What’s New & Different in Reporting

A Reference Guide for Report Writers

Center for Data, Analytics and Reporting (CeDAR)
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The goal for this course is for CeDAR to assist report writers in their transition from Report Studio in Cognos 10.2 to the current version of Cognos Analytics.

This course introduces the enhancements and improvements in functionality for experienced report authors and helps navigate the new version. We’ll show how functionality from Report Studio remains intact, though some of the methods of performing actions you’ve become accustomed to have been consolidated and/or changed. Nevertheless, we’ll show you how to get started quickly in the all new Cognos Analytics.
Cognos Analytics features a consistent user experience while moving from capability to capability.

The new portal, authoring, dashboarding, and stories are all inside a single browser tab, united by a common look and feel.

The new interface allows for a consistent experience as a user moves from viewing content to creating advanced reports and dashboards.

Compared to previous versions of Cognos, there are no longer separate report creation tools for different roles. All users work in the same consistent reporting interface.
### Web Browsers

<table>
<thead>
<tr>
<th>Supported Software</th>
<th>Version</th>
<th>Prerequisite Minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple Safari</td>
<td>9 and future fix packs</td>
<td>9</td>
</tr>
<tr>
<td>Apple Safari on iOS</td>
<td>10.x and future fix packs</td>
<td>10.x</td>
</tr>
<tr>
<td>Google Chrome</td>
<td>(latest release) and future fix packs</td>
<td>(latest release)</td>
</tr>
<tr>
<td>Microsoft Internet Explorer</td>
<td>11 and future fix packs</td>
<td>11</td>
</tr>
<tr>
<td>Mozilla Firefox ESR</td>
<td>52 and future fix packs</td>
<td>52</td>
</tr>
</tbody>
</table>

**Note:** Microsoft Edge is NOT supported.


**Note:** Depending on the browser you’re in, and certain tasks you’re trying to perform (like drill through’s) you may need to **enable** pop-ups.
Core skills learned in previous versions of Cognos should be directly translated to Cognos Analytics.

The most obvious change is to the user experience (UX). However, consuming static reports does not change. The ability to consume interactive reports is introduced as part of the new UX, basically making reports available to be enhanced by users, similar to Cognos Workspace. This feature can be enabled or disabled at the consent of the Package Custodian at the report or package level.

Users also have a singular user interface (UI) for consumption, enhancement, customization, self-service authoring, and data discovery. There is no longer a need to jump from studio to studio.
What's New

- Completely redesigned interface to replace Cognos Connection, Report Studio, and Workspace Advanced
- My Folders and Public Folders have been renamed
- New and improved search functionality
- Ability for end users to upload data (pending permissions)
- Dashboard and storyboarding functionality (pending permissions)
- Interactive reports (pending permissions)
- Subscriptions
What’s Different

- Report views are now created by running the report and saving as a report view. This captures the current prompt values. The prompt values can be edited through the properties of the report view.
- End-user scheduling has been changed to subscriptions.
- The creation of portal pages is no longer supported.
NEW USER INTERFACE
Navigating the new portal is significantly different from previous versions of Cognos. Let’s take a tour...
Cognos Analytics offers some changes in terminology and content navigation within the content explorer.

- **My Folders** is now referred to as **My Content** and is the personal content area.
- **Public Folders** is now referred to as **Team Content** and is the shared content area.

The menu structure offers easy navigation and additional options to view content within folders. The look and feel is more modern.

**Note**: Be mindful that Cognos remembers where you left off … you may need to use your breadcrumbs to get back!
New and improved in Cognos Analytics is the Search function. The old index update tasks and out-of-date search results are a thing of the past!

- The new search uses a very fast search engine that is always up-to-date.
- It requires no administration.
- Search results appear instantly.
Since the search renders results from all packages and folders, it’s returning content items in multiple forms. You have the ability to filter your search results to narrow things down.
After the results of your search are rendered, you can save your search.

- The save option is only available after your search.

- Once your result is saved, it will appear under an area for saved searches.
The Recent Items area on the left navigation shows recently used content up to the last 20 items.

