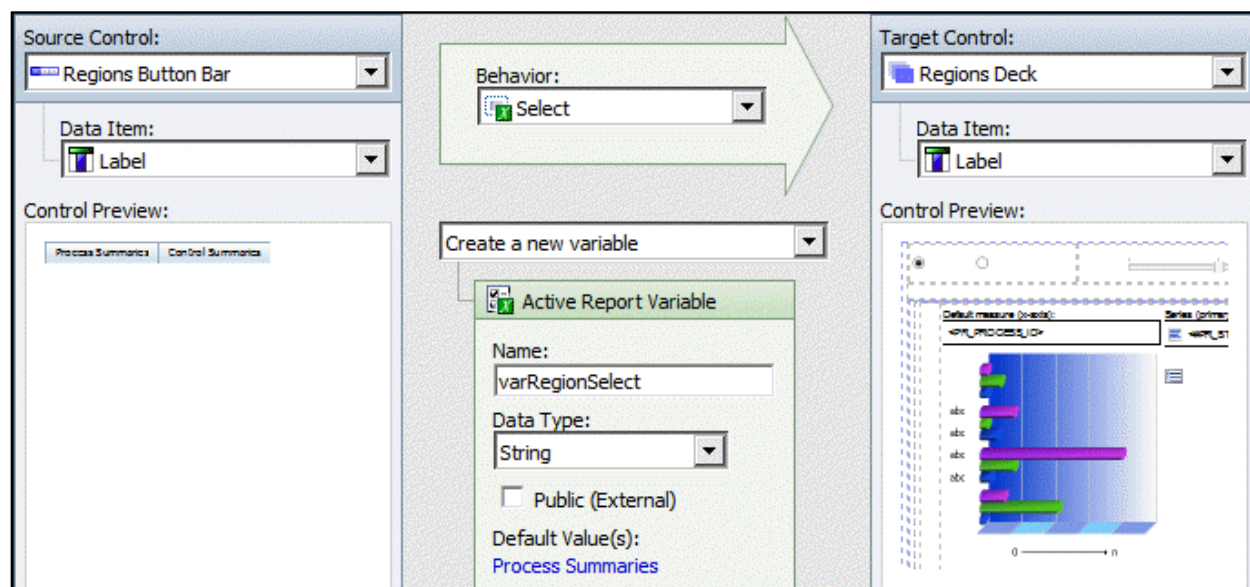
2. Click **Connect**.

3. Save changes.

Task 3. Prepare Process Summaries card.

1. In the Regions Deck selector, select Process Summaries.

- You will work on the Process Summaries card for the remainder of this demonstration.

2. Add a **Table** to the Process Summaries Card cell:

- **Columns**: 1,

- **Rows**: 3.

3. Select the three table cells (use CTRL-click):

- **Padding**: 0px for all margins,

- **Horizontal Alignment**: Center.

4. Select one table cell and in the ancestor selector, select the next **Table** up in the list (the parent table) and change the name property to **Process Summaries Table**.

5. Select the middle table cell of the Process Summaries Table:

- **Background Color**: white.

- **Size & Overflow**: height, 2px,

6. In the top table cell of the Process Summaries Table, add a **Table**:

- **Columns**: 2,

- **Rows**: 1.

7. Select one of the cells and in the ancestor selector, select the parent **Table** (next one up in the list).

8. Change the name property to **Process Controls Table**.

9. Select the left table cell of the Process Controls Table:

- **Padding**: right, 50px; remaining three margins, 0px,

- **Horizontal Alignment**: Right,

- **Vertical Alignment**: Middle,

- **Size & Overflow**: width, 50%.

10. Select the right table cell of the Process Controls Table:

- **Padding**: left, 50px; bottom, 10px, top and right, 0px,

- **Horizontal Alignment**: Left,

- **Vertical Alignment**: Middle.

11. Save the changes.

Task 4. Add static controls to Process Summaries card.

1. In the left cell of the Process Controls Table, add a **Radio Button Group**.
2. Select the **Radio Button Group** and change the name property to **Process Radio Buttons**.
3. Click **Radio Buttons Definition**:

- **Label 1**: Domain,

- **Label 2**: Status,

- delete **Label 3**.

4. In the bottom cell of the **Process Summaries Table**, add a **Deck**.
5. Select the **Deck** and change the name property to **Process Deck**.
6. Click **Deck Cards Definition**:

- **Label 1**: Domain,

- **Label 2**: Status,

- delete **Label 3**.

The results appear as follows:
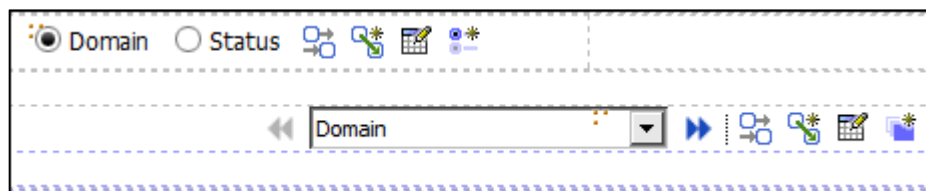
Task 5. Add static controls connections.

1. In the **Process Radio Buttons** control (Domain and Status radio buttons), click **Create a New Connection**:

- **Source Control**: Process Radio Buttons,

- **Behavior**: Select,

- **Target Control**: Process Deck,

- **Active Report Variable**:

    - create a new variable,

    - **Name**: varProcessSelect,

    - **Data Type**: String,

    - **Default Value**: Domain.

The results appear as follows:
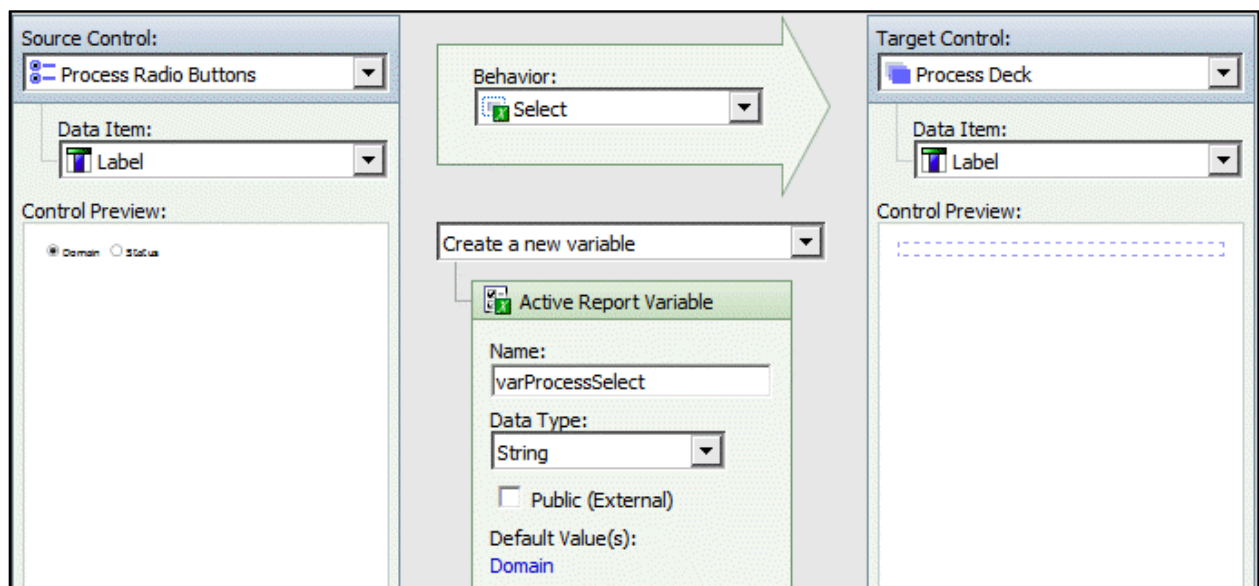
2. Click **Connect**.
3. Save the changes.

Task 6. Add data-driven slider control to Process Summaries.

1. In the right cell of the Process Controls Table, add a **Data Discrete Values Slider**.

    When you add a data control, a new query is added to the report. Both data controls share the same query.

2. Navigate to the slider's query, **Query1**, and change the name to **Region Slider/Data Deck**.

*   You will add data items and detail filters in a later task.

3. Return to the report work area (Report Pages **Page1**).

Task 7. Add data-driven deck to Domain card.

1. In the **Process Deck** selector, select **Domain**.
2. In the Domain Card cell, add a **Table**:

*   **Columns**: 1,

*   **Rows**: 1.

3. Select the table cell:

*   **Padding**: 0px for all margins,

*   **Horizontal Alignment**: Center.

4. In the ancestor selector, select the parent **Table** entry and change the name property to **Domain Card Table**.
5. In the toolbox, right-click **Data Deck** and drag it into the table cell in the Domain Card Table.
6. When you release the mouse, select **Insert using existing query**.
7. Select **Region Slider/Data Deck** and click **OK**.
8. Select the **Data Deck** and change the name property to **Domain Data Deck**.
9. In the Domain Data Card cell, add a **Table**:

*   **Columns**: 1,

*   **Rows**: 1.

10. Select the table cell:

- **Padding**: 0px for all margins,

- **Horizontal Alignment**: Center.

11. In the ancestor selector, select the parent **Table** entry and change the name property to **Domain Data Deck Table**.

12. Save the changes.

Task 8. Add data-driven deck to Status card.

1. In the **Process Deck** selector, select **Status**.

2. In the Status Card cell, add a **Table**:

- **Columns**: 1,

- **Rows**: 1.

3. Select the table cell:

- **Padding**: 0px for all margins,

- **Horizontal Alignment**: Center.

4. In the ancestor selector, select the parent **Table** entry and change the name property to **Status Card Table**.

5. In the toolbox, right-click **Data Deck** and drag it into the table cell in the Status Card Table.

6. When you release the mouse, select **Insert using existing query**.

7. Select **Region Slider/Data Deck** and click **OK**.

8. Select the **Data Deck** and change the name property to **Status Data Deck**.

9. In the Status Card cell, add a **Table**:

- **Columns**: 1,

- **Rows**: 1.

10. Select the table cell:

- **Padding**: 0px for all margins,

- **Horizontal Alignment**: Center.

11. In the ancestor selector, select the parent **Table** entry and change the name property to **Status Data Deck Table**.

12. Save the changes.

Task 9. Populate slider query.

1. Using Query Explorer, navigate to **Region Slider/Data Deck**.
2. Expand DEFAULT_REL > GRC_OBJECTCS > SOXBUSENTITY_FOLDER > GLOB_FIN_SERVICES > 2_REGION_FOLDER > REGION > ID_FIELDS.

• Also expand HIERARCHY_CONTEXT.

3. Add **REGION_NAME00** query item to Data Items pane and change the **Label** property to **Region**.
4. Add **REGION_REPORTING_PERIOD_ID** query item to Detail Filters:

• place cursor at end of expression and type **=-1,**

• click **OK**.

The results appear as follows:

```
[DEFAULT_REL].[REGION].[REGION_REPORTING_PERIOD_ID]=-1
```

5. Add **IS_ROW_PUSHED_DOWN** query item to Detail Filters:

• place cursor at end of expression and type **='N',**

• click **OK**.

The results appear as follows:

```
[DEFAULT_REL].[REGION].[IS_ROW_PUSHED_DOWN]='N'
```

Task 10. Configure data-driven controls.

1. Return to the report work area (Report Pages **Page1**).
2. Select **Domain** in the Process Deck selector.
3. Click the **Data Items** tab in the Content Pane.
4. From the Region Slider/Data Deck query subject, drag **REGION_NAME00** to the Process Slider **Label** field.
5. Drag the same **REGION_NAME00** query item to the Domain **Extra Items** field.
6. Select **Status** in the Process Deck selector.
7. Drag the same **REGION_NAME00** query item to the Status **Extra Items** field.

The results appear as follows:
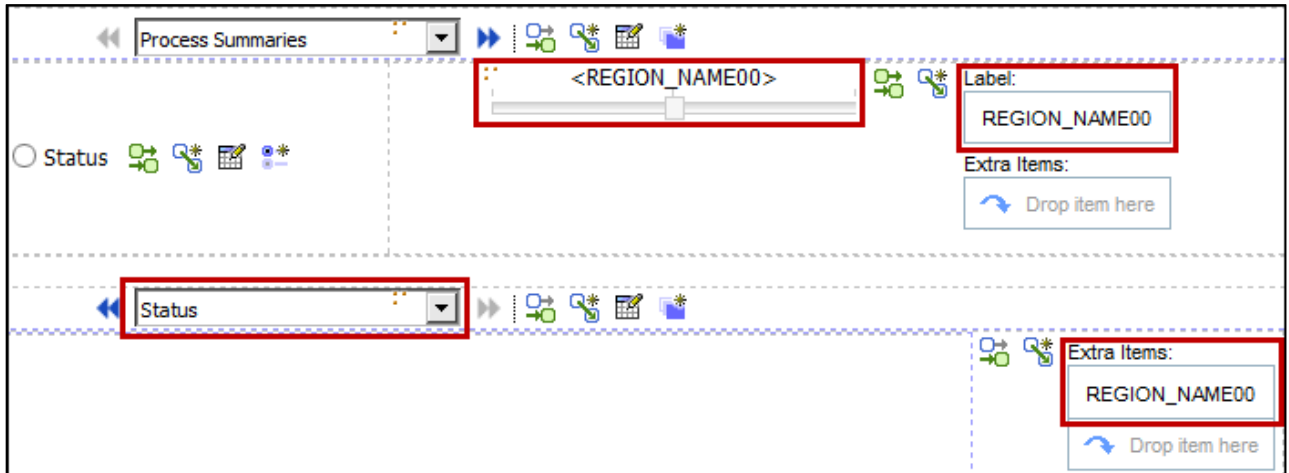
8. Under **Process Summaries** drop-down, click one of the radio buttons in the left table cell.

9. In the ancestor selector, make sure **Radio Button Group** is displayed:

- **Text Color**: White.

10. Under **Process Summaries** drop-down, click the slider in the right table cell.

11. In the ancestor selector, make sure **Data Discrete Values Slider** is displayed:

- **Label Color**: White,

- **Track Length**: 200px,

- **Name**: Process Slider.

12. Save the changes.

Task 11. Add chart to Domain data deck.

1. Confirm **Domain** is selected in the Process Deck selector.

2. From the toolbox, add a **Chart** to the table cell of the Domain Data Deck Table:

- click **Bar**,

- select **Clustered Cylinder Bar with 3-D Effects**,

- click **OK**.

3. Select the Combination Chart and change the name to **Process Domain Chart**.

4. Navigate to the chart's Query1 and rename it **Process Domain Chart**.

5. In the Source content pane, expand DEFAULT_REL > GRC_OBJECTCS > SOXBUSENTITY_FOLDER > GLOB_FIN_SERVICES > 2_REGION_FOLDER > REGION > ID_FIELDS:

- add **REGION_NAME00** to the data items pane,

- add **REGION_REPORTING_PERIOD_ID** to the detail filters pane,

    - place cursor at end of expression and type **=-1**.

6. Expand GRC_OBJECTS > SOXPROCESS > ID_FIELDS:

- add **PR_PROCESS_ID** to the data items pane and change the following properties:

    - **Aggregate Function**: Count,

    - **Rollup Aggregate Function**: Automatic.

7. Drag **PR_PROCESS_ID** from Data Items pane to Detail Filters pane:

- place cursor at end of expression and type **is not null**.

8. Expand SOXPROCESS > ENUMERATION_FIELDS > DOMAIN (ENUMERATION):

- add **PR_DOMAIN** to data items pane,

- change the **Label** property to **Domain**.

9. Navigate back to the report work area and from the **Data Items** content pane, **Process Domain Chart** query subject, populate the following fields:

- **Categories**: REGION_NAME00,

- **Series**: PR_DOMAIN,

- **Default measure**: PR_PROCESS_ID.

10. Save the changes.

Task 12. Format the chart.

1. Select the **Combination Chart** and in the tool bar, open the **Chart Palette Presets** menu.

2. Select **Dynamic**.

3. Set the following properties for **Combination Chart**:

- **Foreground Color**: White,
- **Material Effects**: Semigloss,
- **Plot Area Fill**:
    - **Fill type**: Linear Gradient,
    - **Color**: Custom Color tab:
        - **Red**: 00,
        - **Green**: 33,
        - **Blue**: cc.

4. Expand **Axis titles**:

- click the top title and set **Default Title** property to **No**,

- repeat for the second title.

5. Click PR_DOMAIN in the Series field and in the ancestor selector, select **Bar**:

- **Borders**: Hide,

- **Palette**: using the up and down arrows, re-arrange the entries as follows:

6. In the ancestor selector, select **Primary Axis**:

- **Axis Line**: Color, white,

- **Gridlines**:

    - First color band:

        - **Red**: 00,

        - **Green**: 33,

        - **Blue**: cc.

    - Second color band:

        - **Red**: 00,

        - **Green**: 99,

        - **Blue**: ff.

7. Click the vertical **Axis Labels** (the "abc" labels).

8. In the ancestor selector, select **Category axis**:

- **Axis line**: Color, white.

9. Save changes.

Task 13. Test with the black background.

1. Click the logo at the top of the report and in the ancestor selector, select **Page Body**:

- Background Color: Black.

2. Run the report and review the following:

- click **Regions**,

- **Domain** report is displayed,

- grid lines and axis labels are white,

- can read the Legend,

- can read labels on slider,

- click **Status** radio button,

- no chart appears,

- click **Domain**,

- click **Control Summaries**,

- text appears about the control reports deck,

- click **Process Summaries**,

- report components are centered,

- two horizontal, narrow white lines appear on either side of the radio button and slider controls.

3. Close Cognos Viewer.
4. Click **Undo** to change background color back to default.

Task 14. Populate the Status data deck.

In this task you will copy the Domain chart and paste it into the Status Data Deck Table. Then you will add a new query, link the chart to the new query and make some minor adjustments.

1. Select the Domain chart and confirm that the ancestor selector is displaying **Combination Chart**.
2. **Copy** the combination chart.
3. In the Process Deck selector, change from Domain to **Status**.
4. Select the table cell in the Status Data Deck Table and **Paste**.
5. Select the combination chart and change the name to **Process Status Chart**.
6. Slide open **Query Explorer** and select the **Queries** folder.
7. Click Process Domain Chart query and **Copy**.
8. Right-click the work area and **Paste**.
9. Click **Process Domain Chart1** and change the name to **Process Status Chart**.
10. Open the Process Status Chart query.
11. Delete **PR_DOMAIN**.
12. Add **PR_STATUS** from the Source content pane:

- **Label**: Status.

13. Navigate to the report work area and confirm the Process Deck selector is set to **Status**.
14. Click on the chart and confirm the ancestor selector displays **Combination Chart**:

- **Query**: Process Status Chart.

15. Remove PR_DOMAIN from the Series field.
16. From the **Data Items** content pane, Process Status Chart query, add **PR_STATUS** to the Series field.
17. Save the changes.

Task 15. Add data-driven connections.

In this task you will configure the slider control to change the Domain and Status reports. You will need to configure Master Detail Relationships between the two report queries and the slider query.

1. In the Process Slider click **Create a New Connection**:

- **Source Control**: Process Slider,

- **Behavior**: Select,

- **Target Control**: Domain Data Deck,

- **Active Report Variable**:

  - create a new variable,

  - **Name**: varEntityName,

  - **Data Type**: String,

  - **Default Value**: Asia Pac.

  The results appear as follows:
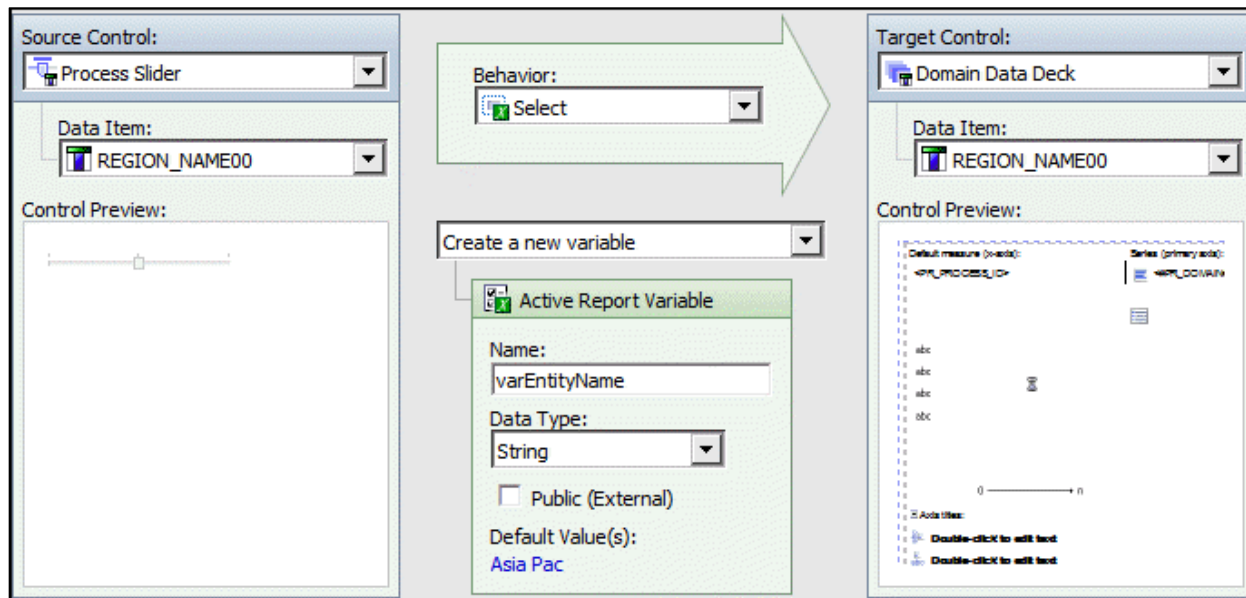
2. Click **Connect**.
3. In the content pane, click the **Active Report Variables** tab and expand **varEntityName**.

