



IBM Cognos Analytics Report User Training

*Information Services
Integrated Data and Reporting Team*

2018 - 08

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1 Overview

The Integrated Data and Reporting (IDR) is a team within Information Services' Applications and Middleware group, responsible for implementing and maintaining the data infrastructure for the reporting and information needs of the U of O community.

IDR's goals are:

- To reduce data storage redundancy;
- To make the data reporting process on campus more efficient and accessible;
- To more fully integrate data storage and reporting into one comprehensive solution.

The U of O has adopted IBM Cognos Analytics BI as its enterprise wide reporting and BI tool. IBM Cognos is a comprehensive reporting and data analysis tool, combining reporting, modeling, analysis and dashboards, which can be shared across functional teams leveraging their combined skills to promote greater effectiveness throughout the community.

For more information about IDR, please visit <http://idr.uoregon.edu>.

1.1 Intended audience

This class is intended to provide University of Oregon employees whose activities require running previously developed enterprise and departmental reports.

After completing this class the trainee should be able to navigate IBM Cognos Analytics, locate and execute reports and schedule reports for future automatic delivery.

1.2 IDR data

University of Oregon data is segmented in three broad categories, namely student, financial and human resources, and further subdivided in core, private and sensitive data.

Core data spans non-sensitive data for all broad data categories including Finance, HR, and Student information.

Sensitive and private finance data are data such as bank and collection agency information, SSNs, tax ID, disbursements, payments and holds, and personal information such as ethnicity, citizenship, visa, veteran status.

Sensitive and private HR data includes personal data such as benefits, deductions, taxes, degrees, employment history and beneficiaries.

Finally, sensitive student data includes personal student information, degrees, transcripts, majors, holds, withdrawals and grades.

Important information about University of Oregon data use policies on the next page

Important: University of Oregon data is private and sensitive in nature, much of which falling under the Family Educational Rights and Privacy Act (FERPA) and other state and federal regulations. Prior to gaining access to data, please be sure to become familiar with university data use policies in <https://registrar.uoregon.edu/records-privacy> and <https://ba.uoregon.edu/content/policies>. Please be careful not to share protected data with unauthorized persons.

1.3 Gaining access to IBM Cognos and University of Oregon data

Access to IBM Cognos can be requested via service portal online form, with link available in <https://idr.uoregon.edu/getting-access>. Prior to requesting access, it is important to know how you will be using Cognos, whether as someone who will generally run existing reports or if you are expected to write reports as well.

Access to Cognos comes with core data privileges. To access sensitive or private data additional permissions need to be granted. These are managed by data stewards in Business Affairs, Human Resources and Registrar. Requests for sensitive and private data access are done via request form, with links available in <http://idr.uoregon.edu/getting-access>.

1.4 Data refresh

IDR data is derived from Banner data, but with transformations to simplify use in reports. This data is updated nightly, so Cognos reports and visualizations reflects end of prior business day, or *D-1*. The status of data refresh can be verified in the welcome page.

1.5 System availability and maintenance

IBM Cognos is off-line during data updates, which occur nightly between 1 am and 7am. Regular maintenance is scheduled weekly, on Fridays between 7pm and 9pm, at which point it may also be off-line.

1.6 Additional help

The U of O has many resources you can take advantage of to help you with your report questions and problems.

- Data stewards in Business Affairs, Human Resources and Registrar can help you understand Cognos data and data issues;
- Advanced report writers and report writers can help you understand your data and customize reports;
- The IDR team, via service portal or open lab sessions.

For more information please visit <http://idr.uoregon.edu/contacts-and-support>.

2 IBM Cognos Analytics

IBM Cognos Analytics is an online application located in <https://cognos.uoregon.edu>. Use your UO Duck ID and password.

IBM Cognos (version 11) supports the following web browsers:

- Apple Safari v. 9
- Apple Safari on iOS v. 10.x
- Google Chrome (current)
- Microsoft Internet Explorer v. 11
- Mozilla Firefox ESR v. 52

User ID

Password

Sign in

Figure 1: login screen

IDR recommends use of Internet Explorer or Google Chrome due to problems reported with the latest versions of Firefox (Quantum).

