



Getting Started with HCA

Installation and Introduction

Everyone has seen those advertisements by many different companies that show people turning off their lights, unlocking doors, turning off the kitchen sink faucet (really, you left it on?). And they supposedly work well once you have all the hardware installed, you pay to have the service configured for you, and then you can remotely do those things.

But is that all you want to do? Turn things on or off? Wouldn't you rather build the solution you want? Using HCA, you can easily turn things on and off remotely, but much better is that HCA gives you the tools to create solutions that take into account the time of day, weather conditions, who is at home, whether it is light or dark, inputs from sensors and keypads, and your knowledge of how devices in your home should work together to perform tasks.

HCA isn't simply a remote-control program. What HCA gives you is a toolbox that you use to **integrate automation devices and program your home**. And like any good set of tools it can take a bit to understand how they work best. This series of Getting Started guides takes you from installing the software to controlling using a Voice Assistant. Along the way there are references to other documents, web sites, and videos that help provide extra info.

If you have not already purchased HCA and you are looking to test drive this software, you can download a free 30-day trial of HCA Plus from the HCA support website at www.HomeControlAssistant.com

This is the first in a series of Getting Started guides that help you go from the very beginning of installing HCA, adding devices, schedules, responding to events, configuring your automation solution in easy-to-do ways, and finally adding support for remote access and working with Amazon Alexa and the Google Assistant.

Here is a road map to help you plan your journey:

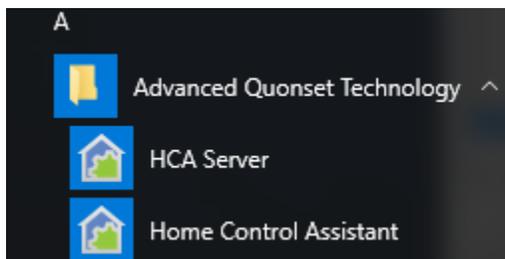
- Getting started – Introduction: This guide covers installation and takes you on a tour of the HCA ribbon which is your access to all that HCA can do.
- The next guide takes you through adding devices, scheduling, and responding to events. Depending upon what automation technology you predominantly use, one of these is up next:
 - Getting Started with Insteon
 - Getting Started with UPB
 - Getting started with X10
- Getting Started – Checkbox Control: This is where you learn about many features of HCA that can provide a lot of function in your home without a lot of effort.
- Getting Started – Client Server: This moves HCA beyond a single computer into the world of multi-station, remote access, and the HCA cloud.
- The last of the Getting Started guides provides all you need to know to use a voice assistant:
 - Getting Started with Amazon Alexa
 - Getting Started with Google Assistant

HCA is not just about these features! HCA also supports many other device types and protocols other than UPB, Insteon, and X10. Many of the techniques in those Getting Started Guides will help you work with thermostats, Wi-Fi devices and lights, etc.

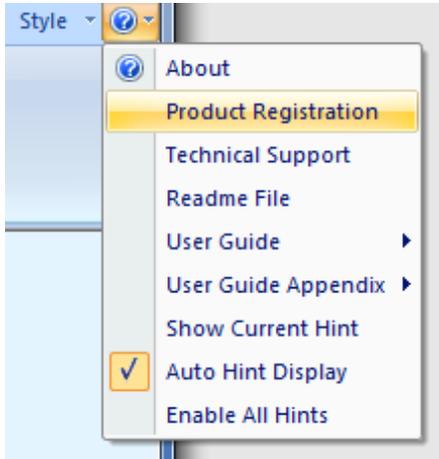
And the documentation doesn't end with these Getting Started guides. On the [support web site documentation area](#) is a complete User Guide, technical notes, and a large [Frequently Asked Questions list](#). Also check out the [HCA YouTube channel](#) with a "HCA 101" video course.

Getting Ready – HCA Install

Installing HCA is the same as installing most Windows programs - just run setup.exe. After installing you will find the Home Control Assistant under the developer's company name. If you have installed HCA Standard, what you see is different as that doesn't contain the server application.

