

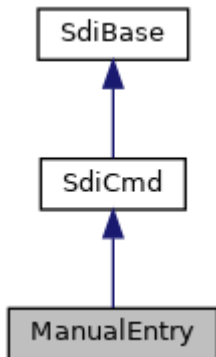
ManualEntry Class Reference

Interface for SDI command [MSR Card Data Entry](#) (21-02)

[More...](#)

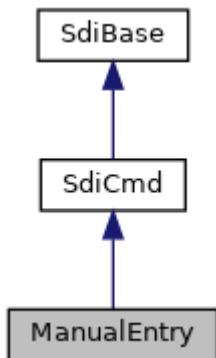
```
#include <sdi_if.h>
```

Inheritance diagram for ManualEntry:



[\[legend\]](#)

Collaboration diagram for ManualEntry:



[\[legend\]](#)

Public Member Functions

[ManualEntry \(\)](#)

[~ManualEntry \(\)](#)

void [setLanguage](#) (unsigned char language)
Configure text language for manual card data entry (DFA008) [More...](#)

int [setTimeout](#) (unsigned seconds)
Configure timeout for manual card data entry (DFA005) [More...](#)

int [setCvvEntryDeactivation](#) (unsigned char cvvEntry)
Configure temporary Card Entry Value deactivation for manual card data entry (DFA017) [More...](#)

int [setCardDataEntryMode](#) (unsigned char mode)
Configure Card Data Entry mode (DFA018) [More...](#)

int [setCvvInputString](#) (const std::string &inputString)
Configure optional alternative input format string for CVV (DFA01A) [More...](#)

int [setTouchCoordinates](#) (const unsigned char *array, unsigned size)
Configure touch coordinate table for manual card entry (DFA024) [More...](#)

int [setMimimumDigits](#) (unsigned char minimumDigits)
Configure forcing of minimum number of Pan digits to 7 instead the default of 10 digits (DFA123) [More...](#)

int [setDoubleConfirmationMode](#) (unsigned char mode)
Configure skipping of double confirmation of PAN in headless mode (DFA033) [More...](#)

int [start](#) ()
Start manual card data entry (21-02) [More...](#)

int [receiveResult](#) (std::string &obfuscatedPAN, std::vector< unsigned char > &token)
Receive manual card data entry result. [More...](#)

int [getPluginResponseData](#) (std::vector< unsigned char > &data)
Access plugin response data (DFA101) in case one plugin has been triggered. [More...](#)

int [getPluginResponseData](#) (unsigned index, int32_t &pluginId, int32_t &pluginResponseCode, std::vector< unsigned char > &data)
Access plugin response data (FFA107, DFA101, DFA10C, DFA10D) [More...](#)

bool [getPluginResponseData](#) (std::vector< [PluginResult](#) > &results)
Access plugin response data (FFA107, DFA101, DFA10C, DFA10D) [More...](#)

► Public Member Functions inherited from [SdiCmd](#)

[SdiCmd \(\)](#)

virtual [~SdiCmd \(\)](#)

enum [SDI_SW12](#) [sendReceive](#) (unsigned char cla, unsigned char ins, unsigned char p1=0, unsigned char p2=0, unsigned maxResponseSize=2048)
Generic SDI command exchange function combining sending of request, waiting and receiving the response. [More...](#)

int [send](#) (unsigned char cla, unsigned char ins, unsigned char p1=0, unsigned char p2=0)
Like [sendReceive\(\)](#) but without waiting for response. [More...](#)

enum [SDI_SW12](#) [receive](#) (unsigned maxResponseSize=2048)
Receive SDI response after request has been send with [send\(\)](#) and data availability has been signaled. [More...](#)

void [set](#) (const char *path, int [value](#), unsigned fixedLength=0)
Set integer data object SDI command. [More...](#)

void [set](#) (const char *path, uint32_t [value](#), unsigned fixedLength=0)
Set unsigned integer data object SDI command. [More...](#)

void [set](#) (const char *path, const unsigned char *data, unsigned dataLen)
Set byte array data object in SDI command. [More...](#)

void [set](#) (const char *path, unsigned char byteValue)
Set single byte value in SDI command. [More...](#)

void [set](#) (const char *path, const std::vector< unsigned char > &data)
Set byte array data object in SDI command. [More...](#)