2.1 IBM Cognos Analytics interface

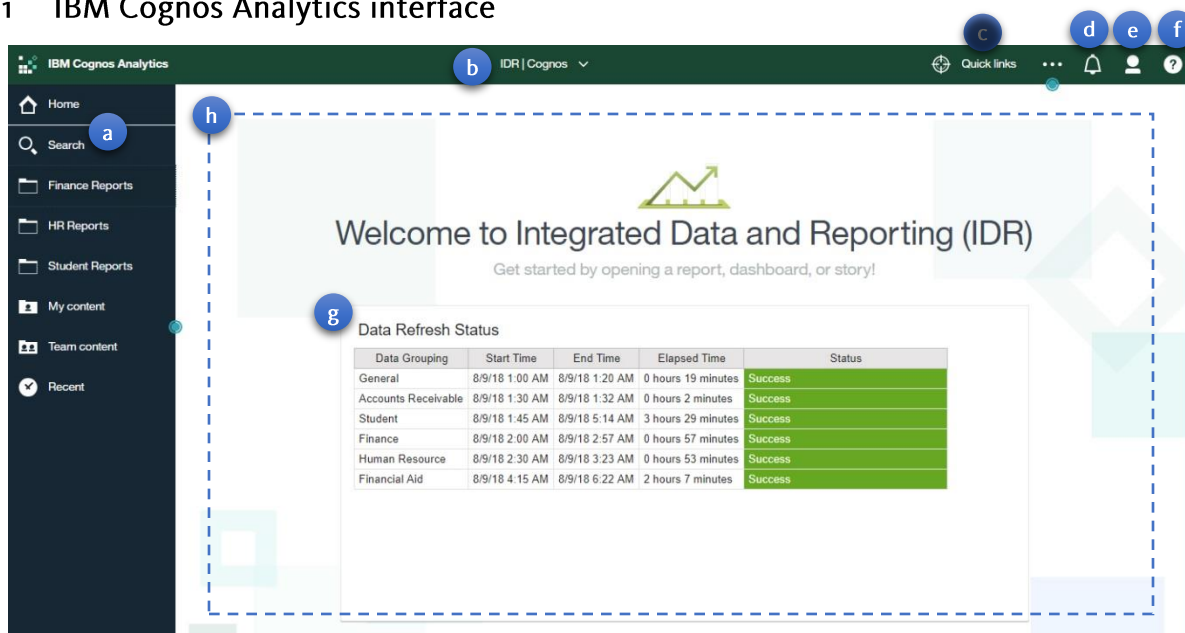


Figure 2: IBM Cognos home screen

- Navigation menu:** report title search and access to report folders;
- Report switcher:** flips between open reports;
- Quick links shortcuts:** Access to IDRs service portal page and other important content;
- Notifications:** Shows IBM Cognos notifications;
- Current user menu:** Access to account information, report schedules and sign out;
- Help menu:** About page, learning center and other IBM Cognos resources;
- Data refresh status:** presents the time the data was refreshed and success / failure ;
- Results / work area:** this is where Cognos displays reports;

2.2 U of O enterprise reports

Despite differences in practices and procedures among University of Oregon departments, there are many common processes that are shared across the organization. For these there are enterprise reports available to support decision making.

Reports are divided by categories:

Financial reports include Fund Status, Budget Status, Income Statements, Chart of Accounts and 5 year trends, assets and grants reports.

Examples of student reports are Class Attributes, Commencement List, Latin Honors Recipients, Dean's List, Class Roster and Students not Registered.

Examples of HR reports are Job Changes and payroll reports.

A complete list of enterprise reports is available in <http://idr.uoregon.edu/reports>.

2.3 Running reports

2.3.1 Locating and running reports

Running reports is a very intuitive exercise. Locate the report in the appropriate folder and click on the report name. Cognos launches the report and a results page or parameter page is displayed (depending on the report).

The left bar contains links to report folders. There are three shortcuts to enterprise reports, Finance, HR and Student (figure 3, [a], [b] and [c], respectively).

