Karlsruhe Institute of Technology

Status of the NOVA portal – 2018 edition

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Status last November

Section 2.3 requirements

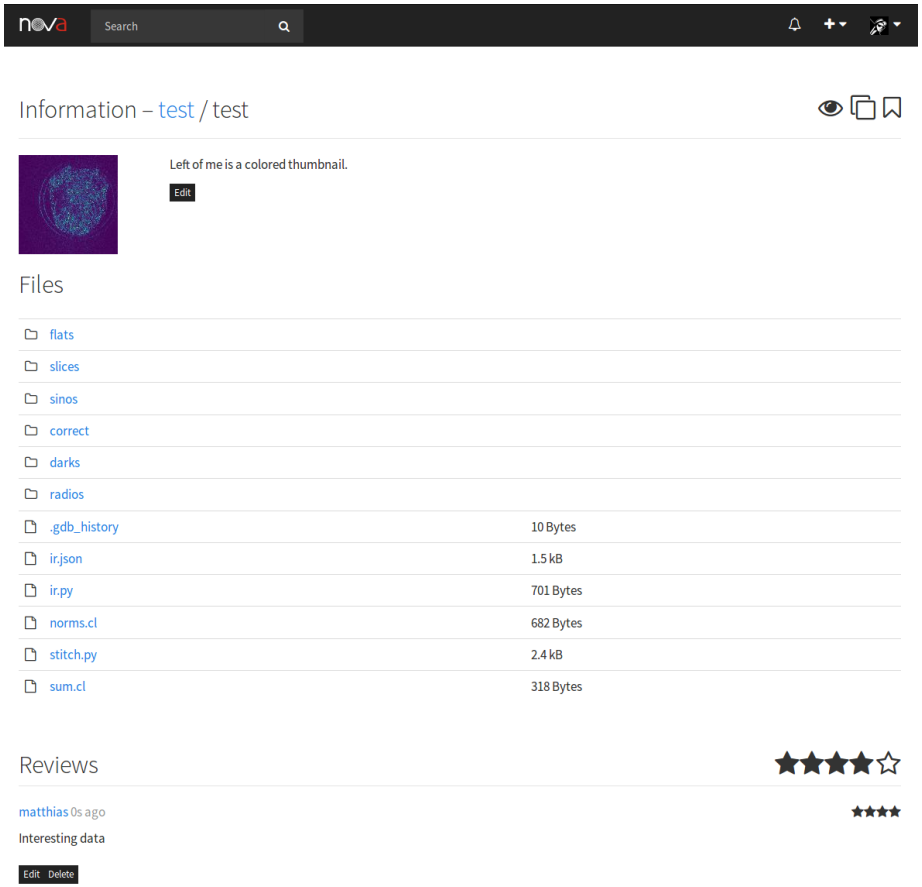
- [x] Create a data portal to find existing data sets and corresponding analyes
- [ ] Use interactive 3D previews from a visualization server built in WP 3
- [ ] Archive of finished data sets
- [x] Manage analysis systems
- [x] Useful mapping of the full “value chain”
- [ ] Define arbitrary metadata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

