MASTERCAM ADMINISTRATOR GUIDE

January 2017

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MASTERCAM ADMINISTRATOR GUIDE

January 2017
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Software: Mastercam 2018

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Be sure you have the latest information!

Information might have changed or been added since this document was published. The latest version of the document is installed with Mastercam or can be obtained from your local Reseller. A ReadMe file (ReadMe.PDF) – installed with each release – includes the latest information about Mastercam features and enhancements.

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UPDATES

This administrator's guide covers installation and configuration scenarios that are more complex than those covered in the Mastercam 2018 Installation Guide. Use this administrator's guide to learn about updating SIM codes, starting Mastercam 2018 with Mastercam Launcher or command-line switches, and administering an installation over a network.

Entering SIM Update Codes

When you install or upgrade Mastercam 2018, and you are not on Mastercam Maintenance, you must also update your HASP and NetHASP SIMs with an update code. The SIM must be activated with the update code before you can run the new or updated version of Mastercam.

See instructions for .

The update code is a file that is delivered to you by one of these methods:

- Included with your Mastercam 2018 software kit
- Mailed on electronic media
- E-mailed as a file attachment

Contact your local Mastercam Reseller if you cannot locate your update code.

Update code files have a file extension that indicates the type of SIM license they update. The Mastercam installation program associates these file extensions with the program that you use to update the SIM codes.

File Extension	SIM License Type	SIM License Type
HCODE	HASP	HaspX.exe
NHCODE	NetHASP	NHaspX.exe

Note: If your computer has multiple HASP SIMs, remove all SIMs except the Mastercam SIM before entering the update code.

Before entering the update code

Use one of the following methods to prepare for the update, based on the format of the update code that you received and your personal preference:

- **E-mail attachment:** Save the attachment as a file to an accessible location. (Do not change the file extension.)
- **Mastercam 2018 installation kit electronic media:** Insert the media in the appropriate drive to access the file.

Updating HASP codes

CAUTION: Before this phase of the update process, be sure you have completed the steps in Installing a HASP (Single-User License) and Installing Mastercam in the *Mastercam 2018 Installation Guide*. Also, the following steps must be done on the computer to which the HASP is attached. Updates over a remote connection will fail.

**To enter a HASP update code:**

You can enter a HASP code automatically by double-clicking the update code file (`*.HCODE`). To update the code manually, perform the following procedure.

1. Choose one of the following methods to run `HaspX.exe`. The method you choose is based on your version of Microsoft Windows, the update code format, and your preference.

   - (Windows 7 and 8) From the Windows desktop, choose **Start**, **All Programs**, **Mastercam 2018**, **Utilities**, **Hasp X**.

   - (Windows 10) From the Windows desktop, choose **Start**, **Mastercam 2018**, **Hasp X**.

   - Use Windows Explorer to navigate to the Mastercam 2018 installation location, and double-click `HaspX.exe`.

   The HaspX utility analyzes the SIM and displays the SIM serial number and current Mastercam products. Verify that the displayed serial number matches the serial number provided with your Mastercam 2018 software kit.

   Note: Keep a record of the serial number in the event that you need to contact Technical Support Services at CNC Software or your Reseller.

2. In the HaspX dialog box, choose **Update code** to open the code file that you received. The HaspX utility extracts the update code from the file.
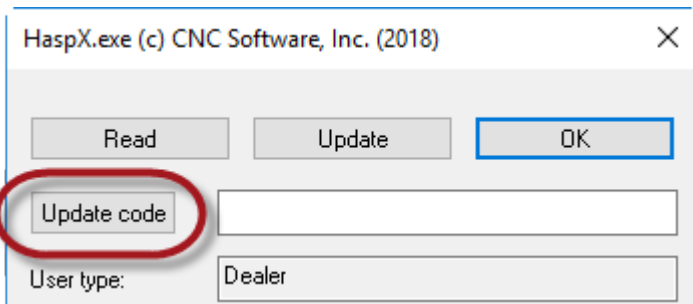
3. Choose **Update** at the top of the HaspX dialog box. The program updates the SIM and displays the products for which the SIM has been activated.

4. Choose **OK** to exit the HaspX utility.

Start date:	06/07/2016
End date:	06/30/2017
Maintenance Expiration date:	None (Dealer SIM)
HASP found	

- **Start date/End date**: Displays the start date and end date for the SIM.

- **Maintenance Expiration date**: Shows the date your Maintenance plan expires, based on your annual renewal date.

- **HASP Status:** Shows whether the utility found the HASP SIM on your computer.

SIM Not Found error

On rare occasions, Mastercam might not find your SIM. Try the following suggestions to fix the problem:

- Run `NHaspX.exe`, and ensure that the correct type of SIM, either HASP or NetHASP, is selected:
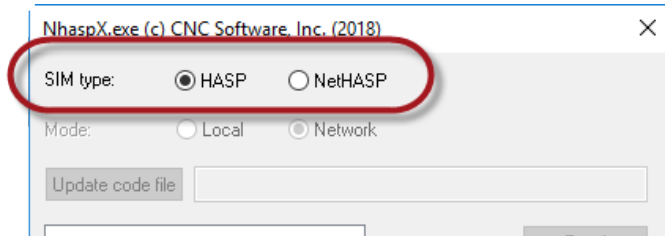
- Remove and reconnect the SIM.

- Try a different USB port.

- Check that the SIM is lighted. An unlighted SIM is either broken or not receiving power from the USB port.

