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# Installing Licensing Software for CADAM Drafting

Updated November, 2009

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Like all CATIA products, CADAM Drafting requires a valid software license before the application can be run. In the simplest configuration, a software license can be tied, or *nodelocked* to a specific machine. Larger installations of CADAM Drafting will typically want to implement a *concurrent* licensing scheme. With concurrent licensing, a server manages a fixed number of licenses, handing them out to client workstations as they are requested. IBM's License Use Management (LUM) is required on UNIX and Microsoft Windows platforms to access and manage licenses for all CATIA products, including CADAM Drafting.

This document will illustrate the four most common licensing configurations. The information presented here should be augmented with information found in the LUM documentation or on the LUM website.

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## 1. Obtaining LUM

Dassault Systemes currently recommends that you download the latest version of LUM V4 to manage CADAM Drafting licenses. (For CATIA V5, LUM is provided on a separate CDROM that you received with your CATIA V5 software. You might still want to check the LUM website to see if there is a later version available. However, if you do download a later version, please verify that it has been certified for use with CATIA V5 before installing it. If it has not, use the version that you received with your CATIA V5 software.) The latest version of LUM (V4.6.8, as of this writing) for all supported CADAM Drafting platforms may be obtained, at no charge, from the IBM LUM website: <http://www-306.ibm.com/software/awdtools/lum/support.html>. The actual LUM software and FixPacks can be found under the **Download** "IBM LUM v5 and v4 products download" link on this page. Product Documentation can also be found on this page. We recommend downloading the documentation and reading it before proceeding with the actual installation.

Customers who already have LUM V4.5.8 through V4.6.4 implemented may continue to use these versions of LUM with CADAM Drafting. However, versions of LUM older than 4.6.5 are

no longer recommended, as they are not supported by IBM. Also, keep in mind that the newer versions of LUM (V4.6.5 and above) not only offer better code stability, but also offer desirable features.

LUM license server minimum release level requirements:

- A minimum level of 4.5.5 is required on UNIX LUM servers
- A minimum level of 4.5.8 is required on Windows 2000 Professional LUM servers
- A minimum level of 4.6.2 is required on Windows 2000 Server and Advanced Server LUM servers
- A minimum level of 4.6.4 is required on Windows XP LUM server
- A minimum level of 4.6.7 is required on Windows 2003 LUM server
- A minimum level of 4.6.5 is required when High Availability Licensing (HAL) is used
- A minimum level of 4.6.7 is required when concurrent offline licensing is used

Note: LUM 4.6.8 + FixPack 4.6.8.13 is the current level certified by Dassault Systemes. It is recommended to update your LUM servers to this level, especially if the license clients are running Vista or Windows 7.

### **Note for users of older CADAM Drafting Releases**

If you are upgrading from an older V4 release of CADAM Drafting, and if you had previously been using EZ-LoK to manage licenses, it is important that EZ-LoK be uninstalled and removed from the system. Conflicts may develop if EZ-LoK and LUM are installed on the same system since they share some common directories and filenames.

## **2. Using LUM in a Nodelocked Configuration on Windows**

Note: CADAM Drafting V4 and CADAM Drafting for V5 cannot be configured to run on a Windows 98 client using Nodelocked licensing. If you want to run CADAM Drafting on a Windows 98 client, you must run with a license server and configure the Windows 98 PC to be a LUM client. (See the next 2 sections for more information.)

- Install LUM on your PC:

If you have access to the i4target.exe utility, you can skip this step. Otherwise, the file **arkwinxxx.exe** (where "xxx" is the version of LUM you are installing), which you downloaded from the IBM FTP Site, is a self-extracting executable that contains all of the LUM installation files. For V4.6.8, this file is about 30 Mb. Once you copy this file to the PC, go to Explorer or File Manager, double-click on the file to start the installation. LUM's default directory destination is C:\ifor. Note that you must be logged on with administrator privileges to install LUM.

- Find the PC's unique target ID and get your license from IBM

If you installed LUM or borrowed the i4target.exe or i4tgid.exe utility from another system, you can now get the PC's unique target ID. Note that the PC must have a network card installed and must have TCP/IP installed and properly configured before you can get the target ID. (The network card does not need to be connected to a network.)

If you have installed a current version of LUM (V4.6.x) you can get the PC's target ID, by simply double-clicking on the file C:\ifor\win\bin\i4tgtid.exe. You will get a pop-up message giving the target ID.

- For older versions of LUM, as well as the current versions, you can get the target ID from a DOS Shell. Go to the directory C:\ifor\win\bin and run:

**i4target -O**

The output of i4target should be similar to this sample screen:

```

C:\WINNT\system32\cmd.exe
C:\IFOR\WIN\BIN>i4target -O
i4target Version 4.6.7 Windows -- LUM Target ID Tool
(c) Copyright 1995-2003, IBM Corporation, All Rights Reserved
US Government Users Restricted Rights - Use, duplication or disclosure
restricted by GSA ADP Schedule Contract with IBM Corp.
(c) Copyright 1991-1998 Gradient Technologies Inc., All Rights Reserved
(c) Copyright 1991,1992,1993, Hewlett-Packard Company, All Rights Reserved

  LUM Target ID
  -----
    bf8c06 win32mac MAC-HW Address      <65FCBFE7-78A1-42C9-868E-1266BDF8E74>

C:\IFOR\WIN\BIN>_

```

Where **bf8c06** is the machine's unique target-id and **win32mac** is the target type. This is the information required by IBM to issue the CCD licenses.

IBM can issue two kinds of Windows target-types, win32 for iFOR/LS and win32mac for LUM. Make sure you order **win32mac** licenses.

If your PC has more than one network card, the i4target command will return a win32 target-id instead of a win32mac target-id. IBM will not generate a usable key if you give them this win32 target-id. Instead, you must specify a specific network card when running the i4target command. To do this, first use the ipconfig command to get the name of the active network card. For example, if you are using a Token Ring card, the name might be "IBMTRP3". In this case, you would run the i4target command as follows:

**i4target -d IBMTRP3**

Now run the "i4target -O" command again and it will return a valid win32mac target-id based on the card you specified in the previous command.

