

# easyDash

## Getting Started



easyDash allows anyone to create beautiful, informative dashboards in minutes. Effortlessly gain insights into your MindSphere data by visualizing it in a way that makes sense to you.

This application leverages a leading open source dashboarding and visualization environment, and integrates it seamlessly with MindSphere.

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### Getting Started

If this is your first time opening easyDash and you have been assigned the editor or admin role, you may need to logout and log back in to MindSphere to be able to create or edit dashboards.

Let's start with creating a new Dashboard. You can find the new Dashboard link on the right side of the Dashboard picker, using the "+" symbol on the left sidebar, or through the manage dashboards menu. You now have a blank Dashboard. Dashboards can be organized using folders through the manage dashboards menu, and can have edit/view permissions given on a team or user basis.



The image above shows you the top header for any Dashboard.

The easyDash menubar:

1. Side menubar toggle: This toggles the side menu, allowing you to focus on the data presented in the dashboard. The side menu provides access to features unrelated to a Dashboard such as Users, Organizations, and Data Sources.
2. Dashboard dropdown: This dropdown shows you which Dashboard you are currently viewing, and allows you to easily switch to a new Dashboard. From here you can also create a new Dashboard or folder, Import existing Dashboards, and manage Dashboard playlists.
3. Add Panel: Adds a new panel to the current Dashboard
4. Star Dashboard: Star (or un-star) the current Dashboard. Starred Dashboards will show up on your own Home Dashboard by default, and are a convenient way to mark Dashboards that you're interested in.
5. Share Dashboard: Share the current dashboard by creating a link or create a static Snapshot of it. Make sure the Dashboard is saved before sharing. Note: This feature is currently being implemented, and may not work correctly at this point in time.
6. Save dashboard: The current Dashboard will be saved with the current Dashboard name.
7. Settings: Manage Dashboard settings and features such as Templating and Annotations.

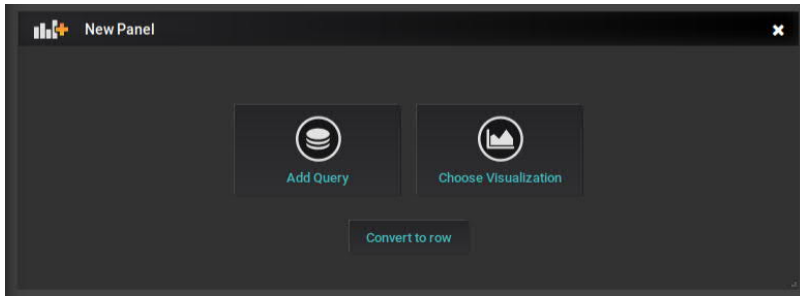
## Dashboards, Panels, the building blocks of easyDash...

Dashboards are at the core of what easyDash is all about. Dashboards are composed of individual Panels arranged on a grid. easyDash ships with a variety of Panels. easyDash makes it easy to construct the right queries, and customize the display properties so that you can create the perfect Dashboard for your needs. All saved dashboards have a version control feature enabled, allowing you to roll back up to 25 dashboard edits.



1. Zoom out time range
2. Time picker dropdown. Here you can access relative time range options, auto refresh options and set custom absolute time ranges.
3. Manual refresh button. Will cause all panels to refresh (fetch new data).
4. Dashboard panel. You edit panels by clicking the panel title.
5. Graph legend. You can change series colors, y-axis and series visibility directly from the legend.

# Adding & Editing Graphs and Panels



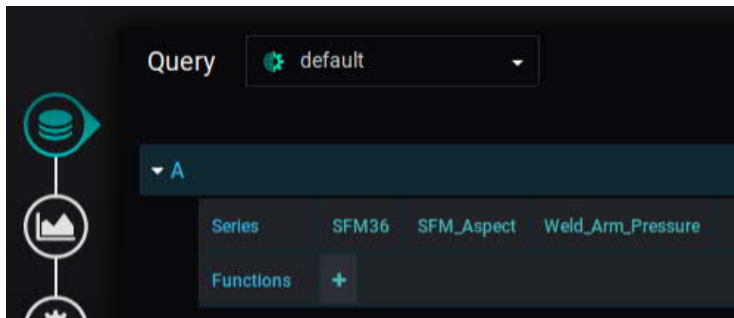
1. You add panels by clicking the Add panel icon on the top menu.
2. To edit the graph you click on the graph title to open the panel menu, then **Edit**.

