



Real BI User Guide

HPCC Systems Solutions Lab

Step by step walkthrough of how-to setup and use Real BI.

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Introduction

Real BI is a set of prebuilt business intelligence tools that support HPCC in providing graphing and reporting features through an easy to use drag and drop application.

Additional layers and tools could become very expensive and time consuming to implement and even more expensive to support and learn. This is especially true if data must move from one layer to another. This movement introduces a new set of challenges such as security, governance, maintenance, and cost.

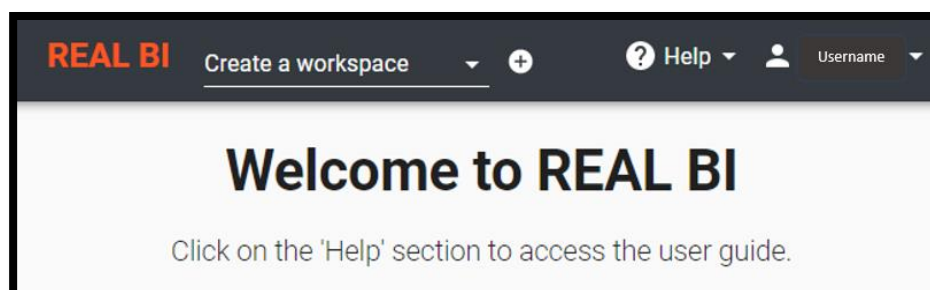
The value of Real BI is to empower all users, including non ECL developers, to shape their data and visualize it in an extremely agile manner, directly from HPCC, without having to move or copy the data.

USER LOGIN

Users can login using their Azure Active Directory network credentials. If you are an external user, please contact Bahar Fardanian: Bahareh.fardanian@lexisnexisrisk.com



If logging in for the first time, you will see the following:

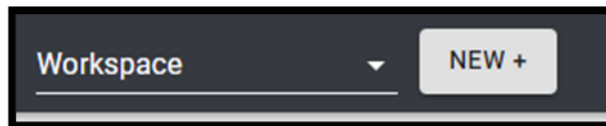


Workspaces

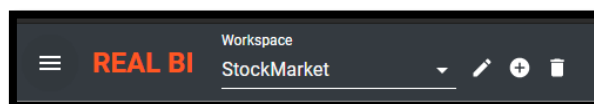
CREATE WORKSPACE





A workspace is a collection of folders and dashboards.

If no workspaces are available, you will need to create one using the “NEW” button.



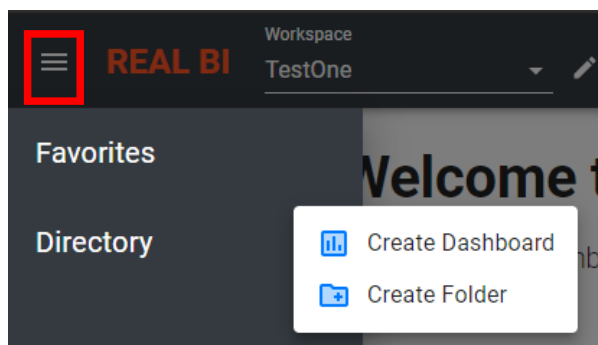
Once a workspace is created, you can edit or delete the current workspace or add a new one. Creating multiple workspaces enables you to store different hierarchies of folders and dashboards.



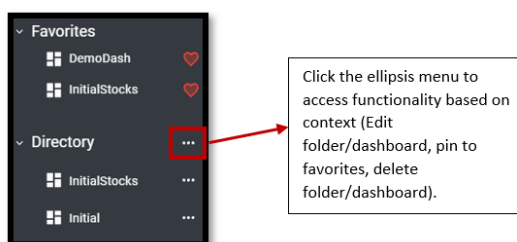
	Edit the workspace name.
	Add a new workspace.
	Delete the current workspace. If a workspace is deleted, all dashboards and folders under that workspace is deleted as well.
	Hamburger menu to access additional functionality such as creating dashboards and folders.

