

## Using JKSimBlast with a Hardlock Network Dongle and Aladdin Monitor

The process for setting up a Hardlock network dongle is in 4 stages:

1. Install the dongle drivers on the service computer
2. Test the dongle drivers and dongle on the service computer
3. Install Aladdin Monitor and start the service
4. Install JKSimBlast on the client computers and test access to the network dongle

HL-Server is the service that provides access to the network dongle for the client computers. It can be installed in any computer on the network – this computer is referred to in these notes as the “service computer”. It is a requirement for this computer that it be on and the service must be running for any of the client computers to access the network dongle.

For the client computers, their only requirement is that JKSimBlast and the dongle drivers are installed on the computer. This installation is the same for either a local or network dongle. The JKSimBlast programs will access either dongle through the dongle drivers, and can be controlled by startup commands to use a particular dongle, local or network.

Section 5 describes how to remove the service, to swap a network dongle or move it to another computer.

Section 6 describes how to troubleshoot the most common errors encountered.

Section 7 contains batch files for installing the dongle drivers.

### Dongles

The Hardlock dongles have three different forms. In all types, a local dongle is blue, and a network dongle is green. The older types, shown on the left in the image, have “Hardlock” embossed on one side of the dongle, and a label on the other side. The newer types are embossed with “Sentinel” on the upper surface, with a label below this (except the micro type). All of the dongles have a unique serial number, which is engraved in the body of the dongle and printed on the label.



The Sentinel dongles are backward compatible with Hardlock, and are programmed as Hardlock dongles for JKSimBlast. In this document, all references to Hardlock include Sentinel type dongles.

### End of Support

For many years, JKSimBlast has used Hardlock security keys, or dongles, to control access to the software. Unfortunately, in early 2023, the supplier ended support for the dongles. This means that they are no longer providing updates for the installation of the drivers. The last released version of the installer was v8.31, which is only available as a command line process, called *haspdinst.exe*. This installer is compatible with all versions of Windows up to Windows 11, although this cannot be guaranteed for future versions of Windows.

JKSimBlast has been adapted for a new dongle, called Keylok, to replace the old Hardlock dongles. Any user with a Hardlock dongle will be able to exchange it for a comparable Keylok dongle. Until an exchange becomes necessary, future versions of JKSimBlast will continue to run with both the old Hardlock dongles and the new Keylok dongles.

## Network Dongles: Standard and Academic

There are 6 versions of encoding for Hardlock network dongles. Most dongles have the standard encoding, but for special academic purposes, to allow multiple dongles and a larger number of concurrent users, there are five academic versions. In this document, a standard network dongle may be referred to as “N” for network, and academic dongles may be referred to as “A1” to “A5”. Unless specified distinctly, references to N dongles usually include A dongles.

### 1. Install the dongle drivers on the service computer

Do not plug in the dongle until the driver setup is completed.

Run the install program *haspdinst.exe*. This must be done with Administrator Rights, either from a command prompt or using a supplied batch file. The program and batch files for running it can be downloaded from <http://soft-blast.com/Support/Downloads.html> - look for “haspdinst\_v8.31.zip”.

*haspdinst* has several options, which must be specified to install the legacy drivers for Hardlock.

- *haspdinst -help*      show the available program options
- *haspdinst -info*      show the versions currently installed versions and in the installer
- *haspdinst.exe -i -fi -kp -fss -ld*      install the Hardlock drivers
- *haspdinst.exe -r -fr -kp -fss -purge*      remove a previous installation of the Hardlock drivers

The commands above can be run from a batch file. Examples of these, ready to use, are included with the download from Soft-Blast. Alternatively, the batch codes are included at the end of this document in Section 7.

The installer can be run separately from the install for JKSimBlast.

If you have previously installed the dongle drivers *HASPUUserSetup*, you must remove this installation before installing with *haspdinst*. If installing JKSimBlast, remove *HASPUUserSetup* from the installation files, run the JKSimBlast installation, and then run *haspdinst*.

### 2. Test the dongle drivers and dongle on the service computer

A test program named *HL\_test.exe* is provided with the JKSimBlast installation files in a folder containing other Hardlock files. This program can test dongles both locally and on the network.

A network dongle can be tested both locally and on the network. A local dongle can only be tested locally.

