

ANSI C Solution for Problem #6

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#include <stdio.h>
#include <string.h>

int main( void ) {

    char month[ 16 ], ap[ 3 ];
    unsigned long chan, day, year, hour, min, len, code;
    FILE *in = fopen( "vcr.in", "r" ), *out = fopen( "vcr.out", "w" );

    while (fscanf( in, "Channel %ld, %s %ld %ld, %ld:%ld%s %ldmin\n", &chan,
        month, &day, &year, &hour, &min, ap, &len ) != EOF) {

        code = 0;
        code |= chan << 19;
        code |= (year - 1994) << 25;
        code |= day << 10;
        code |= (len / 30);
        if (strcmp( month, "January" ) == 0)
            code |= 1L << 15;
        else if (strcmp( month, "February" ) == 0)
            code |= 2L << 15;
        else if (strcmp( month, "March" ) == 0)
            code |= 3L << 15;
        else if (strcmp( month, "April" ) == 0)
            code |= 4L << 15;
        else if (strcmp( month, "May" ) == 0)
            code |= 5L << 15;
        else if (strcmp( month, "June" ) == 0)
            code |= 6L << 15;
        else if (strcmp( month, "July" ) == 0)
            code |= 7L << 15;
        else if (strcmp( month, "August" ) == 0)
            code |= 8L << 15;
        else if (strcmp( month, "September" ) == 0)
            code |= 9L << 15;
        else if (strcmp( month, "October" ) == 0)
            code |= 10L << 15;
        else if (strcmp( month, "November" ) == 0)
            code |= 11L << 15;
        else if (strcmp( month, "December" ) == 0)
            code |= 12L << 15;
        if (strcmp( ap, "am" ) == 0)
            hour = hour == 12 ? 0 : hour;
        else
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        if (hour != 12) hour += 12;
        code |= (2 * hour + min / 30) << 4;
        fprintf( out, "%lu\n", code );
    }
    fcloseall();
    return 0;
}
```