Release Notes for MPLAB® Code Configurator's MikroElektronika Click Library v1.1.1

1 What is MPLAB Code Configurator's Click Library

The MikroElektronika Click library provides software drivers for many of the Click development boards provided by MikroElektronika

2 System Requirements

- MPLAB® X IDE v5.20 or later
- XC8 compiler v2.05 or later
- XC16 compiler v1.36b or later
- XC32 compiler v2.20 or later
- MCC plugin v3.75 or later
- Foundation Services Library v0.1.34 or later
    - The Foundation Services library must be downloaded and installed along with this library.
- LIN Library v2.2 or later
    - The LIN Library library must be downloaded and installed along with this library.
- PIC10/PIC12/PIC16/PIC18 MCUs device library v1.77.0 or later
- AVR MCUs device library v2.0.1 or later
- PIC24/dsPIC33/PIC32MM MCUs device library v1.115 or later

3 Installing MPLAB® Code Configurator MikroElektronika Click Library

Basic steps for installing MPLAB® Code Configurator needs to be installed as below.

To install the MPLAB® Code Configurator Plugin:

1. In the MPLAB® X IDE, select **Plugins** from the Tools menu
2. Select the **Available Plugins** tab
3. Check the box for the MPLAB® Code Configurator v3, and click on **Install**

To install the MCC MikroElektronika Click Library 1.1.1:
1. Download **mikroEClickLibrary_v1.1.1.jar** from microchip website.
2. In the MPLAB® X IDE, select **Options** from the **Tools** menu (**Preferences** menu on MAC)
3. Select **Plugins** tab
4. Click on **Install Library**
5. Add **mikroEClickLibrary_v1.1.1.jar**
6. Restart MPLAB® X IDE

To load different peripheral library version:

1. Open MPLAB® Code Configurator v3 from the Tools menu
2. In Versions tab under MikroElektronika Click Library, find the multiple library version (loaded version is indicated by the green dot)
3. Right Click on the required version of the library and select Mark for load
4. Click on Load Selected Libraries button to load the library

4 Examples

Examples are provided in each click module. To use these examples, make sure you include the example header into your main file, and then call the example function provided.

Many of these examples use printf. If the Xpress Evaluation Board is used, note that it has a CDC device implementation and will enumerate as a COM port on your machine. Follow the steps in section 5.1 below in order to enable printf commands to write to the COM port.
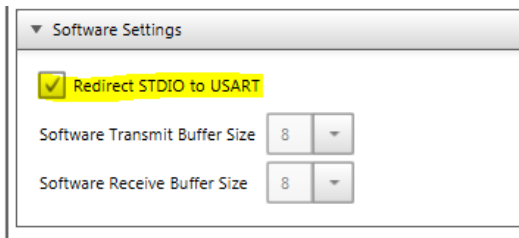
4.1 UART Pins on Xpress Evaluation Board

The Xpress Evaluation board, which uses the PIC16F18855, is capable of writing to the serial port as long as the following settings are configured:

Set the EUSART's RX and TX pins to RC1 and RC0 respectively

Package:	SOIC28 ▾	Pin No:	2	3	4	5	6	7	10	9	21	22	23	24	25	26	27	28	11	12	13	14	15	16	17	18	1
			Port A ▾								Port B ▾								Port C ▾								E ▾
Module	**Function**	**Direction**	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	3
EUSART ▾	RX	input									🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔒	🔓	🔓	🔓	🔓	🔓	🔓	
	TX	output									🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔒	🔓	🔓	🔓	🔓	🔓	🔓	🔓	
OSC	CLKOUT	output							🔓																		
Pin Module ▾	GPIO	input	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓
	GPIO	output	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓	🔓
RESET	MCLR	input																									🔒

Redirect STDIO to USART in the Hardware Settings tab of the EUSART module

▾ Software Settings

☑ Redirect STDIO to USART

Software Transmit Buffer Size   8   ▾

Software Receive Buffer Size   8   ▾

5 I2C and SPI Pins on Xpress Evaluation Board

I2C Pins:

Package:	SOIC28	▼	Pin No:	2	3	4	5	6	7	10	9	21	22	23	24	25	26	27	28	11	12	13	14	15	16	17	18	1
						Port A ▼								Port B ▼								Port C ▼						E ▼
Module	Function	Direction		0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	3
MSSP1 ▼	SCL1	in/out																											
	SDA1	in/out																											
OSC	CLKOUT	output																											
Pin Module ▼	GPIO	input																											
	GPIO	output																											
RESET	MCLR	input																											

SPI Pins:

Package:	SOIC28	▼	Pin No:	2	3	4	5	6	7	10	9	21	22	23	24	25	26	27	28	11	12	13	14	15	16	17	18	1
						Port A ▼								Port B ▼								Port C ▼						E ▼
Module	Function	Direction		0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	3
MSSP1 ▼	SCK1	in/out																											
	SDI1	input																											
	SDO1	output																											
OSC	CLKOUT	output																											
Pin Module ▼	GPIO	input																											
	GPIO	output																											
RESET	MCLR	input																											