Laptops accessing a license server via a docking station could have a problem getting a win32mac target-id, if a network card is later added to run CCD off-line using a nodelock key. If LUM is first configured on the laptop (without a network card) to access the network through the docking station, LUM will store the docking station network information. If you undock the laptop, LUM will try to access the docking station's network card and not the laptop's network card. LUM will display a target-id, but it will be a win32 target instead of win32mac. This is because the target-id is not based on a network card. To force LUM to use the laptop's network card do the following:

From a DOS shell type:

**net config workstation**

This command should return something similar to:

```

Computer name          \\PC0239
Full Computer name    My-computer
User name              Bob

Workstation active on NetbiosSmb (000000000000)
NetBT_Tcpip_{7576D9AD-6FF0-4CBA-888E-0530DC213281} (00105A8B3254)

```

Identify the network device that corresponds to the network card of the laptop. Copy the GUID (this is the number between the braces {} including the braces). Then run i4target -d GUID. For the above example it will be:

## I4target -d {7576D9AD-6FF0-4CBA-888E-0530DC213281}

Now, "i4target -O" should return a valid win32mac target-id for the laptop's network card. This is the information that LUM will start using whether the laptop is docked or undocked.

Some installations may need to be aware of LUM's TIMEOUT\_FACTOR environment variable. In a complex network, or if you are using DHCP, you may experience long delays (30 seconds to one minute) while CCD attempts to obtain a license. One solution to this is to limit the time the license server spends looking throughout the network for other license servers. This is done by setting the TIMEOUT\_FACTOR environment variable. Try setting this value to a value between 5 and 10 (seconds) to start with. If, after setting this value, your client machine reports that it cannot locate a license server, you will need to increase this time.

- Create the nodelock file

Once you receive the license information from IBM, you must create a file named **nodelock** (no file extension) in the folder:

**C:\ifor\ls\conf.**

Create this path, if it doesn't already exist. Make sure that all users logging on to the PC to run CCD have access to this folder and file.

When you receive the license information from IBM, via e-mail or fax, it may be in the following format for CADAM Drafting V4:

```
-----  
Product name . . . . . : CATIA.MECH V4 CCD WORKSTATIONS  
Product number . . . . . : 5626CCD  
Target type. . . . . : win32mac Target id. . . . : 5fc1a7f3  
No. of connections . . . . : 1  
Password type. . . . . : LICENSE License type . . : NODELOCKED  
License annotation . . . . : CCDS410  
Passwords are valid From : 1998-04-07 To . . . . . : 1998-06-07  
Generated by userid. . . . : US30054 Generated by sys : ALR-MENU  
Generation reference No. : 1998-04-08-16.33.57.742008  
Vendor name. . . . . : Dassault Systemes  
Vendor id. . . . . : 5242378dbf8d.02.c0.09.c8.93.00.00.00  
Vendor Password. . . . . : mzvyrc2rjfvrv  
Product Password . . . . : jrripujd6vmaw27t6vq73986fadsdns  
Product Version . . . . . : 410  
-----
```

The nodelock file for the above target-id should **only** contain the vendor id, product password, annotation and product version. Comment lines are allowed if they start with #. The following is an example of a nodelock for the above target-id:

```
# Passwords are valid From : 1998-04-07 To 1998-06-07  
# Target type. . . . . : win32mac Target id. . . . : 5fc1a7f3  
5242378dbf8d.02.c0.09.c8.93.00.00.00 jrripujd6vmaw27t6vq73986fadsdns  
"CCDS410" "410"
```

For CADAM Drafting V5, you will receive a license certificate in the following form. You should have received this certificate in addition to the certificate for your CATIA V5 configuration.

**IMPORTANT:** Unlike other CATIA V5 add-on products, the CADAM Drafting add-on product requires a separate license certificate.

**CORRECT FORMAT FOR CCD V5:**

```
-----  
[LicenseCertificate]  
Checksum=46DBDAE4338C964D36C772E89B57A570  
TimeStamp=937931962  
PasswordVersion=4  
VendorName=Dassault Systemes  
VendorPassword=mzvyrC2rjfvrw  
VendorID=5242378dbf8d.02.c0.09.c8.93.00.00.00  
ProductName=CCD-Catia CADAM Drafting for V5  
ProductID=2041  
ProductVersion=R1  
ProductPassword=3axwxncimv5buu73b3s8sihzreasani  
ProductAnnotation=1  
LicenseStyle=nodelock  
LicenseStartDate=09/20/1999  
LicenseDuration=62  
LicenseEndDate=11/20/1999  
LicenseCount=1  
MultiUseRules=  
RegistrationLevel=3  
TryAndBuy=No  
SoftStop=No  
TargetType=26  
TargetTypeName=MS Win-32 MAC  
TargetID=5fcla7f3  
ExtendedTargetType=  
ExtendedTargetID=  
DerivedLicenseStyle=  
DerivedLicenseStartDate=  
DerivedLicenseEndDate=  
DerivedLicenseAggregateDuration=  
SerialNumber=  
Upgrade=
```

The following, is a sample of a single license certificate for a DR1 CATIA Configuration with CCD as an add-on product. This license format is **not supported** and will not work for nodelock or concurrent keys. The product annotation, highlighted in red, is a clue that the wrong certificate was generated.

**INCORRECT FORMAT FOR CCD V5:**

```
-----  
[LicenseCertificate]  
Checksum=01E6F31639EE47BA12744D11D90AC65F  
TimeStamp=1210789047  
PasswordVersion=7  
VendorName=Dassault Systemes  
VendorPassword=7in28abn73xws  
VendorID=5242378dbf8d.02.c0.09.c8.93.00.00.00  
ProductName=DR1-Catia Drafting 1 Config.  
ProductID=2038  
ProductVersion=TMPMCQF  
ProductPassword=sm6n2vjzm8w76nfbhw3beqjyrsh6wbse4j4ybsddsa  
ProductAnnotation=TMPMCQFAAAA-CCD  
LicenseStyle=nodelocked  
LicenseStartDate=05/13/2008  
LicenseDuration=11  
LicenseEndDate=05/23/2008  
LicenseCount=1  
MultiUseRules=  
RegistrationLevel=3  
TryAndBuy=No  
SoftStop=No  
TargetType=26  
TargetTypeName=MS Win-32 MAC  
TargetID=6da131ee  
ExtendedTargetType=  
ExtendedTargetID=
```

```
DerivedLicenseStyle=  
DerivedLicenseStartDate=  
DerivedLicenseEndDate=  
DerivedLicenseAggregateDuration=  
SerialNumber=TMPMCQFAAAA  
Upgrade=No
```

---

You can use the CATNodelockMgt.exe supplied with CATIA V5 to create or add to an existing nodelock file. The license certificate may be supplied by IBM as an attachment, but if not, it can be created using Notepad, Wordpad, or any other editor but make sure that no extra characters are inserted in the file. Give the file a ".lic" file name extension, as this is the default file extension CATNodelockMgt.exe looks for.

**IMPORTANT:** In order for CCD to work, you must copy the nodelock file to C:\Ifor\Ls\Conf. Create this path, if it doesn't already exist.