My content (figure 3, [d]) is the folder of the user for his or her personal content, and its contents cannot be seen by other users.

Team content (figure 3, [e]) contains all shared folders, including departmental folders, user acceptance and testing, and other shared content.

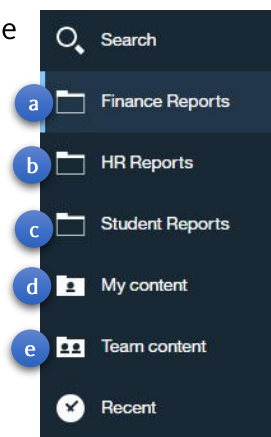


Figure 3: menu bar

Example 1: Locating and launching a finance report

- Click Finance Reports;
- Click Budget, Revenue and Expense Reports;
- Click 5 Year Trend Activity by Fund;

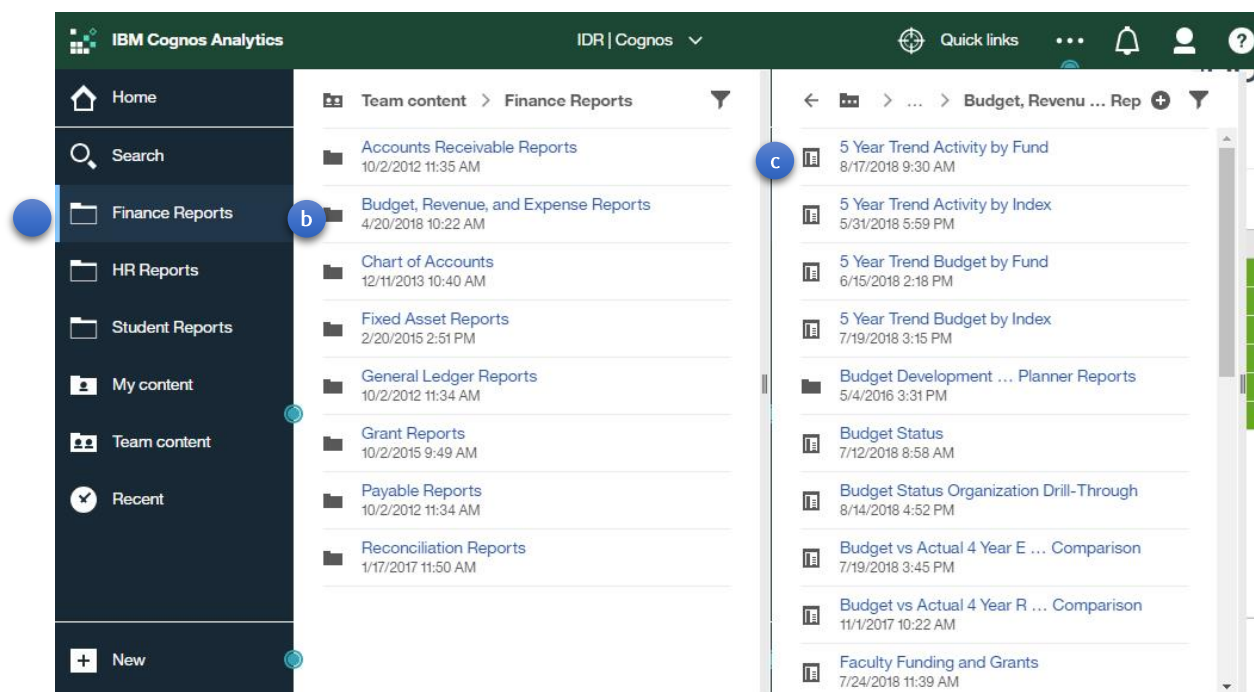


Figure 4: finance reports folders

2.3.2 Report help

Enterprise reports contain a report help page that is designed to help a report user understand the purpose, inputs and outputs of a given report. It also informs who the original report writer was, in case more information is required.

The report help link is located just below the parameter list (figure 5, [a]).

