



Getting Started with HCA and Amazon Alexa (updated 21-Aug-22)

This Guide continues from the previous “Getting Started” guides that covered installation, adding devices, checkbox control, and client-server. It is assumed that you have reviewed those guides.

In this guide client-server is used to for control of HCA objects using Amazon Alexa.

To use the Amazon Alexa with HCA, you must use HCA in Client-Server mode and that is only available in HCA Plus. It is not available in HCA Standard or HCA Limited.

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

Talk to Alexa

The goal is to expose your devices to Alexa so she can control them, and this guide shows you how. Before going further, these are the things you can tell Alexa using "Kitchen light" as an example.

- Alexa, discover my devices
- Alexa, turn on kitchen light
- Alexa, turn off kitchen light
- Alexa, brighten kitchen light
- Alexa, dim kitchen light
- Alexa, set kitchen light to 50%
- Alexa, increase kitchen light by 20%
- Alexa, decrease kitchen light by 20%

In the case where you say “dim” or “brighten” without specifying a percent, the level is changed by 25%

There are also some thermostat related actions you can use if you have a thermostat in your design

- Alexa, set Great Room thermostat to 72 degrees
- Alexa, increase Great Room thermostat by 4 degrees
- Alexa, decrease Great Room thermostat by 8 degrees

While what you say isn't quite free-form, Alexa is smart in that you don't have to use these exact words. These also work:

- Alexa, Kitchen light ON
- Alexa, OFF Kitchen light

Alexa, unfortunately doesn't always match "Kitchen Lights" and "Kitchen Light" as the same thing when spoken so be careful with names like those.

Friendly Names

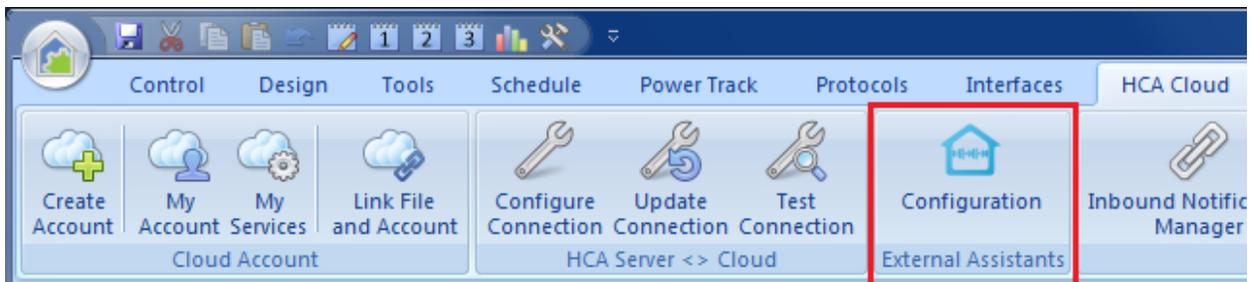
When you added devices to your HCA design you may have named them in ways that made sense and that were descriptive. For example, "Patio light northwest corner". But that's a long name to speak to Alexa and it might be better to use a shorter more focused name.

In HCA these shorter names are called friendly names and act as aliases for the names given to the device.

There are these limitations on friendly names:

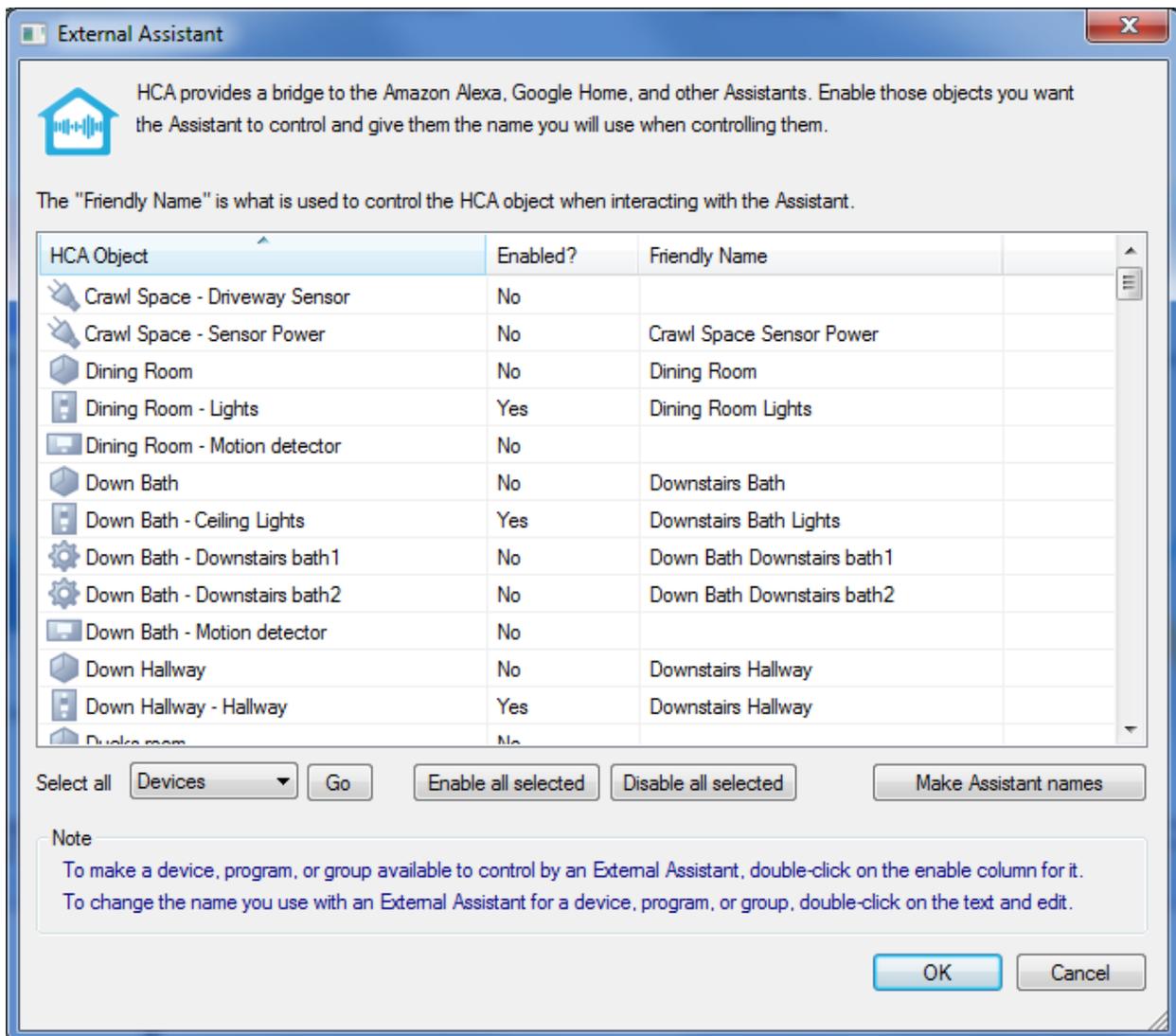
1. Names can contain only letters, numbers, and blanks.
2. Names shouldn't contain as a word – that is, embedded with blanks on both sides – that the External Assistant uses as key words. HCA points out when you use one. Some of them are: discover, turn, on, off, brighten, dim, set, percent, stop, cancel, to, the, pause. An example name that wouldn't work would be "Kitchen dim light" since it has "dim" in it.

Alexa support begins with the *External Assistants Configuration* button on the *HCA Cloud* ribbon category.



The External Assistant setup dialog is the place where you can see all your design elements and assign, modify, and view their Friendly Names.

In addition to using this dialog you can also configure the friendly name and enable/disable support for an individual device, program, group, or room by opening its properties and viewing/modifying the "Friendly Name" settings on the properties dialog *Name* tab.



Create a friendly name for each device, program, or group you want to control. You can use the "Make Assistant names" button in the dialog lower right to create names that are the same as the object name. This may be a good starting point. As it says in the blue text in the image above, you can double click on the friendly name and then edit it. You can also toggle - enable / disable - support for the device by double-clicking in the Enable column on the row for the device.

The "Make Assistant names" operation creates the name from the room name and device name but modified it to meet the above criterion.

