



Lumira 2.0 Discovery

During some downtime recently, I decided to play around with the new Lumira 2.0. I had not used Lumira 1.0 in about eight months. I was excited to see what improvements were made to the tool from the first iteration.

I knew that 2.0 is similar to 1.0 in that users have to deploy an add-on to the BI server. Lumira 2.0 renamed Lumira Desktop to Lumira Discovery and integrated Design Studio's functionality into another tool called Lumira Designer. This blog focuses on Lumira Discovery and, in particular, about connecting to a universe.

What I Like Best about Lumira Discovery:

1. Previously, Lumira Desktop had three screens: Prepare, visualize, and compose. In Discovery, these are integrated into one single canvas page. It removes what I thought to be excessive amount of steps, especially since this solution is supposed to be user friendly and able to provide quick access to data.
2. After a short period of time getting used to where all the options available are, navigation was easier and seemed intuitive. Like Web Intelligence: its many options for charts can be accessed by either right clicking or from the contextual menu icons.
3. While I didn't do an in-depth analysis on this, it was nice to see there is an ability to consume anything created in Lumira Discovery with Lumira Designer. This will allow for reusability and collaboration between IT and business users.
4. Easily connecting to a Live BW source. Discovery supports BEX hierarchies and variables.
5. I was able to connect to a universe from my BI Launchpad. The query builder screen is the same as the one in Webi, which will make any Webi user comfortable. There are a couple caveats to using a UNX, which I detail in the "Needs Improvement" section below.
6. While users cannot create a LUMX file from BI Launchpad, it is possible to edit these kinds of files. This is a great feature if you have published something from Discovery application, but then noticed a quick fix is needed. Hopefully, future versions will include a create option from within BI Launchpad.
7. Merge, Append and linking datasets: I remember glitches with these in Lumira 1.0. In 2.0, once you understand which one you need to use based on your use case, it's fairly easy.
 - MERGE DATASET - While Append adds the records of data set B to data set A, Merge adds columns from dataset B to dataset A. The prerequisite is to have a common key column of the same data type.
 - APPEND DATASET - Appending two datasets is similar to performing a union between them. The mandatory prerequisite for appending one dataset to another is that both the datasets must have equal number of columns of similar data types.
 - LINK DATASET – Linking Datasets can be done when there is no common key but having a common column (e.g. Country) into which the data can be blended.

More Information on Linking vs. Merging

Let us assume two data sets – one set having sales actuals at state (and thus the country) level, and another dataset having the sales budget – but ONLY at the country level.

In such cases, linking datasets is recommended vs. doing a merge.

Reason: If merging the datasets, the budget would be repeated for every record at the state level, and aggregation would add up repetitive budget values for the same country. At the same time, linking would look up the budget data after the first data set has been aggregated. The concept of linking datasets is also known as a post-aggregate join – meaning that the lookup happens after aggregation – and is a very powerful feature of Self Service BI tools.

Some key differences between data merging and linking datasets include:

- Data merging happens at the data level, while linking happens at the UI/visualization level; blending is done in a specific scenario to solve a specific question.
- Linking usually happens when the two data sets are of different granularity
- Linking performs the role of an excel VLOOKUP whereas merging performs the function of a SQL join

Needs Improvement

The majority of the comments here revolve around UNX as the source, as that's how I tested it.

1. One of the most powerful things about the BI Launchpad is being able to schedule a report to be sent to users. This functionality is there with a LUMX file, but is lacking a major option. When scheduling a LUMX file, it can only be sent as a Lumira file or link to the file on BI Launchpad, but not as a PDF. I think this is a big miss and hope the SAP developers are adding this functionality soon.
2. Universe functionality:
 - a. Data formatting is a problem for me. For example, on the UNX side, I set a date format YYYY-MM-DD and it is shown three different ways. There are no options to format this in Discovery and it doesn't propagate the formatting set at UNX or DB side. All three places to view the Date are shown differently, which is very frustrating.
In the UNX view data feature:

View Data on Date - 200 rows (902 ms)

Raw Data | Distinct values | Analysis

Enter your filter | Filtered rows: 200/200

Date
2017-07-27
2017-10-19
2017-09-08
2017-08-18
2017-08-11
2017-09-20
2017-08-28
2017-09-07
2017-09-12
2017-09-16
2017-08-17
2017-07-24

In the Query Builder refresh data view:

Result Objects for Query #1

Date

Query Filters for Query #1

Drop your filters

Partial Results (200 rows - 2810 ms)

Max Rows: 200

Date
Sep 5, 2017 11:00:00 AM
Jul 24, 2017 6:00:00 PM
Jul 24, 2017 4:00:00 PM
Jul 27, 2017 11:00:00 AM
Jul 25, 2017 7:00:00 AM
Jul 24, 2017 4:00:00 PM
Jul 24, 2017 3:00:00 PM
Jul 21, 2017 3:00:00 PM
Jul 24, 2017 6:00:00 PM

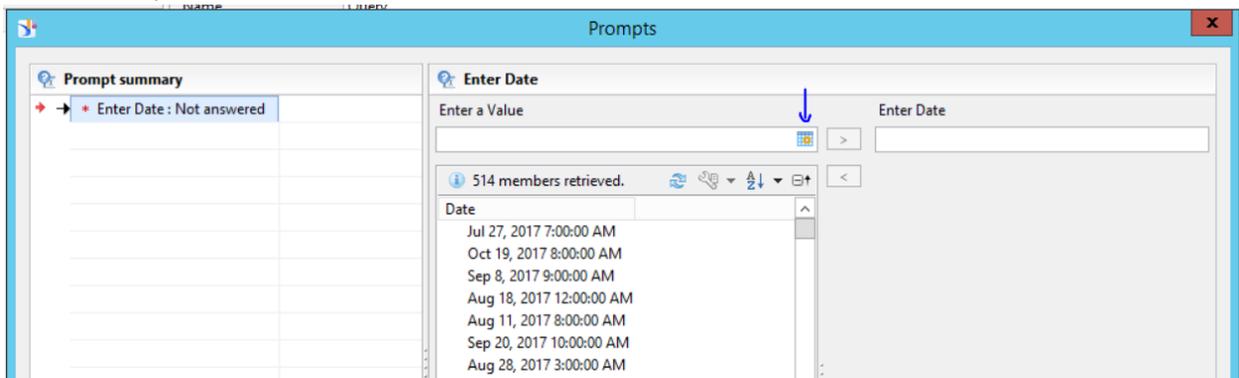
In Lumira Discovery Chart:



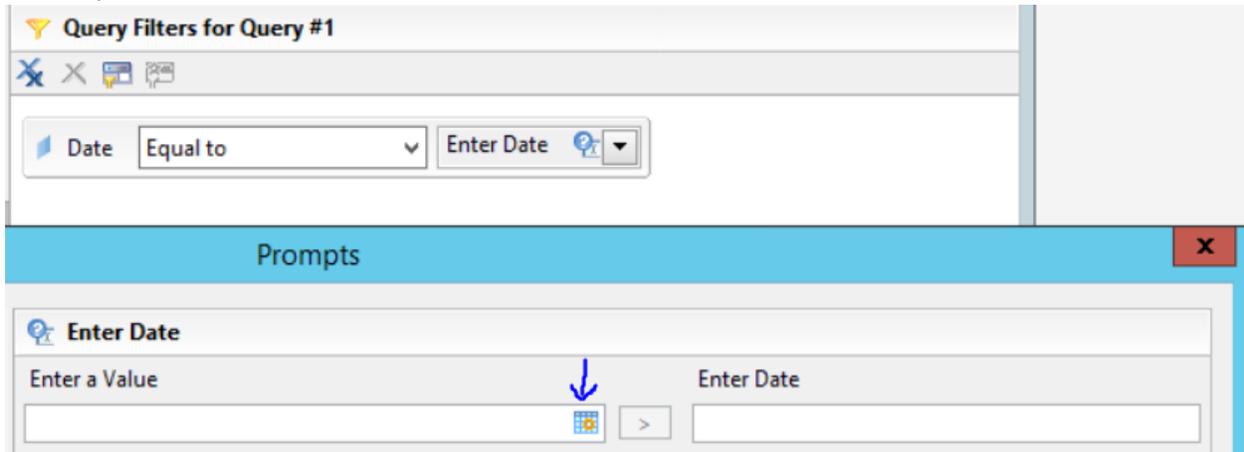
Note: The above chart has a timestamp, thus the repeating dates.