Fiscal Year	<input type="text" value="Select a Fiscal Year"/>
Level 2 ORGN	<input type="text" value="Select a Level 2 Organization"/>
-or- Level 3 ORGN	<input type="text" value="Select a Level 3 Organization"/>
-or- Level 4 ORGN	<input type="text" value="Select a Level 4 Organization"/>
-or- Level 5 ORGN	<input type="text" value="Select a Level 5 Organization"/>

[a Report Help](#)

Figure 5: report Help

2.3.3 Parameters

Parameters are input values used to filter reports outputs and enhance reports' flexibility and usefulness.

Required parameters are values that must be provided in order for the report to run. Cognos indicates required parameters with a red asterisk (figure 6, [a]).

Optional parameters are values that help narrowing the result set of a report, but are not required for the report to run, as seen in figure 6, [b].

Fiscal Year	* Select a Fiscal Year ▼
Level 2 ORGN	Select a Level 2 Organization ▼
-or- Level 3 ORGN	Select a Level 3 Organization ▼
-or- Level 4 ORGN	Select a Level 4 Organization ▼
-or- Level 5 ORGN	Select a Level 5 Organization ▼

[Report Help](#)

Figure 6: parameter list

Example 2: Selecting parameters and running a finance report

- Click Fiscal Year and select 2017/2018;
- Click Level 5 ORGN and select or type 263350;
- Click Finish to run the report;

Fiscal Year	* 2017/2018 ▼
Level 2 ORGN	Select a Level 2 Organization ▼
-or- Level 3 ORGN	Select a Level 3 Organization ▼
-or- Level 4 ORGN	Select a Level 4 Organization ▼
-or- Level 5 ORGN	263350 (IS Campus Academic Support) ▼

[Report Help](#)

Figure 7: Parameter selection

Tip: when working with list box parameters, such as the ones in figure 7, type the desired value for quick lookup.

2.3.4 Report output

Reports output defaults to HTML, where the report is presented in Cognos' work area (figure 2, [h]).

Enterprise reports present standard information to help the report user identify the report. In the report header, enterprise reports present the U of O logo and the report title and parameters selected (figure 8, [a]). The report footer (figure 8, [b]) contains version information, page number and execution date and time.

The report body may present information in graphics (figure 8, [c]), lists (figure 8, [d]), crosstabs or other visualizations.

