

Chapter 5

Home Modes

Home Modes are a very simple yet powerful system to control devices in your home as your home goes through its day.

Let's assume a normal day to see what you do and how your home can respond.

| | |
|----------|-----------------|
| Midnight | Asleep |
| 6am | You wake up |
| 7:30 am | You leave home |
| 6:30 pm | You return home |
| 10:30 pm | You go to bed |

OK, so that's the schedule now let's see how your devices should respond.

TV

Most televisions these days are never really off. They are in a lower power mode when they appear off but still are using power. This makes it possible for remote controls to turn them on. When you are not at home or asleep the TV might as well be truly powered off. You can do this by plugging it into a controllable outlet.

Battery chargers

Anything with a "power brick" uses power even if nothing is attached to it. When you are not at home it should be off. When you are home – even when you are asleep – it should remain powered on so things can charge. Again, a controllable outlet can be used here.

Interior lighting

Interior lighting should be off when you are not at home and should go off when you leave or when you go to bed. While you are home, nothing should be automated.

Circulation Pump

There is no point in having hot water distributed through your home when you are away but should come on when you get up and when you return home.

These are just some of the devices in your home that can be controlled based upon what *Mode* your home is in. The intent here is to have off what should be off when it should be off. This results in energy savings and reduced electricity use.

Some very simple options in the properties for your devices can make all this happen.

HCA supports this up to four modes. Three of these are defined by default:

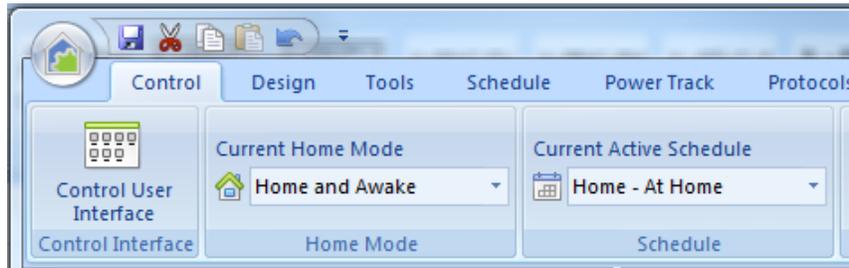
- Home & Awake
- Home & Asleep
- Away

You can change the names of the modes, remove the pre-defined ones or add a 4th.

The remainder of this chapter will show you how to set your home mode and how to manage devices based upon it.

Home Mode

HCA displays the current mode in the ribbon *Control* category.

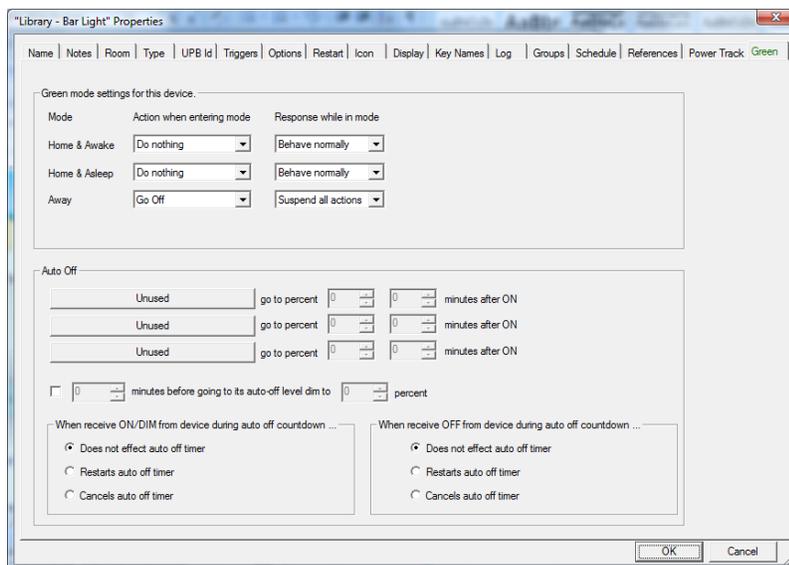


In this portion of a screen image, the current mode is Home & Awake.

To change the current mode, change the selection in the dropdown.

Configuring devices for modes

To configure devices for what actions are taken when the mode changes and how they respond while in the mode, open the device's properties and select the Green tab.