4. Expand **Set By** and **Selects**.

    The results appear as follows:
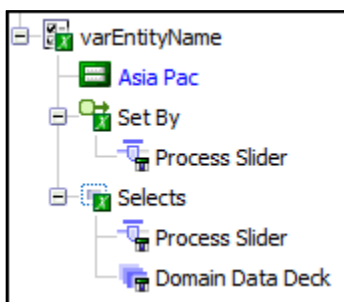
    Notice that only the Domain Data Deck appears under **Selects**. You need to get Status Data Deck in that list, too.

5. In the Process Slider click **Create a New Connection**:

- **Source Control**: Process Slider,

- **Behavior**: Select,

- **Target Control**: Status Data Deck,

- **Active Report Variable**: reuse the varEntityName variable,

- click **Connect**.

6. Return to the **Active Report Variables** tab and notice that Status Data Deck now appears under **Selects**.

7. In the Process Deck selector, confirm **Domain** is selected and select the Domain **Combination Chart**.

8. In the properties pane, open the **Master Detail Relationships** property:

- click **New Link**,

- connect REGION_NAME00 in both panes and click OK.

    The results appear as follows:
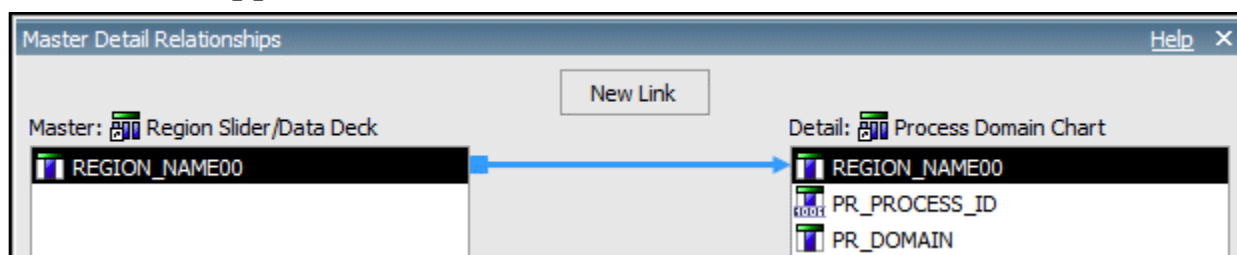
9. Repeat for the Status **Combination Chart**.

10. Save the changes.

Task 16. Final configuration and test.

In this task you will make one final configuration change that will display text of your choice in the browser window. In the case of Internet Explorer it will appear in the tab label.

1. In the File menu, select Active Report Properties:

- **Window Title**: OpenPages ORM.

2. Run the report and note the Internet Explorer tab name.
    The results appear as follows:
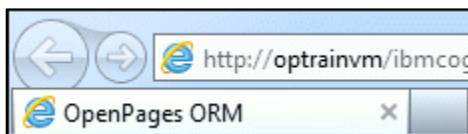
3. Close Cognos Viewer.
4. Select the logo and in the ancestor selector, select **Page Body**:

- **Background Color**: Black.

5. Save the changes.
6. Run the report and observe the following:

- report defaults to Issues Domain report,

- click Regions,

- Regions defaults to Domain Asia Pac report,

- move the slider to select other regions and observe changes to Domain report,

- click Status and change slider,

- click Control Summaries and then close Cognos Viewer.

Result:
You have created a sophisticated active report suitable for viewing in an Apple iPad.

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Demo 5

Distributing Active Reports

Demo 5: Distributing Active Reports

Purpose:
Active reports can be distributed to Apple iPad devices. You will learn to prepare an IBM OpenPages GRC Platform active report for distribution using email.

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Report Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Generate the MHT file.

In this task you will add an access code to the report, generate an MHT and send it in an email as an attachment. Users wishing to view the report will need to enter the access code before the report will display.

1. In Report Studio, open the report **19-Tablet Active Report**.
2. In the File menu, select Active Report Properties:

- Access code: 1234.

3. Save the changes.
4. Minimize the Report Studio browser window.
5. Maximize the Cognos Connection browser window.
6. On the welcome page, click **IBM Cognos content**.
7. Click **My Folders** and locate the report **19-Tablet Active Report**.
8. Under **Actions**, click **Run with options**:

- **Language**: English (United States),

- **Delivery**: Save the report.

9. Click the **Advanced Options** link in the text on the right:

- **Delivery**: Save the report as a report view,

- click **Edit the options**:

    - **Name**: OpenPages ORM Reports,

    - click **Select another location**,

    - in the bread crumb trail, click **Cognos**,

    - click **Public Folders**,

    - click **Saved Reports**,

    - click **OK** two times.

- select Send the report by email,

- click Edit the options:

    - **To**: ormdir@op123.com

    - **Subject**: Here is a new ORM Report

    - **Body**: [19-Demo5-01-EmailBody]
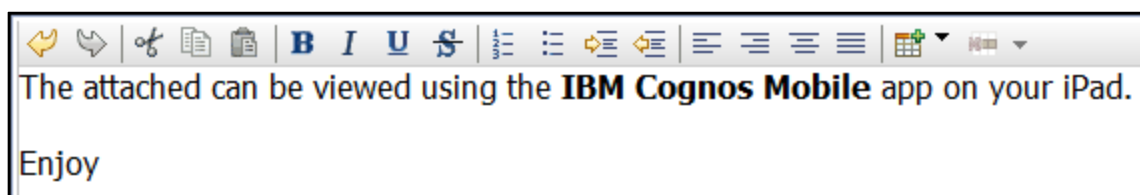
    - confirm **Attach the report** is enabled,

    - click **OK**.

- click **Run** and click **OK**.

10. Wait about one minute and then navigate to **Public Folders > Saved Reports** and look for **OpenPages ORM Report**.

11. Click the report to view it and enter the access code.

12. Verify the report responds as expected.

Task 2. Verify email attachment.

1. Minimize all browser windows.

2. Open a new Internet Explorer window.

3. In the **OpenPages** menu select **ORM Director** to open an email log on screen:

-   **User name**: ORM Director,

-   **Password**: ORMdir.

4. Note that the attachment has the name of the report, not the report view you saw in the **Saved Reports** folder above.

5. Open the email and view the attachment. Click through all of the warning screens until you are asked to enter the access code.

-   If the email account had been to a user's iPad, they could open the attachment with the free IBM Cognos Mobile app.

    The results appear as follows on an iPad:
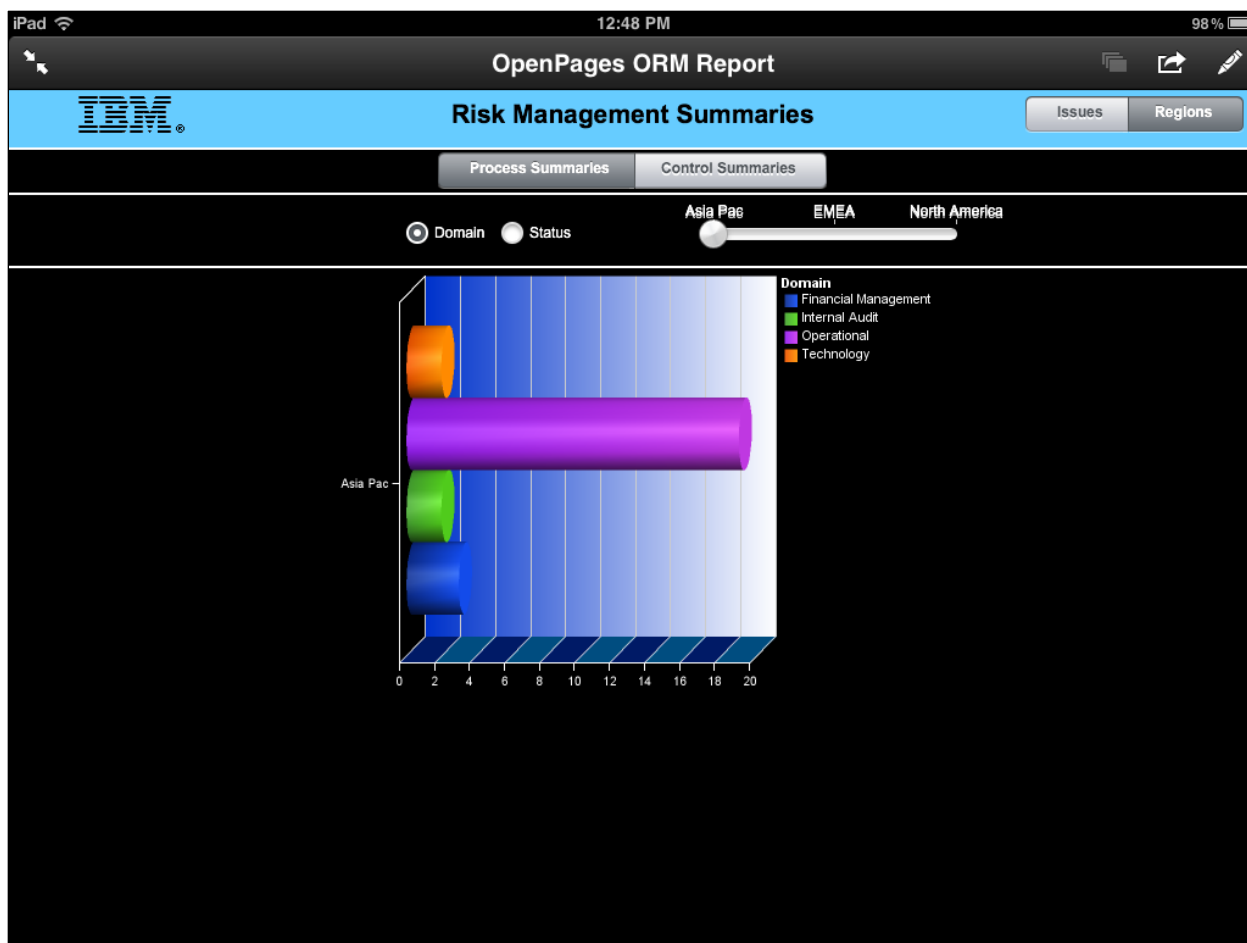
- The **OpenPages ORM Report** header is a result of renaming the .MHT file to **OpenPages ORM Report.mht** before forwarding the report to iPad users. This makes for a nicer presentation instead of the report's file name.

6. Log off, and close all browser windows.

Result:
You saved a file suitable for the IBM Cognos Mobile app to display, and distributed it via email attachment.

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Additional Resources

- *IBM Cognos Report Studio Version 10.2.0 User Guide*
- *IBM Cognos Active Report 10.2 Cookbook*

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YouTube has videos on working with active reports. Search using **IBM Cognos Active Reports**.

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Summary

- At the end of this module, you should be able to:
    - identify controls
    - define static controls
    - define data-driven controls
    - add connections between controls
    - understand formatting for tablet devices

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IMPORTANT

Solutions for the demos in this module can be found in:

Public Folders > 1O202 Solution Reports > Module 19.

Reporting Fragments

IBM OpenPages: Report Authoring (v7.0)

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Objectives

- At the end of this module, you should be able to:
  - define the limitations of a reporting fragment report
  - identify an automatic reporting fragment
  - identify an on demand reporting fragment
  - locate text strings to send to the GRC Platform administrator

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NOTE: If you have not taken the pre-requisite course *IBM Cognos Report Studio: Author Professional Reports Fundamentals (v10.2)* (J2258) you may struggle completing the demonstrations in this module. Allow extra time to complete each demonstration.

Introduction

- Reporting fragments are fields in the OpenPages Platform that typically display a component (such as a chart or table) from an IBM Cognos report.

- They can appear in a details page, filtered list, grid or activity views.

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Reporting Fragments

- There are two types:
  - **Automatic**
    - generated when the page is displayed,
  - **On Demand**
    - generated when selected by the user.
- The fields are generated by the IBM Cognos server in real time and are re-run each time the page is displayed or the user selects one.

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Reporting Fragments is a field definition data type in the GRC Platform. The field definition is created by your IBM OpenPages GRC Platform administrator.

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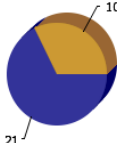
Limitations

- You cannot use elements from JSP reports in reporting fragment fields; only components from IBM Cognos Report Studio reports are supported.

- Page breaks in reporting fragment fields are not supported.

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Limitations (cont'd)

- A report that has required prompts other than Object Type ID and Reporting Period ID cannot be used as a reporting fragment field.

- Tooltips in reporting fragment fields are not supported.

- As a best practice, create a separate Report Studio report for each reporting fragment in your GRC Platform.

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The Report Studio Report

- Start by creating a Report Studio report:
  - Keep the query small and optimized,
    - Make sure it generates in about 10 seconds,
  - Keep the display small and concise,
  - Must be saved in the Cognos Connection **Public Folder**.

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It is very important to create a query that generates a report very quickly, otherwise the GRC Platform user has to wait too long for the platform page to fully display.

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Detail Filters

- Only two parameterized detail filters are allowed/required:
  - Reporting Period ID
  - Object type record ID

```
Detail Filters
   [PR_REPORTING_PERIOD_ID]=?rpid?
   [PR_PROCESS_ID]=?pr_id?
```

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The reporting period ID filter is used to match the reporting period the platform user is currently viewing.

The process ID filter is used to match the Process record the platform user has selected to view.
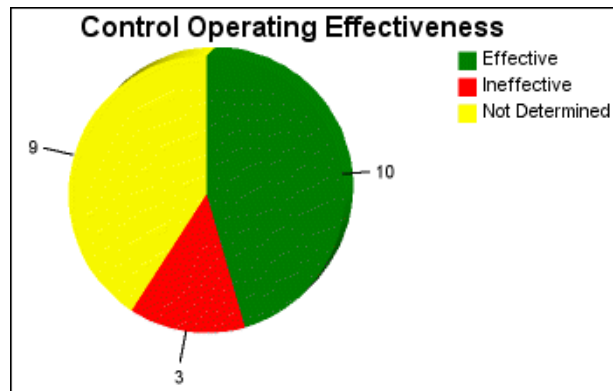
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Demo 1

Control Operating Effectiveness Report

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IMPORTANT

Before starting your first demo, you must prepare the IBM eLabs. Refer to the PDF file, *Preparing For a Demo* which can be downloaded from the **Materials** tab of the eLabs launch site.

Demo 1: Control Operating Effectiveness Report

Purpose:
The Risk Management team has requested a reporting fragment for the SOXProcess object type. The report is to be a 3-D pie chart showing the operating effectiveness counts for all control records that have a primary relationship to the process record.

Cognos Connection:	**http://optrainvm/ibmcognos**
Cognos User/Password:	**reportauthor/ reportauthor**
Studio:	**Report Studio**
Package:	**OPENPAGES_REPORTS_V6**
Report Type:	**Chart: Pie with 3-D Effects**
Namespace:	**DEFAULT_REL**

Task 1. Populate the query.

1. Navigate to **Query1** and change the query name to **3D Pie**.

2. In the Source pane, expand the following under DEFAULT_REL:

    - GRC_OBJECTS > SOXPROCESS > ID_FIELDS,
    - GRC_OBJECTS > SOXCONTROL > ID_FIELDS,
    - SOXCONTROL > ENUMERATION_FIELDS > OPERATING_EFFECTIVENES (ENUMERATION).

3. Add the following query items:

    ```
    Data Items
    PR_REPORTING_PERIOD_ID
    PR_PROCESS_ID
    CN_CONTROL_ID
    CN_OPERATING_EFFECTIVENES
    ```
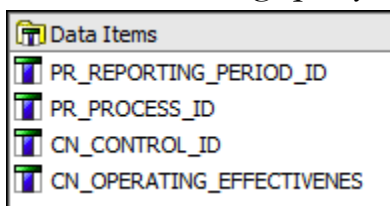
4. Add a new data item to identify primary parent|child relationships between the process and control records:

    ```
    "OP_RPS_AUX.IS_REL_PARENT_CHILD" (
    [PR_PROCESS_ID],
    [CN_CONTROL_ID],
    -1,
    'Y'
    )
    ```

5. Change the data item name to **IsPrimary**.

6. Set the following properties:

- **Aggregate Function**: None,
- **Rollup Aggregate Function**: None.

7. Create a detail filter to allow primary relationships only:

`[IsPrimary]='Y'`

8. Create two parameterized detail filters to meet the requirements for a reporting fragment:

- Reporting period,
- SOXProcess object type identifier.

```
[PR_REPORTING_PERIOD_ID]=?Rep_Per?
[PR_PROCESS_ID]=?Proc_ID?
```

9. Save the report:

- In the **File** menu, select **Save As,**
- In the left margin, click **Public Folders,**
- Open **Custom Reports,**
- Create a new folder named **Reporting Fragments** and open it,
- Name the report **Operating Effectiveness Pie** and click **Save.**

Task 2. Populate the chart container.

1. Navigate back to the chart container in page one of the report pages.
2. Select the pie chart container, and in the Properties pane change the **Name** to **Effectiveness**.
3. Add the following data items to the chart container:

- **Series**: Operating Effectiveness,
- **Default measure**: SOXControl identifier.

4. Select the Default measure field.

- **Aggregate Function**: Count Distinct,
- **Rollup Aggregate Function**: Automatic.

5. Run the report HTML, test and validate.

- PR_PROCESS_ID = 1501
- PR_REPORTING_PERIOD_ID = -1

The results appear as follows:
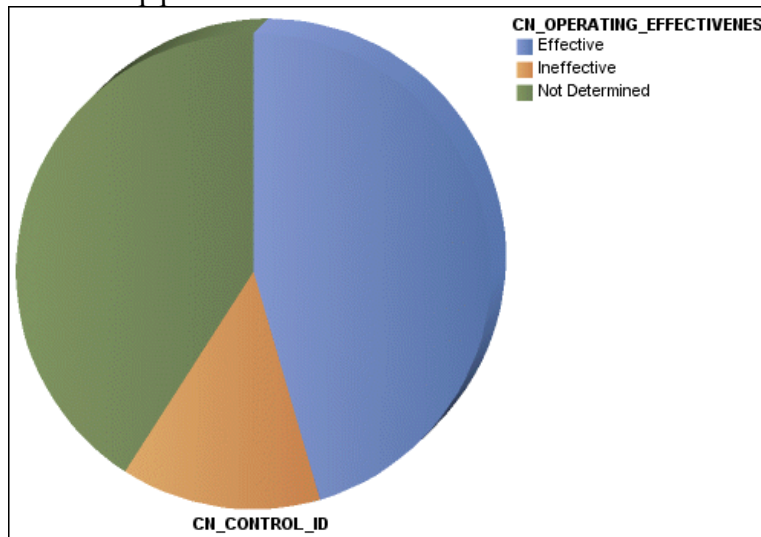
6. Save the changes.

Task 3. Format the chart.

1. From the **Structure** menu select Headers & Footers > Page Header & Footer.
2. Clear the Header and Footer check boxes.
3. Hide the default axis title:
    - Expand **Axis titles** (above the Categories field.)
    - Select the **Default Axis Title**.
    - Change the **Default Title** property to **No**.
4. Hide the legend title:
    - Select **Default Legend Title**.
    - Change the **Box Type** property to **None**.
5. Select the entire pie chart (the ancestor selector will display **Pie Chart**.)
6. Open the **Chart Labels > Show Values** property.
7. In the **Values** drop-down, select **Absolute**. and confirm **Show leader lines** is enabled.
8. Set **Position** to **All around the pie** and click **OK**.
9. Change **Chart Titles > Title** property to **Show**.

