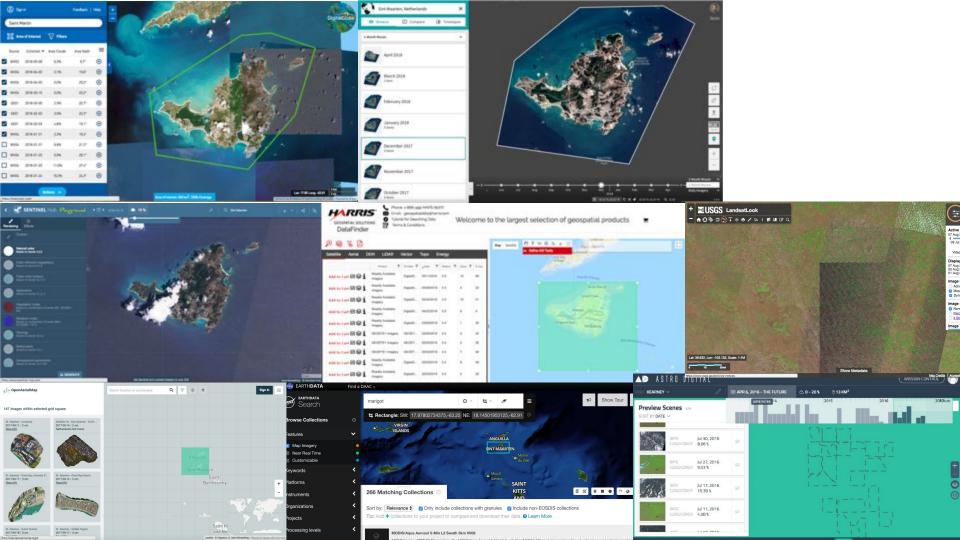
SpatioTemporal Asset Catalogs (STAC)

Why STAC?



```
Swagger Editor
                          File ▼ Edit ▼ Generate Server ▼ Generate Client ▼
2926
                  colorCorrections:
                                                                                                                         UUID for organization to filter by
                                                                                                 organization
2927
                    $ref: '#/definitions/ColorCorrection'
         OutputExportDefinition:
2928
                                                                                                 string($uuid)
2929
           type: object
                                                                                                  (query)
2930
           properties:
2931
             rasterSize:
                                                                                                 maxCloudCover
                                                                                                                         Only return results with cloud cover less than this number
2932
                type: integer
                                                                                                  number
2933
                description: desired tiff size after export
                                                                                                  (query)
2934
              crs:
2935
                type: integer
                                                                                                                         Only return results with cloud cover greater than this number
                                                                                                 minCloudCover
2936
                description: epsg projection code
2937
             stitch:
                                                                                                 number
2938
                type: boolean
                                                                                                  (query)
2939
                description: stitch tiles into a single geotiff if possible
2940
              crop:
                                                                                                 minAcquisitionDatetime Only return results acquired after this datetime
2941
                type: boolean
                                                                                                  string($datetime)
2942
                description: crop stitched raster by provided mask if possible
                                                                                                  (query)
2943
              source:
2944
                type: string
                                                                                                 maxAcquisitionDatetimeOnly return results acquired before this datetime
2945
                format: uuid
2946
                description: output export path
                                                                                                 string($datetime)
             render:
2947
                                                                                                  (query)
2948
                $ref: '#/definitions/Render'
2949
             dropboxCredential:
                                                                                                 minCreateDatetime
                                                                                                                         Only return results created after this datetime
2950
                type: string
                                                                                                 string($datetime)
2951
                description: Dropbox token
                                                                                                  (query)
2952
         Render:
2953
           type: object
                                                                                                                         Only return results created before this datetime
                                                                                                 maxCreateDatetime
2954
           properties:
2955
             operation:
                                                                                                 string($datetime)
2956
                type: string
                                                                                                  (query)
2957
                description: currently useless Field
2958
             bands:
                                                                                                                         Only return results belonging to this datasource
                                                                                                 datasource
2959
                type: array
                                                                                                 array[string]
2960
                description: bands in the exported geotiffs
2961
                items:
                                                                                                  (query)
2962
                  type: integer
```

month

Only return results from this month

What is STAC?



What is it?

- SpatioTemporal Asset Catalogs
- Language for geospatial catalogs and assets
- Focus on search and discovery
- Simple + Extensible
- Static catalogs and HTTP APIs



What is <u>not</u>?

- Full-fledged metadata standard
- Single source of truth
- Covering all kind of datasets
- Replacement for ISO 19115, OGC CSW, ...



The specification

- Catalogs
- Collections
- Items
- API
- all 1.0.0 except API (rc.1)
 - Primarily waiting for OGC API extensions to mature so we moved them out of core



Catalogs and Collections

- Catalogs
 - o Mostly for static
 - Basic grouping for Items, Catalogs and Collections (instead of pagination)
- Collections
 - o Is a Catalog with rich metadata
 - o e.g. Sentinel-2 L2A



Items and Assets

- Items
 - A single scene or set of datafiles for a specific location at a specific date and time (or interval)
- Asset
 - o A single data file for download



Item Properties

- Core (Common Metadata)
 Extensions (45+)
 - datetime
 - created
 - updated
 - platform
 - instruments
 - constellation
 - mission
 - gsd

- - F.O
 - Label (ML)
 - Point Cloud
 - Projection
 - SAR
 - Sat.
 - Scientific
 - View



API

- HTTP JSON API
- Discovery
- Search
- Extensible
- OGC API Features based
 - o aligned with many extensions, too



STAC Index

https://stacindex.org

- Ecosystem tools
- Catalogs
- Tutorials / learning resources



Questions?

Hand on!