## Queries

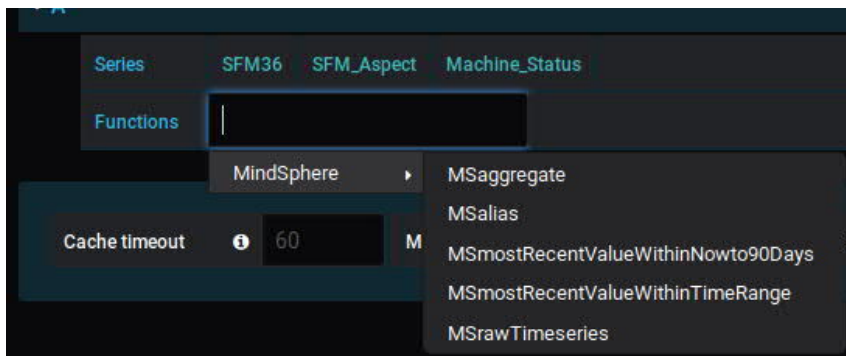
easyDash comes with 2 datasources provisioned:

### 1. MindSphere

A MindSphere datasource, used to query timeseries data from MindSphere.



A MindSphere datasource query is as simple as choosing an Asset, an Aspect, and a Variable.



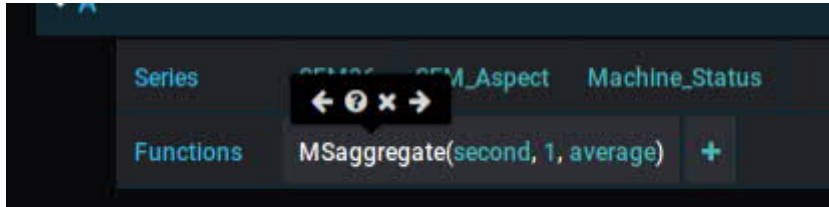
The MindSphere datasource also provides some simple functions to help you visualize your data the way you would like.

- **MSalias** - This function renames the value from asset.aspect.variable

By Default, the MindSphere datasource uses an auto aggregation functionality which intelligently hands your panels just the right amount of data, and this should fit most needs.

Alternatively, one could use:

- **MSrawTimeseries** - Instead of aggregating values based on a requested time range, this function retrieves raw data timeseries data from MindSphere.
- **MSmostRecentValueWithinTimeRange** - This function returns the most recent value available from MindSphere within the requested time range.
- **MSmostRecentValueWithinNowto90Days** - This function will return the most recent value available from MindSphere, regardless of the requested time range.
- **MSaggregate** - This function gives power users the option to choose their own aggregate options.

