

PROCEDURE FOR LAUNCHING COMMAND-LINE PROCESSING

RGB_S2ST, IRGB_S2ST, SWIR_S2ST and TCI_S2ST for product Sentinel 2

Pay attention to the copy-paste which can sometimes change some special characters like "-", """"

1) Submission of the process

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_TITLE",
    "notif-email": true
  }
}
```

The API-KEY can be found in GEODES platform, in 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:

RGB S2ST:

```
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/rgb-s2st/execution"
```

IRGB S2ST:

```
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/irgb-s2st/execution"
```

SWIR S2ST:

```
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/swir-s2st/execution"
```

TCI S2ST:

```
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/tci-s2st/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":"ingb-s2st",
  "jobID":"857dc1c8-7f08-11ee-b4e2-0242ac140169",
  "status":"running",
  "message":"Job submitted to Scheduler",
  "progress":80,
  "parameters":"S2B_MSIL1C_20211230T161339_N0500_R111_T01CDM_20221226T141602",
  "user":"email.address@email.com",
  "job_start_datetime":"2023-11-19T14:01:47",
  "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 857dc1c8-7f08-11ee-b4e2-0242ac140169 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"
```

Response:

```

{
  "jobs":[
    {
      "processID":"swir-s2st",
      "jobID":"04335ccc-7fcb-11ee-bfa7-0242ac140152",
      "status":"successful",
      "message":"Job complete",
      "progress":100,

      "parameters":"S2B_MSIL1C_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":"rgb-s2st",
    "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 bellow 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": 12087,
  "product_path": "/nfs/GDH_DEV/ci/portal/data/processing/irgb-s2st/78d357c2-247111ee-b721-0242ac10193c.zip",
  "product_url":"https://geodes-portal.cnes.fr/processing-access-data/irgb-s2st/78d357c2-247111ee-b721-0242ac10193c.zip"
}

```

4) Description of the process

The commands below provide a description of the process:

RGB-S2ST:

```
curl -XGET -H "X-API-Key: $APIKEY" -k "https://geodes-portal.cnes.fr/processing/processes/rgb-s2st?f=json"
```

IRGB-S2ST:

```
curl -XGET -H "X-API-Key: $APIKEY" -k "https://geodes-portal.cnes.fr/processing/processes/irgb-s2st?f=json"
```

SWIR-S2ST:

```
curl -XGET -H "X-API-Key: $APIKEY" -k "https://geodes-portal.cnes.fr/processing/processes/swir-s2st?f=json"
```

TCI-S2ST:

```
curl -XGET -H "X-API-Key: $APIKEY" -k "https://geodes-portal.cnes.fr/processing/processes/tci-s2st?f=json"
```

Response:

Example response for rgb-s2st process:

```
{
  "version": "0.1.0",
  "id": "rgb-s2st",
  "title": "True color composition RGB",
  "description": "Extraction of 10m bands in 16-bit format for color composition \n          Input: Sentinel-2 tiled product \n          Output: The result is tiled in Cloud Optimized Geotiff and losslessly compressed with DEFLATE",
  "keywords": [
    "PEPS_S2_L1C"
  ],
  "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/rgb-s2st?f=json",
      "title": "Process description as JSON",
      "hreflang": "en-US"
    },
    {
      "type": "text/html",
      "rel": "alternate",
```

```

        "href":"https://geodes-portal.cnes.fr/processing/processes/rgb-
s2st?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/rgb-
s2st/execution?f=json",
        "title":"Execution for this process as JSON",
        "hreflang":"en-US"
    }
],
"inputs":{
    "product-title":{
        "title":"Titre produit",
        "description":"The title of product",
        "schema":{
            "type":"string"
        },
        "minOccurs":1,
        "maxOccurs":1,
        "metadata":null,
        "keywords":[
            "titre",
            "produit"
        ]
    },
    "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":"S2A_MSIL1C_20230630T060641_N0509_R134_T43UDP_20230630T080621",
        "email-notif":true
      }
    },
    "jobControlOptions":[
      "sync-execute",
      "async-execute"
    ],
    "outputTransmission":[
      "value"
    ]
  }
}
```