

# Status of the NOVA portal – 2018 edition

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## Section 2.3 requirements

- Create a data portal to find existing data sets and corresponding analyses
- Use interactive 3D previews from a visualization server built in WP 3
- Archive of finished data sets
- Manage analysis systems
- Useful mapping of the full “value chain”
- Define arbitrary metadata for different applications

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# Dataset overview

Information – [test / test](#)

 Left of me is a colored thumbnail.  
[Edit](#)

[Files](#)

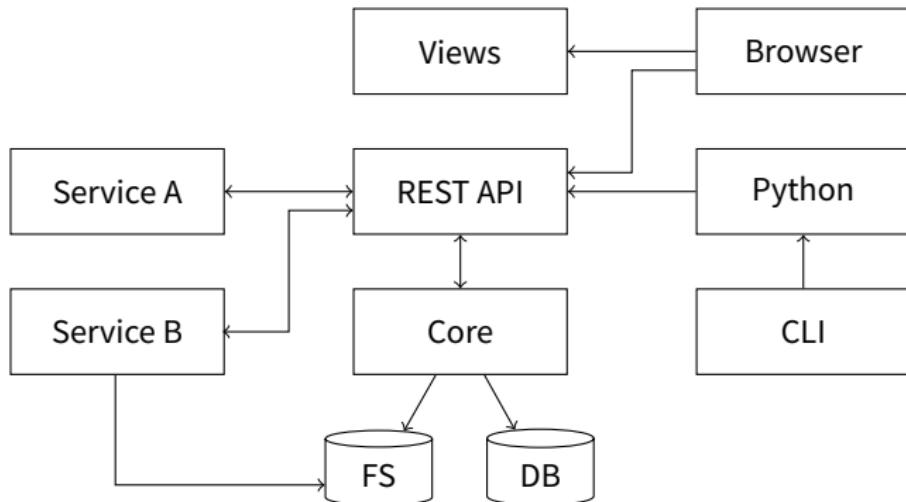
<a href="#">fits</a>	
<a href="#">slices</a>	
<a href="#">sinos</a>	
<a href="#">correct</a>	
<a href="#">darks</a>	
<a href="#">radios</a>	
<a href="#">gdt_history</a>	10 Bytes
<a href="#">irfan</a>	1.5 kB
<a href="#">ipy</a>	701 Bytes
<a href="#">norms.cl</a>	682 Bytes
<a href="#">stitch.py</a>	2.4 kB
<a href="#">sun.cl</a>	318 Bytes

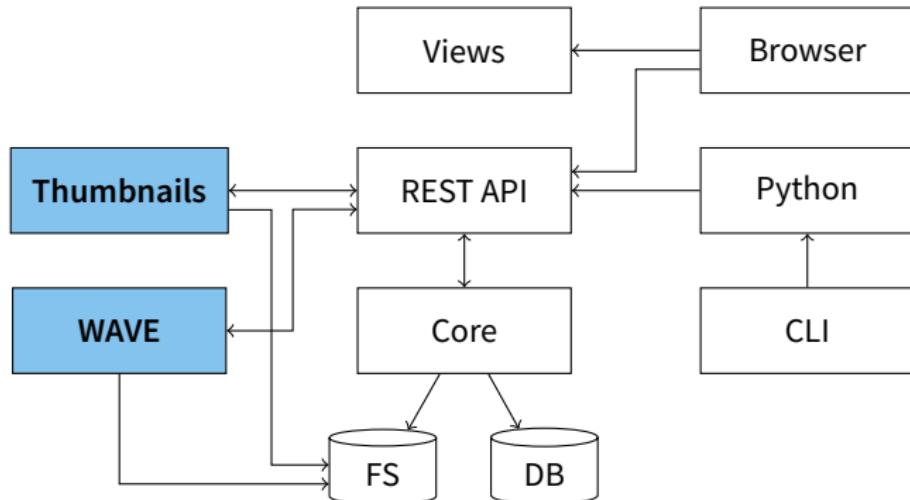
[Reviews](#)