10. Add the chart title **Control Operating Effectiveness**.

11. Run the report HTML, test and validate.

12. Save the changes.

Task 4. Adjust the chart palette and size.

1. Select the entire pie chart.

2. Under **Color & Background**, open **Palette**.

3. Open the **Chart Palette Preset** menu

4. Select **Legacy**.

5. Change the top color:

    - Select the top color entry,

    - In the Fill pane, click Color,

    - Click Named Colors,

    - Select Green and click OK.

6. Repeat for the second color (Red).

7. Repeat for the third color (Yellow).

8. Click **OK**.

9. Open the **Size & Overflow** property and set the following:

    - **Height**: 225 pixels

    - **Width**: 375 pixels

    NOTE: Once the platform administrator has added the reporting fragment to the user interface, you may need to come back and make adjustments to the chart size. The goal is to generate the reporting fragment without scroll bars. Sometimes this goal cannot be met.

10. Run the report HTML, test and validate.

11. Save the changes.

Results:
You have created a pie chart that can be used as a reporting fragment in a Process record details view.

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Collect Cognos Information

- You will need to supply the GRC Platform administrator the following information:
  - The report's **Search path**
  - The **Fragment name**
  - The object type ID **Parameter**
  - The reporting period ID **Parameter**

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Your GRC Platform administrator needs this information to create the field definition that will display the reporting fragments.

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Search Path

- The search path can be accessed from the report's properties screen.

  - **View the search path, ID and URL** link,
  - Copy the entire search path and save it in a TXT file.

Search path:

/content/folder[@name='Custom Reports']/report[@name='PR Op Eff RF']

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Fragment Name

- The fragment name is the **Name** property under the **Miscellaneous** group in the properties pane.
- Copy the name string and save it in a TXT file.

Miscellaneous	
Name	Pie Chart1
Classes	Chart

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Object Type ID Parameter

- This is the parameter label, without the question marks, in the object type ID detail filter.
    - In the example below **pr_id** is the object type ID parameter.
- Copy the parameter string and save it to a TXT file.

```
[PR_PROCESS_ID]=?pr_id?
```

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Reporting Period ID Parameter

- This is the parameter label, without the question marks, in the reporting period ID detail filter.
  - In the example below **rpid** is the reporting period ID parameter.
- Copy the parameter string and save it to a TXT file.

```
[PR_REPORTING_PERIOD_ID]=?rpid?
```

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Demo 2

Collect Report Information

```
Report Path: /content/folder[@name='Custom Reports']/folder[@name='Reporting
Fragments']/report[@name='Operating Effectiveness Pie']

Fragment Name: Effectiveness

Reporting Period ID Prompt: Rep_Per

Object ID Prompt: Proc_ID
```

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Demo 2: Collect Report Information

Purpose:
Create a text file with report information the GRC Platform administrator needs to add the reporting fragment to the user interface.

Task 1. Retrieve the search path.

1. Navigate to the Cognos Connection public folder where you saved the **Operating Effectiveness Pie** report.

2. Click the Set Properties button for the report.
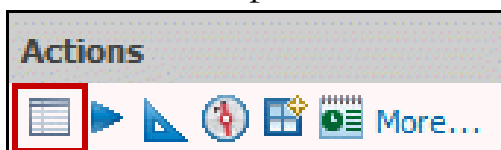
3. Click the **View the search path, ID and URL** link.

4. Copy the contents of the Search path, paste into a text editor, label it **Report Path**, and save.

Task 2. Retrieve the fragment name.

1. Open the **Operating Effectiveness Pie** report in Report Studio.

2. Select the entire pie chart.

3. Scroll to the bottom of the properties pane and locate the **Miscellaneous** section.

4. Copy the contents of the **Name** field, paste into a text editor, label it **Fragment Name**, and save.

Task 3. Retrieve the parameter names.

1. Navigate to the report's query.
2. Open the reporting period ID filter.
3. Copy the parameter name without the question marks.
4. Paste the contents into a text editor, label it **Reporting Period ID Prompt**, and save.
5. Open the Process object type ID filter.
6. Copy the parameter name without the question marks.
7. Paste the contents into a text editor, label it **Object ID Prompt**, and save.
8. Send the text file(s) to your GRC Platform administrator.
9. Log off, and close all browser windows.

Results:
You created a text file with report information.

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GRC Platform Configuration

- Send the TXT file(s) with the four pieces of information to your GRC Platform administrator.

- The administrator will create a new field definition using this information and add it to the appropriate object type and profiles.

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Sample Reporting Fragment Field Definition

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Name: Operating Effectiveness

Description: Pie chart displays the operating effectiveness for all primary controls.

Data Type: Reporting Fragment

Report Path * : /content/folder[@name='Custom Reports']/report[@name='PR Op Eff RF']

Fragment Name * : Pie Chart1

Object ID Prompt : pr_id

Reporting Period ID Prompt : rpid

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This is what your GRC Platform administrator uses to configure the field definition for the reporting fragment.

This is an example of an On Demand reporting fragment in a details view.

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Summary

- At the end of this module, you should be able to:
  - define the limitations of a reporting fragment report
  - identify an automatic reporting fragment
  - identify an on demand reporting fragment
  - locate text strings to send to the GRC Platform administrator

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IMPORTANT

Solutions for the demos in this module can be found in:

Public Folders > 1O202 Solution Reports > Module 20.

Computed Fields

IBM OpenPages: Report Authoring (v7.0)

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Objectives

- At the end of this module, you should be able to:
    - define computed field
    - explain equation modeling
    - understand equation requirements
    - understand limitations of equation
    - identify information needed by GRC Platform administrator

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NOTE: If you have not taken the pre-requisite course *IBM Cognos Report Studio: Author Professional Reports Fundamentals (v10.2)* (J2258) you may struggle completing the demonstrations in this module. Allow extra time to complete each demonstration.

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Introduction

- Computed Fields are defined as a field definition in the IBM OpenPages GRC Platform.

- These fields require a functioning IBM Cognos server to generate the results that are then displayed in the GRC Platform.

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Equation Modeling

Process	# Primary Controls
CB-01	22
CB-41	4
RB-01	13
RB-02	3
RB-07	2
RB-08	1
RB-09	3

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Part of the process to create new computed fields is to model an equation in IBM Cognos Report Studio.

Once the results are verified they are copied from the expression definition in Report Studio and sent to the GRC Platform administrator who then pastes it into the appropriate equation field.

Custom filtering cannot be used in computed fields.

If you are creating multiple computed fields within one object type, all equations must be created using the same namespace.

NOTES:

- The expression definition must be created using Report Design Language (English(Canada)) or it will not work when implemented in the GRC Platform.

- You must use fully qualified query item names in the expression.

- There is a 20,000 byte limit on the size of the equation definition text.

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Additional Information

- In addition to the equation, the GRC Platform administrator needs the following information:
  - Primary Namespace
  - Alternate Namespaces
  - Parent Object ID Query Item
  - Reporting Period ID Query Item

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Primary Namespace: This is the namespace you used to create equation. For example, DEFAULT_REL.

Alternate Namespaces: These are namespaces in which you want to have the new computed field available to put into reports. However, a best practice is to never use a computed field query item from the generated reporting framework due to performance issues. It is always best to recreate the equation in a data item any time you need the information from a computed field.

Parent Object ID Query Item: This is the ID for the object type in which the computed field will be added in the GRC Platform. This must be the fully qualified query item name. For example, [DEFAULT_REL].[SOXPROCESS].[PR_PROCESS_ID].

Reporting Period ID Query Item: This is the ID for the reporting period to be used by Cognos. This is normally from the parent object type query subject. This must be the fully qualified query item name. For example, [DEFAULT_REL].[SOXPROCESS].[PR_REPORTING_PERIOD_ID]

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Demo 1

Modeling a Computed Field

Equation * :	total((case "OP_RPS_AUX.IS_REL_PARENT_CHILD"([DEFAULT_REL].[SOXPROCESS].[PR_PROCESS_ID], [DEFAULT_REL].[SOXCONTROL].[CN_CONTROL_ID], -1, 'Y') when 'Y' then 1 else 0 end) for [DEFAULT_REL].[SOXPROCESS].[PR_PROCESS_ID])

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IMPORTANT

Before starting your first demo, you must prepare the IBM eLabs. Refer to the PDF file, *Preparing For a Demo* which can be downloaded from the **Materials** tab of the eLabs launch site.

Demo 1: Modeling a Computed Field

> **Purpose:**
> **The Risk Management team wants a computed field added to all Process records that displays the total number of controls that have a primary hierarchy association to the process record. You will model a computed field expression in Report Studio and then prepare a text file that will be sent to the GRC Platform administrator that includes all of the information needed to create a new computed field definition.**

Portal: **http://optrainvm/ibmcognos**
User/Password: **reportauthor/reportauthor**
Studio: **Report Studio**
Package: **OPENPAGES_REPORTS_V6**

Task 1. Create a list report.

1.   Start Report Studio and create a new list report.
2.   Navigate to **Query1** and expand the following under DEFAULT_REL:
     - GRC_OBJECTS > SOXPROCESS,
     - GRC_OBJECTS > SOXCONTROL.
3.   Add the following query items:
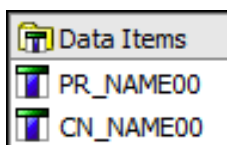
4.   Create a current reporting period detail filter for the SOXProcess object type:
     - GRC_OBJECTS > SOXPROCESS > ID_FIELDS

     [DEFAULT_REL].[SOXPROCESS].[PR_REPORTING_PERIOD_ID]=-1

5.   Create an Is Not Null filter using control object identifier:
     - GRC_OBJECTS > SOXCONTROL > ID_FIELDS

     [DEFAULT_REL].[SOXCONTROL].[CN_CONTROL_ID] is not null

6.   Slide open the Query Explorer.
7.   Right-click **Query1** and select **View Tabular Data**.
8.   Click **OK** if the **IBM Cognos Report Studio** warning appears.
9.   Review the report and then close Cognos Viewer.

Task 2. Add a data item.

1. Add a **Data Item** tool to **Data Items** pane.

2. Change the name to **Model**.

3. Create an expression using an OPENPAGES_REPORTS_V6 function to determine if a Control record has a primary hierarchy association to a process:

   - GRC_OBJECTS > SOXPROCESS > ID_FIELDS

   - GRC_OBJECTS > SOXCONTROL > ID_FIELDS

```
"OP_RPS_AUX.IS_REL_PARENT_CHILD" (
[DEFAULT_REL].[SOXPROCESS].[PR_PROCESS_ID],
[DEFAULT_REL].[SOXCONTROL].[CN_CONTROL_ID],
-1,
'Y')
```

4. Click **OK**.

5. Change the following properties:

   - **Aggregation Function**: None,

   - **Rollup Aggregation Function**: None.

6. View tabular data for Query1 and note that some of the control records do not have a primary hierarchy association to the process.

PR_NAME00	CN_NAME00	Model
CB-01	Control 12345	N
CB-41	Control 12345	N
CB-01	Control 12346	N
CB-01	Control 12345	Y
RB-07	Control 12345	Y
CB-01	Control 12346	Y

7. Close Cognos Viewer.

Task 3. Improve model.

In this task you will change the model to return a 1 when 'Y' and 0 when 'N'.

1. Open the data item **Model**.

2. Convert the OpenPages function expression to a CASE-WHEN-THEN construct by adding the following:

```
case "OP_RPS_AUX.IS_REL_PARENT_CHILD" (
 [DEFAULT_REL].[SOXPROCESS].[PR_PROCESS_ID],
 [DEFAULT_REL].[SOXCONTROL].[CN_CONTROL_ID],
 -1,
 'Y')
when 'Y' then 1
else 0
end
```

3. View tabular data for Query1 and note the changes to the Model column:

PR_NAME00	CN_NAME00	Model
CB-01	Control 12345	0
CB-41	Control 12345	0
CB-01	Control 12346	0
CB-01	Control 12345	1
RB-07	Control 12345	1
CB-01	Control 12346	1

4. Close Cognos Viewer.

Task 4. Aggregate the function.

In this task you will aggregate the Model statement by Process.

1. Open the data item **Model**.

2. Add **TOTAL** to the CASE statement :

```
total((case "OP_RPS_AUX.IS_REL_PARENT_CHILD" (
 [DEFAULT_REL].[SOXPROCESS].[PR_PROCESS_ID],
 [DEFAULT_REL].[SOXCONTROL].[CN_CONTROL_ID],
 -1,
 'Y')
when 'Y' then 1
else 0
end)
for [DEFAULT_REL].[SOXPROCESS].[PR_PROCESS_ID])
```

3. Navigate to the list container in page one of the report pages.

4. Drag the Process name and Model data items into the list container.

    The results appear as follows:

PR_NAME00	Model
<PR_NAME00>	<Model>
<PR_NAME00>	<Model>
<PR_NAME00>	<Model>

5. Run the report HTML.

    The results appear as follows:

PR_NAME00	Model
RB-08	1
RB-07	2
RB-02	3
RB-09	3
CB-41	4
RB-01	13
CB-01	22

6. Close Cognos Viewer.

Task 5. Collect information in a text file.

In this task you will create a text file for the GRC Platform administrator.

1. Open a text editor.

    - **Equation**: (paste the **Model** expression definition here),
    - **Primary Namespace**: DEFAULT_REL,
    - **Alternate Namespace**: none,
    - **Object ID Column**:
      [DEFAULT_REL].[SOXPROCESS].[PR_PROCESS_ID],
    - **Reporting Period ID Column**:
      [DEFAULT_REL].[SOXPROCESS].[PR_REPORTING_PERIOD_ID].

2. Save the file and send it to your GRC Platform administrator.

3. Exit Report Studio, log off, and close all browser windows.

Results:
To add a computed field definition, you created a text file that includes a computed field expression modeled in Report Studio.

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Summary

- At the end of this module, you should be able to:
  - define computed field
  - explain equation modeling
  - understand equation requirements
  - understand limitations of equation
  - identify information needed by GRC Platform administrator

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IMPORTANT

Solutions for the demos in this module can be found in:

Public Folders > 1O202 Solution Reports > Module 21.

Using Cognos Workspace

IBM OpenPages: Report Authoring (v7.0)

Business Analytics software

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Objectives

- At the end of this module, you should be able to:
  - name areas of the Cognos Workspace screen,
  - describe widgets,
  - add content to the workspace,
  - describe **Do More** capabilities,
  - understand restraint of running Cognos Workspace from the GRC Platform.

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This module is intended to be a quick introduction to IBM Cognos Workspace. It is a tool for individual IBM OpenPages GRC Platform users to create their personal dashboards from existing reports.

The professional report author will create the reports used in Cognos Workspace reports but generally they will not create Workspace reports that are saved and then accessed by other users, although this is an option.

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IBM Cognos Workspace

- Dashboard tool only.

- Quick way for user to layout existing reports on a page to create a personal dashboard.

- Can control filtering for all reports on a tab or in a workspace.

- Cannot create new reports.

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The most important thing to understand about Cognos Workspace is that you cannot create new reports. This application is used only to provide individuals the ability to create personal dashboards from existing Report Studio and Workspace Advanced reports.

The typical IBM OpenPages GRC Platform user will access Cognos Workspace from the reporting menu in the GRC Platform.

NOTE: If your GRC Platform session is a new session, you may need to run a Cognos report before starting Cognos Workspace. The security link between OpenPages and Cognos sometimes needs to be initialized, otherwise you may see errors when trying to start Cognos Workspace for the first time.
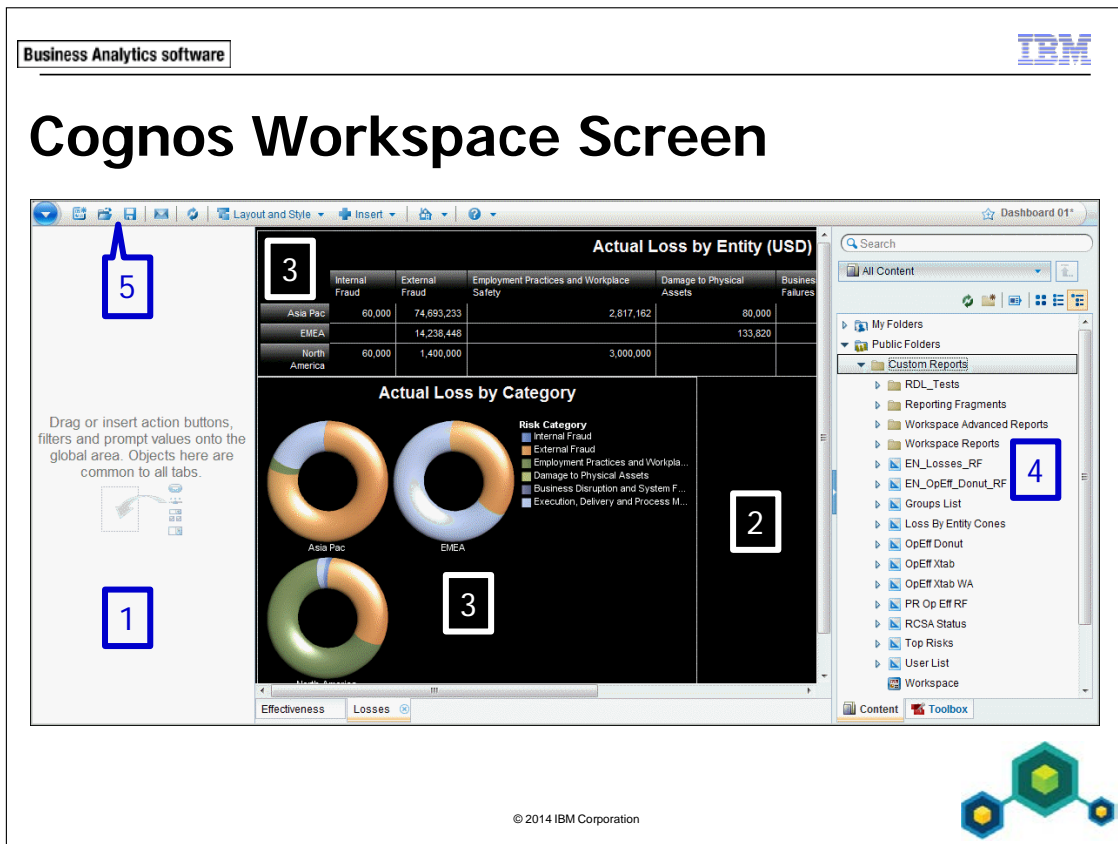
The Cognos Workspace screen is made up of several components:

1. Global Area,
2. Workspace,
3. Widgets,
4. Content Pane,
5. Application Bar

The **Application Bar** displays the name of the workspace (far right side), **Actions** menu, (blue circle on far left side), and tool icons.
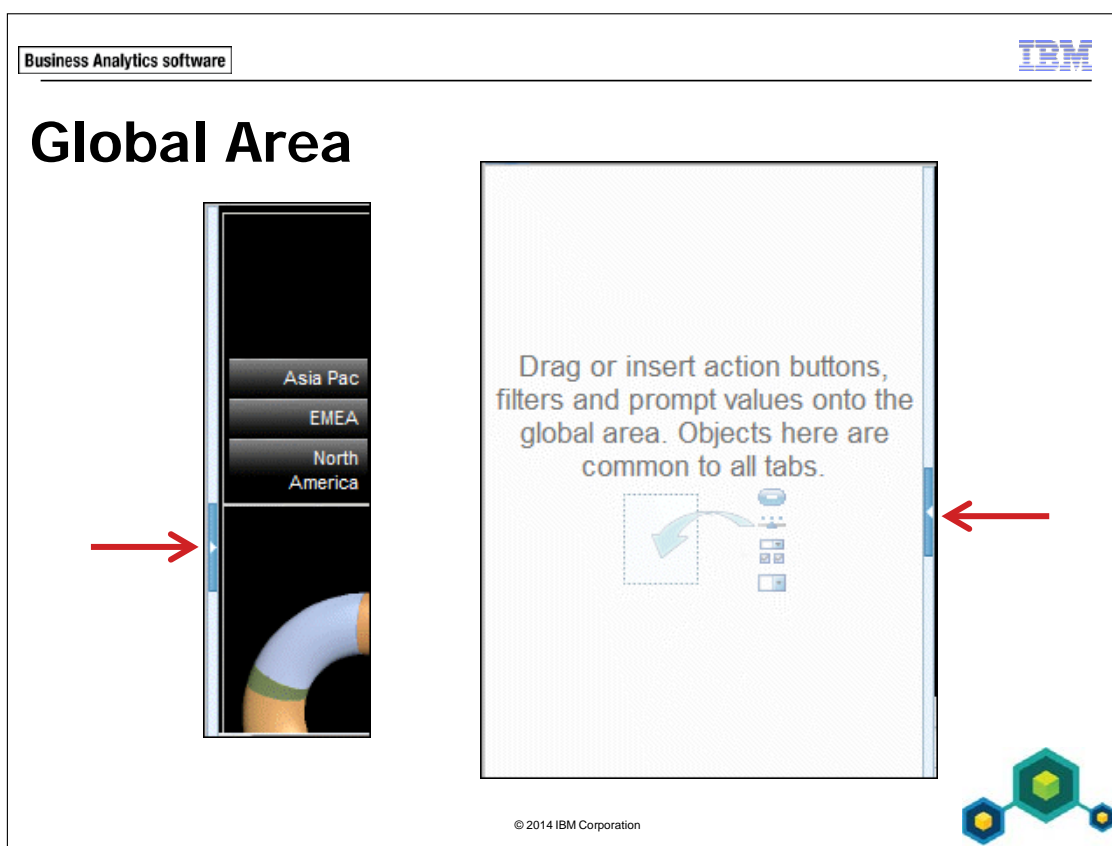
The **Global Area** is used to hold items that are common to all tabs in the workspace. Items that can be included:

- slider filters,

- lists of values for filtering, for example Operating Effectiveness values,

- buttons,

- prompts.

