
Subject: Extracting bits with IDL

Posted by [dean](#) on Sun, 17 Jul 1994 04:03:37 GMT

[View Forum Message](#) <> [Reply to Message](#)

We are set up to routinely collect GOES-8 GVAR data. Like with most data from satellites, they put information in the individual bits. Below is a C structure that extracts the individual bits from part of the data header which contains some time information. Extracting individual bits from data with IDL is difficult. At first I consider building an IDL structure, but IDL is unable to break down to bits.

The information can fit into LONARR(2). If anyone has any suggestion that would allow IDL to extract the information from these LONARR(2), please forward your comments to me or post them. I hope to use this information to build a widget to navigate through this new and fine data set coming from GOES-8.

```
=====
=====
```

```
typedef struct
{
    unsigned year_100  : 4;
    unsigned year_1000 : 4;

    unsigned year_1    : 4;
    unsigned year_10   : 4;

    unsigned day_10    : 4;
    unsigned day_100   : 3;
    unsigned time_code : 1;

    unsigned hour_10   : 4;
    unsigned day_1     : 4;

    unsigned min_10    : 4;
    unsigned hour_1    : 4;

    unsigned sec_10    : 4;
    unsigned min_1     : 4;

    unsigned msec_100  : 4;
    unsigned sec_1     : 4;

    unsigned msec_1    : 4;
    unsigned msec_10   : 4;
} BCD_TIME_T;
```

***** \ *****
Kelly Dean \
Cooperative Institute for Research in the Atmosphere ____\
Foothills Campus /\
Colorado State University / \
Fort Collins, CO 80523 / \
E-MAIL: DEAN@PHOBOS.CIRA.COLOSTATE.EDU | \