Status now

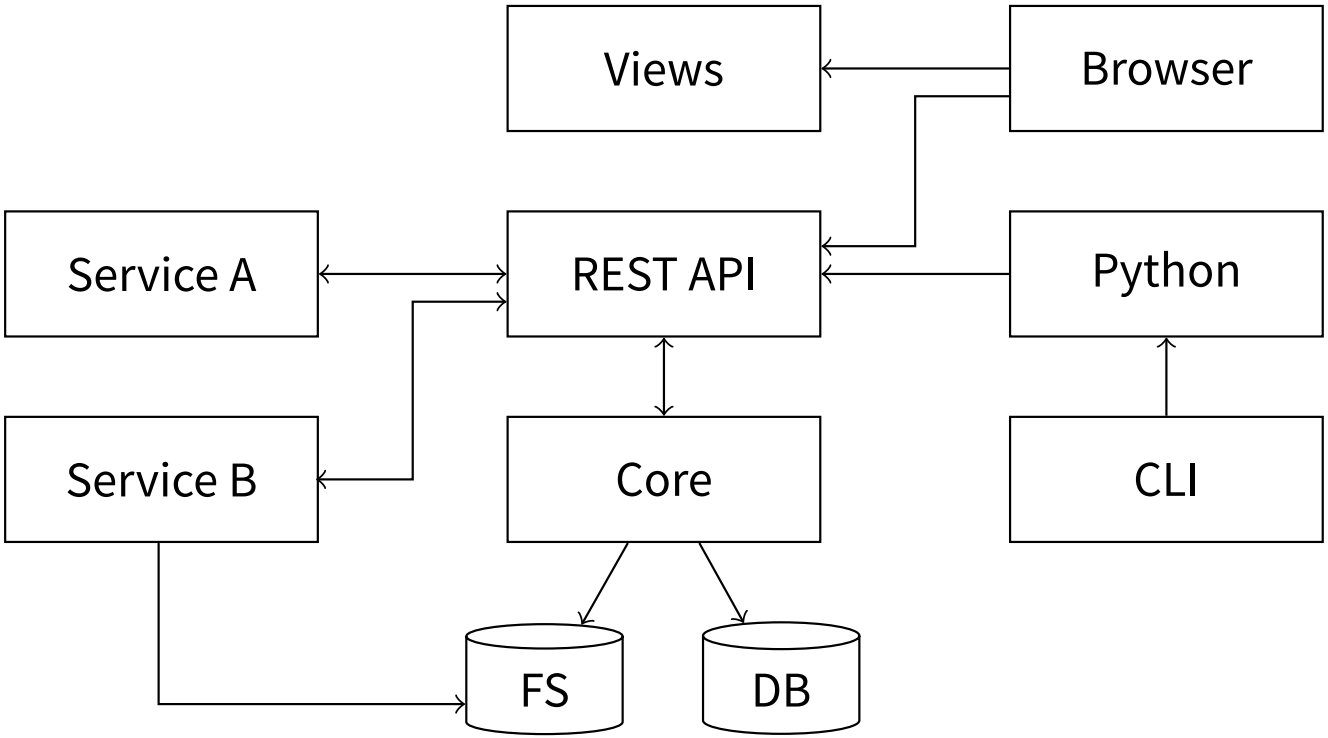
Section 2.3 requirements

- Create a data portal to find existing data sets and corresponding analyes
- **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**