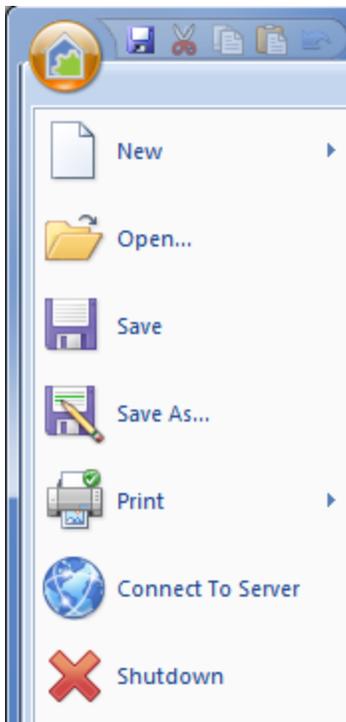


You want to begin with Home Control Assistant. Until later you can ignore the "HCA Server" application

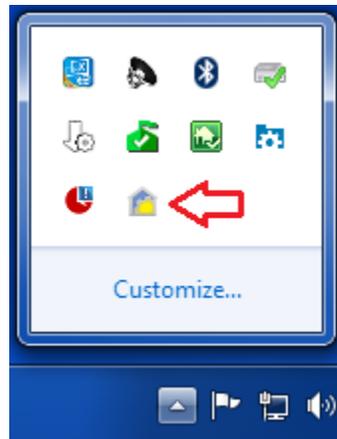


Once started the first thing to do, if you are not using the 30-day trial - is to register you copy of HCA. Open the Help menu – “?” icon at the right end of the ribbon - and select “Product Registration” from the menu.

Registration makes sure that you can get program updates when they become available. HCA is updated about 4 times a year and those updates – called “point versions” – are available for no-cost to registered users



HCA needs to be working all the time, so unlike most Windows programs, using the close button (the red x in the upper right of the window) doesn't terminate HCA but minimizes it and puts an icon in the Windows notification area.



To terminate HCA, select from the application menu *Shutdown*. Don't just click the “Close Box” – the X at the top right of the main HCA window. Using File - Shutdown and not the “Close Box” prevents the unintended termination of the program which stops HCA from sending and receiving commands.

The Latest HCA version

To see what version of HCA you are using, select “About” from that same help menu – the “?” icon at the right end of the ribbon. The version number displays in the popup window. HCA version numbers have three parts given as the major version, minor version, and build number.

To see what the latest HCA version available, click on the “Current version” link in the “Control” ribbon category “Support” panel. This opens a web page in your favorite browser that show the current version.

If a later version is available, you can navigate from this page to the “Point upgrade” page and, after entering your registration code, receive a download link and password. All you need do is to shutdown HCA, unzip the download with your password, install, and then restart HCA.

Let’s all speak the same language

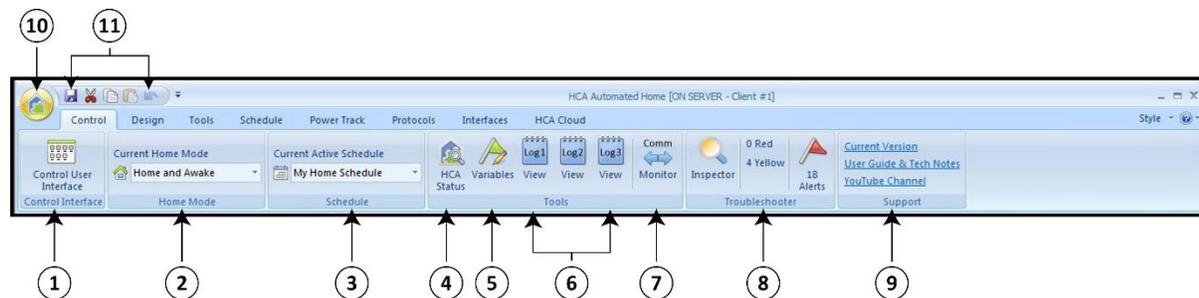
Like any program there are certain terms that may be unfamiliar. It’s hard to start learning about HCA until you can understand the language we use. The best way to get conversant quickly is to look at the Terminology section of the [Frequently Asked Questions](#). It will make all that follows quite a bit easier to understand.

