



Explore the NASA Open Data Catalogs

Matt Brooks & Dan O'Neil
Space Apps Huntsville

Welcome!



Open NASA

The starting point for discovering NASA data, code, and APIs

URL: <https://open.nasa.gov/open-data/>

Sites of Note:

- data.nasa.gov - NASA Open Data Portal
- code.nasa.gov - NASA Code Available in open source!
- api.nasa.gov - NASA APIs

NASA Open Data Portal

- A continually growing catalog of publicly available NASA datasets, APIs, visualizations, and more!
- URL: <https://data.nasa.gov/>

NASA Open Data Portal

- A catalog of NASA datasets
- 44546 datasets available
- Most are available via API

USE THE API


LUKE.

DIYLOL.COM

NASA Open Data Portal

- Most APIs are provided in The Socrata Open Data API (SODA) format.
- Getting Started Page:
<https://data.nasa.gov/stories/s/gk8h-th3y>
- Getting Started with Socrata:
<https://dev.socrata.com/>

NASA Open Data Portal

 NASA's Open Data Portal

click here

Menu

Meteorite Landings

Space Science

View Data

Visualize

Export

API

...

This comprehensive data set from The Meteoritical Society contains information collected by Javier de la Torre and we've also provided an XLS file that consists of place type_of_meteorite...

[More](#)

Access this Dataset via SODA API

The Socrata Open Data API (SODA) provides programmatic access to this dataset including the ability to filter, query, and aggregate data.

API Endpoint

https://data.nasa.gov/resource/y77d-th95.jsor

JSON

Copy

About this Dataset

Updated

June 27, 2018

Data Last Updated

July 20, 2015

Metadata Last Updated

June 27, 2018

Common Core

Bureau Code	026:00
Program Code	026:009

NASA Open Data Portal DEMO

<https://data.nasa.gov>

NASA Code

- Browsable Catalog of NASA Open Source Software
- OMG OMG OMG!

NASA Code

- Code for finding planets!

<https://code.nasa.gov/?tag=Kepler>

- Original Apollo 11 guidance computer (AGC) source code for Command Module (Comanche055) and Lunar Module (Luminary099) <https://github.com/chrislgarry/Apollo-11>

- Code written in Python

<https://code.nasa.gov/?q=python>

NASA CODE DEMO

<https://code.nasa.gov>

NASA APIs



REST API

REST API, EVERYWHERE

memegenerator.net

NASA APIs

- A small collection of useful RESTful APIs
- APIs seem to be more “Real Time” in nature
- Need to register for an API Key

<https://api.nasa.gov/index.html#apply-for-an-api-key>

NASA APIs DEMO

<https://api.nasa.gov>

Interesting APIs

Satellite Situation Center (SSC) RESTful Web Services.

<https://sscweb.gsfc.nasa.gov/WebServices/REST/>

The Asteroids NeoWS may have data relevant to the Hello Bennu! Challenge.

<https://api.nasa.gov/api.html#NeoWS>

The Mars Atmospheric Aggregation System (MAAS) has an open source REST API and it could be relevant to the Virtual Space Exploration challenge.

http://ingenology.github.io/mars_weather_api/

APIs Available In Many Formats!

The Meteorite Landings are in GeoJSON format which is suitable to digital globes.

<https://data.nasa.gov/browse?q=GeoJSON&sortBy=relevance>

There are 20 data sets that have Keyhole Markup Language (KML) files, which is suitable for digital globes.

<https://data.nasa.gov/browse?q=KML&sortBy=relevance>

There are seven data sets that have JSON files, several of these data sets have a fully queryable REST API.

<https://data.nasa.gov/browse?q=JSON&sortBy=relevance>

There are 10 data sets that have a REST API.

<https://data.nasa.gov/browse?q=REST%20API&sortBy=relevance>

The background of the slide is a deep space image. It features a dense field of stars of various magnitudes against a dark, teal-colored sky. In the lower portion of the image, there are wispy, ethereal clouds of gas and dust in shades of purple, pink, and blue, characteristic of a nebula. A few stars exhibit prominent diffraction spikes, giving them a bright, multi-pointed appearance.

Thanks!