There are two settings for each mode: “Action when entering mode” and “Response while in mode”. It’s important to understand the distinction. The “Action when entering mode” only happens when HCA shifts from mode to mode. If the current mode is *Away* and is in that mode for days, nothing happens. But as soon as the house changes from *Away* to *Home & Awake*, then each device is examined to see what should happen when entering the *Home & Awake* mode.

The choices for what happens upon entering a mode are:

- Do Nothing
- Go Off
- Go On

Let's first examine the options for what happens when a mode is entered by looking at the examples given at the start of this chapter.

In this table each device shows what action should be taken when your home enters the mode.

| Device | Home & Awake | Away | Home & Asleep |
|----------|--------------|--------|---------------|
| TV | Go On | Go Off | Go Off |
| Charger | Go On | Go Off | Go On |
| Lighting | Do Nothing | Go Off | Do Nothing |
| Pump | Go On | Go Off | Go Off |

Focus first on the “Away” column. When you tell your home that you are leaving everything goes off. That's good as it saves a lot of energy.

When you return home, or when you wake up in the morning, your home goes into the Home & Awake mode. The TV is powered on so you can use your remote to actually turn it on – the picture doesn't appear because we are just powering on the outlet it is plugged in to. The circulation pump goes on to make sure hot water is distributed. Nothing is done with Interior lighting – you turn on what you want when you want it.

When you go to bed, energy is again saved by shutting lots of things off, except for the mobile and tablet chargers which stay powered on so they can charge at night.

This is quite a feature! With just a few checkboxes you can control every device in your home to respond to the most common actions of your day.

We will cover the second set of options – what happens to the device while in the mode - a bit later in this chapter.

Auto Off

Also on the Green Settings tab are some options to automatically turn a device off after HCA sees it on for a number of minutes. Additionally, you can also configure it to dim 'n' minutes before it goes off.

For this to work, HCA has to know the device is on. This could be because HCA itself turned it on or, more usually, the device transmitted when you manually controlled it – like tapping the paddle ON for a switch. UPB devices can be configured to report state upon local control. Insteon devices can be linked to HCA so when they are locally controlled a message is sent to HCA in the same way that you can link Insteon devices together.

For UPB Devices you must use the UPB configuration program to enable the state reporting option.

For Insteon you can use the Visual Scene Editor or the Link button on the linking tab to link the device to HCA so HCA knows when it is locally controlled.

Auto off is more fully covered in the chapter on *Rooms*.

Mode Change Triggers

While the actions upon entering each mode, as described above, are a powerful tool, how does HCA know when you come home, leave home, get up and go to bed?

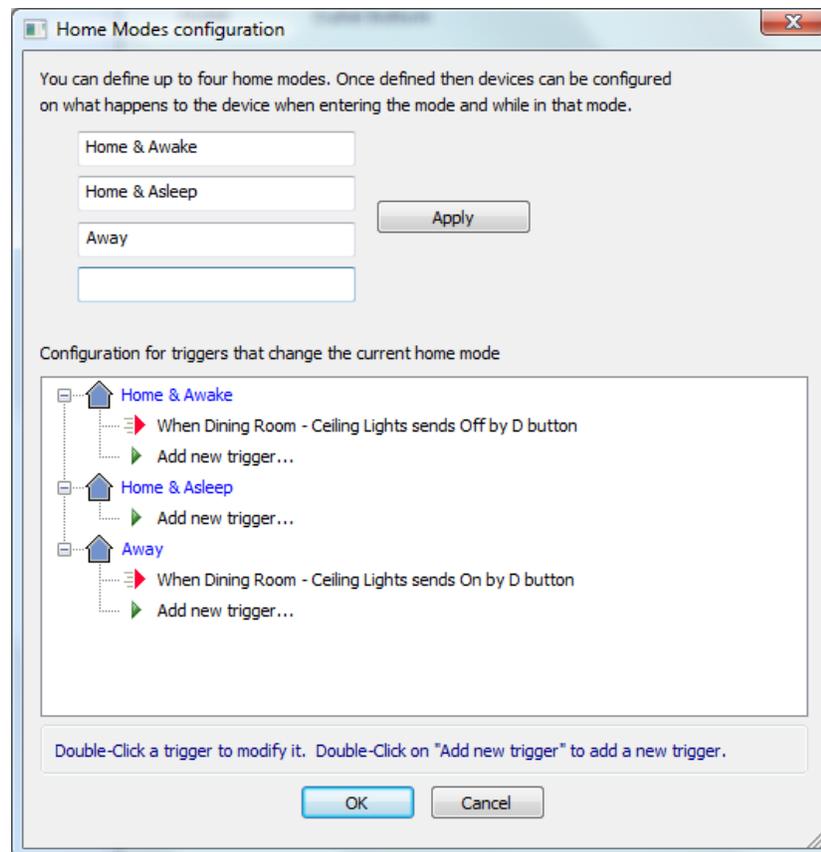
That’s up to you. A common method is to have a keypad that you designate for this. A keypad by the door where you press one button when you leave home and another when you come home. A keypad in the bedroom that you press a “Go to bed” button at night and an “I’m up” button when you get up.

