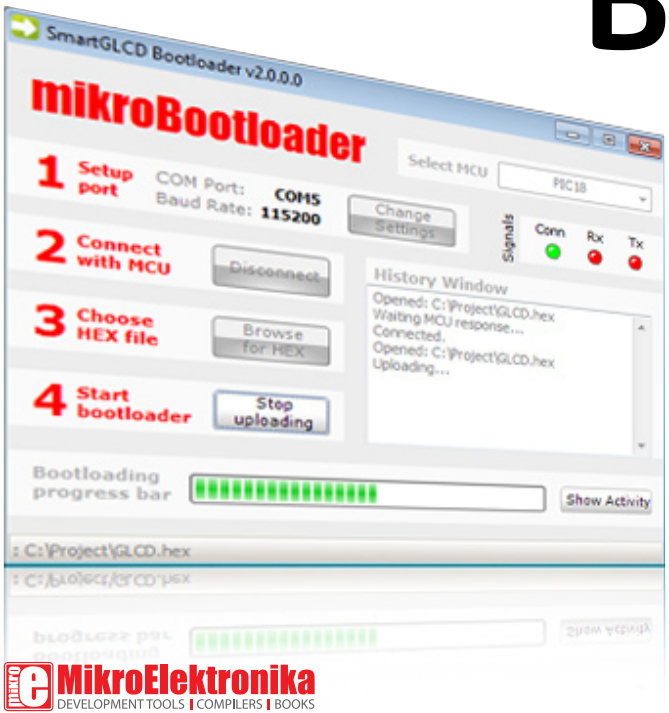
Bootloader

for

Smart GLCD

240x128



Bootloader software represents irreplaceable tool for transferring program from a PC to microcontroller on SmartGLCD

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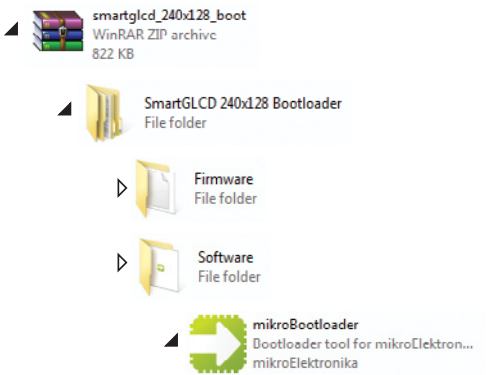
1. Programming with bootloader

For programming, microcontroller use bootloader program which is preinstaled in to MCU memory. To transfer .hex file from a PC to MCU you need bootloader software (**mikroBootloader**) which can be downloaded from:

http://www.mikroe.com/eng/products/view/443/smartglcd-240x128-board/

After software is downloaded unzip it to desired location and start mikroBootloader software.



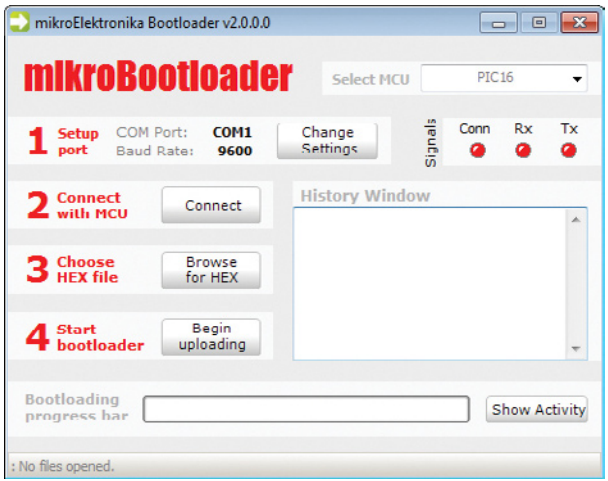


Figure 1-1: mikroBootloader software

note *Connect SmartGLCD with a PC before starting mikroBootloader software*

Identifying device COM port

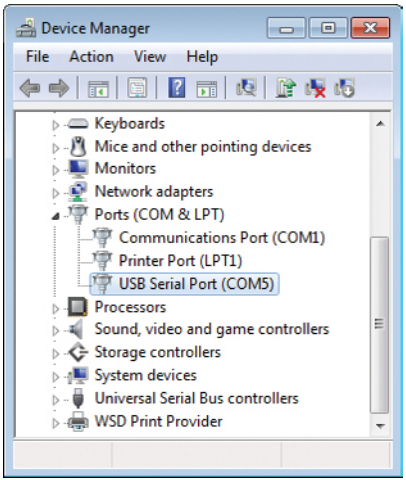


Figure 1-2: Identifying COM port

note *In Device Manager you can see which COM port is assigned to mikromedia (in this case COM5)*

