

Model-Based Design Toolbox S32K1xx Series

Licensing Guide

**An Embedded Target for S32K1xx Family of Processors
Version 4.1.0**

Target Based Automatic Code Generation Tools
For MATLAB™/Simulink™/Stateflow™ Models working with Simulink Coder™ and Embedded Coder®



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1 License Generation and Installation

License generation and installation is an important part of your first steps in getting up and running with the NXP’s Model-Based Design 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’s Model-Based Design Toolbox and need license, then perform the following steps.

NOTE Guiding screenshots below have been taken for a release candidate of NXP’s Model-Based Design supporting S32K1xx 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 toolbox revision 4.1.0 will be identical with the one presented below.

1. Go to www.nxp.com/mbdt

The screenshot shows the 'Model-Based Design Toolbox' website. At the top, there is a navigation bar with tabs for OVERVIEW, DOCUMENTATION, DOWNLOADS, DEVELOPMENT TOOLS, and TRAINING & SUPPORT. The 'OVERVIEW' tab is selected. On the left side, there is a 'Jump To' menu with links for Overview & Features, Supported Devices, Target Applications, and System Requirements. The main content area is titled 'Overview' and contains text describing the toolbox's capabilities, including its integrated development environment and support for various communication protocols and sensors. A 'Features' section lists several key capabilities such as code generation, optimized motor control blocks, I/O blocks, on-target profiling, data acquisition, and boot loader utility. At the bottom of the main content area, there are two buttons: 'User Guide' and 'Download Eval'.

2. Click on “Download Eval”

3. Login. If not registered yet, click register.

NXP > Software & Support > Product Information : Model-Based Design Toolbox

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Product Information

Model-Based Design Toolbox

To register a New Product please click on the button below

[Register](#)

Current Previous

Version	Description	
4.1.0	Model-Based Design Toolbox for S32K1xx Automotive Microprocessors Family	Download Log
3.0.0	Model-Based Design Toolbox for MPC57xx Automotive Microprocessors Family	Download Log
4.0.0	Model-Based Design Toolbox for S32K14x Automotive Microprocessors Family	Download Log
1.0.0	Model-Based Design Toolbox for MATLAB/Simulink MBD supporting S12ZVC	Download Log
1.2.0	Motor Control Toolbox for MATLAB/Simulink MBD supporting MC9S12ZVMx	Download Log
1.0.0	Motor Control Toolbox for MATLAB/Simulink MBD for Kinetis V series	Download Log
1.0.0	Motor Control Toolbox for MATLAB/Simulink MBD for DSC	Download Log
1.0.0	Motor Control Toolbox for MATLAB/Simulink MBD supporting MPC564xL	Download Log
1.0.0	Motor Control Toolbox for MATLAB/Simulink MBD supporting MPC567xK	Download Log

4. In the Product Information page, click on “Model-Based Design Toolbox for S32K1xx Automotive Microprocessors Family” version 4.1.0.

NXP > Software & Support > Software Terms and Conditions

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Software Terms and Conditions

Model-Based Design Toolbox for S32K1xx Automotive Microprocessors Family

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

LA_OPT_NXP_Software_License v8 June 2019

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5. Click “I Agree” to consent to the software license agreement.

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Product Download

Model-Based Design Toolbox for S32K1xx Automotive Microprocessors Family

- Files**
- License Keys
- Notes

[Download Help](#)

The NXP Model-Based Design 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

<input type="checkbox"/>	+	File Description	File Size	File Name
<input type="checkbox"/>	+	NXP Model-Based Design Toolbox for S32K1xx version 4.1.0	434.9 MB	MBDToolbox_S32K1xx_4.1.0_20190710.mltbx

Download Selected Files

6. If you need to download the tool, select the checkbox in front of the file and use Download Selected Files button. Otherwise, click on "License Keys" tab.

