



HCA Tech Note 139

Send a command to the HCA Server by a small Windows application

There are many ways to integrate other applications with HCA. One way is for that application to start a Windows program and tell the HCA Server what to do by including arguments on the “command line”.

HCACLI.exe is supplied as part of the HCA installation and in its own installer that can be used on Windows computers that you don't want to install HCA on.

HCACLI.exe is started from the Windows command line or from a desktop shortcut. It connects, sends the command and arguments given on the command line, receives a response, optionally saves it in a file, disconnects from the server, and terminates. There is no Windows associated with the HCACLI.

Command line arguments:

`/HCAServer:<IP Address>`

`/Port:<Port #>`

`/PSWD:<remote access password>`

`/Result:<optional path to result file if wanted>`

`Argument1, Argument2, ... (up to 8)`

Example:

```
HCACLI /HCAServer:192.168.0.100 /Port:2000 /PSWD:orange HCAObject Device.On "Den-Bookcase Lights"
```

The server IP address can also be supplied as a host name. For example:

```
HCACLI /HCAServer:myhome.dyndns.org /Port:2000 /PSWD:orange HCAObject Device.On "Den-Bookcase Lights"
```

Remember to use quotes around any argument that contain blanks.

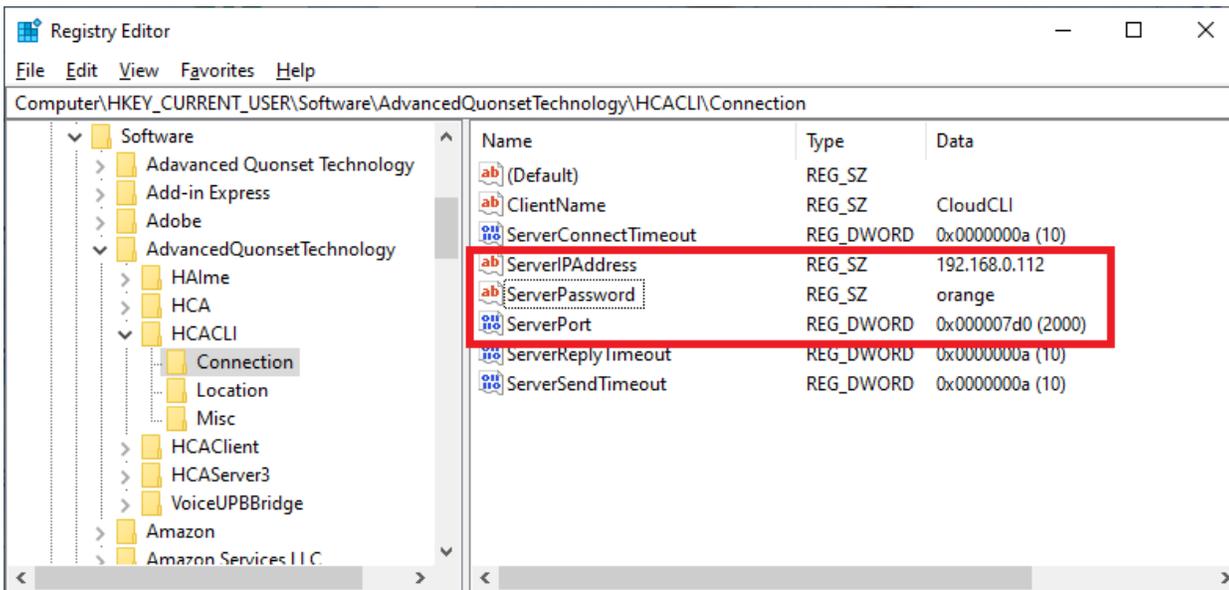
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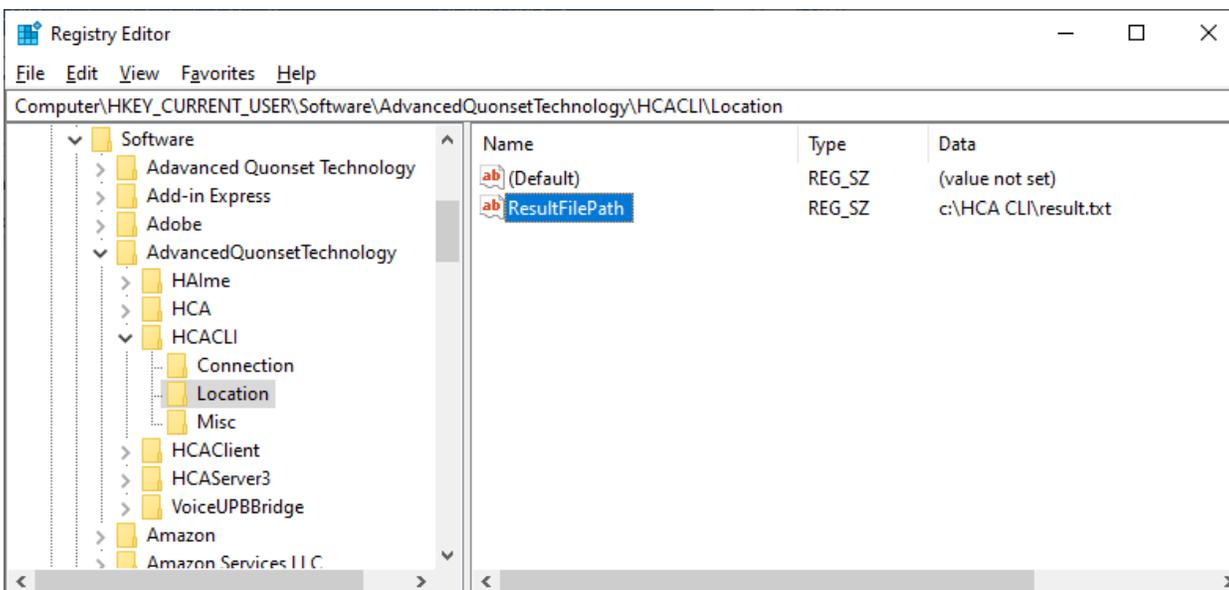
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The connection info is saved in the registry and you can set it there and then you don't need the command line arguments. The key ones are in the red box below. Don't change the others.



