APPLIB

V1.0.2

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applib config related interface

Modules

- enum

  applib config related enum
- interface

  applib config related interface
- struct

  applib config related struct

3.1.1 Detailed Description

applib config related interface

3.2 applib_def

applib related definition

Macros

- #define uchar unsigned char

  unsigned char
- #define ushort unsigned short

  unsigned short
- #define uint unsigned int

  unsigned int
- #define ulong unsigned long

  unsigned long
- #define bool unsigned char

  unsigned char
- #define true 1

  true
- #define false 0

  false

3.2.1 Detailed Description

applib related definition

3.3 applib_err

applib related error code

Macros

- #define SUCCESS (0)

  system and applib error index

Typedefs

- typedef enum SYS_ERR_INDEX_ **SysErrIndex**

Enumerations

- enum SYS_ERR_INDEX_ {
  ERR_END = -1, ERR_CANCEL = -2, ERR_TIMEOUT = -3, ERR_PARAM = -4,
  ERR_DRV = -5, ERR_MIF_DRV = -6, ERR_ICC_DRV = -7, ERR_SCAN_DRV = -8,
  ERR_MAG_DRV = -9, ERR_FILE = -10 }

3.3.1 Detailed Description

applib related error code

3.3.2 Macro Definition Documentation

3.3.2.1 SUCCESS

```
#define SUCCESS (0)
```

system and applib error index

succeed

3.3.3 Enumeration Type Documentation

3.3.3.1 SYS_ERR_INDEX_

```
enum SYS_ERR_INDEX_
```

Enumerator

ERR_END	end
ERR_CANCEL	cancel
ERR_TIMEOUT	timeout
ERR_PARAM	param error
ERR_DRV	driver error
ERR_MIF_DRV	open picc device fail
ERR_ICC_DRV	open icc device fail
ERR_SCAN_DRV	open scan device fail
ERR_MAG_DRV	open mag device fail
ERR_FILE	file operation fail

3.4 commu

net communication related interface

Modules

- enum

  applib config related enum
- interface

  applib config related interface
- retval

  net communication related retval definition
- struct

  applib config related struct

3.4.1 Detailed Description

net communication related interface

3.5 display

display related interface

Modules

- interface

  applib config related interface
- macros

  display related macros
- struct

  applib config related struct

3.5.1 Detailed Description

display related interface

3.6 enum

applib config related enum

Data Structures

- struct tsInputMethodParam

Typedefs

- typedef enum COMMU_MODE_ENUM COMMU_MODE

  Communication mode type definition[socket, http or https].
- typedef enum SOCKET_TYPE_ENUM SOCKET_TYPE

  socket type definition[TCP or UDP]
- typedef enum ADDR_TYPE_ENUM ADDR_TYPE

  host addr type definition[IP or DOMAIN]
- typedef enum HTTP_METHOD_ENUM HTTP_METHOD

  http method type definition[GET,POST,PUT,DELETE,HEAD and so on]
- typedef enum MMI_INPUT_METHOD_ InputMethod

  input method

Enumerations

- enum CUSTOMER_TYPE { CUSTOMER_Normal, CUSTOMER_ShouQianBa, CUSTOMER_LAKALA, CUSTOMER_ShFy }

  enum definition of customer type
- enum COMMU_MODE_ENUM { COMMU_SOCKET = 0, COMMU_HTTP, COMMU_HTTPS, COMMU_SSL_SOCKET }

  Communication mode type definition[socket, http or https].
- enum SOCKET_TYPE_ENUM { TCP_SOCKET = 0, UDP_SOCKET, **MAX_SOCKET** }

  socket type definition[TCP or UDP]
- enum ADDR_TYPE_ENUM { IP_ADDR = 0, DOMAIN_ADDR }

  host addr type definition[IP or DOMAIN]
- enum HTTP_METHOD_ENUM {
  HTTP_GET = 0, HTTP_POST, HTTP_PUT, HTTP_DELETE,
  HTTP_HEAD }

  http method type definition[GET,POST,PUT,DELETE,HEAD and so on]
- enum MMI_INPUT_METHOD_ { InputMethod_digital = 1, InputMethod_lower_abc = 2, InputMethod_caps_abc = 4, InputMethod_hex = 8 }

  input method
- enum te_printer_status {
  STATUS_IDLE, **STATUS_CACHING**, **STATUS_PRINTING**, **STATUS_ERROR_NO_PAPER**,
  STATUS_ERROR_OVERHEAT, **STATUS_ERROR_BMARK**, **STATUS_ERROR_COMM**, **STATUS_ERROR_LOW_BATTERY**,
  STATUS_ERROR_NO_FONT_LIB, **STATUS_ERROR_NO_CACHE_MEMORY**, **STATUS_MAX** }

