Saving to a network drive

Chronos cameras support SMB and NFS network saving. Network saving is currently supported on Windows and Linux computers.

Creating shared folders

In many organizations, you will need to ask your network administrator to set up your NFS or SMB share. But sometimes it can be useful to have shared folder on your own computer. These simple guides assume you are using the mini-USB network connection, but they should work equally well if you are using the Ethernet connection and a router.

Creating an SMB share on a Windows 10 system

SMB (Server Message Block) is a network protocol to enable network file sharing. It is the Windows standard, but can also be set up on Linux computers using Samba. If there is an SMB share on the camera's network, the camera can mount that share, and then save files to it. The SMB share will be mapped to the folder **/media/smb** on the camera.

To set up an SMB share, first you have to create a Windows User for the camera.

1. Select **Settings** from the Start menu; click on **Accounts**; click on **Family and other users**.
2. Click on **Add someone else to this PC**.
3. Click on **I don't have this person's sign-in information**.
4. Click on **Add a user without a Microsoft account**.
5. Enter a username (suggested: "cam") and a password twice; then enter clues as required.

Now you will need to share a folder. For simplicity, it is easiest to share a folder created in the C:\ root directory.

1. Create the folder **C:\smb**, and then right-click on it in Windows Explorer.
2. Select **Give access to**, and then **Specific people**.
3. Click on the down arrow, and select "cam" or the user name you chose above.
4. Click **Add**.
5. Click **Share**.

Next, you need to set write permission for the folder.

1. Right-click on the C:\smb folder in Windows Explorer.
2. Select **Properties**; select **Sharing**.

3. Click on **Advanced Sharing**; click on **Permissions**.
4. Click the **Add...** button.
5. Type the name **cam** and press Enter.
6. With the user name **cam** selected, click on **Full Control** in the **Allow** column.
7. Click **OK**; click **OK.**
8. Click on the **Security** tab.
9. Click the **Edit...** button.
10. Click on the **cam** user.
11. Click **Full Control** in the **Allow** column.
12. Click **OK**, click **Close**.

Next, you need to find the IP address of your computer, when connected through the mini-USB network

1. Select **Settings** from the Start menu; click on **Network & Internet**.
2. Click on **Ethernet**.
3. Click on **Change adapter options**.
4. Double-click the connection called **USB Ethernet/RNDIS Gadget**.
5. Click on **Details**. The computer's IP address is labeled **IPv4 Address**.

Saving files to an SMB server

Here is how to mount an existing SMB share on the camera:

1. Select the Network tab in the Util menu.
2. Enter the Address, Username, Password and Mount location in the Windows/SMB Network Storage frame. In the example above, the address is the IP adresss of the computer, and the mount would be **smb**.
3. Press Apply. The success or failure of the operation is reported in a pop-up window.
4. Press Test. A file will be written to the SMB share, and then erased. If the test is successful, you can now save over the network.

To use the SMB share, you must select it in the Settings window in the playback screen. Under Save Location, select “/media/smb (SMB share)” in the drop-down menu. You can also enter a subfolder path, to folders that you have already created. The filename can be left blank to have an auto-generated name.

Creating an NFS share on a Linux system

NFS (Network File System) is another way to save media over a network, and is the standard on Linux computers. On the camera, the NFS folder will be mapped to **/media/nfs**. This guide assumes that the shared folder on your computer will be located at **/mnt/nfs**. Here are the steps needed to set this up:

1. On your computer, enter the following commands:

```
sudo apt install nfs-kernel-server
sudo mkdir -p /mnt/nfs
sudo chown nobody:nogroup /mnt/nfs
sudo chmod 777 /mnt/nfs
```

2. Edit the export file to include the new share:

```
sudo nano /etc/exports
```

Add the following line:

```
/mnt/nfs           192.168.12.1/24(rw,sync,no_subtree_check)
```

or substitute your camera’s IP address if you are connecting via Ethernet

3. Enter the following two steps to set up the NFS share:

```
sudo exportfs -a
sudo systemctl restart nfs-kernel-server
```

4. If you are running Ubuntu Firewall, you have to allow NFS to go through it:

```
sudo ufw allow from 192.168.12.1/24 to any port nfs
sudo ufw status
```

Saving files to an NFS server

Here are the instructions to configure the camera to use NFS:

1. Select the Network tab in the Util menu.
2. Enter the Address Mount location in the NFS Network Storage frame. In this case it would be **/mnt/nfs**.
3. Press Apply. The success or failure of the operation is reported in a pop-up window.
4. Press Test. A file will be written to the SMB share, and then erased. If the test is successful, you can now save over the network.

To use the NFS share, select it in Save Location in the Settings window as described above. It will be listed under “/media/nfs (NFS share)”.