If using RegEdit make sure you enter the port number in decimal and not hex.

The path to the result file is in this other section:



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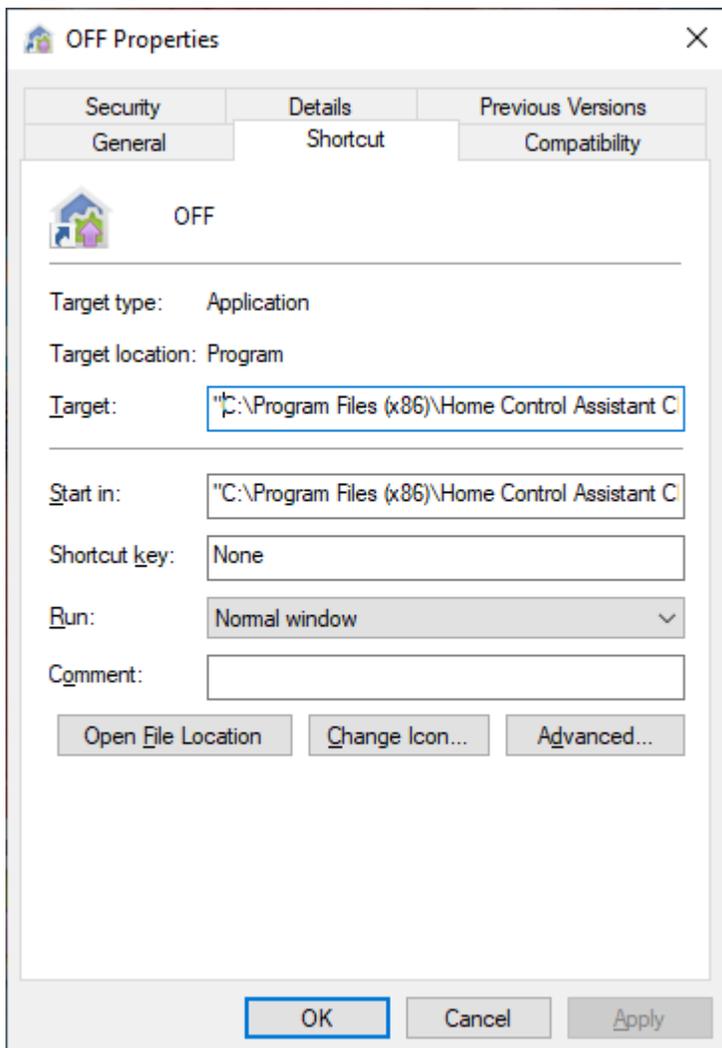
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You can make Windows desktop shortcuts by a right-click on the desktop then "New – Shortcut". Use the Browse button to locate HCACLI.exe and then press *Next*. Enter any name you want or leave it as the suggested name.