Sample nodelock file created from a license certificate:

```
# 5691DR1 DR1-Catia Drafting 1 Conf, Expiration date: 1999-11-21  
5242378dbf8d.02.c0.09.c8.93.00.00.00 xz2zjman44v9yvw2jndwdkas9ngagns  
"TMPHFAAAAA-" "TMPHFAA"  
#5691CCD-Catia CADAM Drafting for V5, Expiration date: 1999-11-20  
5242378dbf8d.02.c0.09.c8.93.00.00.00 3axwxncimv5buu73b3s8sihzreasani "1" "R1"
```

This is all that is required for CADAM Drafting to run on a nodelocked PC. You do not have to run the LUM's configuration utility to use the nodelock file. If you later configure the PC as a network license client, remember to rename/delete the nodelock file, as CCD will try to use it first before checking the network for a license server.

### 3. Concurrent Licensing with an AIX Server and Windows Clients

- Verify your AIX level and acquire your licenses

Identify the machine you will be using as a License Server. While logged in as superuser, run the command **uname -m** to get the machine's uname/target-id.

Order the CCD concurrent/server licenses from IBM. These licenses are based on the machine's *uname*. In this case you will receive a certificate that appears similar to those shown in the previous section, except that the "License Type" or "LicenseStyle" will be listed as "concurrent" instead of "nodelocked" and the "No. of Concurrent users" or "LicenseCount" fields should show the number of concurrent licenses that you ordered.

The currently supported versions of CADAM Drafting V4 require AIX 4.3.3 or above. The currently supported versions of CADAM Drafting V5R19 require AIX 5.3.

- Acquire the necessary LUM software

We always recommend obtaining the latest version of LUM, as described at the beginning of this document, instead of using the version that was packaged with your version of AIX. (For AIX 4.3.3, the version of LUM that is packaged with AIX will be earlier than 4.5.8.)

Obtain the Windows LUM software using the instructions at the beginning of this document.

- Use SMIT to install LUM. From the installation media or directory you downloaded the LUM installation files to, select the following:

ifor\_ls.base  
ifor\_ls.libraries  
ifor\_ls.compat  
ifor\_ls.msg.en\_US

- Add the following path to the super user's .profile:

**/var/ifor**

Exit and login again to allow changes to take effect.

- If the installation of LUM is successful, the next step is to run the Configuration Utility called **i4cfg**:

Select to Configure License Server

Select to Start Services at System Restart

**Note:** There is no **Exit** button on the panels, you must click on the upper left corner and select **close** to save changes.

- Make sure that **i4lmd** is running to continue. If not, run **i4cfg -start** before continuing.
- To add licenses, run the Basic License Tool by typing: **i4blt**

The following default license will be displayed:

Product	Version	Vendor	Enrolled Licenses	Available Licenses
LicensePower/iFOR test	1.0	LicensePower/ifor Test	10000	10000

**Note:** This test license is used by the i4tv utility, when it is run on the clients to check for available servers. Do not delete this license.

- Add CCD concurrent licenses:

Select **Product**

**Enroll Product...**

The name of this server should appear in the "Server Name" field.

Click on Import and select the file containing the License Certificate you received from IBM or DS. The program looks for files with .lic extensions. You also have the option to manually enter the product, license and vendor information from the license file you ordered from IBM or DS.

This completes the installation and customization of the LUM server software on AIX.

- The next step is to install the Windows client software.
  - Note that, as of CADAM Drafting Version 4 Release 2.3 and CADAM Drafting for V5, you no longer need to install LUM on every client because these releases are provided with a "static bound" license DLL. In order to take advantage of this option, a license server needs to be configured and have the product licenses installed. LUM V4.5.5 or above must be installed on the

license server for this option to work. Network communication between the clients and the server must be working properly. The LUM configuration utility on the server created a file called i4ls.ini.

Look for i4ls.ini file on the Windows server in: "C:\Documents and Settings\All Users\Application Data\IBM\LUM." On Windows Vista or Windows 7 in C:\ProgramData\IBM\LUM, on AIX in: /var/ifor and on HP-UX in: /opt/lum/ls/conf. Prior to Windows Vista, the i4ls.ini file must be copied to the "C:\Documents and Settings\All Users\ApplicationData\IBM\LUM" directory of all client PCs. ("Application Data" is a hidden folder). On Windows Vista or Windows 7, the file needs to be copied to C:\ProgramData\IBM\LUM. (ProgramData is a hidden folder - Create the IBM and LUM sub-folders if they don't already exist).

The CADAM Drafting license module will use the information in the i4ls.ini file to locate the license server. Optionally, you can install LUM on one of the Windows client. This is useful for the administrator to monitor license utilization and more. The following instructions cover the (optional) installation of LUM on the Windows client.

**Note:** LUM must be installed on the same drive that the OS is installed on.

- The network communication between the server and client must be operational in order to proceed. Make sure both machines can *ping* each other by hostname.
- Install the Windows LUM software as described in Step 1 of the "Using LUM in a Nodelocked Configuration on Windows" section.
- Once LUM is installed, run the Configuration Tool to configure the client:

**Note:** If the client PC is running Windows Vista or Windows 7, you may need Administrator elevated rights in order to proceed. See "Getting Administrator Rights" at the end of this document.

Click on Start > Programs > License Use Runtime and select Configuration

Tool

Configure as

*Select:*  
Network  
License Client

*Direct Binding*

*Enter:*  
hostname of  
server  
*Select:* <<Add

*Close window and save*

- Run the "LUM Test and Verification Tool" to verify that the client can find the server. From a DOS shell, run: `\ifor\win\bin\i4tv`

The response should look similar to this sample screen:



```
C:\>cd ifor\win\bin

C:\IFOR\WIN\BIN>i4tv
i4tv Version 4.6.7 Windows -- LUM Test and Verification Tool
(c) Copyright 1995-2003, IBM Corporation, All Rights Reserved
US Government Users Restricted Rights - Use, duplication or disclosure
restricted by GSA ADP Schedule Contract with IBM Corp.
(c) Copyright 1991-1998 Gradient Technologies Inc., All Rights Reserved
(c) Copyright 1991,1992,1993, Hewlett-Packard Company, All Rights Reserved

Completed license transaction on node 3707af8f running LUM 4.6.7 Windows
Active License Servers:
  ip:sv756dsa.ds <WIN32> running LUM 4.6.7 Windows
Active Central Registry License Server:
No servers found

C:\IFOR\WIN\BIN>_
```

**Note:** The CATIA products do not support Central Registry License Servers. Ignore the message "No servers found" returned by i4tv.

