

- Enhanced USART module:
 - Supports RS-485, RS-232 and LIN 2.0
 - Auto-Baud Detect
 - Auto-wake-up on Start bit
- Compare, max resolution 200 ns
- 10-bit PWM with 1, 2 or 4 output channels, programmable "dead time", max frequency 20 kHz
- PWM output steering control
- Synchronous Serial Port (SSP):
 - SPI mode (Master and Slave)
 - I²C™ (Master/Slave modes):
 - I²C™ address mask
- In-Circuit Serial Programming™ (ICSP™) via two pins

PIC16F631/677/685/687/689/690

Device	Program Memory		Data Memory		I/O	10-bit A/D (ch),	Comparators	Timers 8/16-bit	SSP	ECCP+	EUSART
	Flash	SRAM	EEPROM	SRAM							
	16K (16K)	1K (1K)	1K (1K)	1K (1K)							

The screenshot shows the MPLAB IDE interface. On the left, the 'Compiler-Meldungen' (Compiler Messages) window displays the following text:

```

Fehler-Ergebnisse
Licence key: [redacted]
http://www.matrixtal.com
Start des Compilers...
C:\Flowcode\Programm_V7\compilers\pic\bin\xc8.exe -chip=16F690 "PIC16F690_Software_I2C_write to Slave2.c" -MSGDISABLE=359,1273,13
Microchip MPLAB XC8 C Compiler (Free Mode) V1.41
Build date: Jan 24 2017
Part Support Version: 1.41
Copyright (C) 2017 Microchip Technology Inc.
License type: Node Configuration

C:\Flowcode\Programm_V7\CAL\PIC\PIC_CAL_I2C.c:
131: #warning "I2C Master Mode may not be available on your current target device, switch to software mode."
(162) #warning: "I2C Master Mode may not be available on your current target device, switch to software mode." ^ (warning)
253: #error "This chip does not have Master I2C capability or Flowcode does not currently support it"
(103) #error: "This chip does not have Master I2C capability or Flowcode does not currently support it" ^
(908) exit status = 1
(908) exit status = 1

C:\Flowcode\Programm_V7\compilers\pic\bin\xc8.exe Hat den Fehlercode 1 gemeldet

BEENDET
  
```

On the right, the 'I2C_Master1' component settings window is open. The 'Eigenschaften' (Properties) tab is selected. Under 'Bus Settings', the 'Channel' is set to 'Software', which is circled in red. A red arrow points from the 'Software' option in the 'Channel' dropdown to the 'I2C Master Mode may not be available' warning message in the compiler output window.