BoardModeler Lite

Installation and Getting Started Guide

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Introduction

Overview

This installation guide describes the steps required to install BoardModeler Lite on your computer. It also contains some important information on configuring the software, so please make sure you read this document completely before installing the software.   Please note that the dialogs may look slightly different to the images shown in this document depending on the version of the Windows operating system you are using.

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Pre-requisites

This installation guide assumes that you have already obtained the software installer by downloading it from the ZGS BoardModeler Lite Download Page. You should have a file called '*BoardModelerLite.exe*' in a folder on your computer.

PLEASE NOTE
The BoardModeler Lite software must be installed by a user with 'Administrator' privileges (access rights) on the computer which the software will be installed on.

Note that it is only necessary to have 'Local Administrator' privileges on this computer – the installation does not need to be done by a 'Domain Administrator'.

Conventions and Terminology Used In This Document

The following conventions and terminology are used throughout this document:

- Commands, menu options or user interface operations are shown using bold italic text, for example, ***Tools / Options***

- Names of file system objects (file paths, file names, folder names etc.) are shown in italic
text surrounded by single quotes, for example, '*C:\BML Training\BM_Project*'

- Throughout this guide, the 'BoardModeler Lite' application name is usually abbreviated to 'BML'.

Software Versions Covered By This Guide

This installation guide covers the following software:

- BoardModeler Lite 18.1

Restrictions and Limitations

Please note that BoardModeler Lite does not support UNC paths (e.g. \\server-name\folder-path). Please ensure that any remote network shared resources are accessed through a network drive (e.g. D:\folder-path).

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System Requirements for BoardModeler Lite

This section describes the environment required to install BoardModeler Lite and gives information regarding

Item	Requirement
CPU	2.0 GHz or higher (3GHz or higher is recommended)
Physical Memory	1GB or higher (2GB or higher is recommended)
HDD	500MB of free disk space or more (10GB or more is recommended)
Graphics	Graphics card supporting the **OpenGL(R) API** or **DirectX 9.0c** or later. (Conforming to the specification of **HOOPS** by the Tech Soft 3D, LLC)
Other Information	TCP/IP Always-Connected Environment (when using a network license) MSXML Version 4.0

Graphics Cards Available To Run BoardModeler Lite

BoardModeler Lite makes use of the HOOPS Technology (from Tech Soft 3D, LLC) as the graphics engine to represent the 3D models. The HOOPS Technology supports many graphics card provided by a range of hardware vendors, but it is possible that in some circumstances there could be cases where the graphics cannot be successfully displayed. In such a case BoardModeler Lite will display a warning message. For example, BoardModeler Lite will be shut down after the "HOOPS Error" as shown below or a Windows memory addressing error occurs.
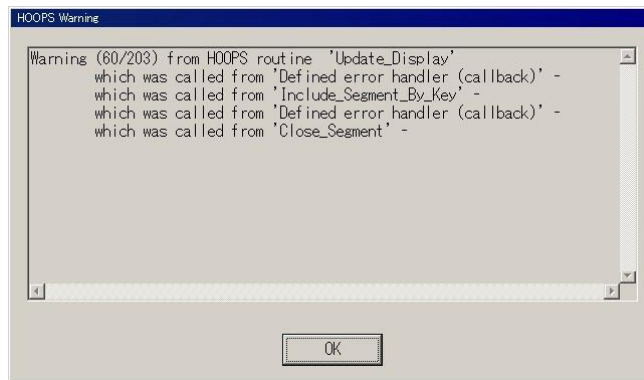
(Note: The content of the error message shown above is just an example.)

If these warnings happen frequently, the following procedures may be tried to help avoid them.

 Upgrade the Device Driver of the Graphics Card to the Latest Version.
Please contact the Graphics Card vendor for specific instructions on how to obtain the latest driver.