By default, when you open Cognos Workspace, the global area is collapsed. Expand it by clicking the expand arrow on the left edge of the workspace. To collapse, click the collapse arrow on the edge between the workspace and global area.

To add content to the global area, drag from the Content or Toolbox tabs in the content area.

You cannot drag content from a tab in the workspace, or from the global area to a tab in the workspace.

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Workspace

- Work area where the user combines information to create a meaningful dashboard.

- Each item in a workspace is called a **Widget**.

- A workspace can have multiple tabs.

  - Lets you group reports with similar content, for example Issue reports or regional summaries.

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Widgets

- Each widget has its own toolbar:
  - Modifications made to the widget are not saved in the parent content.
  - This is the **Do More** icon:
    - It will open a report widget in Workspace Advanced,
    - Changes can be made in the widget that cannot be made in Workspace, for example changing query items in the report.

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Widgets are typically Report Studio or Workspace Advanced reports.

Widgets can also include:

- text, images, HTML pages,

- buttons, slider and lists for filtering purposes.

As you add, move or resize widgets, dashed guidelines appear as you near a margin or another widget.

- used to help you align objects.

Changes made while using **Do More** are not saved in the parent report. However, they are saved in the Workspace report. This prevents users from harming other reports.

To restore the widget back to the original parent content, select **Reset** in the **Widget Action** menu on the widget toolbar.

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Content Pane

- The Content Pane has two tabs at the bottom of the screen:
  - Content
    - Displays reports available to you in the Cognos Connection **Public Folders** and **My Folders**,
    - Drag and drop reports or report components into the workspace.
  - Toolbox

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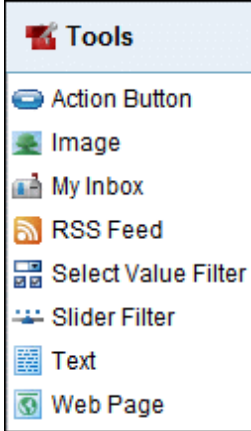
The content pane may be collapsed when you enter Cognos Workspace. Expand it by clicking the expand arrow on the right edge of the workspace. To collapse, click the collapse arrow on the edge between the workspace and content pane.

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Toolbox

Tools

- Action Button
- Image
- My Inbox
- RSS Feed
- Select Value Filter
- Slider Filter
- Text
- Web Page

- Cognos Workspace has a limited toolbox compared to other Cognos studios.

- Toolbox widgets can be added to the global area or workspace tabs.

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There is one restraint to running Workspace reports from the GRC Platform reporting menu:

- User must have access to Cognos Workspace from the reporting menu in the GRC Platform.

If the user does not see **Cognos Workspace** in the GRC Platform reporting menu, as illustrated above, and they attempt to view a Workspace report from the reporting menu, they will get the error shown above.
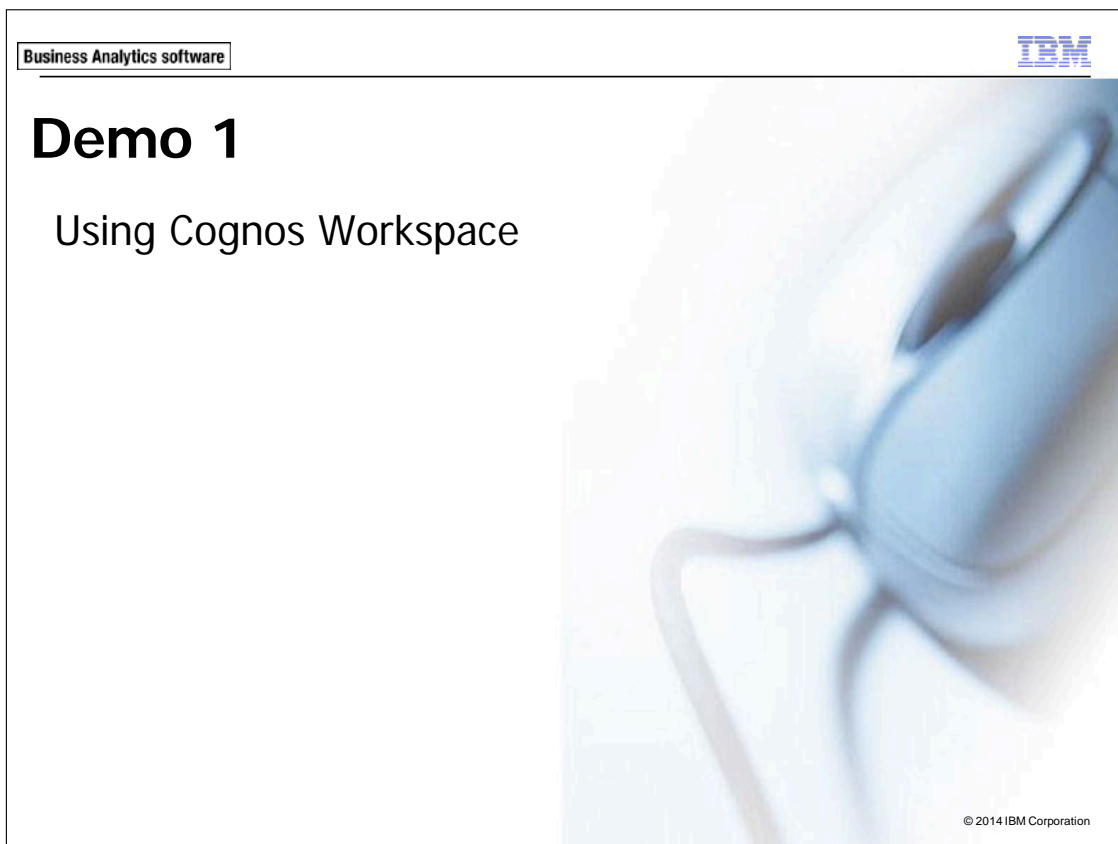
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Demo 1

Using Cognos Workspace

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IMPORTANT

Before starting your first demo, you must prepare the IBM eLabs. Refer to the PDF file, *Preparing For a Demo* which can be downloaded from the **Materials** tab of the eLabs launch site.

Demo 1: Using Cognos Workspace

Purpose:
You need to get familiar with Cognos Workspace and some of the more popular functions. You will create a personal dashboard using existing IBM OpenPages GRC Platform reports and then save the dashboard so you can use it again in the future.

Portal: **http://optrainvm:10108/openpages**

User/Password: **ORMadmin/ORMadmin**

Task 1. Prepare workspace.

1. Log into the IBM OpenPages GRC Platform using the credentials above.
2. In order to initialize the OpenPages and Cognos security communications, click **Risk Analysis** in the **My Reports** home page list.
3. When you get to the prompt page, click **Cancel**.
4. Open the **Reporting** menu and select **Cognos Workspace**.
5. Maximize the Workspace browser window.
6. Double-click **Tab 1**:

   - **Name**: Effectiveness.

7. In the **Actions** menu (blue circle in top left of the workspace) select **New Tab**:

   - double-click the new tab,

   - **Name**: Losses.

8. To expand the content area, locate the expander bar in the right margin and click the **Expand** arrow.
9. Save the report as **22-Workspace Dashboard** in **My Folders**.

Task 2. Add effectiveness content.

In this task, you will add two effectiveness Workspace Advanced reports to the effectiveness tab. The reports should appear side-by-side, with some space between the two.

1. Click the **Effectiveness** tab in the workspace.
2. In the **Content** pane, expand **Public Folders > Custom Reports > Workspace Advanced Reports**.
3. Drag **Effectiveness by Risk Category** into the workspace and place next to the content pane, at the top of the workspace:
4. Drag **Effectiveness by Entity** into the workspace and place just to the left of the first report:

    • use the dashed line guidelines to place it at the top of the workspace,

    • put some space between the two reports before releasing the mouse button.

5. If you need to re-adjust the placement of either report, expose the widget toolbar by clicking in the report and then drag the report by the widget toolbar.
6. In the Entity chart, right-click **EMEA** and select **Drill Down**.
7. Right-click **EMEA** and select **Drill Up** to return to the report as it was previously.
8. In the Risk Category chart, right-click **Internal Fraud** and select **Drill Down**.
9. Click in the Risk Category report to expose the widget toolbar.
10. In the **Widget Actions** menu select **Reset** and click **Yes** when prompted.

    • Reset displays the original content of the parent report.

Task 3. Add losses content.

1. Click the **Losses** tab in the workspace.
2. From the **Content** pane, drag **Loss by Entity Crosstab** into the middle of the workspace:

    • once the widget displays the crosstab report, move the widget to the top of the workspace.

3. Drag **Loss by Category Donut** into the workspace:

    • once the widget displays the chart, place it below the **Actual Loss by Entity** crosstab.

4. In the Category chart, right-click **Asia Pac** and select **Drill Down**.

   - Note the change in both reports. This is due to the fact that both reports have drill-down enabled on the entity region name.

5. Click the **Actual Loss by Entity** report and notice that scroll bars may have appeared:

   - To resize the report, expose the widget toolbar and click **Resize to fit content**.

6. In the entity crosstab, right-click **Commercial Banking** and select **Drill Up**.

7. Save the changes.

Task 4.   Add a filter widget to Losses tab.

1. From the **Toolbox** pane, drag **Select Value Filter** into the **Losses** tab:

   - in **Select data items to filter on**, select **LE_RISK_CATEGORY**,

   - review the settings in the middle of the window,

   - in the **Optional** section, replace **Select a value** with **Risk Categories**,

   - click **OK**.

2. Reposition the Risk Categories widget to a convenient location on the Losses tab.

3. Clear **Select All** and select any three options, then click **Apply**.

4. Notice the changes in both reports. This is because both reports use Risk Category.

5. Also notice the small, faint filter icon in both reports indicating a widget is being used to filter the reports.

6. Select different options in the Risk Categories widget.

7. When finished, click **Select All** and click **Apply**.

8. Save the changes.

9. Try adding a **Select Value Filter** on the **Effectiveness** tab.

Task 5.   Use Do More option.

In this task you will add another tab and a report to experiment with the **Do More** feature.

1.   Add a new tab.
2.   Change the name of the new tab to **Donut**.
3.   In the **Content** pane, collapse the **Workspace Advanced Reports** folder.
4.   In **Custom Reports**, locate **OpEff Donut** and drag it into the new tab.
5.   Click **Maximize This Widget**.
6.   Click **Restore This Widget**.
7.   Click **Do More**.

   - Workspace Advanced opens.

8.   Click the chart container to display the **Series** field.
9.   Click CN_OPERATING_EFFECTIVENES in the Series field.
10. In the toolbar, open the filter menu and select **Create custom filter**:

   - **Condition**: Show only the following values,
   - in the **Values** pane, click **Effective**,
   - click the top arrow to move **Effective** into the **Selected values** pane,
   - click **OK**.

11. Click **Done** in the menu bar (far right side):

   - this will return you to Cognos Workspace,

   - note the small, faint filter icon in the donut chart.

12. Save the changes.
13. Close the Workspace browser window and return to the GRC Platform.
14. In the **Reporting** menu, select **Cognos Workspace**.
15. In the **Actions** menu, select **Open** and navigate to **My Folders**.
16. Open **22-Workspace Dashboard**.
17. Click the Donut tab and observe that the chart is as it was when you saved and quit Workspace.
18. Expose the widget toolbar and open the **Widget Actions** menu.
19. Select **Reset** and click **Yes**.

Task 6. Final formatting changes.

1. Click **Donut** tab.

2. In the workspace, right-click and select **Remove This Tab**:

    - click **Remove** when prompted.

3. Click **Effectiveness** tab.

4. Right-click the workspace and select **Edit Tab Style**.

5. Check the box to **Override the Tabs and Global Area settings…**

6. In the **Color** selector, select **Set Color** and click **Black**.

7. Click **OK**.

8. Change the background color of the Losses tab to black.

9. Make final adjustments to placement of the widgets on the two tabs.

10. Save the changes.

11. Close the Workspace browser window.

12. Log out of the GRC Platform, and close all browser windows.

> **Result:**
> **You created a Cognos Workspace dashboard using existing reports and saved it for future use.**

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Additional Resources

- *IBM Cognos Workspace Version 10.2.0 User Guide*
- Under the Cognos Workspace **Help** menu is a link for **How-to Videos**.
  - Users should be encouraged to view these.
- IBM Cognos Workspace: Create Workspaces (V10.2)
  - eLearning
  - Course Code: B5217

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YouTube has videos on working with Cognos Workspace. Search using **IBM Cognos Workspace**.

NOTES:

- Workspace Advanced is not Workspace,

- Cognos Workspace used to be Cognos Insight; some Insight videos may be helpful, too.

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Summary

- At the end of this module, you should be able to:

  - name areas of the Cognos Workspace screen,

  - describe widgets,

  - add content to the workspace,

  - describe **Do More** capabilities,

  - understand restraint of running Cognos Workspace from the GRC Platform.

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IMPORTANT

Solutions for the demos in this module can be found in:

Public Folders > 1O202 Solution Reports > Module 22.

Using Cognos Event Studio

IBM OpenPages: Report Authoring (v7.0)

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Objectives

- At the end of this module, you should be able to:
  - identify the areas of the Event Studio screen
  - explain the options in the **I want to** area
  - define the steps in configuring an agent
  - explain how to test the agent
  - understand run history and event list
  - create GRC Platform event agents

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Event Studio

- IBM Cognos Event Studio is an application for creating and managing agents that monitor data and perform tasks when the data meets predefined thresholds.

- Event Studio can be used with the IBM OpenPages GRC Platform to automate notifications to GRC Platform users and non-users.

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Agents vs Triggers

Agents	Triggers
Scheduled to run at specified times.	Any GRC Platform action can cause a trigger to run. For example, saving a record.
Cannot make changes to GRC Platform fields.	Can update / change GRC Platform fields.
Can send email notifications to record owners with or without attachments.	Can send email notifications to record owners with or without attachments.
Can run reports.	Can run reports.

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Event Studio agents cannot be triggered by a GRC Platform event, but with creative scheduling an agent, or series of agents, can be used in place of simple OpenPages triggers. You will get experience creating three Event Studio agents in the demonstrations in this module.
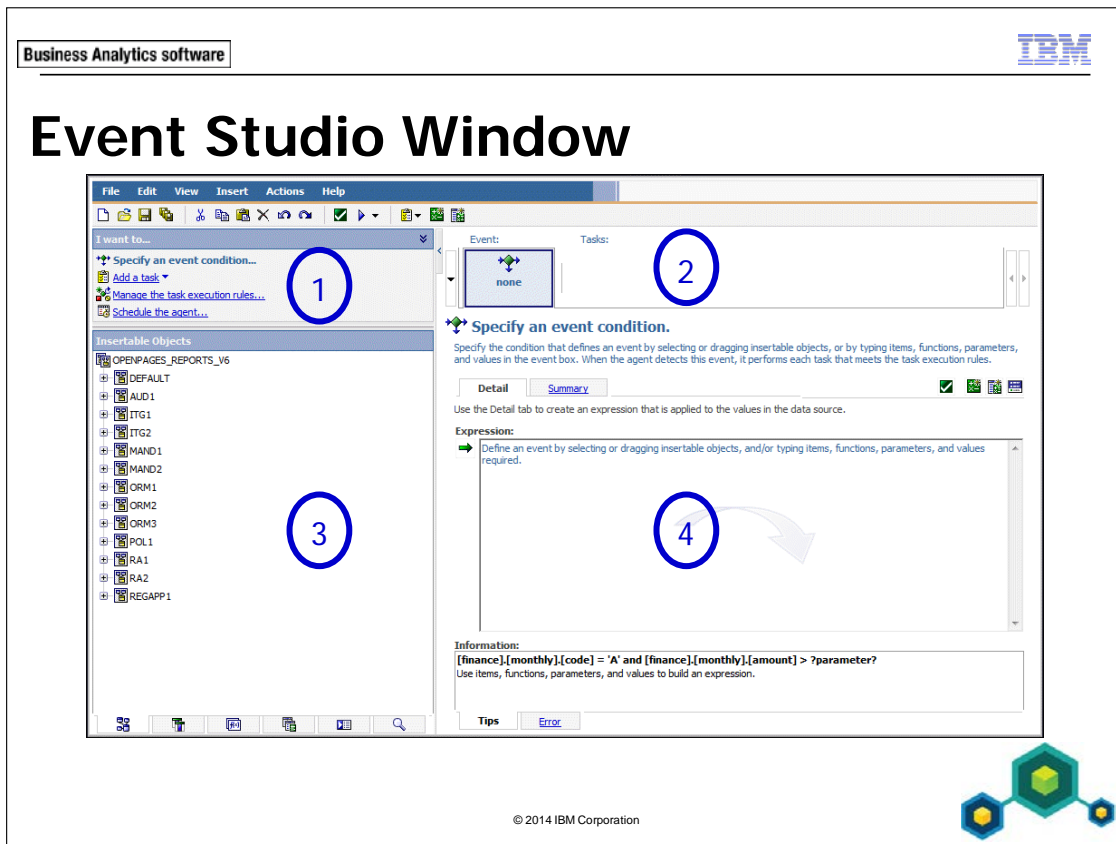
The Event Studio window has four areas:

1. **I want to** has links for the main tasks you perform to create an agent. Typically you will perform them in the order in which they appear in this area.

2. **Summary** contains tabs for the event condition and each task in the agent.

3. **Insertable Objects** contains items you can add to event conditions and agent tasks.

