InformSU

Activity Manager General Ledger (GL) Reports Using Power BI
Training Manual

Version 2.0
Created: April 15, 2019
Updated: July 3, 2019
Introduction to Power BI

What is Power BI?

Power BI is a Microsoft business analytics service designed to analyze business data and share live, interactive insights. SU faculty and staff will be able to quickly and accurately view tailored reports from multiple data sources through a single, user-friendly platform. Users are able to drill down into data as much or as little as they want. Not only will Power BI be able to surface current reporting needs, but it will empower SU to harness the power of their data in new and innovative ways. Through Power BI, SU will be able to transform data into effective decision-making.
Navigating to the Power BI service

Official InformSU reports will be available to users on the Power BI service (app.powerbi.com). You can navigate to the service in multiple ways:

1. Typing the above URL into your preferred browser (you can then bookmark the site for future quick access).
2. Using the link from the MySU page. *(coming in late summer 2019)*
3. Using the Office 365 (office.com) waffle.

If you are asked for your credentials, you will use your regular SU username and password. These should be the same credentials you use for all other Office 365 applications.
Navigating around the Power BI service

One of the first things you will notice when connecting to the Power BI service is the main navigation pane running along the left side of the page. These selections will be the primary way you navigate around the service. Not all the selections will be utilized, we will focus on those that will be of importance, but we do want to quickly introduce everything that is included in the navigation pane.
Home (preview) – This is the landing page where you will see a summary of items from the other navigation pane selections.
**Favorites** – You will have the ability to favorite reports, dashboards, and other Power BI objects. Once you have favorited something you will go to this selection to access those items.
Recent – Here you will find Power BI objects you have most recently accessed. Much like the recent history in your web browser, you can quickly find items you have recently used.
Apps – Apps are collections of reports and/or dashboards that can be made available to users. SU is not using this functionality at this time.
**Shared with me** – This is the location where you will find all reports and/or dashboards which you have been granted access to. Report sharing and security will be addressed later in this training.
**Workspaces** – These are locations where user groups can share reports and dashboards with other members of their group. You may see that you are already part of group Workspaces, this is due to the fact that any groups that are created in other Office 365 applications automatically have a corresponding Workspace created.

For official reporting purposes, there is an InformSU workspace which will be the repository for all reports and dashboards. Only report developers will have access to the InformSU workspace, and it is from that location that all reports and dashboards will be shared. In later sessions of this manual we will cover how you can identify when an item has been shared from the InformSU workspace.
**My Workspace** – This is your own personal workspace for designing content within Power BI. For users who are interested in learning more about this, other trainings will be available.
Get Data – This is a quick link to ways to pull data into the Power BI service. For general users, this functionality will not be utilized. For other users, additional trainings will be available.
Accessing reports

As mentioned previously, all reports that you have been approved to have access to will be found in the “Shared with me” selection of the navigation pane. In order to make it easier to find reports that are relevant to your needs, individual reports and/or dashboards are being shared rather than entire report folders or groupings. This not only makes for a better user experience, but it also reduces security risks as users will now only have access to the specific data they need rather than general buckets of data.

Requesting access to reports in Power BI is handled the same way as current reporting. Please refer to the InformSU website for further information on requesting access.

Upon viewing the reports that have been shared with you, you will see that each report has an Owner, which is a reference from the Workspace the report has been shared from (if you have had reports shared with you from multiple workspaces, you will find them grouped by Owner under the All Shared link on the left side). All official reports and dashboards will show the Owner as InformSU.
Report Security

Once a report has been shared with a user, that user will not be able to then share the report with a different user. While report data can be exported to Excel or to a PDF, please remember that SU’s FERPA (Family Educational Rights and Privacy Act) and Data Security policies will be enforced in regard to any data shared that has been generated within Power BI. If you have questions as to whether or not you should be sharing report data, please contact your manager or one of the university’s data stewards.

For data security within reports, users will only see activities and objects that they have been approved to view based upon their role in the Organizational Hierarchy. This application of row-level security replicates how security is applied in the existing GL reports.