 Change the Type of Graphics Driver To "Direct3D".
Select the *Tools / Options* menu option to display the **BoardModeler Options** dialog. Then select the *Graphics* tab, and choose the "*Direct3D*" from the *Driver type* combo box. Then click the *Apply* button.

If the above steps fail to solve the problem then change the Windows configuration. Note, the following change will cause a slight decrease in the graphics performace.

 Turning off the Hardware Acceleration.
Open *Display* from the *Control Panel* and select the *Advance settings*. Select the *Troubleshoot* tab and move the *Hardware Acceleration* slider to '**None**'.
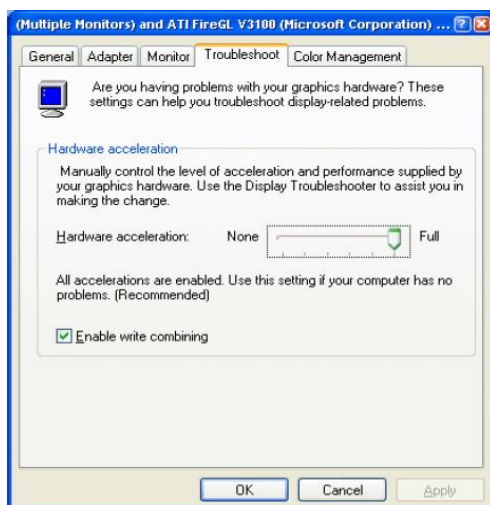
If the symptom does not improve, it is possibly due to an incompatibility between the graphics card and HOOPS. In this case the only solution may be to use a different graphics card.

Integration with CADSTAR

BoardModeler Lite may be launched either directly from within the CADSTAR Design Editor application or from the Windows '*Start'* menu as required.

Launch BoardModeler Lite from within CADSTAR Design Editor

- Select the *Tools - BoardModeler…* menu option in Design Editor after first opening the required PCB design. The 3D representation of the PCB design is created and automatically opened in BoardModeler Lite.

Launch BoardModeler Lite separately from the Windows '*Start'* Menu

- In this case, a CADSTAR PCB Archive format (CPA) file must first be exported from CADSTAR, using the *File – Export* menu option in Design Editor. For use with BoardModeler Lite, it is necessary to output the appropriate version of CPA during the export process. For BoardModeler Lite 12.1 please select "*Revision 20 format, CADSTAR 18.0* ", using the '*Options…*' button on the *Export* dialog.

Installing BoardModeler Lite

This section describes how to install BoardModeler Lite as a new installation.

The installer supplied with the latest version of BoardModeler Lite can be used to update an existing software installation (version 6.0 or later) on your computer. There is no longer any need to manually uninstall the existing software first. However, if your current installation is BML version 5.0 or earlier, then you will still need to manually uninstall it before installing the new version.