- Reinstall the SIM drivers (see the "Manually installing SIM drivers" below).

If the problem persists, contact CNC Software Technical Support Services for assistance.

Manually installing SIM drivers

The Mastercam 2018 installation program automatically installs the software needed to use the HASP SIM with Mastercam. In the event that the SIM drivers need to be reinstalled, choose **Start**, **All Programs**, **Mastercam 2018, Utilities, Hasp Setup** (Windows 7 and 8) or **Start**, **Mastercam 2018, Hasp Setup** (Windows 10), and then follow the instructions on screen to install the SIM drivers.

Repairing a Mastercam 2018 installation

If you encounter a problem after an installation and have not been notified of a SIM or HASP driver problem, attempt to repair your Mastercam 2018 installation as described next.

To repair an installation:

1. Insert the Mastercam 2018 USB drive.

2. Choose **Mastercam Installation**.

3. Choose **Repair**, and then follow the prompts.

Updating Mastercam 2018

When a new Mastercam maintenance update is released, you can download it from the Mastercam website (www.mastercam.com). The maintenance upgrade is an executable file (.EXE) that you run to update your installation.

Before you do an update, you must exit Mastercam. If you start an update with Mastercam open, you are asked to close all sessions running Mastercam on the PC before continuing with the update installation.

> **CAUTION:** The following instructions apply only to English-based Mastercam installations with updates received from CNC Software, Inc. For information on downloading non-English Mastercam updates from other locations, contact your local Mastercam Reseller.

Downloading and installing updates

To download and install Mastercam updates:

1. Download the latest update from the Mastercam website, or get the update from your local Mastercam Reseller.

2. Copy the downloaded file to the PC on which you want to do the update.

3. If Mastercam is running, close it.

4. Double-click the update file, and follow the prompts.

5. When the installation is complete, click **Finish**.

You can also update Mastercam through the **Help** menu, via the Automatic Update Service:

1. Select **File, Help, Check for Updates**. The Mastercam Updates dialog box displays.

   Note: Your computer must be connected to the Internet to check for updates.

2. The dialog box will display the date of the most recent check for updates. Select or deselect the checkboxes to **Automatically check for updates** or to **Show new update alerts**.

3. Click **Check Now** to check for the latest Mastercam update.

LAUNCHING MASTERCAM

This chapter describes alternative ways to start Mastercam. Specifically, you can use Mastercam Launcher or command-line switches.

Mastercam Launcher

Use Mastercam Launcher to control the startup options for a particular seat (license) of Mastercam. With Mastercam Launcher, you can do the following:

- Assign product (platform) levels and availability, such as Mill or Mill 3D.

- Edit the availability of Mastercam add-on products and their usage status.

- Start Mastercam with either a HASP or NetHASP.

- Use Dealer, Industrial, or Educational functionality (editing capabilities for Mastercam Resellers only).

- Run Mastercam with or without Maintenance (editing capabilities for Mastercam Resellers only).

- Create a customized Mastercam shortcut on the desktop based on the current Mastercam Launcher settings.

- Save the current settings to the registry and/or open Mastercam when you click **OK**.

Mastercam Launcher is primarily designed for NetHASP clients and Mastercam Resellers. Some of the options on this dialog box (such as running Mastercam with or without Maintenance) are available only if you have a Reseller HASP.

Starting Mastercam Launcher

Start Mastercam Launcher by selecting **Start**, **All Programs**, **Mastercam 2018**, **Utilities, Mastercam Launcher** (Windows 7 and 8) or **Start, Mastercam 2018, Mastercam Launcher** (Windows 10). When you start Mastercam Launcher, the following dialog box displays.

Figure 2 - 1: Mastercam Launcher dialog box
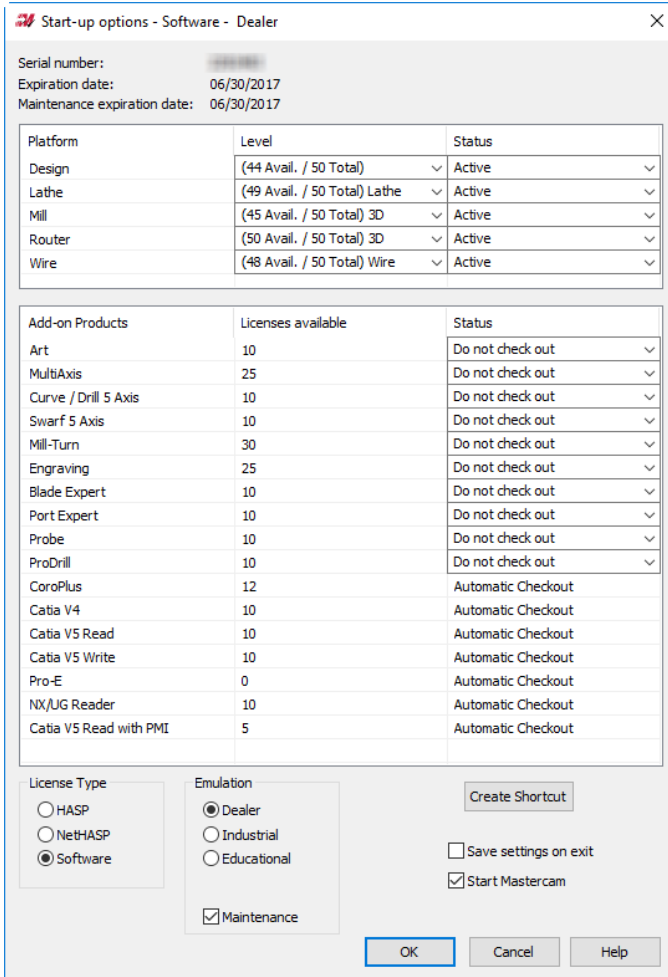
Information displayed in the dialog box

- **Information area:** Displays the HASP (or NetHASP) number being used, its expiration date, and the Maintenance expiration date.

