



Quick Start with 4D Display Modules and 4DGL

This Quick Start Instruction sheet is designed to provide a brief, high-level overview of the steps needed for a new user to be able to quickly get a new module running a sample program within the 4DGL Workshop with minimum effort. This procedure will introduce you to all the basic steps required to prepare any new 4D module for use and how simple loading an existing program in 4DGL is within a simple streamlined procedure.

System Requirements:

- PC with Windows XP or Vista operating system. You will also need the .NET Framework available from the Microsoft website if it's not already installed on your system.
- μ USB-MB5 or the μ USB-CE5. These are USB to Serial converter modules and are essential hardware tools for programming the PICASO-GFX and the GOLDELOX-GFX processors with PmmC system firmware files and for downloading 4DGL user application code from the PC into the processor, via the serial port. You will need to install the the appropriate drivers onto your system. The drivers can be found in the μ USB-MB5 or the μ USB-CE5 product pages.
- The PmmC-Loader is a Windows based software tool to aid in programming the PICASO-GFX and GOLDELOX-GFX processors, embedded in the display module, with PmmC system files. The PmmC file is uploaded and programmed into the module via its Serial Port. This software tool is available free of charge.
- 4DGL Workshop IDE (Integrated Development Environment). The Workshop IDE consists of the 4DGL Editor, the 4DGL Compiler and the 4DGL User Code Downloader. This software tool is available free of charge.

4D Hardware Needed:

- One 4D Systems Intelligent module, e.g. μ LCD, μ OLED, etc.
- One micro-USB module (either the μ USB-MB5 or μ USB-CE5).
- If the μ USB-MB5 is used – One USB to mini-USB cable



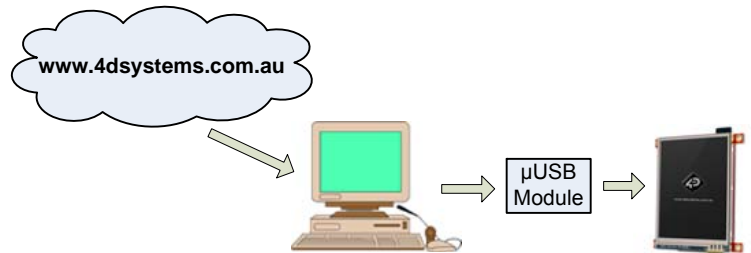
Other useful Quick Start guides:

- μ USB-MB5/ μ USB-CE5 Installation
- PmmC-Loader Installation
- Graphics Composer Installation

Prepare a New Module For Use

STEP 1. DOWNLOAD / INSTALL FILES

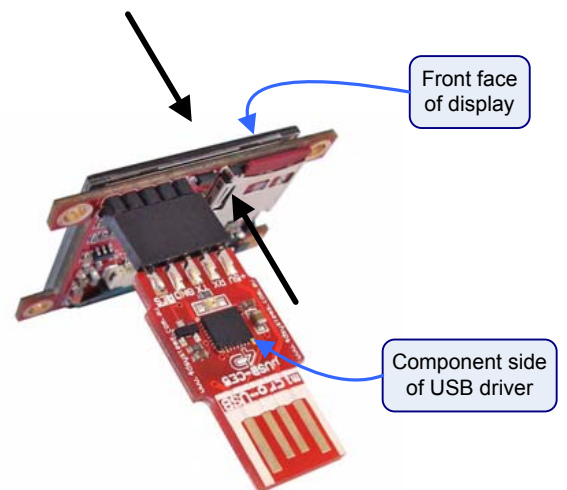
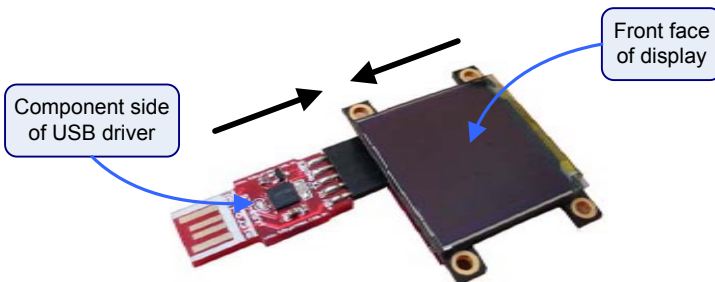
- Download the PmmC-Loader and install it on your computer. For information and links go to <http://www.4dsystems.com.au/prod.php?id=46>
- Download and install on your computer the latest driver for the μ USB module you are going to use to program your display module. For information and links go to:
 USB-CE5: <http://www.4dsystems.com.au/prod.php?id=19>
 USB-MB5: <http://www.4dsystems.com.au/prod.php?id=18>



STEP 2. UPDATE MODULE

- Check for and download the latest PmmC file for your target hardware platform. You'll find the latest PmmC file in the individual product page on the 4D website. The main products page is here: <http://www.4dsystems.com.au/products.php>
- Attach your target 4D module to the micro-USB module.
- Run the PmmCLoader.exe application and program your target hardware with the latest PmmC file (see PmmC-Loader Users Guide).

Note: Whenever you get a new module always check for and download the latest PmmC file for the module.



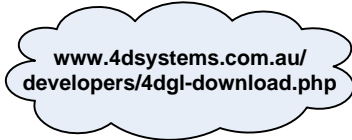


Quick Start with 4D Display Modules and 4DGL (cont'd)

One-Time Program Environment Setup

STEP 3. DOWNLOAD / INSTALL FILES

- Download the latest 4DGL Workshop-IDE from 4D web site.
- Unzip the downloaded file then launch the setup application and follow the instructions.



Note: The Workshop-IDE (Integrated Development Environment) contains the 4DGL-Editor, the 4DGL-Compiler and the 4DGL-Downloader software tools needed to develop complete 4DGL applications for the PICASO-GFX and GOLDELOX-GFX processor embedded in your intelligent display module. The downloaded setup application will create the required 4DGL Workshop-IDE folders and install all the required files.

Select a Sample Program to Download and Compile It

STEP 4. RUN WORKSHOP IDE

- Launch 4DGLworkshop.exe application from the main Workshop folder.



STEP 5. SELECT A PROGRAM TO RUN

- Using the pulldown menu select "File" -> "Project".
- In the Project window that opens, select the appropriate project folder for your module, then select a .4dg project file from the left pane, then click Ok .
- The Editor will open showing all the files imported from the folder into the Workshop.

STEP 6. COMPILE THE PROJECT

- Click on the pull down "Platform" item list on the top right hand side of the Workshop window and choose the appropriate platform for your module.
- Click on the "Compile" button up the top of the Workshop window.

Note: If there are no errors in our program then we should see the "No Errors, code size = XXXX bytes (XXXX available)" message down at the bottom of the message box

Download and Run

STEP 7. CONNECT MODULE TO PC

- Connect your display module to your micro-USB module, which is connected to your USB port.
- Select the correct COM port setting by typing in the COM port number matching the micro-USB.

STEP 8. DOWNLOAD THE PROGRAM

- Click on the "Download" button up at the top of the Workshop window.
- In the Download window that opens, select the "Write to RAM".
- Click the "Download" button in the window. The progress bar will inform you of the download activity.

STEP 9. RUN THE PROGRAM

- If all the steps have been followed, and your system was setup correctly, you should now have your first 4DGL application running as soon as the program finished downloading!

