

SFC System Setup

# Introduction

This doc is an instruction to guild users to set up the NAS server and the Synology Drive Client on each working computer. Also, the setup of the NAS\_folder\_monitor.py is included in this doc.

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| **Fig. 1. Network setup.** The SFC Database runs on the Vendor SFC Server. The router can have a DHCP-assigned address, as per the Vendor LAN policies. The router assigns fixed IP addresses within the gray-highlighted area – i.e. the Local NAS server, and the jig computers. The jigs produce output files which are immediately synchronized to the Local NAS Server. The Local NAS Server parses the results and creates HTTP GET requests (with test results as parameters) and pushes the test results through the router to the Vendor SFC Database. |

The concept is as follows:

* Jig computers are setup to write to the NAS server all the data that they produce.
  + The folder to which the jigs write to the NAS server must be carefully setup on the jig computers
  + The jig computers must run Synology Cloud Drive Client
  + See section **“Setting up the Jig Computers”** for instruction on how to do it
* NAS server is running NAS\_folder\_monitor.py as soon as it boots up and monitors the folder to which the jigs write.
  + This is setup in advance by Meridian
* The NAS\_folder\_monitor.py detects updates from the jigs, parses the results and creates web GET requests to the Server specified by the vendor. The test results from the jigs are passed as parameters of the GET request.
  + The server address can be specified in the fm\_settings.py
* The router isolates the local area to which the NAS server and the jigs are attached from the vendor LAN.

# Local NAS Server Setup

The Local NAS server must run Synology Drive Server. The server comes with this SW preinstalled. Meridian Innovation Installs and Sets up the SW as follows:

## Setting up Synology Drive Server (By Meridian Innovation)

1. Open a web-browser and type:

192.168.2.4:5000

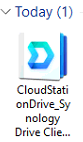
to connect to the Synology DiskStation Manager (DSM).

1. Upon receiving a prompt, enter the following log-in details:

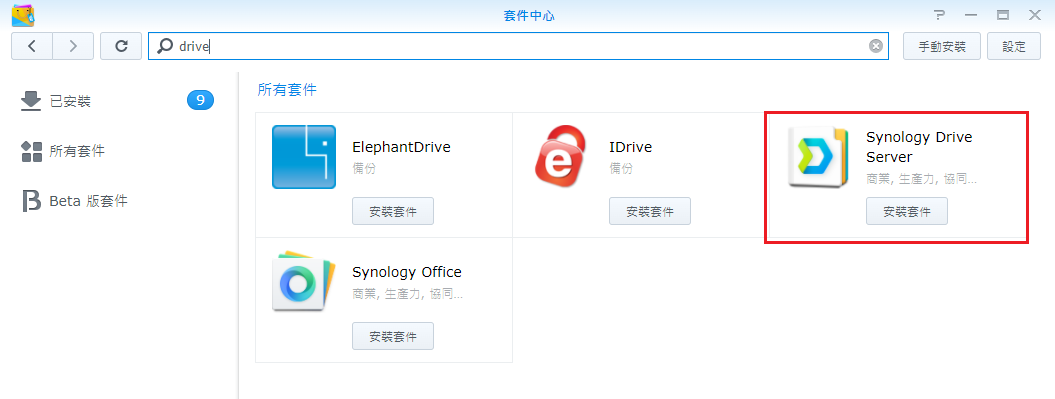
NAS username: meridianadmin

NAS password: Meridian1668

1. Download the “Synology Drive Client” from the attached file and install it to your computer.



1. Make sure the Make sure the “Synology Drive Server” is installed on NAS server.

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# Setting up the router

The router setup is done by Meridian Innovation.

If IP address assignment need to be changed, we must do this through the router.

