

# **Vision Toolbox for MATLAB**

## **License Activation & Management Manual**

**Embedded Target for S32V234 Family of Automotive Vision Processors  
Version 1.1.0**

**Target Based Automatic Code Generation Tools**  
For MATLAB™ working with Mathworks Image Processing, Computer Vision and Deep Learning Toolboxes



## Summary

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# 1 Activation

License generation and activation is an important part of your first steps in getting up and running with the NXP Vision Toolbox. Please follow the steps below to obtain a license and install it correctly on your machine. If you encounter issues getting a license, submit a ticket at <http://www.nxp.com/support/sales-and-support:SUPPORTHOME> describing the issue.

If you have already installed NXP Vision Toolbox and would like a license, please perform the following steps.

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**NOTE** The screenshots below have been taken for a release candidate of NXP Vision supporting S32V234 processor family since the final version was not yet published on the website at the time when this document was created.

However, the entire license registration and installation process for Vision Toolbox revision 1.1.0 RFP will be identical with the one presented below.

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1. Go to <http://www.nxp.com/visiontoolbox>

**Vision Toolbox for MATLAB™** ☒ ⏪

OVERVIEW | DOCUMENTATION | DOWNLOADS | DEVELOPMENT TOOLS

**Jump To**  
Overview & Features  
Supported Devices  
Target Applications  
System Requirements

**Overview**  
The NXP Vision Toolbox for MATLAB is a complimentary integrated development environment for S32V234 processor which is a high-performance automotive processor designed to support safe computation-intensive applications in the area of vision and sensor fusion. The NXP Vision Toolbox for MATLAB enables editing, simulation, compiling and deployment of designs from MATLAB environment.  
Based on Mathworks® software including [Image Processing](#) and [Computer Vision System](#) Toolboxes the NXP Vision Toolbox offers designers a straightforward development tool that makes vision applications programming easy. [NXP Software - Vision](#)

**Features**

- Seamless integration with MATLAB environment for easy vision application development, simulations and target running support
- Generate code for Linux™ based applications with direct download to target support
- Built-in support for IO functions to control onboard camera and display
- Integrated NXP Software:
  - Vision SDK – includes ISP and APEX kernels
  - Linux board support package for A53 core development
  - NXP APU Compiler

[More ▾](#)

User Guide | **Download**

2. Click on “Download” button
3. Login. If not registered yet, click the Register button to obtain a NXP account

4. Select “Software Licensing and Support” link from your “My Account” view

For the most up-to-date technical documents, select [Documentation and Tools Updates](#) below. The tool is updated daily and is searchable and sortable by type, revision date and product.

**PROFILE**

- Change My Password
- 2-Factor Authentication (Off)
- Orders
- Subscription Center
- Documentation and Tools Updates

**SUPPORT**

- View all Communities
- View all Support Methods
- View Existing Issues
  - Ticket begins with 1-XXX or 2-XXX
  - All Other Issues

**SECURE APPLICATIONS**

- Cross Check - Part Finder With Pricing
- Cross Check - Competitor Cross Reference
- eCommerce
- Compass Extranet
- MCU Programming Center
- Moderated Downloads
- NXP Secure User Administration
- ROM Programming
- Software Licensing and Support**
- My LPCXpresso activations
- NXP Training

5. Select “Product List” option on the left to see all products you are entitled to use. Within Product Information page, select “Vision Toolbox” link to go to download and license management page

PRODUCTS APPLICATIONS SUPPORT ABOUT

NXP > Software & Support > Product Information : NXP Software

**Software & Support**

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**Product Information**

**NXP Software**

Your choice contains a suite of products. Please select one of the product lines below:  
To register a New Product please click on the button below

- CodeWarrior Development Suite Specialist Networked Evaluation
- CodeWarrior Development Tool - Evaluation Software
- Kinetis Design Studio IDE
- Kinetis Software Development Kit (KSDK)
- Motor Control Application Tuning
- Motor Control Toolbox
- RAppID Initialization & Processor Expert Evaluation tools
- S32 Design Studio IDE
- SPT Toolbox
- Vision Toolbox**

6. For the first-time log-in, the “Software Terms and Conditions” page will be displayed. Click on “I agree” button to consent to the software license agreement.

