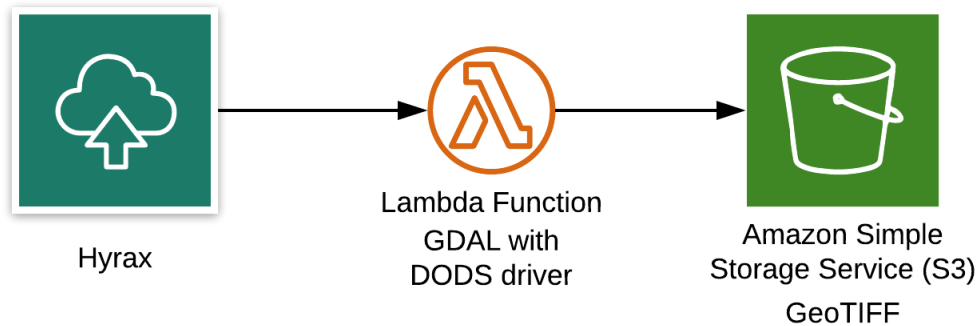


OPeNDAP to GeoTIFF Workflow

OPeNDAP to GeoTIFF

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GDAL can access OPeNDAP. However, it can handle dataset that has 2 dimensions only. Use netCDF or pydap for generic access.

If you want to specify constraint expression, it should have "x" and "y" as explained in the [GDAL user guide](#). The following code is from [frmts/dods/dodsdataset2.cpp](#):

```
/* ----- */
/* For now we hard code to assume that the two dimensions are */
/* ysize and xsize. */
/* ----- */
if( poArray->dimensions() < 2 )
{
    throw Error("Variable does not have even 2 dimensions. For now this is required." );
}

int nXDir = 1;
int nYDir = 1;
int iXDim = GetDimension( oCE, "x", &nXDir );
int iYDim = GetDimension( oCE, "y", &nYDir );

if( iXDim == -1 || iYDim == -1 )
{
    throw Error("Missing [x] or [y] in constraint." );
}
```

Therefore, you need to specify subsetting carefully. Here's a working Python example.

```

from osgeo import gdal
dods_dr = gdal.GetDriverByName('DODS')
if dods_dr is None:
    print('DODS driver is missing.')
ds = gdal.Open('https://opendap.larc.nasa.gov/opendap/hyrax/CERES/SYN1deg-1Hour/Terra-Aqua-MODIS_Edition4A/2018/01/CER_SYN1deg-1Hour_Terra-Aqua-MODIS_Edition4A_403405.20180101.hdf?sza[0:1:0][y][x]')
print(ds.RasterCount)
band = ds.GetRasterBand(1)
arr = band.ReadAsArray()
print(arr)

```

Please pay attention to the 'x' and 'y' in URL in the above code.

Here's the basic GDAL to GeoTIFF code.

```

# Continue from OPENDAP to GDAL Workflow code
arr = band.ReadAsArray()
[cols, rows] = arr.shape
driver = gdal.GetDriverByName("GTiff")
outdata = driver.Create("CER.tif", rows, cols, 1, gdal.GDT_UInt16)
geotransform = ([-180, 1, 0, 90, 0, -1 ])
outdata.SetGeoTransform(geotransform)
srs = osr.SpatialReference()
srs.ImportFromEPSG(4326)
outdata.SetProjection(srs.ExportToWkt())
outdata.GetRasterBand(1).WriteArray(arr)
# Saves to disk.
outdata.FlushCache()
outdata = None
band=None
ds=None

```

We can confirm the correctness using QGIS for GeoTIFF and Panoply for OPENDAP.

