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! *****
! *
! * ** Meilhaus SDK example for ME-4000 / ME-6000 ***
! *
! * Purpose: Single analog input for ME-4000 series
! *
! * (c) Tech Soft GmbH, 2006
! *
! * Created: 10-Jan-2006
! * Updated: 01-Jun-2006
! *
! *****
!
! This program uses the lib file "me_sdk_for_htb.lib" which contains
! several definitions and functions in order to make it easier to
! talk to the Meilhaus ME-4000 / ME-6000 hardware.
!
DLL UNLOAD ALL
CLEAR SCREEN
!
CONTROL CRT,100;1
!
PRINT "Test program for Meilhaus Interfaces"
PRINT "-----"
PRINT
!
! variables
LONG Dll_vers,Drv_vers,Lboardnum,Serialnum
INTEGER Iboardnum,Ichannel,S_digital_val
INTEGER Ret1,Ret2,Result
LONG Ai_range,Ai_input,Ai_sdmode,Ai_trigger,Val_not_used
REAL D_volt
!
! Program messages on/off. 0=off, 1=show all messages, 2=show errors only
!                               3=show debug messages
INTEGER Verbose=2
!
G$=CHR$(19) ! character code for inverse printing
X$=CHR$(16) ! character code for normal printing
Hl$=CHR$(30) ! character code for "highlighted" printing
Hx$=CHR$(24) ! character code for "normal" printing (color)
Ul$=CHR$(22) ! character code for underlined printing
CrLf$=CHR$(10)&CHR$(13)
!
! Load the function library from Tech Soft for usage of ME cards
DIM Libname$(255)
ON ERROR GOTO Load_sub
DELSUB Me_lib_start TO END
Load_sub: OFF ERROR
ON ERROR GOTO No_subs
Libname$="..\meilhaus_for_htb.lib" ! name of HTBasic library file for ME SDK
IF NOT INMEM("Me_lib_start") THEN LOADSUB ALL FROM Libname$
GOTO Weiter
!
No_subs: !
BEEP
PRINTER IS CRT
ALPHA PEN 2
PRINT "*** ERROR: Can't find SUB programs. Please check your path."
ALPHA PEN 1
PRINT " * Missing file: "&SYSTEM$("MSI")&"\"&Libname$
PRINT
PRINT " Program stopped."
STOP
!
Weiter: OFF ERROR
! initialize the library
Res1=FNMe_init("me4000",Verbose) ! initialize library for series ME-4000
IF NOT Res1 THEN
IF Verbose>0 THEN

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        BEEP
        ALPHA PEN 2
        PRINT "*** ERROR: ";
        ALPHA PEN 1
        PRINT "FNMe_init() failed, program stopped."
    END IF
    GOSUB Finish
    STOP
END IF
!
! get DLL version
Ret1=FNMe4getdllversion(Dll_vers)
CALL Me_show_errstat(Ret1,"FNMe4getdllversion()",Verbose)
!
Ret1=FNMe4getdrvversion(Drv_vers)
CALL Me_show_errstat(Ret1,"FNMe4getdrvversion()",Verbose)
!
! get serial number of board 0
Boardnum=0
Ret1=FNMe4getserialnum((Boardnum),Serialnum)
CALL Me_show_errstat(Ret1,"FNMe4getserialnum()",Verbose)
!
PRINT " * DLL: 0x"&IVAL$(Dll_vers,16)&"   Driver: 0x"&IVAL$(Drv_vers,16);
PRINT "   Serial number: 0x"&IVAL$(Serialnum,16)
PRINT
!
! now start one measure on board 0, channel 0
Iboardnum=0
Ichannum=0
!
PRINT G$&" Read one analog value (Board "&VAL$(Iboardnum);
PRINT ", Chn. "&VAL$(Ichannum)&") "&X$
!
! define constants
Ai_range=FNMe_get_constant("ME4000_AI_RANGE_UNIPOLAR_10",Result,Verbose)
Ai_sdmode=FNMe_get_constant("ME4000_AI_INPUT_SINGLE_ENDED",Result,Verbose)
Ai_trigger=FNMe_get_constant("ME4000_AI_TRIGGER_SOFTWARE",Result,Verbose)
Val_not_used=FNMe_get_constant("ME4000_VALUE_NOT_USED",Result,Verbose)
!
! call the function
Ret1=FNMe4aisingle((Iboardnum),(Ichannum),(Ai_range),(Ai_sdmode),(Ai_trigger),(Val_
not_used),(Val_not_used),S_digital_val)
CALL Me_show_errstat(Ret1,"FNMe4aisingle()",Verbose)
!
IF Ret1=0 THEN           ! convert digital value into physical value
    Ret2=FNMe4aidigittovolt((S_digital_val),(Ai_range),D_volt)
    CALL Me_show_errstat(Ret2,"FNMe4aidigittovolt()",Verbose)
END IF
!
PRINT " * Digital value: ";IVAL$(S_digital_val,16);"   physical value: ";D_volt;" V"
PRINT
!
GOSUB Finish
!
STOP
!
!=====
Finish: ! always jump here if program ends
DLL UNLOAD ALL
!
! cleaning up SUB programs
DELSUB Me_lib_start TO END
ALPHA PEN 4
DISP "Program finished."
ALPHA PEN 1
RETURN
!
!=====
END

```