4. **Content** will display work pages and dialogs used to create and manage an agent.
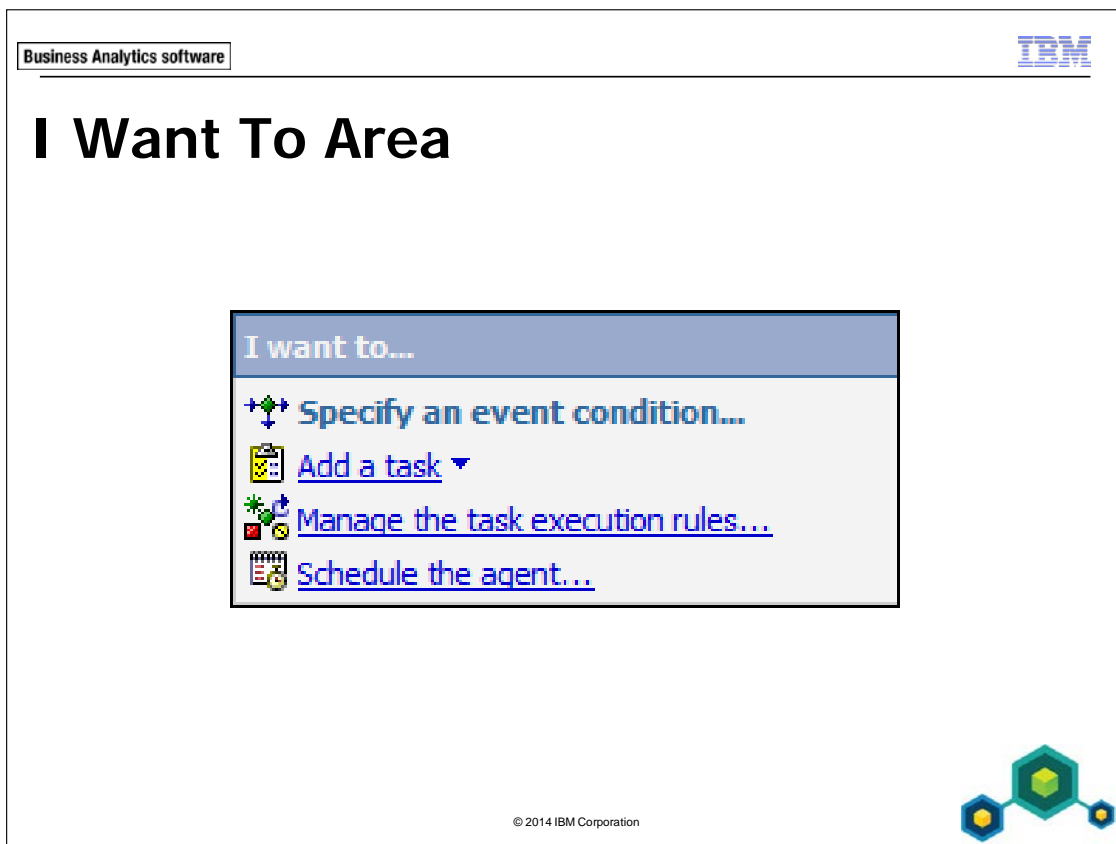
I Want To Area

Use **I want to** to guide you through the process of creating an agent. There are four options in this pane:

- **Specify an event condition**
- **Add a task**
- **Manage the task execution rules**
- **Schedule the agent**
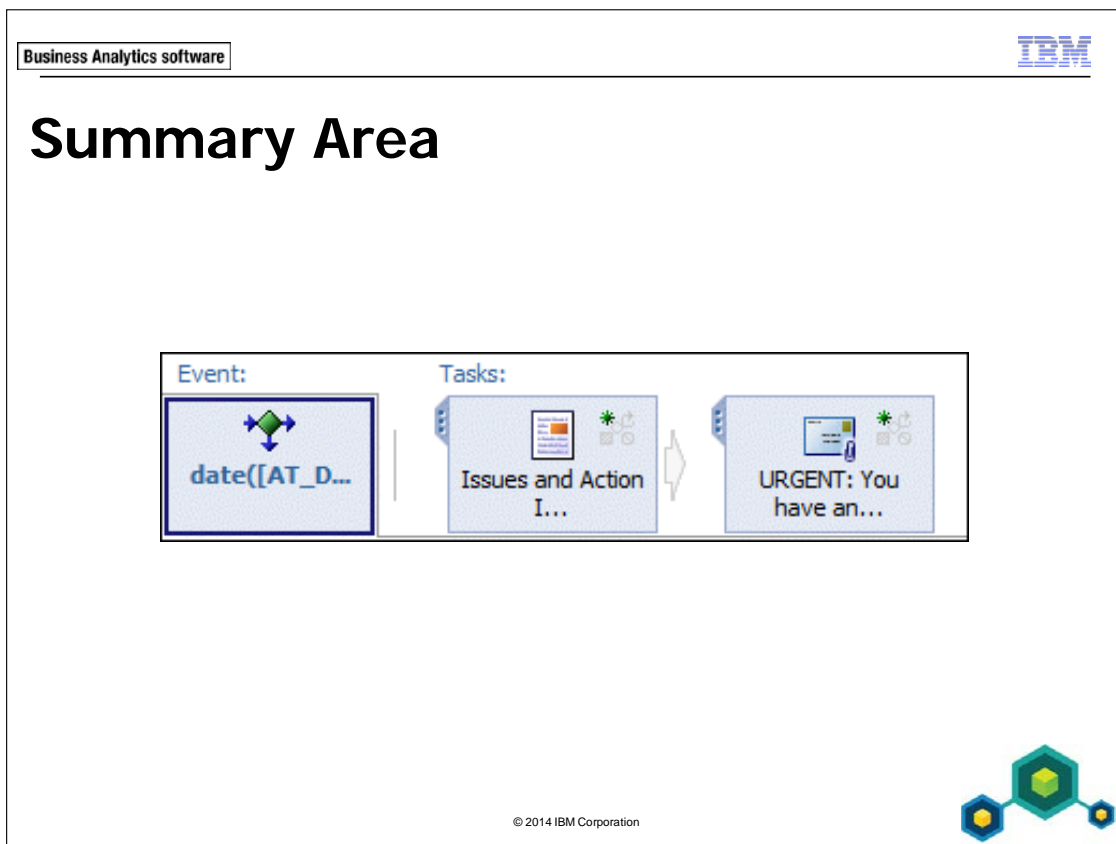
The summary area gives you quick access to the content area for the event condition and all tasks. The order of the task tabs can be used to specify the sequence in which the tasks are performed.

In this example, there are two tasks. The first one runs an Issues and Action Items report. The second task sends an email.

NOTE: By default, Event Studio performs all tasks simultaneously. In this example, it has been configured to first run the report and save a report view and then generate the email including a link to the report view.

Insertable Objects Area
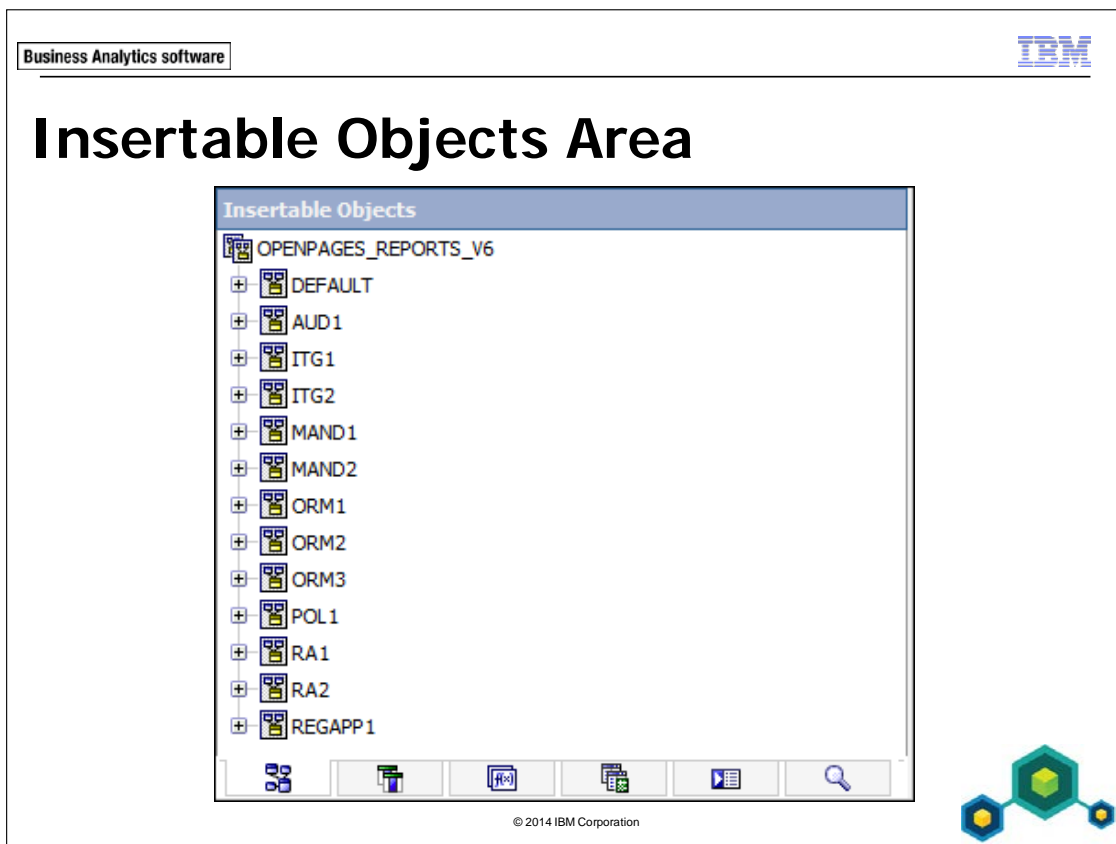
The **Insertable Objects** pane is the same as those found in Report Studio and Workspace Advanced. You use them in the same manner. Drag query items from this area to the content area where you work on event conditions and tasks.

NOTE: Event Studio does have a query, but it is not directly accessible. However, you can access the data items in the query by selecting the **Data Items** tab of the **Insertable Objects** area.

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Content Area

✦ Specify an event condition.

Specify the condition that defines an event by selecting or dragging insertable objects, or by typing items, functions, parameters, and values in the event box. When the agent detects this event, it performs each task that meets the task execution rules.

Detail   Summary   ☑ ⊞ ⊞ ⊞

Use the Detail tab to create an expression that is applied to the values in the data source.

Expression:

➡ Define an event by selecting or dragging insertable objects, and/or typing items, functions, parameters, and values required.

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This is the area in which you will work to configure the various components of the agent. By default, the event condition expression is displayed.

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Specify an Event Condition

Specify an event condition.

Specify the condition that defines an event by selecting or dragging insertable objects, or by execution rules.

| Detail | Summary |

Use the Detail tab to create an expression that is applied to the values in the data source.

Expression:

→ date([RA_NEXT_ASSESSMENT_DATE])<=_add_days (current_date,30)

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This will display the **Event Condition** expression in the content area. Each Event Studio agent has only one event condition. This is similar to a detail filter in a Report Studio report in that if the expression is TRUE, then tasks are performed.

The event condition is a query expression that you create using items from the OPENPAGES_REPORTS_V6 package. There are two tabs in the content area:

- **Detail**: Use this if the expression is applied to values of individual data source items,

- **Summary**: Use this if the expression is applied to aggregate values.

You will use the Detail tab for nearly all of the GRC Platform event agents.

In this example, the expression compares the Risk Assessment Due Date field to the date 30 days from now. If the Due Date is less than or equal to the date 30 days from now, the expression will return TRUE, and agent tasks will be performed:

- **date()**: This is a DB2 function that outputs a formatted date. If you are using Oracle for your database, you will use the **to_date()** function.

- **[RA_NEXT_ASSESSMENT_DATE]**: This is a query item from the Risk Assessment query subject in the **Source** tab.

- **_add_days()**: Is a function that lets you add days to a given date.

- **current_date**: Is a function that returns the current date from the server running the database software.

NOTE: You can use Report Studio to model and test the expression. Once you have the expression working the way you want it in Report Studio, copy and paste it into the Event Studio event condition expression.

Data Items Tab

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Insertable Objects
- RA_NEXT_ASSESSMENT_DATE
- RA_REVIEWER
- RA_NAME00
- Reviewer
- Due Date

Insertable Objects
- PEN_FULL_PATH
- Ineffective
- EMEA
- Asia Pac
- North America

Insertable Objects
- AT_ACTIONITEM_ID
- AT_ASSIGNEE
- AT_DUE_DATE00
- AT_STATUS
- AT_NAME00
- Email
- Due Date

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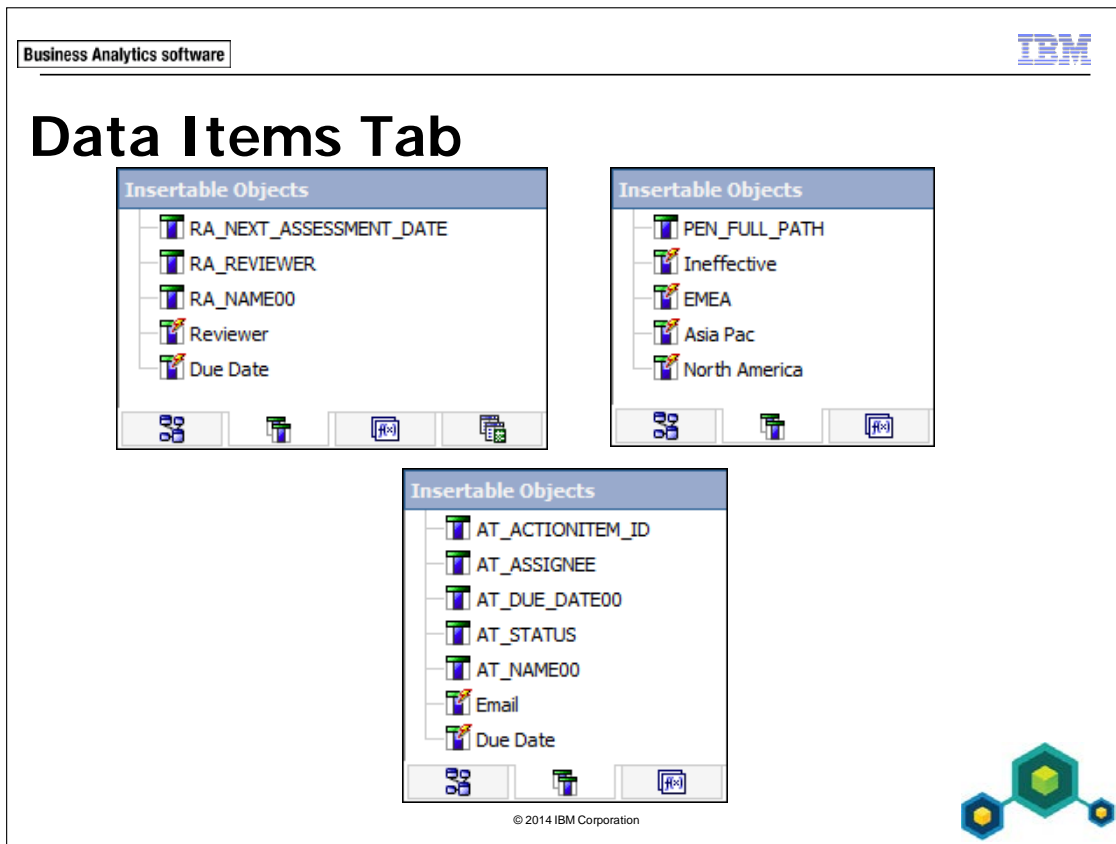
The contents of the **Data Items** tab will determine the contents of the **Events List**. Sometimes the agent results can change by adding or removing data items. You need to carefully test the agent to make sure that the event list is as you expect it to be and the event condition is working the way you expect.
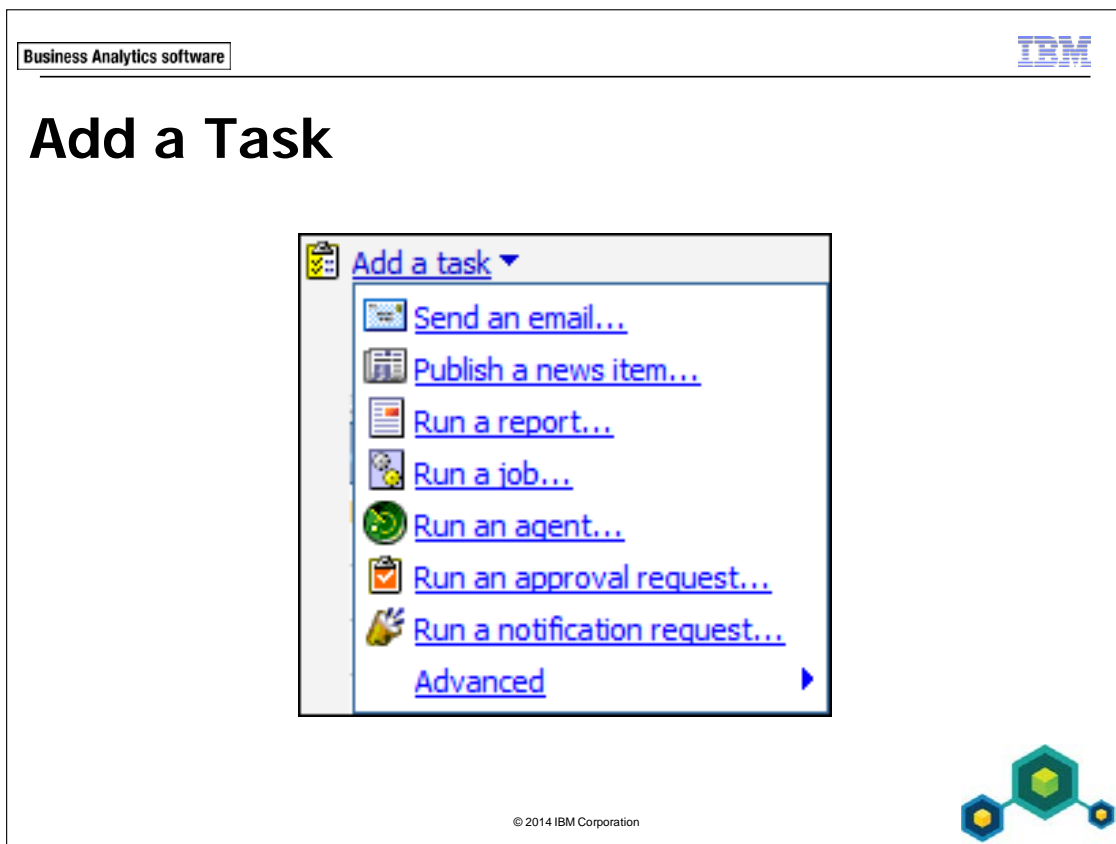
Each agent has one or more tasks that are performed when an event condition is detected. There are several options to choose from, but only two are commonly used with a third possibility for more sophisticated processes.

- Send an email

- Run a report

- Run an agent

USING COGNOS EVENT STUDIO

Send an Email

Business Analytics software

Specify the email to send.

Specify the recipients and contents of the email. To add recipients, click Select the recipient as the only attachment.

To:
⇨ [Reviewer]

Cc:
⇨

Select the recipients...   Show Bcc

Subject:
⇨ Time for another Risk Assessment

Body: Change to plain text »   **B** *I* U̲

⇨ Risk Assessment **[RA_NAME00]** is due to start on [Due Date].

Boss

CRO

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You create an email, with or without link attachments, that will be sent to email addresses if all conditions are met. You can create multiple email tasks in one agent.

In this example, the email address is determined from the query of event agent, in this case the Risk Assessment Reviewer. The body contains the name of the Risk Assessment and the Due Date, both from the event agent query.

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Run a Report

Specify the report to run.

Select a report, its options, and its prompt values if any. The agent will run this report when it detects events and
task execution rules are met.

Report:	**Run this report for the events:**
Issues and Action Items	New
Select the report...	

Options:
Produce report outputs, Excel 2007, English (United States), No prompt values saved, Save the report as a report
Edit...   Clear

Prompt values:
Specify the prompt values used to satisfy the parameters of this task, if any. Select to use a literal value or an item
Select to specify values to override the default values.

Parameter	Type	Required	Multi-select		Method	Value
Entity	Number	✔			Use a value ▼	'/Global Financial Services'
Reporting Period	Number	✔			Use a value ▼	'Current Reporting Period'

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You can have the agent run a report with pre-selected prompt values and then have
Cognos save a report view of the report. This report view can then be attached to an
email.

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Run an Agent

Specify the agent to run

Select an agent and its prompt values, if any. The agent will run this agent when it detects events and determines that the task execution rules are met.

Agent:
Too Many Ineffective Controls
Select the agent...

Run this agent for the events:
New; Ongoing

Prompt values:
Specify the prompt values used to satisfy the parameters of this task, if any. Select to use a literal value or an item from the event list. Select to specify values to override the default values.

Entries: 1 - 1

Parameter	Type	Required	Multi-select		Method	Value
Location	Text	✔			Use an item ▾	➡ [PEN_FULL_PATH]

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This task lets you run another Event Studio agent based upon the logic of this agent. You can use the output from this agent as the input to the next agent's parameters.

By running a number of agents in series, you can create a workflow to help automate a variety of business task notifications.

Determines when a task is performed. By default, a task is performed for new and all ongoing instances of events. You can, and should, change this.

In addition, you can add a task-specific Boolean calculation that must return 'True' before the task is performed.

In this example:

- the email for Asia Pac has been selected,

- only ongoing events will be allowed to trigger this task,

- additionally, only ongoing events that meet the criteria of the **[Asia Pac]** calculation will be included in this task.

NOTE: You must enable the condition event (1) before adding the data item to the condition field (2). If you forget to enable the condition event before adding the data item to the condition field, the condition event check mark will appear. However, the condition event is not enabled and the event agent will not work properly.

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Task Event Logic

- **New**: The event did not appear the last time the agent was run.

- **Ongoing**: The event did appear the last time the agent was run.

- **Ceased**: The event appeared the last time the agent was run but does not appear in the current run.

In addition, there are two versions of the Ongoing event:

- Detected in the last run and changed in the current run,

- Detected in the last run and not changed in the current run.

NOTE: The first time the event agent is run, all events in the event list are considered **New** because there is no previous event list history with which to compare. This means that if you disable **New** in favor of **Ongoing**, the first time the event agent is run, nothing will be considered ongoing until the event agent is run a second time.

An **Event Key** is used to determine whether an event is new, ongoing and changed, ongoing and unchanged, or ceased.

By default, all items in the query are included in the event key.

- If all items in the event key are unchanged from the previous run, then the event is considered ongoing and unchanged.

