

Re: Selection of a USB microcontroller

Source: <http://coding.derkeiler.com/Archive/General/comp.arch.embedded/2007-04/msg01196.html>

- *From:* "Jack Peacock" <jakbird@xxxxxxxxxxxxxx>
 - *Date:* Sat, 28 Apr 2007 20:25:55 GMT
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"FD" <fd@xxxxxxxxxx> wrote in message
[news:463081e1\\$0\\$7174\\$e4fe514c@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx](news:463081e1$0$7174$e4fe514c@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx)

The best programming language would be C, C++ and Pascal (Delphi) on the PC is no problem and so is some assembler in the microcontroller. The microcontroller should be around 5 to 20 MIPS with at least 8KB Flash, 2KB RAM and a little non-volatile storage (like EEPROM).

In the last year I've built several projects using the SiLabs C8051F320 and C8051F340 series full speed slave USB controllers. The 'F320 runs at 24Mhz, and the 'F340 at 48Mhz. Flash ranges from 16KB to 64KB, RAM from 1KB to 4KB, plus a 1KB USB FIFO. These work very well in small projects, since the chip has an on board oscillator (no crystal needed) and it can be USB bus powered with onboard regulator. The SiLabs website has quite a bit on reference designs and basic software, especially the USB CDC and HID class drivers. I use the SiLabs IDE with the SDCC-51 compiler, no cost and no code limits.

Jack Peacock