step 1 - Choosing COM port

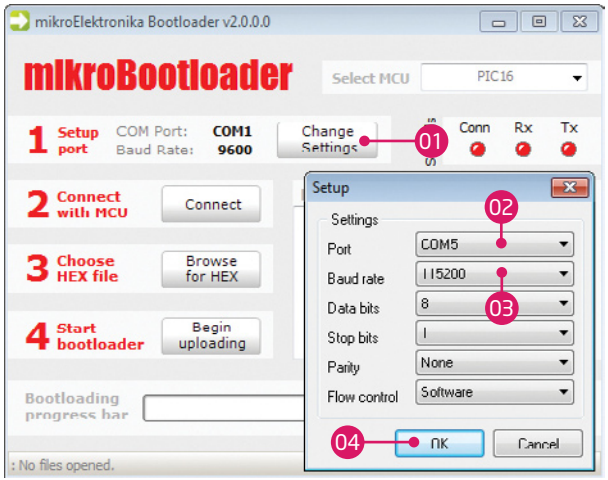


Figure 1-3: Selecting COM port

01 Click on Change Settings button

02 Select USB COM port (in this case COM5)

03 Set Baud rate to 115200

04 Click OK button

step 2 - Connecting with a PC

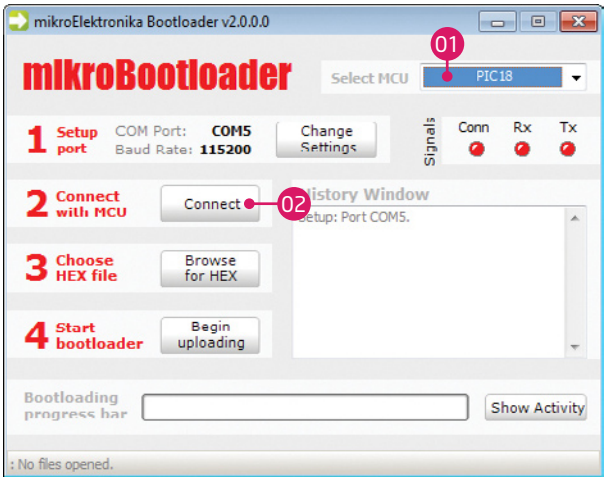


Figure 1-4: Connecting mikromedia with mikroBootloader

01 From drop down list Select MCU chose PIC18

02 Reset SmartGLCD and within 5s click on Connect button

step 3 - Browse for .hex file

Figure 1-5: Browsing for .hex file

01 Click on Browse for HEX and from pop-up window (figure 3-6) select .hex file which will be uploaded to MCU memory

step 4 - Select .hex file

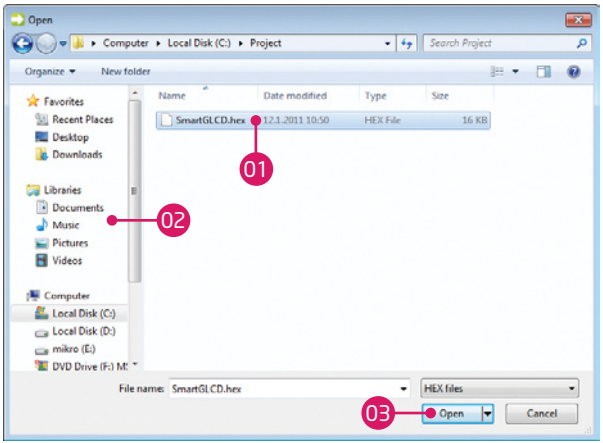


Figure 1-6: Selecting .hex file

01 Select desired .hex file

02 Folder list

03 Click on Open button

step 5 - Uploading .hex file

Figure 1-7: Begin uploading

01 Click on Begin uploading button to start .hex file transfer from a PC to microcontroler