A Tour of the HCA Ribbon

Just about everything you can do with HCA is started by an action from the ribbon. What follows is an image of each ribbon category (“tab”) and very briefly, what the buttons does. If possible, with the description is a link to the user guide chapter, appendix, or technical note with more information on that operation.

Control Ribbon

The Control Ribbon is the place where once you have created your design you will spend most of the time as it has the operations to monitor how your design is running.



1. There are two different ways to operate HCA, one called the “Development interface” and the other called the “control interface”. The “Development interface” is what you use as you develop your automation design. In this mode the ribbon with all the tools is available. The “Control interface” is a much simpler view and lets you control devices but not make any changes to anything. If you press this button, the display changes to show the “control interface” and the ribbon disappears. To get back to the “development interface”, click on the HCA icon at the top left of the window and in the popup window press the button labeled “Development UI”. The Control UI is described in this [user guide chapter](#) and this [technical note](#).
2. This is the current home mode and you can change the home mode by selecting a different mode in the dropdown. Home modes are described in [user guide “Home Modes” chapter](#) and will be discussed in more detail in the Checkbox Control Getting Started Guide.
3. This is the current schedule and you can change the schedule by selecting a different one in the dropdown. Schedules are described in the [user guide “Schedules” chapter](#).

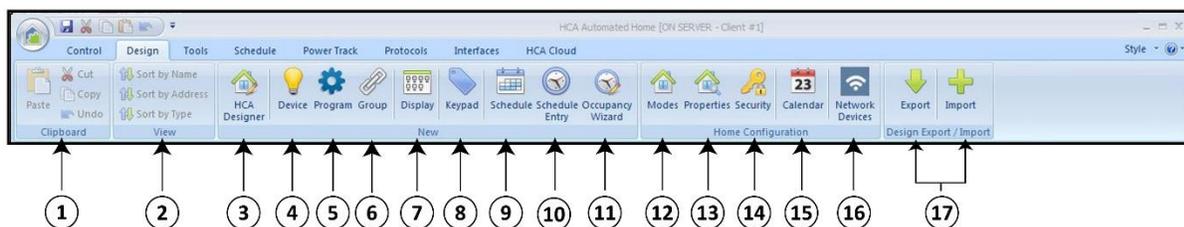
4. This button opens a status dialog that shows information about HCA including the next scheduled events, what programs are currently running and what they are doing, what the current schedule is, etc. The status dialog is described in the [user guide “Design Tools” chapter](#).
5. This button opens the variable inventory dialog. A “variable” is a piece of state managed by programs. Variables are described in the [User Guide “Programs” chapter](#) and the Variable Inventory dialog is described in the [User Guide “Design Tools” chapter](#).
6. Each of these three buttons open a log viewer to show one of the three HCA logs. The log records all that happens over time: when messages from interfaces are received, when messages are sent, when programs take an action, etc. There are three logs, and each can be configured depending upon your needs. Logs are described in the [User Guide “Troubleshooter” chapter](#).
7. The “Comm Monitor” shows in a small popup window you can leave open while you do other tasks. It shows in a very condensed manner the messages being sent and received from your interfaces.
8. The “Troubleshooter” is comprised of two tools that help you monitor the health and operation of your design. The “Inspector” looks for problems each time you make a change to your design and points out potential problems. It classifies those problems as errors (red) and warnings (yellow) and the number of them display in this panel. To see what those issues are click on the Inspector button. The “Alert Manager” shows problems that develop over time, for example, devices that you are not able to control or programs that make errors. The number of Alerts show below the button. Both tools are covered in the [User Guide “Troubleshooter” chapter](#).
9. This panel contains links to the support web site to show the current HCA version, and to a page containing the user guide and technical notes. The third link is to the HCA YouTube channel that has videos showing each of the major operations used in HCA.
10. Clicking on the “HCA Bubble” opens the application menu which contains a menu to open files, shutdown, printing, etc.
11. The “Quick Access Toolbar” lets you put small buttons for your favorite operations so they are always available. To configure this, click on the downward point triangle next to the small icons and choose “More commands”.