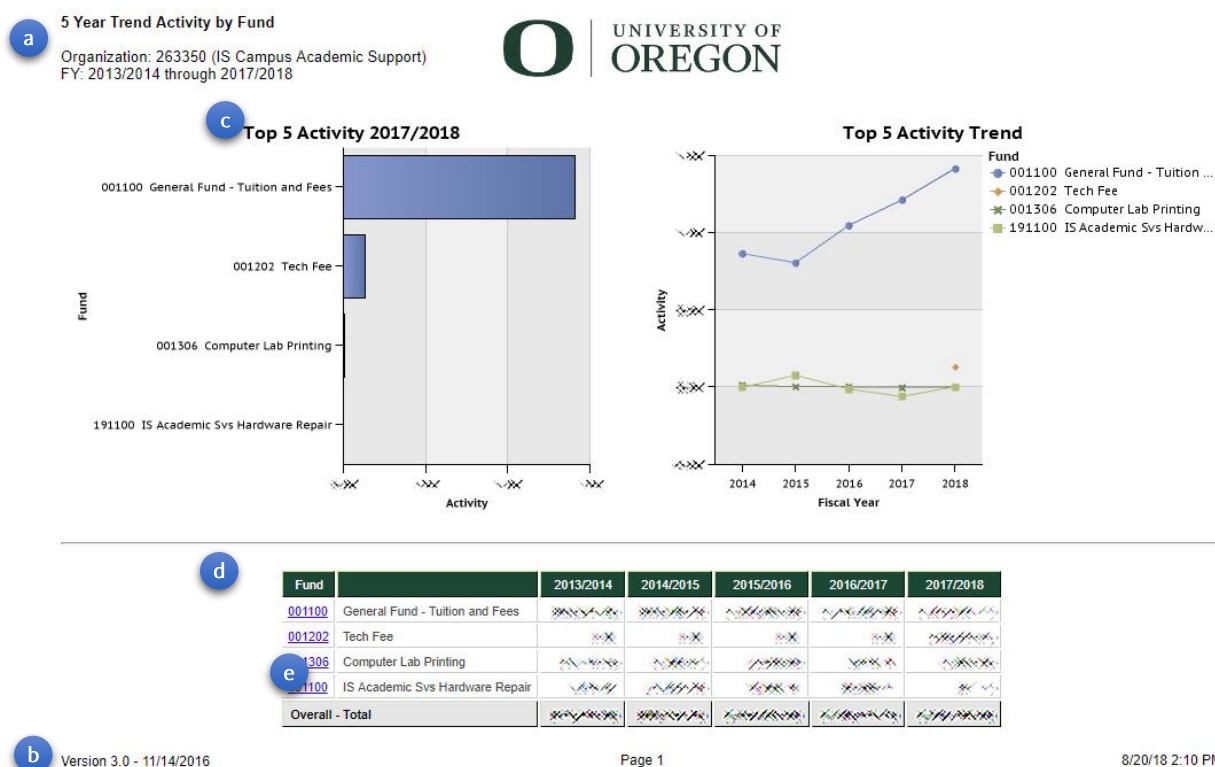


Figure 8: report output

2.3.5 Drill through links

When information is plentiful and complex, it is possible to design reports to present information as an overview, and allow the user to explore information in detail. This is known as drill through or drill down.

IBM Cognos presents drill through reports with hyperlinks, represented by a blue underlined text in the report body (figure 8, [e]). Clicking the link opens another report using the selected item as filter. Depending on how the report was configured, the new report may open either as a different page in Cognos' work area or as a new browser tab.

Tip: check your browser's popup blocker in case the drill-through report does not appear.

2.3.6 Changing parameter values or output format

Beyond screen output, reports can be sent to PDF, Excel or CSV files.

To redirect output, click the “Run as” button (figure 9, [a]) and select from the output format list.

The “Run as” button is also how users can return to the prompt page and run the report with different parameter values, by selecting “Reset prompts” (figure 9, [b]).

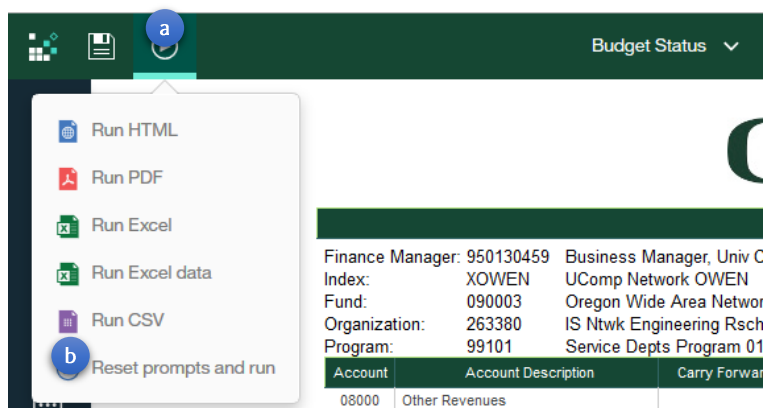


Figure 10: output options and reprompting

2.4 Automated report delivery

Automated delivery of reports is an IBM Cognos feature that helps increase users productivity. By scheduling reports, users can receive reports in their mailbox at regularly scheduled intervals, while background execution of reports allows users to move on to other activities while Cognos prepares a complex report.

2.4.1 Report views

Report views are shortcuts to reports that allow users to pre-fill parameter values and pre-select output formats. Views are particularly useful for those reports that are always executed with the same or similar parameter sets, and are a required first step for scheduled reports.

Report views are created from the report options menu, launched by clicking the ... icon next to the report name.