  enum definition of printer status
- enum te_printer_fontsize { **PRINT_FONT_SMALL** = 16, **PRINT_FONT_NORMAL** = 24, **PRINT_FONT_LARGE** = 32 }

  enum definition of print font size

- enum te_printer_effect { **EFFECT_NONE**, **EFFECT_BOLD** }

  enum definition of print effect
- enum te_printer_align { **ALIGN_LEFT**, **ALIGN_CENTER**, **ALIGN_RIGHT** }

  enum definition of print align mode
- enum te_printer_heat_point { **HEAT_POINT_MIN** = 32, **HEAT_POINT_48** = 48, **HEAT_POINT_64** = 64, HEAT_POINT_MAX = 96 }

  enum definition of print heat point

3.6.1 Detailed Description

applib config related enum

printer related enum

input related enum

net communication related enum definition

3.6.2 Enumeration Type Documentation

3.6.2.1 ADDR_TYPE_ENUM

```
enum ADDR_TYPE_ENUM
```

host addr type definition[IP or DOMAIN]

Enumerator

IP_ADDR	ip
DOMAIN_ADDR	domain

3.6.2.2 COMMU_MODE_ENUM

```
enum COMMU_MODE_ENUM
```

Communication mode type definition[socket, http or https].

Enumerator

COMMU_SOCKET	socket
COMMU_HTTP	http
COMMU_HTTPS	https
COMMU_SSL_SOCKET	ssl socket

3.6.2.3 CUSTOMER_TYPE

```
enum CUSTOMER_TYPE
```

enum definition of customer type

Enumerator

CUSTOMER_Normal	common customer(default value)
CUSTOMER_ShouQianBa	shouqianba
CUSTOMER_LAKALA	lakala
CUSTOMER_ShFy	ShangHai Fuyou.

3.6.2.4 HTTP_METHOD_ENUM

```
enum HTTP_METHOD_ENUM
```

http method type definition[GET,POST,PUT,DELETE,HEAD and so on]

Enumerator

HTTP_GET	get
HTTP_POST	post
HTTP_PUT	put
HTTP_DELETE	delete
HTTP_HEAD	head

3.6.2.5 MMI_INPUT_METHOD_

```
enum MMI_INPUT_METHOD_
```

input method

Enumerator

InputMethod_digital	digital input
InputMethod_lower_abc	lowercase input
InputMethod_caps_abc	capital input
InputMethod_hex	hex input

3.6.2.6 SOCKET_TYPE_ENUM

```
enum SOCKET_TYPE_ENUM
```

socket type definition[TCP or UDP]

Enumerator

TCP_SOCKET	tcp
UDP_SOCKET	udp

3.6.2.7 te_printer_heat_point

```
enum te_printer_heat_point
```

enum definition of print heat point

Note

larger value, print faster

Enumerator

HEAT_POINT_MAX	recommended

3.7 file

applib file IO related interface

Modules

- interface

  applib config related interface
- struct

  applib config related struct

3.7.1 Detailed Description

applib file IO related interface

3.8 input

input related interface

Modules

- enum

  applib config related enum
- interface

  applib config related interface

3.8.1 Detailed Description

input related interface

3.9 interface

applib config related interface

Macros

- #define **mmi_setInputType**(defType, inputType) (defType<<8|inputType)
- #define EVENT_NULL 0

  input event type
- #define **EVENT_KEY_DRV** 1
- #define **EVENT_MAG_DRV** 2
- #define **EVENT_ICC_DRV** 4
- #define **EVENT_MFR_DRV** 8
- #define **EVENT_SCAN_DRV** 16
- #define **EVENT_MANUAL_DRV** 32

Functions

- char * AppLib_GetVersion (void)

  get applib version
- int AppLib_CheckVersion (const char *ver)

  check applib version
- void AppLib_InitParam (tsAppLibParm *pParam)

  initialization applib config parameter
- void AppLib_SetParam (void(*setParamFunc)(tsAppLibParm *param))

  set applib config parameter
- tsAppLibParm AppLib_GetParam (void)

  get applib config parameter
- int commu_set_para (COMMU_PARA *pCommuPara)

  set communication common parameter
- int commu_preconnect (void)

  connect host before online trade
- int commu_connect (void)

  connect host
- int commu_send (const HTTP_SEND_PARA *p_http_send_para, const char *send_buff, const int send_len)

  send data without format
- int commu_recv (char *recv_buff, int *p_recv_len, const int max_recv_len)

  receive data
- const char * commu_get_header (const char *header, int size)

  get http response header value
- int commu_disconnect (void)

  disconnect link
- int commu_get_preconnect_errcode (void)

  get preconnect error code
- void mmi_backupScreen (void)

  screen data backup
- void mmi_freshScreen (void)

  restore the screen data
- void mmi_clearLine (unsigned int line)

remove a line

- int mmi_displayEx (tsDispParam ∗pDispParam, DISP_VAlign line, const char ∗text)

  display string
- int mmi_displayOfBlackBg (DISP_VAlign line, unsigned int column, char ∗pszFmt,...)