DIRECTORY

The Directory is accessible via the hamburger menu in the upper left hand-side of the Real BI browser window. It allows you to further organize your work. Under Directory, you can create a new folder or create a new dashboard.



After clicking the menu and opening the left-hand drawer, you will have the ability to create new folders, subfolders, and dashboards.



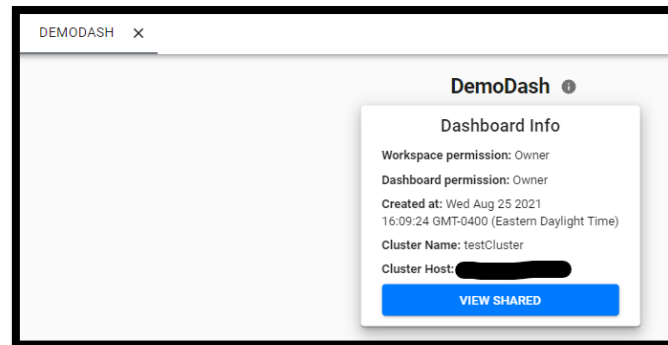
Create dashboard

Click on “Create Dashboard” from the ellipsis menu in the hamburger menu to create a new dashboard. You will need to select the HPCC Systems cluster and choose a dashboard name. If the cluster requires credentials to access, a username and password must be entered as well.

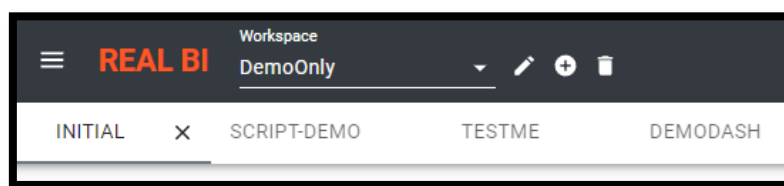
A screenshot of the 'New Dashboard' form. It contains four input fields: 'HPCC Cluster' (a dropdown menu), 'Dashboard Name' (a text field), 'HPCC username' (a text field), and 'HPCC password' (a text field). At the bottom right, there are two buttons: 'CANCEL' and 'CREATE'.

Once you click the “Create” button, your new dashboard will open in the main. You will see a blank page with your dashboard name populated in the tab bar and in the middle of the window.

The “i” (information) icon, to the right of the dashboard name, shows information about the dashboard.

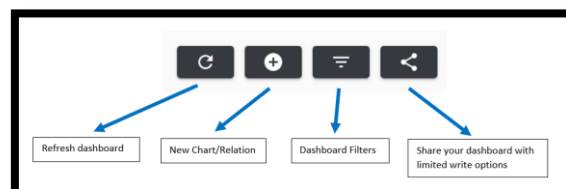


Please note that you can have multiple dashboards open simultaneously and can cycle through them using the tabs menu.



Dashboard Options

Dashboard options are universal options for each dashboard. They allow you to create new charts, add relations and filters, share dashboards, and save a dashboard in PDF format.



New Chart

To create a new chart within a dashboard, click on the plus sign in the upper right-hand corner and choose “Add Chart”.

CHART SOURCE TYPE

Roxie Query

Start typing the name of the Roxie query you would like to use. Autocomplete will assist you in finding the right query. As you type, a list of active queries will populate in a dropdown menu. Choose your query and do not worry about the version number.



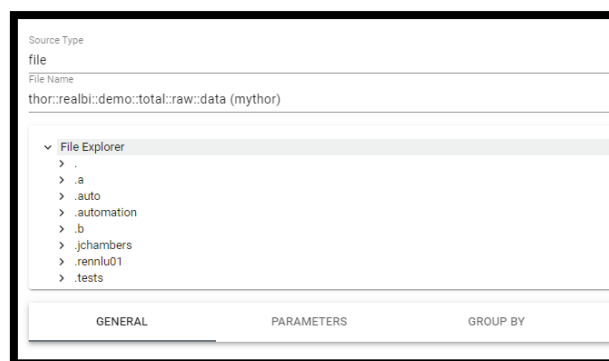
The screenshot shows a 'New Chart' dialog box with the following fields and options:

- Source Type:** query
- Query Name:** integers_test (roxie)
- Dataset *:** Result 1
- Tabs:** GENERAL (selected), PARAMETERS, GROUP BY

Thor File

Start typing the name of the logical file you want to use for your chart. Autocomplete will help you narrow down to the right file.

