Time Lapse Application
for the
WiseNet III range of cameras

User Manual

Issue 1.1

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Time Lapse Application

Introduction

The Time Lapse application has been designed to be run on the Samsung WiseNet III range of cameras. The application records single images from the camera at a predefined period for either sending to a FTP location or storing on local SD card.

Supported cameras

At the present time, the supported camera platforms are: 6004 and 8080. This includes the following cameras:

SNO-6084R

SNO-6011R

SNV-8080

Installation

To install the application, browse to the camera that you want to install the application on. Go to the Setup page and expand the System menu on the left hand side. Click the Open SDK link at the bottom.

Then click the Browse button and select the **TimeLapse.cap** file and then click Install. The application prompts you to confirm that you want to install the application. Click OK to proceed. Once the application has been installed you will see it in the list.

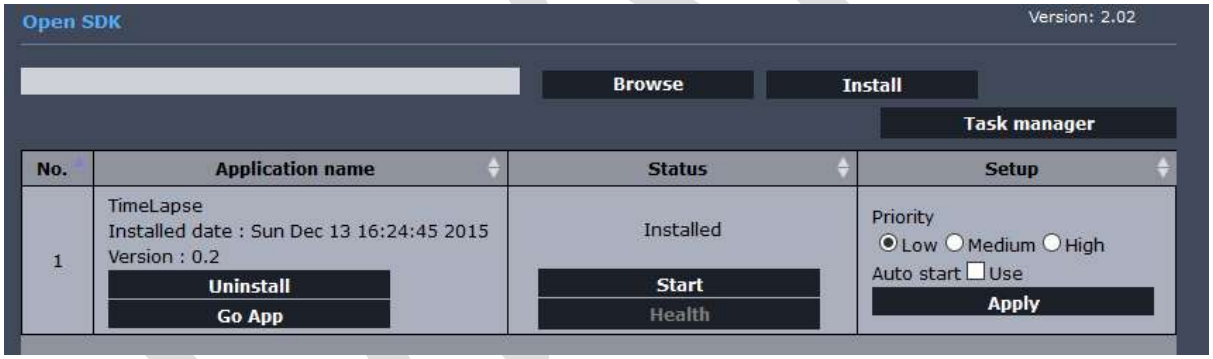

Figure 1 - Installed Application

Start/Stop Application

The application can be started (Stopped) from either the Open SDK page, by clicking the Start (Stop) button or from the application Settings page (see). You can also set the Priority and whether you want the application to auto start in the Setup column. Please refer to the camera user manual for more information.

Running the application

To launch the application, click the **Go App** button on the Open SDK page of the camera.

Licensing

The application requires a valid license before it can be used. When you launch the application it will prompt you to enter a license number if one hasn't been entered. If you have purchased an Out-of-box camera then this will already have been licensed.

To license the camera, enter a valid serial number in the box highlighted and click the Add License button.

Note: Licenses are linked to the camera serial number and cannot be used on other cameras other than that for which they were created.

Figure 2 - License Information

Prior to first use, the End User License Agreement must be accepted. To accept the agreement, read it and then click the check box next to the Accept button and then click the **Accept** button.