- If any one of the items in the event key is different than the last time the agent was run, then the event is considered ongoing and changed.

By carefully selecting the items in the event key, you can create fairly sophisticated task execution rules.

Best Practice: You should remove email addresses and user ID items from the event key because changing ownership or email addresses should not be used along with other criteria. The one exception would be if you want a change of ownership to trigger an event, in which case you will want to include the object type's owner field in the event key.

Schedule the Agent

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Disable the schedule	Priority: 1	Start: Aug 8, 2014

Frequency:
Select the frequency by clicking on a link.

| By Day | By Week | **By Month** | By Year | By Trigger |

○ The Second Friday of every 1 month(s)
● Day 10 of every 1 month(s)

Daily Frequency:
☐ Every 1 Hour(s) between 9 : 00 AM and 5 : 00 PM

Start:
Aug 8, 2014
1 : 36 AM

End:
● No end date
○ End by:
Aug 8, 2014
10 : 39 AM

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While you can manually run an Event Studio agent, it is much more convenient to run an agent at regular intervals. Schedule an agent to run as frequently as you like, from every few minutes to every few months. Only one schedule per agent is allowed.

In this example, the event is scheduled to run on the 10th day of every month, starting August 8, 2014 with no end date specified.
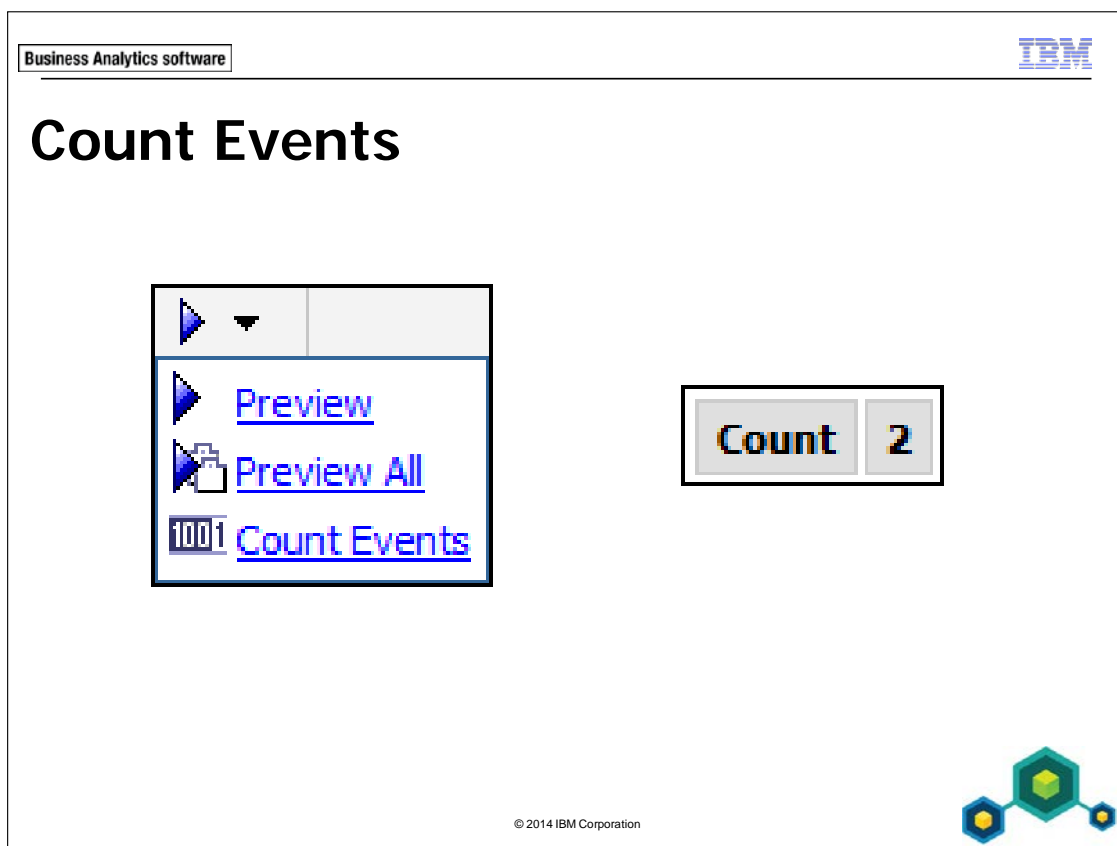
Once you have your event agent configured, you can test the potential output. In the tool bar there is a **Preview** menu with three options:

- **Count Events**
- **Preview All**
- **Preview**

The **Count Events** option returns the number of events found in the current data set of the GRC Platform. In this example, two events were detected.

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Preview

RA_NEXT_ASSESSMENT_DATE	RA_REVIEWER	RA_NAME00	Reviewer	Due Date
1-Sep-14 12:00:00 AM	ORMdir	EMEA-CORP-RA-2014-001	ormdir@op123.com	1-Sep-14
25-Aug-14 12:00:00 AM	ORMdir	EMEA-CORP-RA-2014-002	ormdir@op123.com	25-Aug-14

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When you select **Preview** you will see each of the events detected in the GRC Platform. In this example, two Risk Assessments were found that met the agent's criteria.

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Preview All

Table of Contents
Event:
⁜ Event List
Tasks:
📧 Time for another Risk Assessment

⁜ **Event List** ⊕

RA_NEXT_ASSESSMENT_DATE	RA_REVIEWER	RA_NAME00	Reviewer	Due Date
1-Sep-14 12:00:00 AM	ORMdir	EMEA-CORP-RA-2014-001	ormdir@op123.com	1-Sep-14
25-Aug-14 12:00:00 AM	ORMdir	EMEA-CORP-RA-2014-002	ormdir@op123.com	25-Aug-14

📧 **Time for another Risk Assessment** ⊕

The preview below shows the emails that would be sent using the default task execution rules. However, when this agent runs, it will perform this task only for the events that meet the specified execution rules: 'New events'.

To:ormdir@op123.com
Cc:(None)
Bcc:(None)
Subject: Time for another Risk Assessment

Risk Assessment **EMEA-CORP-RA-2014-001** is due to start on 1-Sep-14.

Risk Assessment **EMEA-CORP-RA-2014-002** is due to start on 25-Aug-14.

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When you select **Preview All** you will see a report that shows:

- **Event List**: These are all of the events detected.

- **Tasks**: A sample of each task will be displayed.

In this example, the event list shows the two events detected in the GRC Platform and an example of the email that would have been sent out. Notice that the email contains one line of text for each event found for the Risk Assessment reviewer **ORMdir**.

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Run History Details

Messages

Severity: (All) ▼

Time ◇		Message
8 August, 2014 9:51:03 AM	ℹ	CNC-ASV-0049 The Task [Too many ineffective controls Asia Pac] was suppressed by an execution rule.

Agent

Options:
Unavailable

Event and tasks:

...> Name	Request time	Start time	Completion time	Status	Actions
✎ Too Many Ineffective Controls	8 August, 2014 9:51:01 AM	8 August, 2014 9:51:01 AM	8 August, 2014 9:51:03 AM	Succeeded	▶ 📋
✉ Too many ineffective controls in EMEA	8 August, 2014 9:51:03 AM	8 August, 2014 9:51:04 AM	8 August, 2014 9:51:04 AM	Succeeded	▶
✉ Too many ineffective controls in North America	8 August, 2014 9:51:03 AM	8 August, 2014 9:51:04 AM	8 August, 2014 9:51:04 AM	Succeeded	▶

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For testing or troubleshooting purposes, you can enter Cognos Connection and review the **Run History** which can be found in the **More** section of the Event Studio agent.

This is a sample Run History Details report. It shows one event (**Too Many Ineffective Controls**) and two tasks (EMEA and North America emails) were successfully completed. However, the Asia Pac email task did not run, **The Task was suppressed by an execution rule**. This indicates that the task execution rule criteria were not met for this task and the email was not sent. Further investigation would show that the Asia Pac business entity had only 4 ineffective controls.

Event List

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Event List

Table of Contents
- CEASED EVENTS
- ONGOING EVENTS
- NEW EVENTS

CEASED EVENTS ⊕

These events were detected the previous time the agent ran but were not detected during the current run.

AT_ACTIONITEM_ID	AT_ASSIGNEE	AT_DUE_DATE00	AT_STATUS	AT_NAME00	Email	Due Date
2080	ORMdir	16-Jul-14 12:00:00 AM	Open	CB-41_ISS_00087_AI_000041	ormdir@op123.com	16-Jul-14

ONGOING EVENTS ⊕

These events were also detected the previous time the agent ran and they had the same values.

AT_ACTIONITEM_ID	AT_ASSIGNEE	AT_DUE_DATE00	AT_STATUS	AT_NAME00	Email	Due Date
1498	ORMdir	31-Jan-14 12:00:00 AM	Open	Retail Banking_ISS_00061_TASK_0013	ormdir@op123.com	31-Jan-14
1499	orm	16-Dec-13 12:00:00 AM	Open	Retail Banking_ISS_00062_TASK_0014	orm@op123.com	16-Dec-13
1570	ORMdir	15-Jan-14 12:00:00 AM	Open	CB-41_ISS_00087_TASK_0025	ormdir@op123.com	15-Jan-14
1571	ORMdir	6-Jan-14 12:00:00 AM	Open	CB-41-158-Risk1837_ISS_00088_TASK_0026	ormdir@op123.com	6-Jan-14

NEW EVENTS ⊕

These events were not detected the previous time the agent ran.

AT_ACTIONITEM_ID	AT_ASSIGNEE	AT_DUE_DATE00	AT_STATUS	AT_NAME00	Email	Due Date
2080	ORMdir	24-Jul-14 12:00:00 AM	Open	CB-41_ISS_00087_AI_000041	ormdir@op123.com	24-Jul-14

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Also available for review in an agent's run history is the **Event List**. In this example there is one event classified as **Ceased**, four as **Ongoing and Unchanged**, and one **New** event.

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Use Case #1

The Risk Management team wants an automated process put in place that will send email reminders to the Reviewer 30 days before a Risk Assessment is scheduled to begin. The email should be sent only once, not repeatedly and should include the name of the Risk Assessment and the Due Date.

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This will be a fairly simple event to create. However, there are some GRC Platform quirks to be aware of:

- The **Due Date** field is actually a timestamp. In order to display correctly, for both the email and date math, you will have to convert the timestamp to a date format.

- The **Reviewer** field is a GRC Platform user name. You will need to extract the reviewer's email address from this field.

- You will need to take into account the **Current Reporting Period** in your expression.
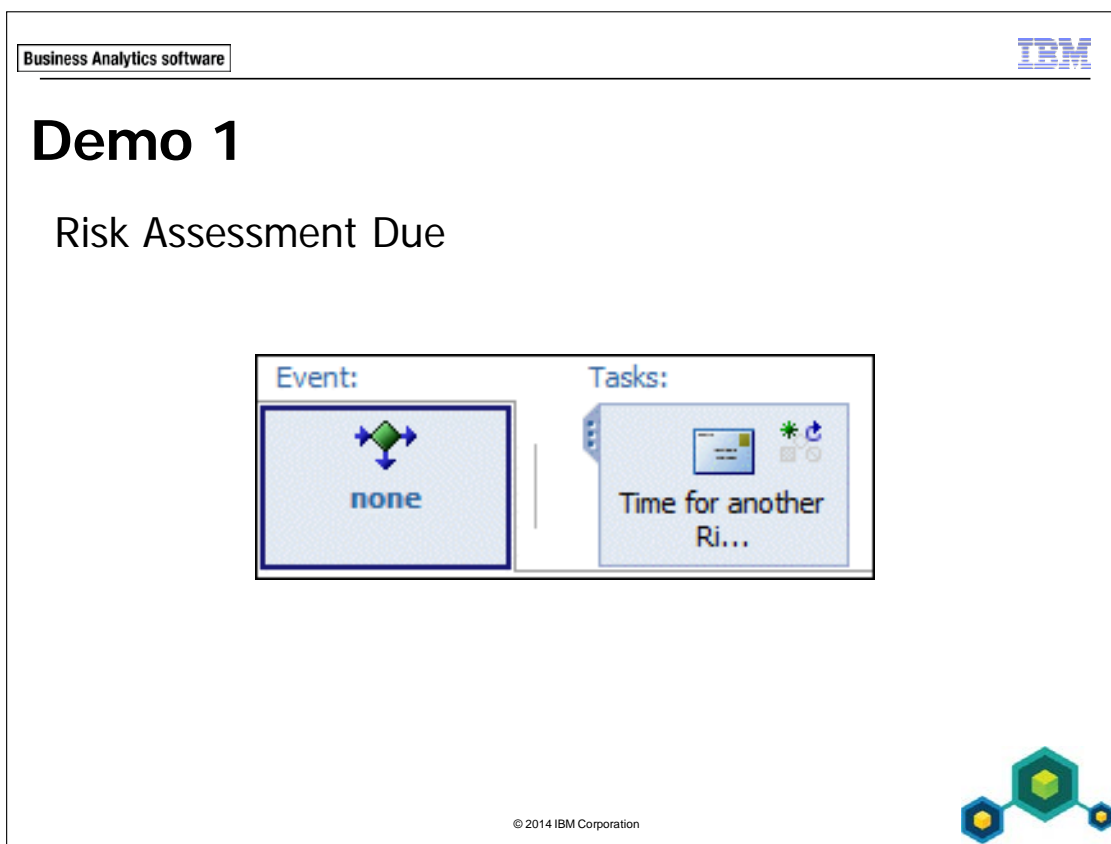
For this demonstration, use the DEFAULT_REL namespace.

IMPORTANT

Before starting your first demo, you must prepare the IBM eLabs. Refer to the PDF file, *Preparing For a Demo* which can be downloaded from the **Materials** tab of the eLabs launch site.

Demo 1: Risk Assessment Due

Purpose:
Create an Event Studio agent that will send an email reminder to Risk Assessment Reviewers per Use Case #1.

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Event Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Populate the query.

In this task you will add calculations and data items to the query to meet the needs of the event agent expression.

1. In Event Studio, start with a new event.
2. Confirm that the content area is displaying **Specify an event condition**.
3. In the **Source** tab of the Insertable Objects pane, expand DEFAULT_REL > GRC_OBJECTS > RISKASSESSMENT > ID_FIELDS.
4. Drag the following into the expression:

   - **RA_REPORTING_PERIOD_ID,**

   - **RA_NAME00,**

   - **RA_NEXT_ASSESSMENT_DATE,**

   - **RA_REVIEWER.**

5. Remove all of the text in the expression.
6. In the Insertable Objects pane, click the **Data Items** tab and notice that the four data items appear in the list.

7. In the content area, click **New Calculation**.

    - **Name**: Email,

    - **Expression**: (create the following expression and click **OK**).

    ```
    "OP_ACTOR_MGR.GET_DISPLAY_NAME" (
    [RA_REVIEWER],
    null,
    '%EM;'
    )
    ```

8. Click New Calculation:

    - **Name**: Due Date,

    - **Expression**:

        - in the Insertable Objects pane, click the **Functions** tab,

        - expand **Vendor Specific Functions > DB2**,

        - drag **date** into the expression,

        - click the **Data Items** tab,

        - drag **RA_NEXT_ASSESSMENT_DATE** to the end of the expression and type a closing parenthesis,

      The results appear as follows:

      ```
      date([RA_NEXT_ASSESSMENT_DATE])
      ```

        - click **OK**.

9. Click New Calculation:

- **Name**: Within 30 Days,

- **Expression**: (create the following expression and click **OK**).

```
if(
([RA_REPORTING_PERIOD_ID]=-1) and
(date([RA_NEXT_ASSESSMENT_DATE])<=_add_days (current_date,30))
)
then('Yes')
else('No')
```

NOTES:

- _add_days function is in Functions > Business Date/Time Functions,

- current_date function is in Functions > Common Functions > A-C.

10. Save the event agent as **23-Risk Assessment Event** in **My Folders**.

Task 2. Specify an event condition.

1. From the **Data Items** tab of Insertable Objects, drag **Within 30 Days** into the event condition **Expression** field.

2. Place the cursor at the end of the expression and type **='Yes'**.
   The results appear as follows:
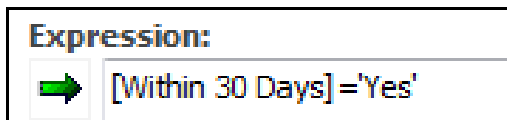
3. In the tool bar, open the **Preview** menu and select **Count Events**. NOTE: there may or may not be any events, but you are watching for errors. If there are no errors, you are successful.

4. Save the changes to the event.

Task 3. Add a task.

1. In the **I want to pane**, open **Add a task** and select **Send an email**.
2. From the **Data Items** tab of Insertable Objects, drag **Email** into the **To** field.
3. In the **Subject** field type **Time for another Risk Assessment**.
4. Fill in the body as follows:

```
Risk Assessment [RA_NAME00] is due to start on [Due Date].

Boss
Chief Risk Officer
```

   NOTE: Drag the name and due date fields in from the Data Items pane.

5. Using your mouse, select **[RA_NAME00]** and format it bold.
6. Save the changes to the event.

Task 4. Manage task execution rules.

The first time the event agent is run, all events will be considered **New** since there is no event history with which to compare. However, after the first run you only want new events to generate an email.

1. In the **I want to pane**, click **Manage the task execution rules**.
2. Click the **Event Key** tab.
3. Select **Include only selected items** and remove:

   *   **[RA_REPORTING_PERIOD_ID]**,
   *   **[RA_NEXT_ASSESSMENT_DATE]**,
   *   **[RA_REVIEWER]**,
   *   **[Email]**.

   The results appear as follows:

   ```
   ⦿ Include only selected items:
   ➡ [RA_NAME00];[Due Date];[Within 30 Days];
   ```

4. Return to the **Event Selection** tab.
5. Clear **Ongoing** events and leave **New events** selected.
6. Click **OK**.
7. Save the changes to the event.

Task 5.   Run the event agent and test.

1.   Open the browser window with the IBM Cognos welcome screen displayed.

2.   Click **IBM Cognos content**.

3.   Click **My Folders** tab.

4.   Scroll through the list of saved reports and events until you locate **23-Risk Assessment Event**.

5.   In the **Actions** column, click **Run with options**.

6.   Confirm **Now** is enabled and click **Run**.

7.   Click the checkbox for **View the details of this agent after closing this dialog** and click OK.

8.   Wait a few seconds and click **Refresh** in the top right corner.

9.   You should see status of **Succeeded**.

10. Under **Actions** click **View the event list** icon. NOTE: You may or may not have any events. You are looking for errors. If there are no errors you are successful.

11. Close the event list window and click **Close**.

12. Minimize the Cognos Connection window and return to Event Studio.

Task 6.   Schedule the agent.

You want the agent to automatically run once a week every Sunday. There are no prompt values for this agent.

1.   In the **I want to pane**, click **Schedule the agent**.

2.   In the **Frequency** section:

   * click **By Week**,

   * clear all days and enable Sunday.

3.   Under **Priority** select **1**.

4.   Click **OK**.

5.   Save the changes to the event.

Task 7. Disable the schedule.

This task disables the schedule without removing the Event Studio agent from Cognos Connection. You are doing this to keep your GRC Platform from getting too cluttered with running agents and emails.

1. In the **I want to pane**, click **Schedule the agent**.
2. Check the box next to **Disable the schedule**.
3. Click **OK**.
4. Save the changes.

Results:
You created an Event Studio agent that will once a week check for Risk Assessments due to start within the next 30 days and send an email to Reviewers when a new Risk Assessment appears in the list.

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Use Case #2

The Risk Management team wants an automated process put in place that will find Action Items that have a status of **Open** and the due date is past due. If any Action Items meet this criteria, the process will run the *Issues and Action Items* report and save it in Excel 2007 format. The process will then send an email to assignees that they have past due Action Items. The email will contain a link to the report.