A “File Explorer” option is available if you would like to select your file by browsing the files hierarchically.



The screenshot shows a 'New Chart' dialog box with the following fields and options:

- Source Type:** file
- File Name:** thor::realbi::demo::total::raw::data (mythor)
- File Explorer:** A tree view showing a hierarchy of files and folders, including ., .a, .auto, .automation, .b, .jchambers, .rennu01, and .tests.
- Tabs:** GENERAL (selected), PARAMETERS, GROUP BY

ECL Script

This option provides a basic ECL editor where you can write and execute custom ECL scripts. Once the script is ready, select the target cluster (Thor, hthor, Roxie, etc) and submit the script. Once execution is complete, Workunit ID (WUID) is displayed above the script box. Clicking the WUID will take you to the ECL Watch page showing you the details of that workunit.

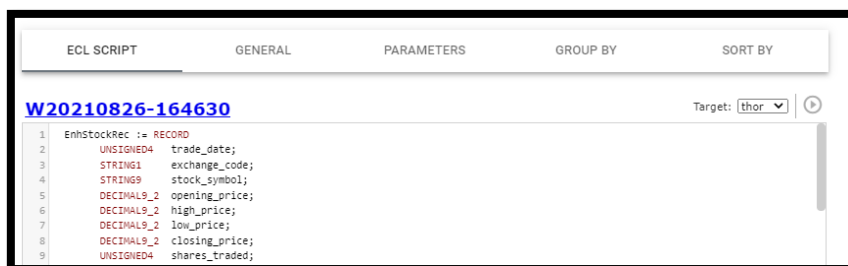


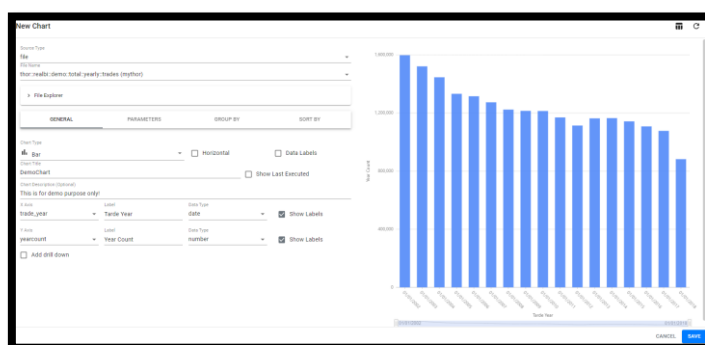
CHART CONFIGURATION

Chart Type

Select the chart type you wish to use to visualize your data.

General Configuration

Supply a descriptive name, then use the dropdowns to select dataset fields for your chart. The “Chart Description” and “Label” fields are optional. Make sure the correct Data Type is selected, as by default all values are read as strings. Additional options will appear based on the type of the chart (bar, line, etc.) you select. The “Refresh” option in the upper right-hand corner can be used to preview the chart.



Parameter

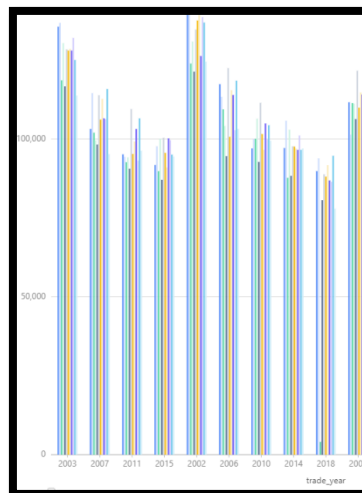
Parameters are inputs that the chart accepts to filter HPCC Systems data. “Starting Row” and “Number of Row” fields define a contiguous portion of data to visualize. Field(s) allow the chart to be filtered for specific values.