- Hover over a report/object name to reveal the More button.
- Clicking the More button exposes a list of new actions.
The **New** section of the Content Explorer/portal allows users to create three main types of content:

- **Reports**: allows you to create a new report in the report authoring tool
- **Dashboards**: used to quickly explore data in a visually appealing tool
- **Story**: presentation tools for dashboard functionality

Package Custodians are also offered the ability to upload external files and use them in their dashboards.

- **Upload**: used to upload local files for analysis and visualization
Package Custodians can upload their own data for analysis and visualization (csv, Excel).

- The option to upload is found in two locations:
  - Under the **New** button
  - At the bottom of the Welcome Portal
- Data can be saved to Team Content or My content
- Uploaded data can immediately be used in a dashboard
- Only the **FIRST SHEET** of an Excel workbook can be uploaded

**Note**: This option will not be visible to report viewers.
Cognos Analytics offers the ability to have multiple objects open at the same time and to quickly switch between them using the Welcome Menu/Page Switcher.

- Close objects that are open by clicking the ✗ to the right of the object name.
- The Cognos Analytics Welcome Portal is your default Home Page.
  - If you prefer, it is possible to make other content your Home page. Click the More button on the toolbar and select Set as Home.
- Use the Personal Menu to reset your Home page to the Welcome Portal.
There’s much more you can do from the Welcome Portal.

- Recent items appear as 6 (or more) live tiles you can click to instantly access content.
- Click the Action menu/More button on the bottom right of the tiles to view additional options for interacting with content.
Users can set up their own subscriptions to a report.

- Subscriptions are a new feature available when viewing a report, which allows the user to quickly schedule a personal copy of the report.
- Subscriptions cannot be created until a report is run.
- Subscriptions are implemented using report views that are stored in a hidden folder called **Subscriptions** in each user’s My Content folder.
- By default, each time the schedule runs the report, an entry is created in the user’s Notifications.
- Notifications of available reports appear on the top toolbar menu of the Content Explorer.
To manage your subscriptions:

- Click the **Personal Menu** and select **My schedules and subscriptions**
As there is still a need to distribute reports to others, the ability to create a traditional schedule is still available.

- Hover over a report to find the **More** button.
  - Scheduling is found in the properties of a report.
  - From the **Schedule** Tab, click **New**.
Traditionally, when you run reports, the data is static. Cognos Analytics offers interactive report outputs where the end user can use context-sensitive menus in report output to manipulate the view.

- The context menu changes depending on the type of report object and type of data you are viewing.
- By default, new reports (created in Cognos Analytics) are created in this mode but can be turned off at the discretion of the Package Custodian.
- Upgraded reports from prior versions of Cognos come in as NON-interactive.
- To turn **Interactivity** mode on or off, you must have the capability enabled to author reports (Package Custodians, Report Writers) so you can edit the report properties.
  - Use the **Ancestor** button to navigate
    - See Reporting section for more details
Interactive reports give users the ability to:

- Change the sort order of a data container
- Set or edit filters
- Change the aggregation
- Group a column
- Save changes
- Change the visualization
- Interact with charts
REPORTING
Report writers modify existing reports in the same window the report is being viewed in.

- Choose a report to run.
- Using the **Edit** icon, you can switch into the authoring interface.