**NOTE** In case you have a valid NXP account and you are already logged in, this page will be automatically displayed after step 2

PRODUCTS APPLICATIONS SUPPORT ABOUT

NXP > Software & Support > Software Terms and Conditions

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## Software Terms and Conditions

### NXP Vision Toolbox for MATLAB version 1.1.0

Please read the following agreement and click "I AGREE" at the bottom before downloading your software.

LA\_OPT\_NXP\_Software\_License v6 February 2019

**IMPORTANT. Read the following NXP Software License Agreement ("Agreement") completely. By selecting the "I Accept" button at the end of this page, or by downloading, installing, or using the Licensed Software, you indicate that you accept the terms of the Agreement and you acknowledge that you have the authority, for yourself or on behalf of your company, to bind your company to these terms. You may then download or install the file.** In the event of a conflict between the terms of this Agreement and any license terms and conditions for NXP's proprietary software embedded anywhere in the Licensed Software file, the terms of this Agreement shall control. If a separate license agreement for the Licensed Software has been signed by you and NXP, then that agreement shall govern your use of the Licensed Software and shall supersede this Agreement.

[NXP SOFTWARE LICENSE AGREEMENT](#)

This is a legal agreement between your employer, of which you are an authorized representative, or, if you have no employer, you as an individual ("you"/"Licensor") and NXP B.V. ("NXP"). It conveys your rights to use the software

**I Agree** Cancel

7. Click on “License Keys” tab

PRODUCTS APPLICATIONS SUPPORT ABOUT

NXP > Software & Support > Vision Toolbox > NXP Vision Toolbox for MATLAB version 1.1.0 : Files

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## Product Download

### NXP Vision Toolbox for MATLAB version 1.1.0

**Files** License Keys Notes [Download Help](#)

The Vision Toolbox is delivered as a MATLAB MLTBX file. To avoid any kind of file corruption during download process, make sure you select the file you wish to download using the checkbox and then click on "Download Selected Files" button

Show All Files 4 Files

<input type="checkbox"/>	+	File Description	File Size	File Name
<input type="checkbox"/>	+	NXP Support Package for S32V234	1.1 MB	<a href="#">NXP_Support_Package_S32V234_20190403.mltbx</a>
<input type="checkbox"/>	+	NXP Vision Toolbox for S32V234 version 1.1.0	111.8 MB	<a href="#">NXP_Vision_Toolbox_S32V234_1.1.0.RFP_20190322.mltbx</a>
<input type="checkbox"/>	+	Quick Start Guide	3.8 MB	<a href="#">Vision_Toolbox_Quick_Start.pdf</a>
<input type="checkbox"/>	+	Release Notes	1 MB	<a href="#">Vision_Toolbox_Release_Notes.pdf</a>

**Download Selected Files**

8. Verify if the correct tool and version are identified and then check the box and click on “Generate” button.

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**NOTE** NXP Vision Toolbox is keeping the same licensing scheme between various releases. If you have a valid license generated for the previous release 2018.R1 then you can use it for the newer version 1.1.0 too

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The screenshot shows the 'License Information' page for 'NXP Vision Toolbox for MATLAB version 1.1.0'. The page has a navigation bar with 'PRODUCTS', 'APPLICATIONS', 'SUPPORT', and 'ABOUT'. Below the navigation bar, there is a breadcrumb trail: 'NXP > Software & Support > License Information'. On the left side, there is a sidebar with 'Software & Support' and 'Licensing' sections. The main content area is titled 'License Information' and 'NXP Vision Toolbox for MATLAB version 1.1.0'. Below the title, there is a 'Generate' button. A table shows the license details:

Item Description	NXP Vision Toolbox for MATLAB
Order Number	VISION-MATLAB_v2018.R1_64522011
Purchase Order Number	
Total Number of Licenses:	101
<input checked="" type="checkbox"/>	
License Applicable to Product(s):	
<u>Version</u>	<u>Description</u>
2018	NXP Vision Toolbox for MATLAB version 2018.R1 (View EULA)
R1	
1.1.0	NXP Vision Toolbox for MATLAB version 1.1.0 (View EULA)
	101 Available

Below the table, there is a 'Generate' button highlighted with a red box.

9. Select Disk Serial Number or Ethernet address as the “Node Host ID”. If you do not know your Disk Serial Number nor the Ethernet address then go to [Locating the Node Host ID](#) to learn how to locate such information, which is needed to generate the license. There is also a link available on this page with details about License Generation.

Enter a name for license to help managing them in case you need to use the Vision Toolbox on multiple computers. (Optional)

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## Generate Licenses

Instructions for finding your host ID details are available [here](#).

Please do not use spaces in the **Name** field (for node-locked licenses) or **Host Description** field (for floating licenses). These fields are available to add brief text notes to your license.

		Number of Licenses Available
License Applicable to Product(s):		
<u>Version</u> <u>Description</u>		
2018 R1	NXP Vision Toolbox for MATLAB version 2018.R1	101
1.1.0	NXP Vision Toolbox for MATLAB version 1.1.0	

Node Host ID	Disk Serial Number ▼	66B72EBD
Name	dp-laptop	
Node Host ID	▼	
Name		
Node Host ID	▼	
Name		
Node Host ID	▼	
Name		
Node Host ID	▼	
Name		

Generate

10. Click on “Generate” button to get the license. Verify if the information is correct: Toolbox version, expiration date, Node Host ID

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## View Licenses

Below are the licenses you just generated.

License Applicable to Product(s):

<u>Version</u>	<u>Description</u>
2018 R1	NXP Vision Toolbox for MATLAB version 2018.R1
1.1.0	NXP Vision Toolbox for MATLAB version 1.1.0

License Quantity: 1

Expiration Date: May 28, 2023

Disk Serial Number: 66B72EBD (dp-laptop)  
Generated By: Dumitru-Daniel Popa on Apr 3, 2019

```
#NXP Vision Toolbox for MATLAB - NXP Vision Toolbox for MATLAB version 2018.R1
#for Dumitru-Daniel Popa Software Account
# License for DISK_SERIAL_NUM=66B72EBD dp-laptop
INCREMENT Vision_Toolbox freescale 1.0 28-may-2023 uncounted \
  VENDOR_STRING="NXP Vision Toolbox for MATLAB version 2018.R1" \
  HOSTID=DISK_SERIAL_NUM=66b72ebd ISSUER="Freescale \
  Semiconductor" ISSUED=03-apr-2019 ck=175 SN="FSL - 26360877" \
  TS_OK SIGN="014D 4A15 5613 ECA4 04B6 3564 E9D0 163F C645 B54A \
  42C4 32D2 79DD 6063 AB7A 0B6B FF26 94EB A97E 4070 3FC3 8F0F \
  FE39 566D F61A 8B0B 0C54 A144 B7AF 1BF0"
```

11. Either click on “Save All” or copy and paste the file into a text editor and save the file as “license.dat” into the “Vision Toolbox installed directory\license” folder.