Open a web-browser and type:

192.168.0.1

(Try 192.168.1.1 if the above is not working)

Use the following account details:

Router username: admin

Router password: Meridian1668

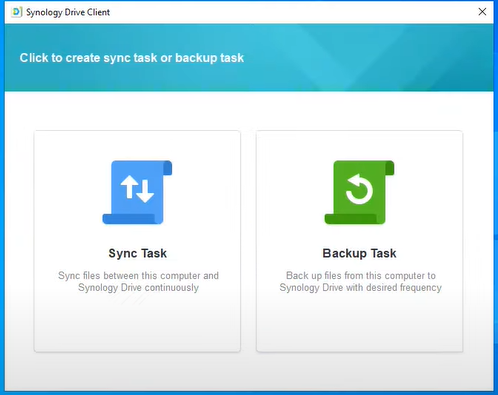
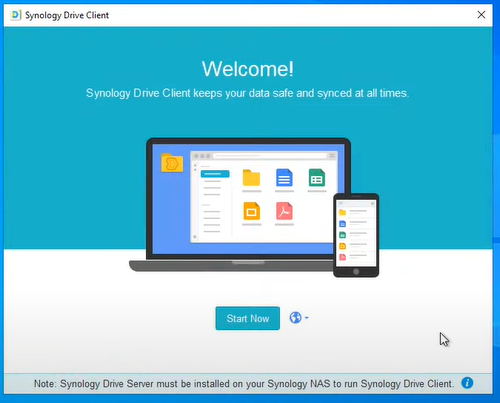
# Setting up the Jig Computers (By Vendor)

In order to allow the jig computers to synchronize data with the Local NAS Server, the jigs computers must be running Synology Drive Client with the setup described below:

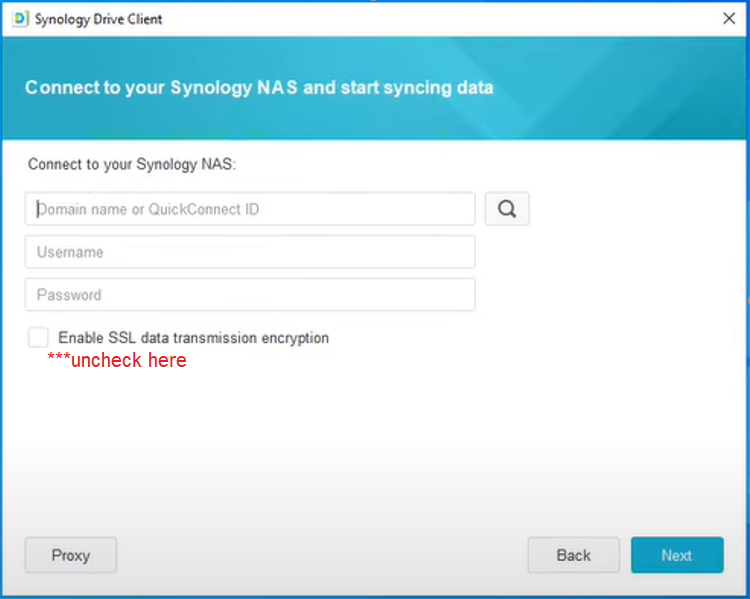
1. Download and install separately the Synology Drive Client from attached file or here:

<https://archive.synology.com/download/Utility/SynologyDriveClient>

1. After “Synology Drive Client” is installed, launch it and chose “Sync Task”.

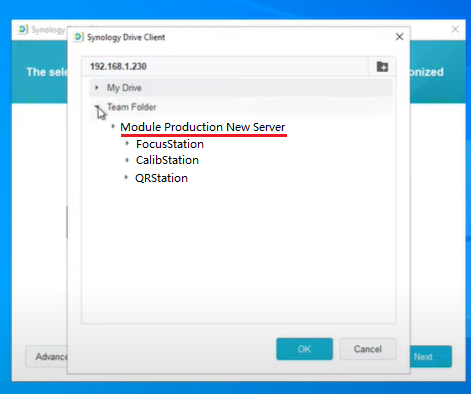
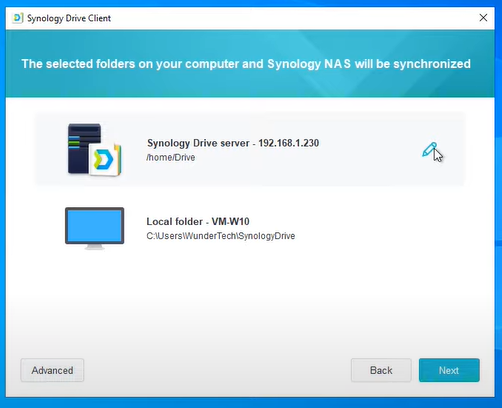
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1. Put the IP address, user account, and the password of your Synology NAS, **uncheck** the “enable SSL” data transmission encryption and click next. This step disables SSL because the jig computers are behind the router, isolated from other networks and internet, and do not need encryption. The advantage of that is that we *do not need to update SSL certificates* every three months.

