

Chapter 23

Control User Interface

The Control Interface – sometimes called the “Touch Screen Interface” even though it works well on non-touch screens - is an alternative user interface that can be used to control HCA. Instead of the standard HCA User Interface – sometimes called the Development User Interface - which looks like many other Windows programs with a ribbon at the top and status bar at the bottom, the Control User Interface looks completely different.

Aside from appearance, the major difference between the Control Interface and the Development Interface is that the Control Interface is only designed for viewing and controlling – but not modifying - devices in your home.

Using the Control Interface you can view your home, control devices, and start and stop programs. You can't add or delete devices, change schedules or programs, or modify any elements of your design.

If you don't have an actual Touch Screen you may be tempted to ignore this feature. Please don't! The Control Interface is a simple way for everyone in your home to work with HCA and not to “break” anything by inadvertently deleting devices or modifying schedules.

Also, using the Client-Server features of HCA, having a client configured to use the Control Interface is a very handy way to have a “public” machine in your home accessible to everyone.

What does the Control UI look like?

Before getting to far into discussion of the Control Interface features, let's first look at it to get a general idea of its concepts.



Yes, believe it or not, this is produced by the same HCA.exe as you already use. To engage the Control Interface, press the *Control Interface* button in the ribbon *Home* category.

The display first shown when starting the control interface is called the “*Home*” page.

A few things you probably already noticed. There is no menu bar at the top or status bar at the bottom of the window. The standard Windows features for minimize, maximize, and exit are all there on the left right, they are just very large and look a bit differently.

The top pane of the Window - called the “status bar” - shows, from left to right:

- The HCA icon showing the home mode. When the gear within icon is mostly yellow then the mode is “Home & Awake”. When it is mostly green then the mode is “Home & Asleep”, and when it is mostly gray then the mode is “Away”.

You can click on this icon to get a popup where you can shutdown HCA, return to the development interface and perform a few other actions. These are covered later.

- A Back arrow: Using this will bring you back to the home page from any room page. When the arrow is gray it is inactive.
- Up and Down arrows. Due to the difficulty of using scroll bars on touch screens, they are not used to move the display up or down. The up and down arrows lets you scroll up and down if there are more icons than can fit in the window. The arrows are gray when inactive.
- The text sections, the name and time in the above example, are configurable.
- A minimize button. This minimizes to the Windows task bar.
- A maximize button. This *really* maximizes the display to cover the entire surface of the monitor including the task bar.
- The background color of the status bar is the alert state of HCA – like the red, yellow, or green flag shown in the ribbon troubleshooter panel.

You can move the control interface window by a left-click drag action on the status bar background.

Configuring the Control Interface pages

The pages the Control Interface displays can be created in one of two ways:

- HCA creates a default page structure from the rooms in your design
- You can completely control the pages by creating displays and placing on those displays the icons for devices, programs, groups, and displays you want to appear.

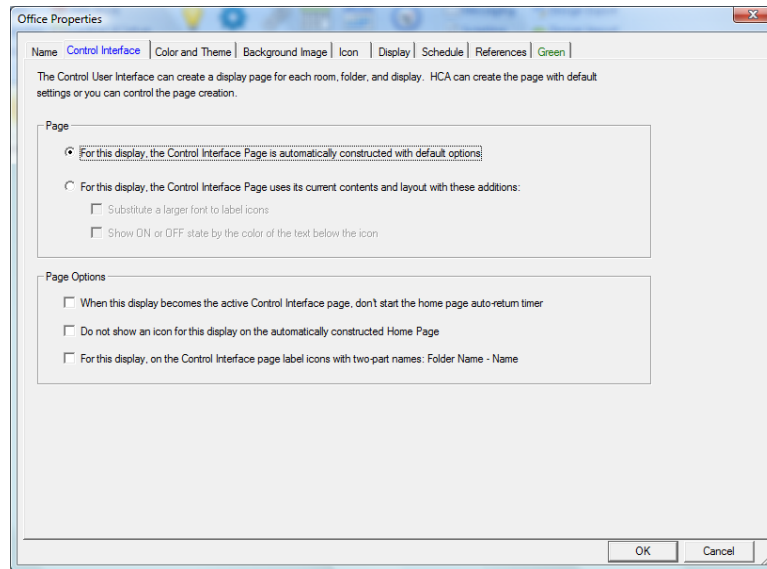
The section covers both approaches.