At the far-right end of the ribbon that shows for all categories, is the Help menu opened by clicking on the “?” icon. This provides access to the user guide as well as product registration and support.

The “Style” dropdown next to the help icon lets you change the color scheme that HCA uses for the ribbon. Feel free to select what looks best to you.

Design Ribbon

The design ribbon is the central place for adding objects to your design.

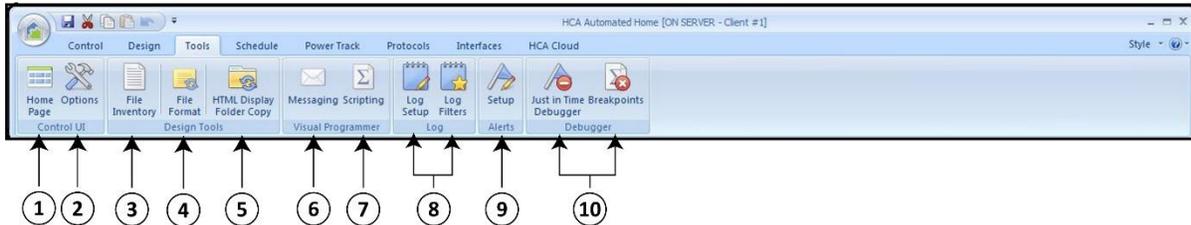


1. These are similar tools that you have already used in other Windows programs for cut, copy, and paste.
2. What is shown in the “display pane” – the right pane in the main HCA window – are icons for the objects in your design – devices, programs, rooms, etc. You can sort the icon display order using buttons in this panel.
3. The HCA designer is a tool that can quickly add new rooms and devices to your design. It is described in the [User Guide “Home” chapter](#) and is used in the next Getting Started guide in this series.
4. This button adds a new device to your design. Devices are described in the [User Guide “Devices” chapter](#).
5. This button adds a new program to your design. Programs are described in the [User Guide “Programs” chapter](#).
6. This button adds a new group to your design. Groups are described in the [User Guide “Groups” chapter](#).
7. This button adds a new display to your design. Displays are described in the [User Guide “Displays” chapter](#).
8. This button adds a new keypad to your design. Keypads are described in the [User Guide “HCA Keypads” chapter](#). This topic is also covered in [Technical note 104 titled “HCA Keypads”](#).
9. This button adds a new schedule to your design. Schedules are described in the [User Guide “Schedule” chapter](#).
10. This button adds a new schedule entry to a schedule. Schedule Entries are described in the [User Guide “Schedules” chapter](#).
11. The occupancy wizard is a tool to create a schedule that makes your home look lived in when you are not home by controlling lights in a manner consistent with several people moving through the house during the day and night.
12. The “Modes” button opens the Home Mode configuration dialog where you can name home modes and what triggers a change from one mode to another. Home Modes are described in the [User Guide “Home Modes” chapter](#).
13. The “Properties” button opens a multi-tabbed window where information about your design can be viewed and edited.
14. The “Security” button takes you directly to the “Security” tab of the Home Properties window where you can change the password needed for remote access to the HCA server.
15. The HCA calendar lets you assign each day of the year into one of eight categories. Programs can test to see if the current day is of a selected category and control its actions to perform different actions on different days or periods of the year. The calendar can also be used to change the current schedule at different times of the year. The Calendar is described in the [User Guide “Calendar” chapter](#).
16. Network devices are those devices that have IP addresses – like your phone, tablet, and “smart appliances”. HCA can track when those devices respond and when they don’t, and you can configure programs to take different actions when they respond and when they don’t. One use of this facility is to track when a smart phone is in range and when it isn’t and so determine when a specific person is at home or away. This is described in the [“Network Devices” user guide chapter](#).

17. The Export facilities lets you take parts of your design and export them for others to share. The Import is the opposite for that – to incorporate what others have done. This is described in the [User Guide chapter “Import Export”](#).

Tools Ribbon

The Tools ribbon is a collection of various tools to configure various parts of HCA.

