
Subject: Re: Unpacking packed BCD in Ionosonde SAO files
Posted by [Craig Markwardt](#) on Wed, 13 Jun 2007 08:23:54 GMT
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Andrew Cool <andrew.cool@dsto.defence.gov.au> writes:

> Hi All,
>
> Does anyone have an existing routine to unpack
> packed BCD (Binary Code Decimal) data?

I would probably do something like this,
n_digits = number of digits in input
bcd = binary coded decimal value

```
fact = 1L  
dec = 0L  
for i = 0, n_digits-1 do begin  
    dec = dec + (bcd AND '0f'xl)*fact  
    bcd = ishft(bcd,-4)  
    fact = fact * 10L  
endfor
```

The output is the DEC variable. The code has a loop, but it only does a few iterations, and is fast even if BCD is an array.

> If you've got a routine to decipher ionosonde SAO (Standard
> Archiving Output) files, that'd be even better!! ;-)

Sorry, can't help you there, but I do have telemetry extraction routines for bit-packed values, if that's what you need.

Craig

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