  Note:

  - If you are using a permanent SIM, the HASP expiration will display the word "Permanent" rather than a date.

  - Maintenance expiration date shows the date that Maintenance on the SIM expires. For temporary codes, the SIM expiration date and the Maintenance expiration date are the same.

- **Platform area:** This grid shows the product (platform) names, the available platform level on your SIM, and the platform status.

  The drop-down arrow in the **Level** column lets you select a specific product level. NetHASP clients can see available levels, and choose the one to use. Only licensed levels show on the SIM.

  The drop-down arrow in the **Status** column lets you choose from the following status settings:

  - **Active** – the product is available to be used.

  - **Inactive** – the product is not available to be used (acts as if you are not licensed for the product).

  - **Startup** – Mastercam 2018 starts up in that product.

Figure 2 - 1: Example of Reseller - HASP setup

Platform	Level	Status
Design		Active ▼
Lathe	Entry ▼	Active ▼
Mill	Entry ▼	Active ▼
Router	Entry ▼	Active ▼
Wire	Wire ▼	Active ▼

Figure 2 - 2: Example of NetHASP client (non-Reseller)

Platform	Level	Status
Design	(50 Avail. / 50 Total)	Active
Lathe	(49 Avail. / 50 Total) Lathe	Active
Mill	(49 Avail. / 50 Total) 3D	Active
Router	(50 Avail. / 50 Total) 3D	Active
Wire	(50 Avail. / 50 Total) Wire	Active

Note:

- If a platform is not enabled on a SIM, the entire row is inactive.
- For a Reseller HASP or NetHASP, all platforms and add-ons are available. For a non-Reseller NetHASP, the fields for items that are not licensed are unavailable.

- **Add-on Products area:** This section lists all of the available add-on products, and how many licenses are available.

To check out a license for the session, click the arrow button in the Status column for the add-on product you want to work with, and set the status to **Enable**. If you choose the **Disabled** status, that add-on is not available for you to use, even though it is available on the NetHASP.

A **Not Licensed** status means that the add-on is not licensed on your SIM, and therefore you do not have access to that add-on.

Products marked **Automatic Checkout** are checked out automatically when needed.

Add-on products that are not available on the SIM are inaccessible. If an add-on is on the SIM but all of the instances are in use, the number in the **Licenses available** column is 0, and you cannot use the add-on.

Figure 2 - 3: Example of Reseller - HASP setup

Add-on Products	Licenses available	Status	
Art	1	Do not check out	▾
MultiAxis	1	Do not check out	▾
Curve / Drill 5 Axis	0	Do not check out	▾
Swarf 5 Axis	0	Do not check out	▾
Mill-Turn	1	Do not check out	▾
Engraving	0	Do not check out	▾
Blade Expert	0	Do not check out	▾
Port Expert	0	Do not check out	▾
Probe	0	Do not check out	▾
Catia V4	0	Automatic Checkout	
Catia V5 Read	0	Automatic Checkout	
Catia V5 Write	0	Automatic Checkout	
Pro-E	0	Automatic Checkout	
NX/UG Reader	0	Automatic Checkout	
Catia V5 Read with PMI	0	Automatic Checkout	

Figure 2 - 4: Example of NetHASP client (non-Reseller)

Add-on Products	Licenses available	Status	
Art	50	Disabled	▾
MultiAxis	50	Do not check out	▾
Curve / Drill 5 Axis	50	Do not check out	▾
Swarf 5 Axis	50	Do not check out	▾
Mill-Turn	50	Do not check out	▾
Engraving	50	Do not check out	▾
Blade Expert	50	Do not check out	▾
Port Expert	50	Do not check out	▾
Probe	50	Do not check out	▾
Catia V4	0	Automatic Checkout	
Catia V5 Read	0	Automatic Checkout	
Catia V5 Write	0	Automatic Checkout	
Pro-E	50	Automatic Checkout	
NX/UG Reader	50	Automatic Checkout	
Catia V5 Read with PMI	0	Automatic Checkout	

- **License Type area:** The radio buttons in this area let you switch your SIM type between HASP, NetHASP, and Software. The availability of

the switch options depends on your access to each of those devices at the time you start Mastercam Launcher.

- **Emulation area (Resellers only):** This section lets Mastercam Resellers set up Mastercam to run under Dealer, Industrial, or Educational functionality. Resellers can also set up Mastercam to run with or without Maintenance.

  Note: The Maintenance checkbox is on and disabled if the Dealer emulation option is selected. It is active/editable if the Industrial or Educational emulation option is selected.

- **Create Shortcut:** Creates a shortcut on the desktop based on the current settings in Mastercam Launcher and prompts you for the shortcut's name. The shortcut contains all of the switches needed to open Mastercam according to the settings you chose in Mastercam Launcher.

  When you create a shortcut and do not enter a name for it, Mastercam names the first shortcut **Mastercam (1)** and increments the number for each customized shortcut you create without specifying a name.