But it doesn’t have to be that way. There are many different methods. You could use a motion sensor that when triggered switches the home into “Home & Awake” mode.

In fact, all the features of HCA triggers can be used for this. Triggers, more fully covered in the User Guide Chapter on Programs, is a method for you to describe the contents of a message reception from the powerline, wireless, IR, or other methods. Each time HCA receives a message it matches it up with all the triggers in the system and when it finds a match it responds. This could be to start a program, or to change home modes.

You may want to skip ahead a bit in the User Guide and review the Programs chapter for a lot of information on triggers then come back here.

Press the *Home Modes* button in the ribbon *Design* category.



This is also the place where you can define or change the home modes. Just edit the mode names and press the Apply button.

For each mode you can provide one or more triggers that tell HCA the home is now in that mode.

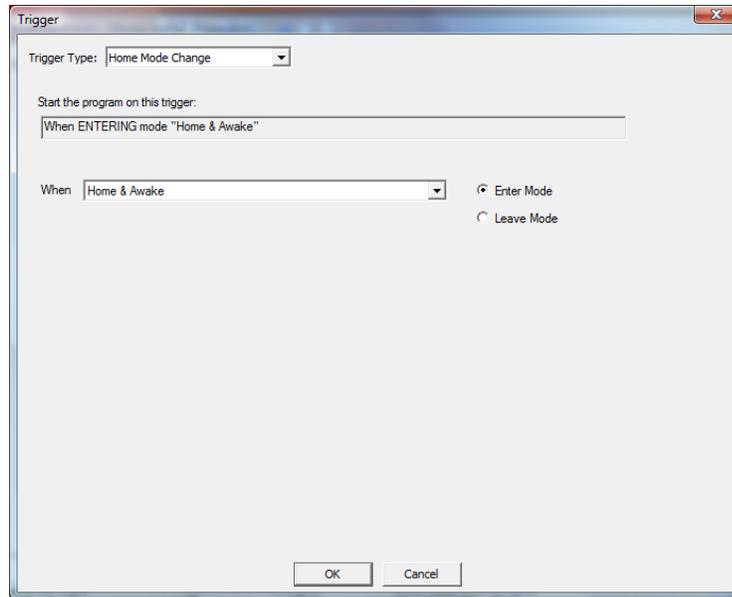
To create a new trigger, just double-click on the “Add new trigger”. In this example, a UPB keypad in the dining room has been used to switch from home mode to away mode.

Pressing the ‘D’ button when leaving has the button LED show yellow – meaning no one is home. When returning home press the button again and you are home.

A similar keypad could be used in the bedroom to have a button for go-to-bed and get-up.

What if you want to do something more complex? You can always create a program with whatever triggers you want and in that program perform any tests you want and use the *Set Home Mode* program element to change the mode.

For even more control there are program triggers that can be used to start a program when a specified mode is entered or left.



Actions while in a mode

In the device properties tab shown above, there was a second column of configuration parameters: Response while in mode.