Then right-click on the shortcut icon and select "Properties" from the popup menu. Edit the "Target" to add the command line parameters. Like this:



The shortcut target - since you can't see the full text in the above image - is:

`"C:\Program Files (x86)\Home Control Assistant CLI Client\Program\HCACLI.exe" HCAObject Device.Off "HCA Central - Desk Lights"`

Note in this case the connection info is in the registry, so it is not needed on the command line.

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Once created, if you double-click on the desktop shortcut, HCACLI starts, connects, and sends the command.

Useful command reference

While this tool can send many different commands to the server, these are the common ones that will be most used.

It is important that the command be placed on the command line spelled exactly as shown in this table. Capitalization is important.

For <device name> or <program name> use the two-part name, for example, "Kitchen – lights".

For all these commands, the first item on the command line after the connection info is HCAObject

Device.On	<device name>	
Device.Off	<device name>	
Device.DimToPercent	<device name>	<percent to go to, 0-100>
Device.DimUpPercent	<device name>	<percent to change, 0-100>
Device.DimDownPercent	<device name>	<percent to change, 0-100>
Device.Suspend	<device name>	
Device.Resume	<device name>	
Program.Start	<program name>	
Schedule.SetCurrent	<schedule name>	
HCA.SetCurrentHomeMode	<mode name>	
Flag.SetNumber	<variable name>	<number>
Flag.SetText	<variable name>	<text>

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Display.On	<room name>	
Display.Off	<room name>	

Notes:

- The “Device” commands only work with devices. If you have a group, those same commands are given as Group.On, Group.Off, etc.
- For programs that act like devices, you should use Program.On, Program.Off etc.
- If you have a device that also has inputs – a keypad that directly controls a load for example - you may need to use Controller.On, Controller.Off, etc. Unfortunately, there is no consistent use of Device or Controller internally to the HCA Server. Try with Device.On and if that doesn’t work try Controller.On.
- You can also set the value of variables (“Flag” is an older HCA terminology for variable) using Flag.SetNumber and Flag.SetText
- Rooms can also be controlled on or off using Display.On and Display.Off. They control any devices in the room that follow the room state.

Examples:

HCAObject Device.On Kitchen-Lights

HCAObject.Group.On Outside-Lights

HCAObject.DimToPercent "Great Room-Lights" 50

Schedule.SetCurrent "At Home"

Flag.SetText color orange

For all the commands that HCA CLI can send to the server, review this technical note:

https://www.homecontrolassistant.com/download/Doc/TechNotes/TechNote_450_ServerProtocol.pdf

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What to do if it doesn't work?

If whatever operation you attempted appears not to work, first make sure that the computer you are running HCA CLI is connected to the correct network so it can communicate with the HCA Server. Next check the connection information: Is the IP address, port, and password correct?

If all that looks correct, then make a result file using the `/Result:<path to file>` command line argument or set that in the registry as shown above. Then try the command again.

The results file contains information that may be helpful. Check for a message about being unable to connect to the server – check the connection info again – or some problem with the command. The common return codes are:

-1: Object not found. Did you spell the device, group, program name correctly? Is it in the two-part form of room or folder name, a dash, and then the object name? If the room name or object name contains a blank, then make sure you enclose the whole name in quotes.

-103 is given if the first argument is wrong. Make sure that you use HCAObject

-104 is given if the 2nd argument – the command - isn't correct. Make sure you enter it correctly, don't forget the '.', and capitalization is important. For example, Device.On is correct but device.on isn't.

-105 is used for any parameter errors. For example, when using DimToPercent if the percent is not supplied as a number or the number is not in the range 0 to 100.

##end##