void [set](#) (const char *path, const std::string &[value](#))
Set character data object in SDI command. [More...](#)

void [setCommandDestination](#) (bool epp, bool force=false)
Set command destination for systems with EPP Unless force the command destination is set only if parameter epp is true. [More...](#)

virtual void [clear](#) ()
Remove all SDI command command input data. [More...](#)

virtual void [clear](#) (const char *path)
Remove single input data stored in [dataIn](#). [More...](#)

virtual void [clearResults](#) ()
Remove all SDI response data. [More...](#)

void [importResults](#) (const [SdiCmd](#) &intermediate)
Transfer status word, client error and response data from an intermediate command while keeping command input data. [More...](#)

void [importResults](#) (const unsigned char *[sw12](#), const unsigned char *tlvData, unsigned tlvSize)
Inject result data from a call back. [More...](#)

bool [get](#) (const char *path, int &[value](#))

bool [get](#) (const char *path, uint32_t &[value](#))

int [get](#) (const char *path, unsigned char *buffer, unsigned bufferSize)

bool [get](#) (const char *path, unsigned char &[value](#))

bool [get](#) (const char *path, std::vector< unsigned char > &buffer)

bool [get](#) (const char *path, std::string &[value](#))

std::string [getString](#) (const char *path)

► Public Member Functions inherited from [SdiBase](#)

[SdiBase](#) ()

enum [SDI_SW12](#) [getSdiSw12](#) ()

int [getAdditionalResultValue](#) ()
Access Additional Result Value if returned in SDI response. [More...](#)

[SDIClient_ERROR](#) [getClientError](#) ()

	Access client side error codes. More...
enum SDI_SW12	receiveSW12 ()
	Receive SDI server response with no data. More...
void	clear ()
	clear result data obtained from SDI communication More...
void	importResults (const SdiBase &intermediate)
	set result data obtained from intermediate SDI communication More...

Additional Inherited Members

► Protected Member Functions inherited from [SdiBase](#)

void	setSdiSw12 (enum SDI_SW12 s)
void	setClientError (int libsdiprotocol_result)

► Protected Attributes inherited from [SdiCmd](#)

void *	dataIn
	Command input buffer collecting TLV data items. More...
void *	dataOut
	Command response TLV data items. More...

► Protected Attributes inherited from [SdiBase](#)

unsigned short	sw12
int	additionalResultValue
SDICLIENT_ERROR	clientErr

Detailed Description

Interface for SDI command [MSR Card Data Entry](#) (21-02)

Use the setters to configure the command, then use [SDI_SetDataAvailableCallback\(\)](#) to register a notification function. With [start\(\)](#) the manual card data input begins. After data available notification call [receiveResult\(\)](#) to read the SDI server response.

Constructor & Destructor Documentation

? [ManualEntry\(\)](#)

[ManualEntry](#) ()

? [~ManualEntry\(\)](#)

[~ManualEntry](#) ()

Member Function Documentation

[? getPluginResponseData\(\)](#) [1/3]

bool getPluginResponseData (std::vector< [PluginResult](#) > & *results*)

Access plugin response data (FFA107, DFA101, DFA10C, DFA10D)

Parameters

[out] results plugin ids, response codes and response data

Returns

true if any plugin result has been found

[? getPluginResponseData\(\)](#) [2/3]

int getPluginResponseData (std::vector< unsigned char > & *data*)

Access plugin response data (DFA101) in case one plugin has been triggered.

Parameters

[out] data plugin response data (Note: Data is appended to existing content)

Returns

length of appended data, -1 if not present

[? getPluginResponseData\(\)](#) [3/3]

```
int getPluginResponseData ( unsigned          index,
                           int32_t &         pluginId,
                           int32_t &         pluginResponseCode,
                           std::vector< unsigned char > & data
                           )
```

Access plugin response data (FFA107, DFA101, DFA10C, DFA10D)

Parameters

[in] *index* for iterating the result data, starting with 0

[out] pluginId	return value of a plugin's <code>moduleID</code> function also used as INS byte of SDI 26-xx command to invoke a plugin, 0 if not available
[out] pluginResponseCode	plugin's <code>processTrigger</code> function return value, SDI_SW12_NONE if not available
[out] data	plugin response data (Note: Data is appended to existing content)

Returns

length of appended data, -1 if not present = end of iteration

? receiveResult()

```
int receiveResult ( std::string & obfuscatedPAN,
                   std::vector< unsigned char > & token
                   )
```

Receive manual card data entry result.

