

License Reference Manual

by

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ASH WARE, Inc.

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ASH WARE Inc.

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1

Overview

ASH WARE software provides several different licensing mechanisms. The default license type is a node-locked license. With this type of license, the software only runs in full-featured mode on the registered and licensed PC. The software can also be associated with a USB license dongle, in which case the software only runs in full-featured mode when the dongle is plugged into the system. The third license type available is a network license. Network licenses are served out by a network license server. Any computers on the network may install the client application software, but only the licensed number of clients may run the software in full-featured mode simultaneously. The following sections of this reference manual provide further details on these license options. Note that all ASH WARE products run at a demonstration level on unlicensed computers.

All ASH WARE licenses also have an expiration date, or subscription end date, associated with them. What does this mean? Licensees have access to software releases of their licensed software product(s) that occur *prior* to this date, but not anything newer. Past this date, licenses are still valid, but only for older software that meets the date criteria. It is always recommended that users keep their software subscriptions up to date so that they have access to the latest software and its new features and bug fixes.

In the future, software lease license options may be available.

2

Node-Locked Licensing

The standard licensing mechanism for ASH WARE software is a node-locked license. With this license, the installed software will only run in full-featured mode on the computer which is registered for the node-locked license. The node-lock can be moved to a different computer upon request from the registered user.

In order to get the node-locked software installed and registered, a multi-step process must be followed:

1. Download and install a demo version of the desired software product, which can be found at:

<http://www.ashware.com/demo.htm>

2. E-mail to ASH WARE (license@ashware.com) the license file, named "AshWareComputerKey.ack", found in the installation directory.

3. Wait until you receive an e-mail notification that the information from your license file has been added to the DevTool installation utility.

4. Download and install a fully-licensed version of the desired software product, which can be found at:

<http://www.ashware.com/upgrade.htm>

2. Node-Locked Licensing

Note that ASH WARE software will first check for a network license, if so configured, then check for a USB license dongle, and finally, check for a node-locked license before giving up and running in demonstration mode.

The advantage of this license type is that it allows for full electronic delivery of the product and quick turnaround from software purchase to availability of fully-licensed product.

3

Dongle-based Licensing

ASH WARE software license(s) can be tied to a USB license dongle. When a license dongle is purchased, it comes pre-loaded with license information. In order to install fully functional software, the USB license dongle must first be plugged into the computer before starting the installation process (The USB dongle does not require that any drivers be installed). The software package and USB license dongle may or may not come with a software CD, but in any case, it is best to download and install ASH WARE software from the URL:

<http://www.ashware.com/upgrade.htm>

The software can be installed on as many computers as desired, but it will only run in fully-functional mode when the USB dongle is plugged in. If the USB dongle is removed while the software is running, the software will eventually timeout and terminate.

Note that ASH WARE software will first check for a network license, if so configured, then check for a USB license dongle, and finally, check for a node-locked license before giving up and running in demonstration mode.

Only one USB license dongle can be attached to a PC at a time. Thus if a user must run multiple ASH WARE software packages simultaneously, it is recommended that multiple licenses get associated with a single USB dongle.

The advantage of the USB license dongle is that it improves the portability of the licensed software.

4

Network Licensing

The third type of licensing available for ASH WARE products is network licensing. In this case, a network license server has a license, or set of licenses, that it doles out upon request from client computers running ASH WARE software applications. For example, there could be 10 client computers that may potentially run ASH WARE software. If the network license server has 2 licenses to give out, only 2 of those 10 can ever be running ASH WARE software simultaneously. This style of license is often referred to as “floating”.

Network licenses are categorized by product type. For example, a single network license server could have 2 TPU Simulator licenses, 3 eTPU Simulator licenses and 2 ETEC C Compiler licenses available to serve out. When a client computer runs an ASH WARE application, it contacts the license server and requests a license. If one is available the client computer runs the application in full-feature mode, but if all licenses are taken, or there are no licenses for the requested product type (e.g. eTPU2 Simulator requesting a license when only eTPU Simulator licenses are available) then the application will run in demonstration mode.

When a client gets a full license, it then holds it for a minimum of what is called the “linger time”. The linger time for a product is part of the license information. If a client exits an application, and then re-runs the application while it is still holding the license due to linger time, it re-acquires the same license.

4. Network Licensing

While an application is running, it periodically checks in with the license server in order to keep its license held, etc. If this license heartbeat fails, e.g. due to network disconnect or license server shutdown, the application will terminate.

A software product type that is a subset of an available network license can acquire that license. For example, if a client runs the eTPU Simulator product, but the network license server only has available an eTPU2 Simulator license, the client will acquire the eTPU2 license and run in full-capability mode since the eTPU Simulator is a subset product of the eTPU2 Simulator.

For situations where the client cannot connect to the License Server for an extended period of time, such as if a user needs to travel, etc., the ASH WARE Network Licensing provides a check-out capability. A client can request to check out a license for an extended period. When successfully checked out, the licensed software can be used without a connection to the License Server, however, for the rest of the clients this license is locked and not available during the check-out time. The license becomes available (floating) again when the check-out time expires, or when the client holding the checked-out license returns and explicitly checks in the license.

The following sections provide further detail on network license server installation, client application installation, and other configuration and usage information. Also of interest to network license users is section 5, which describes the ASH WARE License Utility. This tool is useful to get current use information on network licenses.

Note that ASH WARE software will first check for a network license, if so configured, then check for a USB license dongle, and finally, check for a node-locked license before giving up and running in demonstration mode.

The advantage of network licensing is that if a number of users of ASH WARE software are just part-time users, they can more effectively share a smaller number of licenses with network licensing. Additionally, updated licensing information only has to be applied on one computer, the network license server, potentially easing maintenance issues and overhead.

4.1 System Requirements

Use of ASH WARE network licensing requires the following infrastructure:

- Windows TCP/IP networking.
- No firewalls between clients and license server, or at the very least, the TCP port in use (default is 6333) must be forwarded through the firewall.

The ASH WARE license server software requires the following:

- The license server computer must be running Windows XP or newer, or preferably Windows Server (2003 or newer).
- The license server must have .NET Framework 2.0 or newer installed.

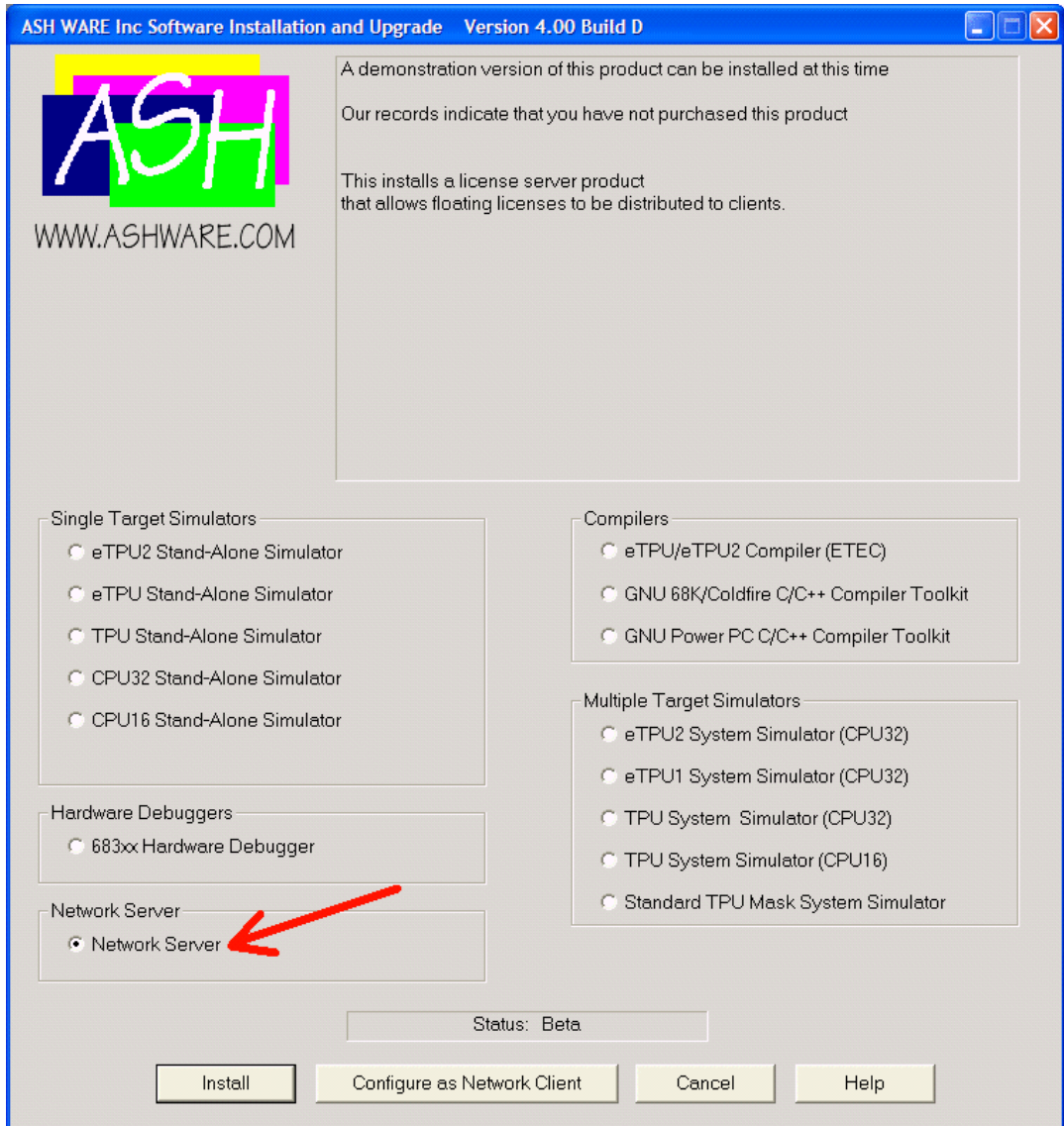
4.2 Installation Overview

Install the License Server first. Once the License Server is installed, then install a client.

4. Network Licensing

4.3 Server Installation

The server installation begins by running the ASH WARE software installation software. To install the License Server, select the “Network License Server” as shown below..