- The **Edit** icon is used to enter and exit the authoring interface.
### Features & Functions in the Reporting Interface:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Save Icon]</td>
<td>Save: Save as; Save as Report View; Convert to template</td>
</tr>
<tr>
<td>![Edit Icon]</td>
<td>Edit: Toggle between editing and viewing the report/dashboard</td>
</tr>
<tr>
<td>![Welcome Icon]</td>
<td>Welcome: Page Switcher; Switch between open reports and welcome portal</td>
</tr>
<tr>
<td>![Page Views Icon]</td>
<td>Page Views: Design; Preview; Structure</td>
</tr>
<tr>
<td>![Properties Icon]</td>
<td>Properties: Report level; Run options; Validate options; Burst options; Interactivity; Layouts; References; Formats; PDF; Drill Up/Down/Through …</td>
</tr>
<tr>
<td>![More Icon]</td>
<td>More: Locked; Options; Layout Components; Conditional Styled; Clear all Parameters</td>
</tr>
<tr>
<td>Feature</td>
<td>Function</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Filter</td>
<td>Filter: Appears in view mode and opens the Filters pane.</td>
</tr>
<tr>
<td>Refresh</td>
<td>Refresh: Refreshes the report; Appears when you run a report</td>
</tr>
<tr>
<td>Data Pane</td>
<td>Data Pane: Add report data by opening a package or data module; Contains Source Tab &amp; Data Items Tab</td>
</tr>
<tr>
<td>Toolbox</td>
<td>Toolbox: Contains all tools needed for reporting</td>
</tr>
<tr>
<td>Pages</td>
<td>Pages: Report pages; Prompt pages; Report overview; Classes</td>
</tr>
<tr>
<td>Query Explorer</td>
<td>Query Explorer: Queries; Condition explorer</td>
</tr>
</tbody>
</table>
In Cognos Connection, in order to create a new report, you had to first launch Report Studio and choose a package. In Cognos Analytics you create a report right in the same browser.

- From the left navigation menu, click the New button.
- From the pop-up menu, select Report.
In previous versions of Cognos, your next step would be to choose a package to report on. However, in Cognos Analytics, prior to selecting a package, you will first be brought to an area that allows you to choose a template and a theme.

Cognos Analytics includes numerous basic report templates and color themes that can be chosen.

Templates can be found in the Templates folder in Team Content. You can also create your own templates which can be made available to other users by saving the template to the Templates folder. Any report saved in the Templates folder will appear in the list of templates when creating a new report.
Begin building your report with a built-in color theme.

- To choose a color theme for your report, click the Themes Tab, make a selection and click OK.

**Note:** Clicking on a theme will reveal a preview on the right side of the window unless the template you chose is “Blank.”
To choose a package, first click the **Add Report Data** button.

A dialog box will open, listing any package(s) you have access to.

**Note:** Packages are found in the Team Content folders and are denoted as “file drawers”.

Choose a package from the list and click **Open**.
Now it’s time to choose an object.

- Click the button to choose an object for your report.

**Note:** The objects that appear here are the top 6 items in your “Pinned” tools which can be reordered or changed.
Report Studio offered all of the same objects to help you get started with setting up your report. New with Cognos Analytics is the Visualization object.

- Visualizations are used to visually communicate relationships, comparative values, trending, and forecasting.

- After clicking the button, select **Visualization**.

- The Visualizations Gallery will open. Here, you can search for or scroll to available visualizations.

- You can even filter your visualization types. Looking for a legacy viz? Look in the top right corner!
You will notice that while the structure of the interface remains the same, it reveals new options and functionality related to report authoring.

- Clicking the **Data Pane** button again will close the pane, freeing up more room for your report.
Your package will open and be visible on the Data Pane.

Home: Returns you to your home screen/welcome portal. Your report will remain open.

Data Pane: Reveals your Source Tab and Data Items Tab.

Toolbox: Reveals your toolbox items.

Pages: Allows you to manage your Report and Prompt pages.

Queries: Allows you to manage your query items and condition explorer.
Use the Data Pane to add data, modify, or view the data source.

- Select the **Source** tab to view the entire metadata tree.

- Select the **Data Items** Tab to view the queries and data items used in the report.
  
  - You can add existing query items to a report from this tab.
The toolbox contains all available report objects to add to a report, such as graphics, text, and query calculations.

- Toolbox items are now organized into different groups.
- You can quickly search for an item in the toolbox.
- Items that you use most often can be added to the Pinned group. Items in the Pinned group appear around the Add Objects menu when you create a new report.

- To remove or re-order pinned items, right-click the item.
To add an item to the Pinned group, right-click the item and click **Add to Pinned Toolbox Items**.

To expand or collapse the view of the toolbox when items are displayed as a tree, click the ▲ ▼ buttons on the top, right.