Choosing good names is important: You want names that are easy to say and unique enough to not be confused with others.

If you want to make major changes to the enable/disable settings, you can multi-select several rows and then use the "Enable all selected" or "Disable all selected" buttons. You can also use the select dropdown and the "go" button to select all objects of a type and then enable or disable them in one operation.

You can print a list of Friendly names and what each name does. It might be a good idea to print out a list of the names you can speak until everyone in the family gets used to this new world. You can have the printout contain only a list of External Assistant names. Select from the print menu "Printout Setup" to control what gets printed. Printing is available in the HCA application menu.

Adding the HCA Skill in the Alexa application

The next step needs the Alexa application installed on a mobile device. You probably already have done that when you first installed your Alexa enabled device – Echo, Echo Dot, etc.

Note: Amazon updates the Alexa app frequently and images here may not look exactly like what you may see. But the general techniques shown here should remain the same.

Also Note: The pictures and directions here are from the Amazon app running on a tablet. From a phone, the concepts are the same but what you see, and the actions taken may be somewhat different.

In the Alexa app home page, tap on the "Devices" logo at the bottom of the home page – the icon all the way at the right. This opens a page that has a link that reads "YOUR SMART HOME SKILLS" near the bottom of the screen.



If you have devices managed by other skills, this page shows them. Just scroll down to find the "Your Smart Home Skills" link. Tap on that link.

On the new page that opens, there will be a button labeled "Enable Smart Home Skills". Again, if your account already has other Smart Home skills enabled, they are listed. Just scroll down to the "Enable Smart Home Skills" button. Tap on that button.

On this page are all the available Smart Home skills, but there will be so many listed that using the Search button – the "Search" icon at the upper right - is the best way to find the Bridge skill. Search for "HCA" and then tap on that result.

The HCA skill page provides some info and has an "Enable To Use" button. Tap on that to begin the linking process. The HCA Cloud login page opens.

The info page for the HCA Skill opens.



Home Control Assistant

Advanced Quonset Technology, Inc

Rated: Guidance Suggested

★★★★★ 37



ENABLE TO USE

Account linking required

The HCA skill is the voice interface to the HCA Server running in your home. Using this skill you can control lights and appliances as well as activate and deactivate lighting scenes. Using the same Alexa device control features used for devices, you can also start programs constructed with the HCA visual programmer and control IR devices, thermostats, and other automation gear. The full range of Alexa syntax for on, off, and dimming is supported.

...

Press the Enable button to continue.

× HCA Cloud - Login
https://oauth.hcatech.com

Login

Already an HCA user?

Login in here:

Username:

Password:

[Sign in](#)

[Create Account](#)

[Forgot Password?](#)

New to HCA?

The all in one, feature rich home automation software. [Learn More](#), or get going with a [free trial](#) right away.



Enter your HCA Cloud account user name and password and “Sign in”.

Menu

HCA User: Test102

Amazon Alexa Skill is requesting access to your account.

Do you approve?

By signing in and allowing access to your account, Amazon Alexa Skill will have access to the following services and information.

-  View design information including devices, programs, rooms and schedules
-  Change the state of devices, programs and rooms.
-  Remotely access your Home Automation system to retrieve settings.

Allow
Deny

Press the "Allow" button to continue and this page displays:



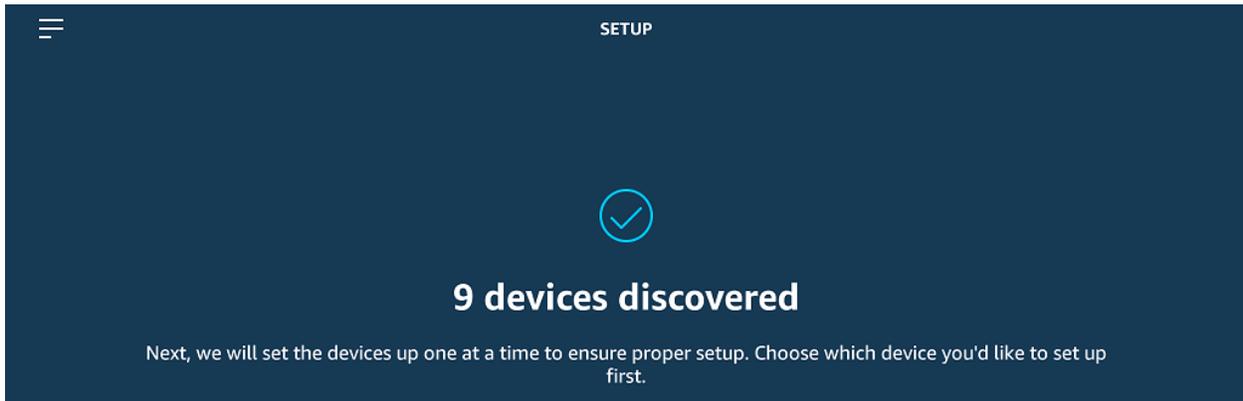
Home Control Assistant has been **successfully linked**.

What to do next:

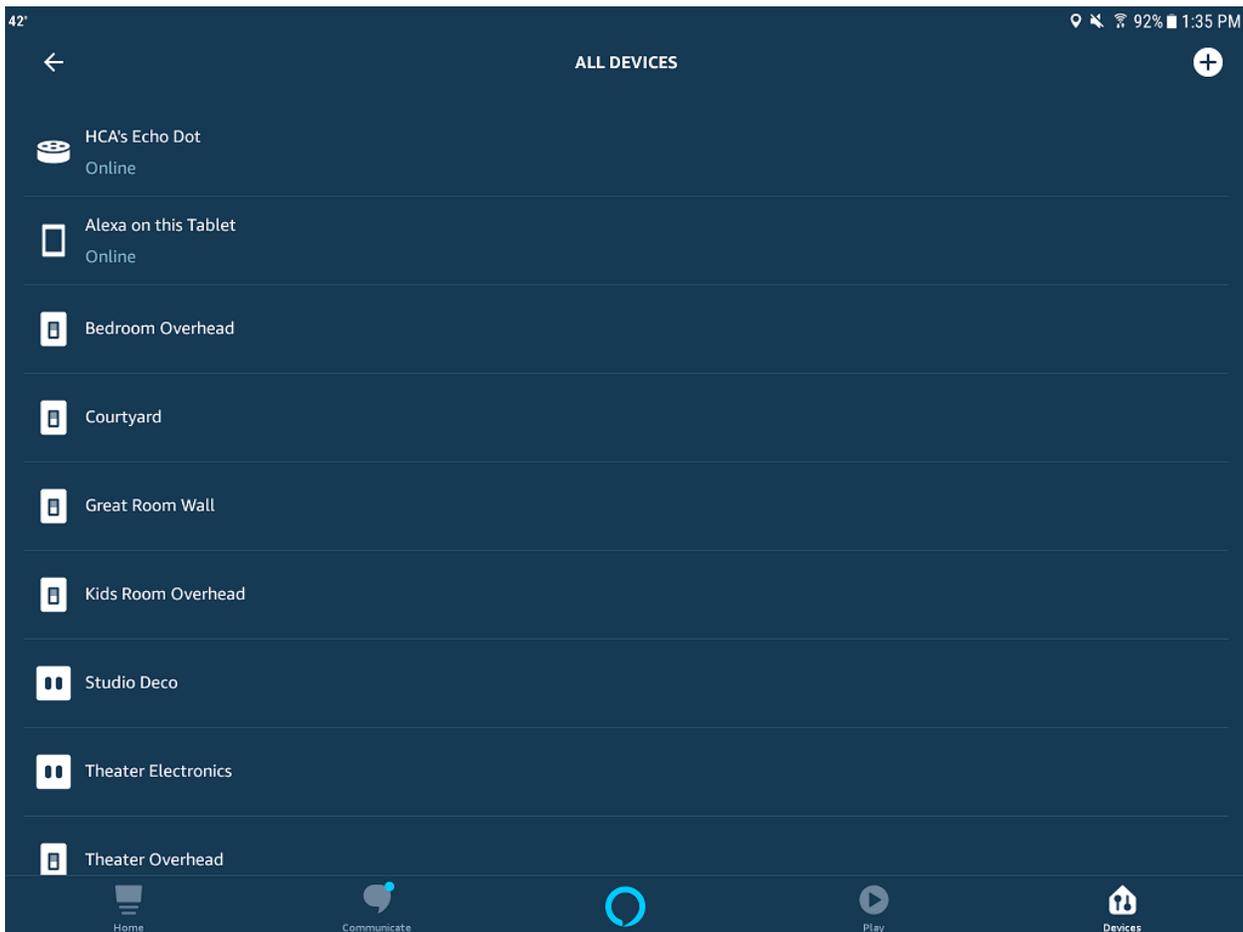
→ Close this window to discover smart-home devices you can control with Alexa.