Data Sources and Data Refreshes

Data for these reports is being sourced from our new Enterprise Data Warehouse (EDW) which resides in an Amazon Web Services cloud environment. The system of record for GL transactions remains Colleague, and there is a nightly process that pulls the Colleague data into the EDW. Our new cloud-based EDW allows greater flexibility in development of data marts and enhanced reporting performance.

As with the existing GL reports, the data that is presented will be “day old” data, meaning it will be representative of any transactions that were processed by the end of the previous day. Specifically, the Colleague to EDW load happens at 4:30am, and the reports themselves are refreshed at 5:00am.
Activity Dashboard

The Activity Dashboard is the first tab of the GL Report. Users can now interact with their data in a more dynamic way and view forecasting data for the current fiscal year. To begin, select a role, an activity (only activities from Funds 11-19 are included), and an object group (optional) and data will then populate across the visuals.

<table>
<thead>
<tr>
<th>Role</th>
<th>Activity (Operating Funds Only)</th>
<th>Object Group 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Please Select</td>
<td>Please Select:</td>
<td>All</td>
</tr>
</tbody>
</table>

Please note that only one activity can be chosen at a time in the corresponding slicer.

The Budget vs Remaining visual shows the percent of the budget that is available. If the total of actual and encumbrance transactions is greater than the budget, the “remainder” will show in red; if the total is less than the budget the “remainder” will show in green (as seen below).
The Available by Object Group visual shows the available amount broken into the Object Group 3 values.

![Available by Object Group](image)

The Available Salary and Non-Salary tree map shows the total available balance broken out at the Object Group 2 level.

![Available Salary & Non-Salary](image)
The Monthly Spend chart shows month by month actuals for the current year compared to the prior year and a forecasted value (a three-year average of actual transactions).
The final chart shows the forecasted value compared to the budget. This can be used to project whether an activity will be over budget based on the current year’s spending and the forecasted spending for future months.

If the projected spending value is greater than the budget, the deficit will show in red. If the projected amount is less than the budget, the value will show in green, similar to the Budget vs Remaining chart.
This tab is meant to allow users the ability to interact with their data and cross-filter based on other visuals located on the page. For example, if a user selects the Salaries & Benefits block in the Available Salary & Non-Salary tree map, other visuals will update to only show the totals for the object group Salaries and Benefits.

Users can also use the Object Group 1 slicer at the top right of the page to view only expenses, revenues, or any combination of Object Group 1 values.
Activity Summary Report

The Activity Summary Report is the next tab of the GL Report and shows high level summary data across funds, activities, and objects.

<table>
<thead>
<tr>
<th>Category</th>
<th>Encumbrance Transactions</th>
<th>Actual Transactions</th>
<th>Budget Transactions</th>
<th>Available</th>
<th>% Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>0.00</td>
<td>198,249.22</td>
<td>-97,000.00</td>
<td>-295,249.22</td>
<td>-304.38%</td>
</tr>
<tr>
<td>1400: Hist Op</td>
<td>0.00</td>
<td>198,249.22</td>
<td>-97,000.00</td>
<td>-295,249.22</td>
<td>-304.38%</td>
</tr>
<tr>
<td>Total</td>
<td>0.00</td>
<td>198,249.22</td>
<td>-97,000.00</td>
<td>-295,249.22</td>
<td>-304.38%</td>
</tr>
</tbody>
</table>
Slicers

Similar to the parameter box in the current reports, slicers filter the data to show only what has been selected. Slicers can be configured to allow the user to select all, multiple, or only one option depending on the field. In the case of the GL reports, most slicers allow the user to select multiple options with the exception of the Role slicer and Report Selection Slicer in the Detail report.
Slicers are designed to go from the general to the specific. Going in order ensures that options are not filtered out accidentally. As each selection is made, the next slicer options are filtered to show only the options available based on the previous selection. This means if the user begins by making a selection in the “Object” slicer, any activities that do not have a record with the corresponding object will be filtered out of the list. If you find that an option you were expecting to find is not available, your other slicer selections may have filtered it out. Try resetting the report to the default selections to clear previous selections.

A search feature has also been added to slicers so users can begin typing to search through the list more quickly. This option is only configured for slicers with many options. The user can begin typing any part of the code or the description to search.
Report Layout

When users first open the summary page of the report, they will see their data rolled up to the activity level. Users can then expand the levels of the hierarchy to show breakdown by object groupings. The hierarchy mirrors that of the current reports.