To change the view of the toolbox so they appear as icons, click the grid in the top-right corner.
Use the **Pages Pane** to view or create new report pages and prompt pages, as well as to create and modify classes.

- Available objects depend upon what is in focus.
- Click the button to add a new page.
- When Prompt Pages are selected, the button is used to insert a new prompt page.
Use the Query Explorer to create or modify queries and to perform complex tasks, such as defining union joins and writing SQL statements.

- Available objects depend upon what is in focus.
- Click the + to add a new query.
- The Queries Pane/Query Explorer contains a Conditional Explorer which is used to work with variables to define conditions in a report.
The report specification defines the queries and prompts that are used to retrieve data and the layouts and styles used to present the data.

- Right-clicking the **Report** option from the Pages Pane or Query Explorer will help you find the report specification.

From here you can also:

- Copy report to clipboard (to save reports locally)
- Open report from clipboard (pending permission)
- Show generated SQL/MDX
To ensure that the results you expect to see are showing up, you can view only the tabular data of a query.

- Navigate to the Query Explorer
- Right-click the query
- Select **View Tabular Data**

**Note:** In the current version of Cognos Analytics (11.0.8) this feature is NOT found under the Run button as it was in Report Studio.
Reporting in Cognos Analytics offers three views in which you can author reports: Page Design, Page Preview (*New*), and Page Structure.

- **Page Design:** In this view, you can see how your report is set up. You will not see the results of the report until you run it.


⚠️ **Attention ‘Query Studio’ Users ⚠️

- **Page Preview:** New view in Cognos Analytics that shows you the current report page with live data. In this view, you can edit the report, such as inserting data items into empty data containers much like you could in Query Studio.
Page Structure: Displays an overview of all of the report objects in your report in a tree structure, which is organized by page.

- Using a tree structure is useful for locating the objects on a page and troubleshooting problems with nested objects.

- To switch between views, click the Page Views button on the top menu bar.

- To change the default view, click the More button and select Options.
  
  Change the view under Start Page View.
You can view the different property sheets by clicking the Ancestor button in the Properties Pane.

- Click the Properties button to open and close the Properties Pane.
The Properties Pane provides a comprehensive view of the data selected in the area in which you are working. It can be used to make changes to many areas within your report.

- Clicking around in different areas within the report will reveal different properties.
- When the Properties Pane is open and you click within your report, a contextual (on-demand) toolbar will appear allowing you to do something as simple as sorting, to changing the ancestor, to changing the visualization, itself.

![Image showing the Properties Pane with various options for customization and sorting.]

**Tip** See a More button? Give it a click! There’s always something more behind it!
Interactivity Mode can be turned on or off using the Properties Pane within the report.

- Use the Ancestor button to navigate to the Report page.
The More button on the top menu of the Reporting interface reveals additional options to assist you with manipulating your reports to achieve the expected outcome.

- **Locked/Unlocked**: To manipulate the content of some objects, you may need to unlock the object.

- **Options**: Adjust default for page views and on-demand toolbars as well as other advanced settings.

- **Layout Components**: Allows you to create reusable layout objects within reports and share those objects in other reports.

- **Conditional Styles**: Add conditional styles to your report to better identify exceptional or unexpected results. A conditional style is a format, such as cell shading or font color, that is applied to objects if a specified condition is true.

- **Clear all Parameters**: Click to clear stored parameter values.
When adding Measure fields to list reports, Report Studio was good about adding facts together for you. In Cognos Analytics, there is an automatic group and summary applied along with totals. You may or may not find this helpful.

- To turn this functionality off you need to be in Edit mode.
- Click More > Options
- Click on the Report Tab
- Uncheck the box next to Automatic group and summary behavior for lists

![Options](image)
The On-Demand Toolbar is a context-sensitive toolbar that changes based on the type of report object and data you have selected.

- Select an object in your report to activate the on-demand toolbar.

- Add filters, group, apply formatting, change your visualization ...