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1. The top section is the folder that you want to sync from your Synology NAS:

For each computer (Focus/Calibration/QR code), please select “Module Production New Server”)

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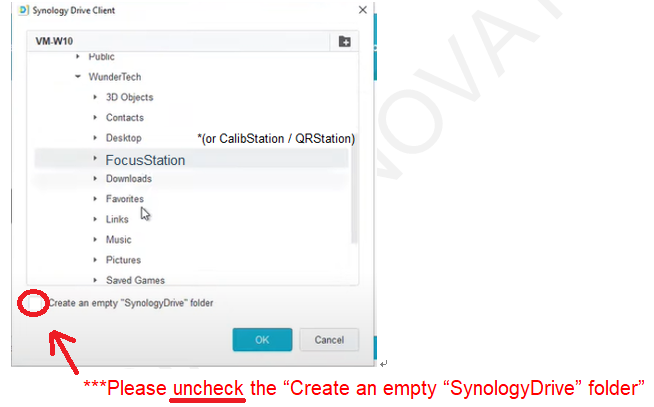
1. For the bottom section, select the local path (folder) where the file is created:

Focus computer – “FocusStation”

Calibration computer – “CalibStation”

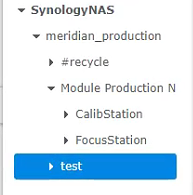
QR computer – “QRStation”

1. **Uncheck the box as shown below**. This is critically important. If left checked, the Synology Drive Client will try to use incorrect folders.

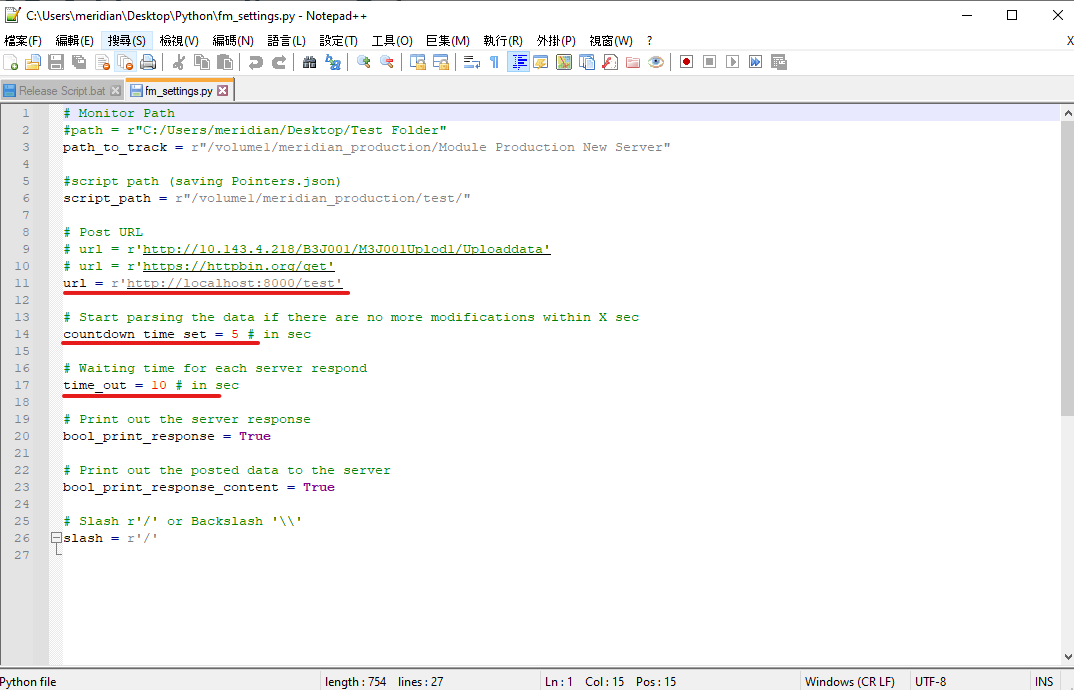
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# NAS\_folder\_monitor.py Setup