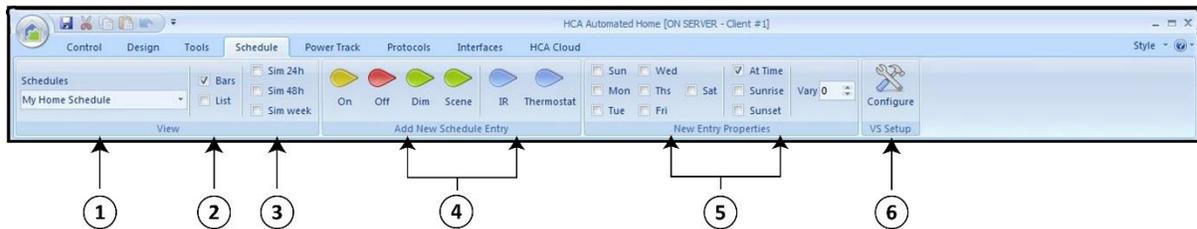


1. The “Home Page” button selects which display to use for the Control UI home page and the settings HCA uses to create the page itself if you don’t select a display as the home page. This is described in the [User Guide “Control Interface” chapter](#) and a [technical note](#).
2. This button opens the HCA Options section that allows for configuration of how the Control UI operates. This is described in the [User Guide “Control Interface” chapter](#).
3. The “File Inventory” button shows you all the files that are referenced by your design. This can be useful when moving your design from one computer to another.
4. “File Format” is a tool that takes a template file that contains placeholders and replaces those placeholders with actual data and a new file is created. This is often used to have HCA periodically create web pages or files that are used as input to other programs. This tool is described in the [User Guide “File Format” chapter](#).
5. One of the types of displays that you can create is a HTML display that renders the HTML into the right pane of the HCA Window. Since HTML pages can reference images and style sheets it is important when using client-server that all those “auxiliary” files are moved from the server machine to the client machine so that HTML displays correctly. This operation makes that happen. It is described in the [technical note 105 titled “HTML Displays”](#).
6. HCA programs can send email, SMS, and MMS messages. Before those operate correctly you first must configure settings from your ISP and that is done here. The “Email / SMS” element is described in the [User Guide “Programs” chapter](#) and a [technical note](#).
7. HCA programs can invoke scripts in many of the popular scripting programs like VBScript or JavaScript. Before the Script program element can be used, various settings must be configured, and this tool is for that. The “Script” element is described in the [User Guide “Programs” chapter](#).
8. The log is the central location in HCA to determine what happens over time. The first of these two buttons configure what actions and events go to which of the three logs. The second button lets you create filters on the log that helps focus on specific areas of interest. The log is described in the [User Guide “Troubleshooter” chapter](#).
9. Several tools comprise the troubleshooter with the “Alert Manager” being the tool that watches how your design operates over time looking for programs like devices not responding to commands, weather observations not taken successfully, program making errors, etc. This tool allows for configuration of which types of alerts HCA watches for and how it responds to each condition. This is described in the [User Guide “Troubleshooter” chapter](#).

10. The two buttons are for configuration of the Visual Programmer debugger. HCA includes a debugger that allows you to stop programs as they execute to examine state and see how control follows from element to element. The Visual Program debugger is described in the [User Guide “Program Debugger” chapter](#).

Schedule Ribbon

The Schedule ribbon is used when working with the Visual Scheduler. The actions of each button in this ribbon are described in the [User Guide “Visual Scheduler” chapter](#).