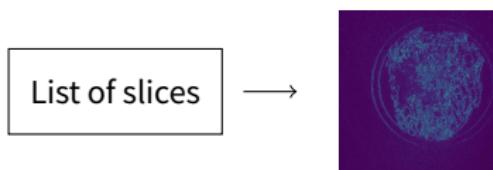

**matthias** 5 ago  
Interesting data  
[Edit](#)

# Architecture

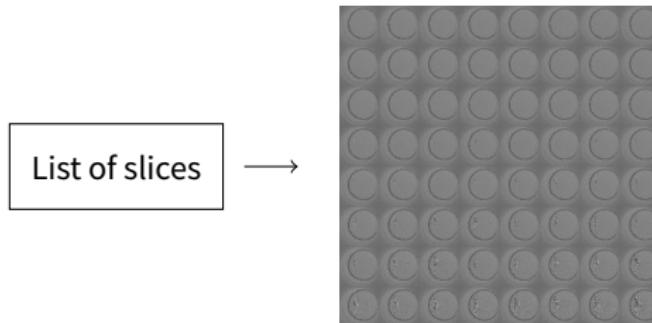


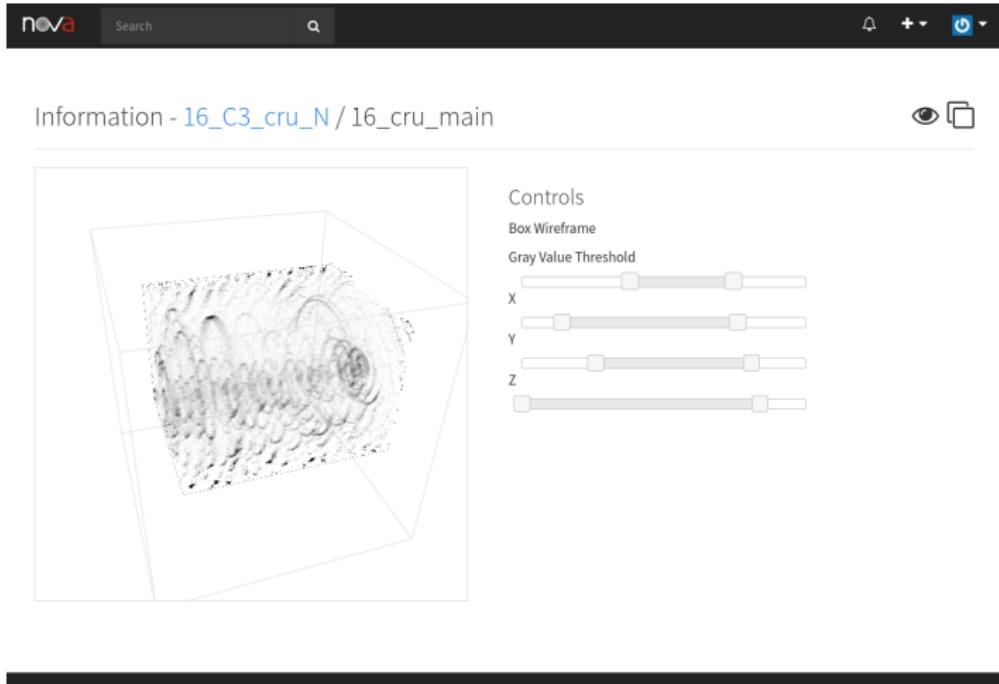


- Generate a recognizable image for a dataset from a list of slices
- Provide a server that receives user token, size and a dataset id
- Server rescales the middle slice and maps gray values to RGB colors



- Generate slice maps for consumption by the WAVE javascript library
- Provide a server that receives user token, origin, size and a dataset id
- Service uses UFO to generate slice maps for a dataset from a list of slices





The screenshot displays the NOVA user interface. At the top, there is a dark header bar with the NOVA logo, a search input field, and several icons (bell, plus, power, dropdown). Below the header, the title "Information - 16\_C3\_cru\_N / 16\_cru\_main" is shown, along with a visibility icon (eye) and a download icon (square).

The main content area features a 3D visualization of a grayscale volume rendering, possibly representing a medical scan or scientific data. A wireframe bounding box is overlaid on the volume, highlighting a specific region of interest.

To the right of the visualization, there is a "Controls" section containing the following settings:

- Box Wireframe**: A checkbox that is currently checked.
- Gray Value Threshold**: A group of four sliders labeled X, Y, and Z, which control the gray value threshold for the volume rendering.

## Problem

- Architecture works but is awkward to use
- Services negotiate through REST API on **client-side**
- Can cause Cross-Origin Resource Sharing problems

## Solution

- Keep REST API
- Hide services from public networks
- Provide service endpoints **through NOVA**

## Problem

- NOVA portal is a general data management system
- Importing data through the web interface is not scalable
- Importing through CLI is scalable but **too** general

## Solution

- Define meta data description
- Provide an import tool that reads those descriptions
- Trigger post-processing if necessary

## Next steps last November

- Integrate both simple and complex previews of 3D data sets
- Replace old categorization scheme with flexible tags
- Break up the collection scheme
- Set up a test case to record the scanning process with Concert
- Release a limited demo version to the public

## Next steps

- ☑ Integrate both simple and complex previews of 3D data sets
- Replace old categorization scheme with flexible tags
- ☑ Break up the collection scheme
- Set up a test case to record the scanning process with Concert
- Release a limited demo version to the public
- + Re-work service backend
- + Finish meta data description and import tool