Subtotals are now shown above the line by line data, rather than at the bottom. There is also a grand total at the bottom of the report which will show totals across multiple fiscal years if multiple years of data are selected.
There is no longer a separate column for month to date and year to date totals. This will be determined by the slicer selections made by the user. To show MTD totals, the user would select only one month in the “Month” slicer and to show the YTD total the user would select all months up to and including the month they’d like to see.

Power BI reports render in one page regardless of the number of rows. If the number of rows goes beyond the length of the report page a scroll bar will show up on the right-hand side and the user can scroll through to see additional rows. This is important to remember when printing as only the rows shown on the screen will print. If you would like to print all rows of data at once, export to excel first and then print the spreadsheet.
Interacting with the data

Users now have the option to choose how the report is sorted and can easily resort by other columns by clicking the header to sort in ascending order and clicking again to sort in descending order.

Line by line data is also accessible with the drill through functionality in Power BI. To access, right click on an object row and find “Drillthrough” in the drop down, hover over to expand the list of drill through reports available (Actual, Budget, and Encumbrance).
When the user clicks one of the options a new page will open.

Users can get back to the Summary Report page by clicking the back-arrow icon at the top right of the screen. These drill throughs are similar to the magnifying glass icon in the current reports.
Exporting Data

Users can also export data to excel by hovering over a visual and clicking on the ellipses (…) in the top right corner.

After clicking “Export data” a window will open with the option to export data as an .xlsx or .csv file. When exporting as an .xlsx file the filters applied to the dataset will show at the top of the report. The .csv version exports only the data portrayed in the visual as an unformatted table.

When exporting the Summary report it is important to remember that the visual is configured as a matrix, not a table. When this is exported to excel it is converted to a table. This means the hierarchy which in the report view takes up only the left most column is broken down into columns per hierarchy level.

When exporting data from one of the drill through pages, a number of additional rows will show up on the far right of the table. These columns are hidden in the report view but are included in the export to allow for easy filtering and manipulation.
Bookmarks

Bookmarks allow the user to store frequently used slicer selections and allow for easy access later. If you don’t see a bookmarks bar on the right-hand side, go to “View” and turn the Bookmarks pane on.

In the Bookmarks pane you will see two sections: Personal Bookmarks and Report Bookmarks. Personal Bookmarks are created by individual users and are not accessible by any user besides the one who created the bookmark. Report Bookmarks were created by the report designer and are accessible by all users who the report is shared with.
To add a personal bookmark, make selections in the slicers and select “Add” in the Bookmarks pane.

Once it has been named and saved, this personal bookmark will be available anytime the report is opened. The user can also choose to make any of the Personal Bookmarks their default report view. This means that when the report is opened, it will automatically present the data according to the selections saved in the bookmark.
Users can delete their personal bookmarks by clicking the ellipses next to the bookmark name and selecting “Delete” in the dropdown.

Users can also update the slicer selections saved in the bookmark by selecting “Update” after the appropriate slicer selections have been made. This saves over the previous selections saved in the bookmark.
Searching within reports

The inclusion of search visuals allows for searching specific fields within a report output. These visuals are available in the Summary Report drill though pages and in the Detail Report and allow the user to search for text in a specific column of data.

In the example above, this will filter the results to show only transactions with “Earnings” somewhere in the Description field and “00095” in the Reference Number field. To clear search parameters, click the eraser icon to the right of the search field.
Activity Detail Report

Located on the next tab of the GL Report, this report takes the place of the Actual Detail Report and the Budget Detail Report.
Slicers

The first thing to notice in this report is the Report Selection at the Top Right.

![Report Selection]

This allows the user to select if they’d like to view Actual, Budget, or Encumbrance transactions. The following slicers are similar to the current reporting system and function in the same way. As in the Summary Report, slicer selections should be made from the top down and the Reset to default button will reset the selections to the default.

![Reset to default]
**Report Layout**

Within the report, subtotals are separated from line by line data. This allows for the user to view object summaries on the left and line by line transaction information on the right.