This completes the installation of LUM on the server and client, you may continue to the next step. If i4tv was not successful in finding the server, then go back and make sure that:

- The i4lmd daemon is running on the server.
- The network is up and both systems can ping each other.
- If i4tv finds the server and you have installed the CCD concurrent licenses on the server, you should be able to run CCD on the Windows client now. If CCD displays the message: "Product license not found. Running in demo mode", even though i4tv found the server, then the CCD licenses you installed on the server using i4blt may not be correct or the date/time on your systems may not be in sync.

#### 4. Concurrent Licensing with a Windows Server and Windows Clients

**Note:** If your Windows server is running Windows 2000 or Windows Server 2003, Vista you should install LUM 4.6.8.13

A PC running Windows 98 or Windows 95 cannot be configured as a license server.

- Install LUM as described in Step 1 of the "Using LUM in a Nodelocked Configuration on Windows" section.
- Run i4target as described in Step 2 of the "Using LUM in a Nodelocked Configuration on Windows" section and obtain your licenses from IBM. In this case you will receive a certificate that appears similar to what is described in that section, except that the "License Type" or "LicenseStyle" will be listed as "concurrent" instead of "nodelocked" and the "No. of Concurrent users" or "LicenseCount" fields should show the number of concurrent licenses that you ordered.
- Once LUM is successfully installed, configure the PC as a license server:

**Note:** If the client PC is running Windows Vista or Windows 7, you may need Administrator elevated rights in order to proceed. See "Getting Administrator Rights" at the end of this document.

Tool

Click on Start > Programs > License Use Runtime and select Configuration

Configure as

*Select:*  
Network  
License Server

*Direct Binding*

*Enter:*  
hostname of  
server (must  
enter a name)  
*Select:* <<Add

*Start up*

*Select:* Start  
services at  
system startup

*Close window and save*

**Note:** There is no **exit** button on the panel, you must **close** this panel to save changes.

- Start the Network License Server before continuing:

Start

License Manager Tool

*Select:* Service, then Start

- To add licenses, run the Basic License Tool:

Start

Basic Manager Tool

The following default license will be displayed:

<b>Product</b>	<b>Version</b>	<b>Vendor</b>	<b>Available Licenses</b>	<b>Enrolled Licenses</b>
LicensePower/iFOR test	1.0	LicensePower/ifor Test	10000	10000

**Note:** This test license is used by the i4tv utility when it is run on the clients to check for available servers. Do not delete it.

Add CCD concurrent licenses:

- Select **Product**

### **Enroll Product...**

- The name of this server should appear in the "Server Name" field.
- Click on Import and select the file containing the License Certificate you received from IBM or DS. The program looks for files with .lic extensions.
- You also have the option to manually enter the product, license and vendor information from the license file you ordered from IBM or DS. If you are going to use this method, display the file on a separate window and use cut/paste into the appropriate fields to avoid mistakes.

This completes the installation and customization of the LUM server software on Windows. Again, installing LUM on the clients is optional. The LUM configuration utility on the server created a file called "i4ls.ini" in the "C:\Documents and Settings\All Users\Application Data\IBM\LUM" directory. This file needs to be copied to the "C:\Documents and Settings\All Users\Application Data\IBM\LUM" directory on the client PCs. The CADAM Drafting license module will use the information in this file to locate the license server. On Windows 7 or Vista the path to the i4ls.ini file is C:\ProgramData\IBM\LUM.

Optionally, you can install LUM on one client, which can later be used by the administrator to monitor license utilization and more.

The following instructions cover the installation of LUM on the Windows client.

- The network communication between the server and client must be operational in order to proceed. Make sure both machines can *ping* each other by hostname.
- The Windows installation file you previously downloaded from the IBM FTP Site is a self-extracting zipped file. Follow the README file instructions to install LUM on Windows. This is a very simple step. From File Manager or Explorer, just double-click on **arkwinxxx.exe**. With newer releases of LUM, Install Shield starts. Otherwise, files are extracted into a temporary directory. If this is the case, go to this temp directory and Double-click on Setup to install LUM. By default, LUM is installed in the **C:\ifor** directory.

**Note:** LUM must be installed on the same drive that the OS is installed on.

- Once LUM is installed, run the Configuration Tool to configure the client:

**Note:** If the client PC is running Windows Vista or Windows 7, you may need Administrator elevated rights in order to proceed. See "Getting Administrator Rights" at the end of this document.

Click on Start > Programs > License Use Runtime and select Configuration  
Tool Configuration Tool

Configure as

*Select:* Network License Client

*Direct Binding*

*Enter:* hostname of server

*Select:* <<Add

*Close window and save*

- Run the "LUM Test and Verification Tool" to verify that the client can find the server. From a DOS shell, run: `\ifor\win\bin\i4tv`

The response should look similar to this:

```

C:\>cd ifor\win\bin

C:\IFOR\WIN\BIN>i4tv
i4tv Version 4.6.7 Windows -- LUM Test and Verification Tool
(c) Copyright 1995-2003, IBM Corporation, All Rights Reserved
US Government Users Restricted Rights - Use, duplication or disclosure
restricted by GSA ADP Schedule Contract with IBM Corp.
(c) Copyright 1991-1998 Gradient Technologies Inc., All Rights Reserved
(c) Copyright 1991,1992,1993, Hewlett-Packard Company, All Rights Reserved

Completed license transaction on node 3707af8f running LUM 4.6.7 Windows
Active License Servers:
  ip:sv756dsa.ds (WIN32) running LUM 4.6.7 Windows
Active Central Registry License Server:
No servers found

C:\IFOR\WIN\BIN>_

```

**Note:** The CATIA products do not support Central Registry License Servers. Ignore the message "No servers found" returned by i4tv.

## 5. Concurrent Licensing with an HP-UX Server and HP-UX Clients

- Acquire your licenses and verify your HP-UX level
  - Identify the machine you will be using as a License Server. While logged in as superuser, run the command "**uname -a**" to get the machine's uname/target-id.
  - Order the CCD concurrent/server licenses from IBM. These licenses are based on the machine's *uname*.
  - Verify that your server is running a supported version of HP-UX 10.20, 11.0 or 11.i.
- Acquire the necessary LUM software
  - IFOR/LS is the standard licensing mechanism that is supplied with HP-UX. iFOR/LS is not supported by CADAM Drafting, so you must obtain the LUM software as described at the beginning of this document.
- Disable iFOR/LS:
  - iFOR/LS (GR3.0.3) is a standard function in HP-UX and must be deactivated to use LUM. Perform the next few steps to deactivate iFOR/LS:

Add the following lines to the "/etc/rc.config.d/ncs" file:

```
START_LLBD = 0
START_GLBD = 0
```

Add the following line to the "/etc/rc.config.d/iforls" file:

```
START_I4LMD=0
```

Reboot the system.