- **Save settings on exit:** Select to save the Mastercam Launcher settings to the Registry when you click **OK**. If you click **Cancel** to exit the dialog box, the settings are not saved to the Registry, even if you have selected this option.

- **Start Mastercam:** Select to have Mastercam launch when you click **OK**. If you click **Cancel** to exit the dialog box, Mastercam does not start, even if you have selected this option.

Using Command-Line Switches

Instead of using Mastercam Launcher, you can use command-line switches to load licenses for selected product levels and add-on features when you click the Mastercam icon. You typically use command-line switches to request

specific NetHASP licenses when you start a Mastercam session. You can also use them with HASP licenses to open Mastercam in a particular product or product level or to suppress products or product levels.

Note: Shortcuts created by Mastercam Launcher automatically include the appropriate command-line switches.

Mastercam checks out product licenses at startup and then exchanges them each time you choose a machine definition for a different machine type (Mill, Lathe, Router, Wire, or Mill-Turn). This flexible structure allows NetHASP licensing to be dynamically allocated.

If you start Mastercam 2018 without command-line switches, Mastercam does the following:

1. Checks out a Mastercam Design license, if one is available.

2. If a Design license is not available, Mastercam checks out the highest level license available for Mill, Lathe, Router, or Wire.

When Mastercam is running, if you choose a machine definition type (Mill, Lathe, Router, Wire, or Mill-Turn) that is different from the current product license allocation, Mastercam releases the current license and checks out a product license for the selected machine type.

By adding command-line switches to the Mastercam shortcut, you can control which product level licenses are checked out during the Mastercam session. For example, to create a shortcut that checks out only Mill 3D and Router 3D licenses when a Mill or Router machine type is selected, add the following command-line switches to your Mastercam shortcut: **/M3 /R3.**

Setting Mastercam icon command-line switches

To set command-line switches for a Mastercam shortcut icon:

1. From the Windows desktop, right-click the Mastercam 2018 icon.

2. Choose **Properties**, and then select the **Shortcut** tab.
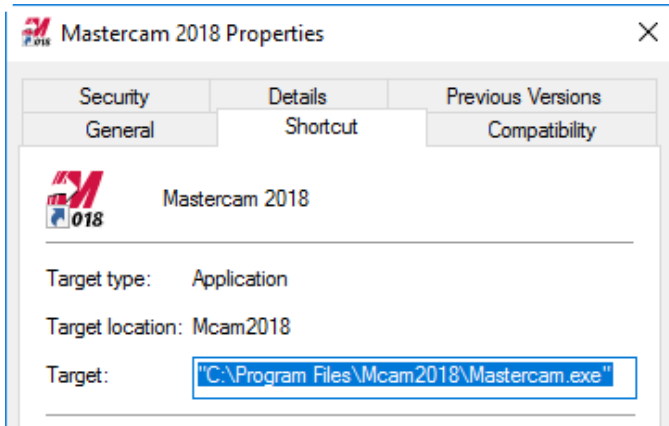
3. Add one or more command-line switches to the **Target** field.

   Precede each command by a "/" and separate each by a space. (See "Command-line switches" on the facing page for more information.) For example, to request a single Mill Entry license at startup, enter:

   "C:\Program Files\mcam2018\Mastercam.exe" /ME

   To request a Mill 3D license and a Router license:

   "C:\Program Files\mcam2018\Mastercam.exe" /M3 /R2

   To request three licenses at startup—Mill, Lathe, and Router:

   "C:\Program Files\mcam2018\Mastercam.exe" /M2 /L1 /R2

> **CAUTION:**
>
> If the directory name contains spaces, you must enter the shortcut using the following format:
>
> - Place quote marks around the directory path.
> - Place the command-line options outside of the quote marks.

4. To accept the command-line changes to the Mastercam icon and exit the Properties dialog box, click **OK**.

Command-line switches

The following table lists all command-line switches for each Mastercam product. However, all products might not be included with your Mastercam installation.

Note: If you use a command-line switch to suppress products or check out a lower level product than the HASP or NetHASP supports, a message shows the products enabled by the HASP or NetHASP and modified by the command-line switch.

Mastercam Design

- **/D** = Design only (requires a stand-alone Design license). For example, use this switch if you want to load a part that contains toolpaths but do not want to check out a Mill, Lathe, or Router license.
- **/noD** = Disable Design only

Mastercam Mill

- **/ME** = Mill Entry
- **/M3** = Mill 3D

Mastercam Mill(continued)

- **/M2** = Mill
- **/noM** = Disable Mill

Mastercam Lathe

- **/LE** = Lathe Entry
- **/L1** = Lathe
- **/noL** = Disable Lathe

Mastercam Router

- **/RE** = Router Entry
- **/R3** = Router 3D
- **/R2** = Router
- **/noR** = Disable Router

Mastercam Wire

- **/W2** = Wire
- **/noW** = Disable Wire

Mastercam Art

- **/Art** = Art
- **/noArt** = Disable Art

All Products

- **/noRem**= Suppress product message

Mastercam Add-on Features

- **/C5** = Curve/Drill5ax
- **/noC5** = Disable Curve/Drill5ax
- **/MT1** = Mill-Turn level 1
- **/noT** = Disable the Mill-Turn add-on
- **/MT3** = Mill-Turn (full) add-on
- **/noT** = Disable the Mill-Turn add-on

Mastercam Add-on Features (continued)

- **/Engr** = Engraving add-on

- **/Port** = Port Expert add-on

- **/Blade** = Blade Expert add-on

- **/Probe** = Probing add-on

- **/X5** = MultiAxis add-on

- **/N** = Use NetHASP (remote)[a]