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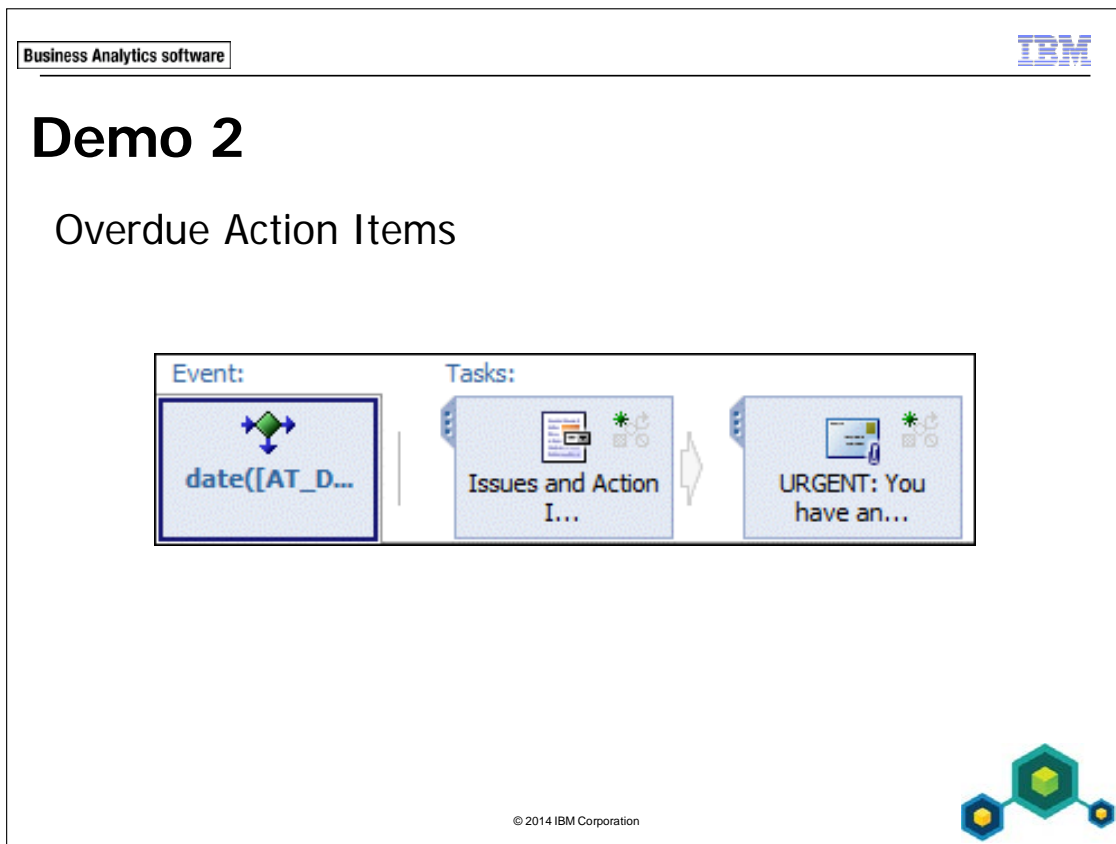
This Event Studio agent is a bit more complex because there will be two tasks that must be performed in a specific order.

Demo 2: Overdue Action Items

Purpose:
Create an Event Studio agent that will run the *Issues and Action Items* report, save it in Excel 2007 format, and send an email reminder, with a link to the report, to Action Item assignees per Use Case #2.

Portal: **http://optrainvm/ibmcognos**

User/Password: **reportauthor/reportauthor**

Studio: **Event Studio**

Package: **OPENPAGES_REPORTS_V6**

Task 1. Populate the query.

1. In Event Studio, start with a new event.
2. Confirm that the content area is displaying **Specify an event condition**.
3. In the **Source** tab of the Insertable Objects pane, expand DEFAULT_REL > GRC_OBJECTS_STANDALONE > SOXTASK > ID_FIELDS.
4. Drag the following into the expression:

    - **AT_REPORTING_PERIOD_ID,**

    - **AT_ASSIGNEE,**

    - **AT_DUE_DATE00,**

    - **AT_NAME00.**

5. Expand ENUMERATION_FIELDS > STATUS (ENUMERATION) and drag **AT_STATUS_ID** into the expression.
6. Remove all of the text in the expression.
7. Navigate to the **Data Items** tab of the Insertable Objects pane.

8. Click **New Calculation**:

    - **Name**: Email,

    - extract the email address from the assignee's user identifier as follows:

    ```
    "OP_ACTOR_MGR.GET_DISPLAY_NAME" (
    [AT_ASSIGNEE],
    null,
    '%EM;'
    )
    ```

    - click **OK**.

9. Click New Calculation:

    - **Name**: Due Date,

    - in the expression pane, type **date(**,

    - from the Data Items tab drag **AT_DUE_DATE00** to the end of the expression,

    - type a closing parenthesis and click **OK**.

    The results appear as follows:

    ```
    date([AT_DUE_DATE00])
    ```

10. Click New Calculation:

- **Name**: Overdue,

- create the following calculation to locate open, overdue Action Items in the current reporting period.

```
if(
([AT_REPORTING_PERIOD_ID]=-1) and
([Due Date]<current_date) and
([AT_STATUS_ID]=#$SOXTASK_STATUS_DEFINITION_MAP{'Open'}#)
)
then('Yes')
else('No')
```

- click **OK**.

The results appear as follows:
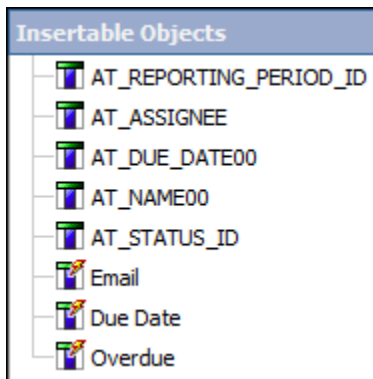
Task 2. Specify an event condition.

1. From the **Data Items** tab of Insertable Objects, drag **Overdue** into the expression and type **='Yes'**.

2. Save the event as **23-Overdue Action Items Event** in **My Folders**.

3. In the tool bar, open the **Preview** menu, select **Preview** and confirm there are some events that meet the criteria with no error messages.

4. Close IBM Cognos Viewer.

Task 3.   Add 'Run a report' task.

In this task you will add a folder to Cognos Connection in which report views created by Event Studio agents will be saved. In addition, you will generate a saved report view so it can be used in the following task(s).

1.   In the **I want to** pane, open **Add a task** and select **Run a report**:

    - navigate to Cognos > Public Folders > OpenPages Platform V6 > Issue Reports,

    - select **Issues and Action Items** and click **OK**,

    - click **Specify values** under the **Prompt values** list:

        - **Reporting Period prompt**: Current Reporting Period,

        - **Entity prompt**: /Global Financial Services,

        - click **Finish**.

2.   Under **Options**, click **Set**:

    - select **Override the default values**,

    - clear **HTML**,

    - select **Excel 2007**,

    - select **Save the report as a report view**,

    - click **Edit the options**,

        - remove **Report View of** from the name field,

        - click **Select another location**,

        - navigate to Cognos > Public Folders > Saved Reports,

        - click **New folder**:

            - **Name**: Event Reports,

            - click **Finish**,

        - select **Event Reports** and click **OK**,

        - click **OK** again,

    - click **OK** again.

3. Save the changes to the event.

4. Minimize the Event Studio browser window.

5. Maximize the Cognos Connection browser window.

6. Navigate to Public Folders > OpenPages Platform V6 > Issue Reports.

7. Under **Actions**, click **More** for **Issues and Action Items**.

8. Click **Create a report view of this report**.

9. Remove **Report View of** from the name field.

10. Click **Select another location**.

11. Navigate to Cognos > Public Folders > Saved Reports > Event Reports.

12. Click **OK** and then **Finish**.

13. Navigate to Public Folders > Saved Reports > Event Reports.

14. You should see the **Issues and Action Items** report view.

15. Minimize the Cognos Connection browser window.

16. Maximize the Event Studio browser window.

Task 4. Add 'Send an email' task.

1. In the **I want to** pane, select **Send an email**:

    - **To**: [Email],

    - **Subject**: URGENT: You have one or more overdue Action Items,

    - **Body**:

    > The following Action Items were due on the dates indicated:
    >
    > - [AT_NAME00] was due on [Due Date]
    >
    > Please take care of this as quickly as possible.
    >
    > Internal Audit Team

    - Click **Add links** under the body pane:

        - navigate to Cognos > Public Folders > Saved Reports > Event Reports,

        - select **Issues and Action Items**,

        - click the **Add** arrow,

        - click **OK**.

    The results appear as follows:

Task 5. Manage task execution rules.

1. In the **I want to pane**, click **Manage the task execution rules**.

2. In the **Task** selector, select the report option.

3. Clear **Ongoing** events and leave **New events** selected.

4. In the **Task** selector, select the email option.

5. Clear **Ongoing** events and leave **New events** selected.

6. Click **OK**.

7. In the **I want to** pane, click **Reorder the tasks**.

8. Select **In sequence**, confirm the Issues and Action Items task is at the top of the list since it must be performed first, and click **OK**.

9. In the tool bar, open the **Preview** menu and select **Preview All**:

    - review the **Event List**,

    - review the sample emails,

    - close Cognos Viewer.

10. Save the changes to the event.

Task 6. Run the event agent and test.

1. Minimize the Event Studio browser window.

2. Maximize the Cognos Connection browser window.

3. Navigate to **My Folders**.

4. Scroll through the list of saved reports and events until you locate **23-Overdue Action Items Event**.

5. In the **Actions** column, click **Run with options**.

6. Confirm **Now** is enabled and click **Run**.

7. Click the checkbox for **View the details of this agent after closing this dialog** and click **OK**.

8. Wait a few seconds and click **Refresh** in the top right corner.

9. You should see status of **Succeeded**.

10. Close the event list window and click **Close**.

11. Minimize the Cognos Connection window and

12. Open a new Internet Explorer browser window.

13. In the Favorites menu bar, open **OpenPages** and select **ORM Director**, which will display an email login screen:

- **User name**: ORM Director,

- **Password**: ORMdir,

- click **OK**.

14. Locate the email sent by the Event Studio agent and open it.

15. Review the contents and then click **Logout**.

16. When prompted, click **Yes**.

17. Maximize the Event Studio browser window.

18. Save the event changes.

Result:
You created an Event Studio agent that runs a report, saves a report view, and sends an email with an attached link to the report view.

Use Case #3

The Risk Management team wants an automated process put in place that will determine the number of ineffective controls by region. If the number exceeds five control records the executive owner of the region will be sent an email informing them of the situation. The automated process is to be run on the 10th day of the second month of the fiscal quarter.

This Event Studio agent adds more complexity:

- a prompt parameter will be added to the agent,

- three different email tasks will be created, one for each GRC Platform region,

- the task execution rule for each email task will include a Boolean data item,

- executive owners will continue to receive emails until the number of ineffective controls falls below the threshold,

- you will model the Event Condition in Report Studio.

Demo 3: Too Many Ineffective Controls

Purpose:
Create an Event Studio agent with a prompt parameter that determines the number of ineffective control records for each GRC Platform region and sends an email to regional executive owners.

Portal:	**http://optrainvm/ibmcognos**
User/Password:	**reportauthor/reportauthor**
Studio:	**Report Studio and Event Studio**
Package:	**OPENPAGES_REPORTS_V6**

Task 1. Model the event condition in Report Studio.

Due to restrictions in Event Studio, you will need to use fully qualified query item names. Therefore, when modeling event conditions in Report Studio you should use fully qualified query item names.

1. Maximize the browser window containing Cognos Connection.
2. Launch Report Studio, select the package, and create a new list report.
3. Expand DEFAULT_REL > GRC_OBJECTS > SOXBUSENTITY_FOLDER > SOXBUSENTITY_GPC > ID_FIELDS.
4. Add **PEN_FULL_PATH** to the list container.
5. Point to **Query Explorer** to slide it open and select **Query1**.
6. Add GEN_REPORTING_PERIOD_ID to the **Detail Filters** pane and type **=-1**.
7. Add GEN_FULL_PATH to the **Detail Filters** pane and type **=?Location?**. The results appear as follows:

Expression Definition:
[DEFAULT_REL].[SOXBUSENTITY_GPC].[GEN_REPORTING_PERIOD_ID]=-1
Expression Definition:
[DEFAULT_REL].[SOXBUSENTITY_GPC].[GEN_FULL_PATH]=?Location?

8. Run the report HTML and select **/Global Financial Services**.
9. Review the report results. NOTE: /Global Financial Services is not a region, but it will never have Issues or Action Items associated to it in the GRC Platform.

10. Close Cognos Viewer.

11. From the toolbox, add a **Data Item** to the Data Items pane:

    - **Name**: Ineffective,

    - **Expression Definition**: (Create the following and click **OK**)

```
if(
([DEFAULT_REL].[SOXCONTROL].[CN_OPERATING_EFFECTIVENES_ID]=
#$SOXCONTROL_OPERATING_EFFECTIVENES_DEFINITION_MAP{'Ineffective'}#)
)
then([DEFAULT_REL].[SOXCONTROL].[CN_CONTROL_ID])
else(null)
```

    NOTES:

- The equation in the 2nd and 3rd lines is one continuous line.

- To locate the query items, expand:

    - DEFAULT_REL > GRC_OBJECTS > SOXCONTROL > ENUMERATION_FIELDS > OPERATING_EFFECTIVENES (ENUMERATION)

    - DEFAULT_REL > GRC_OBJECTS > SOXCONTROL > ID_FIELDS

12. Set the Aggregate Function property to Count Distinct.

13. Navigate to Report Pages Page1 and from the Data Items tab add **Ineffective** to the end of the list container.

14. Run the report HTML and select **/Global Financial Services**.

15. Review the report results.

16. Close Cognos Viewer.

17. Return to the report's query (Query1).

Task 2. Put filter logic in data item.

Due to restrictions in Event Studio, you will need to move the logic for the two detail filters into the **Ineffective** data item.

1. Open the reporting period ID filter and copy the expression.

2. Close the filter expression window.

3. Open **Ineffective**.

4. Place the cursor at the end of the line containing **DEFINITION_MAP**, type **and** followed by **<Enter>**.

5. Type an opening parenthesis and paste the reporting period ID expression.

6. Type a closing parenthesis followed by **and**.

7. Press **<Enter>**.

8. Click **OK**.

9. Open the FULL_PATH filter, copy the expression and close the expression window.

10. Open **Ineffective**.

11. Place the cursor in the empty line created above.

12. Type an opening parenthesis and paste the FULL_PATH filter.

13. Type a closing parenthesis and click **OK**.

    The results appear as follows:

```
Expression Definition:
if(
([DEFAULT_REL].[SOXCONTROL].[CN_OPERATING_EFFECTIVENES_ID]=#$SOXCONTROL_OPERATING_EFFECTIVENES_DEFINITION_MAP{'Ineffective'}#) and
([DEFAULT_REL].[SOXBUSENTITY_GPC].[GEN_REPORTING_PERIOD_ID]=-1) and
([DEFAULT_REL].[SOXBUSENTITY_GPC].[GEN_FULL_PATH]=?Location?)
)
then([DEFAULT_REL].[SOXCONTROL].[CN_CONTROL_ID])
else(null)
```

14. Delete the two detail filters and run the report HTML.

15. Select **/Global Financial Services** at the prompt.

16. Review the results and then close Cognos Viewer.

Task 3. Add count() function to data item.

Again, due to restrictions in Event Studio, you will need to move the aggregation function **count(distinct)** into the **Ineffective** data item.

1. Select the **Ineffective** data item and change the following properties:

    - Aggregate Function: None,

    - Rollup Aggregate Function: None.

2. Run the report HTML, select **/Global Financial Services**, and note the change to the report.

    - Since aggregations have been disabled, you are seeing the control record identifiers in each row.

3. Close Cognos Viewer.

4. Open **Ineffective** and place the cursor at the beginning of the expression, before the word **if**.

5. Type **count(distinct(**.
6. Place the cursor at the end of the entire expression, after **else(null)**.
7. Type two closing parentheses.

    The results appear as follows:

```
Expression Definition:

count(distinct(if(
([DEFAULT_REL].[SOXCONTROL].[CN_OPERATING_EFFECTIVENES_ID]=#$SOXCONTROL_OPERATING_EFFECTIVENES_DEFINITION_MAP{'Ineffective'}#) and
([DEFAULT_REL].[SOXBUSENTITY_GPC].[GEN_REPORTING_PERIOD_ID]=-1) and
([DEFAULT_REL].[SOXBUSENTITY_GPC].[GEN_FULL_PATH]=?Location?)
)
then([DEFAULT_REL].[SOXCONTROL].[CN_CONTROL_ID])
else(null)))
```

8. Click **OK** and run the report HTML, selecting **/Global Financial Services**.
9. Review the changes to the report and then close Cognos Viewer.
10. Open **Ineffective** and copy the entire expression definition.
11. Open **Notepad** and paste the expression.
12. Save the text file as **Ineffective Equation** to the desktop.
13. Minimize the Report Studio browser window.

Task 4. Populate the event studio query.

1. In Event Studio, start with a new event.
2. In the **Source** tab navigate to the SOXBUSENTITY_GPC query subject.
3. Drag the following into the expression:

    - PEN_FULL_PATH.

4. Remove the contents of the expression.
5. Click **New Calculation**:

    - **Name**: Ineffective,

    - open the **Ineffective Equation** file,

    - copy the equation,

    - paste into the expression pane,

    - click **OK**.

Task 5.   Specify an event condition.

1.   From the Data Items tab, drag **Ineffective** into the expression and type **>5**.
     The results appear as follows:

     Expression:
     ➡ [Ineffective]>5
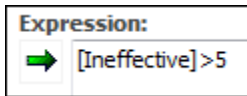
2.   In the **Preview** menu, select **Preview** and select **/Global Financial Services** in the prompt.

3.   Review the results and then close Cognos Viewer.

4.   Save the event agent as **23-Ineffective Controls Event** in **My Folders**.

Task 6.   Add Boolean data items.

In this task you will create the three Boolean data items that will be used to send emails to appropriate entity executive owners.

1.   Click New Calculation:

   • **Name**: EMEA,

   • **Expression**: (as follows)

```
if([PEN_FULL_PATH] contains '/EMEA')
then('True')
else('False')
```

2.   Click New Calculation:

   • **Name**: Asia Pac,

   • **Expression**: (as follows)

```
if([PEN_FULL_PATH] contains '/Asia Pac')
then('True')
else('False')
```

3.   Click New Calculation:

   • **Name**: North America,

   • **Expression**: (as follows)

```
if([PEN_FULL_PATH] contains '/North Am')
then('True')
else('False')
```

4.   Save changes.

IBM OPENPAGES: REPORT AUTHORING (V7.0)

Task 7. Add tasks.

1. In the **I want to** pane, select **Send an email**:

   - **To**: reportauthor@op123.com,

   - **Subject**: Too many ineffective controls EMEA,

   - **Body**:

   ```
   This is to inform you that your entity hierarchy, EMEA, has too many
   control records marked as 'Ineffective'.

   Please start corrective actions immediately.

   Corporate Operation Risk Team
   ```

2. In the **I want to** pane, select **Send an email**:

   - **To**: orm@op123.com,

   - **Subject**: Too many ineffective controls Asia Pac,

   - **Body**:

   ```
   This is to inform you that your entity hierarchy, Asia Pac, has too
   many control records marked as 'Ineffective'.

   Please start corrective actions immediately.

   Corporate Operation Risk Team
   ```

3. In the **I want to** pane, select **Send an email**:

   - **To**: billyd@op123.com,

   - **Subject**: Too many ineffective controls North America,

   - **Body**:

   ```
   This is to inform you that your entity hierarchy, North America, has
   too many control records marked as 'Ineffective'.

   Please start corrective actions immediately.

   Corporate Operation Risk Team
   ```

4. Save the changes.

Task 8. Add task execution rules.

1. In the **I want to pane**, click **Manage the task execution rules**.

2. In the **Task** selector, select the EMEA email task.

3. Check the box next to the condition event (starts with **When the following item is True…**).

4. From the Data Items tab, drag **EMEA** into the condition event field.

   The results appear as follows:

Task:
Too many ineffective controls EMEA (email)

   Select when to perform this task:

   ◉ For selected events:

   ☑ ✳ New events

   ☑ ↻ Ongoing events:

   Specify whether the task is performed for all ongoing events or when the values of selected items change or do not change.

All ongoing events

   ➡ [   ]

   Re

   ☐ 🟥 Ceased events

   ☑ ↔ When the following item is True for selected new,ongoing,

   Insert an item or calculation that evaluates to True or False.

   ➡ [EMEA]

5. In the **Task** selector, select the Asia Pac email task.

6. Clear **New events**.

7. Enable the condition event.

8. Drag **Asia Pac** into the condition field.

9. In the **Task** selector, select the North America email task.

10. Clear **New events**.

11. Enable the condition event.

12. Drag **North America** into the condition field.

13. Click **OK**.

14. Save the changes.

Task 9.   Run the event agent and test.

The first time this agent is run, all events will be considered new because there are no previous run history events with which to compare. The second time the agent is run, emails will be sent if there are ongoing and/or new events.

1.   Minimize the Event Studio browser window and maximize the Cognos Connection browser window.

2.   Navigate to **My Folders** and locate **23-Ineffective Controls Event**.

3.   In the **Actions** column, click **Run with options**.

4.   Confirm **Now** is enabled and click **Run.**

5.   Select **/Global Financial Services** and click OK.

6.   Click the checkbox for **View the details of this agent after closing this dialog** and click OK.

7.   Wait a few seconds and click **Refresh** in the top right corner.

8.   You should see:

   • one message indicating an email task was suppressed by an execution rule,

   • status of **Succeeded** for one event and two email tasks.