HCA created pages

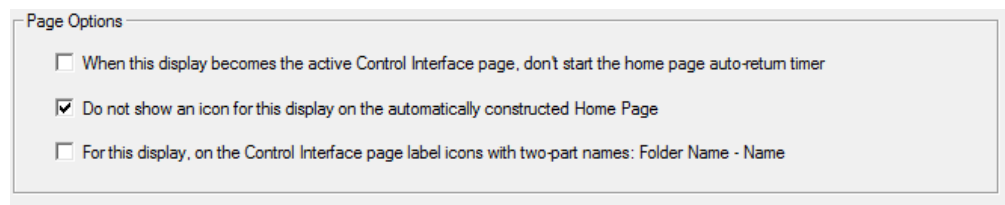
The Control Interface has the same concept of “rooms” and “folders” as used to organize your design. If HCA constructs the Control Interface home page, an icon is placed on the page for each room or folder in your design.

Also, you can create displays as described in the Displays chapter. These displays can also show as icons on the Control Interface Home page.

Rather than show icons for all rooms, folders, and displays, you can configure the Control Interface so that only selected rooms, folders, and display are shown as icons on the Home page. There are properties of each room and display that controls this.



This is the option that tells HCA if this folder/display automatically gets an icon on the home page when HCA builds the home page:



Other options selected in the *Page* section of this tab control the appearance of the page. There are two possibilities - if the constructed page should use all the default settings for colors and theme or not. If not, then you can select if the page uses a slightly larger font and also if it uses a different mechanism to show the state of devices.

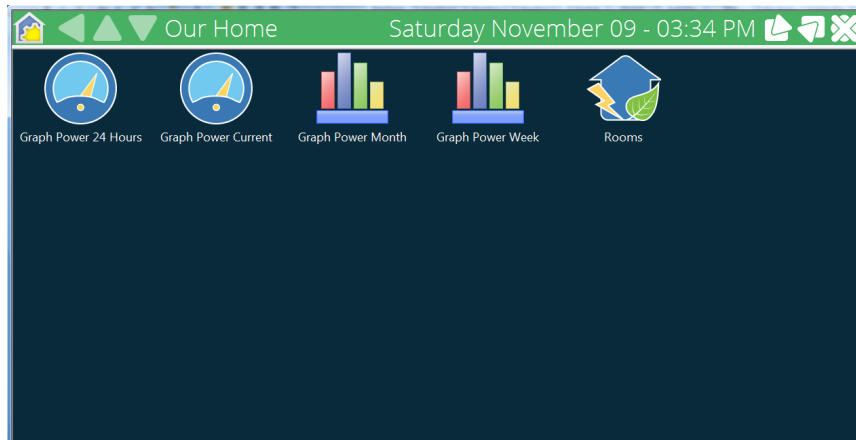
Custom pages

The other option is to create a display and designate that display as the Control Interface home page. On that page you can place icons for those devices, programs, groups, displays, and folders you want to see and in the order you want them to appear in.

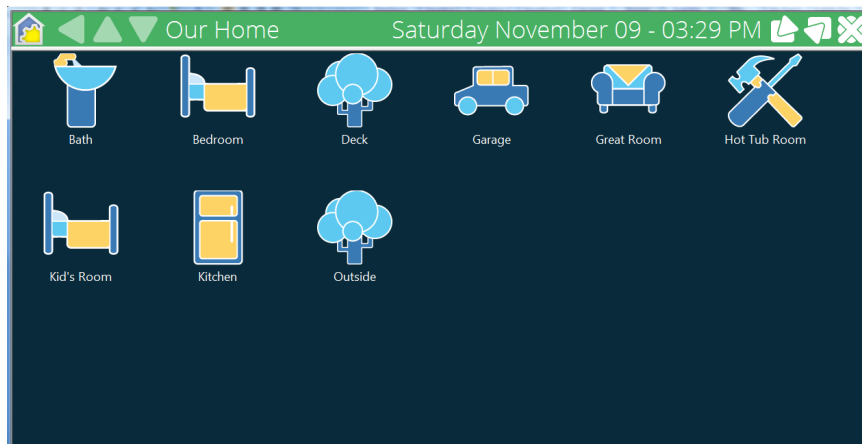
Using this option you can create pages for each level of the control interface structure you want.

The example used for the screen images in this chapter uses a custom constructed home page that contains icons for displays and for some frequently used devices. Some of those displays are to access Power Track graphs and other for HTML displays. One display – the icon labeled *Rooms* – opens to another page that contains an icon for each room in the home.

