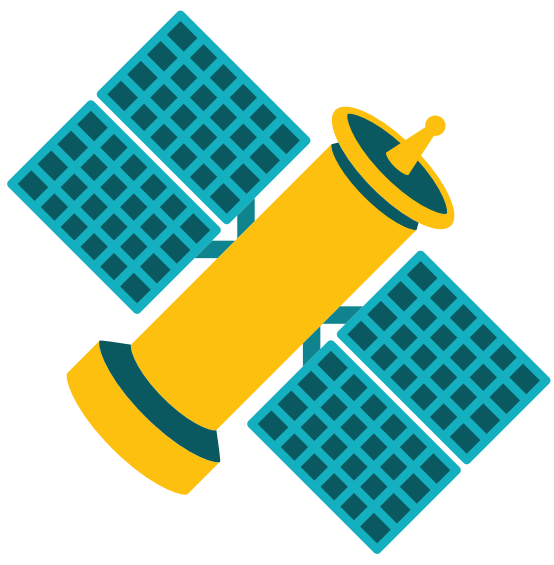
AN API FOR

SATELLITE IMAGERY

ASTRO DIGITAL



The industry for building and launching satellites is booming. Today, we have 10's of earthimaging satellites in orbit, in 2016 that will become 100's and probably 1000's within the next 10 years.

But, how do we make data from 100s and 1000s of imaging satellites useful? Through an impressive API, Astro Digital takes streams of satellite imagery and makes it accessible and usable to anyone.

x1
First satellite launched

x4
Launched per year

x100s
Launched per year

x1000s
Launched per year

1957 — 2000 — 2016 — NEAR FUTURE

Astro Digital Wants the Space Boom to Benefit Everyone!

Traditional scientific analysis of remote sensing can take hours to days. With the Astro Digital API, imagery from space is a processed to custom specifications automatically as it is captured. It turns days into minutes and opens the world of remote sensing up to every developer.

By focusing on delivering answers, not just a stream of raw data, Astro Digital can process thousands of images per day and get more value from the investment in satellites, imagery processing, and distribution.

INDUSTRY USE CASES

AGRICULTURE

DISASTER MANAGEMENT

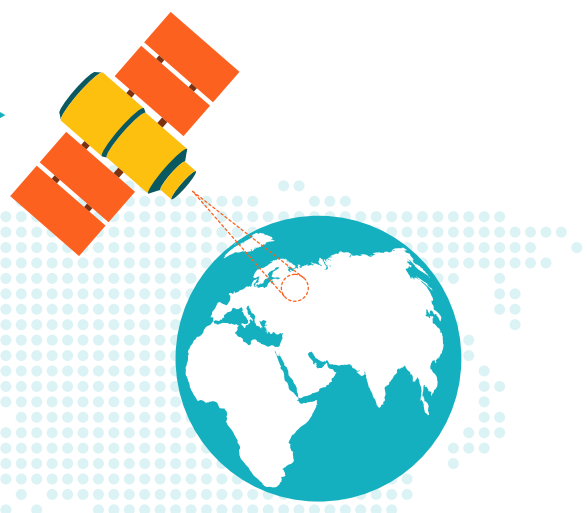
FOREST MANAGEMENT

URBAN MANAGEMENT

BUSINESS INTELLIGENCE

Satellite Images Meet Earth-bound Needs

NASA + EUROPEAN SPACE AGENCY + COMMERCIAL SATELLITES



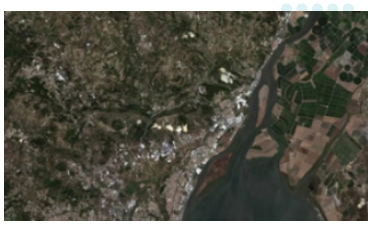
CONSTELLATIONS COVERS 145,785,600 KM² PER DAY

Astro Digital brings together open data sources from NASA and ESA with commercial data. The raw pixels are sent down from space, processed on the ground, and distributed via their API as maps and analyzed data. With millions of km² of data pouring into the system each day, API users setup queries to custom process, analyze and access only the data they need.

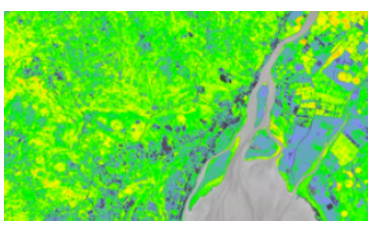
- Process pixels into true colour map
- Analyze planet health using the non-visible spectrum
- Assess the difference in river volume during flood season
- Examine urban sprawl in emerging markets

ASTRO DIGITAL

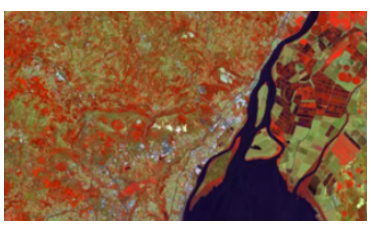
Iron.io



True Color Filter



NDVI Filter



Urban False Color Filter

Land/Water Boundary Filter

Select an area on the map to monitor, define how the pixels for that area are processed and how you want results delivered - as a map service embeddable into any web application, a set of values to input into a statistical engine, raw pixels for professional remote sensing analysis. Then, each time satellites pass over the area, a picture is taken, raw pixels are sent down from space, automatically processed, analyzed, and distributed. With millions of km² of data pouring into the system each day, API users setup queries to custom process, analyze and access only the data they need.

Iron.io Answers a Call from Space

Astro Digital needed a robust, scalable architecture to build its tasking system on top of and Iron.io fit the bill. It may receive 23,000 images per day which balloons to 8,468,000 images per year.

Iron.io allows Astro Digital to run a large number of independent tasks asynchronously and easily access the process status and results via an API. This meant that Astro Digital could quickly build out their system and scale up by focusing more on functionality and less on infrastructure. Astro Digital users have access to thousands of on-demand imageryproducts and Iron.io keeps it all in orbit.

DATA
7000TB PER YEAR

IMAGERY
23,000 IMAGES PER DAY

Iron.io