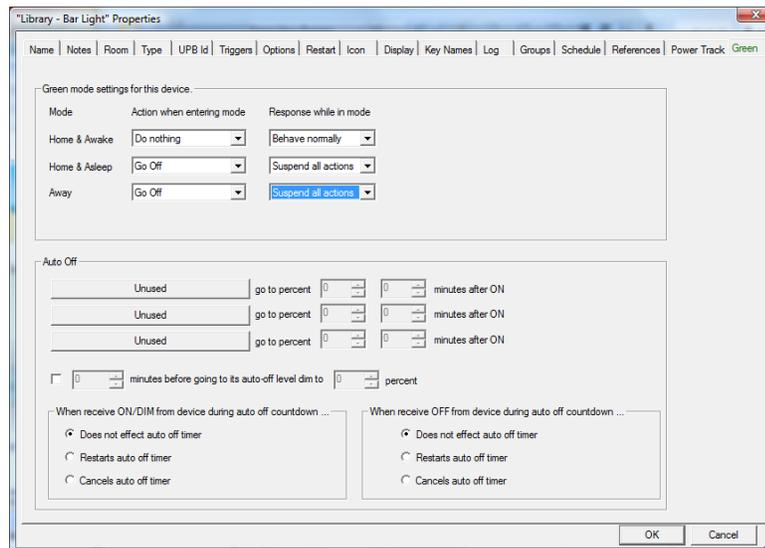
The purpose of this will become clearer when you review subsequent chapters of this User Guide - when you read the chapters on Schedules and Programs but we will press on.

To look into these settings, let's take another example. Suppose that every day you would like some lights to come on automatically at dusk. That's easy - you create a simple schedule that controls those lights at that time. The problem is you don't want it to happen when you are not home.

There are many ways to solve this problem. One method would be to have two different schedules – one for when you are home and one for when you are away. Another method would be to have a program control the lights and in that program make a test if you are home or not. Then schedule the program to run every day at dusk.

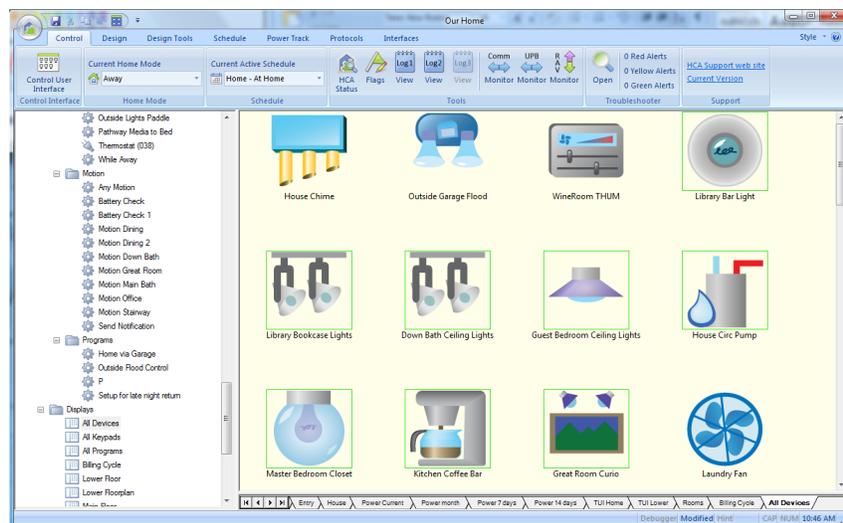
With the Home Mode concept it is much simpler. All you need to is to schedule the lights to come on everyday at dusk. That's all!

On the properties for those interior lights, mark them like this:



When a device is marked as “suspend all actions” for *response while in mode*, as long as your home is in that mode that device will not be controlled by a schedule or any programs regardless of what the schedule says or the programs does. This is why you can schedule the lights to come on every day. The home mode determines if the schedule entry has an effect or not.

When you home is in a mode and a device’s actions are suspended, in the design pane the device is marked with a slash though it, and in the display pane shown with a green box.



Putting it all together

Now that we have covered the pieces of Home Mode, you may want to consider all that you can do with just home modes. While the powerful tools of scheduling and programs to be covered in later chapters can do much with your home design, just using modes can affect many actions without them.

The four example devices – TV, Chargers, Interior Lights, and Circulation Pump, can be configured to act as you need just using home modes. Add a few simple schedules and you have a complex automation design,