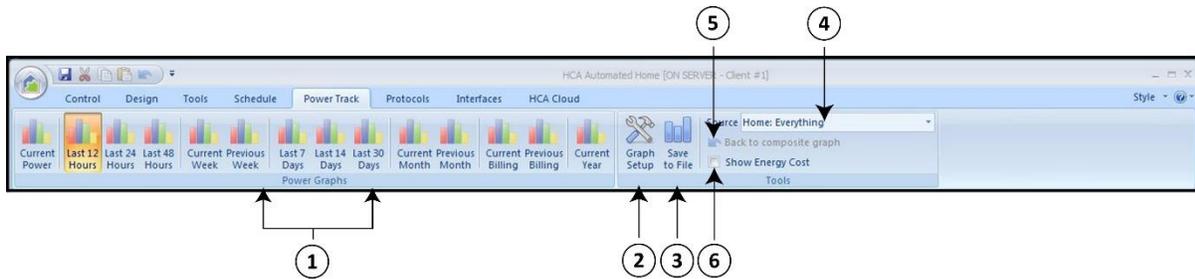


1. The selection in this dropdown is the schedule that is being operated upon. You can change that schedule by changing the selection in the dropdown.
2. The Visual Scheduler can operate in two different display formats – either graphically with a bar representing each object in the schedule and markers on the bar that show the schedule entries for that object, or in a text format as a list. Change which display to use by ticking the desired display format.
3. In addition to the “Bars” or “List” display formats, the schedule can also show in a “simulated” format where the actions for the current day, next two days, and next week are shown in time order. Because a schedule entry can be for a time relative to sunrise and sunset, using the simulation can better show the times you can expect devices to be controlled. Tick the box to change the duration of the simulation.
4. These are the actions that a schedule entry can perform. Click on one of the buttons to add a new schedule entry and then, if in graphical time-bar display, drag it to the device to schedule and drop it at the time desired.
5. A schedule entry in addition to a time, also has a date component where it can be configured to happen on only selected days of the week. For the time component it can be at a fixed time – 6pm – or at a time relative to sunrise or sunset – Sunrise – 30 minutes. Finally, each schedule entry can specify a number of minutes to “vary” each day to be a bit less predictable. Any new schedule entries you add picks up its settings from what is chosen here.
6. The Visual Scheduler has additional ways it can be configured. This opens a configuration dialog.

Power Track Ribbon

Each of the buttons on the “Power Track” ribbon is described in the [User Guide “Power Track” chapter](#). Power Track is a facility that HCA contains that keeps track of the power usage of devices in your home based upon the length of time they are powered on and at what percent. That information is saved in a file for each device and graphs constructed showing the power uses over time are displayed in the HCA window.

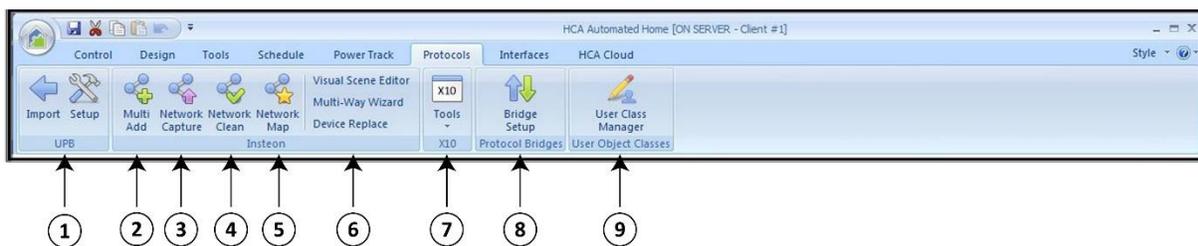
Before Power Track operates, you must enable it for a device on the “Power Track” tab of the device properties and supply information about its power usage. Power Track is described in [the User Guide “Power Track” chapter](#).



1. What graph type to show. Each button changes the beginning and ending time of the graph.
2. The “Graph Setup” button lets you choose graph options to choose which devices or rooms to create bars for and the colors of those bars.
3. The current graph can be saved to a file as a JPG image. Press the “Save to File” button and a File-Save dialog lets you choose the filename and folder.
4. A change in the “Source” dropdown is a quick way to refocus the graph to a specific device, room, or to all devices.
5. If the graph shows data from multiple devices, you can click on a device in the device list to focus the graph on only that device. This “back” button returns the display to the graph showing multiple devices again.
6. Ticking this box shows, instead of wattages and percentages, the actual cost of that amount of electricity. This is based upon the cost per kilowatt you configure in the “Graph Setup” dialog.

Protocols Ribbon

The Protocols ribbon contains tools used by the three main power line protocols that HCA supports: UPB, Insteon, and X10. HCA also supports many other protocols, but they don’t need all the tools these three protocols use.