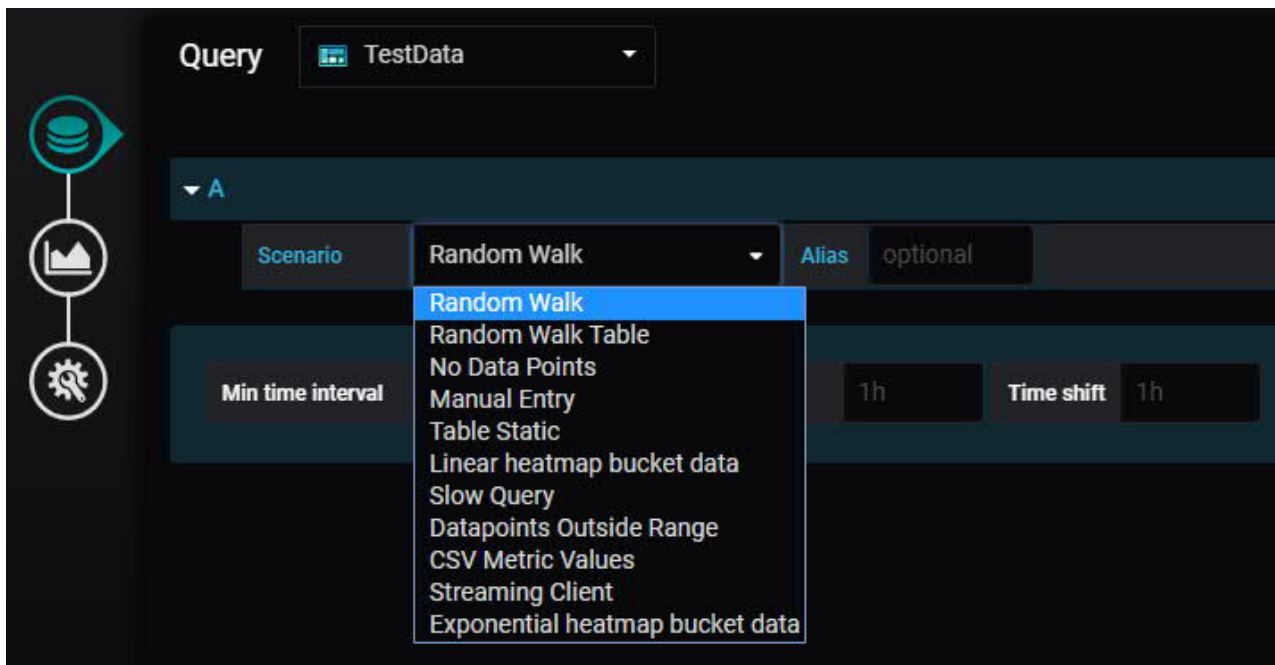


Function tooltips are available by clicking the function name, and then clicking the "?" easyDash 1.0.5 now supports stacking functions!

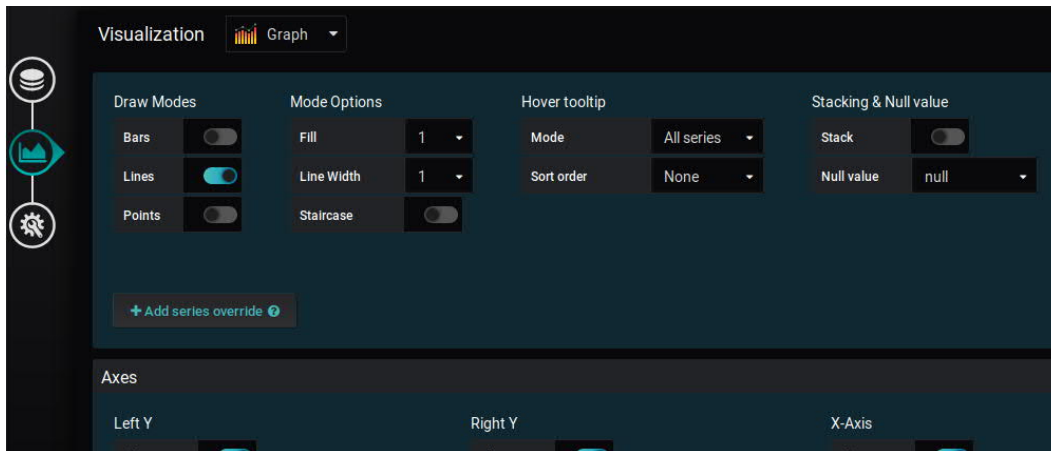
## 2. TestData

The purpose of this datasource is to make it easier to create example data for any panel.

Using `TestData` you can build your own time series and have any panel render it. This makes it much easier to verify functionality since the data can be shared very easily.