Example 3: Creating a report view

- Locate the target report and click the ... icon;
- Click the menu item Create report view;

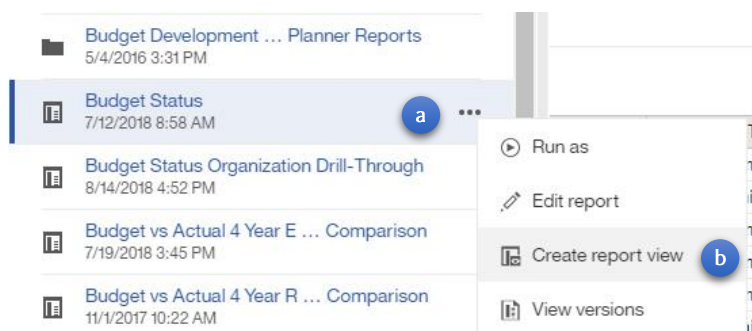
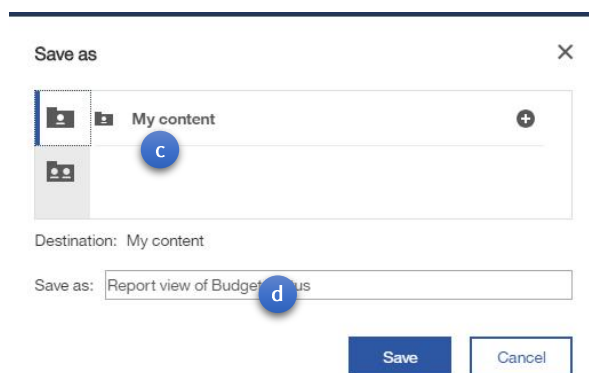


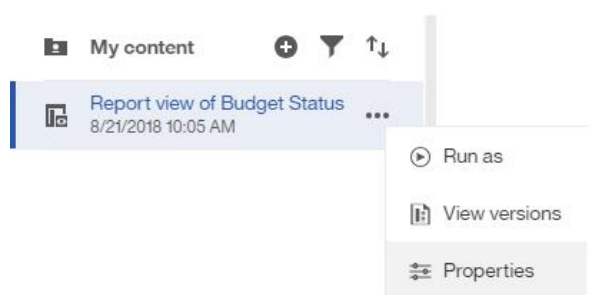
Figure 11: Create report view menu

- c. Select the target folder where the view will be saved - for this example, select My content;
- d. Name the report view and click save;

Tip: develop naming strategies that help you quickly identify the report and parameters that are used, such as "Budget Status View for Current Period and Index XOWEN"



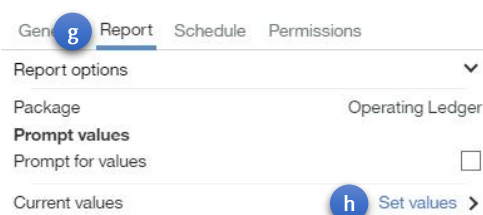
- e. Locate the saved view (Report view of Budget Status).
- f. Click the ... icon next to the report view name and select Properties;



Tip: look for the icon  to help locate report views among other reports.

Figure 13: report view properties

- g. Click Report to bring forward the report properties menu;
- h. Click Set Values to launch the report parameters page then click set (upper right);

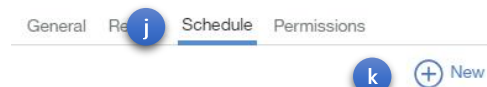


Figure

- i. Set the parameters as desired. For this example please set:
 - Current Fiscal Year;
 - Most Recently Closed FP;
 - Carry Forward Separate from Budget;
 - XOWEN (click the Reprompt button to retrieve the FOAPAL elements);
 - Click Finish to save the parameters;

Figure 15: Budget Status report parameter page

- j. Select the schedule to bring forward the scheduling properties;
- k. Click New;



- l. Select the frequency of report recurrence. Reports can be scheduled to run daily, weekly or monthly, with properties changing accordingly. For this example, select monthly;
- m. Indicate the start and end date and time for this schedule. Select “No end date” for a report that runs continuously until the schedule is deleted. Please enter today’s date and current time start date and tomorrow’s date and current time for end date;
- n. Monthly schedules allow users to indicate a specific day for the report to run or a given day of the week, such as the first Monday of the month. For this example select Day and indicate the current day of the month;
- o. Monthly schedules can be executed every month or every 2 or 3 months. Enter every 2 month for this example;
- p. Indicate one or more output formats you wish your schedule to deliver. Select PDF for this example;
- q. Cognos allows users to alter some default properties in reports such as the language (when it applies) and, in PDF files, report orientation, paper size and password protection;