- **/H** = Use HASP[a]

- **/Nest** = Nesting

- **/SW5** = Swarf 5 axis

- **/PD** = ProDrill

- **/noEngr** = Disable the Engraving add-on

- **/noPort** = Disable the Port Expert add-on

- **/noBlade** = Disable the Blade Expert add-on

- **/noProbe** = Disable the Probing add-on

- **/noX5** = Disable the MultiAxis add-on

- **/NL** = Use NetHASP (local)[a]

- **/noNest** = Disable Nesting

- **/noSW5** = Disable Swarf 5 axis

- **/noPD** = Disable ProDrill

Error messages

When Mastercam starts, it attempts to get a license from the NetHASP server. Following are the most common error messages you might receive when a license cannot be obtained:

---

[a]Use these command-line switches to manually override the registry settings that were written by the NetHASP/HASP installation programs.

Error checking out a [product name] license. No licenses have been purchased for this product.
Contact your local Mastercam Reseller, and purchase the necessary options.

Active NetHASP server not found.
The NetHASP license manager is not running. Check the NetHASP server, and restart as necessary.

All available licenses are in use.
The maximum allowable number of users have checked out the product.

The SIM has become disconnected. Mastercam will automatically shut down. You will get one chance to save your file.
Approximately once every 2 to 10 minutes, Mastercam verifies that the NetHASP server is still running and that the NetHASP is attached to the server. If this test fails—for example, due to a power loss or server failure—this error message is displayed on all PCs running Mastercam.

Take this message seriously. Save your work quickly, and shut down Mastercam. Check the NetHASP connection and reconnect, as necessary.

Mastercam Advanced Configuration

Your Mastercam installation includes the Mastercam Advanced Configuration, with which you can access and modify global Mastercam properties. For example, you can use the Advanced Configuration to specify whether Mastercam displays its splash screen at startup.

Start the utility by selecting **Advanced Configuration** in the Start Menu, found under **Mastercam 2018** (**Mastercam 2018**, **Utilities** if you are using Windows 7 or 8). For more information on the options, click the **Help** button.

NETWORK ADMINISTRATION

This chapter provides information on installing and administering Mastercam 2018 in a network setting.

Network Administrator Qualifications

A full-time network administrator must be available and able to perform the following tasks:

- Recover from a network crash in a reasonable amount of time. Network licensing depends on a stable network.

- Configure the network as required by this document and the `neth-asp.txt` document. See "Additional NetHASP information" on page 43 for details on `nethasp.txt`.

- Be proficient with a text editor.

- Understand and edit command-line parameters.

- Learn enough about Mastercam 2018 to understand which licenses are checked out when each of the Mastercam products starts up.

- Understand how to use the Mastercam 2018 `NHaspX.exe` utility.

- Agree to install Mastercam 2018 on all PCs that require it. Attempting to run Mastercam from a common directory on a network drive does not work. The application must be physically installed on each PC where it will be used.

- Be familiar with the NetHASP, a red device that is plugged into the NetHASP server's USB port. Although the NetHASP is similar in

appearance to a HASP, it is functionally very different. The HASP and NetHASP are not interchangeable.

- Have e-mail access and the ability to accept attachments. The most practical way to update a NetHASP is to e-mail the update code file as an attachment.

> **CAUTION:** Keep the NetHASP device in a physically safe place. All Mastercam 2018 users on the network are vulnerable to its loss.

Installation

Mastercam 2018 must install components into the Windows `system32` folder, as well as register these components globally. Mastercam 2018 must also install HASP security device drivers. For this reason, you can install Mastercam 2018 only as a member of the Administrator group.

Additionally, to install Mastercam 2018 properly, the user must have the **Impersonate a client after authentication** group policy. The Administrator group gets this permission by default, but some upgrade scenarios may not have this permission set. Without this permission, the installation will fail at the very end, after all program files have been copied. In this case, the status text on the installation reads "Publishing Product Information."

When installing as an Administrator for other users, you must select the **Anyone who uses this computer (all users)** option. This option is the default setting for the installation.

Mastercam 2018 does not install to a drive created with the SUBST command. To install in this scenario, use the actual path to the desired installation directory, not the substituted drive letter.

For Mastercam 2018 to install and run successfully, the computer must have standard Windows permissions.

System Settings

The following sections describe important system settings, including file and Registry permissions, as well as network configuration and group policies.

Mastercam 2018 installation locations

The default Mastercam 2018 installation directories are based on the Windows operating system format and type, and also on the Mastercam file type (non-modifiable and user-modifiable).

User-modifiable data is stored in two different locations, depending on whether the data is user-specific or shared.

In the following table, the # in the folder names represents the number of the currently installed version of Mastercam.

Mastercam Installation Locations
Program files (non-modifiable) `C:\Program Files\mcam#`
`C:\Program Files\Common Files\Mastercam`
User-modifiable files
Windows 7, Windows 8, and Windows 10 operating systems:
`C:\Users\<Username>\Documents\my mcam#`
`C:\Users\Public\Documents\shared mcam#`

Mastercam 2018 requires read and write access to the user's `My Documents` and `Shared` folders.

Registry

To run Mastercam 2018, the user needs permission to read from the `HKEY_LOCAL_MACHINE\SOFTWARE\CNC Software, Inc.\` key. This key is created during the installation and contains default Mastercam 2018 settings.

