

crdsync-demo.cpp

This is an example how to use ADK-CRD-SYNC

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/* ***** */
#include <stdlib.h>#include <stdio.h>#include <string
.h>#include <stdarg.h>#include <unistd.h>#include <signal.h>#include
"pthread.h"#include "crdsync.h" #define UNUSED(x) (void) x #define MENU
"ADK-CRD-SYNC testapp:\n\1 Open\n\2 IsCardPresent\n\3 PowerUp AT24C01SC\n\4 Power
#define TRACE(str) printf("%s", str);#define sleep_ms(a) usleep(1000
*a); #define CRDSYNC_DBG(format, ...) { trace("CRD-SYNC-TEST: "
); trace(format, ## __VA_ARGS__); trace("\n"
); }#define CRDSYNC_DBG_BYTES(format, data, len, ...) { int i; trace(
"CRD-SYNC-TEST: "); trace(format, ## __VA_ARGS__); for (i = 0; i < len
; i++) trace("%02x ", data[i]); trace("\n"
); } static pthread_mutex_t traceMutex = PTHREAD_MUTEX_INITIALIZER;static void t
const char *format, ...); static const char *return_table[] = {
"CRDSYNC_Success", "CRDSYNC_Failure",
"CRDSYNC_Error_Power_Action", "CRDSYNC_Error_Not_Supported",
"CRDSYNC_Error_BadParam", "CRDSYNC_Error_Protocol"};static const
char *mapReturn(CRDSYNC_RET r){ if(r < 0
|| (unsigned)r >= sizeof(return_table)/sizeof(char*)) return
"unknown"; else return
return_table[r];} static void callbackfunctionAtExit(int
signal){ signal = 0; exit(signal);} void traceCallback(const
char *str, void *data){ UNUSED(data); trace("ADK-CRD-SYNC: "
); trace(str); trace("\n");} int main(int
argc, char *argv[]){ CRDSYNC_RET ret; int key = 0xFF; int
c; UNUSED(argc); UNUSED(argv); signal(SIGTERM, callbackfunctionAtExi
64]; unsigned char len = sizeof(vers); crdSync_Version(vers,len
); CRDSYNC_DBG("CRD-SYNC library version: %s",vers); while (key != 0
) { unsigned char AtrBuf[256]; unsigned char AtrLen = 255
; printf("\n\n%s", MENU); c = getc(stdin); printf(
"\n\n"); key = c - '1' + 1; while (c != '\n'
&& c != EOF) c = getc(stdin); if ((key >= 1 && key <= 9
) || (key > 48 && key < 53)) { switch
(key) { case 0x01: ret = crdSync_Open(0
); CRDSYNC_DBG("Open(0): %d (%s)"
, ret, mapReturn(ret)); break; case 0x02
: ret = crdSync_IsCardPresent(); CRDSYNC_D
"crdSync_IsCardPresent(): %d (%s)"
, ret, mapReturn(ret)); break; case 0x03
: ret = crdSync_PowerUp(CRDSYNC_CARDTYPE_AT24C01SC, AtrBuf, &
"crdSync_PowerUp(CRDSYNC_CARDTYPE_AT24C01SC): %d (%s)"
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, ret, mapReturn(ret)); break; case 0x04
: ret = crdSync_PowerUp(CRDSYNC_CARDTYPE_AT24C02SC, AtrBuf, &
"crdSync_PowerUp(CRDSYNC_CARDTYPE_AT24C02SC): %d (%s)"
, ret, mapReturn(ret)); break; case 0x05
: ret = crdSync_PowerUp(CRDSYNC_CARDTYPE_AT24C04SC, AtrBuf, &
"crdSync_PowerUp(CRDSYNC_CARDTYPE_AT24C04SC): %d (%s)"
, ret, mapReturn(ret)); break; case 0x06
: ret = crdSync_PowerUp(CRDSYNC_CARDTYPE_AT24C08SC, AtrBuf, &
"crdSync_PowerUp(CRDSYNC_CARDTYPE_AT24C08SC): %d (%s)"
, ret, mapReturn(ret)); break; case 0x07
: ret = crdSync_PowerUp(CRDSYNC_CARDTYPE_AT24C16SC, AtrBuf, &
"crdSync_PowerUp(CRDSYNC_CARDTYPE_AT24C16SC): %d (%s)"
, ret, mapReturn(ret)); break; case 0x08
: ret = crdSync_PowerUp(CRDSYNC_CARDTYPE_ST14C02SC, AtrBuf, &
"crdSync_PowerUp(CRDSYNC_CARDTYPE_ST14C02SC): %d (%s)"
, ret, mapReturn(ret)); break; case 0x09
: { unsigned char TxBuf[]="12345678"
; unsigned short TxLen = sizeof(TxBuf); re
32,TxBuf,TxLen); CRDSYNC_DBG(
"crdSync_WriteData(12345678): %d (%s)"
, ret, mapReturn(ret)); break
; } case 49
: { unsigned char TxBuf[]="99999999"
; unsigned short TxLen = sizeof(TxBuf); re
32,TxBuf,TxLen); CRDSYNC_DBG(
"crdSync_WriteData(99999999): %d (%s)"
, ret, mapReturn(ret)); break
; } case 50
: { unsigned char RxBuf[64]={0
; unsigned short RxLen = sizeof(RxBuf); re
32,RxBuf,RxLen); CRDSYNC_DBG(
"crdSync_ReadData(): %d (%s)"
, ret, mapReturn(ret)); CRDSYNC_DBG_BYTES("Read Data: "
,RxBuf,RxLen); break; }
case 51
: { ret = crdSync_PowerDown();
"crdSync_PowerDown(): %d (%s)", ret, mapReturn(ret));
break; } case 52
: { ret = crdSync_Close(0
); CRDSYNC_DBG("crdSync_Close(): %d (%s)"
, ret, mapReturn(ret)); break
; } default: break
; } } } return 0;} static void trace(const
char *format, ...){ int size = 128; int len = 0
; char *buf = NULL; char *bufr = NULL; va_list arg; char save; ch
if (buf) { va_start(arg, format); len
= vsnprintf(buf, size, format, arg); if (len
>= size) { size = len + 1
; bufr = (char *) realloc(buf, size); if
(bufr) { bufr = bufr; len
= vsnprintf(buf, size, format, arg); } else
{ free(buf); buf = NULL; }
if (buf) { ptr = buf; while (len > 99
) { save = ptr[99]; ptr[99] = '\0'
; TRACE(ptr); ptr[99] = save; ptr += 99
; len -= 99
; } TRACE(ptr); free(buf); } pthread_mutex_unlock(&t

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