

Re: uC selection

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- *From:* JosephKK <quiettechblue@xxxxxxxx>
 - *Date:* Thu, 20 Mar 2008 19:51:20 -0700
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On Sat, 15 Mar 2008 14:41:16 -0700 (PDT), "David L. Jones" <altzone@xxxxxxxx> wrote:

On Mar 15, 3:01 pm, "Jon Slaughter" <Jon_Slaugh...@xxxxxxxx> wrote:

<a7yvm109gf...@xxxxxxxx> wrote in message

news:86a4146e-ddcc-40aa-8316-5ded547c1fc9@xx

On Mar 14, 7:14 pm, "Jon Slaughter" <Jon_Slaugh...@xxxxxxxx> wrote:

Currently I use microchip pics but I'm looking possibly to switch, but what?
Is Atmel worth it? What about TI? I'm looking for something similar to microchip but more of a commercial aspect. I have never seen any commercial device that uses a pic and I assume there are reasons for this? It seems that pic's are only for hobbyists so using them in a commercial product is a no-no?

It's spelled "hobbyist". Just like "lobbyist". PICs are used in cheap, high volume applications where you won't even see the part number or logo. What language do you program in? What kind of applications? Simple

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button-LCD-I2C or more complex signal processing?

I have programmed in a large number of languages and thats not really the issue(python, php, C/C++/C#, java, assembly, pascal, etc..). The main thing is the fucitonality and scalability.

PIC are hard to beat for scalability.

Check out the real details instead of just guessing.

The development toolsets are consistent across 8-bit, 16-bit, DSP, and 32bit lines.

I admit that i have not studied PIC in particular, but i am looking for almost any platform that has truly scaled over that range.

MIPS Nearly successful, but fell into disuse. Never

was 8 bit

SPARC came closer, still did not make it, never was 8 bit

X86 almost works right, never really was 8 bit, has

64 bit now

AVR maybe the closest? Was it ever 8 bit?

68K scaled from 16 to 32 bit, never was 8 bit

HP-PARISC scaled from 16 to 64, never was 8 bit

DSPs None were ever 8 bit, 12, 16, 24, and 32 bit (FP)

DEC Alpha Started as 32/64 bit

DG uNova Started as 32 bit, is gone now.

NS32000 Started as 16 bit, hit 32 bit, is all but gone now

SH* Seems to make the grade also, has some 64 bit.

65XXX 8 and 16 bit only

many others 8 bit only

many others 16 bit only

This list is surely partial at best.

I'm looking at TI's chips right now and trying to see how consistent the chips are. I am not doing any advanced uC system's yet(just adc and pwm stuff ATM) but eventually I'd like to get into dsp(audio processing) and other stuff. I don't want to have to learn a new chip every time I move to a new application or be limited by the architecture. PIC's seem more like entry level more than anything else and I feel like the time invested in learning them might not pay off in the long run.

You really haven't investigated this properly have you?

PIC have everything from a tiny 8 bit 5 pin job through to huge 32bit

DSP's, and the toolsets and interface are consistent across the entire

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line.

Really?

PIC will be able to do anything you ever want, both professionally and for hobby.

Really?

Microchip have sold *billions* of PICs to industry, hobby sales would represent a ridiculously small percentage of that.

Look at the high end 32bit PICs:

Like why? If i need 32 bits it is not really a microcontroller any more. Besides i might like or have more experience with AVR's or SH2, SH3, SH4, SH5, and thus find them more convenient.

http://www.microchip.com/stellent/idcplg?IdcService=SS_GET_PAGE&nodeId=2591

And there is still a free student version C compiler for it.

If you need anything bigger than those then you are no longer in the realm of microcontrollers any more, but microprocessors like the ARM that can access massive amounts of memory and other resources.

Dave.

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