Figure 17: schedule properties

- r. Click Delivery to indicate delivery options;



Figure 18: delivery

- s. There are three delivery methods in Cognos: email, printing and saving (on the server). Select “Send report by email” and also “Attach the report”;
- t. Enter the email address of the recipient(s), subject and email body; Click cc or bcc to add recipients;
- u. “Include a link to the report” adds a hyperlink to the body of the email, but requires a valid Cognos account to open the saved report on the server. Unselect this option as well as Print and Save report for this example;
- v. Click “Done” to store the delivery options;

Send report by email ☒

Attach the report ☒

To:

Subject: Report view of Budget Status

cc: bcc:

☐ Include a link to the report

☐ Print report

☐ Save report

Done

Figure 19: delivery options

Finish the report schedule by clicking the button “Create” at the bottom of the screen.

Important: Email servers are not always secure. Avoid sending sensitive and FERPA protected data to email addresses outside the University of Oregon.

2.4.1.1 More about period properties.

There are many different report scheduling options in Cognos, and IDR encourages users to explore these different options to find the best to suit individual needs. Here is more information on different report schedule period settings that may be useful:

- Daily schedules allow for multiple report executions per day. Set the recurrence period in hours or minutes;
- Weekly schedules are based on weekdays. Select which days (one or more) the report should run;
- Yearly schedules run reports on a given month and day. The day may be a weekday or a specific day of the month;

2.4.1.2 More about delivery methods

Beyond emailing scheduled reports it is possible to directly print reports on a set schedule or save reports in Cognos Analytics until needed.

- To automatically print reports, click “Print report” in delivery and name the target printer;
- Saving reports causes Cognos to run the report on schedule for the set parameters. To access the saved report, click the report name as if running normally, and, if ready, it will open its last saved version;

2.4.2 Changing schedules

Report schedules can be altered, disabled or deleted.

- To change the schedule times or delivery methods, locate and open the report properties menu and the Schedule menu;
- Click on the saved schedule item to unfurl the scheduling options. Change the schedule accordingly and click update;
- Disabling a report retains the schedule parameters, but suspends its execution;
- Click “Delete” to remove the schedule from the system;

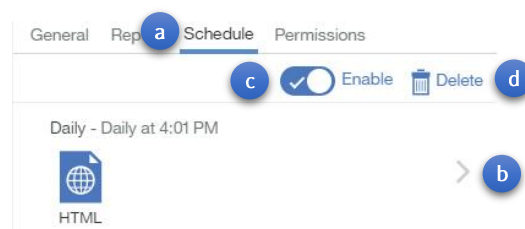
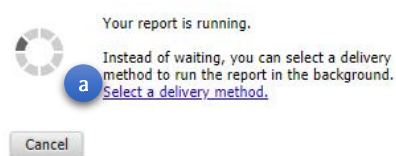


Figure 20: changing scheduling options

2.4.3 Background execution

Report execution times varies depending upon report design and server processing load. Slower reports may be executed on the background at run time. When a report is run, Cognos presents a progress indicator with a link to select a delivery method (figure 21, [a]). Clicking the link opens delivery options.



Reports may be delivered via Email or saved to the server. Saved reports may be accessed by clicking the report title, as it is done running reports normally. The saved report will persist until removed.

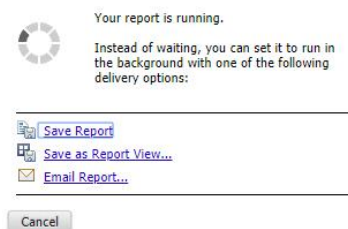


Figure 22: background execution options

2.4.4 Viewing and removing saved reports

When reports are saved, a version of the report is stored on the server and is loaded when users run the report. These versions may be removed by accessing the report options menu as follows:

- Locate the target report and click the ... icon;
- Click the menu item View versions;
- To remove the report view, click the icon “Delete report version”

Tip: reports with saved output may default to the saved version. To set which version to execute, change the Default Portal Action in the report properties, advanced properties.

