

Remote Programming

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void    main(int, char *[]);
void    txLia(char *);
void    initGpib(char *);
void    setupLia(void);
void    printOutBinaryResults(void);
void    printOutIEEEResults(void);
void    printOutLIAResults(void);

/* National Instruments Interface Function Prototypes (488.1 Calls - see the National software manual).
   These are declared in "decl.h"
int     ibfind(char*);
void    ibwrt(int,char *,int);
void    ibrd(int,char *,unsigned long);
void    ibrsp(int,char *);
void    ibeos(int,int);
void    ibtmo(int,int);
*/

/* global variables */

int    lia;           /* SR830 handle */
int    rxBuf[660*2]; /* FAST mode data buffer */
float  rfBuf[1000];  /* Floating point data buffer */

void main(int argc, char *argv[])
{
    int    nPts,i;
    char   tstr[20];

    if (argc<2) {
        printf("\nUsage: liatest <devName>\n");
        exit(1);
    }
    else
        initGpib(SR830);

    txLia("OUTX1"); /* Set the SR830 to output responses to the GPIB port */
    setupLia();     /* Setup the SR830 */

    printf("\nAcquiring Data\n");
    ibtmo(lia,0);  /* turn off timeout for lia or set the timeout longer than the scan (10 seconds). The
                   timeout measures the time to transfer the FULL number of bytes, not the time since
                   the most recent byte is received.*/

    txLia("FAST2;STRD"); /* Turn FAST mode data transfer ON, then start scan using the STRD start
                           after delay command. The STRD command MUST be used if the scan is to
                           be started by this program! Do NOT use STRT. */

    /* take data for 10 seconds and then stop */
    ibrd(lia,(char *)rxBuf,2564L); /* get FAST mode data for 10 seconds.
                                     10 seconds of data at 64 Hz sample rate has 64*10 + 1 points,
                                     each point consists of X (2 bytes) and Y (2 bytes) for a total of
                                     4*(64*10+1) = 2564 bytes. */

    i=(int)ibcnt; /* save total number of bytes read */
}
```