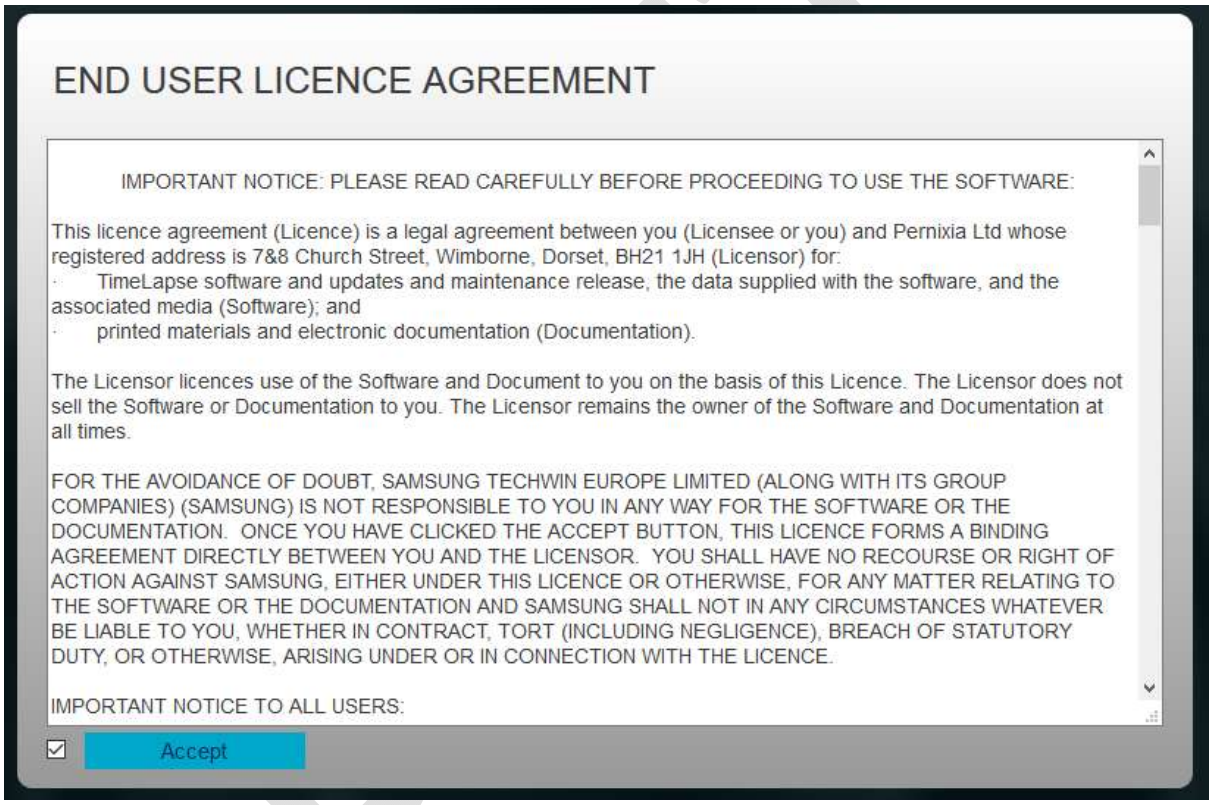

Figure 3 - End User License Agreement

Home Page

The home page consists of the main menu and a single button to start recording. Prior to starting any recording you should set the image duration and any scheduling up first. Please see .

Once you have configured the application, click the **Start Recording** button to start the application recording images in accordance with your settings. When recording, the button will change to **Stop Recording**. Clicking the button in this mode will stop the recording.