   The results appear as follows:

9.   Click **Close**.

10. Minimize the Cognos Connection browser window.

11. Open a new browser window and from the **OpenPages** folder select **Billy Dean** to open an email login screen.

12. **User name**: Billy Dean,

13. **Password**: billyd.

14. Open the email and review, then click **Logout**.

15. Maximize the Event Studio browser window.

Task 10. Schedule the agent.

1. In the **I want to pane**, click **Schedule the agent**.

2. In the **Frequency** section:

   - click **By Month**,

   - enable Day 10 of every 3 month(s).

3. In the **Start** section:

   - open the calendar and select the first day of the next month that will be the second month of a quarter,

     - for example **Nov 1, 2014**,

   - set the time to **1:00 AM**,

   - no end date.

4. Under **Priority** select **1**.

5. Under **Prompt values**:

   - enable **Override the default values**,

   - click **Set**,

   - select **/Global Financial Services**,

   - click **OK**.

6. Click **OK**.

7. Save the changes to the event.

8. Exit Event Studio, log off, and close all browser windows.

Result:
You created an Event Studio agent that will run once per quarter, determine the number of ineffective controls by region, and send an email to the regional executive owners if the number exceeds five records.

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Summary

- At the end of this module, you should be able to:
    - identify the areas of the Event Studio screen
    - explain the options in the **I want to** area
    - define the steps in configuring an agent
    - explain how to test the agent
    - understand run history and event list
    - create GRC Platform event agents

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IMPORTANT

Solutions for the demos in this module can be found in:

Public Folders > 1O202 Solution Reports > Module 23.

Report Administration

IBM OpenPages: Report Authoring (v7.0)

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Objectives

- At the end of this module, you should be able to:
  - Explain the process to schedule a report
  - Define the various file formats of a scheduled report
  - Explain the process to email a report
  - Explain 'Saved' versus 'Attached'

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Reports can be scheduled to run at a recurring date and time. The following are configurations that are addressed when scheduling a report:

- start and end dates
- run frequency
- report formats
- delivery methods
- email options
- language in which report is delivered
- prompt values

NOTE: A report can have only one schedule at a time. You cannot create multiple schedules for the same report.

REPORT ADMINISTRATION

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Start and End Dates

Start:

Jun 22, 2014

1 : 00 AM

End:

○ No end date

● End by:

Dec 29, 2014

1 : 00 AM

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You can specify a date range during which the report will be run. You can also specify no end date.

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Run Frequency

Frequency:
Select the frequency by clicking on a link.

| By Day | **By Week** | By Month | By Year | By Trigger |

Every 1 week(s) on:

☐ Monday   ☐ Tuesday   ☐ Wednesday   ☐ Thursday
☐ Friday   ☐ Saturday   ☑ Sunday
Daily Frequency:
☐ Every 1   Minute(s) ▾ between   2 : 00 AM and 3 : 00 AM

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There are many options for running a report. In this example, the report will be run once every Sunday. The schedule is based upon the IBM Cognos application server date and time settings.

You can select one or more report formats. In this example, the report will be generated for both PDF, in landscape orientation, and Excel 2007.

Delivery Methods

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Delivery:
Select at least one delivery method. For burst reports, the email recipients are determined by the burst specification.
☑ Save:
    ◯ Save the report
    ◉ Save the report as a report view Edit the options...
      ✎ Report View of Issues and Action Items
☐ Print the report
    Printer location:
    [   ] Select a printer...
☑ Send the report and a link to the report by email Edit the options...
    ormmgr@op123.com,ormdir@op123.com

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By default, when the report is run it is simply saved. In this example, the report will be saved as "Report View of Issues and Action Items" in the Public Folders > Save Reports folder (you need to click **Edit the options** to see the folder location).

In addition, once the report is saved it will be sent to two email addresses.

Email Options

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To:
ormmgr@op123.com,ormdir@op123.com

Cc:

Select the recipients...   Show Bcc

Subject:
Report: Issues and Action Items

Body:

Here is your weekly report on outstanding **Issues and Action Items**.

Boss
CRO

☑ Include a link to the report
☑ Attach the report

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In the email options screen you can specify email addresses and body text for the email message. At the bottom of the screen you can specify to include a link to the report or attach the report in the email, or both.

IBM OPENPAGES: REPORT AUTHORING (V7.0)
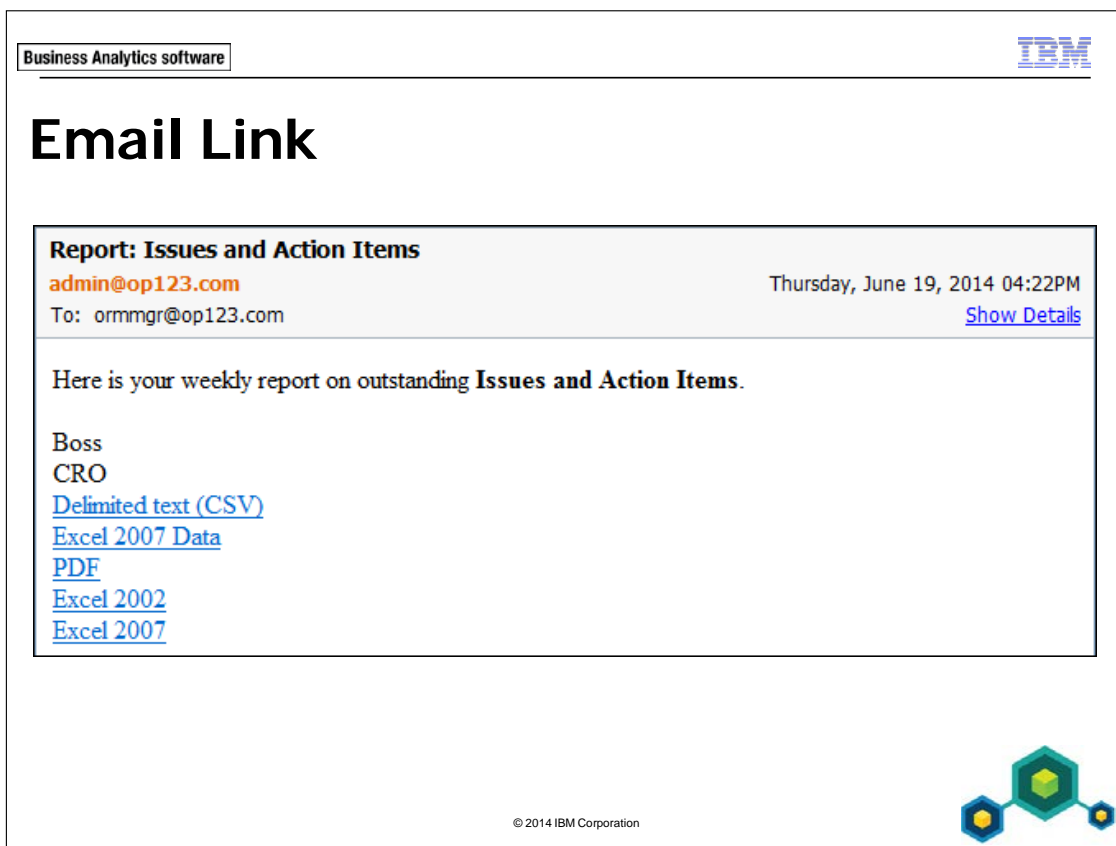
When the user first clicks a link, they will be prompted for their GRC Platform user name and password before the report is displayed.

NOTE: Only the links in the most recent email will be available to view. This is because when the report is run each week, the report is saved over the existing report view. The URL in the link has a different identifier each time the report is saved. If the user attempts to open an outdated link they will be logged into Cognos Connection because the report cannot be found.

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Email Attachment

Report: Issues and Action Items
admin@op123.com   Thursday, June 19, 2014 04:32PM
To: ormdir@op123.com   Show Details

Here is your weekly report on outstanding **Issues and Action Items**.

Boss
CRO

Attachments: (Click the filename to launch)
Issues and Action Items.csv Issues and Action Items.xlsx Issues and Action Items.pdf Issues and Action Items.mht Issues and Action Items.xlsx

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When the user receives an email with report attachments, the user must save the attachments to the computer before they can open it. Right-click the report attachment and select **Save target as**.

Since the reports are attached to the email, they never expire as the links do.

Here are the report options and the file extensions associated with each:

- HTML: MHT

- PDF: PDF

- Excel 2007: XLSX

- Excel 2007 Data: XLSX

- Excel 2002: MHT

- Delimited text: CSV

- XML: XML
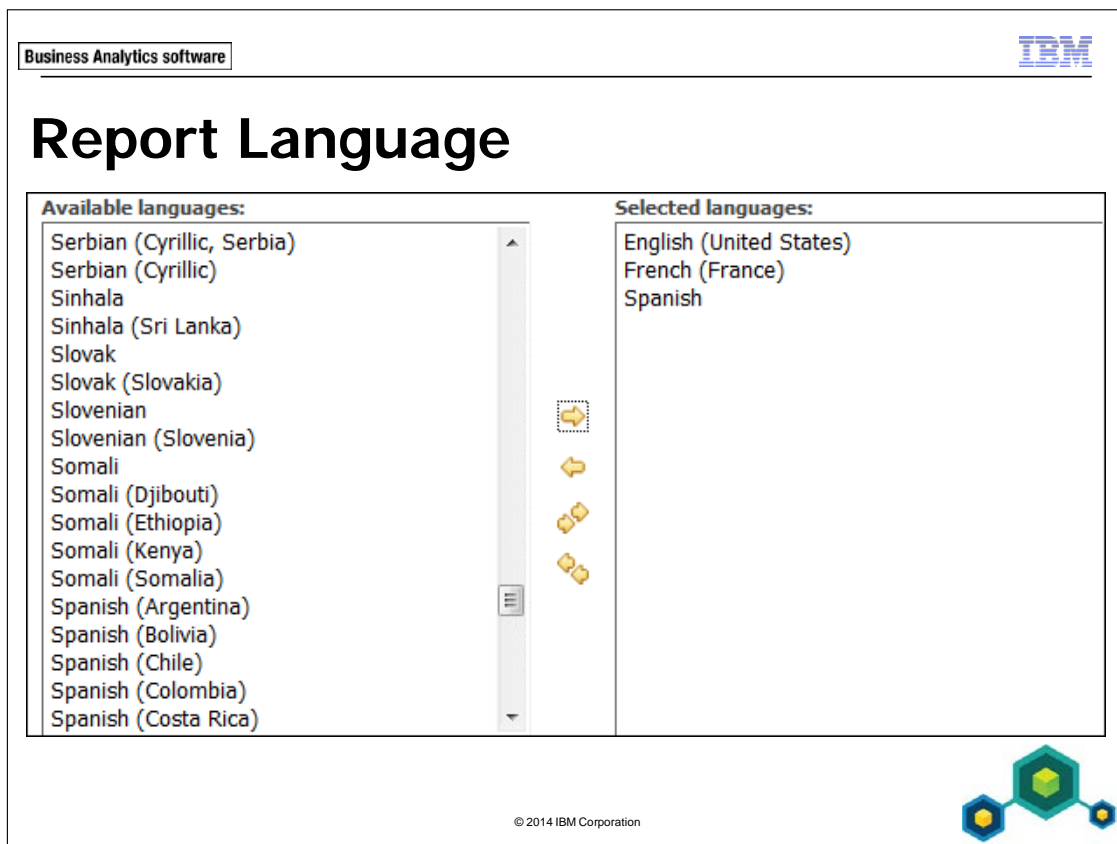
By default, the report is run using the language setting of the logged in user creating the schedule. This may not be the language in which you wish to view the report. For example, if the user is a report author creating the schedule, their language is normally set to **English (Canada)** which is the report development language for GRC Platform reports. However, reports should not be run and distributed in this language.

Change or add languages in this screen.

NOTE: In order to generate reports in different languages, the GRC Platform must be configured to generate locale strings for each language selected. Work with your GRC Platform administrator to determine which languages your system is supporting.

View Report Output Versions

Formats	Languages ▼	Actions
HTML	English (United States)	
PDF	English (United States)	⬇
HTML	Spanish	
PDF	Spanish	⬇
HTML	French (France)	
PDF	French (France)	⬇

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For each scheduled report, you can view report output versions. When you do this, you will see a version of the report for each language and format configured in the schedule.

Prompt Values

Issues and Action Items

Please select Reporting Period: [*] Current Reporting Period ▾

Please select Entity: [*] /Global Financial Services/Asia Pac/Retail Banking ▾

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You must pre-select required prompt options before a scheduled report will run successfully.

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Schedule Maintenance

- 📄 View report output versions
- 🗂 View my permissions...
- ▶ Run with options...
- ◣ Open with Report Studio
- 🕐 Open with Cognos Workspace Advanced
- 📅 Modify the schedule...
- 📅 Remove the schedule

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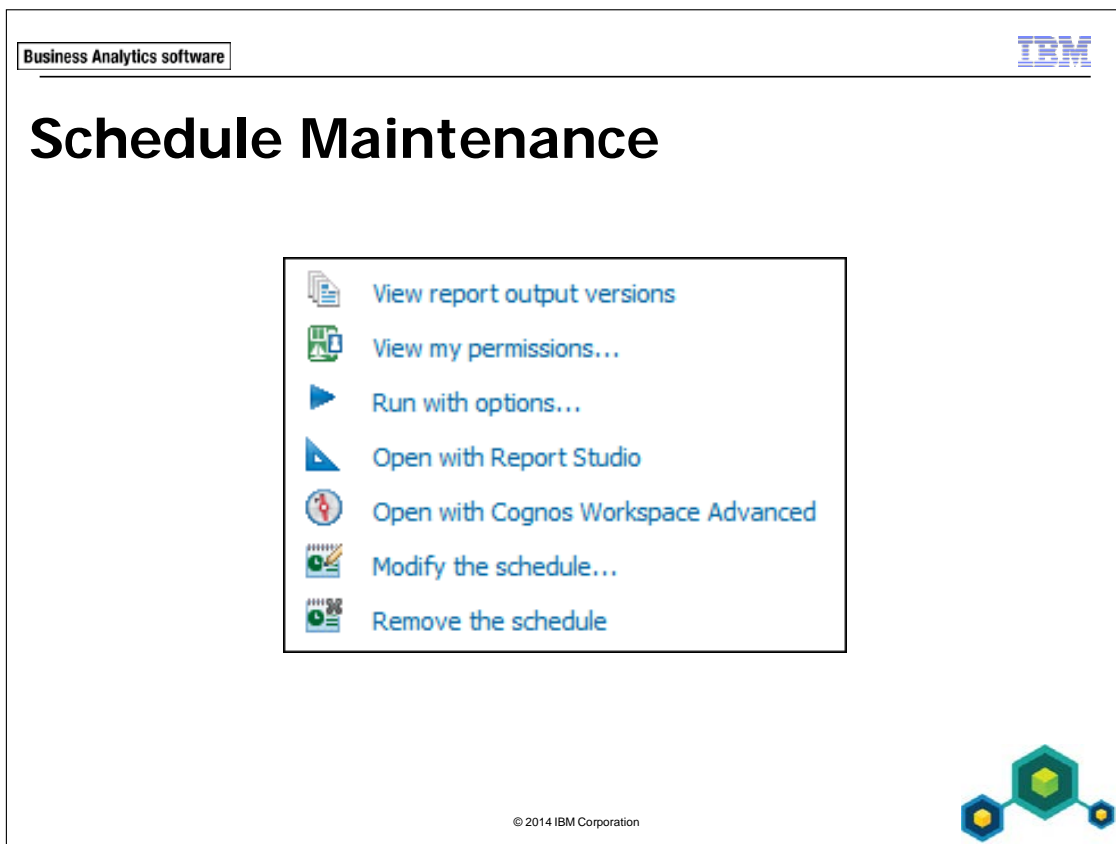
Once a report is scheduled to run, there are some maintenance options available:

- View report output versions displays the reports saved, including format and language selections.

- Modify the schedule lets you make changes to the existing schedule.

- Remove the schedule lets you delete the existing schedule. No more reports will run once the schedule is removed.

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Disabling a Schedule

- If you want to temporarily stop the schedule, you can check the **Disable the schedule** box and save.

- The schedule will still appear in the **More** settings but will not run reports until enabled.

☑ Disable the schedule

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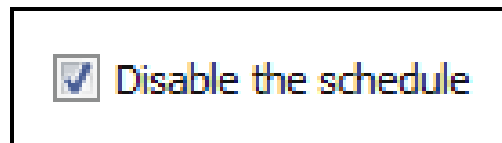
Demo 1

Schedule a Report

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Demo 1: Schedule a Report

Purpose:

The Risk Management team has requested that the Issues List report be scheduled to run and email the report to the ORM Administrator and ORM Director in spreadsheet format. The report needs to be run in U.S. English for the Asia Pac region. You will also learn how to disable a schedule.

Portal: http://optrainvm/ibmcognos

User/Password: reportauthor/reportauthor

Task 1. Schedule the report to run.

1. On the Cognos Connection Welcome Page, click **IBM Cognos content**.
2. Navigate to Public Folders > OpenPages Platform V6 > Issue Reports.
3. Under **Actions**, click **Schedule - Issue List** for the Issue List report .
4. Under **Frequency**, select **By Day**.
5. Check the box for **Every <x> minute(s)** and set it for 6 minutes.

    The results appear as follows:

    Frequency:
    Select the frequency by clicking on a link.

By Day	By Week	By Month	By Year	By Trigger

    ◉ Every 6   minute(s)
    ○ Every 1   hour(s)
    ○ Every 1   day(s)

6. Under **Start**, set the time for 4:00 AM.

7. Set **End** to **End by** and a date one day from today.

The results appear as follows:

Start:

Jul 8, 2014

4 : 00 AM

End:

◯ No end date

◉ End by:

Jul 9, 2014

6 : 48 AM

Task 2. Configure formatting options.

1. Under **Options**, check the box next to **Override the default values**.
2. Clear the HTML check box.
3. Check the box next to **Excel 2007**.
4. Under **Languages**, click **Select the languages**.
5. In the **Selected languages** pane, select **English (Canada)** and click the remove arrow.
6. In the **Available languages** pane, select **English (United States)** and click the add arrow.
7. Click **OK**.

Task 3. Configure delivery options.

1. Under **Delivery**, select **Save the report as a report view**.
2. Click **Edit the options**.
3. Change the name to **Weekly Issue List**.
4. Click **Select another location**.
5. In the bread crumb trail, click **Public Folders**.
6. Select the radio button next to **Saved Reports** and click **OK**.
7. Click **OK** again.
8. Check the box next to **Send a link to the report by email**.
9. Click **Edit the options**.

10. Place the cursor in the **To:** field and add two email addresses, separated by a semi-colon:

   - ormadmin@op123.com,

   - ormdir@op123.com.

11. Change subject line to **Weekly Issue Report**.

12. Add some text to the body.

13. Clear **Include a link** to the report.

14. Check **Attach the report** and click **OK**.

   The results appear as follows:

Task 4.   Configure prompt selections.

1.   Under **Prompt values**, check **Override the default values** and click **Set**.

2.   Select the entity /Global Financial Services/Asia Pac and click **Finish**.

3.   Click **OK**.

Task 5.   Verify email.

1.   Wait about two minutes and then proceed.

2.   Navigate to **Public Folders > Saved Reports** and look for **Weekly Issue List** with a modified date of today.

3.   Click the **More** link.

4.   Click the **View report output versions** link.

5.   Review the results and then click **Close**.

6.   Open another Internet Explorer window.

7.   Open the **OpenPages** folder in the Favorites bar and select **ORM Director**:

   - **User name**: ORM Director,

   - **Password**: ORMdir,

   - click **OK**.

8.   Check for the automated email, open it, and save the attachment to the desktop.

9.   Open the saved spreadsheet and review.

10. Close Excel and log out of the mail client.

Task 6.   Disable a schedule.

1.   Return to Cognos Connection and navigate to Public Folders > OpenPages Platform V6 > Issue Reports.

2.   Under **Actions**, click **Schedule - Issue List** for the Issue List report.

3.   Check **Disable the schedule** and click **OK**.

4.   Log off, and close all browser windows.

Results:
You have scheduled a report to run weekly on Sundays for one month and send an email to selected users with the report attached. You have also disabled a schedule.

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Summary

- At the end of this module, you should be able to:
    - Explain the process to schedule a report
    - Define the various file formats of a scheduled report
    - Explain the process to email a report
    - Explain 'Saved' versus 'Attached'