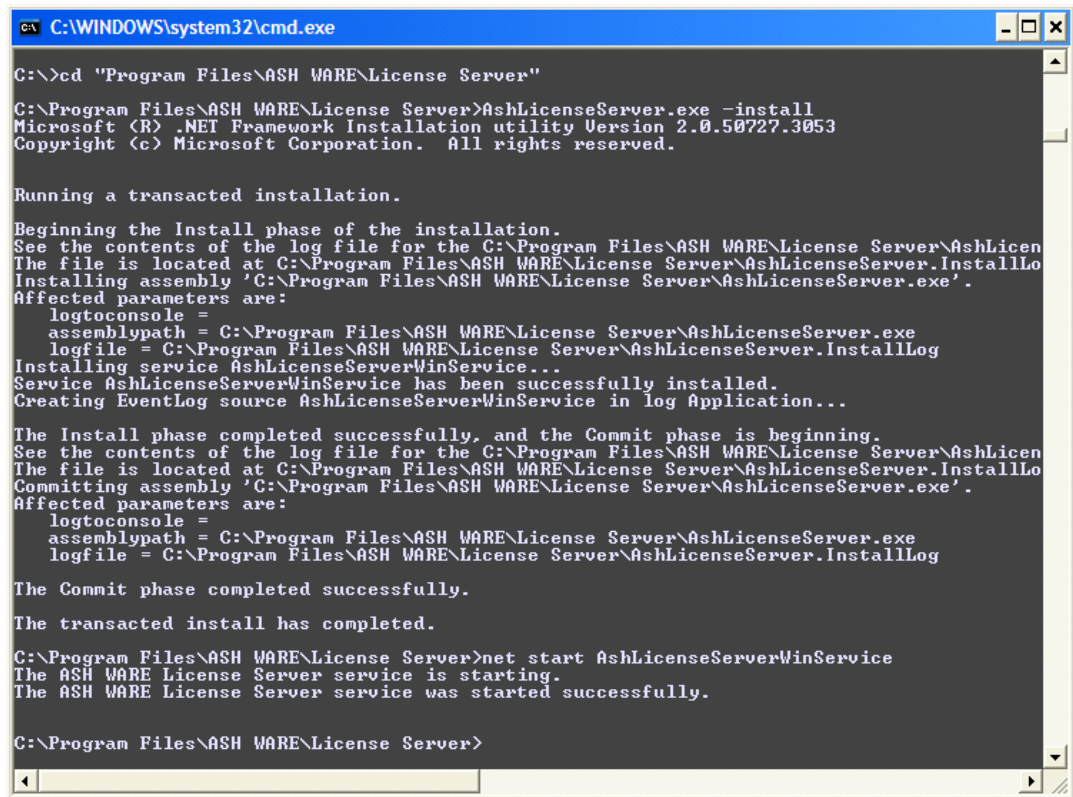


The network license server runs as a Windows Service and itself uses either node-locked licensing or USB dongle licensing. If using node-locked, the installation must be done as step one and the generated license file “AshWareComputerKey.ack” must be sent to license@ashware.com. The license file can be found in the installation directory.

Once the above step has been done (if a USB dongle has been ordered there is no need to send a license file), ASH WARE will generate a network license data file that is to be installed in the license server installation directory (default is “C:\Program Files\ASH WARE\License Server”). The file will have the name Invoice<num>.NetworkLicenseBall, where <num> is replaced by an ASH WARE invoice number associated with the network license order. This is a binary file that cannot be edited and must not be re-named. Once installed, the license server service must be re-started (it is named AshLicenseServerWinService). The process is documented in detail below.

Open a console window and navigate to directory “C:\Program Files\ASH WARE\License Server”. **IMPORTANT NOTE:** On platforms such as Windows 7, and perhaps others, it is critical that the console window be opened in administrator mode (“Run as administrator”).

4. Network Licensing



```
C:\WINDOWS\system32\cmd.exe

C:\>cd "Program Files\ASH WARE\License Server"

C:\Program Files\ASH WARE\License Server>AshLicenseServer.exe -install
Microsoft (R) .NET Framework Installation utility Version 2.0.50727.3053
Copyright (c) Microsoft Corporation. All rights reserved.

Running a transacted installation.

Beginning the Install phase of the installation.
See the contents of the log file for the C:\Program Files\ASH WARE\License Server\AshLicen
The file is located at C:\Program Files\ASH WARE\License Server\AshLicenseServer.InstallLo
Installing assembly 'C:\Program Files\ASH WARE\License Server\AshLicenseServer.exe'.
Affected parameters are:
  logtoconsole =
  assemblypath = C:\Program Files\ASH WARE\License Server\AshLicenseServer.exe
  logfile = C:\Program Files\ASH WARE\License Server\AshLicenseServer.InstallLog
Installing service AshLicenseServerWinService...
Service AshLicenseServerWinService has been successfully installed.
Creating EventLog source AshLicenseServerWinService in log Application...

The Install phase completed successfully, and the Commit phase is beginning.
See the contents of the log file for the C:\Program Files\ASH WARE\License Server\AshLicen
The file is located at C:\Program Files\ASH WARE\License Server\AshLicenseServer.InstallLo
Committing assembly 'C:\Program Files\ASH WARE\License Server\AshLicenseServer.exe'.
Affected parameters are:
  logtoconsole =
  assemblypath = C:\Program Files\ASH WARE\License Server\AshLicenseServer.exe
  logfile = C:\Program Files\ASH WARE\License Server\AshLicenseServer.InstallLog

The Commit phase completed successfully.

The transacted install has completed.

C:\Program Files\ASH WARE\License Server>net start AshLicenseServerWinService
The ASH WARE License Server service is starting.
The ASH WARE License Server service was started successfully.

C:\Program Files\ASH WARE\License Server>
```

IMPORTANT: do not copy and paste these commands from this manual, as they contain non-ASCII characters and will not work properly - the text must be typed in manually!

Stop any previously running installation of the License Server using the following command.

```
net stop AshLicenseServerWinService
```

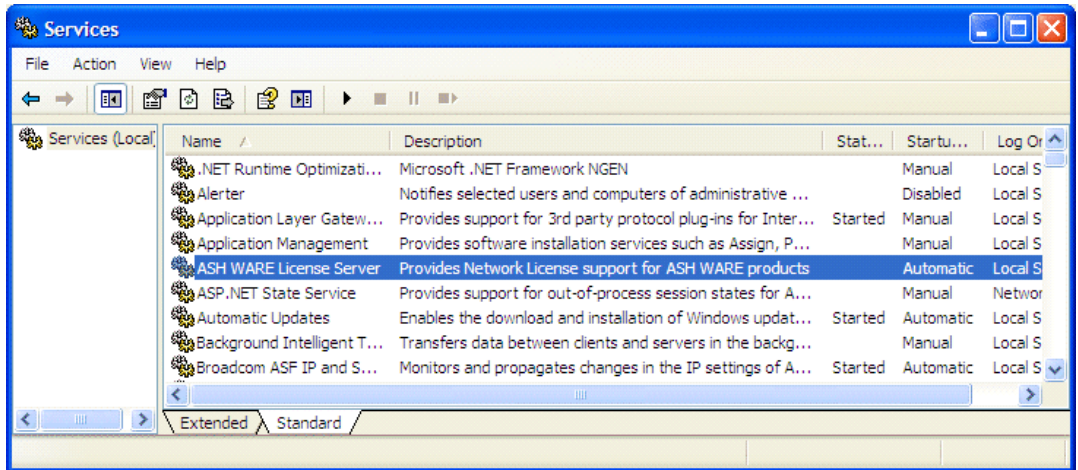
Install the Network License Service as a Windows service using the following command.

```
AshLicenseServer.exe -install
```

Open the Windows “Control Panel”.

From the Windows “Control Panel”, open “Administrative Tools”

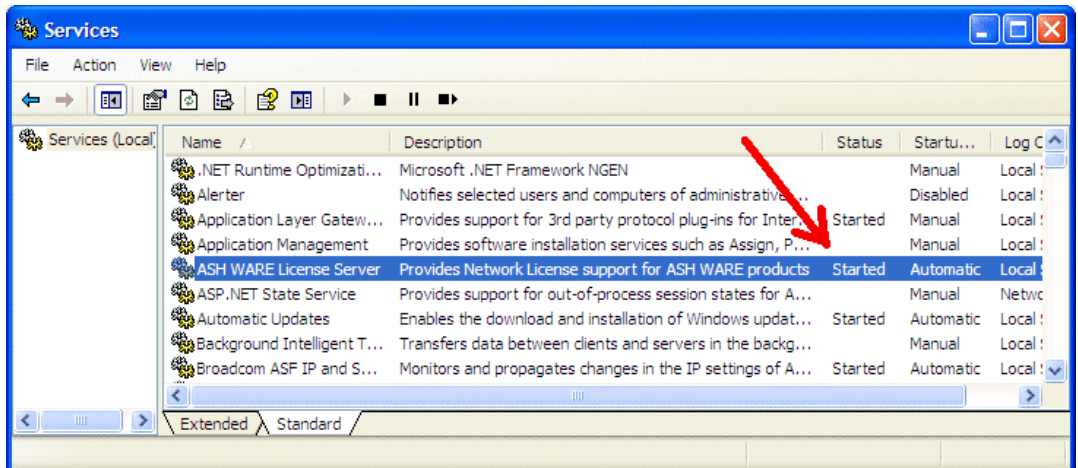
From “Administrative Tools”, open “Services”. Verify that the License Server is installed, but stopped, as shown below.



In the console window start the license server using the following command and verify that the service has started using the following command.

```
net start AshLicenseServerWinService
```

Verify that the service is now started, as shown below in the services windows. Note that in the “Services” window you will need to go into the ‘Action’ menu and select the ‘Refresh’ sub-menu. Verify that the Status indicates “Started”. If the service has not started, take a look at the section on debugging a failing License Server service, 4.3.2.

