RUBICON'S CRYPTO SHEETS



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Introduction to Rubicon's Crypto Sheets & Apps Script

Apps Script is basically a set of "functions" in one or many files that when executed... do things within the Google environment. For our purposes we are only focusing on the things it allows us to do in Google Sheets.

Code Example

The following will create a menu with a subtree.

```
function onOpen() {
  var ui = SpreadsheetApp.getUi();
  ui.createMenu('Rubicon\'s Crypto Sheets')
    .addItem('Update Portfolio', 'getPortfolioData')
    .addItem('Update Derivatives', 'getDerivativesData')
    .addItem('Update Spot', 'getSpotData')
    .addItem('Update Trending', 'getTrendingData')
    .addItem('Update Defi', 'getDefiData')
    .addToUi();
}
```

Which, when run from the editor... creates a menu in your spreadsheet UI.

```
Rubicon's Crypto Sheets

Update Portfolio

Update Derivatives

Update Spot

Update Trending

Update Defi
```

You can also load, query, and edit data as well as interact with the cells of a spreadsheet table which is mostly what we will be doing to build and customize automated dashboards.

Rubicon's Crypto Sheets Portfolio Tracker v1

This portfolio tracker is an example of how to automate a dashboard of selected assets. Please use it to spark your imagination rather than thinking this is an out of the box solution. To get started simply visit the link below using your Google account and click **File > Make a copy**

■ Rubicon's Crypto Sheets Portfolio Tracker v1

Tips:



Depending on your screen size and preferences you may want to adjust the Zoom level to 75% for the dashboard.



Think of the existing spreadsheet and dashboard as an example of what you can do rather than what you should do. You can use different metrics, different chart types, different fonts, different font sizes, different colors... Make it work for you!

Start the Script

Tools > Macros > Get Portfolio Data

This will start the asynchronous pull of data from our provider... there are limits on both sides so rarely will all the data change at once.

Tips:



You can manually fetch data now by clicking: Rubicon's Crypto Sheets > Update Portfolio



Sometimes there may be connectivity issues or the script may time out and fail. Just run the script again. When the script says it is finished... it means it got data... and will continue to run asynchronously in the background and get data.

Access to the Apps Script Project

Tools > Script editor

Tips:



If you should get an error... you are trying to access the URL below and may need to just enter it manually in your browser for whichever Google account you are using.

https://script.google.com

The project consists of several scripts, but the portfolio script is the one you will need to edit so that it will query the assets that you are trading.

Just copy and paste the selection of code that looks like the snippet below, editing the url, variables, and the range which defines which line the asset will be displayed on in the Portfolio Sheet. Then adjust the ranges of the charts on the Dashboard sheet.

```
// EXAMPLE FETCH DATA AND DISPLAY IN SPREADSHEET
var urlBTC = UrlFetchApp.fetch("https://api.coingecko.com/api/v3/coins/markets?vs_currency=usd&ids=bitcoin",
fetchParameters);

// PARSE THE JSON REPLY
var jsonBTC = urlBTC.getContentText();
var dataBTC = JSON.parse(jsonBTC);

sheet.getRange(2,1).setValue(dataBTC[0]["name"]);
sheet.getRange(2,2).setValue(dataBTC[0]["symbol"]);
sheet.getRange(2,3).setValue(dataBTC[0]["current_price"]);
sheet.getRange(2,4).setValue(dataBTC[0]["price_change_percentage_24h"]);
sheet.getRange(2,5).setValue(dataBTC[0]["market_cap_change_percentage_24h"]);
sheet.getRange(2,6).setValue(dataBTC[0]["market_cap_change_percentage_24h"]);
```

Resources

Google Sheets

https://sheets.google.com

Google Apps Script

https://script.google.com

Google Apps Script Developer Reference

Spreadsheet Service | Apps Script

Google Apps Script API Feature References

- <u>fetchAll</u>
- Deploy the script as an API executable
- scripts.run of Google Apps Script API
- Benchmark: fetchAll method in UrlFetch service for Google Apps Script
- GAS library for running the asynchronous processing
- Birthday Reminder App

Tutorials

- API Tutorial for Beginners
- Import CoinGecko Data to Google Sheets
- <u>How to use Google Sheets as your database</u>