2.1 Copy the program to a convenient location (such as the desktop) or run it directly from a USB drive if possible.

2.2 Start the program. If the program opens, go to the next step.

If the program does not open, the error message below may appear:



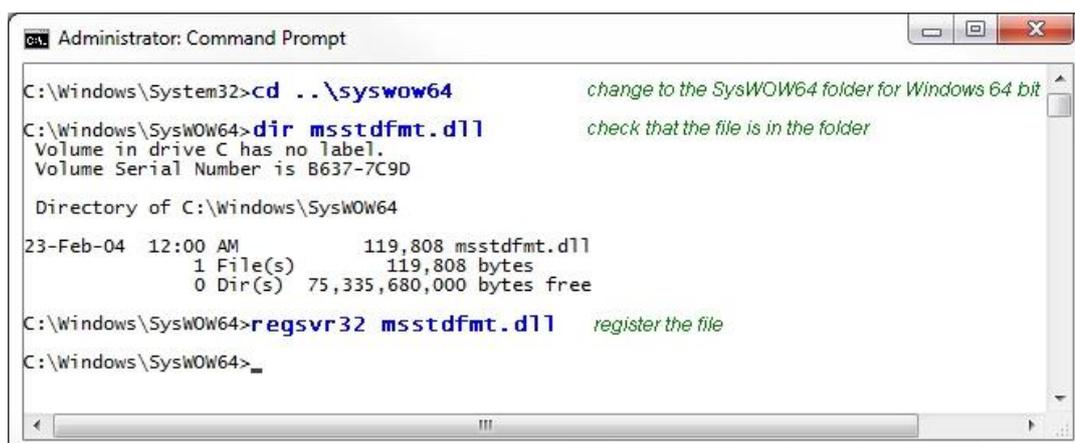
This means that the file is missing from the system folder on the computer, or if it is present then it is not registered.

A copy of the file is provided with the JKSimBlast installation files, in the system folder. Copy the file to the relevant system folder.

For 32-bit Windows, copy to C:\Windows\System32

For 64 bit Windows, copy to C:\Windows\SysWOW64

Open a command prompt with Administrator Rights, and register the file using the commands shown below in blue. If the file is in SysWOW64, change to that folder (as shown in the first command).



If the file is registered correctly, the message below will appear:



If this file is not registered, it is possible that other system files for JKSimBlast are also not registered. See the document *JKSimBlast File Registration.pdf* for more detailed instructions.

2.3 It is only possible to check the network dongle locally on the computer at this stage.

In the test program, select the option Local: ? and click the [LOGIN] button. The program will search through different types of dongles – if it finds a dongle, it will stop at that option and display the details of the dongle's memory.

If the results are similar to the image at right, this confirms that the dongle drivers are successfully installed and the dongle is in a working condition.

If no dongle can be found, then the first solution to try is to reboot the computer and then try *HL\_Test* again.

Sometimes, this is necessary after an install so that the new system files can be found.

If the dongle still cannot be found, check that the LED lamp at the end of the dongle is on, and not off or flashing. If it is off, the computer may not have recognised it or there is a problem with USB port. If it is flashing, the dongle may be faulty. Try testing another dongle or on a different computer.