- b. **Date Prompts:** When creating a prompt for a query on a date object, there is some inconsistent behavior. For example, as any good universe builder would do, I tried to test my query by using the query option in my .BLX. When I created a simple query with a prompt asking for a date (on a date dimension), I was prompted with a calendar option. I performed the same steps when building my query; if I selected refresh on the query builder screen, I saw a proper calendar prompt. If I selected Finish and ran the query, there was no calendar option; it is up to the user to guess the format of the data needed or choose from a very long list of values. Usually on a data dimension object, one wouldn't select from a LOV. This issue created challenges for me, especially since the formatting of the date is different. I essentially had to format the date into a string YYYYMMDD to overcome not being able to select from a calendar.

In UNX Query View:



In Query Builder refresh screen:

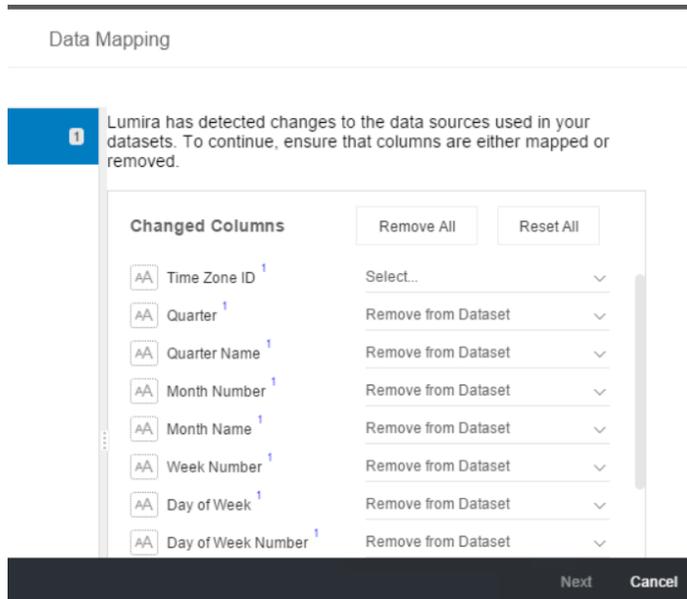


In Query Builder run screen (no calendar option only select from LOV):



3. I noticed an issue when publishing a universe with a dimension that is a string. When I later modified that string to a date format, it corrupted the file. When I tried to open the dashboard, it spun for a couple of minutes, then crashed Lumira Discovery.
4. When making changes to a query, users are prompted with a screen to either Select if or remove it. Choosing Select....does nothing. Select Remove from Dataset to advance from this

screen.



5. Not being able to pin down or align objects on a canvas. In my opinion, this would be a great feature to have. It will allow the user to develop something that is spaced out properly. There is a grid feature, but it's not as easy to use at the align feature in WebI. The sizing of charts cannot be easily changed either.

Now that I'm reacquainted with Lumira and have spent time with Discovery, I am pleased with the changes introduced in this version. Being able to use a BO Universe is a key part of the BusinessObjects platform. The live data connections are positive as well. I do hope to see more formatting options as well as a publish and email .PDF option. Hopefully, the improvements will continue as the product matures.



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