Merit LILIN Application Note

How to setup the Navigator Archive Manager to sync files from an IP camera SD Card to Navigator Server

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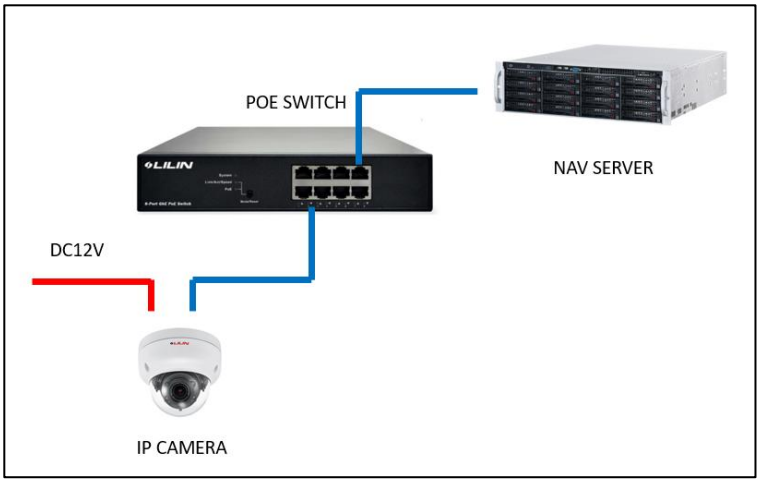
Dept：Technical Support, Taipei

Subject: How to set up Navigator Archive Manager to recover and sync video files with an IP Cameras SD card in case of network loss

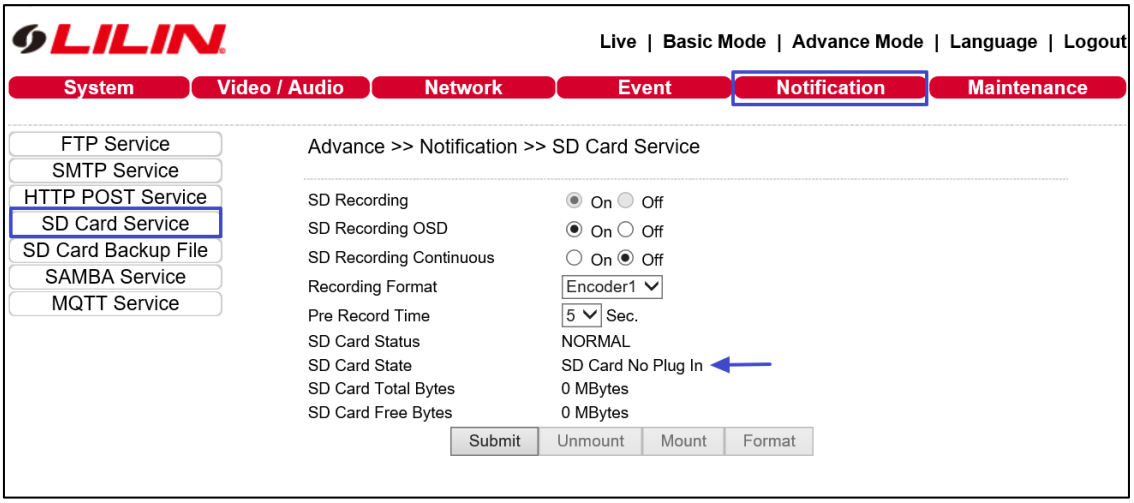
Concerned device: MR IP camera series version 4.2.84 (2MP) and 5.2.84 (4MP)

IP camera must have working SD card and must be powered by DC12V adapter

Diagram



Log in into the camera browser interface then click on Notification and SD Card Service



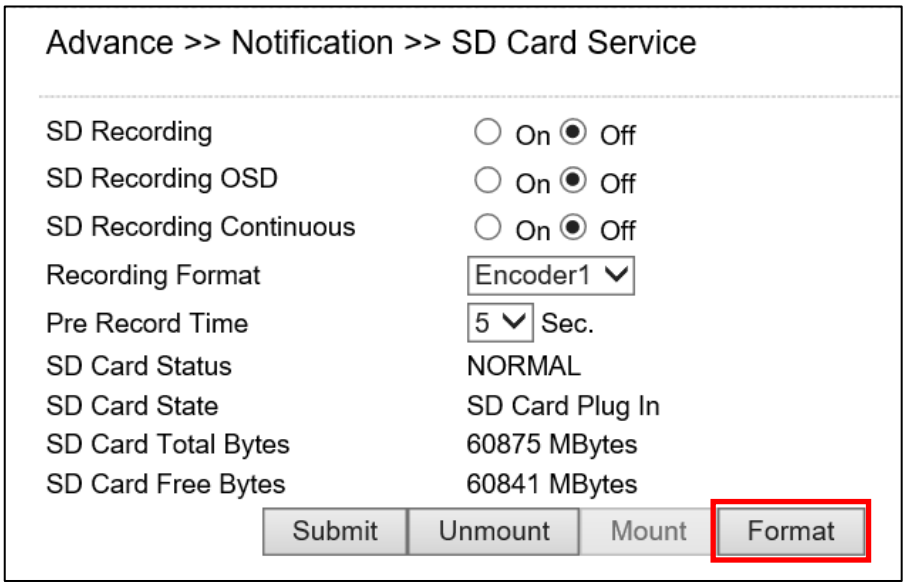
As you can see SD CARD State shows ‘SD card No Plug In’

Insert the micro SD card in camera the SD card slot. Make sure it is inserted the correct way. Kindly refer below:

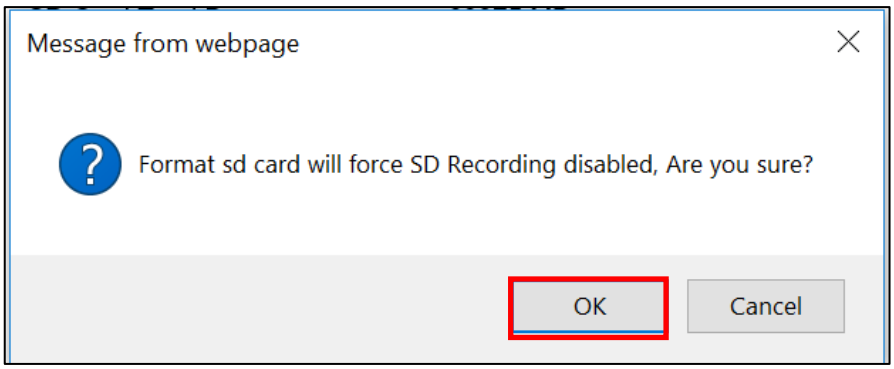
Click on the refresh icon of the browser

Note: Mini SD card are not supported.

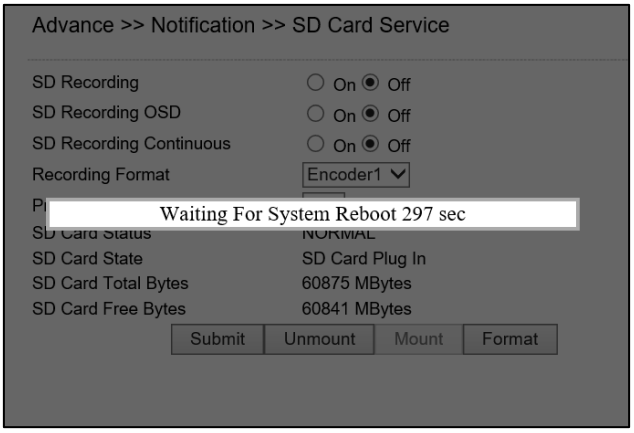
You will see the message **SD Card Plug In**, which mean the SD card is detected, click on **Format** to make sure to erase previous data recorded from other IP cameras.



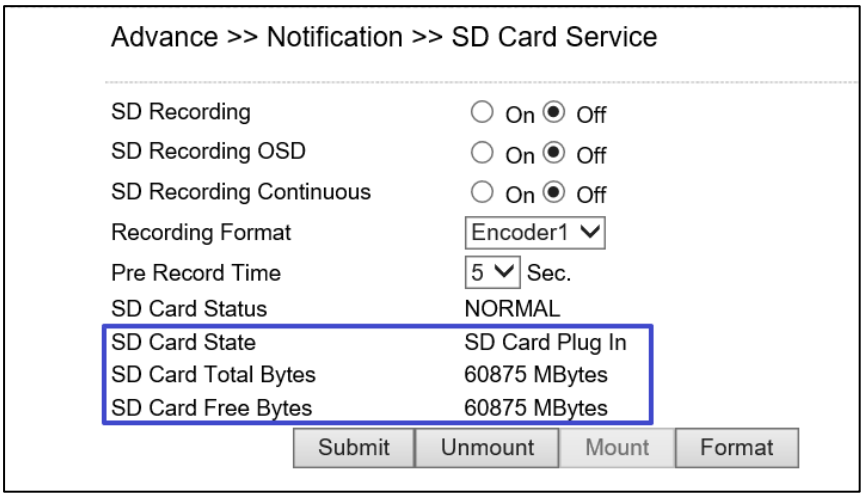
A warning message will pop up, click on OK



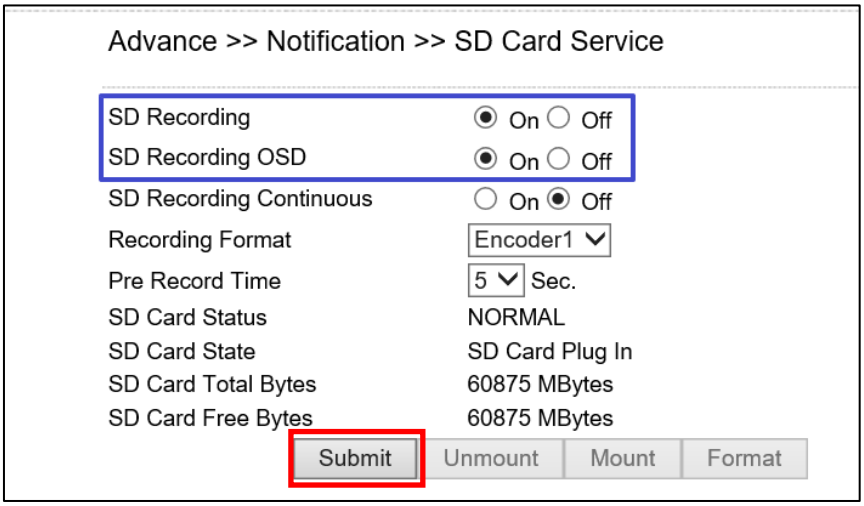
Another message will appear, just wait until it disappears



The SD card details will show total bytes space and free bytes space number, these numbers should be the same.