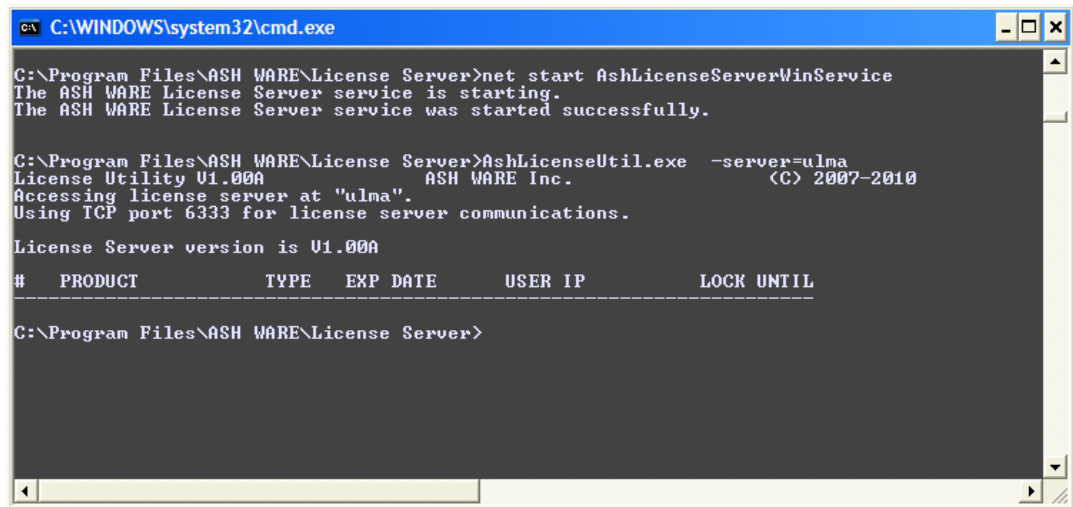


Check the availability of network licenses using the following command

```
AshLicenseUtil.exe -server=<ServerName>
```

4. Network Licensing

Since no network license file has yet been placed in the installation directory, no licenses should be available and a screen such as the following should appear. Note that this is being installed on a server named “Ulma” and you need to use your own server’s name or IP address (which is likely NOT “Ulma”)



```
C:\WINDOWS\system32\cmd.exe

C:\Program Files\ASH WARE\License Server>net start AshLicenseServerWinService
The ASH WARE License Server service is starting.
The ASH WARE License Server service was started successfully.

C:\Program Files\ASH WARE\License Server>AshLicenseUtil.exe -server=ulma
License Utility V1.00A      ASH WARE Inc.      (C) 2007-2010
Accessing license server at "ulma".
Using TCP port 6333 for license server communications.

License Server version is V1.00A

#   PRODUCT          TYPE   EXP DATE   USER IP      LOCK UNTIL
-----
C:\Program Files\ASH WARE\License Server>
```

Copy the ASH WARE provided network license file into the directory. If you don’t have a network license file you will need to contact ASH WARE Inc. to obtain one. See a previous section for information of obtaining a network license file from ASH WARE.

In order to get the License Server to read the network license file the service must be restarted using the following two commands

```
net stop AshLicenseServerWinService
net start AshLicenseServerWinService
```

Now check that the License Server can hand out the expected licenses using the following command

```
AshLicenseUtil.exe -server=<ServerName>
```

The purchased floating licenses should now be listed, similar to the following

```

C:\WINDOWS\system32\cmd.exe

C:\Program Files\ASH WARE\License Server>net stop AshLicenseServerWinService
The ASH WARE License Server service is stopping.
The ASH WARE License Server service was stopped successfully.

C:\Program Files\ASH WARE\License Server>net start AshLicenseServerWinService
The ASH WARE License Server service is starting.
The ASH WARE License Server service was started successfully.

C:\Program Files\ASH WARE\License Server>AshLicenseUtil.exe -server=ulma
License Utility U1.000A      ASH WARE Inc.      (C) 2007-2010
Accessing license server at "ulma".
Using TCP port 6333 for license server communications.

License Server version is U1.000A

#  PRODUCT                TYPE  EXP DATE   USER IP    LOCK UNTIL
-----
0  ETpu2Sys$im             full  2011-11-11 0.0.0.0    10:31:48  2010-03-24
1  eTpuEttec               full  2011-11-11 0.0.0.0    10:16:48  2010-03-24
2  ETpu2Sys$im             full  2011-11-11 0.0.0.0    10:31:48  2010-03-24
3  ETpu2Sys$im             full  2011-11-11 0.0.0.0    10:31:48  2010-03-24

C:\Program Files\ASH WARE\License Server>_

```

For more information on the ASH WARE License Utility; see section 5.

The network license server installs in automatic mode, thus it will be started automatically whenever the license server PC re-boots.

IMPORTANT: do not copy and paste the commands below from this manual, as they contain non-ASCII characters and will not work properly - the text must be typed in manually!

Note that the network license server can be installed and uninstalled manually with the following command line entries (current directory must be the installation directory):

```

AshLicenseServer.exe -install
AshLicenseServer.exe -install /u

```

One last important note. When the license server first starts, all network licenses begin in a locked state for their linger time, after which time they all become available for use. This situation should only occur on the initial license server installation; future re-boots or stops and re-starts should come up in a normal state.

4.3.1 Server Port Configuration

By default the License Server uses listens on port 6333 for license requests. To use a different port, a text file named "AshNetLicenseServerPort.txt" should be added to the License Server installation directory. It must contain a single text line with just the port

4. Network Licensing

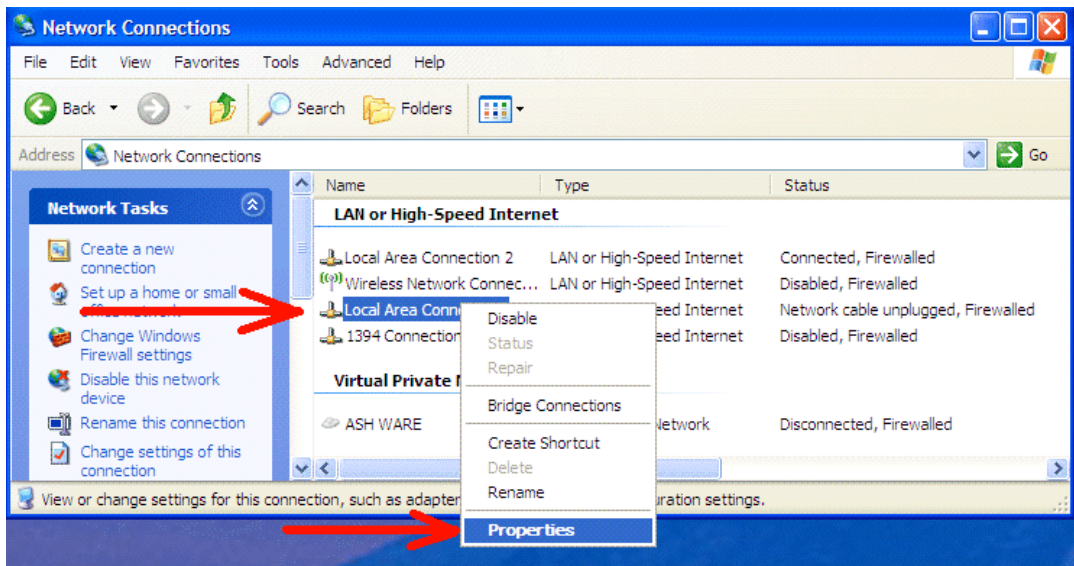
number to use (e.g. 6789). In order for the setting to take effect, the service must be stopped and then re-started:

```
net stop AshLicenseServerWinService
net start AshLicenseServerWinService
```

4.3.2 Unblocking the Port

The License Server communicates with clients across a TCP port. Under most configurations the port is blocked such that it must be unblocked before the server can communicate with clients. This section describes how to unblock a port under the Windows XP operating system. The procedure is similar for other operating systems and other firewall software.

On the server, from the Windows 'Control Panel' open 'Network Connections.' Right click on the applicable network connection and select 'Properties' as follows.

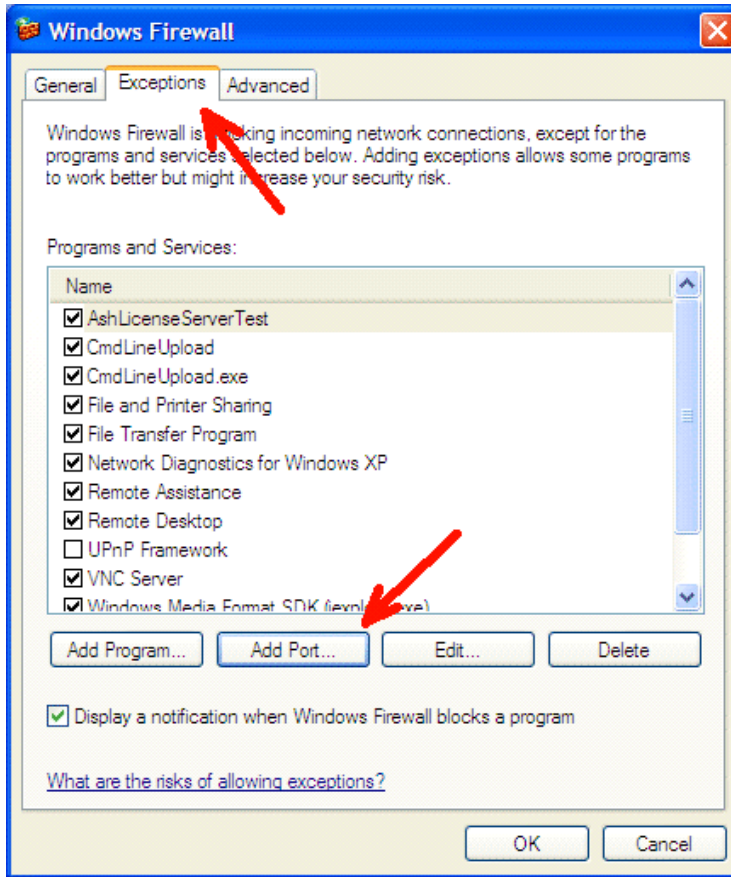


In the 'Local Area Connection Properties' click on the 'Advanced' tab, then click on the 'Settings' button as shown below.



The “Windows Firewall” dialog shown below should open. Click on the ‘Exceptions’ tab and then the ‘Add Port ...’ button as shown below.