step 6 - Progress bar

Figure 1-8: Bootloading progress bar

01 Via progress bar you can monitor .hex file uploading process

step 7 - Reset MCU

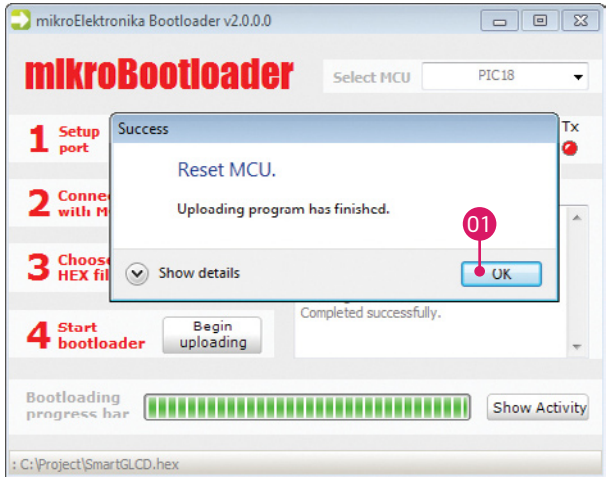
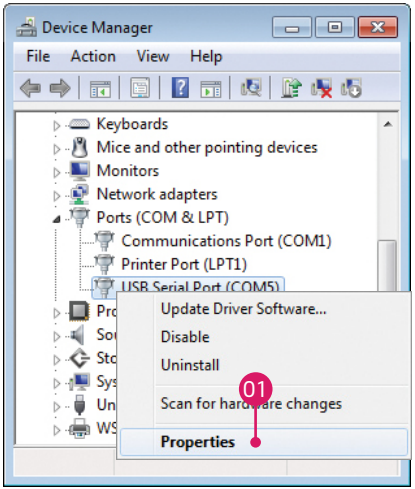
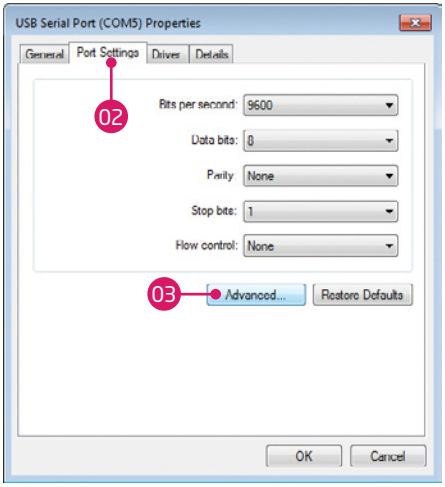


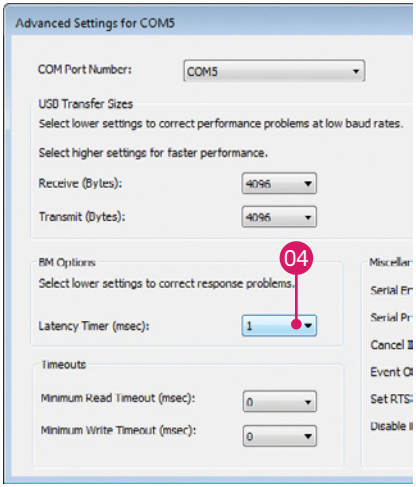
Figure 1-9: Uploading is finished

01 Click on OK button after uploading is finished. Reset MCU and you can see product of your work

Tips and Tricks: Speed-up UART data transfer







note

If .hex file transfer from your PC to MCU is to slow you can try to speed-up data transfer by seting latency time of COM port to 1. To change latency time go to Device manager:

01 Right click on USB Serial Port (COM5) and click on Properties

02 In USB Serial Port (COM5) Properties select Port Settings tab

03 Click on Advanced... button

04 Set latency Timer to 1 (or chose another value) and click on OK button