



FMIPROT

Finnish Meteorological Institute Image Processing Toolbox

Quick guide for using CNIFs

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Camera Network Information File

Camera network information file (CNIF) carries metadata of the camera networks for FMIPROT

At <http://fmiprot.fmi.fi> , there are CNIFs that can be downloaded to process images for existing camera networks.

A CNIF can be added, created and edited using FMIPROT GUI or any text editor.

This guide shows how to use available CNIFs, using MONIMET as an example. Other camera networks also have CNIFs in same format.



Online and Offline CNIFs

CNIFs can be used “online” or “offline”.

A CNIF is used online when the link of the CNIF is added to FMIPROT, so that on each run it tries to download and renew the CNIF.

A CNIF is used offline when it is downloaded into a computer and the file is added to FMIPROT.

This classification is made for the CNIF itself. Images, on the other hand, may be downloaded by FMIPROT automatically, if FTP or HTTP access exists and indicated in CNIFs, or can be downloaded manually from a repository, and then can be processed by FMIPROT.

On the other hand, offline CNIFs in FMIPROT website are meant for offline images and online CNIFs are for online images.



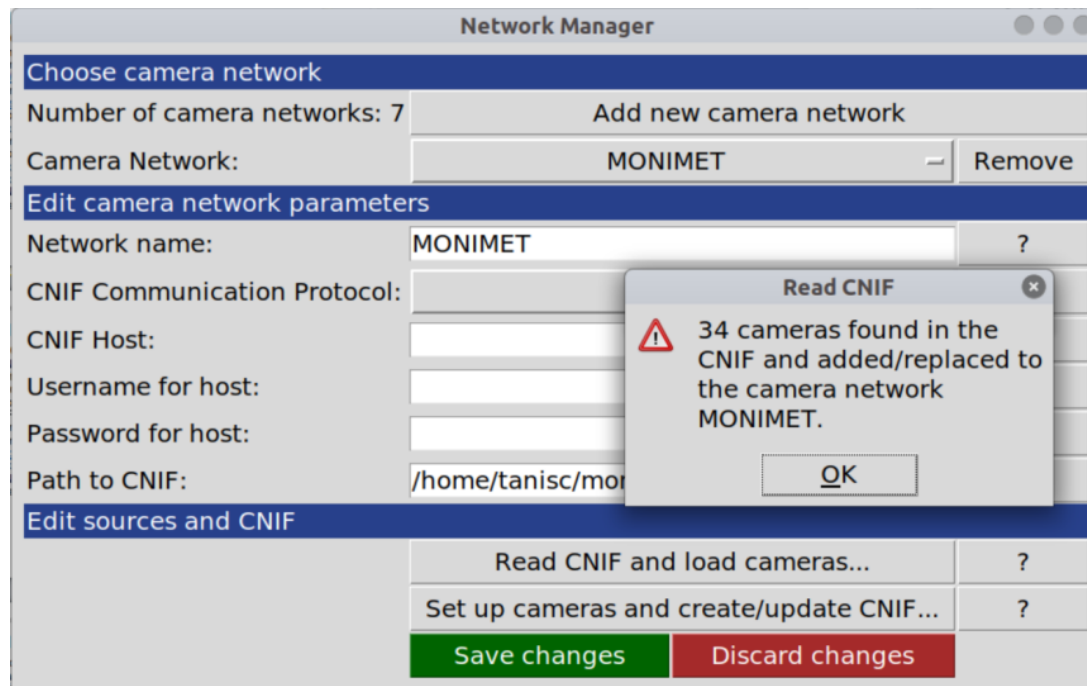
MONIMET Offline CNIF

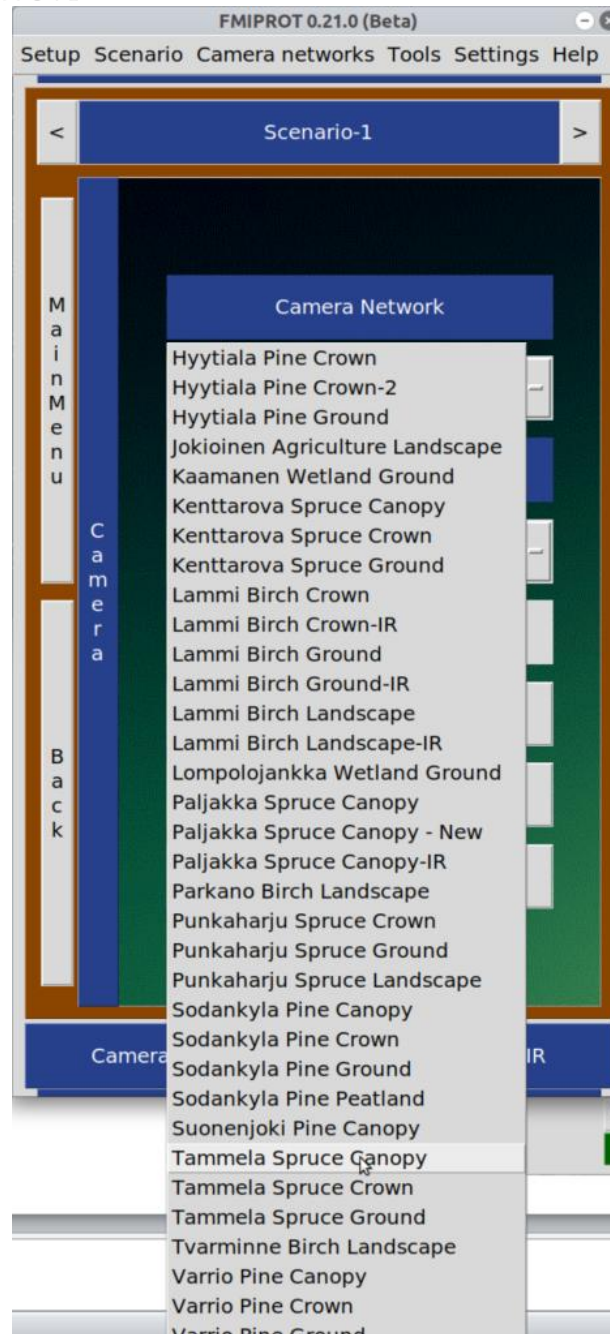
- This CNIF is prepared for using MONIMET images that are downloaded from Zenodo repositories.
- Download images you want to process from Zenodo repositories (https://zenodo.org/communities/phenology_camera/)
- Download the CNIF from http://fmiprot.fmi.fi/camnet/cnifs/monimet_local.tsvx
- Edit the CNIF file you downloaded with a text editor:
 - Change the path of the images for the camera that you have downloaded the images for to the directory where you have downloaded/stored the images. Those paths are marked with “{edit_here}”.