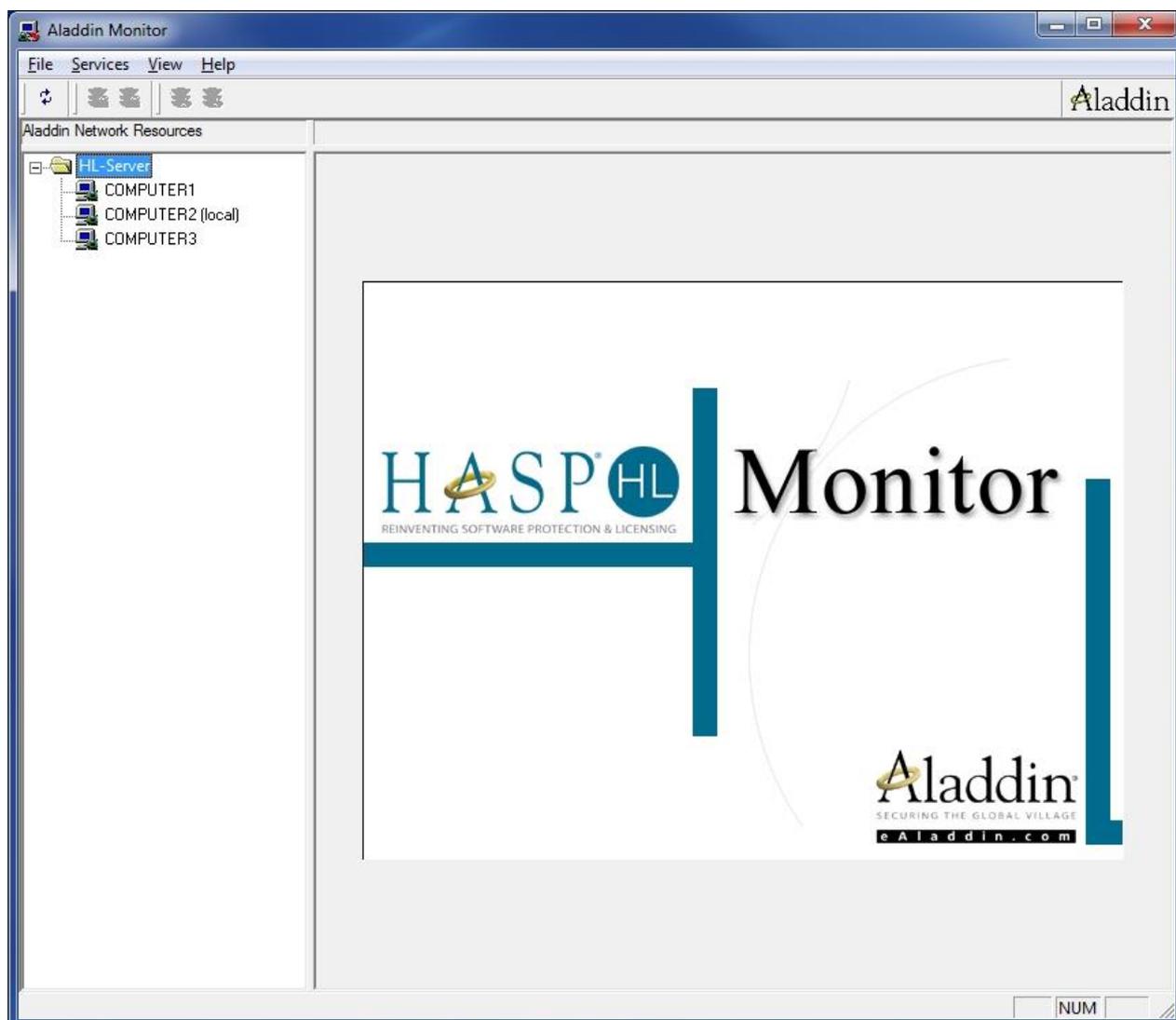
The screenshot shows the 'Dongle Test' application window. The 'Local' section has radio buttons for options '?', 'G', 'B', 'F', 'R', 'Alt', 'N', 'A1', 'A2', 'A3', 'A4', and 'A5'. The '?' option is selected. Below this, there is a 'Remote' section with similar radio buttons, none of which are selected. A 'LOGIN' button is highlighted, and a 'LOGOUT' button is also visible. The 'Status' field shows '0 -- STATUS\_OK'. The 'Result' field shows 'Local: Net code'. The 'USB ID' field shows '29FD0485'. The 'Port' is 'USB' and 'Users' is '1/1'. The 'IP Addr' is 'LOCAL'. The 'Serial#' is '103001' and 'C.ID.' is '?NA?'. The 'Created' date is '2010-10-10' and 'D.Code' is 'N001'. The 'Client' information is 'Soft-Blast P/L TRAINING LICENSE' and 'Logins' is '0020'. A small icon in the bottom left corner is used for copying data.

The button in the lower left corner copies the internal memory details of the dongle. If a problem is encountered with the dongle (local or network), click this button and paste the data into an email and send to Soft-Blast.

### 3. Install Aladdin Monitor and start the service

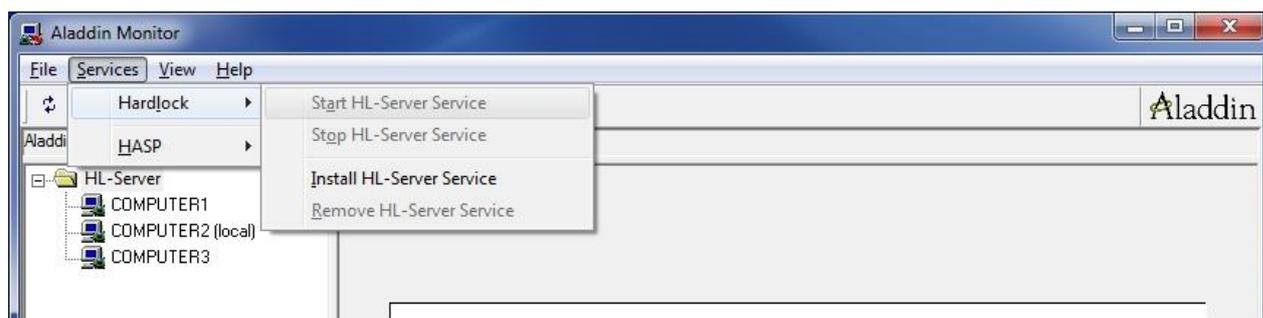
The Aladdin Monitor program can be used to install and start HL-Server and to monitor the users accessing the network dongle.

- 3.1 Install Aladdin Monitor with *askmon32\_setup.exe*, then start the program with Administrator Rights. This is required so that the program can install and start the service.