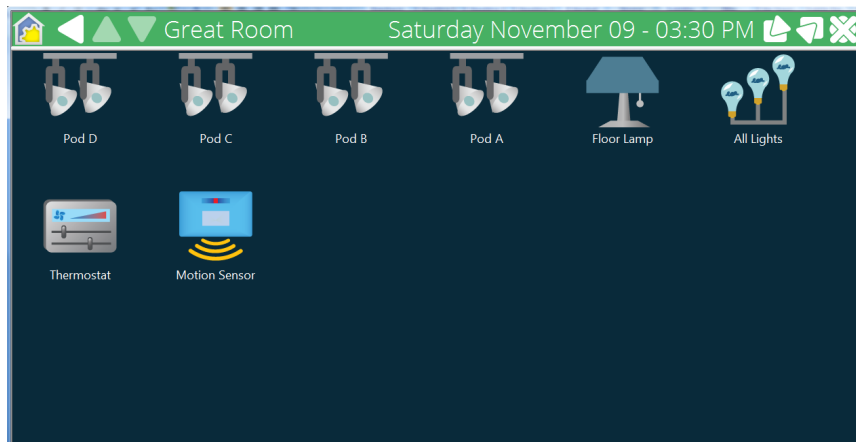
For example, this is the home page:



A short tap on the *Rooms* icon goes to this page:

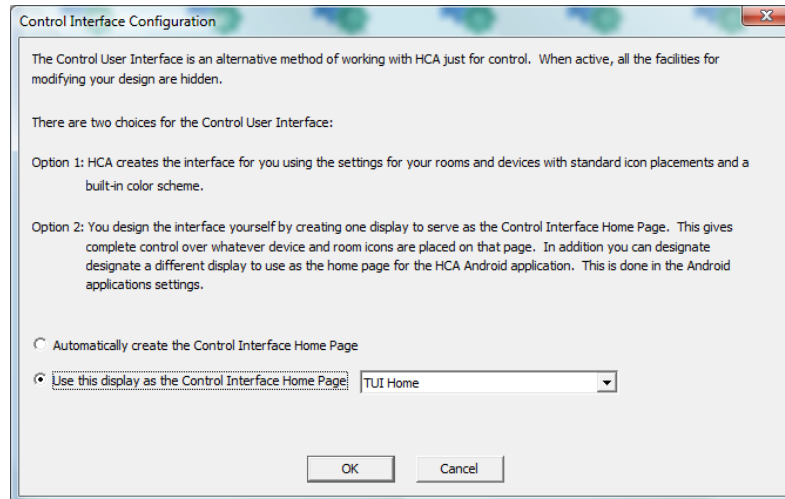


A short tap on the *Great Room* icon goes to this page:



The back button from this page goes back to the *Rooms* page and back from there to the Home page.

The last piece of this puzzle is how to designate what display to use as the Control Interface home page. Press the *Select Home Page* button in the ribbon *Design Tools* category.



Think of the Control Interface as a programmable user interface. It is worth spending some time to select which of your folders and displays become pages in the Control Interface, which devices, programs, and groups are shown on the pages, and what the popup control panel shows for each device. Like designing your automation solution, it makes sense to spend time crafting the user interface to work with it.

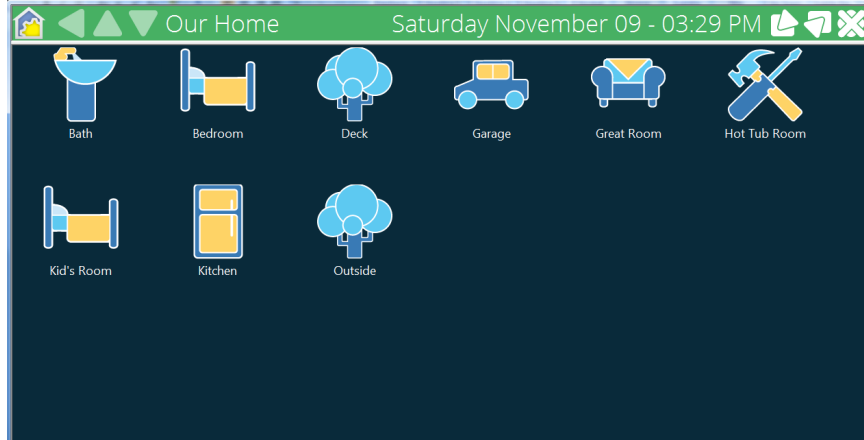
Controlling devices

Unlike the Development UI, where you single-click a device to select it, double-click to act upon it, and right-click to open a context menu, the Control Interface is all single click – or “tap” in touch screen terminology. This “tap” is further divided into short taps and long taps.