GENERAL	PARAMETERS	GROUP BY	SORT BY
Starting Row		Number of Rows	
Field		Value	

Group By

Provides the ability to group the data by a dataset field in your dataset. The “Stacked” and “Percentage” checkboxes are available to enhance the chart visualization.

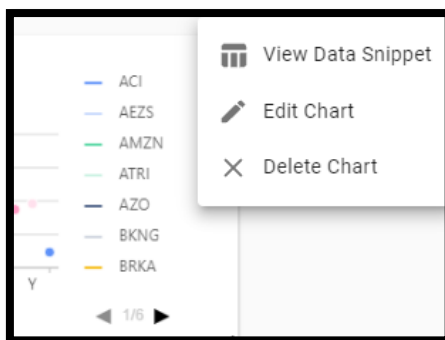
GENERAL	PARAMETERS	GROUP BY	SORT BY
Group By		Data Type	Stacked
trade_year		datetime	<input checked="" type="checkbox"/> Percentage (%) <input type="checkbox"/>



Example of Group By option without Stacked option

Chart Options

Once a chart is created, you can View Data Snipped, edit the chart values, or delete the chart by clicking on the ellipsis menu in the top right corner of the chart.



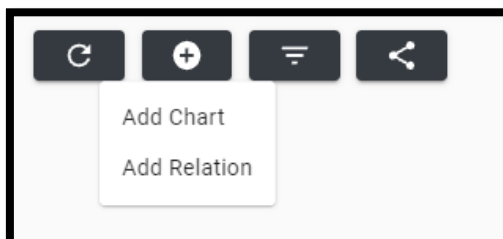
RELATIONS AND FILTERS

CHART RELATION (INTERACTIVITY)

A Relation is the method by which we can tie charts together and achieve interactivity. Interactivity is the ability to click on an element within one chart and use that click to filter/manipulate other charts on the dashboard.

Create Relation

To create a relation, click on the plus sign in the upper right corner and choose “Add Relation”.



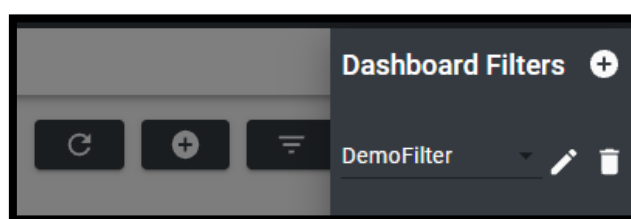
You can define relationships between multiple charts by providing “Source Chart” and “Target Chart” information. Clicking on a value in a Source Chart causes the Target Chart to update. Multiple Target Charts can “listen” for clicks in the same Source Chart.

Chart Relations			
Source Chart	Source Chart Field	Target Chart	Target Chart Field
— taxi table	pickup time	Taxi pickups	tpep_pickup_datetime
Source Chart	Source Chart Field	Target Chart	Target Chart Field
— taxi table	pickup time	Taxi data drop off	tpep_pickup_datetime
Source Chart	Source Chart Field	Target Chart	Target Chart Field
— taxi table	pickup time	Taxi chart	tpep_pickup_datetime
Source Chart	Source Chart Field	Target Chart	Target Chart Field
— taxi table	pickup time	Total Amount	tpep_pickup_datetime
Source Chart	Source Chart Field	Target Chart	Target Chart Field

Please note that these relationships are one-way only (Source to Target). If you would like the inverse relationship (Target to Source), you will need to define it separately.

