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## **[ACSim\\_toolbox.c](#)**

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```
/*
 *  ACSim_toolbox.c
 *  v 0.0.5
 *
 *  2006 April 17 Created by Michael Markert, audiocommander.de
 *  Copyright 2006 Michael Markert, http://www.audiocommander.de
 *  hexview based on publicdomain code:
http://www.eggdrop.ch/texts/cschnipsel/
 *  toolbox for mios: http://www.midibox.org
 *
 */

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 */

#import <Stdio.h>

#ifndef _ACSIM_TOOLBOX_C
#define _ACSIM_TOOLBOX_C

#pragma mark random numbers
// generate some random numbers
unsigned char ACRandomBool(void) { return (random() % 2); }
```

```
signed char  ACRandomEncoder(void)    { return ((random() % 2) ? -1 : 1 );
}
unsigned char ACRandomPin(void)       { return (random() % DEBUG_AIN_NUM);
}
unsigned char ACRandomChar(void)      { return (random() % 128); }
unsigned int  ACRandomInt(void)        { return (random() % 1024); }

#pragma mark HEXVIEW
// hexview output
#define HEXVIEW_COLUMNS 68
#define HEXVIEW_CHARS ((HEXVIEW_COLUMNS-1)/4)

void hexview(unsigned char *buf, int size) {
    /* usage:
    char buf[256];
    strcpy(buf, "some data");
    hexview(buf, sizeof(buf)); */

    int i;
    unsigned char c;
    unsigned char r = 0;

    while (size>0) {
        printf("%i:\t\t", (r*16));
        for (i=0; i<HEXVIEW_CHARS; i++) {
            if (size-i>0) {
                printf("%02x ", (unsigned char)*(buf+i));
            } else {
                printf(" ");
            }
        }
        printf(" ");
        for (i=0; i<HEXVIEW_CHARS&&size-i>0; i++) {
            c = (unsigned char)*(buf+i);
            printf("%c", c>=32&&c<127 ? c : '.');
        }
        buf+=HEXVIEW_CHARS;
        size-=HEXVIEW_CHARS;
        printf("\n");
        r++;
    }
}

#endif /* _ACSIM_TOOLBOX_C */
```

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