- Install LUM:
  - Logon as super user.
  - Untar the file arkhpux4xx.tar using the command "tar -xvf arkhpux4xx.tar"
  - Refer to the README.ARK file, and perform the steps under "Installing the License Use Runtime Package."
  - Set the PATH to include /var/lum and /opt/lum/ls/os/hpux/bin.
- Run the Configuration Utility (Note that, unless the LUM-JGUI is installed, the HP, SGI, and Sun versions of this utility use simple line commands). The LUM-JGUI requires Java 1.3.0 (support for Java 1.3.1 and above starts with LUM 467).
  - Start i4config.
  - Select Network License Server.
  - Select Direct binding, and follow the prompts to complete the configuration of the server.
  - The i4ls.ini file in /opt/lum/ls/conf now contains the server information.
  - If the server is not running, execute "i4cfg -start" to start the server.
  - Execute i4blt with the following arguments to enroll the product:

```
i4blt -a -n server_name -v "'vendor name' vendor_id  
vendor_password" -p "product_name product_version  
product_password license_annotation"
```

The values to use for the arguments are given in the licensing information obtained in Step 1 of "Install and Configure an HPUX LUM License Server."

This completes the installation and customization of the LUM server software. The next step is to configure licensing on the HP-UX client.

- Configure the workstation client without installing LUM.
  - a. Simply copy the i4ls.ini file created in step 5 above to the workstation's /opt/lum/ls/conf. Create this directory path if it does not exist.
  - b. Create a link to the location of the i4ls.ini file in /var/lum: `ln -s /opt/lum/ls/conf /var/lum/conf`
  - c. It's important that the file permissions on this file and path is read to everyone.
- Perform Steps 2 and 4 given under "Install and Configure an HPUX LUM License Server"
- Configure LUM as a network license client:
  - Start i4config.
  - Select Network License Client.
  - Select Direct Binding, and follow the prompts to complete the configuration of the client.
  - Verify that the client can find the server by running the command /var/lum/i4tv.

## 6. Concurrent Offline Licensing

### What is Concurrent Off-line licensing?

Concurrent offline licensing allows users to check out a concurrent license from a license server for a certain number of days and to use it on a computer not connected to the network. For example, a

laptop computer to be used temporarily at a remote site. Concurrent offline licensing is available for the CATIA, CCD, ENOVIA DMU or DELMIA (or RADE) products. This document will only address the requirements for CCD (CATIA CADAM Drafting).

When the concurrent offline license is reserved for use, a license is installed on a laptop connected to the network. For the duration of the reservation, the extracted license is considered as a nodelock license tied to the laptop. This license is called an offline nodelocked license. Once the offline nodelocked license has been installed on the laptop, the laptop can be disconnected from the network.

Once extracted, the license is no longer available from the license server. The license only becomes available once more to other users when one of the following occurs:

- The reservation period expires
- The license is returned to the server from the laptop (end-users can return the license before the expiration date).
- The maximum extraction duration is 30 days. License Use Management Runtime (LUM) administrators can reduce this duration.

If a free standard concurrent license and a free concurrent offline license exist for the same product, and an end-user requests a license for this product, the server will provide the standard concurrent license, so that the concurrent offline license remains available for extraction.

Offline licensing is not supported if you use the LUM HAL (High-Availability Licensing) feature.

## **Software prerequisites for the client and the license server.**

### **License Server**

- Concurrent offline licenses can be enrolled and administered only on a server running IBM License Use Management Runtime (LUM) Version 4.6.7 or above on either Windows or UNIX. LUM 4.6.8.12 is recommended.
- The machine running the license server does not require CCD to be installed.

### **Laptop**

- CCD V5R16 or above.
- Supported Windows platforms: Windows 2000 SP2 or Windows XP
- The laptop does not require any IBM License Use Management Runtime software, but must be configured as a LUM client
- LUM driver "LUMDriver.sys" needs to be installed on the client.

### **Procedure**

Implementing concurrent offline licensing involves the following steps which should be performed in the following order:

- On the license server
- Then on the laptop.

### **On the License Server**

1. Log onto the machine running the LUM license server as root (UNIX) or as administrator (Windows).  
On Windows, you must belong to the Administrators group, or have the privileges assigned to the Administrators group.

The following steps referring to starting and stopping existing LUM servers and migration tasks do not apply if you are installing LUM for the first time or on a different machine.

2. If you have already installed a previous version of LUM, go to the LUM installation directory.
3. Stop the license server using the command:

```
i4cfg -stop
```

4. Back up the data on the LUM server.

To do so, refer to the section "Using the Built-In Backup and Recovery Procedure" in "Chapter 7. Hints and Tips" in the following manual: *IBM License Use Management - Using License Use Management Runtime*.

5. Install IBM License Use Management Runtime (LUM) Version 4.6.8.12.
6. On Windows, perform the necessary license database migration steps.

Refer to the section "Installing after an Uninstallation", in section "Installing License Use Management Runtime on Windows" in "Chapter 3. Installing License Use Management Runtime" in the following manual: *IBM License Use Management - Using License Use Management Runtime*.

7. Migrate the concurrent network licenses into concurrent offline licenses.

To do so, you need to copy the **i4\_offline\_mig** tool from the LUM CD-ROM. This purpose-built command migrate all concurrent licenses into concurrent offline licenses on the network license server.

Check the IBM Web-site for updates to this tool:

<http://www-306.ibm.com/software/applications/plm/support/prodannounce.html#040123>

An offline license is similar to a normal concurrent license because, even after migration, it can continue to be used as a normal concurrent license. Each time a new license is enrolled, and you want to use it as an offline license, you must use the same command again to migrate the license.

The tool is located in a folder named after the operating system you are using. Copy the tool into the same LUM installation directory from which you run your LUM commands (**i4cfg**, **i4blt**, ...). Change the execution rights on the executable file to make sure that you will be able to run the tool.

Then, run the following command to migrate the licenses:

```
i4_offline_mig
```

After migration, the licenses will remain available, once the server has been restarted.