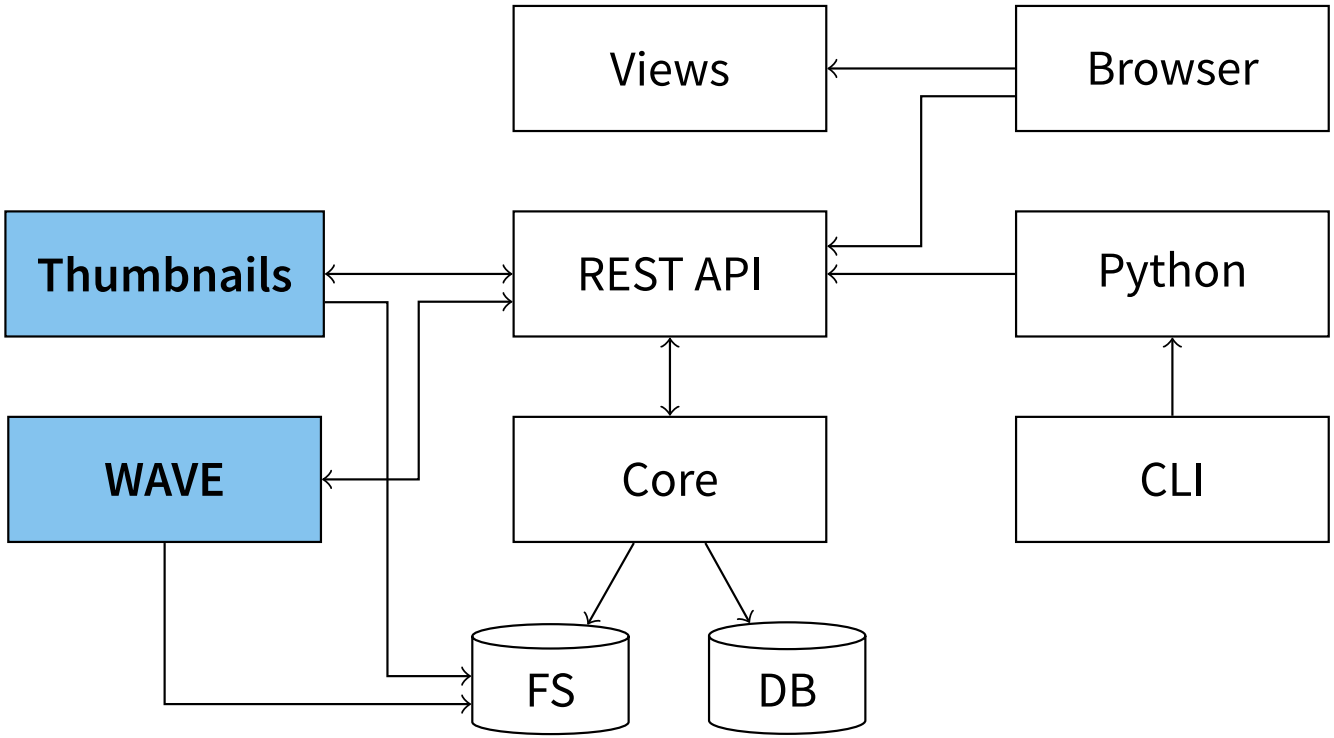
Dataset overview



Architecture

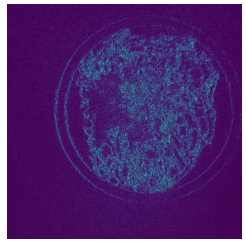


Architecture



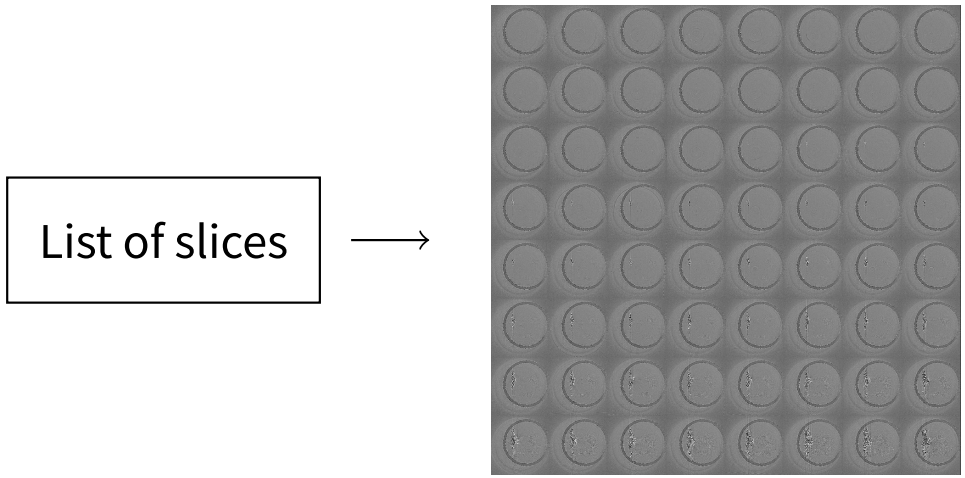
Thumbnailing service

- 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

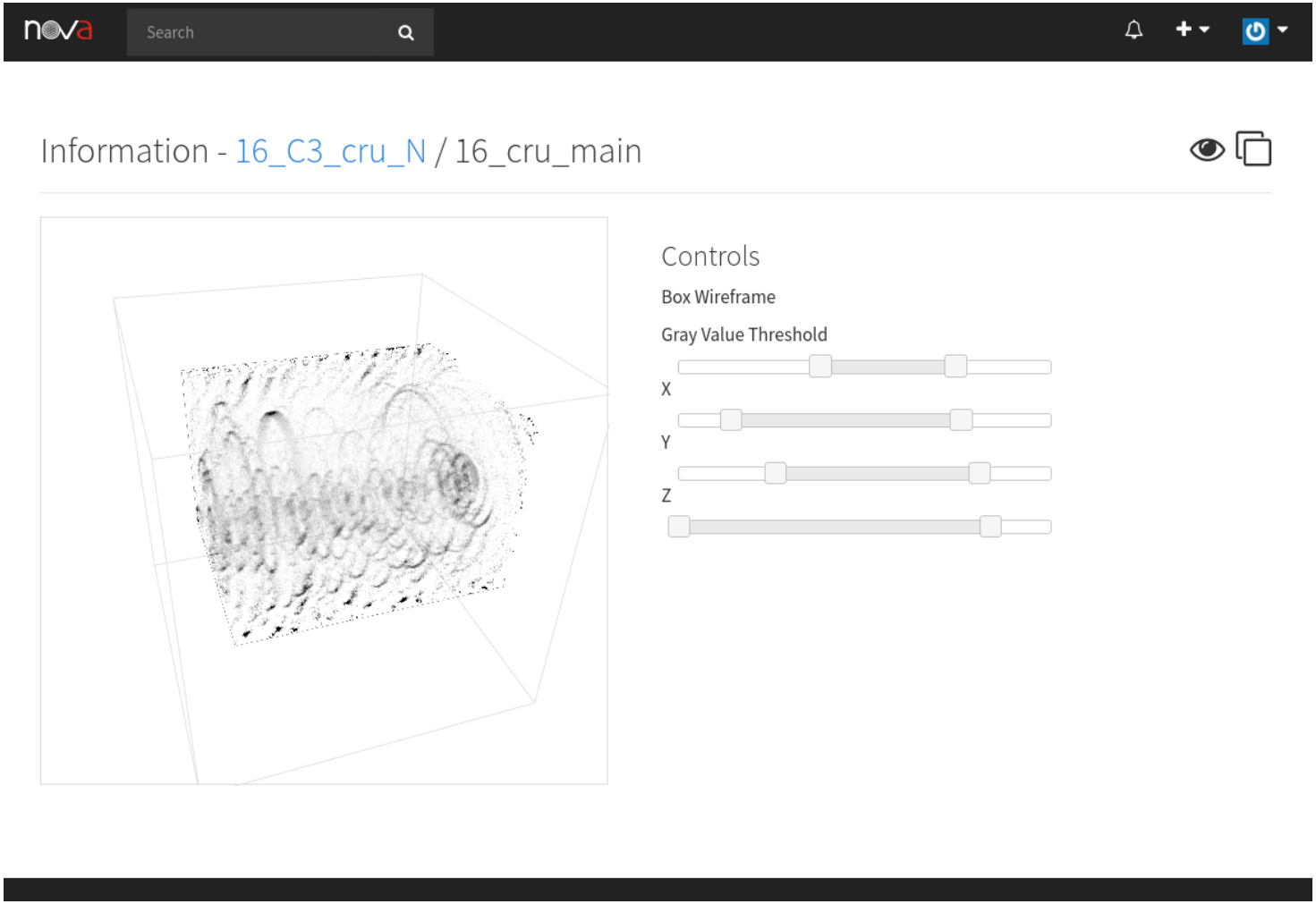
List of slices ⟶ 

WAVE integration

- 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



WAVE user interface



Services

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

Universal import

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

- [x] Integrate both simple and complex previews of 3D data sets
- [ ] Replace old categorization scheme with flexible tags
- [x] 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