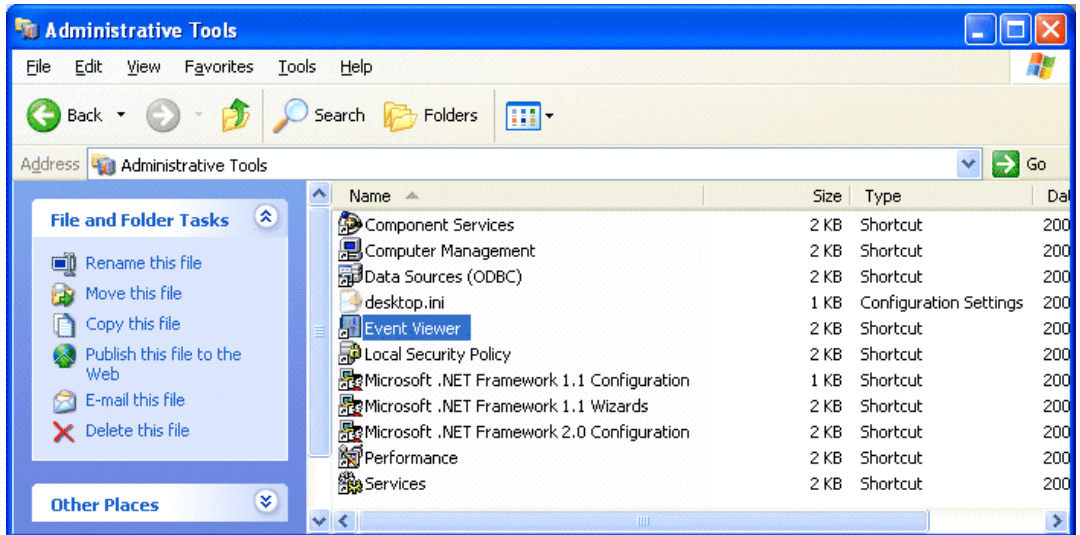
4. Network Licensing



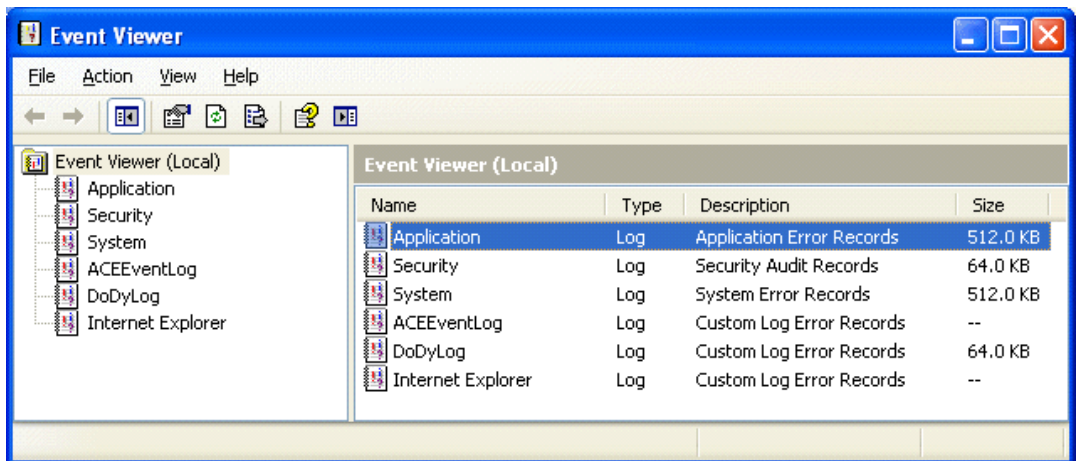
The “Add Port” dialog shown below should open. Enter a port name such as “ASH WARE License Server” and a port number such as the default, 6333 as shown below. Click Ok.

4.3.3 Debugging License Service not Starting

If the License Server service does not start, or encounters any other problems, the first place to check for clues as to what is wrong is in the Windows Event Log. On the server, from the Windows ‘Control Panel’ open ‘Administrative Tools.’ Double-click on the Event Viewer item.

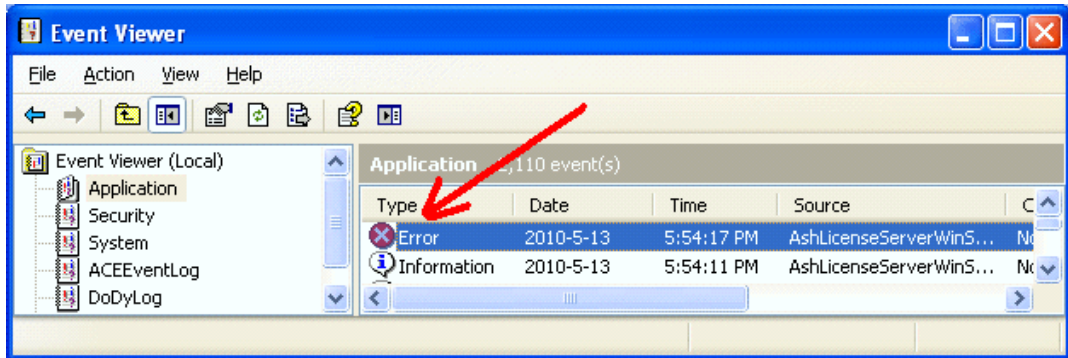


In the Event View window, double-click on the Application Error Records.

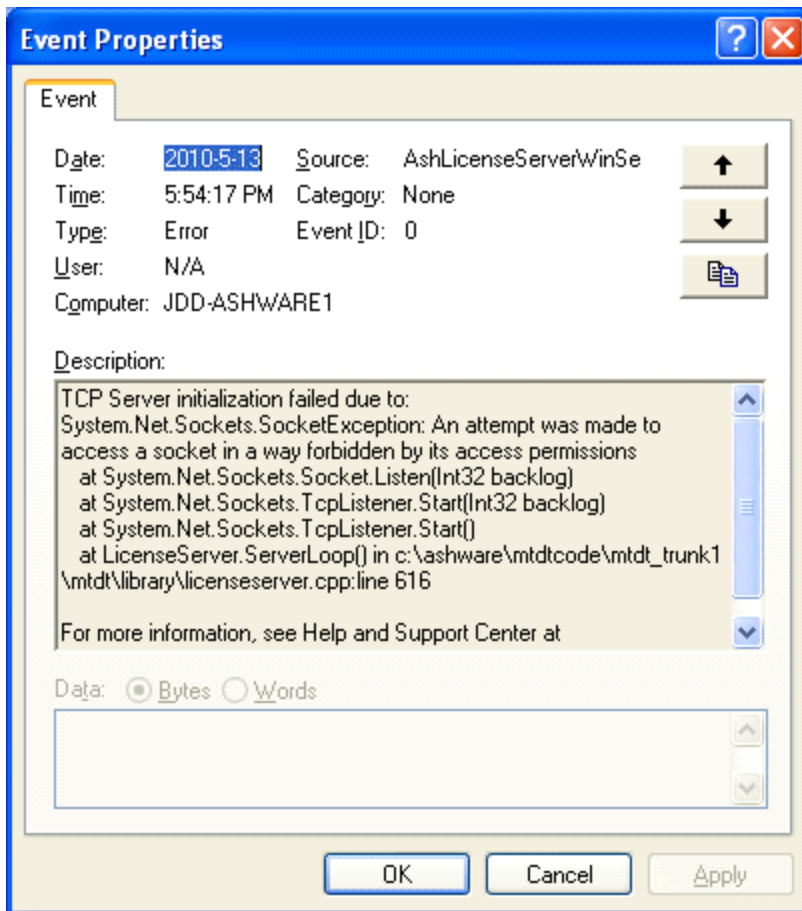


In the screen captures below, the result of a startup failure due to the ASH WARE Network License Server TCP port being blocked is shown.

4. Network Licensing



Double-click on the error event to get the details:

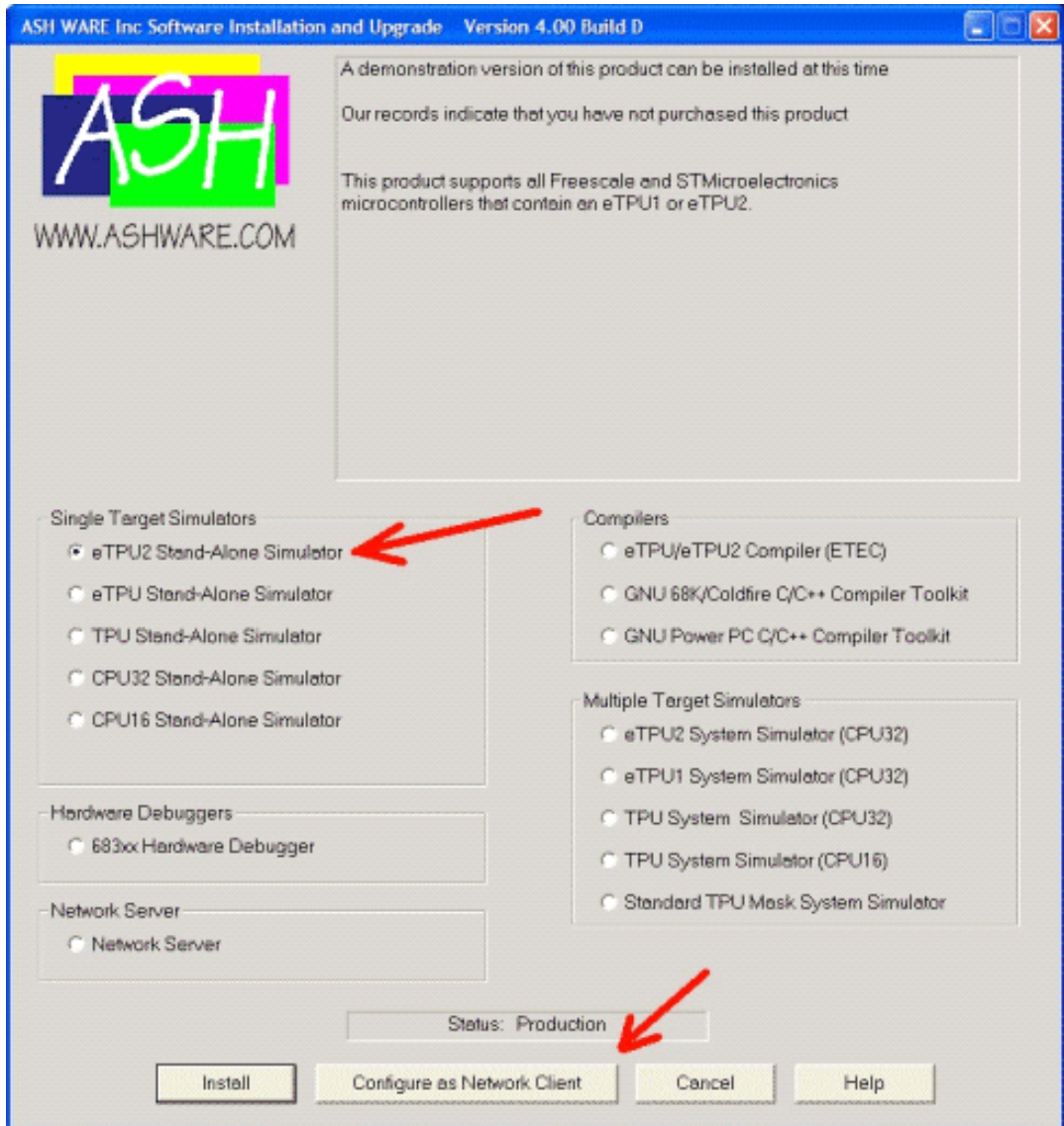


Getting these details may allow direct problem resolution, or the information can be sent to ASH WARE to help us quickly diagnose the problem. One last note: for some error types the Network License Server will retain a “Started” status but will still be logging errors to the Event Log. If any problems are encountered with License Server operation it is recommended to check the Event Log first.