8. Restart the license server using the command:

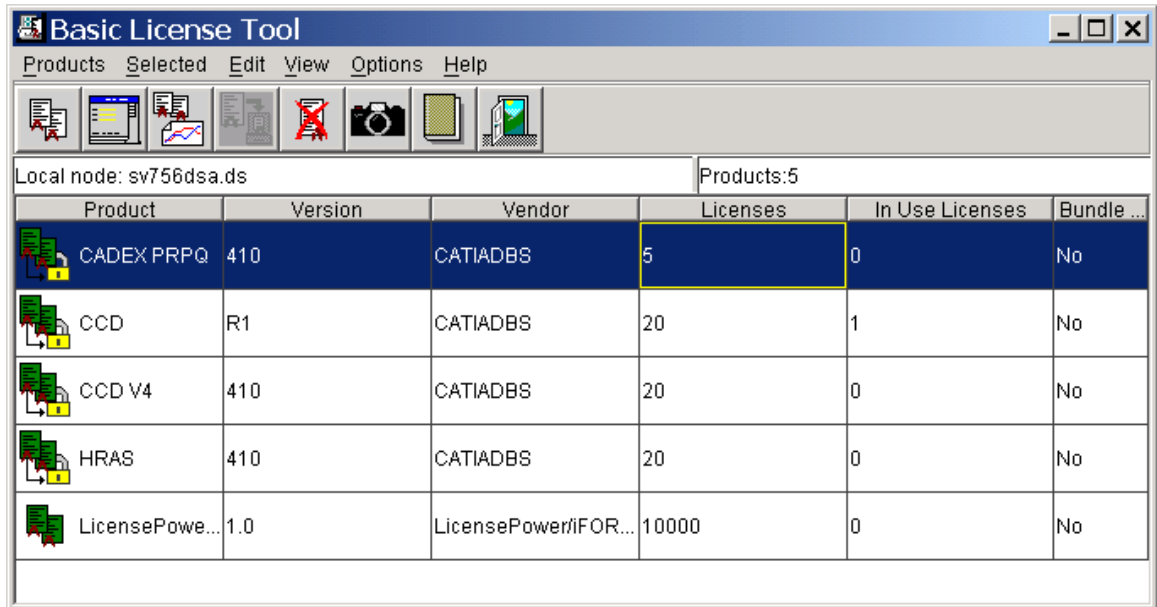
```
i4cfg -start
```

Run the Basic License Tool and you'll notice that a padlock has been added to the product name:

To do so, you use the Basic License Tool. Run the following command to start the Basic License Tool GUI on UNIX:

## i4blt

On Windows, go to Start > Programs > License Use Runtime and select Basic License Tool.



The screenshot shows the Basic License Tool window. The title bar reads "Basic License Tool". The menu bar includes "Products", "Selected", "Edit", "View", "Options", and "Help". Below the menu bar is a toolbar with icons for file operations and license management. The main area displays a table with the following data:

Product	Version	Vendor	Licenses	In Use Licenses	Bundle ...
CADEX PRPQ	410	CATIADBS	5	0	No
CCD	R1	CATIADBS	20	1	No
CCD V4	410	CATIADBS	20	0	No
HRAS	410	CATIADBS	20	0	No
LicensePowe...	1.0	LicensePower/iFOR...	10000	0	No

9. Use the Basic License Tool to set up the concurrent offline license authorization rules.

The LUM administrator must set up rules to determine which users, groups of users and machines are authorized to extract an offline concurrent license, and under which conditions. For example, a password can be associated to each rule. By default, nobody is authorized to extract offline licenses.

At this point, refer to the following manual: *IBM License Use Management - Using License Use Management Runtime Version 4.6.8*.

In this manual the section: *Scenario 15: Managing Concurrent-Offline Licenses*, located in the chapter *Administering License Use Management Runtime*, explains how to manage the use of concurrent-offline licenses. This scenario shows you the different aspects involved in concurrent offline license management, for example:

- Setting the maximum number of days a product can be reserved
- Modifying authorization
- Adding a password for the default authorization
- Creating and modifying authorization records for a specific concurrent-offline license, allowing authorized users or groups of users to take the license
- Displaying details about the offline users, etc.

Once this phase has been completed, you are now ready to extract the offline licenses to the laptop.

## On the Laptop

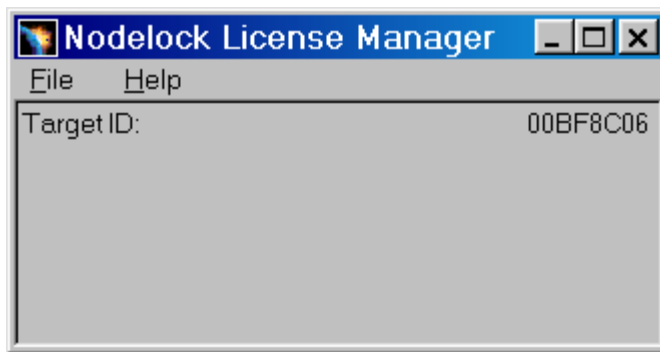


1. Check that your laptop is connected to the network.
2. For CCD, if don't already have a nodelock file in the following path, you must create the file with Notepad, then save it as an empty file. The nodelock file must not have a file extension. If LUM is not installed on the laptop, you must also create the path:

C:\Ifor\Ls\Conf\Nodelock

**Note:** If you currently have a nodelock file in "Documents and Settings\All Users\Application Data\IBM\LUM," you must either rename it or copy it to the above directory. Otherwise CCD will not work.

3. Check that you have write access to the folder containing the nodelock file and to the nodelock file itself.
4. If LUM is installed make sure that the LUM client is correctly configured and points to the machine running the LUM license server from which you are going to extract the license.
5. If LUM is not installed you must have a copy of the license server's i4ls.ini file in "Documents and Settings\All Users\Application Data\IBM\LUM."
6. If CATIA is installed on the laptop, select the **Start->Programs->CATIA V5R15 (or ENOVIA\_DMU\_Navigator V5R15, or DELMIA V5R15)->Tools->Nodelock Key Management V5R15** command.
7. If none of the above CATIA products are installed on the laptop and only CCD is installed, you can download the Nodelock Management tool from [www.cadam.com](http://www.cadam.com). Starting with CCD V516 and above, the tool can be found under \$CCD\_ROOT\License\Offline\NodelockLicenseManager.

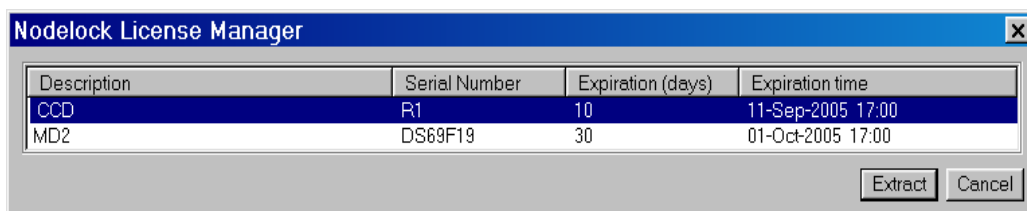


8. Using the Nodelock Key Management tool, select the **File->Extract** command.

Note: If you get the message "**License Not Added Driver not running**," STOP. The LUM driver needs to be installed.