Name	Date modified	Type	Size
+nxpvt	11/19/2018 12:16 ...	File folder	
docs	11/19/2018 12:16 ...	File folder	
examples	11/19/2018 12:16 ...	File folder	
help	11/19/2018 12:16 ...	File folder	
internals	11/19/2018 12:16 ...	File folder	
kernels	11/19/2018 12:16 ...	File folder	
license	11/19/2018 12:16 ...	File folder	
Contents.m	11/16/2018 6:59 PM	MATLAB Code	5 KB
info.xml	9/28/2018 6:03 PM	XML Document	1 KB
LA_OPT_NXP_Software_License.htm	11/16/2018 6:59 PM	Chrome HTML Do...	175 KB
nxpvt_install_toolbox.m	9/28/2018 6:03 PM	MATLAB Code	2 KB
Readme.txt	11/16/2018 6:59 PM	Text Document	5 KB

12. License installation is now complete.



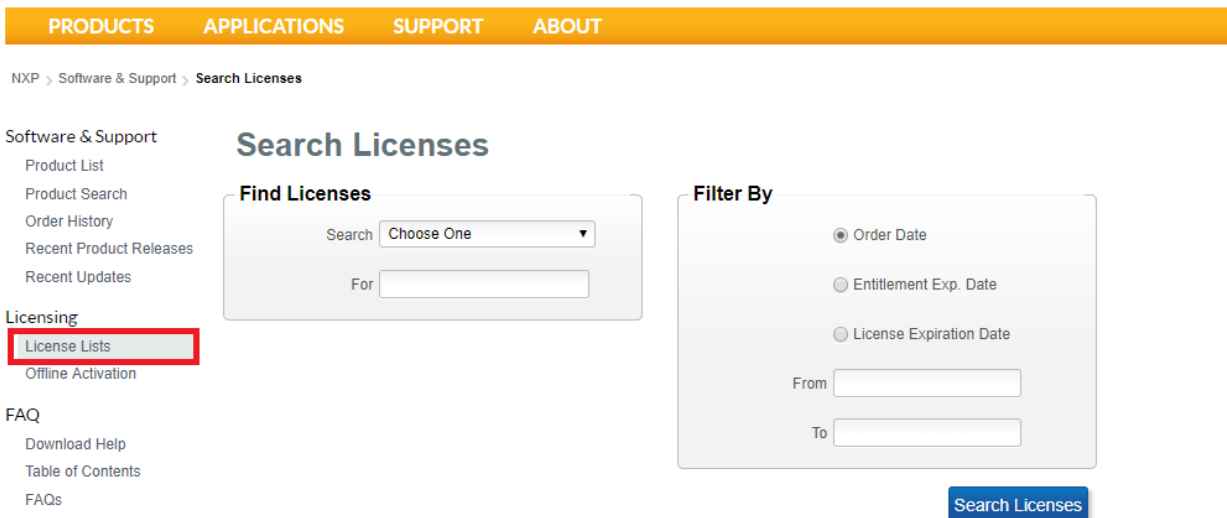
## 2 License Troubleshooting

Invoke the `nxpvt_license_check` function to verify the license errors. A list of most common errors can be found [here](#).

```
Command Window
>> nxpvt_license_check
Error using nxpvt_license_check
License Error: -9, Invalid host. The hostid of this system does not match
the hostid specified in the license file.
In case you do not have a license, please go to The NXP Vision Toolbox Web Site
to get a free license or request a demo. Provide the following HostID:
66B7-2EBD
fx >> |
```

If you get an error while using NXP Vision Toolbox indicating a problem with the license, you can try to repair the license at <http://www.nxp.com/visiontoolbox>.

1. Go to <http://www.nxp.com/visiontoolbox> and login.
2. Select “Software Licensing and Support\License List” to bring up a listing of your purchased licenses



3. Select the one for which you are experiencing the issue.

152075367	Catalog Item Name NXP Vision Toolbox for MATLAB version 2018.R1	May 28, 2023	May 28, 2023	<b>Return</b>
	<input type="checkbox"/> Additional Details			<b>Details</b>
	Order ID / Line # VISION-MATLAB_v2018.R1_64522011 / 1			
	Fulfilled Quantity 1			
	Host 66B72EBD			
	Order Date May 28, 2018			

4. Now you have a choice. If the error was due to incorrect Host ID, click on the “Return” button. If the error was due to a corrupted license file, click the “Details” button.
- If you clicked “Return”, then you will have the opportunity to re-register the license for a new Host ID.
  - If you clicked “Details” then you will have the opportunity to re-save the license file to your PC.

