

# Fetch part of an image stack from the processing portal or via API

You have a large image stack (.mrc or .st) and you only want part of the stack to use in some other process



This is a new service and these are new directions, if something doesn't work or is missing from the documentation please contact me so I can fix it.

This is not using the imod newstack, it's a python program I wrote to do operations in memory. It reads only the slices it needs to and writes out the full file in one fell swoop. As this is all happening in memory if you feed it a file bigger than around 1.5T it may fall flat on it's face.

## Step-by-step guide

From the portal:

- Go to <https://processing.crbs.ucsd.edu/> and log in using your CRBS SSO (LDAP) credentials
- Click on [blocked URL](#) Run a standardized process on a dataset
- Click on [blocked URL](#) MRC operations
- Enter the **full** path to the stack you want part of
  - If you have the MPID or Project number you can use the link at the top of the page to quickly find your stack. Once found you can copy the path to the clipboard or use the *Get stack info* button to take you back to the portal
- It may take a few moments to get the information about the stack but you should eventually see the following



spenticoff

/ccdbprod/ccdbprod28/home/CCDB\_DATA\_USER/portal/CCDB\_DATA\_USER/acquisition/project\_20285/microscopy\_5402879/processed\_data/txbr-art/bin4/AG39-ControlDiet-August2022-A7-5A11k-de64\_tomo6.st



first 0 1035 last



NEWSTACK

destination po 6.6T

output file name .mrc

MRC2TIF

Powered by [Dancer2](#) 0.300000

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- You can use the slider or type in the first and last boxes to choose the subset of layers you want.
- Choose a destination
  - p0-p5 are mounted on all of the linux workstations under /processing
  - choose download temp\_filesystem if you will be downloading the file for processing elsewhere, files that go here are automatically deleted when they are 5 days old
- Be sure to name your file
- Press the newstack button. You will be given some information and asked to confirm or cancel
- When you press confirm the job will be queued up and run and the file will appear under the filesystem you chose (this can take seconds to minutes)



The last slice is NOT included in the new stack, if you want just the first slice you would choose 0 (because the stack begins at 0) and 1

Through the API:

The API uses a static username and password so it can be used in scripts and you don't need to hard code your user credentials.

username: NCMIR  
pass: dl-MRC4me&u

Assuming you want the first 15 slices of the following stack

/ccdbprod/ccdbprod28/home/CCDB\_DATA\_USER.portal/CCDB\_DATA\_USER/acquisition/project\_20285/microscopy\_5402879/processed\_data/txbr-art/bin4/AG39-ControlDiet-August2022-A7-SA11k-de64\_tomo6.st

send a get request to:

[https://processing.crbs.ucsd.edu/API/get\\_substack](https://processing.crbs.ucsd.edu/API/get_substack)

with the following parameters

?path=/ccdbprod/ccdbprod28/home/CCDB\_DATA\_USER.portal/CCDB\_DATA\_USER/acquisition/project\_20285/microscopy\_5402879/processed\_data/txbr-art/bin4/AG39-ControlDiet-August2022-A7-SA11k-de64\_tomo6.st  
&first=0  
&last=15  
&filename=for\_download.mrc

(be sure to include the credentials or you will get back a 403)

All 4 parameters are required, the file will always be in the download directory and the download URL for this example would be

[https://processing.crbs.ucsd.edu/dl/project\\_20285/microscopy\\_5402879/processed\\_data/for\\_download.mrc](https://processing.crbs.ucsd.edu/dl/project_20285/microscopy_5402879/processed_data/for_download.mrc)

As it make take some time to complete the URL for the download may return a 404 until the file is generated. The file will be available at that URL for 5 days. Credentials will be required for the download.

## Related articles

- [Fetch part of an image stack from the processing portal or via API](#)
- [Admin shared drive](#)
- [Ubuntu 18.04 Nvidia Install](#)
- [SSH tunnel NFS share](#)
- [Docker - creating a new image for an application](#)