1. Open the “test” folder in “meridian\_production” on NAS server.



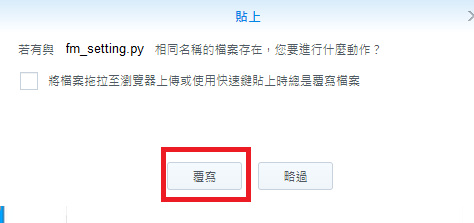
1. Delete the file “Pointers.json”.
2. Download the “fm\_settings.py” to local computer to change the setting of the “NAS\_folder\_monitor.py” before starts the monitoring.
   1. ONLY the underlined settings below may be changed by the Vendor if necessary.



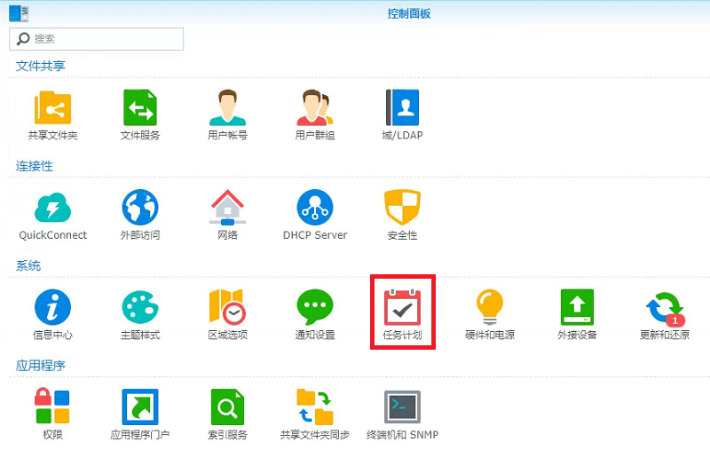
\*url: your own GET request url (http://10.143.4.218/B3J001/M3J001Uplod1/Uploaddata)

\*countdown\_time\_set: can be set to 30

1. Save the file after changing any settings and then drop the changed file to the original “test” folder. (Overwrite the old one if such exists)

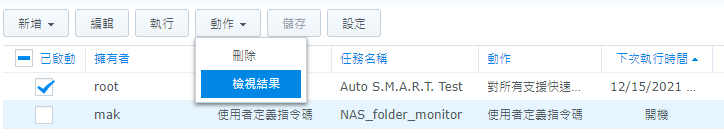


1. Open the “Control Panel” on the NAS server, and then click “Task Scheduler”.

1. Select the Task **“NAS\_folder\_monitor”** and see the running result.

(If the task **“NAS\_folder\_monitor”** does not exist in here, please go to the section **“Adding new task in Task Scheduler”** to add the task **“NAS\_folder\_monitor”**.)



1. If there is no info on “Stop time” that means a previous instance of NAS\_folder\_monitor.py is still running on the NAS server and you need kill it first, before starting the new instance (See the section **“Killing the NAS\_folder\_monitor.py”**).