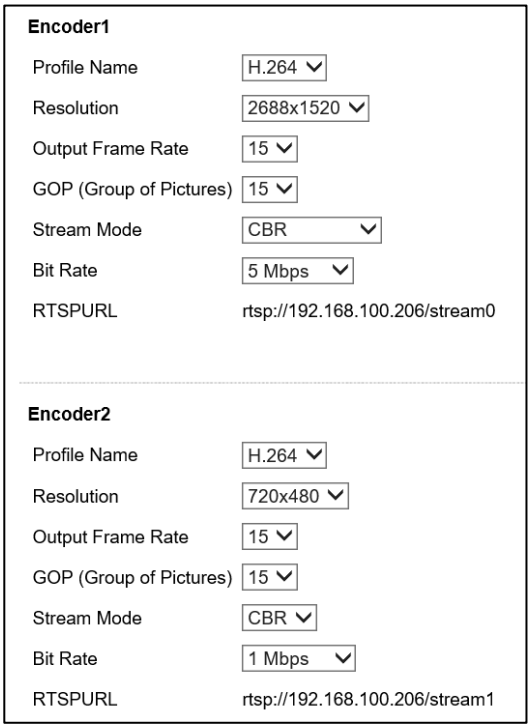


Turn SD Recording **On** and SD Recording OSD **On**, then click on Submit. We don't recommend you enable continuous recording on SD cards as it would reduce SD card lifetime, as it keeps recording to it 24/7.

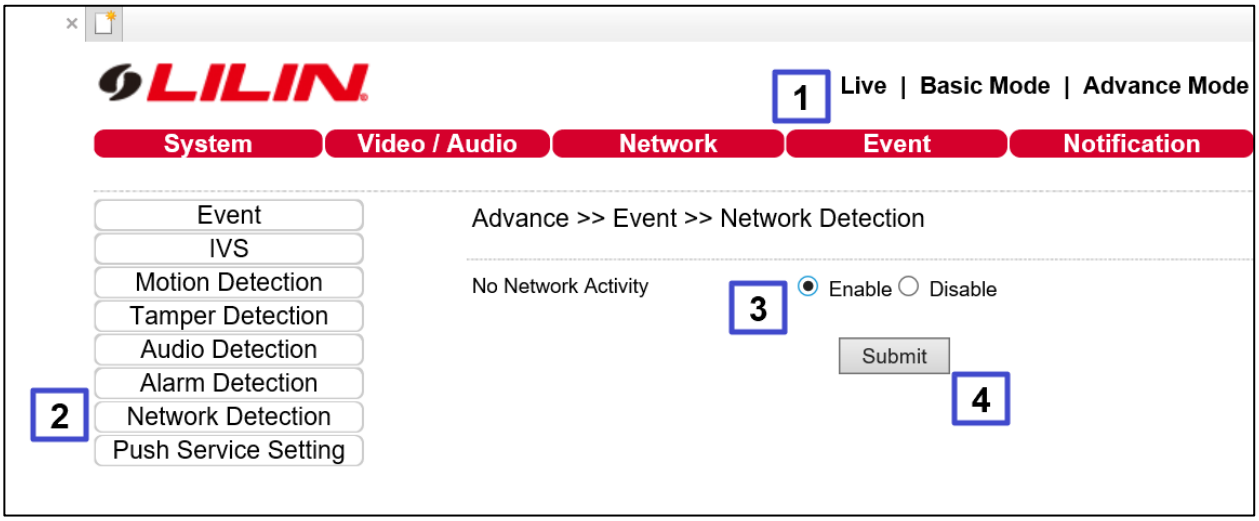


Recording Format, you can choose between 1st encoder or 2nd encoder, depending on your bandwidth conditions on site

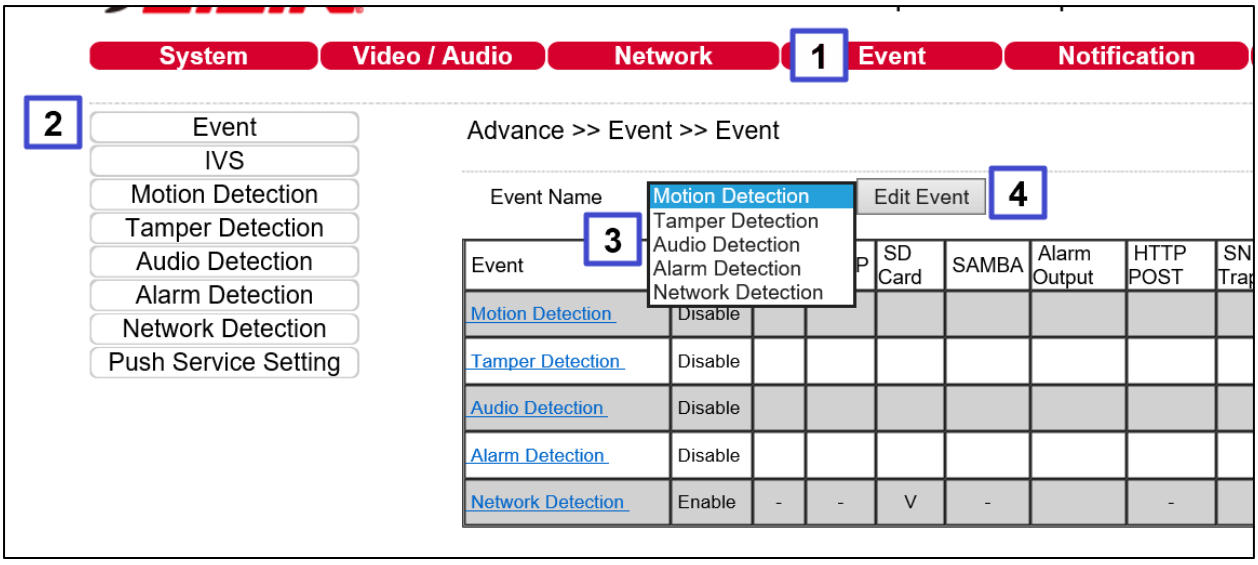
To check encoder parameter go to Video/Audio → General and you will see current parameters