  display string
- int mmi_display (DISP_VAlign line, unsigned int column, char ∗pszFmt,...)

  display string
- int mmi_displayPixs (DISP_VAlign line, unsigned int column, unsigned char ∗pPixsBuff, unsigned short width, unsigned short height, int color)

  display pixs
- int mmi_displayQrCode (DISP_VAlign line, unsigned int column, unsigned char ∗qrcode, unsigned short width, unsigned short height)

  display qrcode
- int mmi_displayBMP (DISP_VAlign line, unsigned int column, unsigned char ∗bmpData, unsigned short width, unsigned short height)

  display bmp picture
- void mmi_displayProgressbar (DISP_VAlign line, int borderColor, int backgroundColor, unsigned int percent)

  display progress bar
- void mmi_displayTimerStart (DISP_VAlign line, unsigned int column, unsigned char flipEnable, int timeout)

  timer display start
- void mmi_displayTimerStop (void)

  timer display stop
- int mmi_inputGetKeypress (void)

  get keypress value
- int mmi_inputWaitKeypress (unsigned int timeout)

  wait keypress, blocking mode
- int mmi_inputDigital (unsigned int dispLine, unsigned int column, unsigned char ∗pBuff, int buffSize, unsigned long minValue, unsigned long maxValue, unsigned int timeout)

  input digital
- int mmi_inputString (unsigned int dispLine, unsigned int inputType, unsigned char ∗pBuff, int minLen, int maxLen, char ∗pucMask, unsigned int timeout)

  input string
- int mmi_InputPasswd (unsigned int dispLine, unsigned int column, unsigned int inputType, unsigned char ∗pwdData, unsigned int minLen, unsigned int maxLen, unsigned int timeout)

  input password
- int mmi_InputAmount (unsigned int dispLine, int column, unsigned char inputType, unsigned long ∗pAmount, int minAmount, int maxAmount, unsigned int timeout)

  input amount
- int mmi_InputIPV4Addr (unsigned int DispLine, unsigned char ∗pucBuf, int timeOut)

  input IP
- int mmi_EventOpen (unsigned int event)

  event open
- int mmi_EventClose (unsigned int event)

  event close
- int mmi_EventWait (unsigned int ∗pEvent, unsigned char ∗pDrvData, unsigned int ∗pDrvDataLen, unsigned int timeout)

  event wait
- int printer_check (void)

  check printer state
- int printer_open (void)

  open and init printer
- int printer_set_para (ts_printer_para ∗p_printer_para)

set printer parameter

- int printer_get_para (ts_printer_para ∗p_printer_para)

  get printer parameter
- int printer_feed (int point_lines)

  printer feed paper
- int printer_add_text (const char ∗text)

  add text data to printer cache
- int printer_add_bmp (const char ∗bmp_data, int bmp_data_len, int need_reverse)

  add bmp data to printer cache
- int printer_add_bmp_path (const char ∗bmp_path, int need_reverse)

  add text data to printer cache
- int printer_add_barcode (ts_barcode_type barcode_type, int code_width, int code_height, const char ∗barcode_text)

  add barcode data to printer cache
  the text will be transfered to barcode
- int printer_add_qrcode (int code_size, const char ∗qrcode_text)

  add qrcode data to printer cache
  the text will be transfered to qrcode
- int printer_print_bmp_path (const char ∗bmp_path, int need_reverse)

  print bmp file
- int printer_add_text_with_param (const ts_printer_para ∗p_printer_para, const char ∗text)

  add text data to printer cache with param
- int printer_add_bmp_with_param (const ts_printer_para ∗p_printer_para, const char ∗bmp_data, int bmp_←data_len, int need_reverse)

  add bmp data to printer cache with param
- int printer_add_bmp_path_with_param (const ts_printer_para ∗p_printer_para, const char ∗bmp_path, int need_reverse)

  add bmp file to printer cache with param
- int printer_add_barcode_with_param (const ts_printer_para ∗p_printer_para, ts_barcode_type barcode_←type, int code_width, int code_height, const char ∗barcode_text)

  add barcode data to printer cache with param
  the text will be transfered to barcode
- int printer_add_qrcode_with_param (const ts_printer_para ∗p_printer_para, int code_size, const char ∗qrcode_text)