Copy LUMDriver.sys from the CATIA V5 release media to C:\Windows\system32\drivers (or where Windows is installed on the machine). Now, to start this driver you must run lumdevdi.exe, also available on the CATIA V5 release media. This executable does not give any feedback. The best indication that the driver is running is that you will see the following dialog box when selecting File > Extract.

The following dialog box appears, listing the concurrent offline licenses located on the license server:



You can select one or several licenses to extract.

Before you extract the license, you can reset the license duration to extract the license for a lower duration than the one authorized. To do so, click the appropriate field, then click it again and enter a new value (30 days maximum).

In certain cases, you may attempt to set a value greater than the value registered for that license on the LUM server. You will be informed if this is the case, and must reset an appropriate value accordingly.

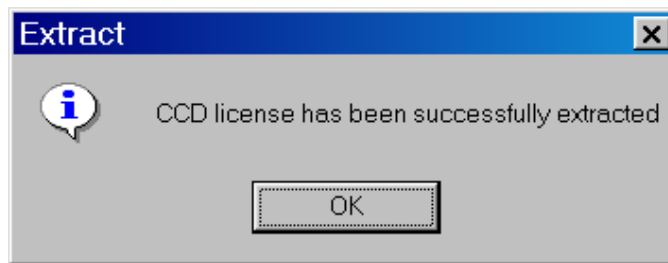
In our example, the CCD license will expire in 10 days.

If the LUM administrator sets a password, you must enter the password. Even if you select several licenses for extraction, there will still be only one password. After validation, the license(s) is(are) extracted.

You cannot extract a license if the same license already exists as a nodelock license (either standard nodelock or offline nodelock) and with the same serial number, if applicable.

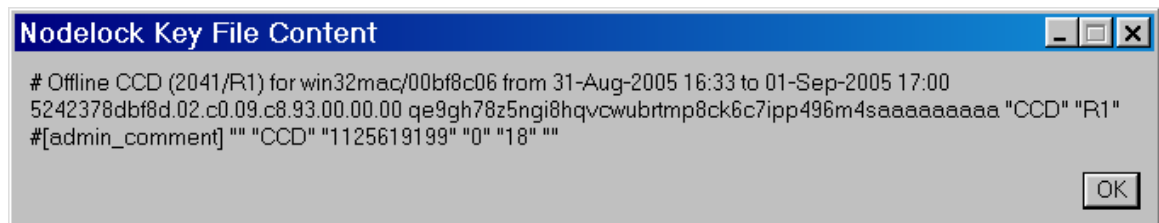
Let's assume that you want to extract a license for CCD and one for the MD2 configuration which you have installed on your laptop. Note that you can extract several licenses if required.

Select the CCD license. Then, click the Extract button.

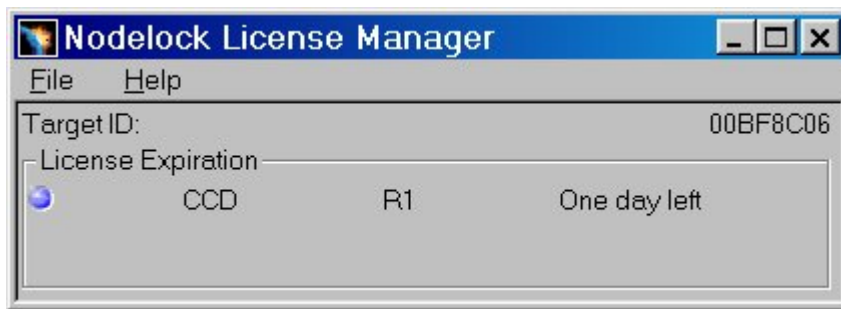


A message popup will confirm that the license was successfully extracted. You can then click the OK button in the message box. Once the license has been extracted, it is no longer available on the license server for network users. The new status of the license can be tracked on the license server using the Basic License Tool.

Extracting an offline license creates the nodelock file on your laptop, or updates it if it already exists. If you select the **File->Read** command, you will see the offline license for MD2:



Offline nodelock licenses are identified in blue when listed using the Nodelock Key Management tool.



To test that you can use the license offline, disconnect the laptop from the network.

Start a CCD session and confirm that no license errors are displayed and CCD is fully functional.

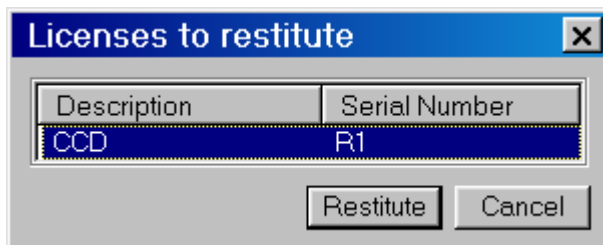
You can now use your license for the duration specified when it was extracted.

Once that duration has expired, the license will no longer be available.

### Return a license back to the license server.

1. Reconnect the laptop to the network, then make sure that the LUM client is correctly configured and access the machine running the LUM license server from which you checked out the license.
2. Using the same Nodelock Key Management tool you used to extract the license, select the **File->Restitute** command.

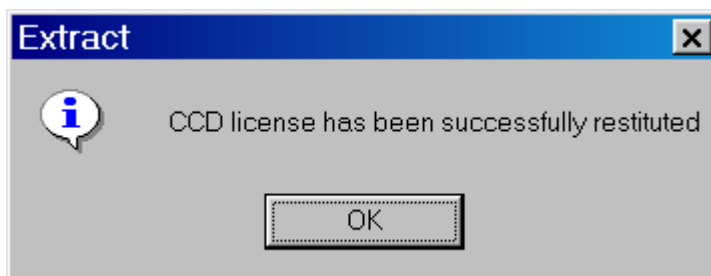
The license you extracted is listed in a dialog box:



Note: You can return more than one offline license.

3. Select the license, then click the Restitute button.

A message popup will confirm that the license was successfully returned. You can then click the OK button in the message box. Once the license has been returned, it becomes available once more on the license server for network users.



The status of the license can be tracked on the license server using the LUM Basic License Tool.

## 7. Some Useful LUM Basic License Tool commands

The following LUM server **i4blt** administrator commands are for HP-UX, IRIX and Solaris UNIX systems. These commands will also work with AIX and Windows, but since LUM provides a graphical user interface with these operating systems, the GUI is easier to use. On AIX, the LUM executables are located in the /var/ifor directory. On Windows, the executables are in C:\ifor\Win\Bin. On HP-UX, the executables are located in the /opt/lum/ls/os/hpux/bin directory.