6 Analog Pin on Xpress Evaluation Board

Package:	SOIC28	▼	Pin No:	2	3	4	5	6	7	10	9	21	22	23	24	25	26	27	28	11	12	13	14	15	16	17	18	1
						Port A ▼								Port B ▼								Port C ▼						E ▼
Module	Function	Direction		0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	3
ADCC ▼	ADCACT	input																											
	ADGRDA	output																											
	ADGRDB	output																											
	ANx	input																											
	VREF+	input																											
	VREF-	input																											
CO	AN	input																											
OSC	CLKOUT	output																											
Pin Module ▼	GPIO	input																											
	GPIO	output																											
RESET	MCLR	input																											

7 What's New

- Extended the below listed MikroElektronika clicks support to AVR, PIC24/dsPIC, and PIC32MM devices
  - OLED C, Thumbstick, Accel 3, Weather, EEPROM 2, LCD mini, Heart rate, 8x8 G, and 7seg
- Bug fixes and improvements

8 Repairs and Enhancements

#	ID	Description	Device(s)
1.	MCC_CLICK-222	Weather click build failure due to incorrect Standby time settings	All
2.	MCC_CLICK-221	Heart rate click build failure	All
3.	MCC_CLICK-197	EEPROM2 Click: No action event on Enable EEPROM checkbox	All
4.	MCC_CLICK-229	BLE 2 click: Issues with generation of pin information	All
5.	MCCV3XX-7737	Touchpad click issues with I2C clock	All

9 Known Issues

#	ID	Description	Device(s)
1.	MCC_CLICK-237	ADC pin does not get loaded on AVRs	AVR MCUs
2.	MCC_CLICK-239	Clicks using ADC: Code generation failure after reload	All
3.	MCCV3XX-8601	WiFly Click Not Working with Xpress Eval Board	All

10 Frequently Asked Questions

For frequently asked questions, please refer to the FAQ post on the MCC Forum (http://www.microchip.com/forums/f293.aspx)

11 Supported Clicks

1. ACCEL3
2. Air Quality
3. Alcohol
4. Altitude
5. CO
6. Compass 2
7. Current
8. Diff Pressure
9. Gyro
10. Hydrogen
11. HDC1000
12. LPG
13. Methane
14. Noise
15. Ozone
16. Weather
17. Counter
18. EEPROM
19. EEPRM 2
20. EEPROM 3
21. FLASH 2
22. RTCC 5
23. Thumb stick
24. Touchpad
25. ADC
26. ADC2
27. ADC3
28. Ammeter
29. DAC
30. DAC3
31. DigiPot
32. Relay
33. 4-20 mA R
34. 4-20 mA T
35. ETH
36. Expand
37. MCP2003B
38. RS232
39. RS485
40. USBI2C
41. USBSPI
42. USBUART
43. RN2483 – LoRa
44. RN2903 – Lora 2
45. GPSNano

46. RFid
47. WiFi Plus
48. WiFly
49. RN4020 – BLE 2
50. RN41 – Bluetooth
51. GPS 3
52. GSM
53. GSM 2
54. MCP25625
55. CANSPI

56. Proximity 2
57. nRFC
58. LED8X8G
59. Thermo 5
60. Fan
61. eInk
62. LCD Mini
63. OLED C
64. LED 7 Seg
65. AC Current

66. Stereo Amp
67. SRAM
68. Audio Amp
69. 7x10R
70. Line Follower
71. MIC24045
72. RTC 6
73. BT Audio
74. Light Ranger

12 Supported Families

The MCC MikroElektronika Click Library supports the following families. The full list of devices is in Section Appendix: Supported Devices

12.1.1 8 bit Families

Supports all devices supported by latest pic10-pic12-pic16-pic18 and AVR MCUs libraries

12.1.2 16 bit Families

Supports all 16-bit devices supported by latest pic24-dspic33-pic32mm library

12.1.3 32 bit Families

Supports PIC32MM family of devices supported by latest pic24-dspic33-pic32mm library

13 Customer Support

13.1   The Microchip Web Site

Microchip provides online support via our web site at http://www.microchip.com. This web site is used as a means to make files and information easily available to customers. Accessible by using your favorite Internet browser, the web site contains the following information:

- Product Support – Data sheets and errata, application notes and sample programs, design resources, user's guides and hardware support documents, latest software releases and archived software
- General Technical Support – Frequently Asked Questions (FAQs), technical support requests, online discussion groups/forums (http://forum.microchip.com), Microchip consultant program member listing
- Business of Microchip – Product selector and ordering guides, latest Microchip press releases, listing of seminars and events, listings of Microchip sales offices, distributors and factory representatives

13.2   Additional Support

Users of Microchip products can receive assistance through several channels:

- Distributor or Representative

- Local Sales Office
- Field Application Engineering (FAE)
- Technical Support

Customers should contact their distributor, representative or field application engineer (FAE) for support. Local sales offices are also available to help customers. A listing of sales offices and locations is available on our web site.

Technical support is available through the web site at: http://support.microchip.com

14 Appendix: Supported Devices

The MCC MikroElektronika Click Library v1.0.27 supports the following **313 devices.**

14.1.1 **8 bit Devices**

- Supports all devices supported by latest pic10-pic12-pic16-pic18 and AVR MCUs libraries

14.1.2 16 bit Devices

- Supports all 16-bit devices supported by latest pic24-dspic33-pic32mm library

14.1.3 32 bit Devices

- Supports PIC32MM family of devices supported by latest pic24-dspic33-pic32mm library