![InformSU Detail Report](image-url)
Interacting with the data

Once selections have been made both visuals will be filtered to show only the funds, activities, and objects specified. From there, the user can highlight specific object lines on the left-hand side to further filter the line by line data in the table. By clicking on one object in the matrix, the table will update to show only transactions in that object.

To unselect that object either click again on the same object line or in the white space below the data.
Exporting Data

Data can be exported from both the Activity Summary matrix and the Transaction Detail table on the right. When exporting data from the Activity Summary matrix, the data will be converted to a table and will show subtotals by activity and object. Data exported from the Transaction Detail will look much the same as data exported from the drill throughs of the Summary Report.

Data can also be exported as a PowerPoint or PDF. Exporting to a PowerPoint creates a presentation with each page as a separate image on a slide. It is important to remember that if data goes beyond what is visible on the screen, it will not be visible in the image in PowerPoint. This also applies to an export to a PDF. A PDF document will open with one page per report page and will only show the data shown on the screen.

Searching within reports

Search visuals are also available in the Detail Report and function the same way as they do in the Summary Report drill through pages.
Reference Report

The next tab of the report is meant to help the user as they begin navigating these reports. Helpful notes on interpreting your financial data and tips on Power BI functionality are both included. More information on Power BI is linked as is the contact information for the InformSU team, the University Budget Office, and the Controller’s Office.
Glossary

The next tab of the GL Report is a Glossary containing helpful terms for users to refer to as they view their financial data.

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account String</td>
<td>Refers to the 17 digit number comprised of fund, location, function, activity, and object. The code signifies to the University where an expense is charged or revenue is credited.</td>
</tr>
<tr>
<td>Activity</td>
<td>A 6 digit unique identifier within the Account String specific to an organizational unit (e.g., Mailing Services, Honors, Diagnostic Ultrasound)</td>
</tr>
<tr>
<td>Actuals</td>
<td>Expense or income entered in Colleague</td>
</tr>
<tr>
<td>Base Budget</td>
<td>The default budget of an activity, which remains static from fiscal year to fiscal year until actively changed.</td>
</tr>
<tr>
<td>Budget</td>
<td>Financial resources allocated to an activity, which provide financial support for university operations. These funds come from the major revenue streams of the institution (i.e. tuition).</td>
</tr>
<tr>
<td>Current Year Budget</td>
<td>Reflects base budget and all one-time budget adjustments in the fiscal year</td>
</tr>
<tr>
<td>Encumbrance</td>
<td>A financial placeholder in the GL in advance of an actual transaction.</td>
</tr>
<tr>
<td>Fiscal Year (FY)</td>
<td>The University's fiscal year runs from July 1 through June 30 and is always named by the June 30th year (e.g., FY19 runs from 7/1/18-6/30/19).</td>
</tr>
<tr>
<td>Function</td>
<td>A single digit unique identifier within the Account String used to signify whether the transaction relates to instruction, academic support, student support, overhead, etc.</td>
</tr>
<tr>
<td>Fund</td>
<td>The first 2 digits of an Account String which identifies the source and intended purposes of financial resources. The university currently budgets to the operational funds of the institutions: 11, 12, 13, 15, &amp; 18. Other funds generally do not have budget.</td>
</tr>
<tr>
<td>General Ledger (GL)</td>
<td>The GL contains all the financial accounts of the University. The ledger uses two columns: one reflects debits the other has offsetting credits.</td>
</tr>
<tr>
<td>Location</td>
<td>A single digit unique identifier within the Account String specific to a campus location. Currently only 'O' is used.</td>
</tr>
<tr>
<td>Month to Date (MTD)</td>
<td>Shows all transactions within a specified month up until the last date of data entry (most often the previous day or the last day of the month)</td>
</tr>
<tr>
<td>Object</td>
<td>The last 7 digits of the Account String which identify the type of financial activity (e.g., salary expense, travel expense, gift revenue, tuition revenue)</td>
</tr>
<tr>
<td>Year to Date (YTD)</td>
<td>Shows all transactions within a specified fiscal year up until the last date of data entry (most often the previous day or June 30th)</td>
</tr>
</tbody>
</table>
Release Notes

The final tab of the GL Report will include notes about any updates or changes that have been made to the published report since the previous release.