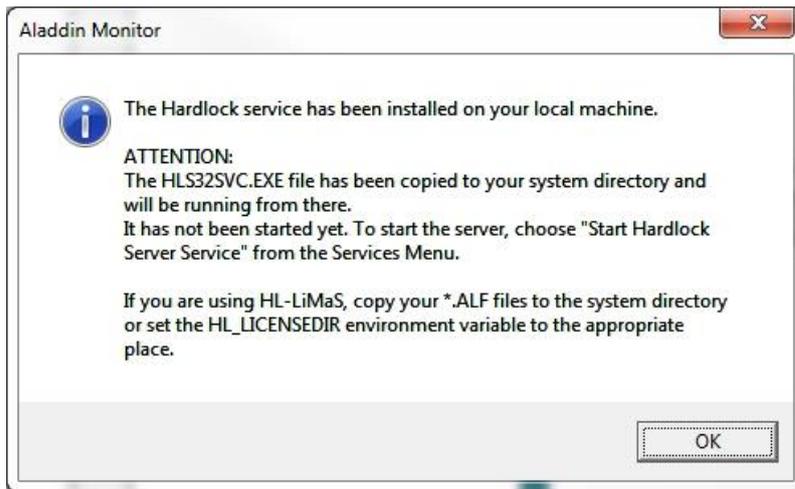


The local computer is the one where the Aladdin Monitor program is running. It may find other computers on the network that are also running HLServer, as shown.

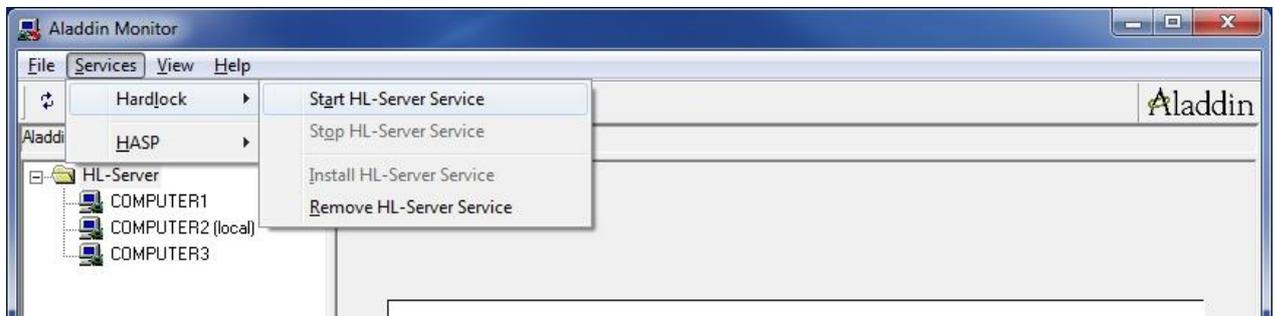
- 3.2 Install the HL-Server Service for Hardlock.