The user also needs read and write permission to `HKEY_CURRENT_USER\SOFTWARE\CNC Software, Inc.\`. This key is created when the user first starts Mastercam 2018 and is used to store per-user settings.

These Registry permissions are the Windows system default, so no adjustment should be needed in a default Windows installation.

Network

Mastercam 2018 can use a NetHASP security device to service Mastercam licenses from a central location. Because these licenses are served over a network, a firewalled server running a NetHASP must allow the license server to communicate through the firewall. This requires two configuration steps:

- The firewall must be configured to open port 475.
- The NetHASP server program `(c:\windows\sysWOW64\nhsrvice.exe)` must be allowed to work through the firewall.

Please consult your firewall documentation for instructions on how to change these settings.

Group policies

By setting group policies, you can severely restrict the permission on a Windows system. Mastercam 2018 runs with the default group policies. Most other group policies have no effect on Mastercam's ability to run. However, a combination of group policies might cause issues with Mastercam 2018.

Setting installation defaults

You can set the installation defaults in the `mcim.ini` file, which is included in the `\support` folder in the installation media. The `mcim.ini` file is text that contains the defaults for the following installation settings:

- Installation language
- Program language
- Units
- Installation type
- SIM type
- Destination directory

To set installation defaults:

1. Copy the contents of the installation media to a local or network drive.

2. Open `mcim.ini` in a text editor. (Do not use a word processor to edit this file.)

3. To disable a setting, comment it out by inserting **;;** before the first character.

4. Save the file.

Note: You must run modified installations from the saved location.

Installing the NetHASP Server

Although NetHASP supports most networks, CNC Software, Inc. tests and supports its use only with Windows 7, Windows 8, or Windows 10 in a TCP/IP network environment. For more information, see "Additional NetHASP information" on page 43.

To set up the NetHASP server:

1. Connect the NetHASP to a USB port on the computer you want to use as the NetHASP server.

2. Insert the Mastercam 2018 flash drive into a USB port. Use one of the following methods to start the Mastercam 2018 installation procedure:

   - If your computer is set up for Autorun, the Mastercam 2018 installation program opens automatically.

   - Navigate to the flash drive, and double–click `Launcher.exe`.

3. Choose **Utilities** from the installation menu.

4. From the menu, choose **NetHASP Server**, and follow the on-screen instructions.

5. Choose **Finish** to exit when the installation is complete.

   Note: You can, but are not required to, install Mastercam products on the NetHASP server.

6. Use the `NHaspX.exe` utility to check available Mastercam licenses.

   You can copy `NHaspX.exe` from the flash drive. For more information on this utility, see .

To set up Mastercam 2018 for the NetHASP:

1. Install Mastercam 2018 using instructions in the Mastercam 2018 Installation Guide.

2. Install the TCP/IP network protocol if not already installed.

3. Run `NHaspX.exe`. Set the SIM type to **NetHASP** and the Mode to **Network**.

4. From the flash drive's `support` folder, copy the `nethasp.ini` file to the main Mastercam directory (usually `c:\Program Files\m-cam2018`).

5. Use your preferred text editor to edit `nethasp.ini` for the appropriate network protocol and identify the computer(s) that are being used as the NetHASP server(s).

> **CAUTION:** If this step is omitted, when Mastercam 2018 starts and checks for network licenses, it takes extra time to search all PCs on the network to find the NetHASP server. If all licenses have been checked out by other Mastercam 2018 users on your network, the search might take an especially long time. Configuring `nethasp.ini` to look for the NetHASP server at a specific address eliminates this delay.

6. Create or edit shortcuts for running Mastercam with command-line switches as described in "Using Command-Line Switches" on page 18.

The Mastercam 2018 installation process automatically installs NetHASP drivers. If the installation procedure was not completed or if the NetHASP drivers were removed, Mastercam cannot recognize the NetHASP. To fix this problem, run `haspdinst.exe` from the Mastercam `\common` directory (for example, `C:\Program Files\mcam2018\common`).

Figure 3 - 1: Recommended nethasp.ini for TCP/IP

```
[NH_COMMON]
;; This NetHASP.INI file is configured for TCPIP.
;; Please note that you will have to enter the address of the
;; NetHASP key station:

NH_TCPIP = Enabled
;Use the TCP/IP protocol

[NH_TCPIP]

NH_SERVER_ADDR = 192.168.176.1, 192.168.176.5
; IP addresses of all the NetHASP
                    ; License Managers you want to
; search.
                    ; Unlimited addresses are possible.
                    ; Possible address format examples:
                    ; IP address:        192.114.176.65
                    ; Local Hostname:  ftp.aladdin.com

NH_TCPIP_METHOD = TCP
;Send a TCP packet or UDP packet
                    ; Default:  UDP
NH_USE_BROADCAST = Disabled
;Use TCPI/IP Broadcast mechanism.
                    ; Default:  Enabled
```

Maximum number of NetHASP licenses

The most common NetHASP configurations are the NetHASP-20 or NetHASP-50.

- The NetHASP-20 allows for the simultaneous use of up to 20 seats of each licensed product.

- The NetHASP-50 allows for the simultaneous use of up to 50 seats of each licensed product.

> **CAUTION:** All product groups must be the same version. For example, if your license supports one seat of Mill Entry and one seat of Mill 3D, the version number for both products must be the same. A different version number cannot be assigned to each group of products.

Adding licenses

The number of licenses you purchase for each product is stored in the NetHASP memory. The maximum number of licenses allowed for each product is further limited by the type of NetHASP.