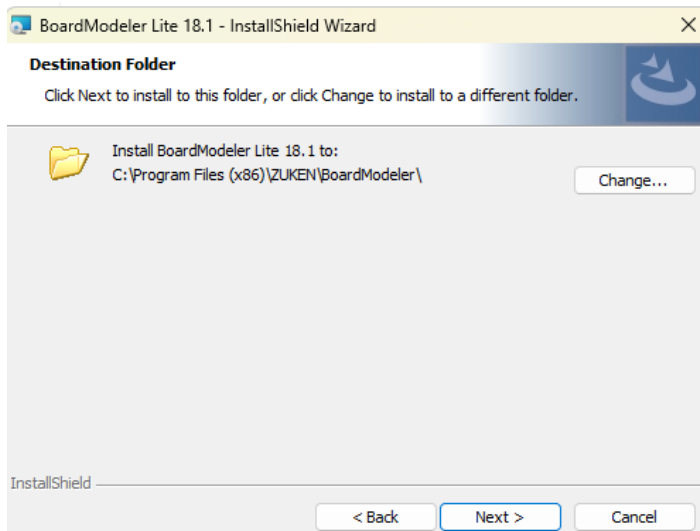To install BoardModeler Lite on your computer, perform the following steps
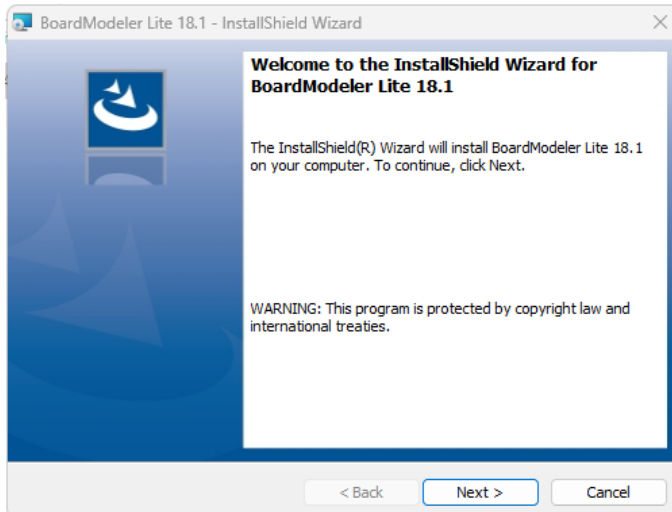
1.   Navigate to the folder where you have downloaded the BML installer ('*BoardModelerLite.exe*') and double-click the file.

Select **Next>** to start the installation.
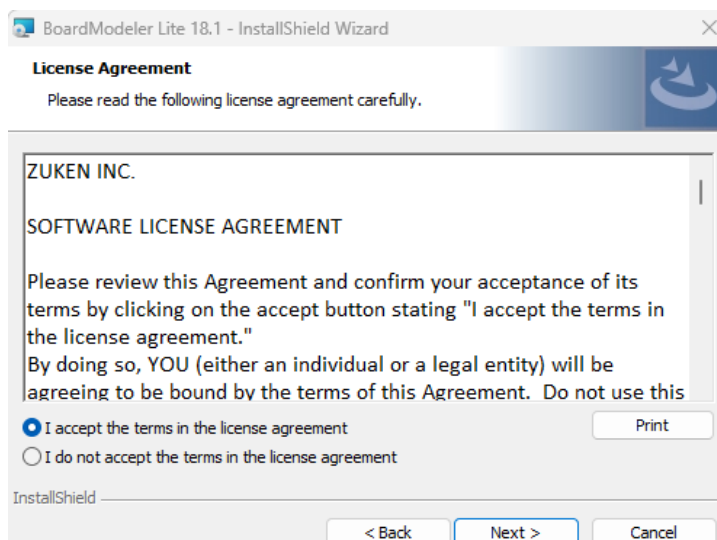
2.   Accept the terms of the license agreement then select **Next>** to continue with the installation.

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3. If you do not wish to install BML into the default location 'C:\Program Files(x86)\Zuken\BoardModeler' then select the **Change** button from the dialog to specify a different 'Destination Folder' for the software.

Please note that it is **not** necessary to install the BML software inside the CADSTAR install directory. (This was a requirement for the CADSTAR 3D product only). You may install the BML software in a location of your choice.

Once you have set the Destination Folder to the required location, select the **Next>** button.