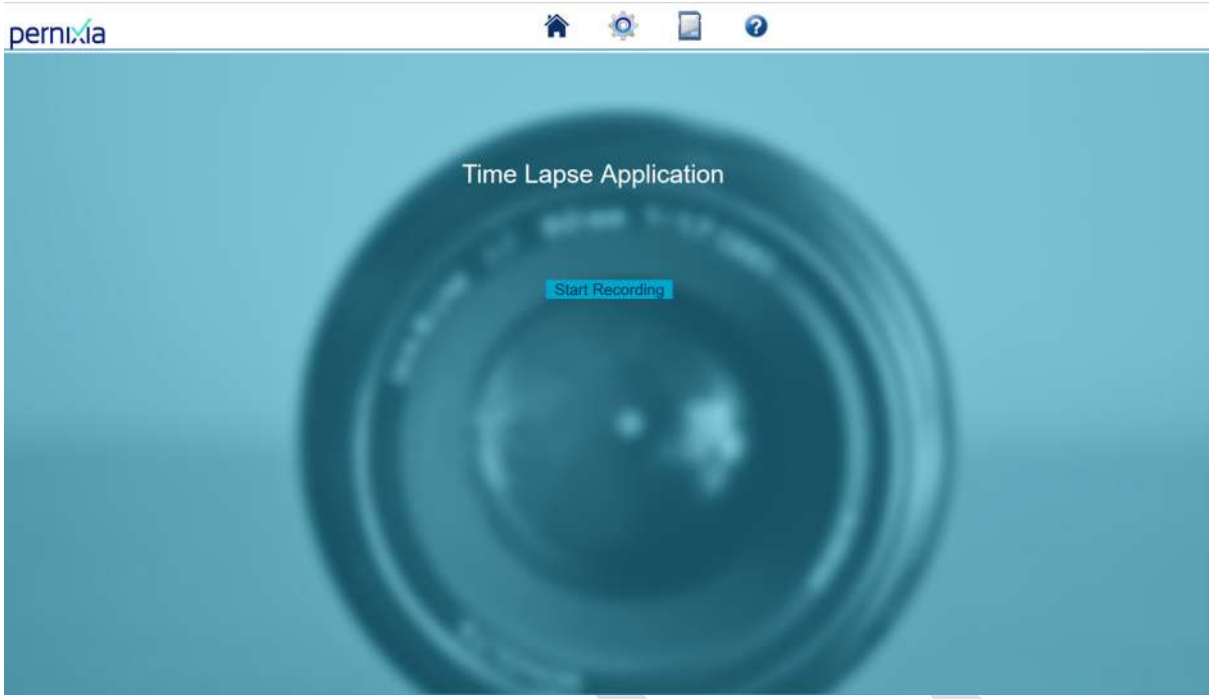

Figure 4 - Home Page

Settings

The settings page is where you configure the application to the type of time lapse that you wish to build. See the section on applications for more information.