Once you have reached the maximum number of licenses, use one of the following options to add additional licenses:

- Exchange your NetHASP (for example, exchange a NetHASP-20 for a NetHASP-50 or NetHASP-100).

- Keep your NetHASP and obtain another one with the additional licenses you need. This option requires you to set up a separate NetHASP server for the second NetHASP; NetHASPs cannot be connected to each other on the same server.

Updating NetHASP Codes

For general information on entering SIM codes, please refer to "Entering SIM Update Codes" on page 5.

> **CAUTION:** Before you begin this phase of the installation process, you must first complete the NetHASP Server installation (see "Installing the NetHASP Server" on page 30). Also note that you can perform this update only on the computer to which the NetHASP is attached. The process cannot be completed over a remote connection.

To enter a NetHASP update code:

You can enter a NetHASP code automatically by double-clicking the update code file (`*.NHCODE`). To update the code manually, perform the following procedure.

1. Choose one of the following methods to run the `NHaspX.exe`. The method you choose is based on the update code format and your preference:

    - (Windows 7 and 8) From the Windows desktop, choose **Start**, **All Programs**, **Mastercam 2018**, **Utilities**, **NHasp X**.

    - (Windows 10) From the Windows desktop, choose **Start**, **Mastercam 2018**, **NHasp X**.

    - Use Windows Explorer to navigate to the Mastercam 2018 installation location and double-click `NHaspX.exe`.

2. In the NetHASP X dialog box, make sure **SIM type** is set to **NetHASP** and that Mode is set to **Local.**
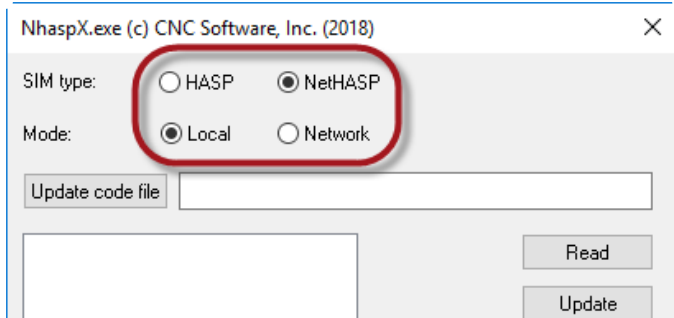
The NHaspX utility analyzes the SIM and displays the SIM serial number and current Mastercam products. Verify that the displayed serial number matches the serial number provided with your Mastercam 2018 software kit.
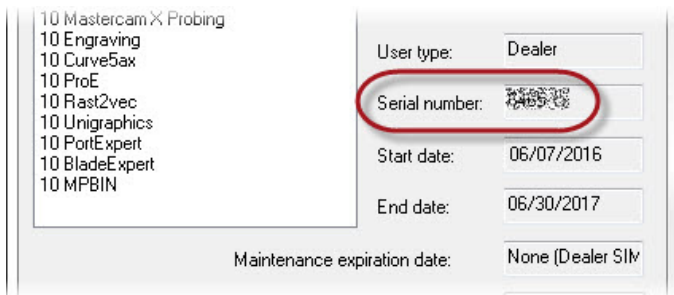
Note: Keep a record of the serial number in the event that you need to contact Technical Support Services at CNC Software or your Reseller.

3. Click **Update code file**. The NHaspX: Select an Update Code file dialog box opens.

4. Select an nhcode file, and click **Open**.

5. Choose **Update** from the NhaspX dialog box. The program updates the SIM and displays the products for which the SIM has been activated.

6. Change the Mode back to **Network**.

7. Choose **OK** to exit the NHaspX utility.

Using the NHaspX.exe Utility

Use the `NHaspX.exe` utility, provided by CNC Software, Inc., to configure and administer your Mastercam 2018 network licensing. This section includes a description of each option you can choose when running this utility.

Figure 3 - 1: NHaspX.exe dialog box
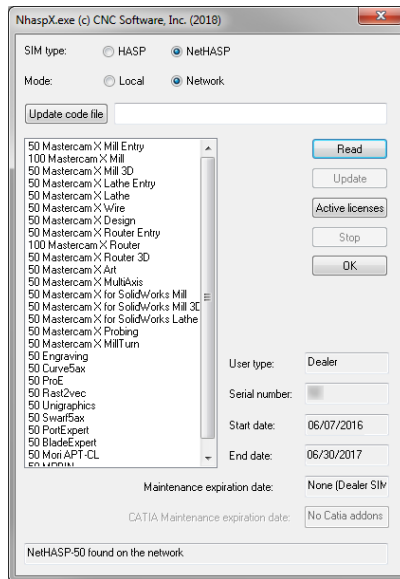
- **SIM type**: Choose **HASP** or **NetHASP**. When Mastercam 2018 starts, it reads the SIM type from the Registry and checks the HASP or NetHASP for the appropriate licenses.

- **Mode**: Choose **Local** to update the NetHASP from the local computer. Choose **Network** to read the NetHASP connected to the NetHASP server, which may or may not be the local computer.

- **Update code file**: Click to browse to the location of the update code file provided by CNC Software or your Reseller.

- **Product list** (untitled): The large area lists the number of work-stations authorized for each product followed by the product name.

- **Read**: Displays the product list that is programmed in the NetHASP.

- **Update**: To update the NetHASP, it must be connected to the local computer, and you must set the **Mode** to **Local**. Before selecting **Update**, enter the update code file name. If the update code file is not found, a <file name> not found error message displays.