At this point the installer will check for disk space and memory resources on your computer. You will be warned if this is not adequate.
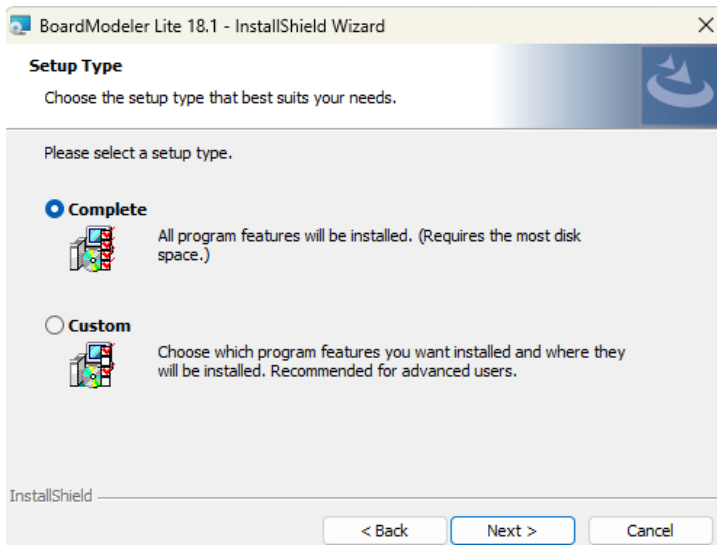

4. To install BML and the 'Create Part Model' (3D model wizard) function, select **Complete** and press the **Next>** button, which displays the 'Document Root Folder' dialog.

But if the 'Create Part Model' (3D model wizard) function is not required, select **Custom** and press the **Next>** button which displays the 'Custom Setup' dialog.
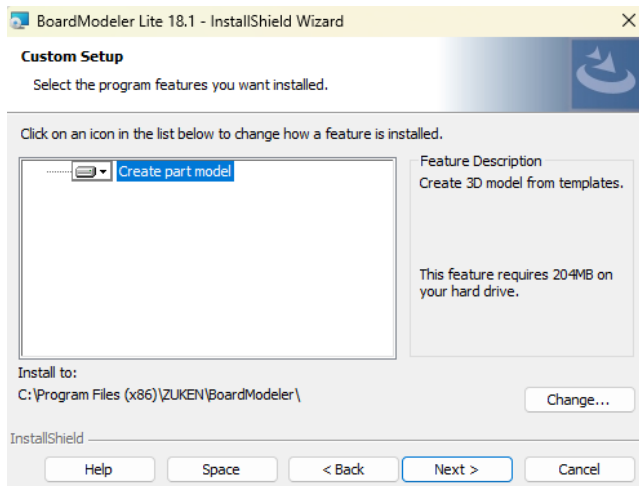
5. From this **Custom Setup** dialog, you can choose whether or not to install the '***Create Part Model'*** (3D model wizard) functionality. Select the icon next to the text 'Create Part Model' to select whether or not to install this functionallity, then press the ***Next>*** button to continue with the installation.
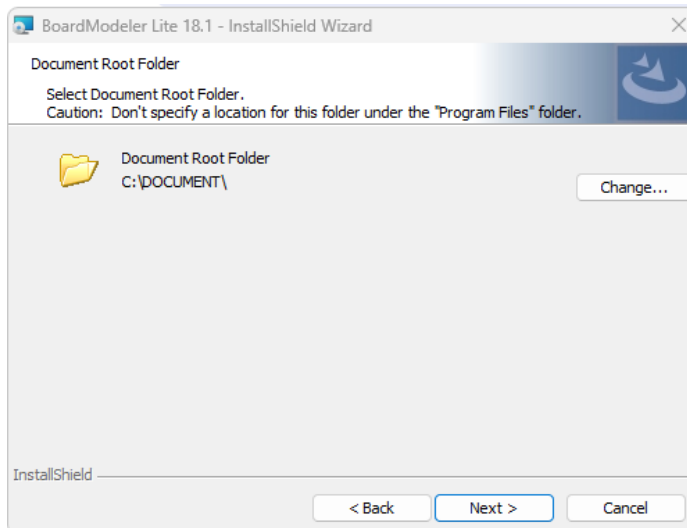

6.   The design data used by BML is stored in a defined folder structure in the file system on disk. The next dialog displayed allows you to set the location of the 'Document Root' folder for BML. This is the main folder that, by default, contains all design and library data relating to BML.

When this location is defined, four sub-folders will be automatically created (called _Project, _Library, _Interface and _Resource) inside a folder called 'BM' in the Document Root folder, to hold all the associated data.