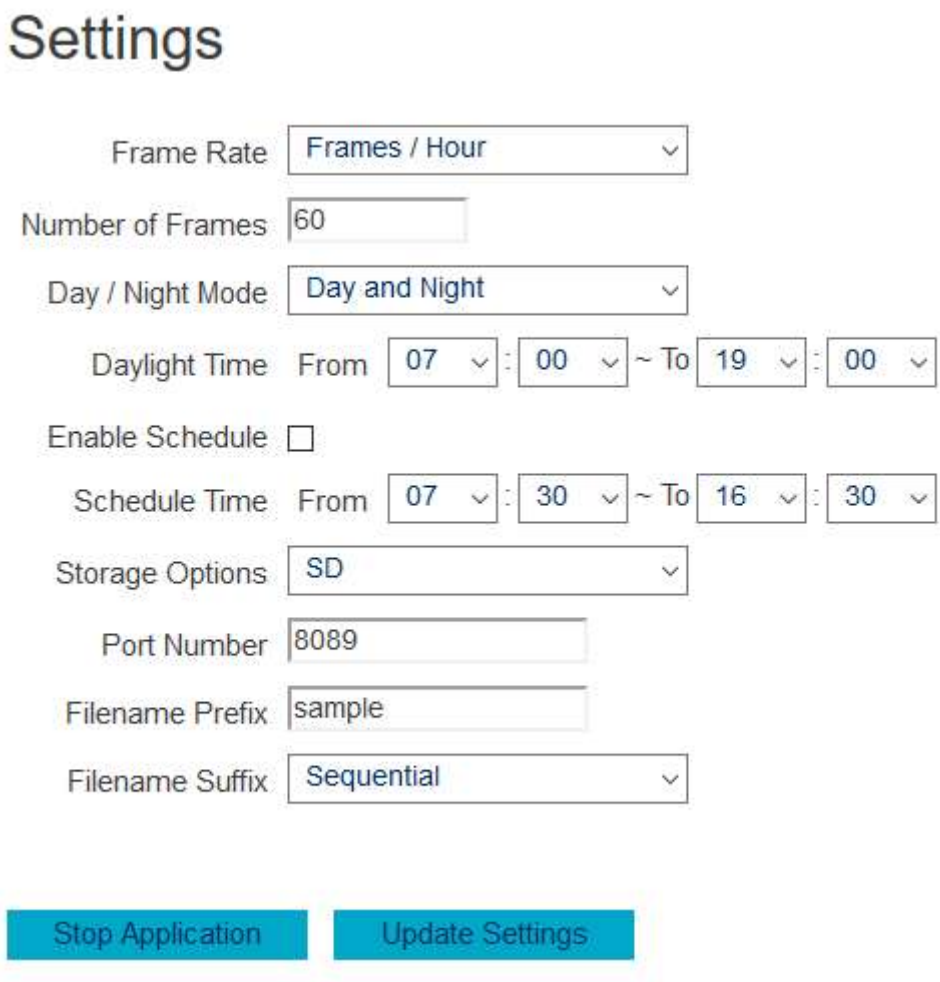

Figure 5 - Settings

Frame Rate

The frame rate is used to define how often you want the image to be recorded.

Frame Rate	This determines whether you want to define the recorded images on a frames / Hour or Frames / per day basis. Select from: Frames / Hour Frames / Day
Number of Frames	Enter the number of frames that you wish to be recorded in accordance with the Frame Rate selection. Example: 60 frames / hour = 1 minute interval 240 frames / hour = 15 second interval 96 frames / day = 15 minute interval

Schedule

The schedule options allow you to further restrict recording to save space. For example, if you are recording a building construction you might only want to record whilst the workmen are on site.

If you are recording the tides you might only want the recording to be during a specific time of day, in which case you can enable the schedule.

Day/Night Mode	This option allows you to select between day only, night only or day and night
Daylight time	You can define the hours of daylight in hours:minutes that you want to use for daylight mode. Set the time using the drop down selectors
Enable Schedule	This option allows you to further define a specific schedule time when images will be recorded.
Schedule Time	Enter the time for the schedule using the drop down selectors.

Storage Options

The application can record images to a FTP location, the local SD storage or both.

Storage Options	Select from: FTP – save images to FTP location SD – save images to local SD storage Both – save images to FTP and SD card

FTP Setup

To set up a FTP location you need to go to the camera Setup page. Under the Event link, select FTP / E-mail.

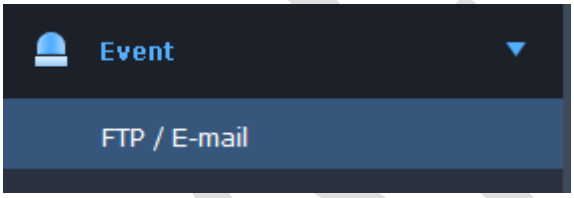

Figure 6 - FTP Menu

Enter your FTP details under [Event] - [FTP E-mail] and click the Apply button (see Figure 7). The camera will then attempt to connect to the FTP site and if successful, you will see Success at the top.

Figure 7 - FTP Setup

Then under [Basic] – [Event Setup] make sure that you tick Enable and FTP alongside the App event line (see Figure 8)