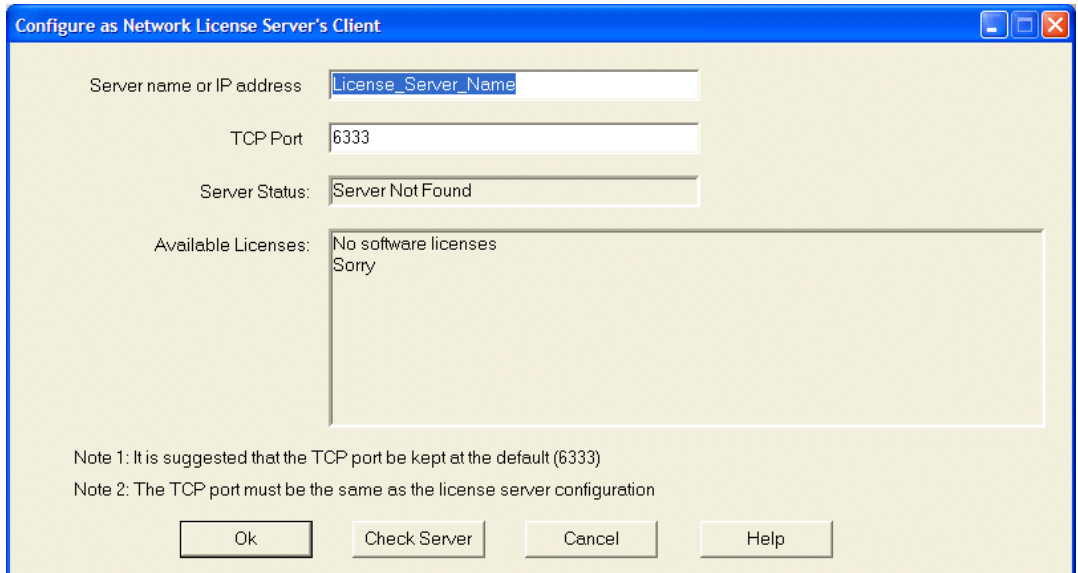
4.4 Client Installation

Once the network license server is fully installed and operational you are ready to begin your client installations. Run the ASH WARE software installation utility and select the desired product. In the screenshot show below the eTPU2 Simulator is selected.

4. Network Licensing

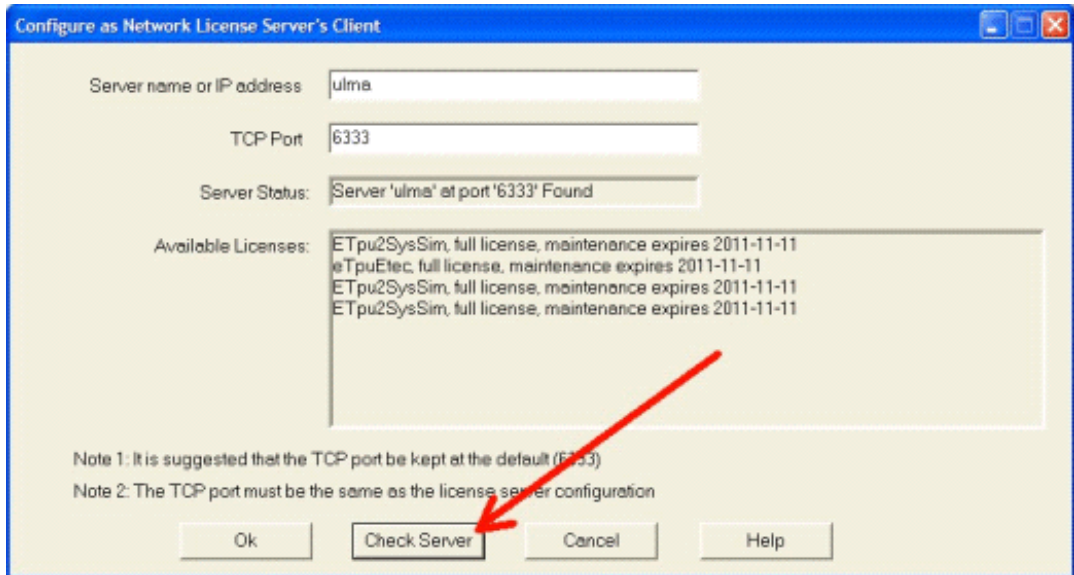


Then click on the 'Configure as Network Client' button at the bottom of the dialog, as shown above. The dialog box shown below should appear.



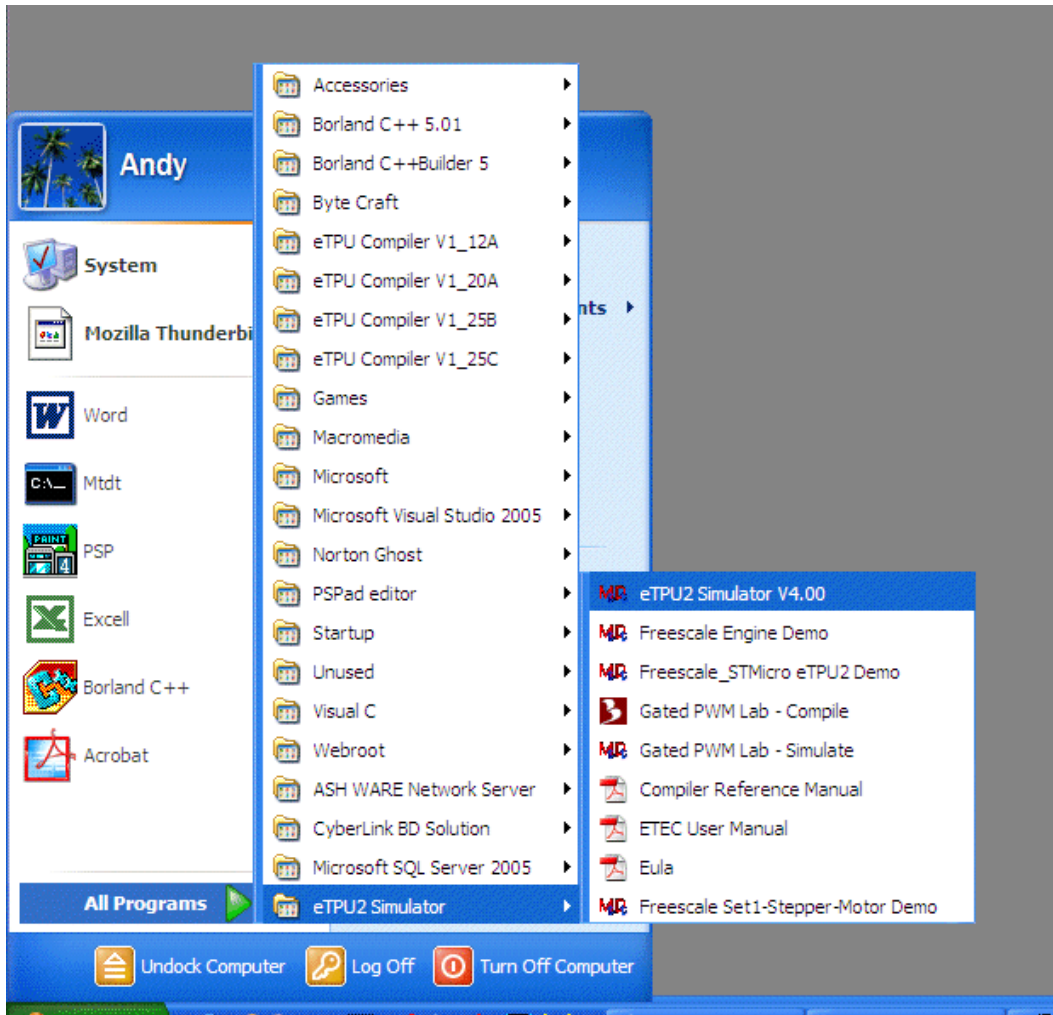
Type the name of the server and click the Check Server button. Your server is likely not named “Ulma:” so you will want to enter the name of the server name provided to you by your network administrator. Assuming your server has been configured properly then licensing information similar to that seen below should appear. *Even if the licensing information does not appear, you may want to continue with the installation anyway so that the AshLicenseUtil.exe utility gets installed because this utility can aid you in debugging any Server/Network/Client issues.*