### 3.3 Service successfully installed.

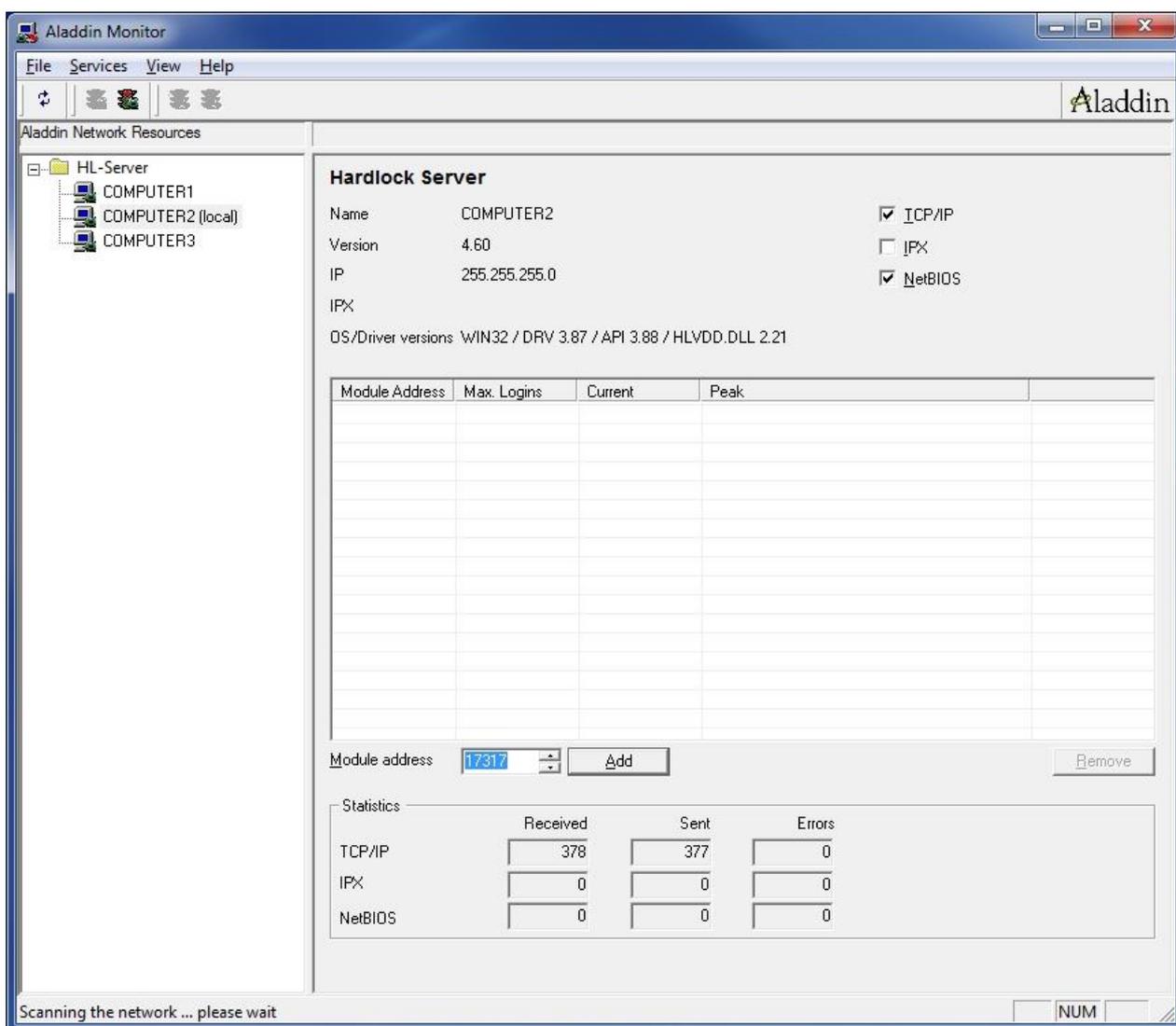


### 3.4 Start the service



The computer should start scanning the network automatically.

## 3.5 Enter the Module Address for the network dongle, and click [Add].



For a standard JKSimBlast network dongle, the module address is 17317.

For special academic dongles (to allow multiple dongles), the module addresses are:

A1 = 17331

A2 = 17332

A3 = 17333

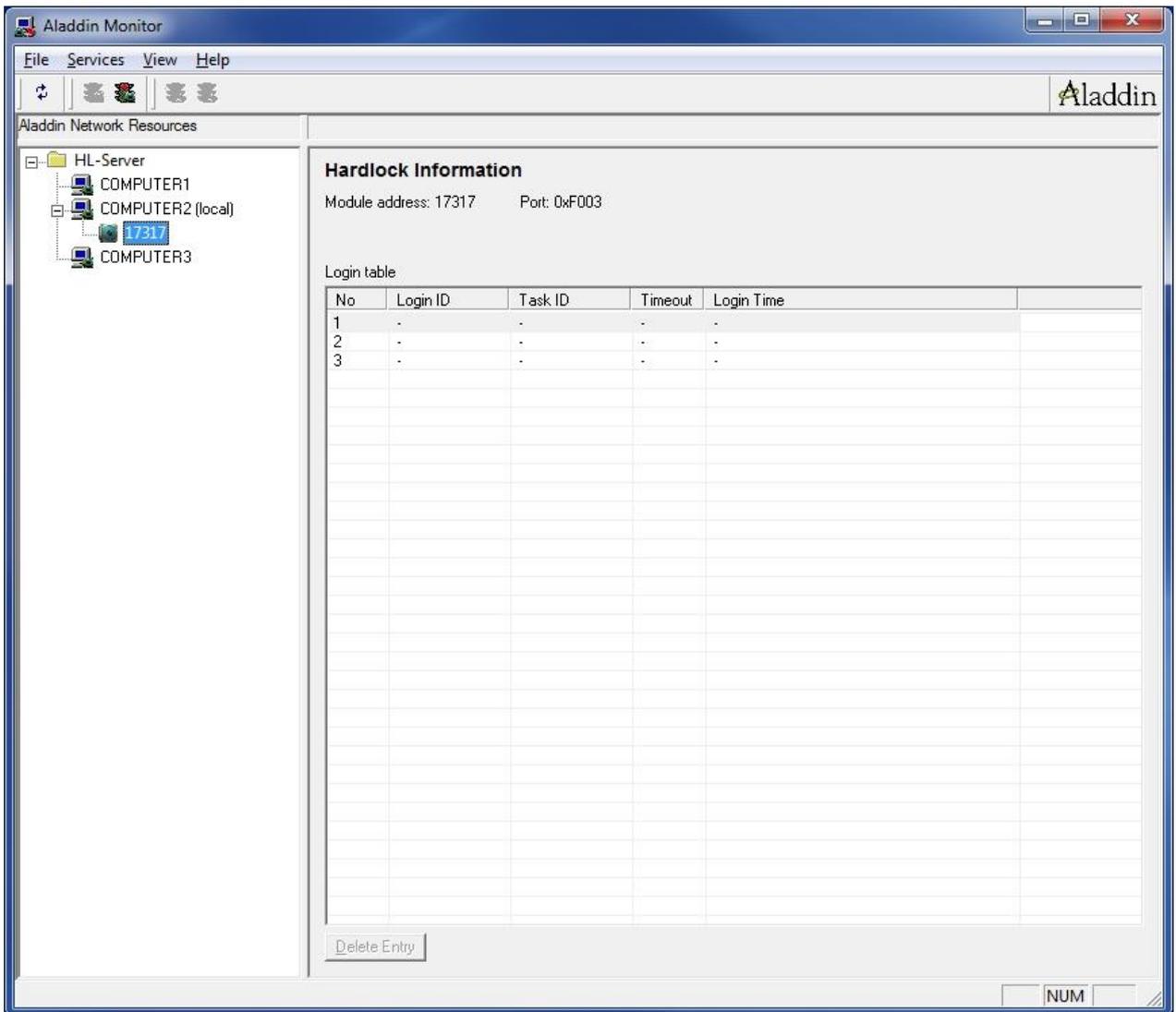
A4 = 17334

A5 = 17335

If the dongle does not appear in the list (it may take some time), click the [scan] button 



## 3.7 Detail of activity for the selected dongle.



After a dongle has been added, it appears in the tree on the left, under the computer where it is plugged in.

Select a dongle in the tree to view the current status.

#### 4. Test access to the dongle from the network

The test program can now check the dongle on the network. This can be done on the service computer or any of the client computers, if they have been setup for JKSimBlast.

Select one of the options under Remote, and click the [LOGIN] button.

Aladdin Monitor will display the new status of the dongle.

By running multiple instances of the test program – on one or several client computers – the number of available logins can be checked on Aladdin Monitor.

Aladdin Monitor displays:

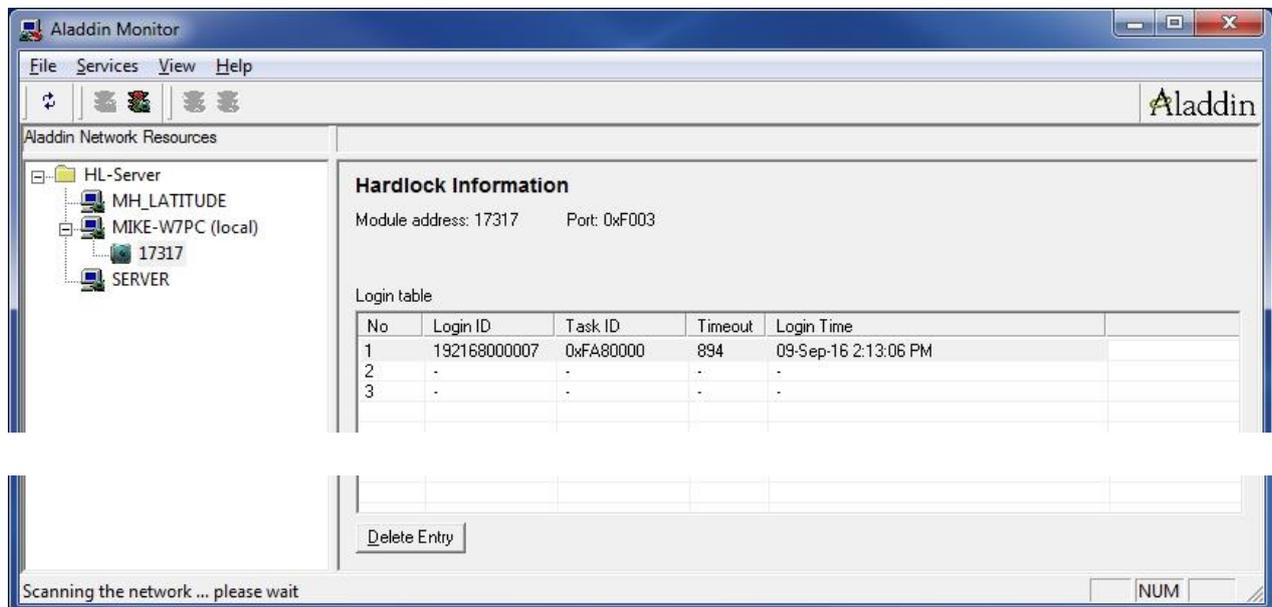
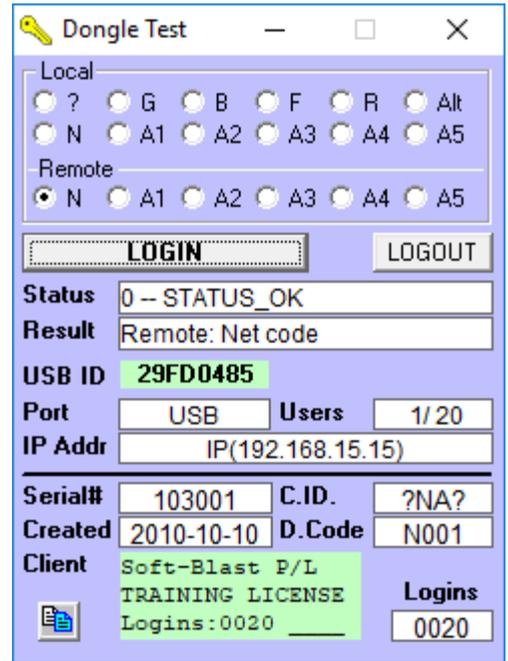
Login ID is the IP address of the client computer.