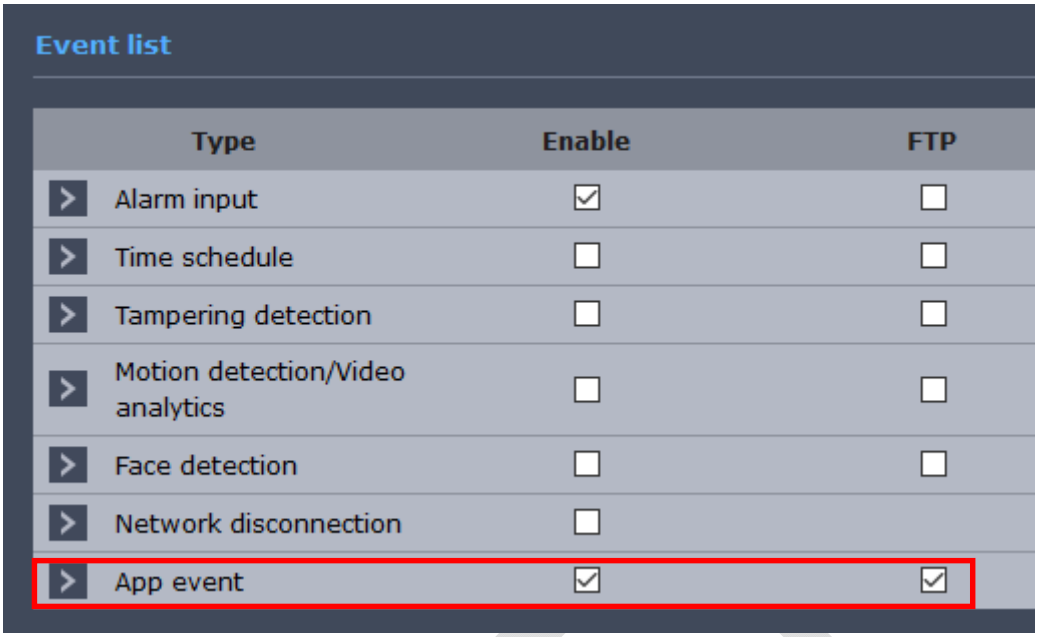

Figure 8 - Event Setup

SD Setup

To use SD storage you need to configure this on the Event->Storage page of the camera. Make sure that the SD device is enabled and the status says **recording**.

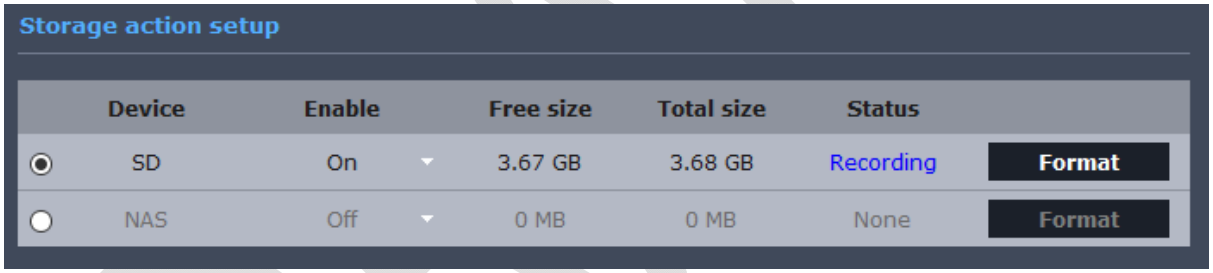

Figure 9 - SD Storage Setup

Note: When changing the storage mode you will need to stop and then re-start the application for the settings to take effect.

Port Number

The port number is used when viewing playback images or exporting the images. You should only need to change this value of the port is in use on the PC you are using to connect to the camera.

Filename

When the images are saved, there are two settings that are used, the Filename Prefix and Suffix. The Prefix is a user definable filename that will typically be set to match the application, for example New Building or Sunset.

The Suffix is appended to the filename and can either be a sequential number, incremented by one after every save or the date and time of the image.

Filename Prefix	Enter a suitable name for the jpeg files
Filename Suffix	Select from: Sequential – incremental number Date/Time – the date/time the image is saved

Start/Stop Application

The **Start (Stop)** button can be used to start or stop the application.

Update Settings

After making any changes click the **Update Settings** button to save the changes.

SD Storage

The Storage page is only used when you are saving images to the local SD card on the camera.

The page shows you how many files have been saved, the amount of memory used and the total amount of memory on the SD card.