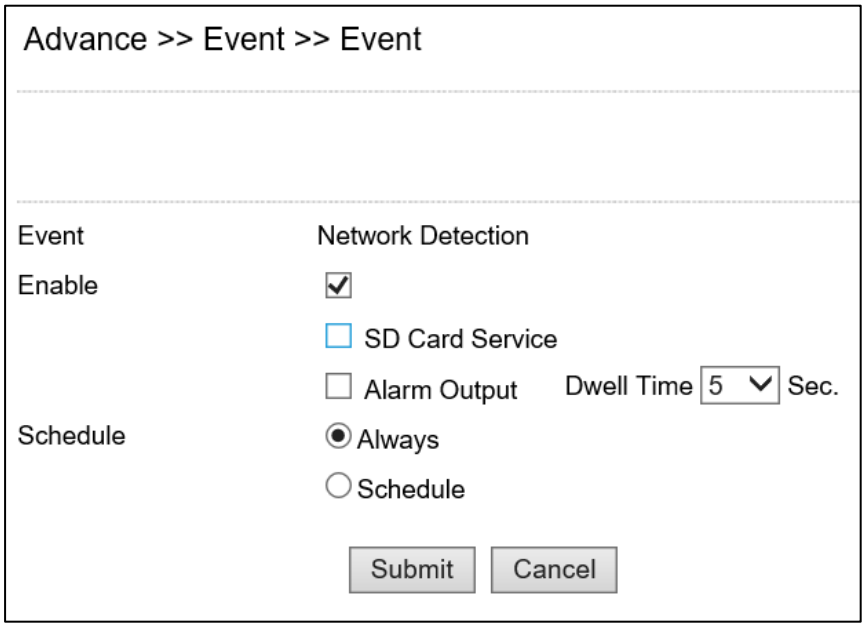
Click on **Event** > **Network Detection** > No Network Activity **Enable** > Submit



Next, click on Event > Select Network Detection as Event Name > Edit Event.