Task ID is the process ID (in hex) for the application on the client computer.

Timeout is the amount of time, in seconds, until the client application will be automatically deleted from the list if there is no activity from the application that requires access to the network dongle.

Login Time is when the client application last accessed the network dongle.

To manually remove an application from the list, select the row, then click the [Delete] button at the bottom of the list.

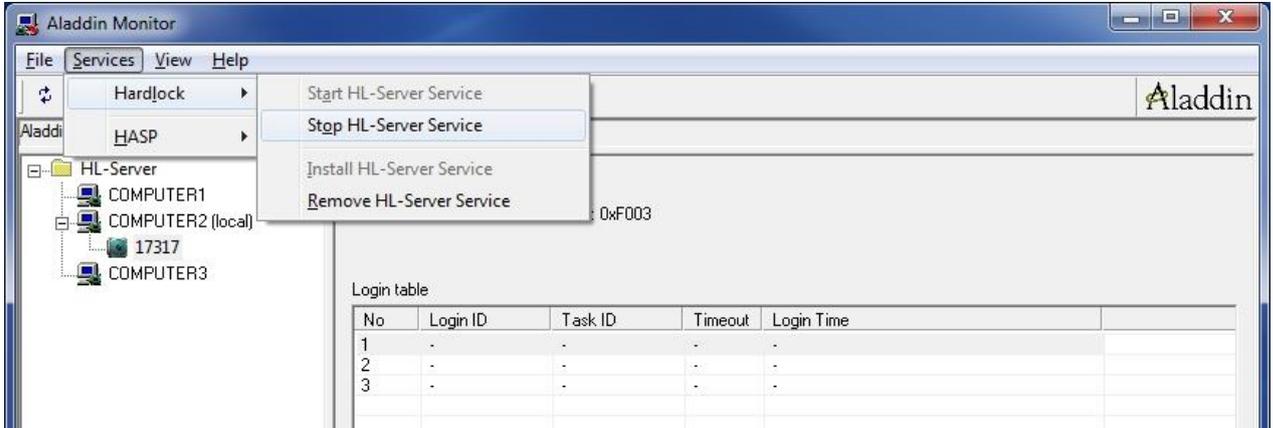


If the test program has successfully connected to the network dongle, then the JKSimBlast programs can now be checked to ensure that they run correctly.

## 5. Stop and remove the HL-Server service.

### 5.1 Stop the service.

First, ensure that there are no client computers using the dongle – close any open JKSimBlast programs.



### 5.2 Confirm

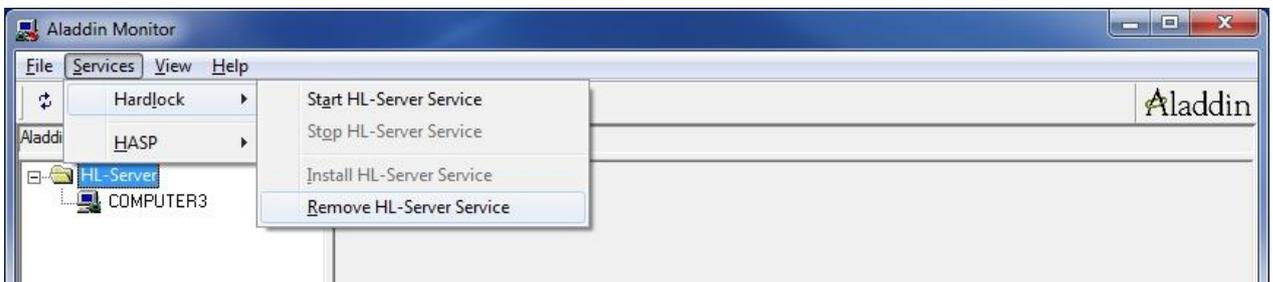


This is all that is required to exchange a dongle (e.g. to replace a dongle with an upgrade).

The dongle can now be removed, and a new dongle inserted. Go back to step 3.4 to restart the service and add the new dongle.