- **Active licenses**: (Available only in **Network** mode.) Displays inform-ation on the number of licenses currently checked out, the number of licenses authorized, and the number of licenses that are currently available for each product. (See "Monitoring NetHASP Users" on the facing page below for details.)

  Note: None of the licenses that are checked out from the local com-puter are reported by Active licenses.

- **Stop**: Available only when you choose **Active licenses** to monitor and report license information. Choose **Stop** to end the reporting func-tion.

- **User type**: (read-only) Displays one of the following user types: Indus-trial, Educational, or Dealer.

- **Serial number**: (read-only) Displays the NetHASP serial number.

- **Start date/End date**: (read-only) Displays the first and last date for which the NetHASP licenses are valid or Unlimited if the licenses are available permanently.

- **Maintenance expiration date**: (read-only) Displays the date your Maintenance plan expires, based on your annual renewal date.

- **CATIA Maintenance expiration date**: (read-only) If you have the CATIA add-on, displays the date your CATIA Maintenance plan expires.

Monitoring NetHASP Users

You can monitor NetHASP activity using the `NHaspX.exe` utility. Choose the button labeled **Active licenses** to show:

- Which products are licensed

- The number of active users

- The maximum number of users

- The number of available licenses for each product

Note:

- You must first set Mode to **Network** to enable the **Active licenses** option.

- This function runs slowly if `nethasp.ini` is not present or is set up incorrectly. For more information, see "To set up the NetHASP server:" on page 31.

- The `NHaspX.exe` utility does not report the licenses that are checked out on the computer on which it is running.

Using Aladdin Monitor

Besides `NHaspX.exe`, you can use the Aladdin Monitor utility to view a list of users logged in to the NetHASP server. To install this utility, run the Mastercam installation program from the Mastercam 2018 installation media, choose **Utilities** and then **NetHASP Monitor**, and complete the on-screen instructions.

Aladdin Monitor is a third-party application for monitoring NetHASP usage. Aladdin Monitor is included with Mastercam for your convenience. However, CNC Software, Inc. can provide only limited support for this application. Please contact Aladdin (www.aladdin.com) for technical support issues. Following is a quick guide for using Aladdin Monitor.

Run Aladdin Monitor. In the left window pane, locate the NetHASP to monitor. Click the NetHASP's entry to display information about the HASP in the right-hand pane.
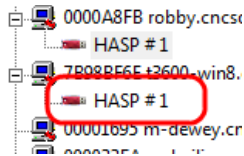
After you select a NetHASP, the **Program table** lists the following information:

- Mastercam products in use (program number)
- Number of users currently using each product
- Maximum users allowed for each product

- Remaining product activations

Program No	Current Stations	Maximum Stations	Activations Left
1	2	50	Unlimited
5	4	50	Unlimited
9	1	50	Unlimited
48	1	50	Unlimited
53	1	50	Unlimited
50	2	50	Unlimited

Please refer to the following table for program numbers and their equivalent Mastercam products:

Prog. #	Mastercam Product	Prog. #	Mastercam Product
1	[NHaspX tech info]	29	STEP Read
2	Mill Entry	31	Engraving
3	Mill *	32	Curve 5-axis/Drill 5-axis
4	Mill *	37	Pro/E Read
5	Mill 3D *	40	CATIA V5 Read
6	Lathe Entry	41	CATIA V5 Write
7	Lathe	42	CATIA V4 R/W
8	Wire	43	Unigraphics Read
9	Design	44	Swarf 5-axis
10	Solids	46	Mastercam for SOLIDWORKS 2D
11	Router Entry	48	Mastercam for SOLIDWORKS 3D
12	Router *	49	Port Expert

Prog. #	Mastercam Product	Prog. #	Mastercam Product
13	Router *	50	Blade Expert
14	Router 3D *	52	Mastercam for SOLIDWORKS Lathe
17	Art	53	Probing
19	Multiaxis	56	CATIA V5 with PMI
24	CoroPlus	57	Mori APT/CL Post
28	ProDrill	60	Mill-Turn
* New name starting with X9			

The Login table box shows details for the selected product. This information includes:

- User login ID (IP address)

- User host name

- Network protocol being used

- Period of inactivity required before the product entry is deleted

Registry settings

The `NHaspX.exe` utility reads and writes the HASP or NetHASP SIM type information from and to the Registry: `HKEY_CURRENT_USER\Software\CNC Software, Inc.\Sim Type`

The value of **Sim Type** is **H** for the HASP and **N** for the NetHASP. Each Mastercam user must have read and write permission to this part of the registry.

The NetHASP mode is also written to the registry: `HKEY_CURRENT_USER\Software\CNC Software, Inc.\NetHASP mode`

The two possible values are **Network** and **Local**.

Additional NetHASP information

This document provides only a brief introduction to setting up network licensing for Mastercam. For more information, use the NetHASP License Manager help system (accessed from the NetHASP Server application) and the `nethasp.txt` document, located in the NetHASP Server installation location—for example:
`c:\NetHaspServer\nethasp.txt.`

> **CAUTION:** The NetHASP License Manager Help and `nethasp.txt` document were written by Aladdin Knowledge Systems. CNC Software, Inc. has not contributed to or edited this information and assumes no responsibility for its accuracy.

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PLEASE REFER TO MASTERCAM.COM/SUPPORT
FOR THE LATEST DOWNLOADS.**

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