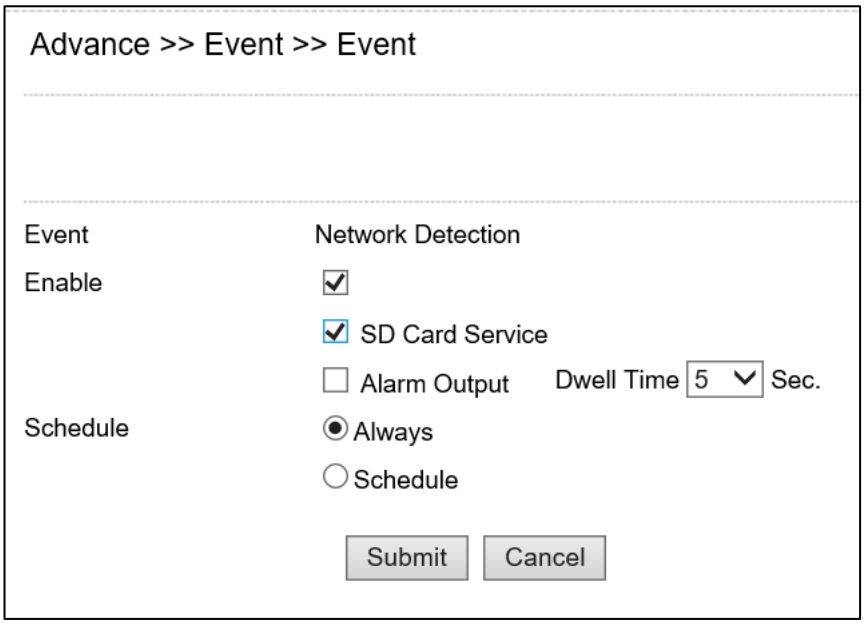


In this Card click on setting



section, tick SD Service, then Submit to apply

It should now look like this

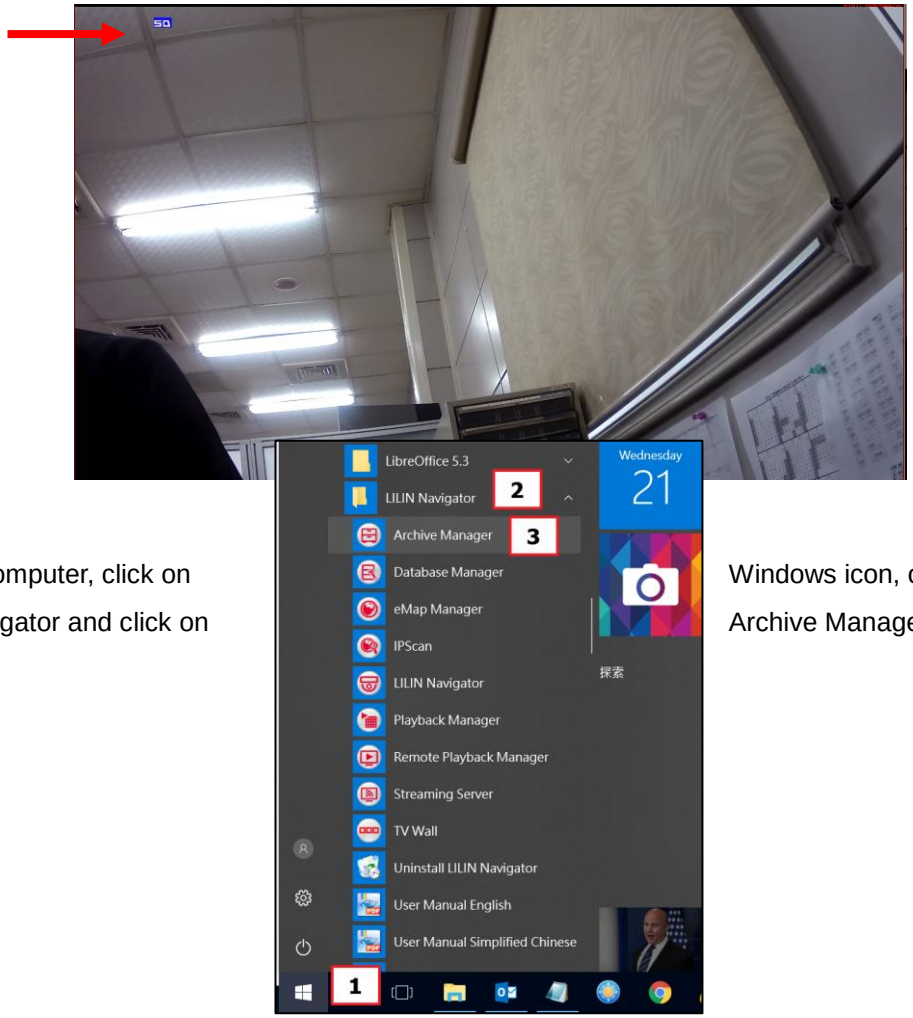


The camera will leave the setting and display the whole table, Network Detection Status cell should show Enable and SD card cell should have tick symbol like below picture

Event	Status	FTP	SMTP	SD Card	SAMBA	Alarm Output	HTTP POST	SNMP Trap	Push Service	Schedule
Motion Detection	Disable									Auto
Tamper Detection	Disable									Auto
Audio Detection	Disable									Auto
Alarm Detection	Disable									Auto
Network Detection	Enable	-	-	V	-		-	-	-	Auto

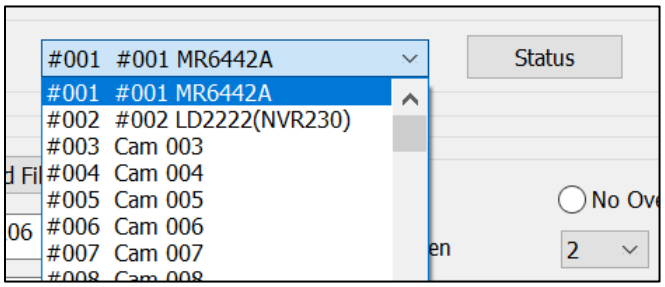
Once this function is enable, if the network cable on switch side is disconnected, the camera will start recording to the SD card automatically.

On the Navigator software, if you see on top left a blue SD card icon, it means that the SD card is detected but not set on continuous record.

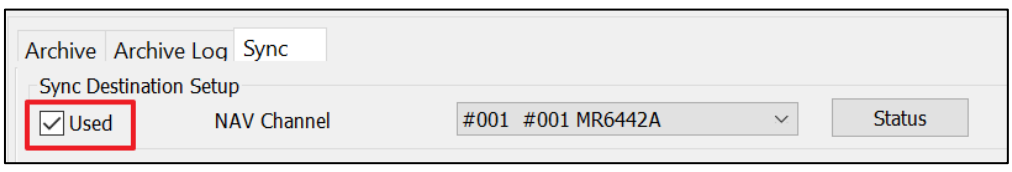


On your computer, click on Windows icon, open the folder LILIN Navigator and click on Archive Manager

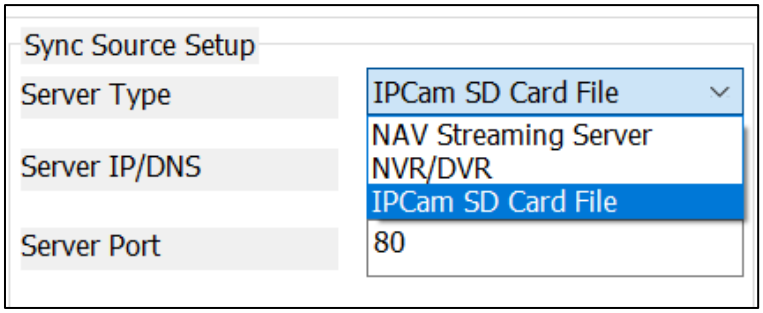
1. Choose the camera



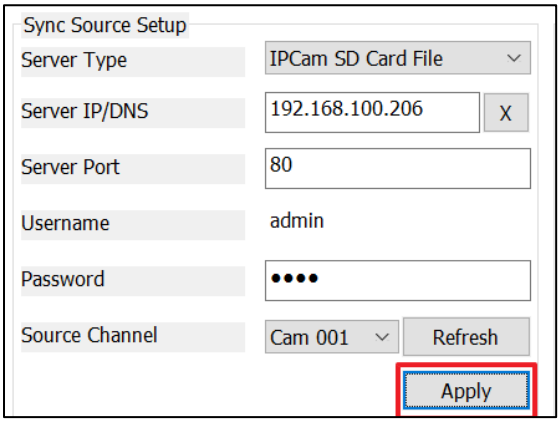
2. Click on Used to manual setup archive



3. Select the server type, you can choose between NAV Streaming Server, NVR/DVR or IP Camera SD Card File. For example, we choose IP Camera SD Card File

