

## PROCEDURE FOR LAUNCHING COMMAND-LINE PROCESSING

*Extract polarization for S1 SLC products*

### 1. Submission of the process

Entries: ID of a S1 SLC Product to process, wanted polarization (vv, vh, hh, or hv)

For these inputs to be used for processing, they must be put into a file named *data.json*, which takes the following form.

```
{
  "inputs": {
    "product-title": "PRODUCT_NAME",
    "timeout": 15,
    "polarization": "[VV OR VH OR HH OR HV]",
    "notif-email": true
  }
}
```

The API-KEY can be found in GEODES platform, the My informations page:

```
export APIKEY="YOUR_API_KEY"
```

On the same console, the process can be launched using the following command, in this example the curl command was executed where the file *data.json* is located:

```
curl -XPOST -k --data "@data.json" -H "Content-Type:application/json" -H "X-API-Key: $APIKEY" -H "Prefer:respond-async" "https://geodes-portal.cnes.fr/processing/processes/extract-polarization-s1/execution"
```

#### **Response:**

The JobID is returned in case of a successful launch.

### 2. Launch follow-up

It is possible to view the status of a specific job using its ID or the status of all the launched jobs for a specific user using his email address.

i. **The case of visualizing the status of a specific job:**

The following command lists the status of a specific launched job:

```
curl -XGET -H "X-API-Key: $APIKEY" -k "https://geodes-portal.cnes.fr/processing/jobs/JOB_ID"
```

**JOB\_ID** should be replaced by the ID of the job!

**Response:**

```
{
  "processID": "ortho-s1-grd",
  "jobID": "857dc1c8-7f08-11ee-b4e2-0242ac140169",
  "status": "running",
  "message": "Job submitted to Scheduler",
  "progress": 50,
  "parameters": "S1A_IW_GRDH_1SDV_20230408T194947_20230408T195012_048009_05C53C_531A",
  "user": "email.address@email.com",
  "job_start_datetime": "2023-11-09T14:01:47",
  "job_end_datetime": null,
  "links": [
    {
      "href": "https://geodes-portal.cnes.fr/processing/jobs/857dc1c87f08-11ee-b4e2-0242ac140169/results?f=html",
      "rel": "about",
      "type": "text/html",
      "title": "results of job 857dc1c8-7f08-11ee-b4e2-0242ac140169 as HTML"
    },
    {
      "href": "https://geodes-portal.cnes.fr/processing/jobs/857dc1c8-7f08-11ee-b4e2-0242ac140169/results?f=json",
      "rel": "about",
      "type": "application/json",
      "title": "results of job 857dc1c8-7f08-11ee-b4e2-0242ac140169 as JSON"
    },
    {
      "href": "https://geodes-portal.cnes.fr/processing/jobs/857dc1c8-7f08-11ee-b4e2-0242ac140169/results",
      "rel": "about",
      "type": null,
      "title": "results of job 857dc1c8-7f08-11eeb4e20242ac140169 as None"
    }
  ]
}
```

```
]
}
```

ii. **The case of visualizing the status of all the jobs for a user:**

The following command lists the status of all the launched jobs for a specific user:

```
curl -XGET -H "X-API-Key: $APIKEY" -k "https://geodes-portal.cnes.fr/processing/jobs/?user=USER_EMAIL"
```

**USER\_EMAIL** should be replaced!

**Response:**

```
{
  "jobs": [
    {
      "processID": "extract-polarization-s1",
      "jobID": "04335ccc-7fcb-11ee-bfa7-0242ac140152",
      "status": "successful",
      "message": "Job complete",
      "progress": 100,
      "parameters": "S2B_GRD_20211230T161339_N0500_R111_T01CDM_20221226T141602",
      "user": "email.address@email.com",
      "job_start_datetime": "2023-11-10T13:14:02",
      "job_end_datetime": "2023-11-10T13:17:13",
      "links": [
        {
          "href": "https://geodes-portal.cnes.fr/processing/jobs/04335ccc-7fcb-11ee-bfa7-0242ac140152/results?f=html",
          "rel": "about",
          "type": "text/html",
          "title": "results of job None as HTML"
        },
        {
          "href": "https://geodes-portal.cnes.fr/processing/jobs/04335ccc-7fcb-11ee-bfa7-0242ac140152/results?f=json",
          "rel": "about",
          "type": "application/json",
          "title": "results of job None as JSON"
        }
      ]
    }
  ]
}
```

```
    }
  ]
},
{
  "processID":"ortho-s1-grd",
  "jobID":"857dc1c8-7f08-11ee-b4e2-0242ac140169",
  "status":"running",
  "message":"Job submitted to Scheduler",
  "progress":50,
  "parameters":"S1A_IW_GRDH_1SDV_20230408T194947_20230408T195012_048009_05C53C_531A",
  "user":"email.address@email.com",
  "job_start_datetime":"2023-11-09T14:01:47",
  "job_end_datetime":null,
  "links":[
    {
      "href":"https://geodes-portal.cnes.fr/processing/jobs/857dc1c8-7f08-11ee-b4e2-0242ac140169/results?f=html",
      "rel":"about",
      "type":"text/html",
      "title":"results of job None as HTML"
    },
    {
      "href":"https://geodes-portal.cnes.fr/processing/jobs/857dc1c8-7f08-11ee-b4e2-0242ac140169/results?f=json",
      "rel":"about",
      "type":"application/json",
      "title":"results of job None as JSON"
    },
    {
      "href":"https://geodes-portal.cnes.fr/processing/jobs/857dc1c8-7f08-11ee-b4e2-0242ac140169/results",
      "rel":"about",
      "type":null,
      "title":"results of job None as None"
    }
  ]
}
],
"links":[
  {
    "href":"https://geodes-portal.cnes.fr/processing/jobs?f=html",
```

```
    "rel": "alternate",
    "type": "text/html",
    "title": "Jobs list as HTML"
  },
  {
    "href": "https://geodes-portal.cnes.fr/processing/jobs?f=json",
    "rel": "self"
    "type": "application/json",
    "title": "Jobs list as JSON"
  }
]
}
```

