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OGC API for Processes

OGC API Hackathon 2019
London, United Kingdom
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OGC API for Processes

- Initially REST/JSON Binding Extension for WPS 2.0
  - Developed in OGC Testbed 12

- Evolved over the last 2 years
  - Alignment with WFS 3.0 (API for Features)
    - OpenAPI specification
    - Overall document structure

- Moves towards a standalone OGC API for Processes
  - Probably no 1:1 matching with WPS 2.0 functionality
  - For example a list of Jobs is not specified in WPS 2.0
  - However, still almost completely based on WPS concepts

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OGC API for Processes

- Defines (core) Resources and Operations, Abstract Test Suite
  - https://github.com/opengeospatial/wps-rest-binding
- OpenAPI specification
  - https://app.swaggerhub.com/apis/geoprocessing/WPS/1.0-draft

- Possible extensions
  - Transactional extension
  - Job monitoring (pause/delete job)

Resources of the API

Table 1. Overview of resources, applicable HTTP methods and links to the document sections

Resource	Path	HTTP method	Document reference
Landing page	/	GET	7.2 API landing page
API definition	/api	GET	7.3 API definition
Conformance classes	/conformance	GET	7.4 Declaration of conformance classes
Available processes	/processes	GET	7.8 Retrieve a process collection
Process description	/processes/{processID}	GET	7.9 Retrieve a process description
Job collection	/processes/{processID}/jobs	GET	7.10 Retrieve a job collection
Job status info	/processes/{processID}/jobs/{jobID}	GET	7.12 Retrieve status information about a job
Job result	/processes/{processID}/jobs/{jobID}/result	GET	7.13 Retrieve a job result

6.2. Operations on WPS resources

In general, the HTTP GET operation is used to provide access to the resources described above. However, in order to create a new job, the HTTP POST method is used to crate a new job by sending an execute request to the server. The operation is listed in Table 2 below.

Table 2. Overview of resources, applicable HTTP methods and links to the document sections

Description	Path	HTTP method	Parameter	Document reference
Create a new job	/processes/{processID}/jobs	POST	Execute request (contained in body)	7.11 Create a new job

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Hackathon Goals

- Validate concepts
  - Discuss possible issues
  - Discuss extensions/profiles (e.g. Transactional, Routing API)
- Show evidence of implementation
- Finalize Tests
  - Implement Executable Test Suite

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