⚠️ **Note:** You may need to hit the Esc key to remove the toolbar from your view.
And … Don’t forget! … Anytime you see the More button …

… Give it a Click…
Objective: Get familiar with the tool and create a crosstab report

1. From the left navigation menu, click **New** and select **Report**

2. Select a **Blank** template and click **OK**

3. Open the **Training Data** package.

4. Click the button to add a new object and select **Crosstab**. Accept the default naming convention.

5. From the Course Details Query Subject, add **Term Code** to Columns, **Class** to Rows, and **Preferred Class Size** to the Measures.

6. Create a filter to show only the following Term Codes: 201701, 201702, 201801, 201802
   a) Select **Term Code** in the crosstab
   b) From the contextual toolbar, select the filter drop-down
   c) Click **Edit Filters**
Detail filter expression - Query1

Available Components:

- Training Data
  - Presentation Layer

Expression Definition:

[Term Code] in ('201701', '201702', '201801', '201802')

Information:

Tips  Errors

OK  Cancel
7. Sort Class in **Ascending** order.
8. Sort Term Code in **Descending** order.
9. Limit the classes to only ones that begin with “African”.
   a) Select **Class** in the crosstab
   b) From the contextual toolbar, select the filter drop-down
   c) Click **Create Custom Filter**
   d) From the list of **Specific values**, ctrl+click all fields that begin with “African” and click the + button.
   e) Click **OK**
10. If there is no value for a column, default the value to zero using the Data Format area of the Properties Panel.

11. Add Row and Column **Totals** to the report.

12. **Run** the report to PDF.
<table>
<thead>
<tr>
<th>Preferred Class Size</th>
<th>201802</th>
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<th>201702</th>
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<td>22</td>
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<tr>
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<td>12</td>
<td>0</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>240</strong></td>
<td><strong>22</strong></td>
<td><strong>189</strong></td>
<td><strong>160</strong></td>
<td><strong>611</strong></td>
</tr>
</tbody>
</table>
Cognos Analytics introduces dashboards where you assemble visualizations to easily communicate your insights and analysis.

- Click **New** and select **Dashboard**.
- Choose a template and click **OK**.

![Dashboard Templates](image-url)
Cognos Analytics offers a variety of ways to create a dashboard. Below are common practices:

- Select the type of visualization you’d like to use (if you know) and begin adding columns to it.

OR

- Click the button to add a source (package/upload) to the Selected Sources panel.
- Ctrl+Click the query subjects you’d like to see in your visualization and drag them to the canvas.

Cognos Analytics works in the background to create a default visualization to display the data.
You can change the visualization.
Another quick (and very cool) way to create a dashboard is to simply “ask” or “tell” Cognos what you’re after.

- Click the button.
- Type in your question or statement.

Cognos will use built-in smarts to analyze your questions against your dataset and provide you with a visual solution that best matches.
Stories can be created once you’re finished exploring the data as a method to share your findings with other users.

- A story is a type of view that contains a set of scenes that are displayed in sequence over time.
- Stories are similar to dashboards because they also use visualizations to share your insights.
- Stories differ from dashboards because they provide an over-time narrative and can convey a conclusion or recommendation.

Get started with your Story by clicking **New** and selecting **Story**.
Additional documentation around Dashboards and Stories will be produced from CeDAR staff shortly.
What’s New & Different in Reporting

Exploring the User Interface

Reporting in Cognos Analytics
We in CeDAR are here to answer any questions you may have. In addition, we have provided a few links that should prove to be useful.

<table>
<thead>
<tr>
<th>Resource</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognos Analytics: QA</td>
<td><a href="http://dwqual.princeton.edu/cognos">http://dwqual.princeton.edu/cognos</a></td>
</tr>
<tr>
<td>CeDAR Website</td>
<td><a href="https://cedar.princeton.edu">https://cedar.princeton.edu</a></td>
</tr>
<tr>
<td>Employee Learning Center</td>
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<td><a href="https://sp2016.princeton.edu/ipp/FY17/1358/Project%20Docs/Forms/AllItems.aspx">https://sp2016.princeton.edu/ipp/FY17/1358/Project%20Docs/Forms/AllItems.aspx</a></td>
</tr>
</tbody>
</table>
Thank you