 - For example, if you have downloaded Tammela Spruce Canopy camera images to “D:\MONIMET\TammelaCanopy”, change in the CNIF, ‘{edit_here}/tammela_spruce/canopy’ to ‘D:\MONIMET\TammelaCanopy ‘
 - Repeat it for all the cameras that you will use, and save CNIF. This can be done also after adding the CNIF to FMIPROT. This is also doable with GUI, in “Camera Network Manager”. (See user manual)



MONIMET Offline CNIF

- Go to “Camera Networks” -> “Camera Network Manager”
- Click “Add new camera network”
- Enter a camera network name (e.g. MONIMET)
- Choose “CNIF Communication protocol” as “LOCAL”
- Click “Browse” and find the CNIF, click “Open”.
- Click “Read CNIF and load cameras” and then “OK.”
- MONIMET Camera network is added to the toolbox now.

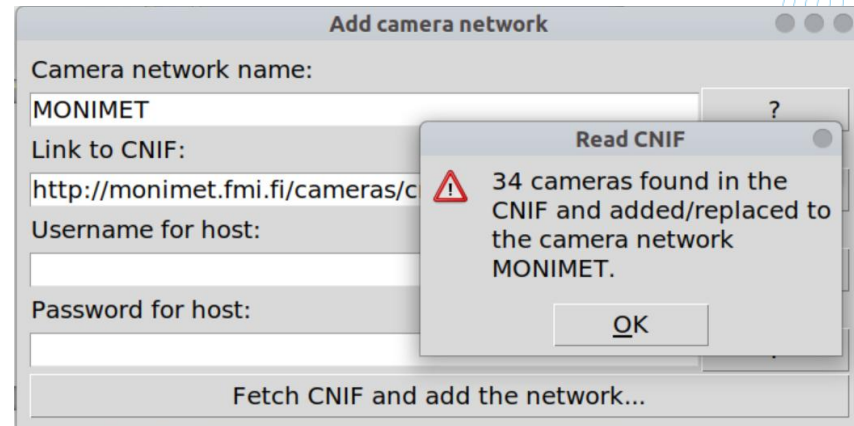






MONIMET Online CNIF

- This CNIF is prepared and automatically updated for using MONIMET images by FTP access. This is meant for operational monitoring purposes and needs an FTP account. For studies with historical data, images in Zenodo repositories should be used.
- Go to “Camera Networks” -> “Add camera network from an online CNIF”
- Enter a camera network name (e.g. MONIMET)
- Enter the URL of the CNIF
(<http://fmiprot.fmi.fi/camnet/cnifs/monimet.tsvx>)
- Click “Fetch CNIF and add camera network” and then “OK.”
- MONIMET Camera network is added to the toolbox now.





MONIMET Online CNIF (FTP Access)

- The communication protocol for the MONIMET camera network is FTP and it requires authentication. That is why if FMIPROT needs to login to the server, it will ask for authentication. Username and password for the authentication will be distributed during the training.
- For each run of the program (not setup) it will ask the credentials only once. If the authentication succeeds, it will keep the information in the memory to be used until the program is terminated.