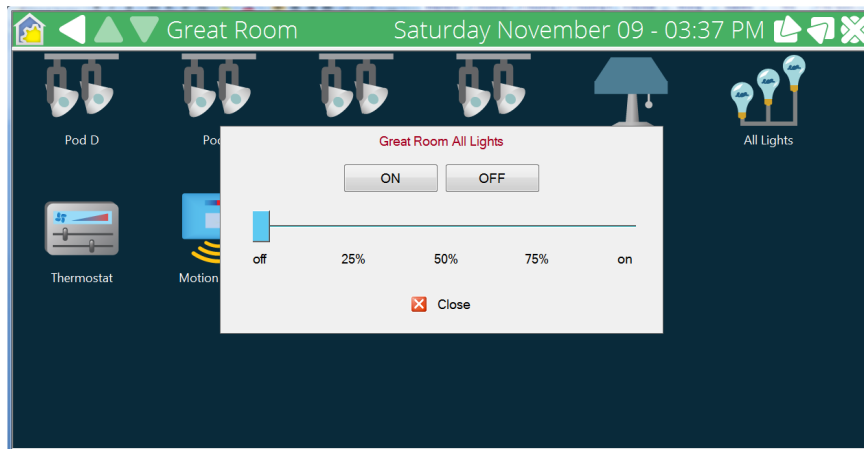
A **short tap** – like a mouse click – acts upon what you tapped on. If it is a room icon then the room is opened. The default action is that when you tap on a device it is turned on if it is off, and off if it is on – it toggles the state. The default action for a **long tap** opens up a control panel for the device.

A Short tap is a quick touch then release. A Long Tap is a press-down and hold until the popup appears then release. You can do these taps with a mouse. A short tap is just a left mouse click. A long tap is made by depressing the left mouse button and holding it until the popup appears then releasing. A long tap can also be made by double-clicking on an icon with a mouse.

For example, short tap on the Garage icon from the home page and a new page appears



If you long tap on the Library Bar Light icon then the control panel for this light appears:



From this control panel popup you can turn the device on, off, or change its dim level.

Long tap on a keypad icon and this popup appears:



This shows one of the next concepts in the Control Interface to explore. These types of popups are called “glass keypads” and are described in the next section.

Glass Keypads

Glass keypads are a concept in the Control Interface that makes it possible to “push” a button on a keypad or “tap” the paddle of a switch. What this all means is best described by an example.

You probably have a number of keypads in your home that do various things. In this example a keypad in the bedroom has multiple functions. When you are actually in the bedroom you can walk up and poke one of the buttons. What that button does is really up to your design. It could control one or more devices directly using Insteon scenes or UPB links. Or it could trigger an HCA program.

Using the Control Interface you can *cause whatever that keypad does when you poke the button on the real keypad to happen by pushing the button on the glass keypad*. In this example, the *Go To Bed* button controls many devices in the home by a scene. When you tap on the *Go to bed* button in the glass keypad it will have the same effects as if you walked up to the actual keypad and poked the *Go To Bed* button.

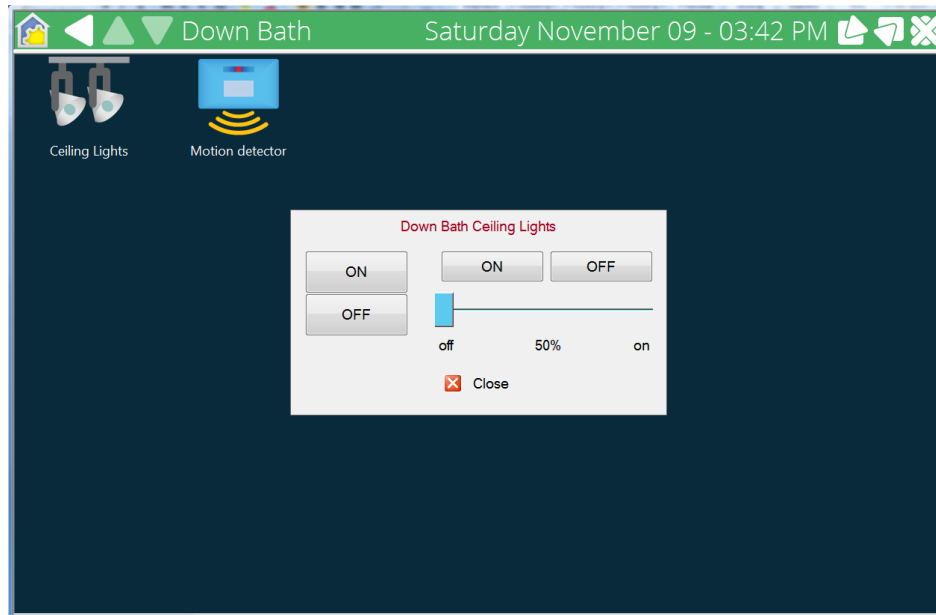
Hint: Where did the text on the buttons come from? In the device properties dialog for the keypad is a tab where you can enter names for the transmit components. That text is used in the Control Interface glass keypads.