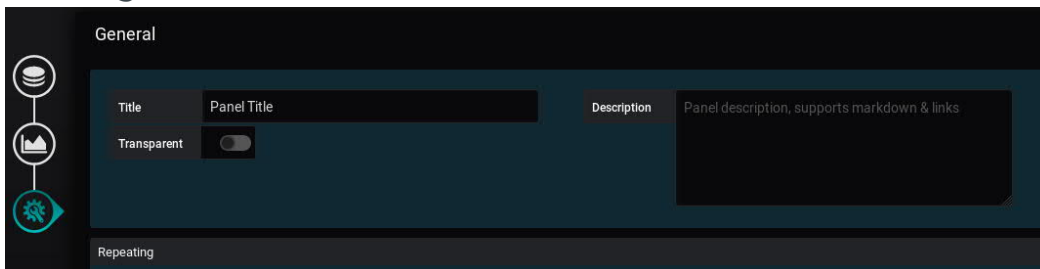


# Visualization



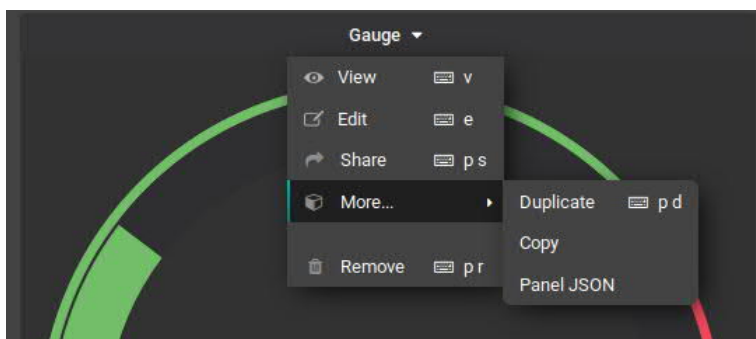
The visualization tab's contents vary depending on the chosen panel. Here you will find options to modify the look and feel of your panels, and often how the panel handles and displays the data provided to it. The graph panel includes series override, a powerful tool to choose datapoint specific visual options.

## Settings



A blank Panel Title field will hide a panel's title header bar.

## Panel Menu



Panels can be duplicated or copied using the panel menu.

All panel and dashboard configuration is held in JSON, which can be exported / imported.

```
{
  "content": "",
  "gridPos": {
    "h": 86,
    "w": 16,
    "x": 4,
    "y": 0
  },
  "id": 2,
  "links": [],
  "mode": "markdown",
  "options": {},
  "timeFrom": null,
  "timeShift": null,
  "title": "",
  "type": "text"}
```

## Drag-and-Drop panels

You can Drag-and-Drop Panels by simply clicking and holding the Panel title, and drag it to its new location. You can also easily resize panels by dragging the panel's bottom right arrow.

## Tips and shortcuts

- Click the graph title and in the dropdown menu quickly change span or duplicate the panel.
- Click the Save icon in the menu to save the dashboard with a new name
- Click the Save icon in the menu and then advanced to export the dashboard to json file, or set it as your default dashboard.
- Click the colored icon in the legend to select series color
- Click series name in the legend to hide series
- Ctrl/Shift/Meta + Click legend name to hide other series

## easyDash loves the keyboard

- Ctrl+S Saves the current dashboard
- Ctrl+F Opens the dashboard finder / search
- Ctrl+H Hides all controls (good for factory/production displays)
- Hit Escape to exit graph when in fullscreen or edit mode

## Setting a dashboard as your homepage

1. Favourite the dashboard you would like to set as your homepage (use the star in the dashboard's top header)
2. Select the favourited dashboard by going to User Preferences -> Home Dashboard

## easyDash on MindSphere

- For security reasons, MindSphere disables your session after 30 minutes of user inactivity. This will prevent easyDash from authenticating properly. Please make sure to save any dashboards you are working on regularly, as there may be issues if your session is disabled and you have unsaved work. You can refresh your session by simply refreshing the page (F5). we are currently working on a solution to reauthenticate easyDash sessions in the browser.
- If you have trouble editing panels and you are using Microsoft Internet Explorer, please try a different browser.