When it is running again, the JKSimBlast programs can be restarted. Note that it may be necessary to replace any license files or change program commands if the settings of the new dongle are different from the previous dongle.

### 5.3 Remove the service.



Perform this final step if the dongle is to be removed from the local computer. It can now be installed on a different computer if desired.

## Notes

- Manuals for the Hardlock dongles and HL-Server are provided with the JKSimBlast installation files. Look for the files *HL\_End\_Users\_Manual.pdf* and *HL-Server.pdf* in the `..\install\Hardlock` folder.
- A Hardlock network dongle is green. A local dongle is blue, and cannot be used as a network dongle.
- A network dongle can only be used with HL-Server. JKSimBlast cannot be run directly on the same computer without the service.
- Aladdin Monitor can be used to install and start the HL-Server service and monitor the network dongle.
- The HL-Server service can be run on any computer in the network, including a client computer.
- Aladdin Monitor can be run from any other computer in the network to monitor any dongle on the network. The network dongle does not have to be plugged into the local computer.
- After the HL-Server service is installed and running, Aladdin Monitor can be shut down. The service will continue to run and client computers can access the network dongle.
- The client computers connect to the HL-Server service, via the dongle drivers installed on each client computer. HL-Server provides the connection between the client computer and the network dongle.

## 6. Troubleshooting

If the client computer cannot find the HL-Server on the service computer, two possible causes are:

- 1) The client computer is not in the same network segment as the service computer
- 2) The Windows Firewall is blocking access on the service computer or the client computer.

### Solutions

- 1) Set the IP address of the service computer as an Environment Variable on the client computer.
  - right-click "My Computer" and select "Properties", or open Control Panel and select "System"
  - select "Advanced system settings"
  - click [Environment Variables]
  - click [New], either for User or System
  - in "Variable name:" enter HLS\_IPADDR
  - in "Variable value:" enter the TCP/IP address of the service computer, e.g 192.168.1.2
  - click [OK], and then close the other forms

Usually it is better to restart the client computer to ensure that the environment variables take effect.

- 2) Open the port 3047 for both TCP and UDP as an exception in Windows Firewall
  - go to Control Panel > Windows Firewall
  - click "Advanced settings"
  - select "Inbound Rules" and click "New Rule..."
  - select "Port" then click [Next]
  - select "TCP" and "Specific local ports:" and enter 3047, click [Next]
  - select "Allow the connection", [Next]
  - tick the network types, typically "Domain", and also "Private" if applicable, [Next]
  - enter a "Name" and a "Description", then [Finish]
  - repeat for another "New Rule...", and substitute "UDP" for "TCP"

## 7. Batch Files for Installation of Hardlock Drivers

These batch files can be used to facilitate installation of the Hardlock dongle drivers, or can be incorporated into larger batch files to automate installation of JKSimBlast.

haspdinst-help.bat	- display the program options
haspdinst-info.bat	- display details of the currently installed version and in this installer
haspdinst-install.bat	- install the Hardlock drivers
haspdinst-remove.bat	- remove a previous installation - after this, it is recommended to reboot before installing

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### haspdinst-help.bat

```
@echo off
setlocal EnableDelayedExpansion
%~d0
cd %~dp0

net session >nul 2>&1
if %ErrorLevel% EQU 0 (
    %~dp0haspdinst.exe -h
) else (
    echo.
    echo.           Administrator Privileges not available.
    echo.
    echo.           The batch program will terminate.
    echo.           Press any key to close.
    pause >nul
)
endlocal
```

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### haspdinst-info.bat

```
@echo off
setlocal EnableDelayedExpansion
%~d0
cd %~dp0

net session >nul 2>&1
if %ErrorLevel% EQU 0 (
    %~dp0haspdinst.exe -info
) else (
    echo.
    echo.           Administrator Privileges not available.
    echo.
    echo.           The batch program will terminate.
    echo.           Press any key to close.
    pause >nul
)
endlocal
```

---

**haspdinst-install.bat**

```
@echo off
setlocal EnableDelayedExpansion
%~d0
cd %~dp0

net session >nul 2>&1
if %ErrorLevel% EQU 0 (
    %~dp0haspdinst.exe -i -fi -kp -fss -ld
) else (
    echo.
    echo.                Administrator Privileges not available.
    echo.
    echo.                The batch program will terminate.
    echo.                Press any key to close.
    pause >nul
)
endlocal
```

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**haspdinst-remove.bat**

```
@echo off
setlocal EnableDelayedExpansion
%~d0
cd %~dp0

net session >nul 2>&1
if %ErrorLevel% EQU 0 (
    %~dp0haspdinst.exe -r -fr -kp -fss -purge
) else (
    echo.
    echo.                Administrator Privileges not available.
    echo.
    echo.                The batch program will terminate.
    echo.                Press any key to close.
    pause >nul
)
endlocal
```

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