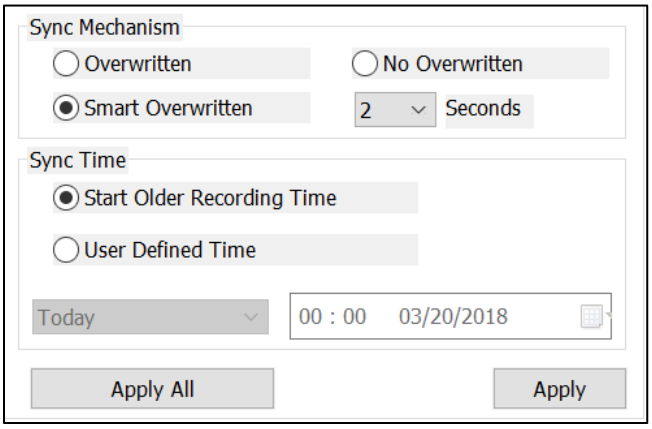


4. Key-in the information such as server IP, port, user name and password.
   Then click on Apply



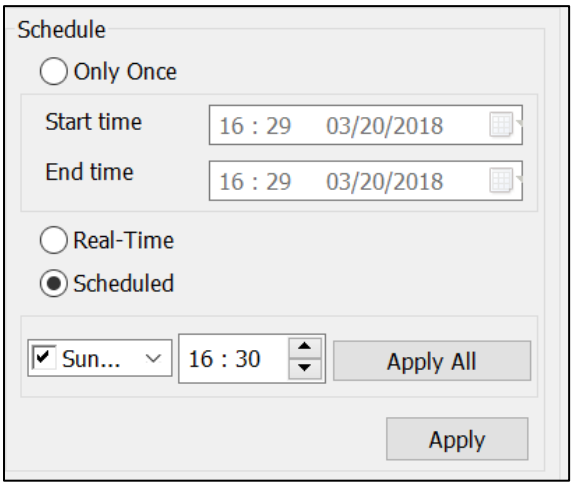
5. Sync mechanism, select **Smart Overwritten** and set 2 seconds, this mean if Navigator have data from 16:08:05 to 16:08:17, it will backup from 16:08:03 to 16:08:19,

6. Sync time, select **Start Older Recording Time**, if you want backup video recording of a specific period, click on **User Defined Time**

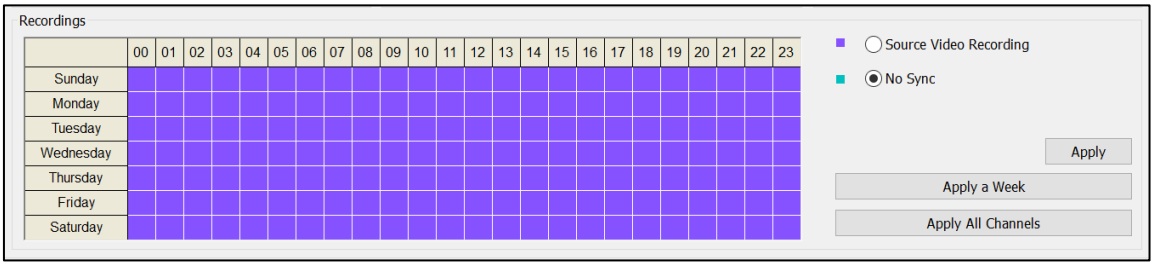


7. Schedule time
   a. If you choose Real-Time every hour, it will check the missing data and recover it to the Navigator hard disk so you can playback normally

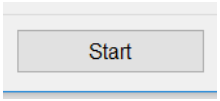
b. If you choose scheduled, it will sync one time a day at specified time by user



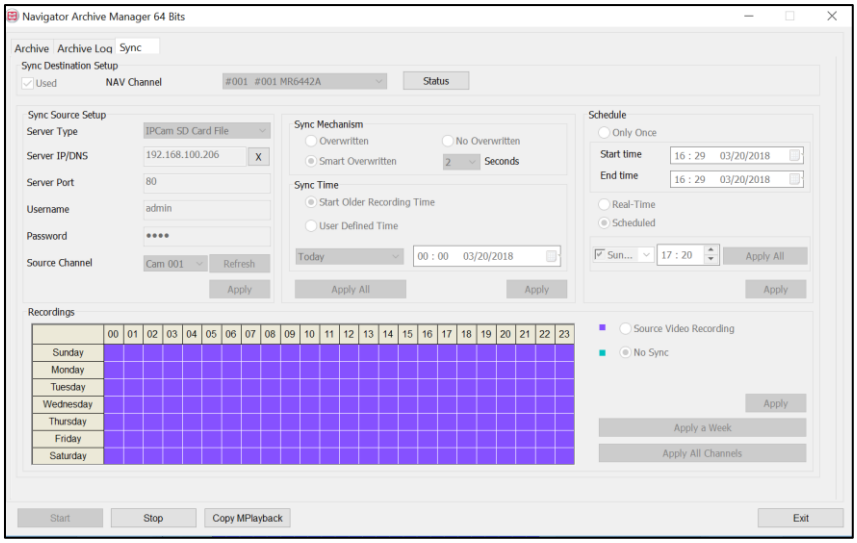
Set up the recording schedule for the whole week, if you want to sync the video at night when the office is closed, select the required period