But “glass keypads” aren’t just for keypads! Anything that has a transmit function that can be invoked from a physical tap on it can have a glass keypad.

For example, switches have a single rocker but you may also want the Control Interface to show a glass keypad for it. The idea is that with UPB and Insteon it is not uncommon to have scenes programmed into a switch so that when you tap the paddle it not only controls the load but also controls other linked devices.

But what if you want to just control the load attached to the switch? What if the switch paddle sends a UPB or Insteon scene that controls other devices but all you want is to control just the load connected to the switch? From the Control Interface you can do that as well.

Take a look at this example:

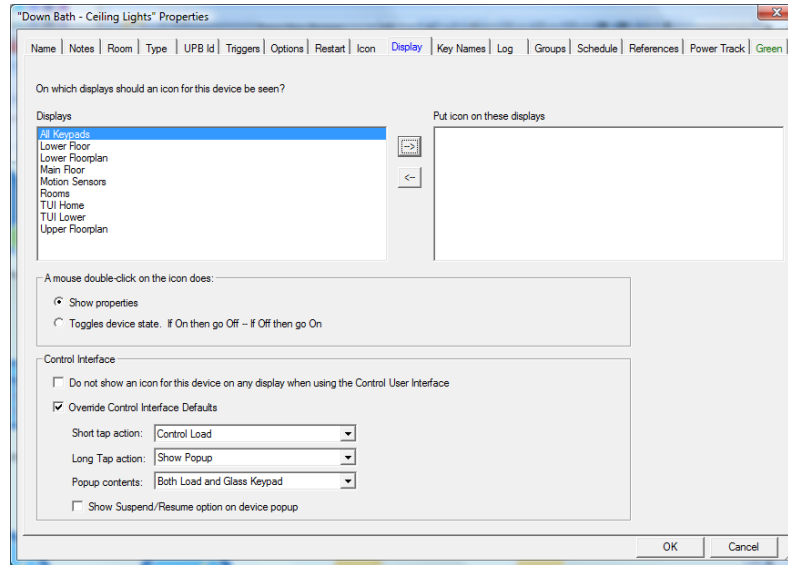


This example is from a long tap on the Down Bath Ceiling Light icon. The popup control panel has both the glass keypad – the bigger on/off buttons at the left - and also the on/off/dim controls for the load at the right. You can control just the load by using the controls on the right or you can “tap” the switch paddle using the controls on the left.

Hint: If the switch doesn’t transmit anything when you use the switch paddle – that is you don’t have a UPB or Insteon scene programmed into the switch – then using the left or right controls have the same effect.

But for some devices you may not want a glass keypad but only the load controls. Or sometimes you want to see only the glass keypad and no load controls. And finally, sometimes you want both the load controls and they glass keypad. The Control Interface is configurable for this in this manner.

Here are the properties of the Down Bath - Ceiling Lights device used in this example.