1. Then you can right click the task and press “Run” to run the script.

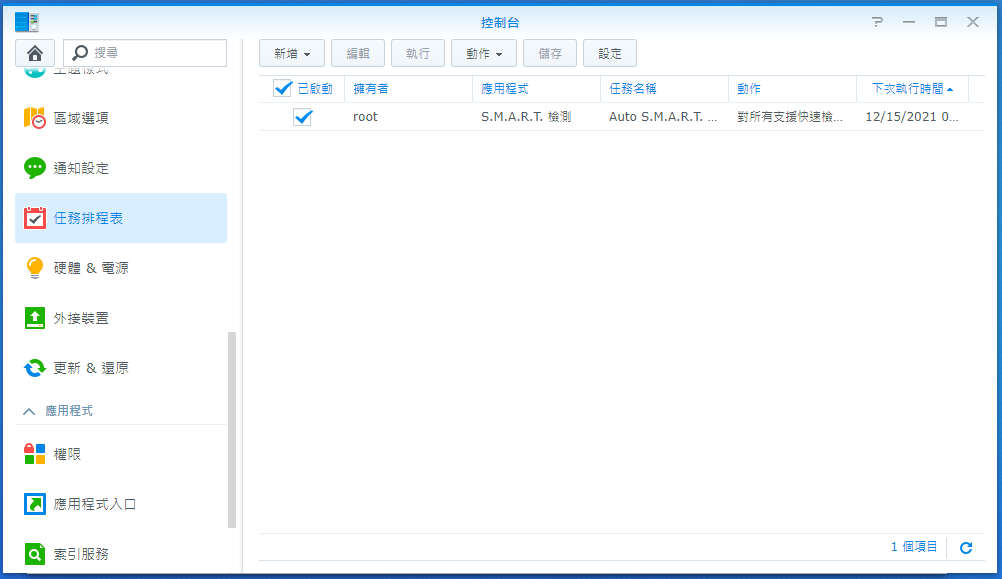


\*\* If the check box is selected, the script will be executed automatically every time the NAS server is restarted.

1. Tick the check box on the left, in order to make the script execute automatically after the computer (the Local NAS Server) is started.

# Adding new task in Task Scheduler

If the “Task scheduler” is missing the task **“NAS\_folder\_monitor”** or **“Kill NAS\_folder\_monitor.py”** (Or both of them as the below fig.), please do the following steps to add them.

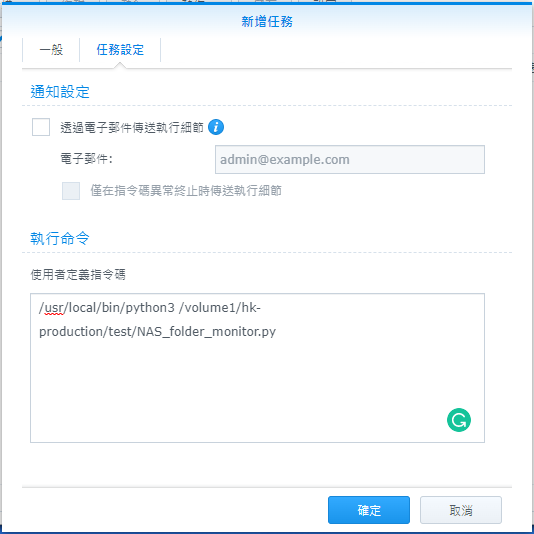
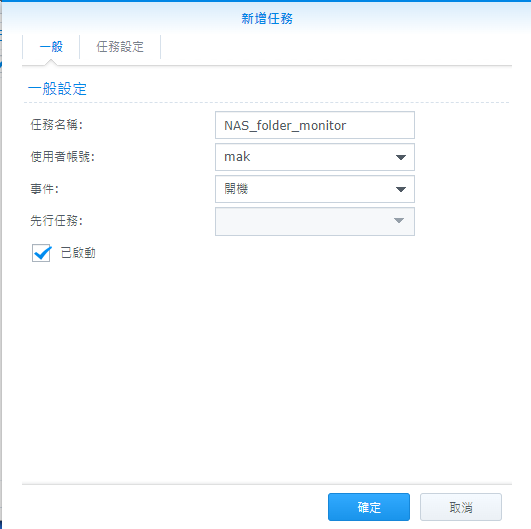