Click on Start



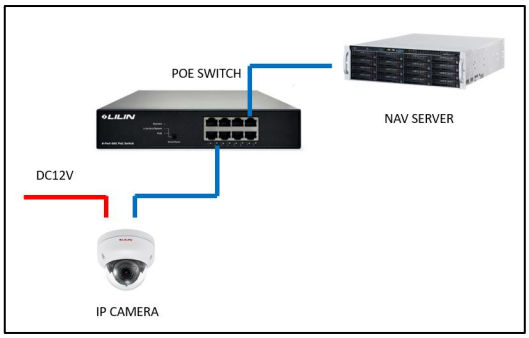
All the options will be in grey

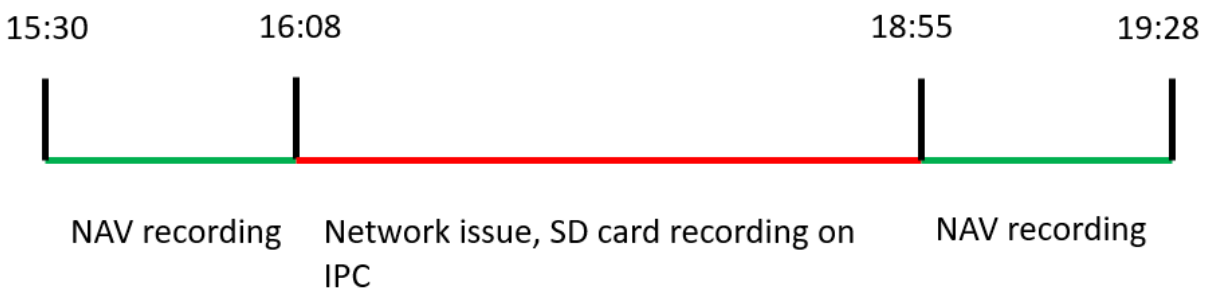


Then click on minimize icon

Scenario

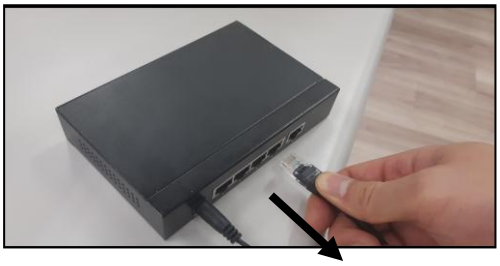
Navigator is connected to the camera recording normally from 15:30, then at 16:08, there's sudden connection issue between IP camera and Navigator, possibly caused due to a disconnection on the PoE switch or on an IP camera, the IP camera doesn't detect any stream request start, the SD card will start recording from 16:08 to 18:55, 18:55 is when the connection is recovered, and NAV resumes its recording of the camera.



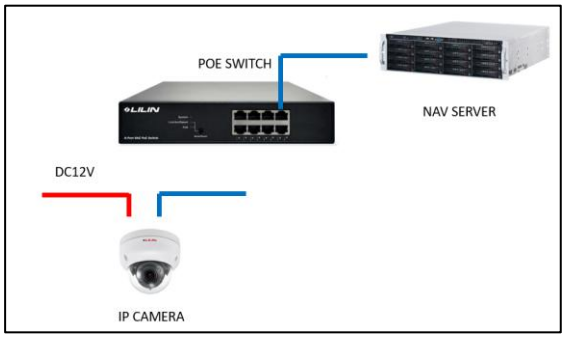


Now what we want is when there is an issue in the network, such as PoE switch outage, the camera will start record to its own SD card.

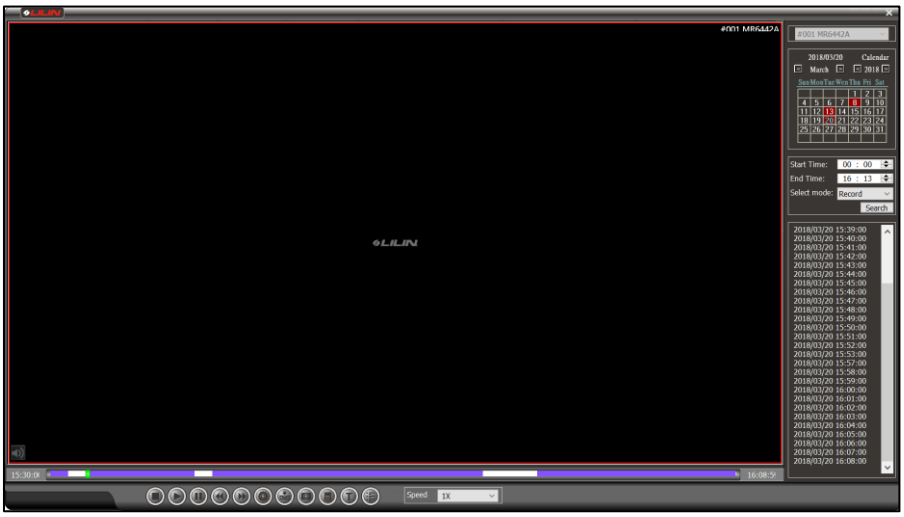
Ensure the camera is powered by a 12v DC power supply. Disconnect the camera RJ45 cable from the PoE switch.



The diagram should look like this now, DC12V adapter should still be connected to camera so it can record video on SD card.