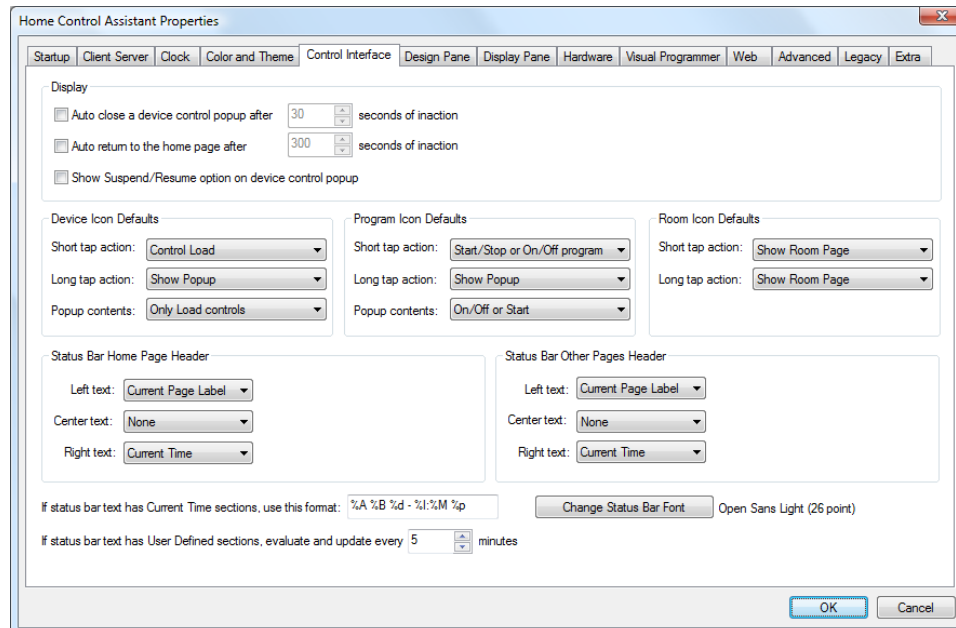


As you can see in this dialog you can configure all aspects of the Control Interface for this device – what happens on a short and long tap and what appears in the popup for the device.

Since configuring all your devices would be time consuming – even with multi-select edit – HCA has defaults you can set and then for those devices that you choose to not follow the defaults you can individually configure. These defaults are set in the HCA Options dialog on the Control Interface tab.

HCA Options Control Interface Tab

When the *HCA Options* dialog is opened, choose the Control Interface tab.



As you can see from the above picture, this is where you select the default actions for short and long taps as well as the control panel popup contents. The settings can be different for devices and programs.

Hint: You can open this tab of HCA Options by pressing the *UI Options* button on the *Design Tools* category

Also on this page are additional configuration options. The Control Interface can automatically close an open popup after some set inactivity time as well as return to the home page from a room display after some period of inactivity.

The status bar at the top of the Control Interface by default shows the design name or room label at the left and the time at the right. Using the options in this tab you can change these defaults. You can also use custom text that is the result of evaluating HCA expressions. Finally, you can also control the time/date format and the status bar font used.


Another of the options is to show or not show a Suspend button on popups. The Suspend / Resume operation is very useful but can be confusing to those not well versed in HCA. Also you may want to prohibit users for overriding the schedule for a device by using Suspend. You can set the default for this option on the HCA – Properties tab but also control it individually for each device and program from the device properties dialog.

When available, the Suspend button shows this popup optimized for each use on a touch screen

Suspend for this time period

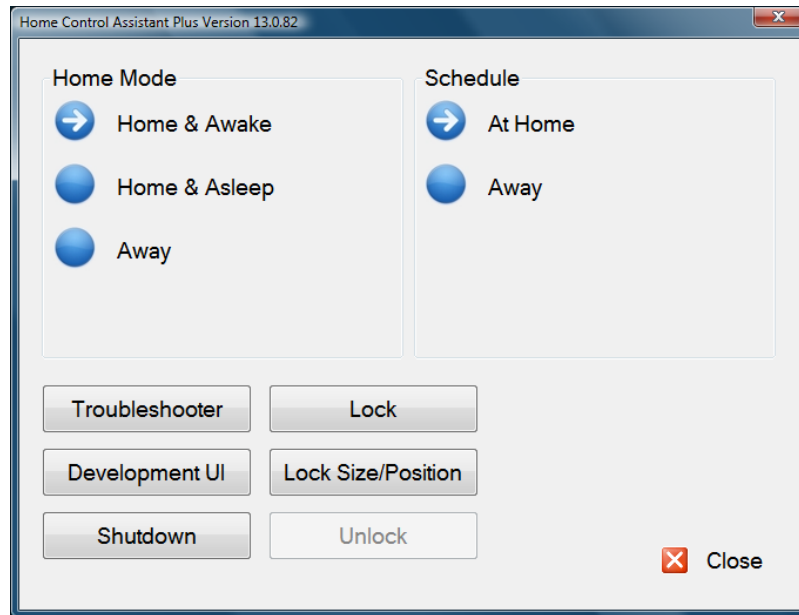
1 days + - 0 hours + - 0 minutes + -

Or check here to suspend until manually cleared

 Close

Control Panel

As described above, you can tap on the HCA Icon at the left end of the Control Interface status bar. This popup appears:



The first two sections on this popup are for changing the schedule and home mode. The current schedule and mode are shown by the arrow inside the button.

The *Development UI* button returns to the Development User Interface.

The *Lock* button prevents the HCA Application Window from being moved or resized. Use the *Unlock* button to restore the window to movable and resizable.

