

SMART HOME HACKS™

Tips & Tools for Automating Your House



O'REILLY®

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HACK
#51

Simulate a Sunrise

Instead of getting jolted from sleep with a rude alarm, wake up gently by gradually increasing the brightness of your bedside lamp.

Some sleep research suggests that the best way to wake up in the morning is to do so slowly, with a light that gets progressively brighter, reaching full strength at the time when you want to arise. It's said that this can even eliminate the need for an alarm; you will just naturally wake up with the simulated sunrise. If this idea appeals to you, you can use your home automation system to try it out without having to buy a special alarm clock (http://www.dreamessentials.com/a_clocks_sunrise.aspx; \$110).

To set up a simulated sunrise, you use scheduled events that send gradually increasing Dim commands to your bedside lamp at regular intervals. Here's a script that accomplishes this using XTension [Hack #17]:

```
dim "Bedroom Lamp" to 10
dim "Bedroom Lamp" to 20 in 3 * minutes
dim "Bedroom Lamp" to 30 in 5 * minutes
dim "Bedroom Lamp" to 50 in 7 * minutes
dim "Bedroom Lamp" to 75 in 9 * minutes
dim "Bedroom Lamp" to 100 in 11 * minutes
```

Save this as a global script and schedule it to execute 11 minutes before the time you want to awake. When the script runs, it schedules all the events necessary to gradually adjust the light. Figure 4-2 shows the Scheduled Events window as it appears immediately after the script runs, with all the associated events waiting in the queue.



Figure 4-2. Scheduled events in XTension

Simulate a Sunrise

If you use [HomeSeer \[Hack #19\]](#), you set up a simulated sunrise by creating an event with multiple actions, each delayed by an appropriate amount of time, as shown in [Figure 4-3](#).

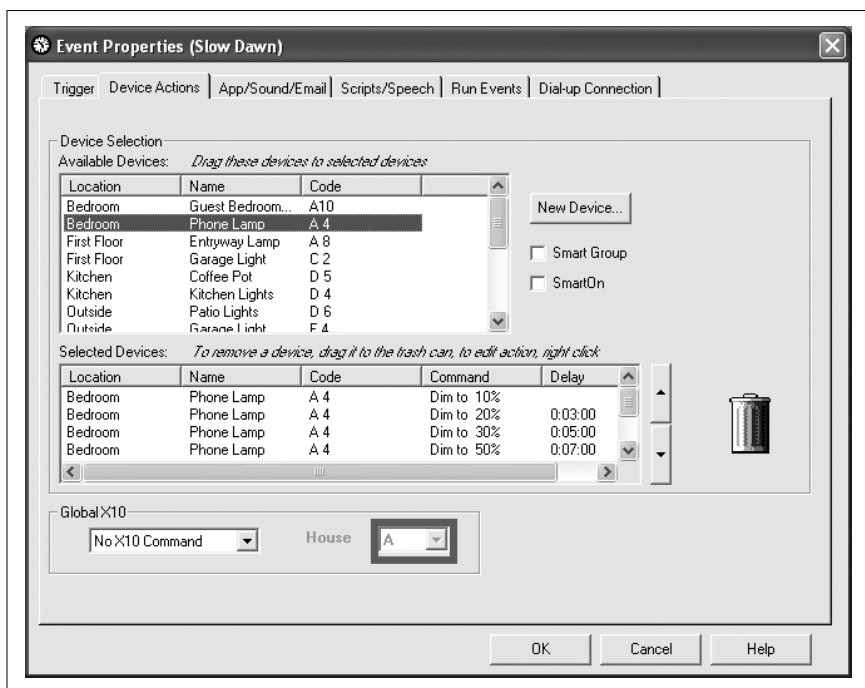


Figure 4-3. Delayed events in HomeSeer

Remember that when you define the event, you can select which days it is active, such as weekdays only (as shown in [Figure 4-4](#)), and that you'll want it to start prior to the time you want to awake. That is, if you have programmed the light to take 11 minutes to reach full brightness, start the event 11 minutes prior to your usual alarm time.

You will want to experiment with how early you begin the process of brightening the light, as well as how much it changes at each step. In addition to your own personal preferences, you'll need to take into account that some lamp modules might not visibly change brightness very much when told to increase by a small increment. That is, you might not be able to notice the difference when a lamp is set to 80% or 85% brightness.

Hacking the Hack

A light that slowly dims, instead of brightens, is a nice way to end the day, too. It can also be a nice signal for your child's room; her lights turn down as

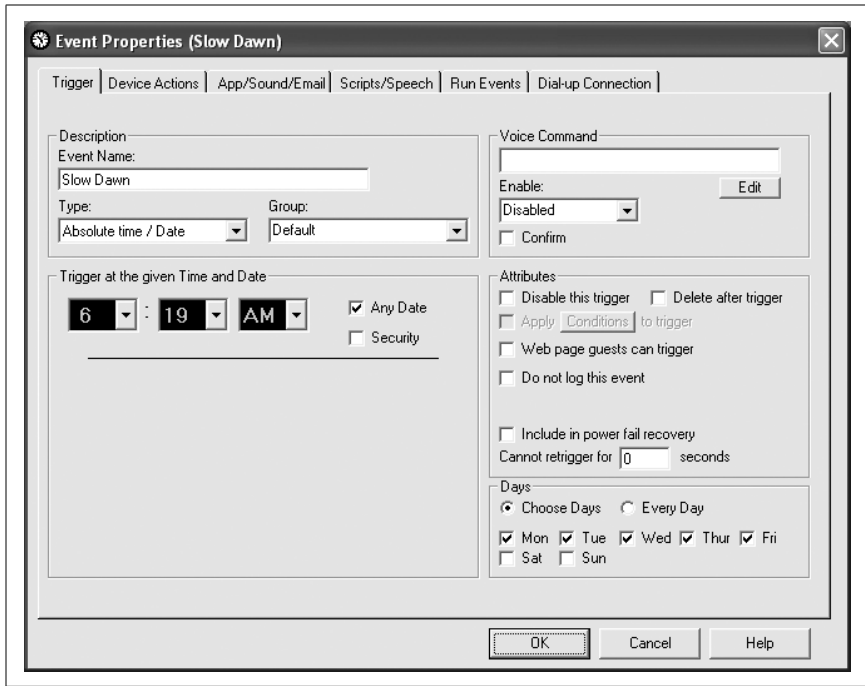


Figure 4-4. A weekday-only event

bedtime approaches. You implement a simulated sunset using the same technique as a sunrise, of course: just turn down the lights with every iteration.

Combine this technique with “Educate Your Alarm Clock” [Hack #47] to create an alarm that goes off only when you’re at home, along with other nice touches. If you keep a [Palm Pad](#) [Hack #5] near your bed, you even can add a snooze command that resets the brightening light. (See HomeSeer’s `hs.RemoveDelayedEvent` command for an easy way to remove events that have been scheduled already.)