Once done, Alexa offers to start discovering your devices which you should do.

Click on “Discover” and Alexa contacts the HCA Cloud which connects to your HCA Server and locates all your devices, programs, groups, and room with friendly names assigned.



Alexa then does the “devices one at a time” which you don’t really need to do. Just p=tap on the “Devices” icon at the bottom on the screen and you will be ready to go.



And that's it! You should now be able to use Alexa to control your devices, programs, groups, and rooms with HCA.

Getting it to work: Resolving control problems

Unfortunately, many times the “error reports” Alexa says really don’t help much. Many times it says “that command doesn’t work on <device name>” regardless of what error HCA returns to Alexa.

Possible problems are:

1. Alexa can’t connect to the server
2. When Alexa asks to control a device, the server reports a security problem
3. When Alexa asks to control a device, the server reports that there is no such device
4. When Alexa asks to control a device, the server reports it can’t carry out the operation

Again, these errors may result in Alexa saying the same thing. So here is some help in figuring out what went wrong.

- a) Make sure you are running the HCA Server and you opened your design file. Even we sometimes forget to open the .HCA file in the server.
- b) Make sure that you have configured and tested the cloud connection. In the HCA Server application menu in the Tools menu there is a “HCA Cloud Update” and a “HCA Cloud Access Test” menu choice. Use the “Update” menu choice to make sure that the HCA Cloud has your correct IP address and remote access password. Until the “Test” operation shows success, Google will not be able to access your server. You may have port forwarding incorrectly configured in your router and/or your firewall settings are wrong.

Once you have done these two things that should eliminate problem # 1 above. After this, then you must dig a bit more for more resolutions.

Next, make sure that you have all your interfaces connected and working. You can see this by opening “HCA Options” from the Server application window “Tools” menu and looking on the “Hardware” tab. Also try and control the device from a client (Windows, Android, iOS) and see if that works.

Next, if you have renamed any devices, rediscover your devices to ensure she has the current names.

And perhaps the Alexa error is correct – for example trying to dim a non-dimmable device. It is unfortunate that many times Alexa gives only the one error statement rather than different replies to help show what the problem is.

Some very important notes and Tips:

If you make any changes to friendly names or change support - enable/disable - you must again perform the discover operation in the Alexa App.

The discovery operation may not update the names of existing devices when you do rediscover. If that happens, then you should remove all your devices from Alexa and rediscover. Unfortunately, for some reason Amazon didn’t make it easy to do this and the Alexa app doesn’t have this operation.

The way to do it is to start a Browser – not on the same device with the Alexa app – and go to:
alexa.amazon.com

Then login to your account and go to the “Smart Home” from the left menu, then click on “devices” and scroll down to the bottom and the button needed is there:



OK, got it. What’s next?

This is the end of the Getting Started series of guides. So, what’s next? Well you now have HCA installed, added devices, configured them, created schedules and simple programs, deployed client-server, and connected a voice assistant.

What’s next is wherever you want to go. You can add more devices of several types – color changing lights from Phillips Hue, LIFX, other devices like thermostats and the Ring doorbell - and create more and better programs. Or you can explore many of the other features of HCA like Power Track, Network Devices, Insteon linking, etc.

While you are probably tired of reading documentation, you may want to check the extensive list of [technical notes](#) which cover interesting applications and features that you may find useful.

Good luck, and happy automating.

##end##