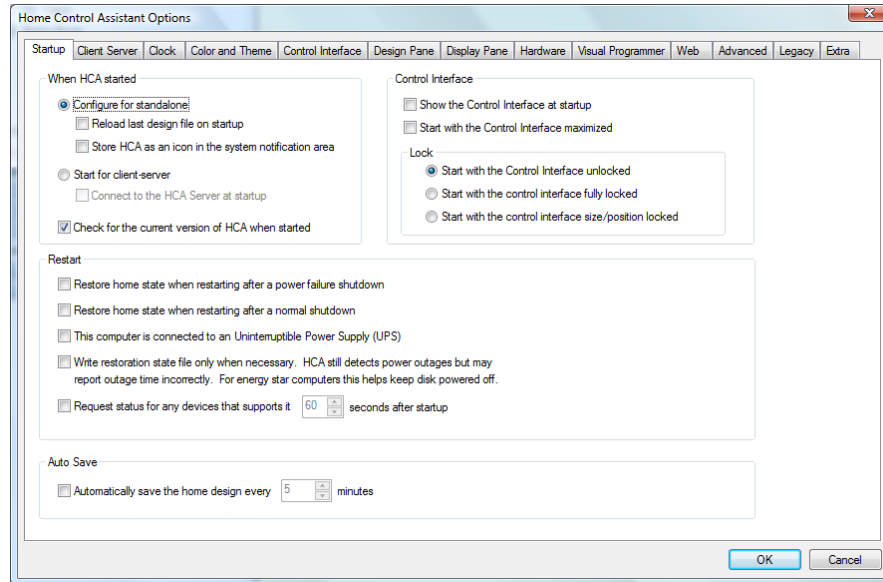
The *Lock Size/Position* button is like the *Lock* button but leave the windows minimize button available.

The function of the *Shutdown* and *Troubleshooter* buttons should be obvious.

Configuring the Control Interface for dedicated machines

There are a number of facilities that, working together, make it possible to configure the Control Interface so that it creates a Kiosk style of operation. That is, it makes the computer appear that only HCA with the Control Interface is running.

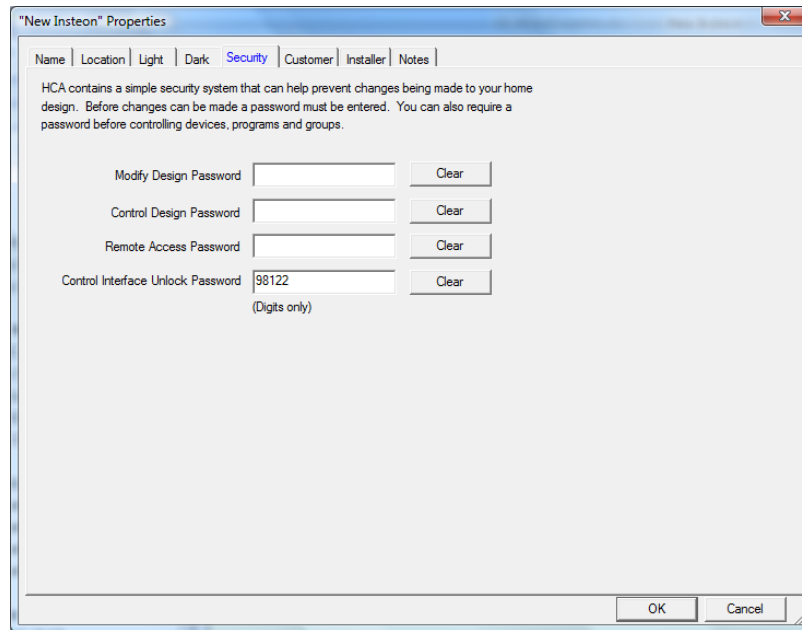
The first place to start is the HCA Options Startup tab.



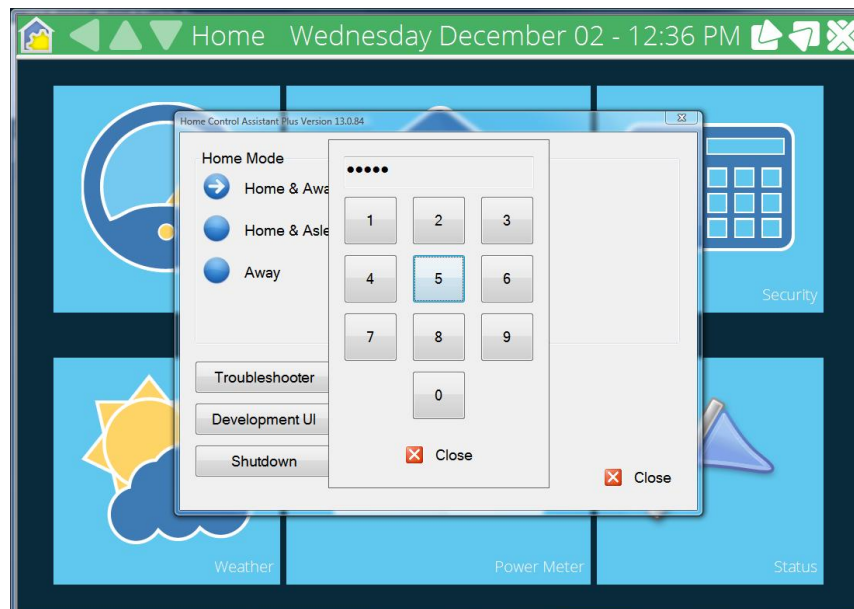
The three options in the Control Interface box are:

- **Show the Control Interface at Startup.**
When this option is enabled and when a file is loaded at startup, then the Control Interface is immediately shown.
- **Start with the Control Interface Maximized.**
When this option is enabled and when a file is loaded at startup, then HCA takes over the complete Windows display. This is the same maximize option when using the status bar maximize option. That is, it covers the whole screen – Windows Task Bar included.
- **Lock options**
These options are similar to those available in the Control UI control panel as described above.

In addition to these options, you can also assign a lock password to the Control Interface. This code must be entered to unlock the Control Interface. You can assign this password by entering it on the Home Properties dialog security tab.

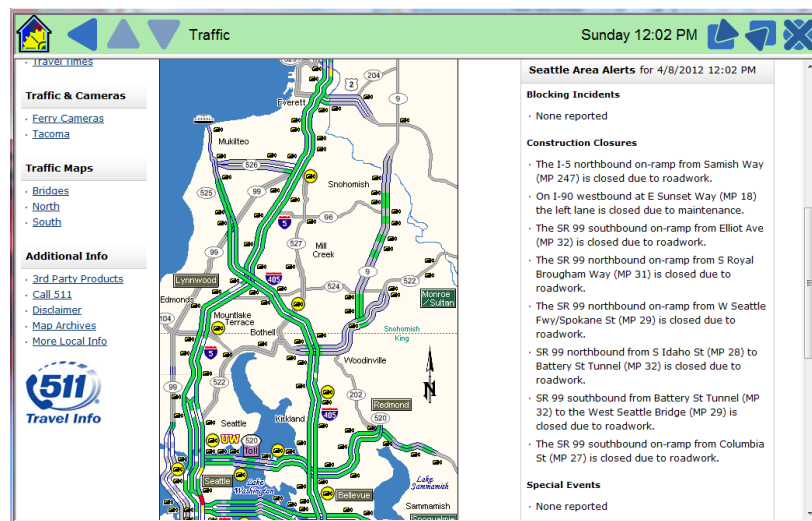
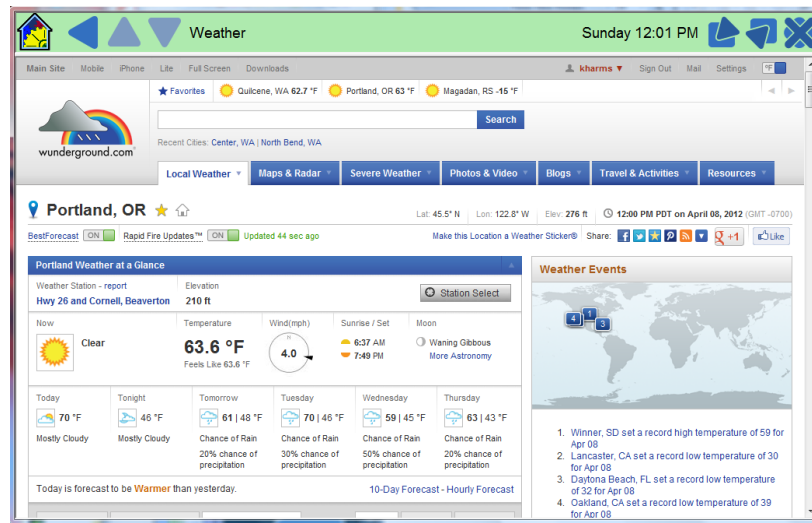


Note that the unlock password must only be numeric digits. This is because the unlock password is entered using an on-screen keypad:



Using HTML Displays with the Control Interface

One exciting feature of the Touch Screen User Interface is using HTML displays. With HTML displays you can integrate other kinds of information into the display. Here are some examples:



HTML Displays are described in greater detail in the chapter on Displays.