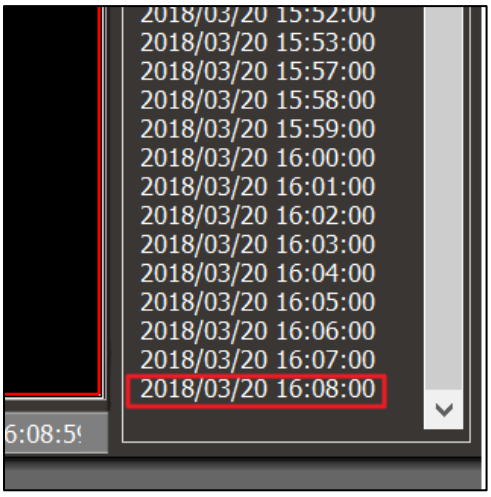


Proceed to playback in Navigator,

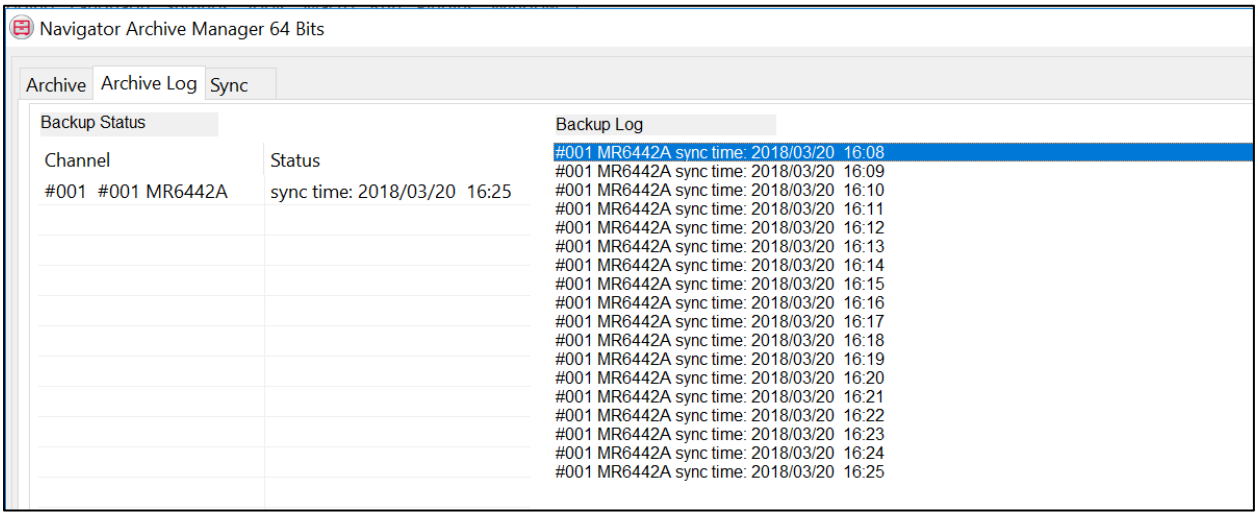


You will see that there are some data unavailable, last recording stopped at 16:08, which corresponds to

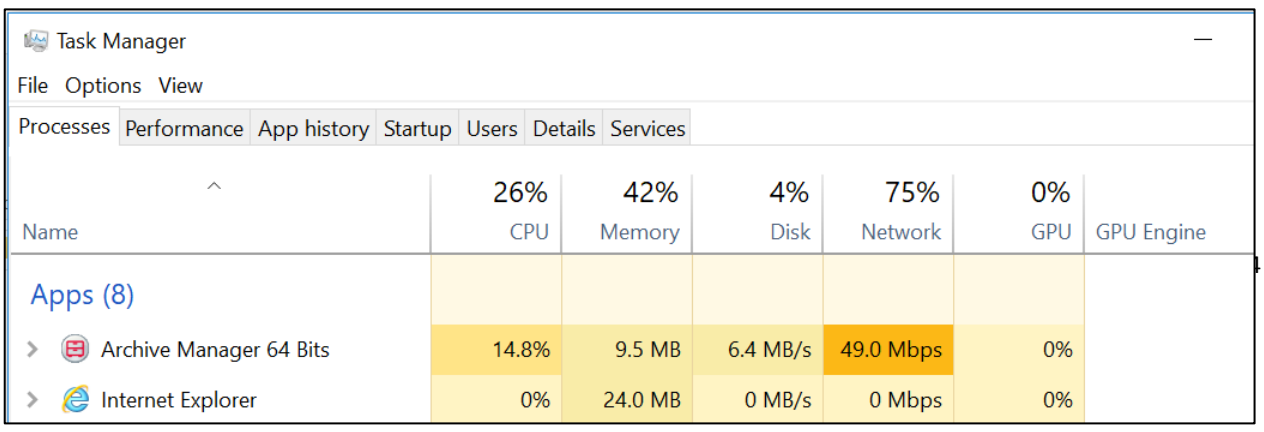
the time when there was a simulated problem with the network.



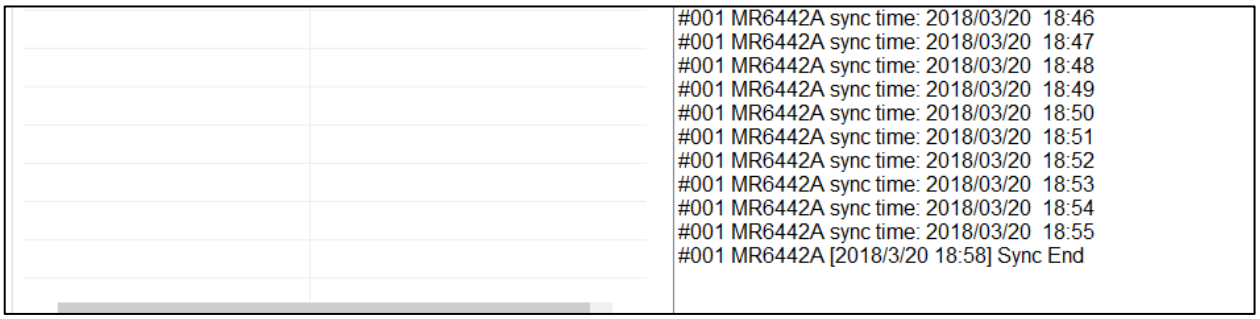
Reconnect the RJ45 cable to the PoE switch to simulate a network recovery. When you go to Archive Manager, click on Archive Log, sync data list should appear. In our example we disconnected the RJ45 cable at 16:08, so the first log is 16:08, and because our IP camera backup is one file = one minute, the list may be very long



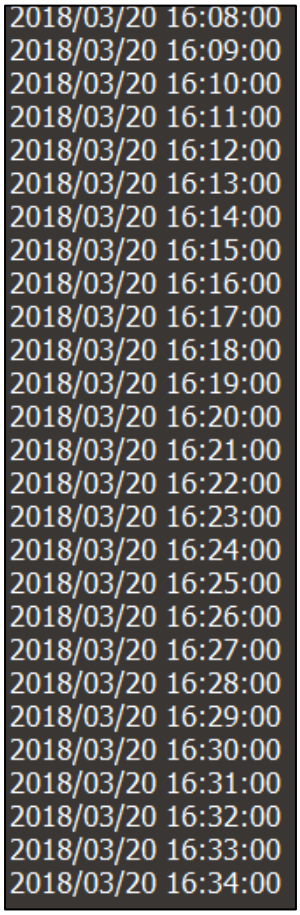
Please be careful during process, as this takes lot of CPU and bandwidth



The last backup data is 18:55



If you return to the Navigator playback, it will able to playback all data since 15:30 including the missing period from 16:08 to 18:55



Contact
Contact lilin.zendesk.com for technical support.