The default location for the Document Root folder set during the installation is *'C:\DOCUMENT'*. However, you may change this path to be a different one of your choice. **Make sure the directory path chosen has 'write' access permission for the user(s) who will use BML.**
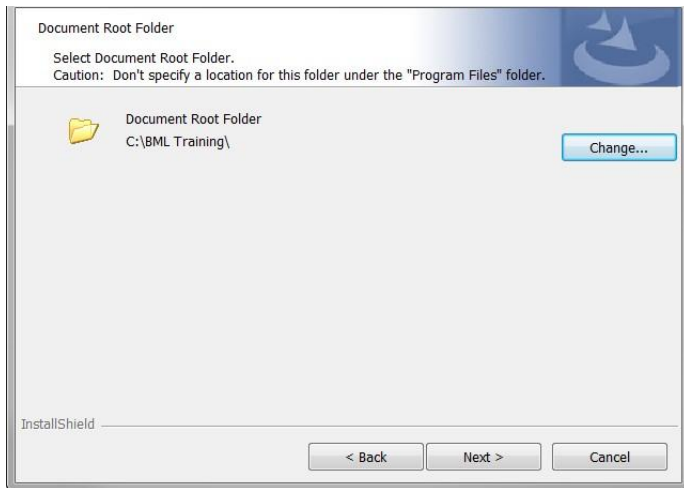
7.   In the example shown here, the location for the Document Root folder has been changed to match the default location of the training data which is used by the BML Tutorial.

This location can also be changed later using the **Project** tab of the **Tools / Options** menu in BML.

Once you have set the path to the required value, select the **Next>** button from the dialog.
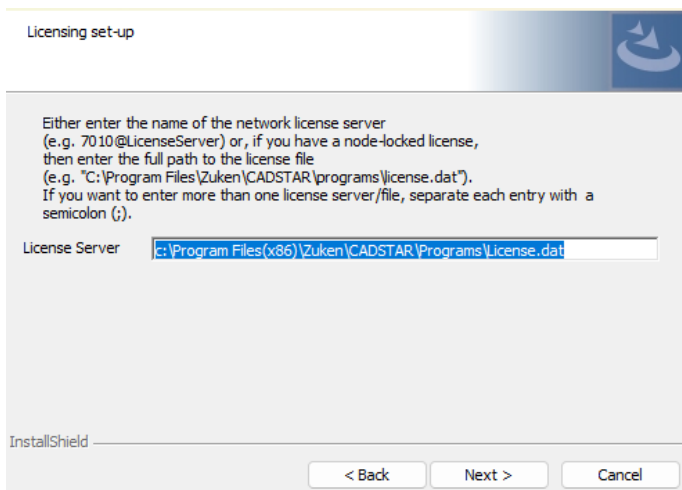
8.   The next stage of the installation allows you to set up the licensing details for BML.

In the case of a node-locked license (using a USB dongle), you need to enter the full path to your license file in the text entry box on the dialog. The BML license should be included in your standard CADSTAR license file and by default, this will be a file called *'license.dat'* which is located inside the CADSTAR *'Programs'* folder (for example *'C:\Program Files(x86)\Zuken\CADSTAR 15.0\Programs\license.dat'*).