1. The first panel of the Protocols ribbon are for devices that operate using the UPB (Universal Powerline Bus) protocol. How HCA works with UPB gear is described in the [User Guide “UPB” appendix](#). There are two tools in this panel:
 - a. UPB devices are configured using a separate program called UPStart. That program generates a file that describes all the devices in a UPB network. This is imported into HCA to create a HCA device for each UPB device. This is described in the [User Guide “UPB” appendix](#).

- b. This button starts the UPStart configuration program “UPStart”. If you are using HCA in stand-alone mode (that is, not client-server) and HCA has the UPB power line interface connected, it disconnects from it, then UPStart can use it. When you are done with UPStart, HCA reconnects to the power line interface.

The next panel of the Protocols ribbon are for devices that operate using the Smart Home Insteon protocol. How HCA operates with Insteon gear is described in the [User Guide “Insteon” appendix](#).

2. This “Multi-Add” button opens a tool for adding one or more Insteon devices.
3. The “Network Capture” opens a tool that reads the linking tables for each selected device. The “Linking Tables” are stored in the memory of each device and describes its connections to other Insteon devices. HCA needs to have these tables and so correctly track the state of devices when Insteon messages are transmitted and received.
4. The links between Insteon devices can become out of date if a device is reset or replaced without first removing links before the reset or replacement. This tool provides a way to look for and correct broken or unneeded links. It should be used with caution.
5. The “network map” button shows in a text format the connections between Insteon devices. This can be used to document your Insteon network.
6. This section of the “Insteon” panel is for three different tools. These are:
 - a. Visual Scene Editor allows a graphical way to create links between Insteon devices. It is a large topic and has the entire [User Guide chapter “Visual Scene Editor”](#) dedicated to it.
 - b. Multi-Way Wizard is a tool to create links between a set of Insteon devices so that each sends to all the others and each receives from all the others.
 - c. Insteon device replace is a tool to replace a failed Insteon device and update links in other devices that referenced the old device to now reference the new device.
7. The “X10 Tools” button contains a dropdown for a set of tools used with the older X10 protocol. The main button opens a Windows that shows the house and unit codes assigned to each X10 device. A click on the lower part of the button opens a menu for other tools. X10 support is described in the [User Guide “CM11/CM15” appendix](#) and in the [User Guide “Design Tools” chapter](#).
8. The “Protocol Bridge” is a tool that enabled HCA to act like a transceiver (receiver and transmitter). Messages in one protocol are received and those messages are translated into another protocol and transmitted. This lets you, for example, control a UPB device with an X10 motion sensor. This is described in the [User Guide “Protocol Bridges” appendix](#).
9. The User Class manager is a way to support devices that are not supported by HCA directly. This is described in several Technical notes. The main note is [technical note 600 titled “User Classes”](#).

Interfaces Ribbon

The buttons that appear on the protocols ribbon in the “Hardware” panel depend upon which interfaces you are using. The example ribbon shown below has only one interface in use - an Insteon PowerLinc.



1. The Configure button opens the Hardware tab of HCA Options where you select and configure each automation interface that you are connecting to your computer to control devices of a given protocol.
2. The interface viewer is a small window you can leave open while you do other things with HCA. It shows the data that is being received from and sent to an interface. This is a highly technical area and is usually not interesting or needed by most users.

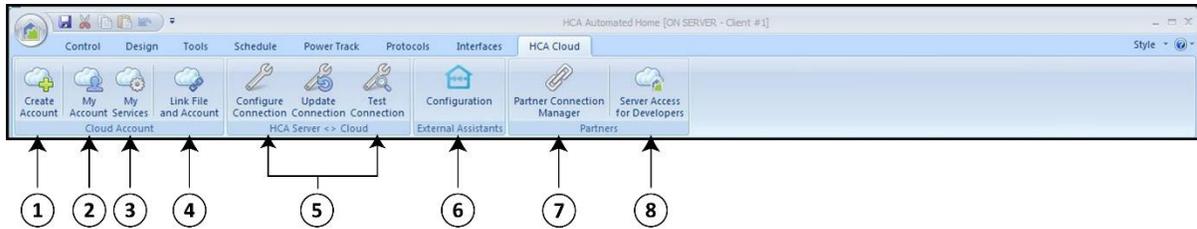
The next buttons in this panel are for each interface you have connected. HCA can use up to eight different interfaces simultaneously. In this example there is only one interface in use. Clicking on the button opens a configuration dialog appropriate to that type of interface. Some interfaces have a menu that you can access by clicking on the lower part of the button – on the downward pointing triangle – to access other tools specific to this interface type.