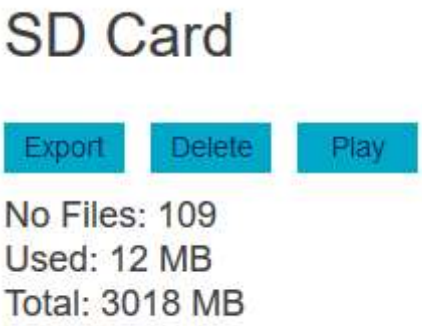

Figure 10 - SD Card Info

Export Files

The jpeg files can be exported for processing into a time lapse video. To export the files, click the **Export** button. You will then be prompted to save the file. The files are saved in a compressed tar file called images.tar. This can be opened in a package such as 7-Zip.

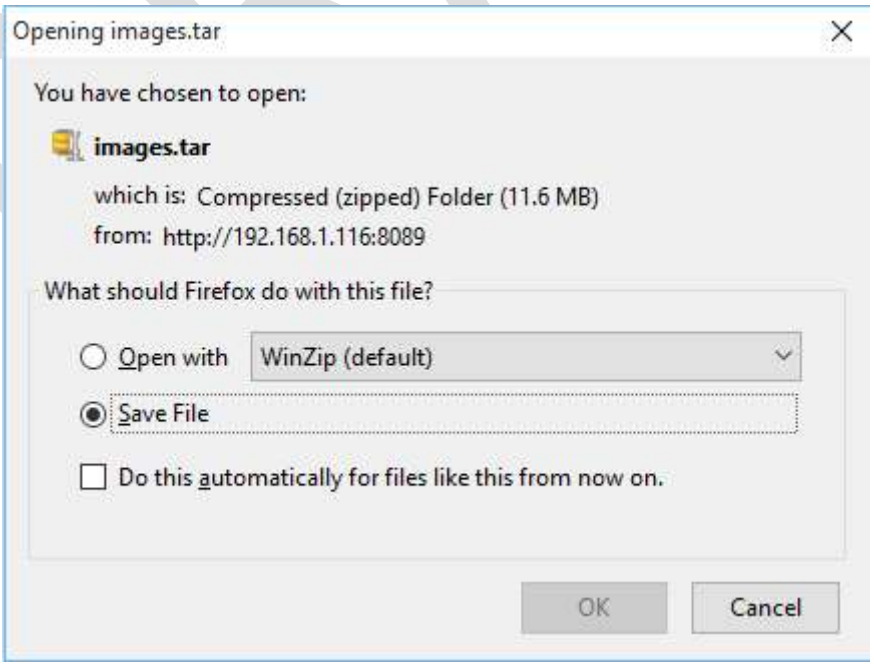

Figure 11 - Save tar file

Delete Files

To delete the files on the SD card, click the **Delete** button. Please ensure that you have exported any files that you wish to keep first.

Play Files

The files stored on the SD card can be played to give you a rough idea of the time lapse that can be produced. These are played at a fixed rate of 10 frames / second. To play the video, click the **Play** button.

Figure 12 - Playback images

Building a time lapse application

Building a time lapse application from the jpeg files can be as simple or as complex as you want to make it. There are a number of packages available and the two that I would recommend are:

Virtual Dub Mod – available from http://virtualdubmod.sourceforge.net/

This is freeware and a good starting point.

For a more professional tool I would use Adobe Photoshop Lightroom

Application examples

When configuring the application you need to understand how the picture will change over time in order to set your frame rate. For example, if you want to record a sunset then setting a rate of 1 frame every 30 min will not give you enough information.

Consequently, if you are recording a building construction then a rate of every minute is probably too much, in this case you would probably be able to use every 30-60 min depending upon the type and length of video.

On average, for a smooth video, you want around 20 images for every seconds worth of video. So a 10s video would require 200 images.

Therefore, if you take a sunset which typically occurs over a 90 min period during the autumn / winter then you would need an image every 30 secs which would give you 180 images.

Jpeg file sizes

The file sizes of the stored Jpeg files vary according to the resolution selected. The initial version of the application has a default resolution of 1024 x 768 which can't be changed.

Image Size	Storage
1024 x 768	