If you have a network license server, then in the text entry box specify the location of the server in the form 'port@host' (e.g. '*1700@ServerName*'). This information should be the same as that already used by CADSTAR and you can get this information from the **System** tab of the **Tools / Options** dialog in the CADSTAR application. This is shown in the image below. If in doubt, ask the person who administers the network licensing set-up for your installation.
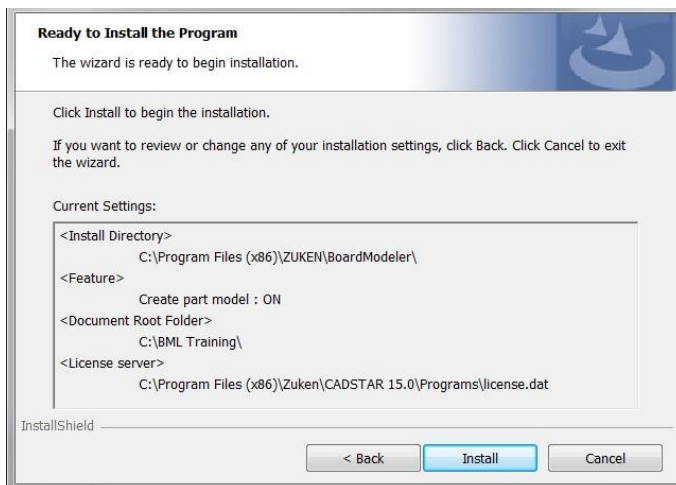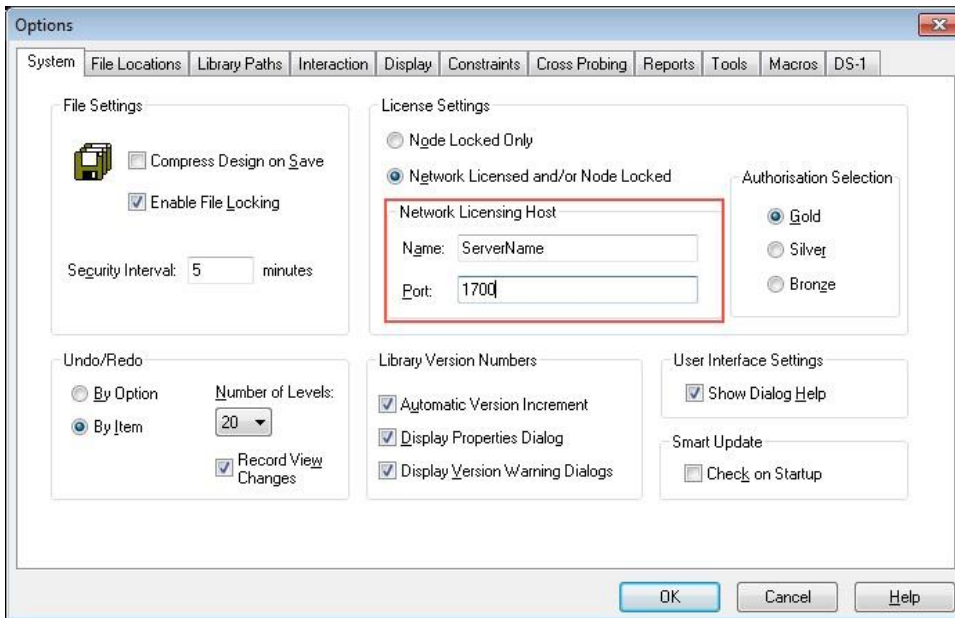
Once you have filled in the required information, select the **Next>** button to continue with the installation.

9.   The next screen of the installer presents of summary of all the settings you have specified. If there are any mistakes, select the **Back>** button to return to the previous steps and correct the settings.

If the settings are correct, select the **Next>** button to confirm that the installation should proceed.
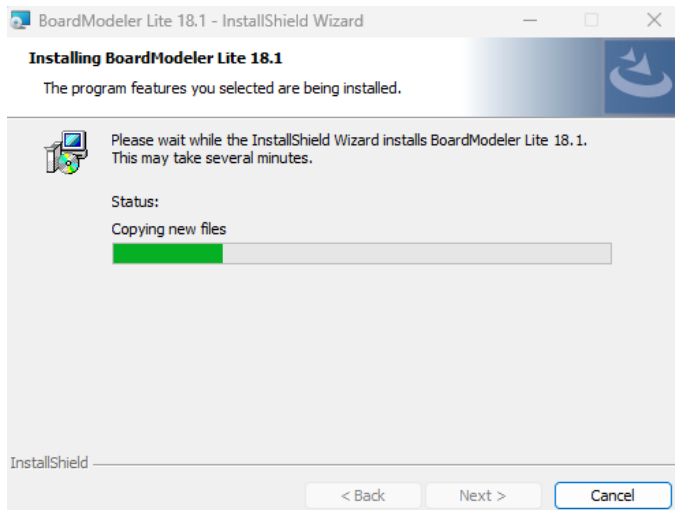
10.	The software will then be installed and configured. A green 'progress bar' will give an indication of activity as the installation progresses.

