

Video Script

SM4 Advanced Recording Schedules

Welcome to Wildlife Acoustics.

This video will take a close look at using Advanced Recording Schedules and the SM4.

To set the schedule mode of the SM4, go to the Settings menu and scroll down to Advanced. Under the Advanced menu scroll down to Schedule Mode and choose Advanced. Press the Enter button to save the setting. Press the left arrow button repeatedly to get back to the Main menu. Scroll to Schedule and press the right arrow button twice to enter the Edit Schedule page.

The display shows that the SM4 is in Advanced Schedule mode. The next line shows the first command line for the Advanced Schedule.

I'll press the right arrow button and the first schedule command will be entered. For complete details on each available command please refer to the SM4 user guide.

By default the first command that appears is AT DATE. This command tells the SM4 to start running its schedule on a specific date. That's what we want to do with this schedule, so I'll scroll over and pick a month and day where I want the schedule to commence. To save this command I'll press the right arrow button again and you see that causes the SM4 to create a second command line. As you are building the Advanced Schedule you can add, insert, or delete command lines at any time.

Once the SM4 wakes up on the specified date, I then want it to repeat a recording cycle indefinitely. To make this happen I'll add a Repeat command. Click on the right arrow button to highlight the command and scroll until the display shows Repeat. This command will be the beginning of a loop. There are some basic rules when building an Advanced Schedule and one rule is that a Repeat command must at some point be followed by a command that ends the loop. We'll get to that in a moment. Press the right arrow button again and the Repeat command is saved and a third command line is created.

Press the right arrow button to highlight the command and now scroll to the command AT SRIS, which stands for At Sunrise. This command tells the SM4 to do something in relation to sunrise. The sunrise time is based on the location and date information that is entered under the Settings menu or via the GPS Accessory. I'll scroll to the right and enter one hour. I'll scroll back to the Plus/Minus setting and enter Minus. I've now set this command to one hour before

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sunrise. I'll press the right arrow button to save this command and create the next command line.

For the next command I'll scroll to Record and set that to two hours. The SM4 is now programmed to wake up on a specific date and one hour before sunrise go into Record mode for two hours. The next command will be AT SSET, which stands for At Sunset. I'll modify that to one hour before sunset. I'll then follow that by another Record command for two hours. Now the SM4 will record for two hours centered around sunrise and two hours centered around sunset.

If all I wanted to do is run this record cycle every day I could have set the SM4 to Daily Schedule mode and used a Quick Start schedule. But for my advanced schedule I want the SM4 to run a record cycle and then wait two days before it runs that cycle again.

One of the available commands in Advanced Schedule mode is Pause. Pause can be set to up to a 24-hour period. To make the SM4 wait two days before it records again, I could enter two Pause commands in a row, both set to 24 hours. There's a more elegant solution for that function. I'm going to nest a command sub-loop into the main loop. I'll create a Repeat command, and then I'll follow that with a Pause command, set to 24-Hours. I'll then follow the pause command with an Until Count command. I'll set the duration of the count to 2. This will repeat the Pause command twice, and then go back to the first Repeat command to run the record cycle again. If I wanted to change how many days between record cycles, I could just enter a different until count number. For example if I set the count to 6, the SM4 will repeat the 24-hour pause command six times before going back to the record cycle. That would run the record cycle once a week.

I mentioned that this Pause loop is nested inside another loop. Remember we started the record cycle with a Repeat command? That first Repeat command must eventually have a command that tells the loop how to end. If I leave a loop open that will cause a problem. For example, if I try to exit the schedule now the SM4 displays a Schedule Error message. The command line where the error occurs is displayed, along with a description of what is causing the error. In this case the first Repeat Command does not have a matching End command.

I'll go back into the Schedule Editor and scroll down to the end of my programmed command lines. I'll add one last line and the command Until Count. I'll set this count to Infinity. Now the SM4 is properly programmed to wait until a specific date, run a record cycle that records twice in one day, and then wait two days before it repeats the record cycle. The overall cycle of recording and then waiting two days will be repeated until the battery dies or the SD memory cards run out of space.

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What we've just done is build an Advanced Recording Schedule from scratch, on the front panel of the SM4. If you're out in the field and don't have access to a computer it's good to know that you can do this. But there is an easier way to work, with not just Advanced Schedules, but any aspect of programming the SM4. The SM4 can be remotely programmed using the Configurator software. Since we've gone to the trouble of creating the advanced schedule from the front panel of our SM4, let's export that schedule to the Configurator software and take a look at it there.

Under the Schedule options, choose Export Schedule and Settings. Press Enter and the SM4 will store the current settings and schedule to its SD memory card. The SD card can now be used to transfer the schedule and settings to other SM4 recorders or to a computer to be opened by the Configurator software.

The next video in this series will examine the Configurator software and how to make sophisticated programming of one or more Song Meter SM4 recorders an easy task. Thank you for watching.