4. Network Licensing



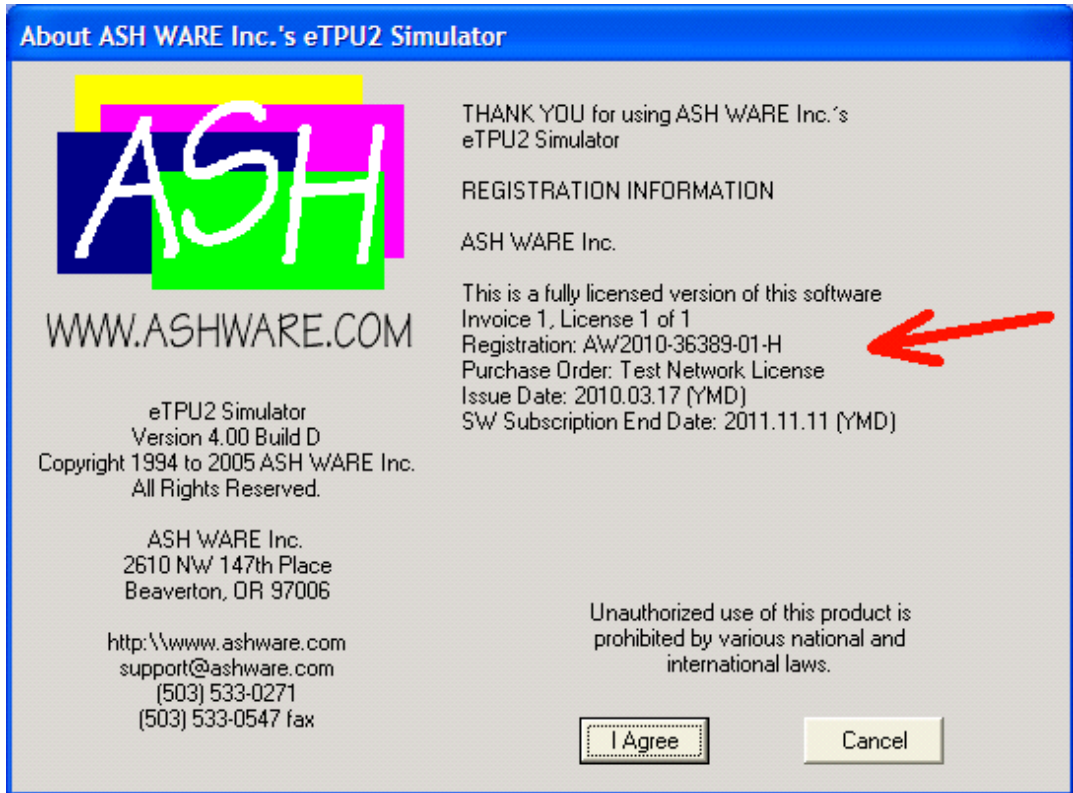
Hit ok, and continue complete the installation.

Open the simulator from the Windows menu system as follows



Verify that when the simulator opens a license is found. Note that the dialog show below appears when the simulator is first launched but can also be viewed from within the simulator by from the “Help” menu and selecting the “About” submenu.

4. Network Licensing

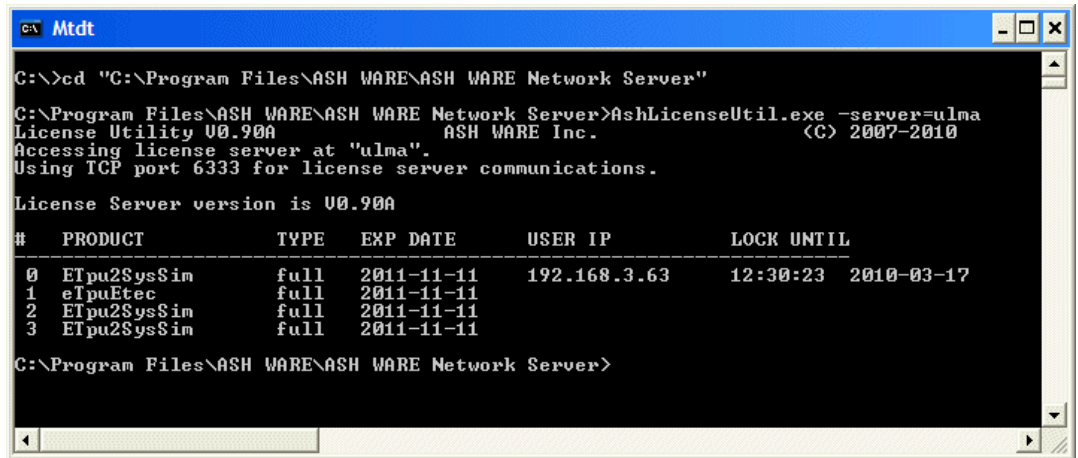


If the dialog box indicates says “this is a fully licensed network client version of this software” than the client installation is successful.

With the simulator running, open a Console window and navigate to the installation directory similar to the below. Run the “AshLicenseUtil.exe” using the – server=<ServerName> command line as shown below.

```
AshLicenseUtil.exe -server=ulma
```

Verify that contact with the server has been established as shown below.



```

C:\>cd "C:\Program Files\ASH WARE\ASH WARE Network Server"
C:\Program Files\ASH WARE\ASH WARE Network Server>AshLicenseUtil.exe -server=ulma
License Utility U0.90A          ASH WARE Inc.          (C) 2007-2010
Accessing license server at "ulma".
Using TCP port 6333 for license server communications.

License Server version is U0.90A
#   PRODUCT                TYPE   EXP DATE   USER IP      LOCK UNTIL
-----
0   ETpu2SysSim            full   2011-11-11  192.168.3.63  12:30:23  2010-03-17
1   eIpuEtec                full   2011-11-11
2   ETpu2SysSim            full   2011-11-11
3   ETpu2SysSim            full   2011-11-11
C:\Program Files\ASH WARE\ASH WARE Network Server>

```

Section 5 contains more information on using the Network License Utility.

4.5 Configuration and Usage

Much of the configuration occurs during the installation process, but the sections below cover some additional topics.

4.5.1 Server Configuration

All license server configuration is done through two files, one of them optional. One file is the binary network license data file (Invoice<num>.NetworkLicenseBall) provided by ASH WARE. This is required and the license server will not function without it. The second is a text file with the required name “AshNetLicenseServerPort.txt” that can be created by the user. If it exists, it must contain the TCP port number to be used for all license communications. By default the ASH WARE network licensing uses TCP port 6333. It is recommended that this default be used unless it causes a conflict with other software or communications on the network.

In both cases, the files are only read during startup of the network license server; thus when a file is added or updated, the service must be re-started in order to take effect. This can be accomplished through the Control Panel GUI, or by re-booting the PC, or by stopping and starting from a command line with the following commands:

```

net stop AshLicenseServerWinService
net start AshLicenseServerWinService

```

4. Network Licensing

IMPORTANT: do not copy and paste these commands from this manual, as they contain non-ASCII characters and will not work properly - the text must be typed in manually!

4.5.1.1 Network License Renewal

When a network license (or licenses) is renewed, a new Invoice<num>.NetworkLicenseBall file is generated by ASH WARE and provided to the customer. In order to be able to access new software releases, this new network license file must be added to the license server installation directory (default is “C:\Program Files\ASH WARE\License Server”). Then the network license server service must be stopped and re-started in order for the new licensing information to take affect. In a command prompt window, enter the following to accomplish this:

```
net stop AshLicenseServerWinService
net start AshLicenseServerWinService
```

4.5.2 Client Configuration

When an ASH WARE application that uses networking licensing is installed, it generates an extra file “AshNetLicenseServer.txt” that contains the server name and a TCP port number (if the default 6333 is not being used). This file is a text file and is located in the application installation directory (e.g. C:\Program Files\ASH WARE\TPU Compiler V1_25C). It contains a single line of text of the form

```
<servername><:optional TCP port number>
```

For example, if the license server computer has the name “licserver”, then the file might look like

```
licserver
```

or

```
licserver:6789
```

Or, an IP address can be used directly:

```
134.120.231.33:6789
```

Normally, a user would only ever need to deal with this file if the license server machine changes AFTER the client has already been installed.

4.5.3 Usage

Once installed and configured properly, there is little to the usage of software. One key item for users to remember is that if the network license server cannot be contacted, or no more licenses are available, then the software tool will still begin execution, but will do so in demonstration mode. To avoid this, users can start the software with the `-NetworkRetry` command line option.

`-NetworkRetry=<seconds>`

This causes the software to stall if it cannot not attain full license, until either the license is taken (because some other user had stopped using a license and it became available), or the number of seconds specified has passed. If the latter occurs, the tool runs only in demonstration mode.

4.5.4 License Check-out

If a client needs to use fully-licensed software while disconnected from the License Server network, a license can be “checked-out” for an extended period of time. During the check-out time, the application can be used by the client without conflict or need to connect to the License Server. However, the license is unavailable to float to any other users during this time. A license is checked out by the client by running the tool which requires the license with the `-NetworkCheckout` command line option, thus a Console window must be opened in order to perform the check-out. For the ETEC compiler product, the check-out is done via the linker tool (ETEC_link.exe), while for the Simulator products it is done via the simulation executable (e.g. ETpu2Simulator.exe).

The exact syntax of the `-NetworkCheckout` option is “`-NetworkCheckout=<YYYY:MM:DD:HH:MM>`”, where the supplied date and time is the end point of the check-out request. There should be no spaces and Y represents the year digits, the first M the months digits, the D the days digits, the H the hours digits (24 hour time) and the second M the minutes digits. Thus entering “`ETEC_link.exe -NetworkCheckout=2010:8:4:18:00`” requests the check-out of an ETEC C Compiler license until 6:00PM on August 4, 2010.

When a check-out is successful, which is indicated by a positive message and an exit code of 0, a small binary file is created in the demo installation top-level directory of the tool version which was checked out, called `AshLicenseCheckout.dat`. If this file is removed or modified, the check-out will no longer work, nor will the client be able to perform an early check-in of the license. Users should take care not to touch the file. If the demo

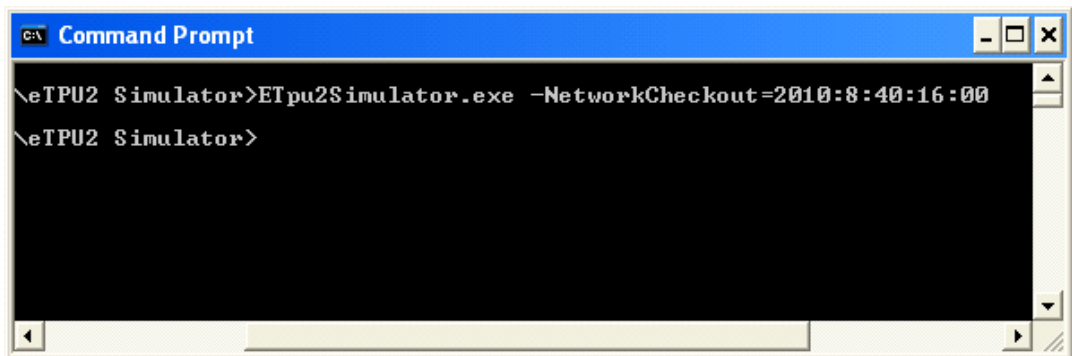
4. Network Licensing

installation area does not exist, the file will get placed in the tool executable install directory - administrator privileges may be required to perform the checkout in this case. Note that on Windows 7 and newer versions, in the case of no demo area, this checkout file may get located in a different directory depending upon user privilege level. For example, it may go in C:\Users\% USERNAME% \AppData\Local\VirtualStore\Program Files\ASH WARE\<Tool Name>, or C:\Users\% USERNAME% \AppData\Local\VirtualStore\Program Files (x86)\ASH WARE\<Tool Name>. Last, note that only the tool version used for checkout is available to run at full license mode.