If you need to stop the installation before it is complete, press the **Cancel** button.

11. Once the software has been successfully installed, the screen shown on the left will be displayed.

Select **Finish** to exit from the installer.

The BML software should now be ready to use.

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Installing BoardModeler Lite (Remote Installation)

This section describes how to perform a remote network install of BoardModeler Lite.

Please note that the remote network install is only available for new installation (not update installations).
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The following command line can be used to remotely perform a full install of BML (including the 'Create Part Model' functionality). Replace the text inside the square brackets ([and]) with the appropriate folder pathnames for your system.

```
[Installer-path]/BoardModlerLite.exe /s /v"/qn INSTALLDIR=[Target-
Installation-Folder] BM_DOCROOT=[Document-Root-Folder]"
```

(Please note that the whole command above should be typed on the same line – the line-break is only as a result of the document formatting).

To install BML without the 'Create Part Model' functionality, add the directive "***INSTALLLEVEL=10***" to the command line as follows:

```
[Installer-path]/BoardModlerLite.exe /s /v"/qn INSTALLDIR=[TargetInstallation-
Folder] BM_DOCROOT=[Document-Root-Folder] INSTALLLEVEL=10"
```

By installing BML via the command line you are agreeing to the terms of the licensing agreement.

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Uninstalling BoardModeler Lite

This section describes how to remove BoardModeler Lite from your computer.

Before starting the process of uninstalling, please make sure that BML is not running.

To uninstall, open the control panel by clicking the [*Settings*] - [*Control Panel*] from the [*Start*] menu, and then double-click the [*Programs and Features*].

Select "*BoardModeler Lite*" from the [Currently installed programs] list, and click the [*Uninstall*] button.

The confirmation dialog box appears, so click the [*Yes*] button to uninstall the program.

Click the [*OK*] button to complete the process.

Any data located under the working folder (Document Root Folder), such as the BML project data, part shapes located under the library folder, and the configuration files (in XML), will be retained after completing the uninstallation.

Updating the paths for the BML folders

If you have Administrator privileges on your computer, then you can change the Document root, Project root and Library root folder paths at any time within BML, on the *Project* tab of the *Tools / Option* dialog. (The only restriction to note is that you must make this configuration change when there is no project data loaded in BML).

Please remember, when you do change the Document root folder**, make sure that the directory path chosen has 'write' access permission for the user(s) who will use BML.**