If this fails to resolve your issue, see [License Failure](#).

### 3 License Failure

If you followed the steps under [License Troubleshooting](#), and this did not solve your issue, then there is some other problem occurring. Should this happen, submit a ticket at <http://www.nxp.com/support/sales-and-support:SUPPORTHOME> and provide the Host ID and any license error code that is provided in the error window.

## 4 Locating the Node Host ID

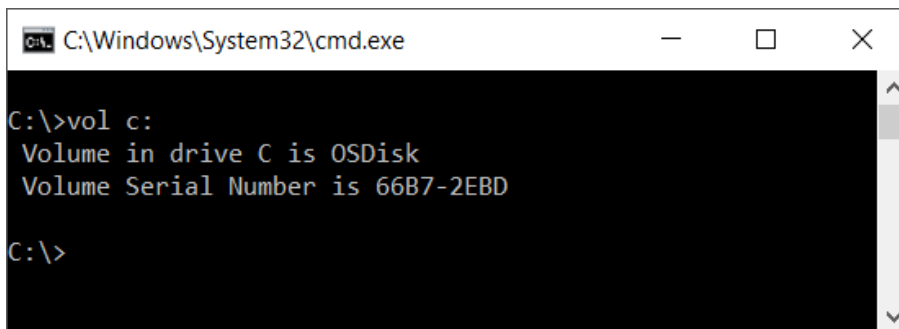
If the `Disk ID` is used for the `Node Host ID` in the Vision Toolbox software license, there are some different ways to obtain this:

### A. From MATLAB Command

1. Open Matlab
2. In Command Window, enter “`nxpvt_license_check`”.
3. The `Host ID` is returned in case no valid license was found

### B. From DOS Command

1. Open CMD Prompt on the HDD partition the Vision Toolbox is installed
2. In CMD Prompt window, enter “`vol c:`”
3. `Host ID` is the value that follows `Volume Serial Number`

A screenshot of a Windows Command Prompt window. The title bar reads "C:\Windows\System32\cmd.exe". The command prompt shows the command `>vol c:` being entered, followed by the output: `Volume in drive C is OSDisk` and `Volume Serial Number is 66B7-2EBD`. The prompt then returns to `C:\>`.

```
C:\Windows\System32\cmd.exe
C:\>vol c:
Volume in drive C is OSDisk
Volume Serial Number is 66B7-2EBD
C:\>
```

In this example, `Host ID` is: `66b72ebd` (not case sensitive)

If the `Ethernet address` is used for the `Node Host ID` in the Vision Toolbox software license, please follow these steps to obtain it:

1. Open CMD Prompt on the HDD partition the Vision Toolbox is installed
2. In CMD Prompt window, enter “`ipconfig/all`”
3. `Host ID` is the value of the first Ethernet adaptor listed

```
C:\Windows\System32\cmd.exe

C:\>ipconfig/all

Windows IP Configuration

Host Name . . . . . : NXL-100
Primary Dns Suffix . . . . . : wjrling.com
Node Type . . . . . : Peer-Peer
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : am.freescale.net
                                   freescale.net
                                   am.freescale.com
                                   wjrling.com
                                   wjrling.com

Ethernet adapter Ethernet:

   Connection-specific DNS Suffix  . : 
   Description . . . . . : Total(P) Ethernet Connection (2) I219-LM
   Physical Address. . . . . : 28-F1-0E-11-1C-1D
   DHCP Enabled. . . . . : Yes
   Autoconfiguration Enabled . . . . : Yes
```

In this example, Host ID is: 28F10E111C1D

**How to Reach Us:**

**Home Page:**  
[www.nxp.com](http://www.nxp.com)

**Web Support:**  
[www.nxp.com/support](http://www.nxp.com/support)

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