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License Information

Model-Based Design Toolbox for S32K1xx Automotive Microprocessors Family

Generate

Item Description	Model-Based Design Toolbox for MATLAB/Simulink				
Order Number	MCTB-EX_64522011				
Purchase Order Number					
Total Number of Licenses:	1				
<input type="checkbox"/> License Applicable to Product(s): <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Version</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>4.1.0</td> <td>Model-Based Design Toolbox for S32K1xx Automotive Microprocessors Family (View EULA)</td> </tr> </tbody> </table>		Version	Description	4.1.0	Model-Based Design Toolbox for S32K1xx Automotive Microprocessors Family (View EULA)
Version	Description				
4.1.0	Model-Based Design Toolbox for S32K1xx Automotive Microprocessors Family (View EULA)				
1 Available					

Generate

7. Verify if the correct toolbox version is identified and then check the box and click on "Generate" button.

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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):		1
<u>Version</u> <u>Description</u>		
4.1.0	Model-Based Design Toolbox for S32K1xx Automotive Microprocessors Family	
Node Host ID	<input type="text" value="Disk Serial Number"/> <input type="text" value="66B72EBD"/>	
Name	<input type="text"/>	

8. 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 toolbox on multiple computers. (Optional)

9. Click “Generate”

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View Licenses

Below are the licenses you just generated.

License Applicable to Product(s):

Version Description
 4.1.0 Model-Based Design Toolbox for S32K1xx Automotive Microprocessors Family

License Quantity: 1

Expiration Date: Jan 25, 2037

Disk Serial Number: 66B72EBD
 Generated By: Dumitru-Daniel Popa on Jul 10, 2019

```
#Model-Based Design Toolbox for MATLAB/Simulink - Model-Based Design Toolbox
#For S32K1xx Automotive Microprocessors Family for Dumitru-Daniel Popa
#Software Account
# License for DISK_SERIAL_NUM=66B72EBD
INCREMENT MC_Toolbox_S32K_freescale 1.0 25-jan-2037 uncounted \
  VENDOR_STRING="Model-Based Design Toolbox for S32K1xx \
  Automotive Microprocessors Family" \
  HOSTID=DISK_SERIAL_NUM=66b72ebd ISSUER="Freescale \
  Semiconductor" ISSUED=10-jul-2019 ck=213 SN="FSL - 27407257" \
  TS_OK SIGN="1BB1 7C10 CFB7 620A 760D 081B E1D4 40BF 2956 7C2D \
  420D BB70 2C53 9E18 0B56 0AD2 72A2 9DB0 5B12 C01C 5D07 2FD0 \
  5460 DF7A 13F8 4CCF 0300 5220 5CE2 356A"
```

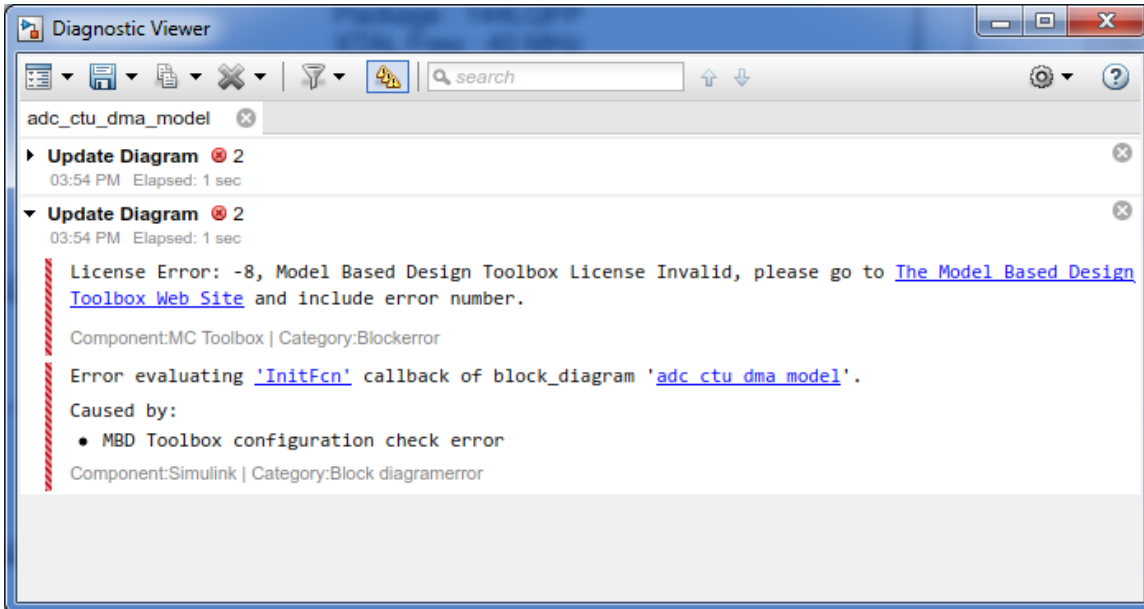
10. Either click on “Save All” or copy and paste the file into a text editor, and save the file as “license.lic” or “license.dat” to the “{Toolbox installation directory}\lic” folder.