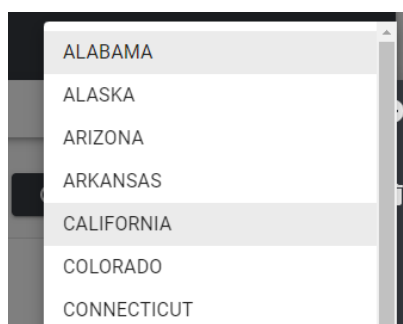
ROXIE DASHBOARD FILTER

Roxie Filter lets you create interactive filters on charts in your dashboard. Clicking on the dashboard filter button will open the right-hand filter menu. Click the “+” button to create a new dashboard filter. Select the Filter Type, then fill out the Source file and Target Chart information.



Using Filter

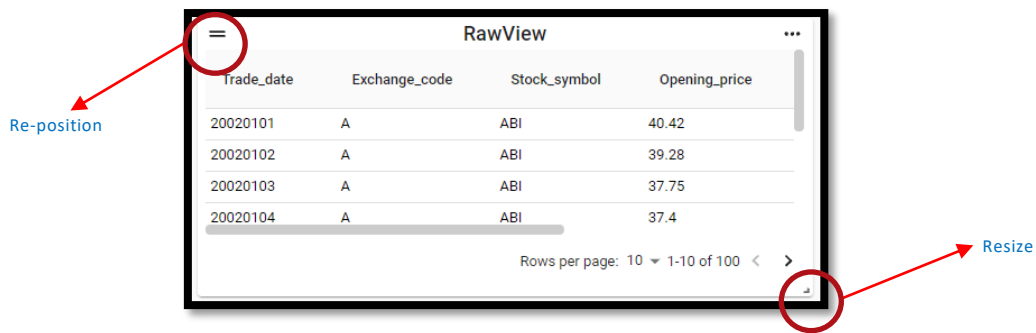
Once the filter is setup it can be used to display specific values on target charts.



Selecting multiple locations from the Dashboard

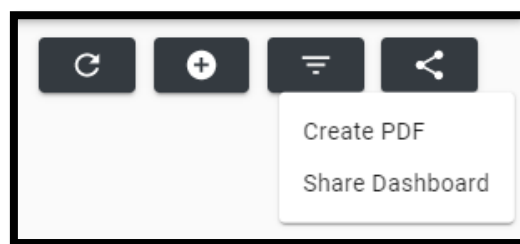
Dynamic Dashboard Display

A dashboard can include multiple charts. You can resize the charts by grabbing lower right corner of any chart with the mouse and dragging. Charts can be organized by grabbing “=” in the upper left corner of the chart with the mouse and dragging.



Dashboard Sharing

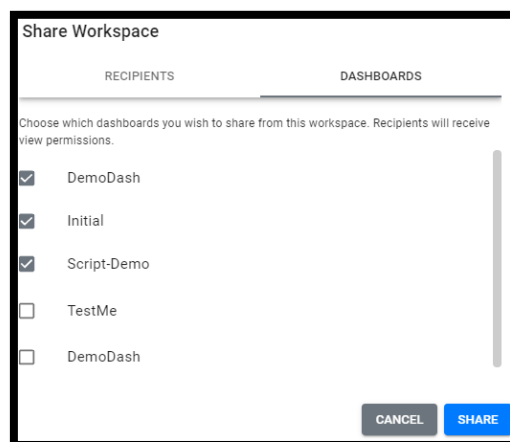
Dashboard sharing includes "Create PDF" and "Share Dashboard" options.



SHARE DASHBOARD

The Share Dashboard option allows you to share a dashboard or selected charts with other users. Those users will have read-only access to the dashboard; they will not be able to make any changes to any aspect of the dashboard. Users will, however, always see up-to-date changes on the dashboard (both in data and in layout or options).

Under the "Recipients" tab, enter the email addresses of the users with whom you would like to share the dashboard. Under the "Dashboard" tab, select the chart(s) from that dashboard that you would like to be visible to those users.



This option allows you to print or save a PDF version of the dashboard.

This option allows you to print or save a PDF version of the dashboard.



For any questions or comments please reach out to:

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