Once the check-out date passes, the client will no longer run in fully functional mode unless it can contact the Network License Server and acquire a new license. The AshLicenseCheckout.dat file is automatically eliminated at that point, and the Network License Server automatically returns the checked-out license to the license pool. The checked-out license can also be returned explicitly with the `-NetworkCheckin` command line option. This works very much like the check-out. If successful, the AshLicenseCheckout.dat file is removed and the License Server returns the checked-out license to an available status.

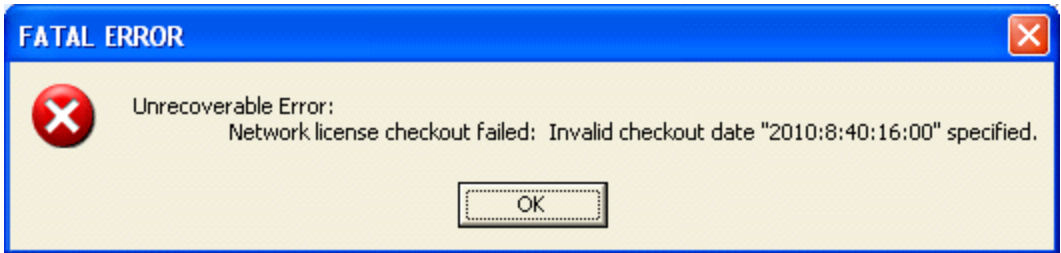
4.5.5 DevTool (Simulation product) Check-Out

This section provides an example of an DevTool product network license check-out and check-in from the Console. A check-out request with an invalid date entry:

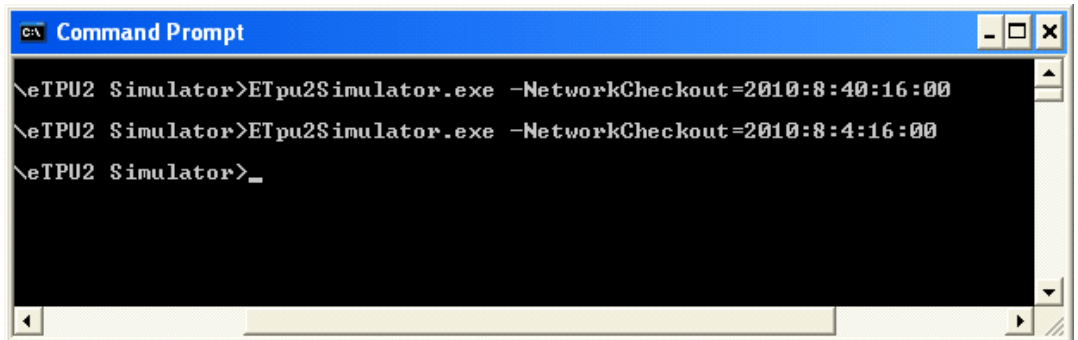


```
CS\ Command Prompt
\ntp2 Simulator>ETpu2Simulator.exe -NetworkCheckout=2010:8:40:16:00
\ntp2 Simulator>
```

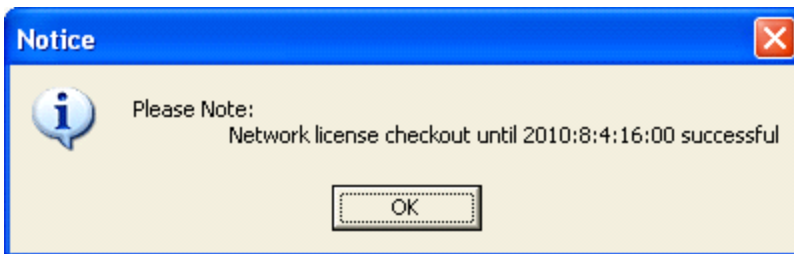
Is rejected:



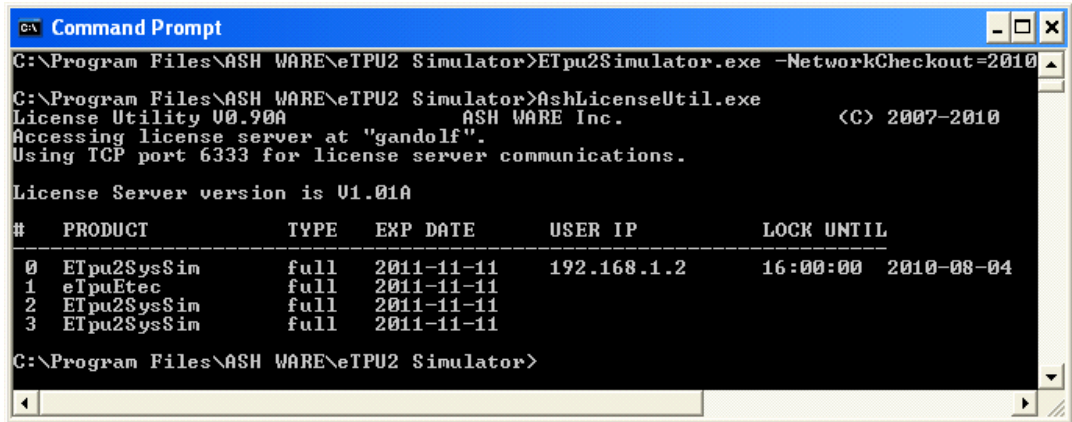
A valid check-out command:



Results in a successful check-out:



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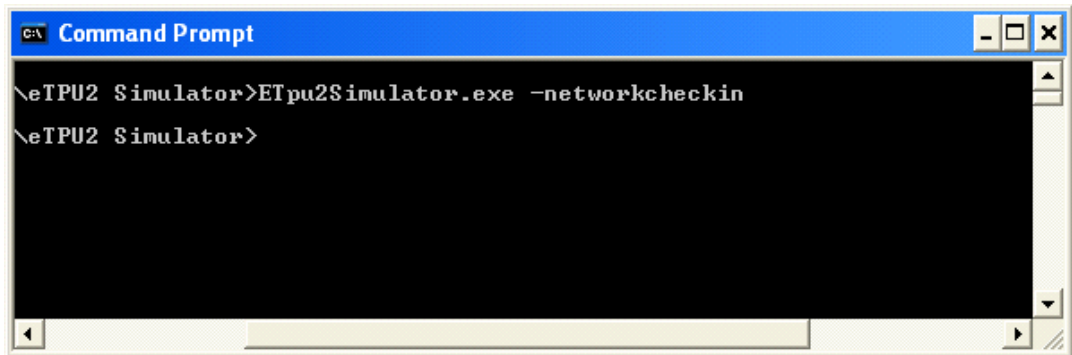


```
C:\Program Files\ASH WARE\ETPU2 Simulator>ETpu2Simulator.exe -NetworkCheckout=2010
C:\Program Files\ASH WARE\ETPU2 Simulator>AshLicenseUtil.exe
License Utility V0.90A          ASH WARE Inc.          (C) 2007-2010
Accessing license server at "gandolf".
Using TCP port 6333 for license server communications.
License Server version is V1.01A
```

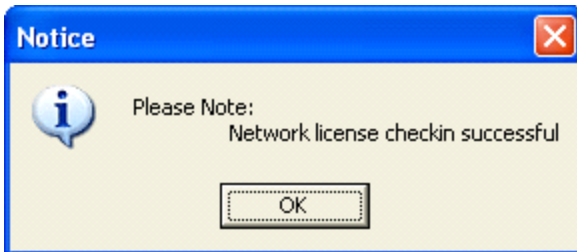
#	PRODUCT	TYPE	EXP DATE	USER IP	LOCK UNTIL
0	ETpu2SysSim	full	2011-11-11	192.168.1.2	16:00:00 2010-08-04
1	eTpuEtec	full	2011-11-11		
2	ETpu2SysSim	full	2011-11-11		
3	ETpu2SysSim	full	2011-11-11		

```
C:\Program Files\ASH WARE\ETPU2 Simulator>
```

The license can be explicitly returned to the license server:



```
\eTPU2 Simulator>ETpu2Simulator.exe -networkcheckin
\eTPU2 Simulator>
```



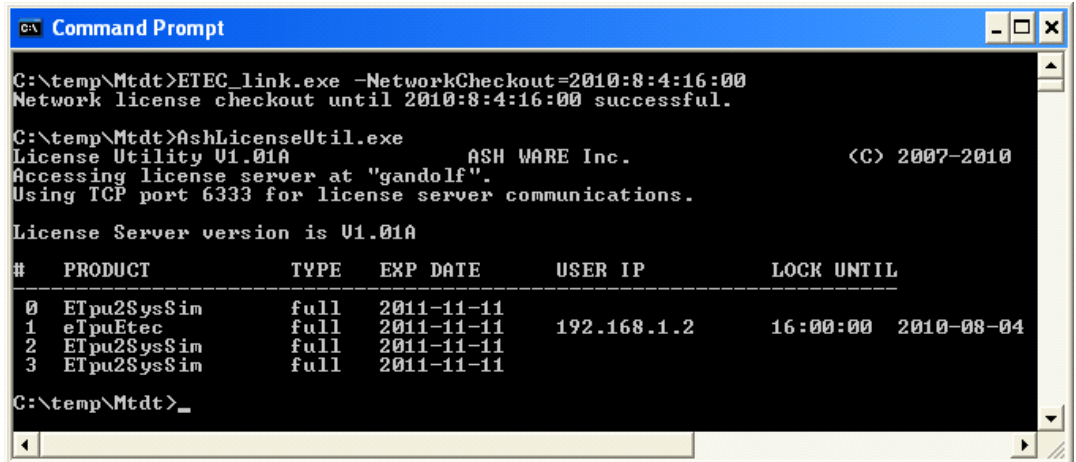
The license check-out/check-in can be run quietly without a pop-up dialog box by specifying the appropriate command line options:

```
ETpu2Simulator.exe -NetworkCheckout=2010:8:4:16:00 -q -lf5Log.txt -IacceptLicense -AutoRun
```

The output normally destined for the dialog box is instead output to the file Log.txt.