11. License installation is now complete.

2 License Troubleshooting

A list of most common errors can be found [here](#).

If you get an error while using NXP’s Model-Based Design Toolbox indicating a problem with the license, you can try to repair the license at www.nxp.com/mbdt.



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

NXP > Software & Support > Search Licenses

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Search Licenses

Find Licenses

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For

Filter By

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- Entitlement Exp. Date
- License Expiration Date

From

To

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

⏪ ⏩ 1 to 25 of 36 ⏪ ⏩ Entries per page: 25 ▼

<u>Fulfillment ID</u>	<u>Details</u>	<u>License Exp.</u>	<u>Entitlement Exp.</u>	<u>Action</u>
155795417	<p>Catalog Item Name Model-Based Design Toolbox for MATLAB/Simulink</p> <p><input type="checkbox"/> Additional Details</p> <p>Order ID / Line # MCTB-EX_64522011 / 1</p> <p>Fulfilled Quantity 1</p> <p>Host 66b72ebd</p> <p>Order Date Jan 25, 2017</p>	Jan 25, 2037	Jan 25, 2037	<input type="button" value="Return"/> <input type="button" value="Details"/>
159751237	<p>Catalog Item Name Model-Based Design Toolbox for MATLAB/Simulink</p> <p><input type="checkbox"/> Additional Details</p>	permanent	Jan 25, 2037	<input type="button" value="Return"/> <input type="button" value="Details"/>

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 Host ID

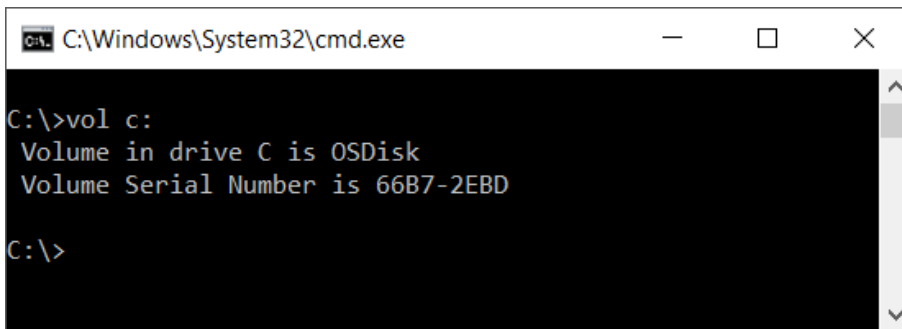
If the Disk ID is used for the Node Host ID then, there are some different ways to obtain this:

A. From MATLAB Command

1. Open MATLAB
2. In Command Window, enter “mbd_s32k_hostid”.
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 NXP Model-Based Design Toolbox is installed
2. In CMD Prompt window, enter “vol c:”
3. Host ID is the value that follows Volume Serial Number



```
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 then follow these steps to obtain it:

1. In CMD Prompt window, enter “ipconfig/all”
2. Host ID is the value of the first Ethernet adaptor listed

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

C:\>ipconfig/all

Windows IP Configuration

Host Name . . . . . : NAD1-100
Primary Dns Suffix . . . . . : wdl.rug.ac.uk
Node Type . . . . . : Peer-Peer
IP Routing Enabled. . . . . : No
WINS Proxy Enabled. . . . . : No
DNS Suffix Search List. . . . . : am.fri.fr.ibm.net
                                   fr.us.ibm.net
                                   au.ibm.com.ibm.net
                                   ap.ibm.com.ibm.net
                                   ibm.com.ibm.com.ibm.net
                                   ibm.ibm.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

Web Support:
www.nxp.com/support

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