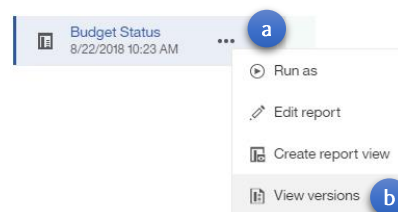


Figure 23: view versions menu

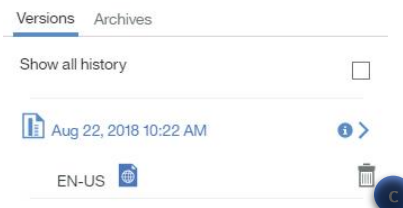


Figure 24: report versions

2.4.5 Following scheduled executions

To view and follow the progress of scheduled report executions access the user menu (silhouette on the top right) and click “My schedules and subscriptions” (figure 25,[a]).

Through this screen users may manage their schedules. View successful or failed scheduled executions clicking the schedule options (figure 26, [a]) and selecting *Past*, and navigate the date scroll button to change the evaluation period.

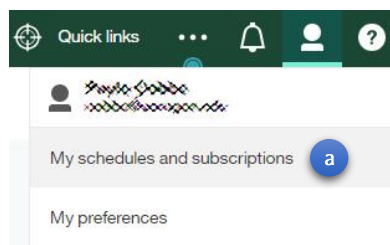


Figure 25: schedules and subscriptions

Clicking the schedule options icon (represented by ... , figure 26 [b]) allows users to enable, disable and remove schedules, view and manage report versions, and alter schedule options.

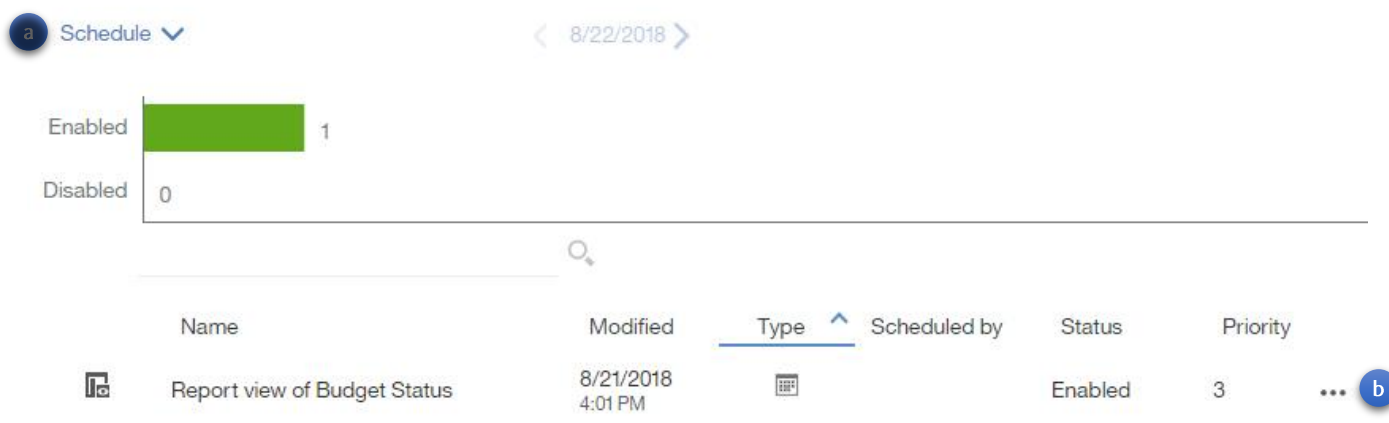


Figure 26: schedules and subscriptions screen

3 Classes and further training

IDR offers additional training for U of O faculty and staff. The next training step is intended for individuals whose activities require the development of new ad-hoc or departmental reports, or modifying existing reports to suit specific departmental needs.

After completing this class the trainee will become proficient in writing simple reports, create queries for ad-hoc reporting or perform simple changes to existing reports.

Classes and schedules are posted in MyTrack Talent Management System. For more information please visit <http://hr.uoregon.edu>.

“Information is the resolution of uncertainty.”
Claude Shannon