4.5.6 ETEC Check-Out

This section shows an ETEC network license check-out.



```
C:\temp\Mtdt>ETEC_link.exe -NetworkCheckout=2010:8:4:16:00
Network license checkout until 2010:8:4:16:00 successful.

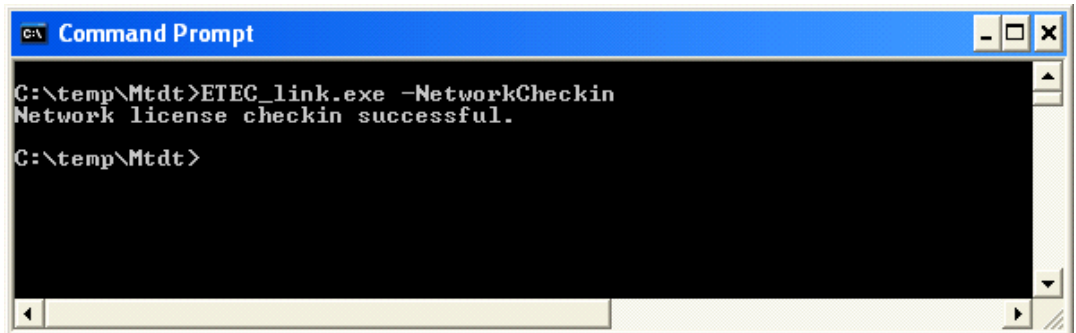
C:\temp\Mtdt>AshLicenseUtil.exe
License Utility V1.01A          ASH WARE Inc.          <C> 2007-2010
Accessing license server at "gandolf".
Using TCP port 6333 for license server communications.

License Server version is V1.01A

#   PRODUCT                TYPE   EXP DATE   USER IP      LOCK UNTIL
-----
0   ETpu2SysSim             full   2011-11-11
1   eTpuEtec                 full   2011-11-11   192.168.1.2   16:00:00  2010-08-04
2   ETpu2SysSim             full   2011-11-11
3   ETpu2SysSim             full   2011-11-11

C:\temp\Mtdt>_
```

And corresponding license check-in:



```
C:\temp\Mtdt>ETEC_link.exe -NetworkCheckin
Network license checkin successful.

C:\temp\Mtdt>
```

4.5.7 Non-network Client License Use

In the unusual case that a network license needs to be used on a computer which cannot attach to the network and check-out the license, there is a technique which allows license access, however, the process requires a USB license dongle. The license dongle does not need to have any registered software associated with it. The process is as follows:

4. Network Licensing

- 1) On a network-connected PC with a client software installation, plug in the USB license dongle.
- 2) On this machine, perform a network license checkout for the desired duration. This checkout generates a file called "AshLicenseCheckout.dat". The location of this file differs based upon the OS version in use, user permissions, etc. It may be in the program installation area (e.g.. under C:\Program Files\ASH WARE\...), or it may be under C:\Users\... etc. Some searching may be required to find it. Copy it to media that can be accessed from the non-networked destination PC.
- 3) On the destination PC, perform a network client installation of the ASH WARE software you wish to run. The network server information can be left as the default, since the server cannot be contacted anyways.
- 4) Copy the "AshLicenseCheckout.dat" file to the matching directory on the destination PC. If this PC has a different OS version, this path may be different than the one on the source computer.
- 5) Plug the USB license dongle into the destination PC. Run the ASH WARE software - it should detect the checked out network license and allow the program to run in fully licensed mode.
- 6) When done using the software on the non-networked PC, return the USB license dongle to the original networked PC and perform a network license checkin. This releases the license for regular use.

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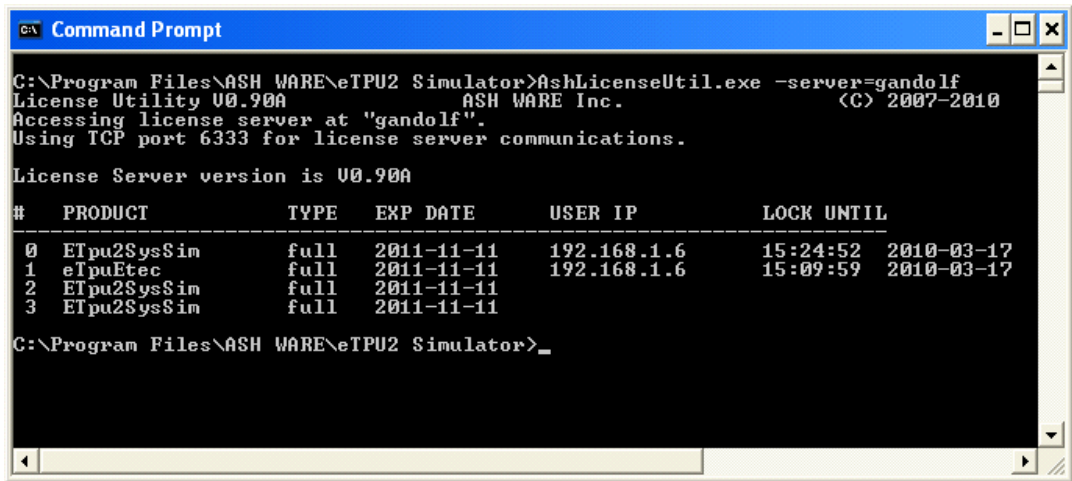
License Utility

The license utility `AshLicenseUtil.exe` is installed with the license server. It provides information on the current state of the license server as well as detailed license information for all licenses it is configured to serve. When no license server is specified, the utility will check if there is any other ASH WARE licensing information installed on the computer.

By default, to find the license server, the utility checks for the presence of an `AshNetLicenseServer.txt` file in the same directory as the utility, and uses its information if found. The user can override this default behavior by specifying the license server with the `-server` (and `-port`) command line option. If no license server information is found, local licensing status is checked and reported.

When the network license service is contacted, if `-getlicenseinfo` has been specified (or nothing, for it is the default), data is gathered about all licenses served. For each license, the product type, license type and license expiration date are displayed.

5. License Utility



```
C:\Program Files\ASH WARE\eTPU2 Simulator>AshLicenseUtil.exe -server=gandolf
License Utility 00.900A      ASH WARE Inc.      (C) 2007-2010
Accessing license server at "gandolf".
Using TCP port 6333 for license server communications.

License Server version is 00.900A

#   PRODUCT                TYPE   EXP DATE   USER IP      LOCK UNTIL
-----
0   ETpu2SysSim             full   2011-11-11  192.168.1.6  15:24:52  2010-03-17
1   eTpuEtec                 full   2011-11-11  192.168.1.6  15:09:59  2010-03-17
2   ETpu2SysSim             full   2011-11-11
3   ETpu2SysSim             full   2011-11-11

C:\Program Files\ASH WARE\eTPU2 Simulator>_
```

For a license type of full (a perpetual license), the expiration date represents the date beyond which newer releases may not be used. The license is still viable and available for use beyond this date. For example, say release V1.50A of eTpuEtec (ETEC C Compiler) is from 2010-2-1, and V2.00A is from 2012-1-15. The owner of the licenses above could use V1.50A, but not V2.00A. Renewing the maintenance subscription moves the expiration date out and allows users to work with the latest software releases.

When a license is in use, additional information is provided – the IP address of the license user, and the time at which the license lock held by that user is set to expire.

To get detailed license information on a particular license, -getlicenseinfo can be specified with a license index, as shown below.

```

C:\Program Files\ASH WARE\neTPU2 Simulator>AshLicenseUtil.exe -server=gandolf -ge
tlicenseinfo=2
License Utility 00.900A          ASH WARE Inc.          <C> 2007-2010
Accessing license server at "gandolf".
Using TCP port 6333 for license server communications.

License product type : ETpu2SysSim
License type : full
License linger time : 30 minutes
License 2 of 3
License number : AW2010-36389-02-H
License company information : ASH WARE Inc.
License purchase order (most recent) : Test Network License
License invoice number (most recent) : 36389
License start date : 2010-01-20
License expiration date : 2011-11-11

C:\Program Files\ASH WARE\neTPU2 Simulator>

```

5.1 Command Line Options

Setting	Option	Default	Example
Display Help This option overrides all others and when it exists. It displays the available command line options.	-h or /?	Off	-h
License Server Specifies the computer on which the License Server is running, either by name or raw IP address. Overrides any license server data found in an	-server=<name or IP address>	Off	-server=licserver or -server=55.55.55.55

5. License Utility

Setting	Option	Default	Example
AshLicenseServer.d at file.			
Server TCP Port Overrides the default TCP port used for license server communication (should not be needed in most installations).	-port=<TCP port num>	Off	-port=7654
Get License Info Provides basic information on all network licenses, or if no network license server specified, checks for any other ASH WARE licensing information on the computer.	-getlicenseinfo	On by default	-getlicenseinfo
Get License Info Retrieve detailed license information on the network license with specified index.	-getlicenseinfo=<id>	Off	-getlicenseinfo=2

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Installer Notes

ASH WARE uses a common installation package for all of its software products. The installation utility should always be run from an account with administrative privileges. On rare occasions there have been interactions with anti-virus or similar software that prevent the installer from running, or cause it to crash. If the installer is failing, check the following:

- if anti-virus software such as McAfee, Symantec or similar is running, pause or disable it temporarily when running the ASH WARE installer.
- check the computer's DEP (Data Execution Prevention) settings. Temporarily set to AlwaysOff or OptIn if necessary. See <http://support.microsoft.com/kb/875352> for more details.

