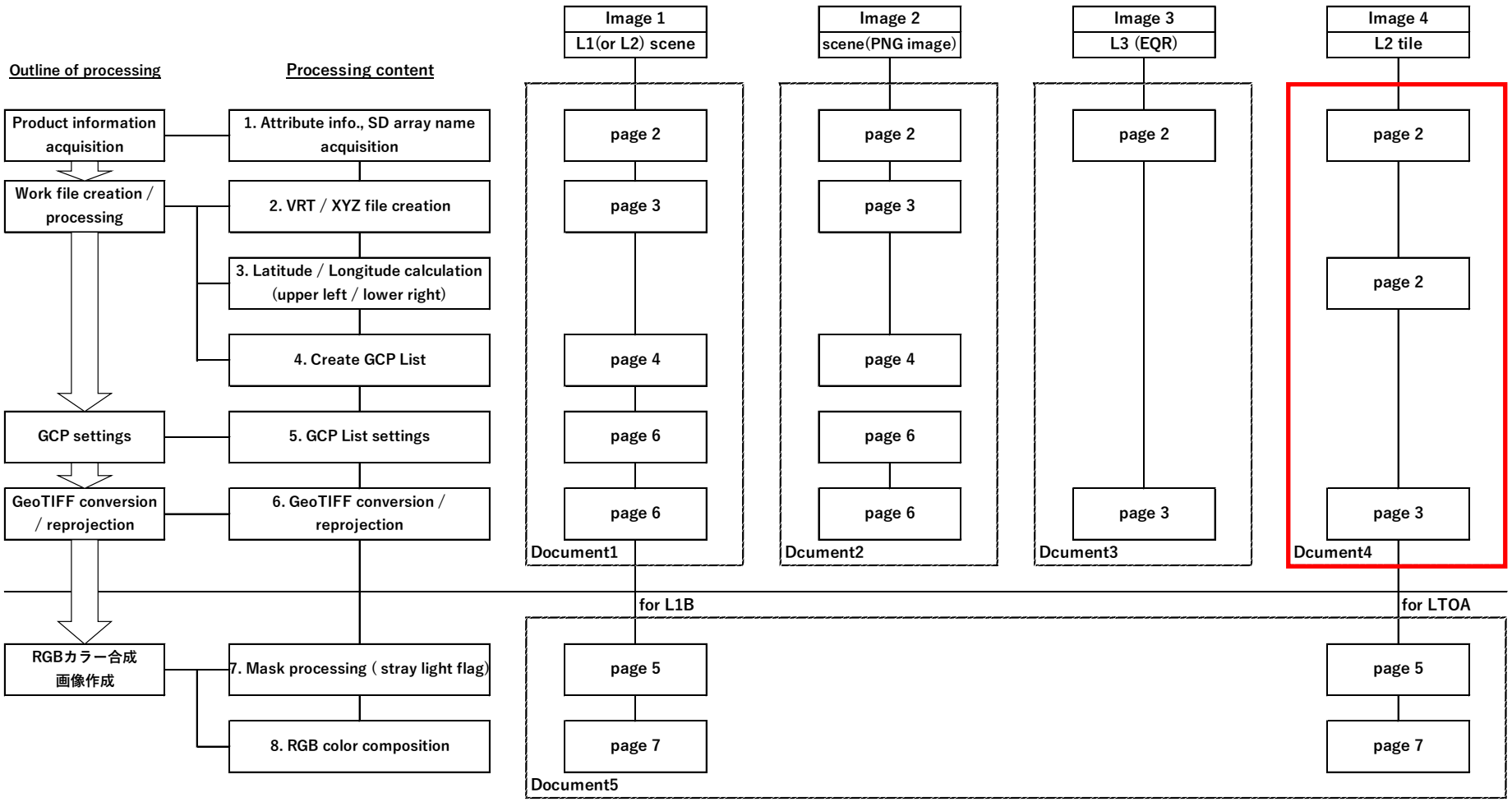
How to convert to GeoTIFF for Shikisai products

February 5, 2021 E

【Image 4】Conversion of L2 EVI (Enhanced Vegetation Index) (Equal Area Coordinate (EQA))

Here is an example of GeoTIFF conversion of L2 tile images.