### 3. Results retrieval

The command below will retrieve the results of a specific job:

```
curl -XGET -H "X-API-Key: $APIKEY" -k "https://geodes-portal.cnes.fr/processing/jobs/JOB_ID/results "
```

**JOB\_ID** should be replaced!

#### Response:

```
{
  "execution_time": 13087,
  "product_path": "/nfs/GDH_DEV/ci/portal/data/processing/extract-polarization-s1/78d357c2-247111ee-b721-0242ac10193c.zip",
  "product_url": "https://geodes-portal.cnes.fr/processing-access-data/extract-polarization-s1/78d357c2-247111ee-b721-0242ac10193c.zip"
}
```

### 4. Description of the process

The command below provides a description of the process:

```
curl -XGET -H "X-API-Key: $APIKEY" -k "https://geodes-portal.cnes.fr/processing/processes/extract-polarization-s1/?f=json"
```

**JOB\_ID** should be replaced!

#### Response:

```
{
```

```
"version": "0.1.0",
"id": "extract-polarization-s1",
"title": "Product extraction with required polarizations",
"description": "Extracting image files corresponding to requested
polarizations; provides a output ZIP file",
"keywords": [
  "PEPS_S1_L1",
  "polarization",
  "INTERNAL"
],
"links": [
  {
    "type": "text/html",
    "rel": "about",
    "title": "information",
    "href": "https://example.org/process",
    "hreflang": "fr-FR"
  },
  {
    "type": "application/json",
    "rel": "self",
    "href": "https://geodes-portal.cnes.fr/processing/processes/extract-
polarization-s1?f=json",
    "title": "Process description as JSON",
    "hreflang": "en-US"
  },
  {
    "type": "text/html",
    "rel": "alternate",
    "href": "https://geodes-portal.cnes.fr/processing/processes/extract-
polarization-s1?f=html",
    "title": "Process description as HTML",
    "hreflang": "en-US"
  },
  {
    "type": "text/html",
    "rel": "http://www.opengis.net/def/rel/ogc/1.0/job-list",
    "href": "https://geodes-portal.cnes.fr/processing/jobs?f=html",
    "title": "jobs for this process as HTML",
    "hreflang": "en-US"
  },
  {
    "type": "application/json",
    "rel": "http://www.opengis.net/def/rel/ogc/1.0/job-list",
```

```
    "href":"https://geodes-portal.cnes.fr/processing/jobs?f=json",
    "title":"jobs for this process as JSON",
    "hreflang":"en-US"
  },
  {
    "type":"application/json",
    "rel":"http://www.opengis.net/def/rel/ogc/1.0/execute",
    "href":"https://geodes-portal.cnes.fr/processing/processes/extract-
polarization-s1/execution?f=json",
    "title":"Execution for this process as JSON",
    "hreflang":"en-US"
  }
],
"inputs":{
  "product-title":{
    "title":"Titre produit",
    "description":"The title of the S1 product",
    "schema":{
      "type":"string"
    },
    "minOccurs":1,
    "maxOccurs":1,
    "metadata":null,
    "keywords":[
      "titre",
      "produit"
    ]
  },
  "polarization":{
    "title":"Requested polarizations",
    "description":"The list of the requested polarizations",
    "schema":{
      "type":"string"
    },
    "minOccurs":1,
    "maxOccurs":1,
    "metadata":null,
    "keywords":[
      "polarization"
    ]
  },
  "user":{
    "title":"User email",
    "description":"The email of user which requests process execution",
```

```
    "schema":{
      "type":"string"
    },
    "minOccurs":1,
    "maxOccurs":1,
    "metadata":null,
    "keywords":[
      "user",
      "email"
    ]
  },
  "notif-email":{
    "title":"Email notification flag",
    "description":"Flag to indicate if an email notification must be sent
after processing termination",
    "schema":{
      "type":"bool"
    },
    "minOccurs":1,
    "maxOccurs":1,
    "metadata":null,
    "keywords":[
      "email",
      "notification"
    ]
  },
  "timeout":{
    "title":"Processing timeout in mn",
    "description":"The process is canceled if timeout reached",
    "schema":{
      "type":"int"
    },
    "minOccurs":0,
    "maxOccurs":1,
    "metadata":null,
    "keywords":[
      "timeout",
      "processing"
    ]
  }
},
"outputs":{
  "result":{
    "title":"Produit de sortie",
```



```
    "description": " Le produit en sortie",
    "schema": {
      "type": "object",
      "contentType": "application/json"
    }
  },
  "example": {
    "inputs": {
      "user": "ogaquiere@gmail.com",
      "product-
title": "S1A_EW_SLC__1SDH_20230518T104312_20230518T104415_048587_05D7FE_1A47",
      "polarization": "hh",
      "email-notif": true
    }
  },
  "jobControlOptions": [
    "sync-execute",
    "async-execute"
  ],
  "outputTransmission": [
    "value"
  ]
}
```