In case of problem, when '0' is returned use [getSdiSw12\(\)](#) to retrieve the SDI Server SW1 SW2.

Parameters

[out] obfuscatedPAN an [7..19]
 [out] token unique card specific token b20

Returns

0 if successful, negative value if an error has occurred, e.g. return value from [SDI_Receive\(\)](#)

Getters - Manual Card Data Entry

[getPluginResponseData\(\)](#) (DFA101)

[getSdiSw12\(\)](#) inherited from [SdiBase](#)

[getClientError\(\)](#) inherited from [SdiBase](#)

? setCardDataEntryMode()

```
int setCardDataEntryMode ( unsigned char mode )
```

Configure Card Data Entry mode (DFA018)

Parameters

Card Data Entry mode

[in] mode 0: Card Data Entry performed in one screen

1: Card Data Entry performed in separate screens

Returns

0

[?](#) **setCvvEntryDeactivation()**

int setCvvEntryDeactivation (unsigned char *cvvEntry*)

Configure temporary Card Entry Value deactivation for manual card data entry (DFA017)

Parameters

temporary Card Entry Value deactivation during the current command execution

0 perform all input

[in] **cvvEntry** **1** skip card verification code

2 skip expiration and verification code

4 just enter CVV after card data read from mag. stripe

Returns

0

[?](#) **setCvvInputString()**

int setCvvInputString (const std::string & *inputString*)

Configure optional alternative input format string for CVV (DFA01A)

Parameters

[in] **inputString** alternative input string for CVV

Returns

0

[?](#) **setDoubleConfirmationMode()**

int setDoubleConfirmationMode (unsigned char *mode*)

Configure skipping of double confirmation of PAN in headless mode (DFA033)

Parameters

double confirmation mode of PAN

[in] mode 0: Double confirmation active (default)

1: Double Confirmation skipped

Returns

0

[?](#) **setLanguage()**

void setLanguage (unsigned char *language*)

Configure text language for manual card data entry (DFA008)

If not set, default is current terminal/transaction language

Parameters

[in] language language to be used for manual entry

[?](#) **setMimimumDigits()**

int setMimimumDigits (unsigned char *minimumDigits*)

Configure forcing of minimum number of Pan digits to 7 instead the default of 10 digits (DFA123)

Parameters

minimum number of Pan digits to be entered

[in] minimumDigits 0: Use default (10 digits)

1: Force to 7 digits

Returns

0

[?](#) **setTimeout()**

int setTimeout (unsigned *seconds*)

Configure timeout for manual card data entry (DFA005)

Parameters

[in] seconds PIN input dialog timeout

Returns

0

[?](#) setTouchCoordinates()

```
int setTouchCoordinates ( const unsigned char * array,
                          unsigned           size
                          )
```

Configure touch coordinate table for manual card entry (DFA024)

Each table entry consists of

- x-position b2
- y-position b2
- button width b2
- button height b2
- associated key ASCII code b1 ("0" .. "9" = '30' .. '31', cancel = '1B', correction = '08', enter = '0D')

Parameters

[in] array coordinate table

[in] size byte count of coordinate table (= 9 * button count)

Returns

0

[?](#) start()

```
int start ( )
```

Start manual card data entry (21-02)

Before calling this function use the setters of this class to configure it and [SDI_SetDataAvailableCallback\(\)](#) to register a notification function. Once result is available the notification function will be invoked and [receiveResult\(\)](#) has to be called.

Setters

[setLanguage\(\)](#) (DFA008)

[setTimeout\(\)](#) (DFA005)

[setCvvEntryDeactivation\(\)](#) (DFA017)

[setCardDataEntryMode\(\)](#) (DFA018)

[setCvvInputString\(\)](#) (DFA01A)

[setTouchCoordinates\(\)](#) (DFA024)

[setMimimumDigits\(\)](#) (DFA123)

[setDoubleConfirmationMode\(\)](#) (DFA033)

Returns

return value from [SDI_Send\(\)](#)

The documentation for this class was generated from the following file:

- sdi/client/[sdi_if.h](#)