3. The Insteon interface. In this case the configuration dialog for the Insteon PowerLinc lets you select if it should also be used for X10 as well as Insteon, or have HCA ignore X10 message from this device and to not transmit X10 using this interface.
4. HCA supports different IR interfaces and they are configured here. IR interfaces are described in the [User Guide “IR” appendix](#).
5. HCA supports several different weather providers. Weather data can be integrated into your design to perform different actions based upon temperate, wind, rain, etc. The weather providers are described in the [User Guide “Weather” appendix](#).
6. HCA supports several device types that require an interface or connection method unique to that type of device. These are shown in this panel and are configured from the dialogs that open when you press the button. The Nest thermostat is described in the [User Guide “Thermostats” appendix](#). Phillips Hue is described in the [User Guide “Phillips Hue” appendix](#).

HCA Cloud Ribbon

The HCA cloud ribbon is the gateway to all the facilities of HCA that are “in the cloud”. These facilities allow for sending and receiving messages for devices that are managed by the manufacturer servers and for accessing your home from outside it for control. This is a major topic and is introduced in [technical note 500 titled “HCA Cloud”](#).

Several of these buttons open a set of detailed instructions before the action starts. You should read what displays.



1. The “Create Account” button starts a browser and connects to the HCA cloud portal where you can create a new account.
2. The “My Account” button starts a browser where you can log into an existing account.
3. The “My Services” button starts a browser where you can log into an existing account and then takes you to the “Services” page where you authorize or revoke permission for other services to connect to your HCA Server.
4. The “Link file to account” button connects the currently loaded design file to your cloud account. This is necessary so that the server can make the connection between your design and the cloud services that access it.
5. The “HCA Server <-> Cloud” panel contains three tools that handle configuring, updating, and testing the connection between the HCA Cloud and your server.
6. The “External Assistants” button is for configuration of the verbal names for elements of your design that you use when speaking to a voice assistant – Amazon Alexa, Google-Home, or Siri. In this dialog you will see the term “Friendly name”. A “Friendly name” is the name, possibly different from your device name, that you speak when interacting with a voice assistant.
7. HCA can process messages about events from devices that report their status to a cloud-based service. For example, the Ring Doorbell or the Nest thermostat. This button opens the “Partner Connection Manager” when the connections between these services and programs in your design are specified. What you configure in that dialog answers the question: When a service reports an event, which HCA program gets started to handle that event?
8. “Server access for developers” is a mechanism by which you can create applications that communicate with your HCA Server. It is a technical operation and is described in [technical note 502 titled “Developer Access”](#).

OK, got it. What’s next?

Enough terminology and overview, let’s get started with adding devices, controlling and scheduling them. Where to go next depends upon what kind of devices you are using. Please continue with one of these. This will take you step-by-step in adding devices, creating a simple schedule, and responding to a button press on a keypad.

- [Getting Started with HCA and Insteon](#)
- [Getting Started with HCA and UPB](#)
- [Getting Started with HCA and X10](#)

After that you will be ready for [Getting Started with HCA and Checkbox Control](#), which shows you many ways to work with your devices that require little effort to achieve much function.

And then finally, if you want to start working with Amazon Alexa or Google Assistant your final two steps will be these:

- [Getting started with HCA and Client Server](#)
- [Getting Started with HCA and Amazon Alexa](#) or [Getting Started with HCA and Google Home](#)

In addition to this series of Getting Started guides, there is also a “HCA 101” course on the [HCA YouTube channel](#) and a large [Frequently Asked Question list](#) on the HCA web site.

##end##