

# Sequencer with Live Stacking

SharpCap 4.0.7728, Win 10/64

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## The Problem

For example, to observe the famous Tabby's Star and other variable stars with my ZWO ASI174MM camera, I tried to live stack a couple of images and save the stacks as fits files say every minute.

## Liveaddition

This works with *Liveaddition* (Live Stack, Live Stacking). But each stack is saved in its own folder (with *Subfolder* On) – or all subsequent stacks are overwritten (*Subfolder* Off). Instead, the stacks should be saved in a single folder for further processing (with Tangra, for example).

## Sequencer

The sequencer does not help either, because after the first loop the reminder *Live Stacking Paused. Press the 'Resume' button to continue.* appears. But there is no such command in the *Sequencer*.

Thanks to a suggestion by Robin Glover, the problem can be fixed by a change in *Edit Filename Templates Manually!* – See <https://docs.sharpcap.co.uk/3.2/#Filename%20Templates>

Accordingly you have to move the {Time} tag from the folder name to the file name. And that actually works: **the stacks are now saved in a single folder** both with the *Sequencer* and with *Liveaddition* (tick *every n minutes*). I would never have found this solution myself.

## Change in Section Filenames

*File > SharpCap Settings > Filenames > set check mark at Create subfolder for each sequence > set check mark at Edit Filename Templates Manually > Live Stack:*

Original:	{Date:SZ}\{TargetName}\{Time:Z}\{AutoSave}\ Stack_{BitDepth}bits_{StackedFrames}frames_{TotalExposure}
Change to:	{Date:SZ}\{TargetName}\{AutoSave}\ Stack_{BitDepth}bits_{StackedFrames}frames_{TotalExposure}_{Time:Z}

Then press *OK*. This saves the new setting until the next *OK*.

Saving the new setting: mark the changed line > Ctrl C > ... > Ctrl V  
If necessary, play the line back later on and hit *OK*.

Restoring the original setting

As soon as the tick is removed from *Edit Filename Templates Manually*, the original setting is restored, but does not take effect until *OK* is pressed.

Live Stacking is slightly different between *Sequencer* and *Liveaddition*.

## Sequencer with Liveaddition

The commands used here

*Misc > Wait until <Delay > seconds*  
*Processing > Live Stacking > ...*

## Results

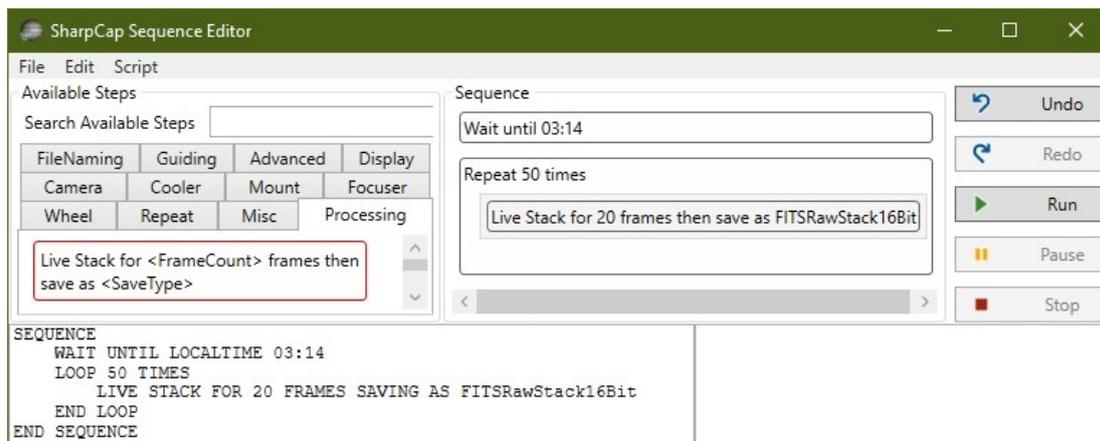
- \* All stacks are saved in a single folder. Nevertheless, *Liveaddition* immediately jumps to *Pause*, but without any effect. – Strange, but no problem.
- \* Times and time formats

# Time in filename:	Start time, example:	14_38_12Z
# Time in txt-file:	End time / saving time	T14:38:22.8236958Z
# Time in header:	Start time	T14:38:12.7842651,
# Effective expo time:	10 s	dt = 10.0394307 s
# The first frame was 0,64 s after	<WAIT UNTIL LOCALTIME>	
! The start time via	<WAIT UNTIL LOCALTIME> is UTC + 2 (in my case), the file times are in UTC.	
- \* When restarting, the new files are attached to the same folder!

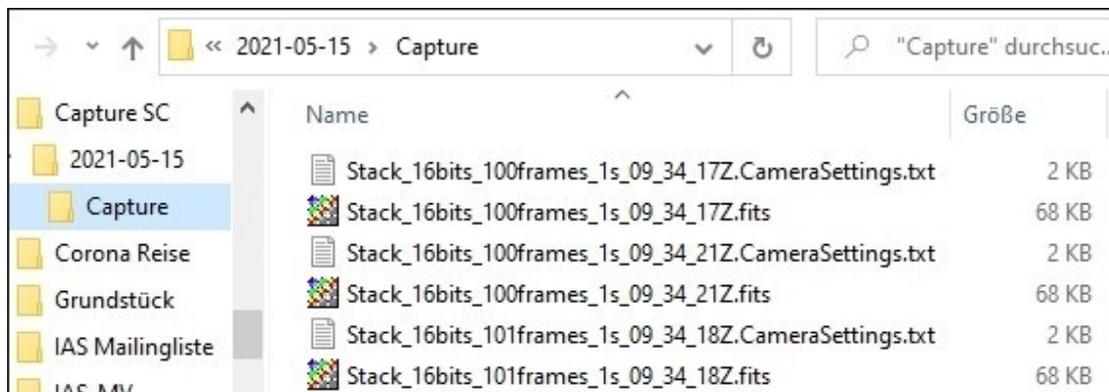
# Sequencer with Live Stacking – a Working Example

```
SEQUENCE
  WAIT UNTIL LOCALTIME 03:14
  LOOP 50 TIMES
    LIVE STACK FOR 20 FRAMES SAVING AS FITSRawStack16Bit
  END LOOP
END SEQUENCE
```

# Sequencer with Liveaddition



# Results



# Liveaddition / Live Stacking

- \* Also in *Liveaddition*, all stacks are now saved in a single folder.
- \* Each stack is saved as 16 bit and additionally as 32 bit version ( $2^{16}$  and  $2^{32}$  with double file size), regardless of the settings.
- \* With *<Save and Reset every n Minutes>* a new stack is started every n minutes.