GeoTIFF conversion flow



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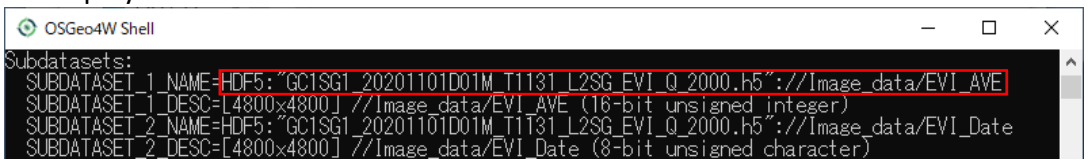
Product information acquisition

1） SD array name acquisition

The following is an example using OSGeo4W Shell which is installed when QGIS is installed on Windows.
Go to the directory where the image data is saved and enter the file name after the gdalinfo command as shown below to get the SD array name.

On Linux, it can be used in terminal applications, but GDAL must be installed.

Use the information in the red frame of SUBDATASET_1_NAME at the bottom of the displayed information.



Work file creation / processing

2） Latitude / longitude calculation (upper left / lower right)

The upper left / lower right coordinates of the image data set by the Gdal_translate command are calculated from the tile number (vvhh).
The tile number can be found by the file name.
It can be calculated with the attached "GCP calculation sheet for GDAL conversion of L2 tile products".

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GeoTIFF conversion / reprojection

3） GeoTIFF conversion / reprojection

Use the gdal_translate command to enter the latitude / longitude information obtained in 2) and execute it.

Output file format

Input file reference coordinate system

Upper left and lower right coordinate values of the input file

```
OSGeo4W Shell
C:¥Users¥[redacted]¥Documents¥Data>gdal_translate -of GTiff -a_srs ESRI:53008 -a_ullr 14455356.756965 -2223901.039533 15567307.276731 -3335851.559300
-a_nodata 65535 HDF5:"GC1SG1_20201101D01M_T1131_L2SG_EVI_Q_2000.h5"://Image_data/EVI_AVE EVI_output.tif
```

Set Nodata

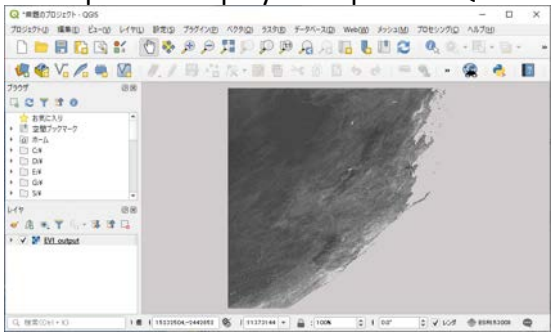
Information of "SUBDATASET_1_NAME" acquired by gdalinfo

Output file name

When it ends normally, it will be as follows.

```
OSGeo4W Shell
Input file size is 4800, 4800
0...10...20...30...40...50...60...70...80...90...100 - done.
```

< Output file display example 1 in QGIS >



If necessary, use the gdalwarp command to reproject to EPSG: 4326.

Output file format

output file reference coordinate system

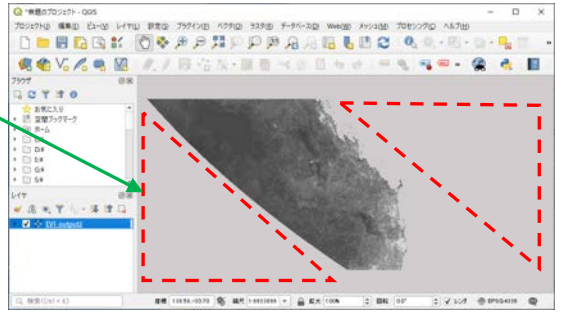
Margins due to projection (nodata)

```
OSGeo4W Shell
C:¥Users¥[redacted]¥Documents¥Data>gdalwarp -of GTiff -t_srs EPSG:4326 -dstnodata 65535
EVI_output.tif EVI_output2.tif
```

Input file name

Output file name

< Output file display example 2 in QGIS >



When it ends normally, it will be as follows.

```
OSGeo4W Shell
Creating output file that is 6239P x 2676L.
Processing EVI_output.tif [1/1] : 0...10...20...30...40...50...60...70...80...90...100 - done.
```