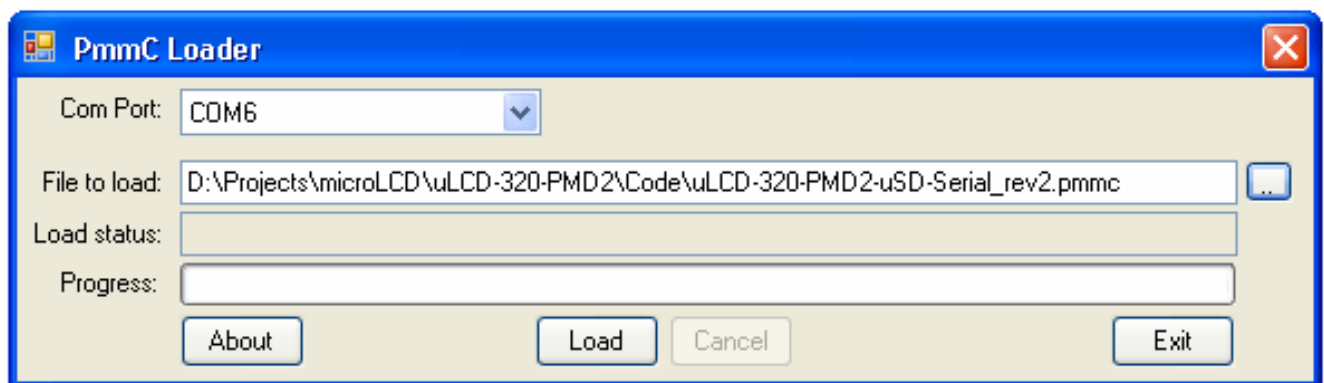


PmmC Loader

USERS GUIDE

PC Software Tool to Upload
Personality-module-micro-Code (PmmC)
firmware files into 4D modules

Revision 1.1



4D Systems



PmmC Loader

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PmmC Loader

Personality Module Micro Code (PmmC)

One of the important features of the 4D range of intelligent modules is the ability to upload its onboard GOLDELOX or PICASO processors with a micro-Code firmware which allows the module to take on a new personality. This is referred to as Personality Module Micro Code (**PmmC**). The benefits of this are as follows:

- Allows the module to be easily upgraded by the user at any time with module specific PmmC system file.
- As further enhancements are made in the future, allows the user to benefit from those latest features.
- The modules can now be updated very quickly and effectively with the latest bug fixes.
- Allows the user to upload a new Operating System (when available) to change the device from say a serial command driven platform into a high level language platform such as 4DGL. A built-in higher level language such as 4DGL allows user programs to be run directly within the GOLDELOX and the PICASO processors where the graphics operations can be performed much faster than sending the commands serially.

PmmC Loader

The **PmmC Loader** is a PC Windows based software tool to upload the GOLDELOX and PICASO processor based modules with PmmC system files.



PmmC Loader

System Requirements

- The **PmmCLoader.exe** application. The latest version can be downloaded from:
www.4dsystems.com.au/downloads/PmmC-Loader/Software/Windows/
- **Microsoft Windows** Operating System (XP, Vista) that supports the .Net framework version 2.0 or higher.
- **.Net Framework** version 2.0 or higher. If your existing Windows operating system does not have this installed then a free version can be downloaded and installed from the Microsoft web site.
<http://www.microsoft.com/downloads/details.aspx?familyid=0856EACB-4362-4B0D-8EDD-AAB15C5E04F5&displaylang=en>
- **micro-USB** (μ USB-MB5 and μ USB-CE5), USB to Serial bridge modules. The μ USB-MB5 and the μ USB-CE5 are fully supported by the PmmC Loader. These micro-USB modules provide a direct hardware serial link between the PC and the GOLDELOX/PICASO based modules. Latest information can be found in the individual product pages:
<http://www.4dsystems.com.au/products.php>
- **micro-USB drivers**. These drivers must be installed to provide the virtual serial link between the PC and the above micro-USB modules. Please check for the latest drivers within each product page.
- The target GOLDELOX or PICASO based hardware module that supports PmmC system file uploads. The following is a short list of latest modules that support PmmC uploads:
 - μ OLED-96-G1
 - μ OLED-128-GMD1
 - μ OLED-160-GMD1
 - μ OLED-32024-PMD3
 - μ OLED-32028-PMD3
 - μ LCD-128-GMD1
 - μ LCD-320-PMD2
 - μ LCD-32032-PMD3
 - GOLDELOX-MD1
 - PICASO-MD2
 - μ VGA-PICASO-MD1
- **PmmC System File**. Please check for the latest PmmC file of your module in the specific product page: <http://www.4dsystems.com.au/products.php>. The file will have a **.pmmc** extension.



PmmC Loader

Getting Started

1. Make sure the Windows .Net environment is running on your system. If not then download and install the latest .Net Framework.
2. Download and install the latest micro-USB drivers and make sure to note the com port allocated by your PC by checking "Device Manager", "Ports". Also attach your micro-USB module via the USB cable.
3. Download the specific **PmmC** System file for your module to a convenient location on your PC.
4. Download and install the **PmmCLoader.exe** application.
5. Attach your target 4D module to the micro-USB module.
6. Now run the PmmCLoader.exe application. Make sure to specify the correct com port for the micro-USB module in the "Com Port" dialog box.
7. Specify the location of the previously downloaded PmmC file in the "File to load" dialog box or click the browse button on the right hand side and search for the location.
8. When ready to transfer the PmmC file to the target 4D module, click the "Load" button (bottom centre location). The progress box will provide indication of the remaining time.
9. Once the file is transferred successfully, your module is now ready to be used with the latest PmmC.
10. In case of problems check your connections and repeat the process from step 5 onwards. If further problems then contact support@4dsystems.com.au for help.