* Adding the task “NAS\_folder\_monitor”

1. Click “New”, then select “Target Task” and press “User-defined script”.



1. Do the following settings in **“General”** and **“Task Setting”**:



The command in **“User-defined script”** is:

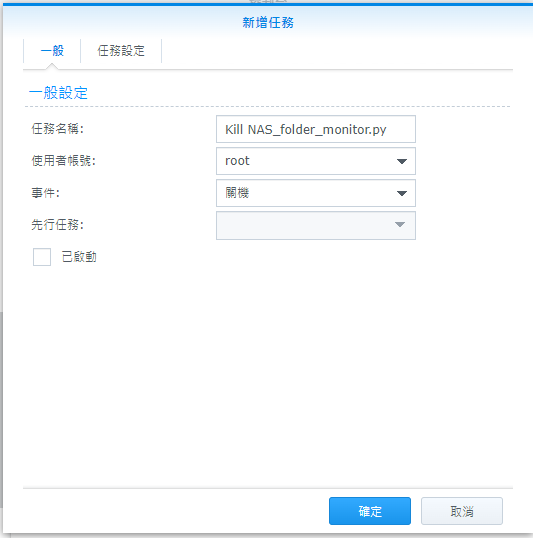
/usr/local/bin/python3 /volume1/meridian\_production/test/NAS\_folder\_monitor.py

* Adding the task **“Kill NAS\_folder\_monitor.py”**

1. Click “New”, then select “Target Task” and press “User-defined script”.



1. Do the following settings in **“General”** and **“Task Setting”**:

The command in **“User-defined script”** is:

pkill -9 -f "NAS\_folder\_monitor.py"

# Killing NAS\_folder\_monitor.py

If NAS\_folder\_monitor.py need to be stopped and started again, we must kill it by means of one of two ways:

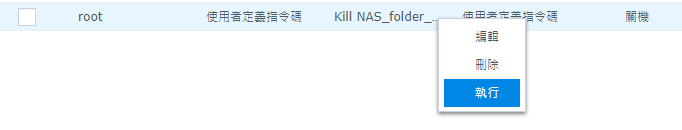
1. Executing a Task from the Task Scheduler of the Local NAS Server.
2. SSH connection from another computer (e.g. from one of the jig computers)

The preferred way is 1) above.

## Killing NAS\_folder\_monitor.py via Task Scheduler (preferred)

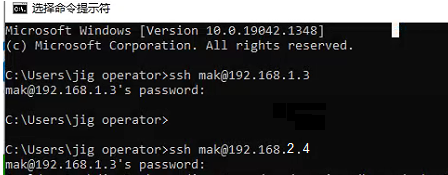
1. Right click the task **“Kill NAS\_folder\_monitor.py”** and press “Run” to kill the NAS\_folder\_monitor.py.

(If the task **“Kill NAS\_folder\_monitor.py”** does not exist in here, please go to the section “Adding new task in Task Scheduler” to add the task **“Kill NAS\_folder\_monitor.py”**.)

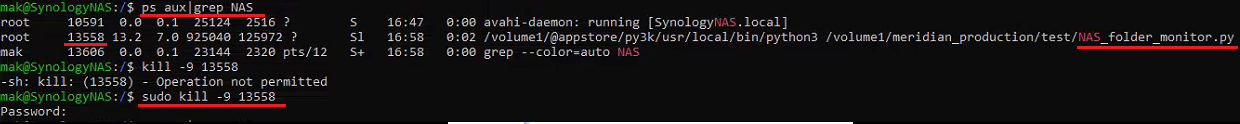


## Killing NAS\_folder\_monitor.py via SSH from another computer (not preferred/for checking)

1. Open “**cmd**” on local computer and type: ssh mak@192.168.2.4



1. The password is: Meridian1668
2. Then, to find the PID of the “NAS\_folder\_monitor.py” please type: ps aux|grep NAS



1. Then type: sudo kill -9 <the PID you found>
2. The password is also: Meridian1668