
Subject: Re: Coding for speed help needed
Posted by [wmc](#) on Thu, 29 May 1997 07:00:00 GMT
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In article r3r@gazette.bcm.tmc.edu, pford@bcm.tmc.edu (Patrick V. Ford) writes:
> I need a FAST method of decoding a series of bytes to floats. The byte pattern encodes a range
> of numbers
> from MIN to MAX. I am attempting to code this as an `call_external` routine in C, but it is buggy
> and has not worked yet. The
> basic C routine looks this:
>
>
> ...cuts...
> `kappa = (byte[0] << 24) | (byte[1] << 16) | (byte[2] << 8) | byte[3];`
> /* Note: endian is irrelevant to the algorithm */
>
> `range = *max - *min;`
> `*result = range/((float)ULONG_MAX) * (float)kappa + *min;`
>
> What I would like to do, is do this in IDL where the result would go into A,
> where
>
> `A = fltarr(64,64)`
>
> and the byte array is
>
> `B = bytarr(64*64*4)`
>

so why not:

```
i=indgen(64*64)*4  
a=b(i)*224+b(i+1)*216+b(i+2)*28+b(i+3)  
a=a*kappa+min ; or some other scaling
```

its possible you might prefer your shifts to the 2²⁴ etc -
I don't know which is faster.

> with a minimum of for loops.

is none few enough? ;-)

- William

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