To view the i4blt command syntax:

```
i4blt -h
```

In LUM releases prior to 4.5.8, if CCD terminated abnormally, the license server did not always release the license after the timeout period has elapsed. These licenses are referred to as "stale licenses" and are marked as being in use, even though the application is no longer using the license. To avoid running out of licenses, clean up these stale licenses by issuing the following command:

```
i4blt -C -n "server_name" -v "'Dassault Systemes'" -p  
"'CATIA.MECH V4 CCD WORKSTATIONS'"
```

**Note:** If there are spaces in the name, you must use single quotes within the double quotes. It is also a good idea to run this command once every hour from a cron job, until this problem is resolved.

Current versions of LUM automatically recycle these licenses.

To get general information and the product time stamp (required to delete a license):

```
i4blt -lp -p "'CATIA.MECH V4 CCD WORKSTATIONS'" -i
```

The time stamp should be a number like: 921167059

To delete the product with the time stamp above:

```
i4blt -d -n server_name -v "'Dassault Systemes'" -p  
"'CATIA.MECH V4 CCD WORKSTATIONS' 410" -t 921167059
```

To add (enroll) the new license:

```
i4blt -a -n server_name -v "'Dassault Sytemes'  
5242378dbf8d.02.c0.09.c8.93.00.00.00 gdzq8hnsez8yw" -p  
"'CATIA.MECH V4 CCD WORKSTATIONS' 410  
y5xp56ccjeapjkgkt5wehkwabnsaaa"
```

To list all the products enrolled:

```
i4blt -lp
```

To enroll a product using a license certificate:

```
i4blt -a -n server_name -f certificate_name
```

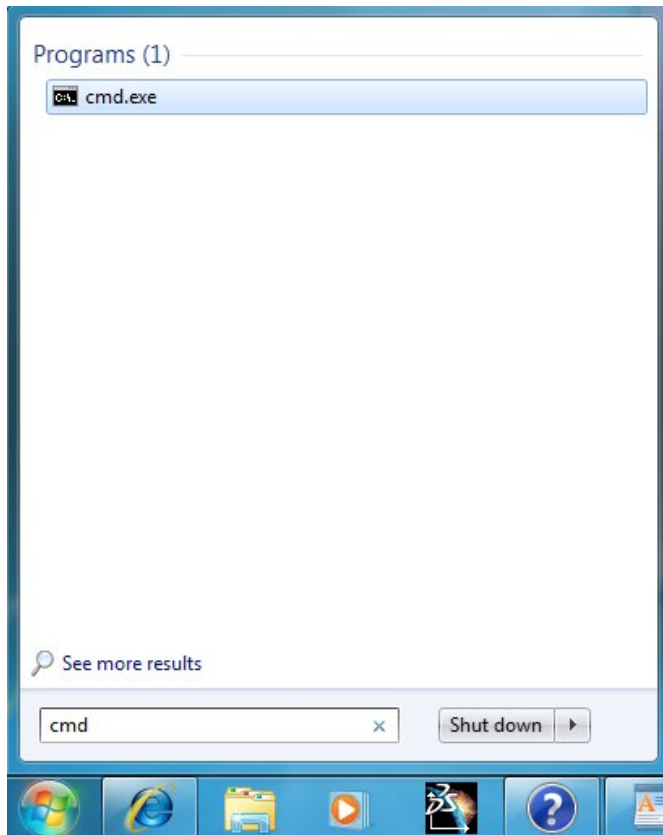
## 8. Getting Administrator Rights on Vista or Windows 7

On Windows Vista or Windows 7, being logged on as a user that is a member of the Administrators group, is enough to install LUM, but may not have enough privilege to run some

of the LUM runtime commands. In this case you need to get the Administrator rights to the elevated mode.

Open **Start** menu.

Type the cmd command in the **Search** field.



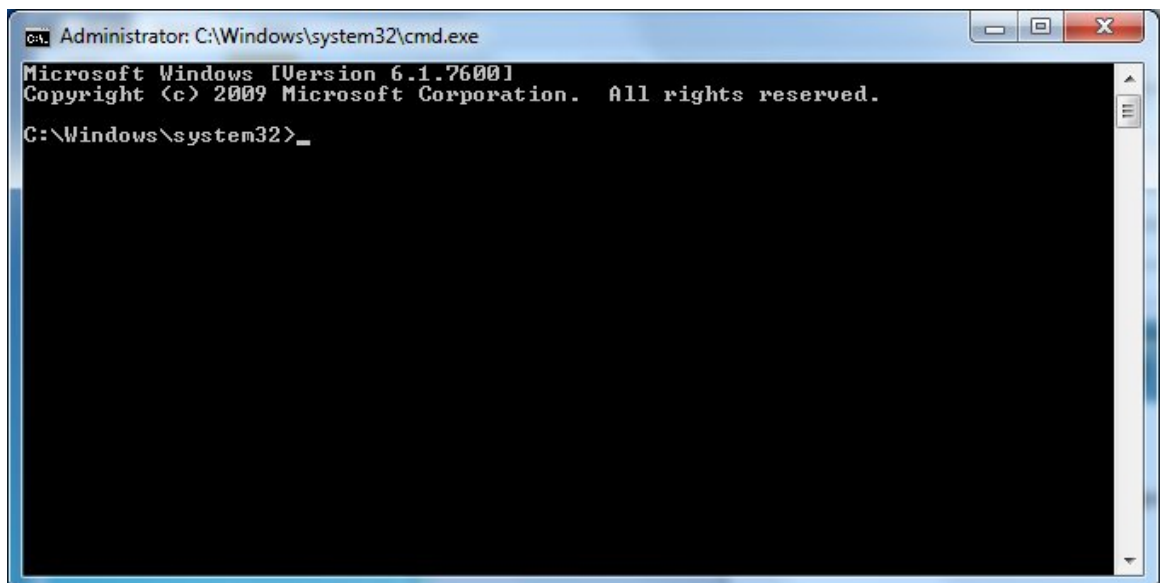
On Windows Vista press Enter.

On Windows 7:

Press **Ctrl+Shift+Enter**. User Account Control window appears.

Click **OK** or **Continue**.

A new title with the prefix Administrator appears in the Command Prompt window.



Your rights have been extended to the administrator level, which allows you to run License Use

Management Runtime administrative commands.

**Note:** If you want to run the LUM's Configuration Tool, type **i4cfg** and **i4cfg -services** for the Service Manager Tool in the Command Prompt window.

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