If you do not have Administrator privilege, then you will only be able to change all these paths if you select the *Private* option on the *Project* tab of the *Tools / Options* dialog. To change these paths, perform the following steps:
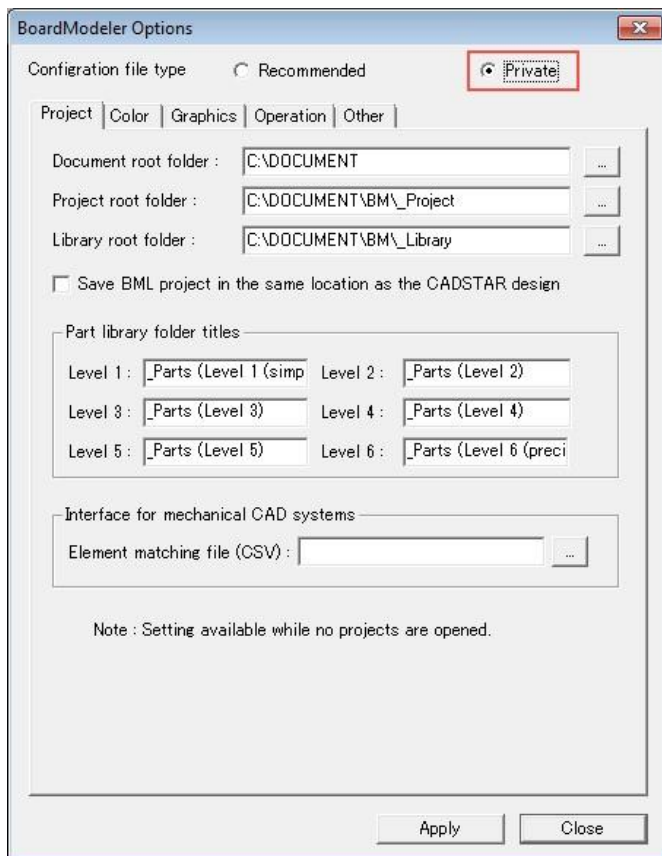
1. Launch BML (either from the *Tools* menu within CADSTAR Design Editor or from the Windows *Start* menu). **Do not load any project data**, but open the *Tools / Options* dialog and ensure the *Project* tab is displayed.

Select the '*Private'* option at the top of the dialog.

You will then see that it is possible to change the Document root, Project root and Library root folder paths.

Make any required changes here (the paths chosen for Project and Library folders do not need to be under the Document root folder) and select the *Apply* button to confirm the changes.

Please note that even if you do change the location of the Project root and Library root folders, BML will still write some files to the Document root folder too. Therefore it is important to always have 'write' access permission to this folder for the normal users of BML.

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Sentinel Key (Dongle) Drivers

If you are using a hardware key (dongle) with a node-locked license on your computer, in order to run BML successfully you must ensure that you have at least version 7.6.9 (or later) of the Sentinel drivers installed. You can check which version of the drivers you have installed in the **Add or Remove Programs** dialog in the Windows **Control Panel**.

Open the **Add or Remove Programs** dialog and find the entry for the Sentinel driver.
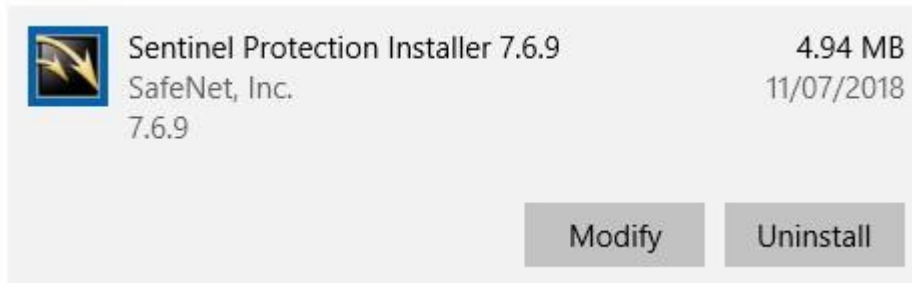
The dialog which will then be displayed will show the version which is currently installed. If you need to install new drivers, you can find the correct ones on the CADSTAR installation CD.

Using the CADSTAR Self-Teach Data with BML

Whenever a PCB design is transferred from CADSTAR Design Editor to BML, a temporary CPA file is generated in the same folder where the CADSTAR PCB file exists. It is this file that BML imports in order to generate the 3D view of the design.

It is therefore important that the user running the CADSTAR and BML software has the necessary 'write' access permission to create new files in the folder where the CADSTAR PCB file is located. If this is not the case, then the transfer to BML will fail (because the CPA file will not be generated).

So, if you intend to use the CADSTAR Self Teach designs in combination with BML, please make sure that you copy the Self Teach folder into a location that has write permission for the user of CADSTAR and BML.