  add qrcode data to printer cache with param
  the text will be transfered to qrcode
- int printer_print (void)

  start printing the data in the cache
- int printer_clear (void)

  clean printer cache
- int printer_print_text (const char ∗text)

  print text data
- int printer_print_bmp (const char ∗bmp_data, int bmp_datalen, int need_reverse)

  print bmp data
- int printer_print_barcode (ts_barcode_type barcode_type, int code_width, int code_height, const char ∗barcode_text)

  print barcode
  the text will be transfered to barcode
- int printer_print_qrcode (int code_size, const char ∗qrcode_text)

  print qrcode
  the text will be transfered to qrcode
- int printer_print_text_with_param (const ts_printer_para ∗p_printer_para, const char ∗text)

  print text data with param

- int printer_print_bmp_with_param (const ts_printer_para ∗p_printer_para, const char ∗bmp_data, int bmp↩ _data_len, int need_reverse)

  print bmp data with param
- int printer_print_bmp_path_with_param (const ts_printer_para ∗p_printer_para, const char ∗bmp_path, int need_reverse)

  print bmp file with param
- int printer_print_barcode_with_param (const ts_printer_para ∗p_printer_para, ts_barcode_type barcode_↩ type, int code_width, int code_height, const char ∗barcode_text)

  print barcode with param
  the text will be transfered to barcode
- int printer_print_qrcode_with_param (const ts_printer_para ∗p_printer_para, int code_size, const char ∗qrcode_text)

  print qrcode with param
  the text will be transfered to qrcode
- te_printer_status printer_get_status (void)

  get printer status
- int printer_close (void)

  close printer
- int printer_formblank (const te_printer_align align_mode, char ∗dest, char ∗const src, const te_printer_fontsize nfont, const unsigned int available_dot)

  printer_formblank
- int UFile_GetErrCode (void)

  get file error code
- int UFile_CheckValidFile (unsigned int fileIndex)

  check file exist
- int UFile_CheckAllValidFiles (DATA_FILE_INFO fileInfoList[ ], unsigned int fileCount)

  check file exist of all
- int UFile_ReadFileToMalloc (const char ∗fileName, char ∗∗fileData)

  read file
- char ∗ UFile_GetResource (char ∗sourceName, int ∗width, int ∗height)

  get resource
- int UFile_RemoveFile (const char ∗fileName)

  remove file
- int UFile_ClearFile (const char ∗fileName)

  clear file
- int UFile_ReadFile (const char ∗fileName, unsigned char ∗fileData, unsigned int fileSize)

  read file
- int UFile_WriteFile (const char ∗fileName, unsigned char ∗fileData, unsigned int fileSize)

  write file
- int UFile_SearchRecord (const char ∗fileName, tsDBExec ∗pExec)

  search record
- int UFile_ReadRecord (const char ∗fileName, unsigned int recordIndex, unsigned char ∗dat, int datLen)

  read record
- int UFile_WriteRecord (const char ∗fileName, unsigned int recordIndex, unsigned char ∗dat, int datLen)

  write record
- int UFile_RemoveFileAll (void)

  remove file of all
- int UFile_RemoveFileIndexOf (unsigned int fileIndex)

  remove file
- int UFile_ClearFileIndexOf (unsigned int fileIndex)

  clear file
- int UFile_ReadFileIndexOf (unsigned int fileIndex)

read file
- int UFile_WriteFileIndexOf (unsigned int fileIndex)

  write file
- int UFile_ReadRecordIndexOf (unsigned int fileIndex, unsigned int recordIndex)

  read record
- int UFile_WriteRecordIndexOf (unsigned int fileIndex, unsigned int recordIndex)

  write record
- int UFile_SearchRecordIndexOf (unsigned int fileIndex, tsDBExec ∗pExec)

  search record

3.9.1 Detailed Description

applib config related interface

file related interface

printer related interface

input related interface

display related interface

net communication related interface

3.9.2 Function Documentation

3.9.2.1 AppLib_CheckVersion()

```
int AppLib_CheckVersion (
            const char * ver )
```

check applib version

Parameters

ver	[in] applib version string pointer

Return values

int(-1:no,0:yes)	

3.9.2.2 AppLib_GetParam()

```
tsAppLibParm AppLib_GetParam (
             void )
```

get applib config parameter

Return values

tsAppLibParm	

3.9.2.3 AppLib_GetVersion()

```
char* AppLib_GetVersion (
             void )
```

get applib version

Return values

char	∗(applib version string)

3.9.2.4 AppLib_InitParam()

```
void AppLib_InitParam (
             tsAppLibParm ∗ pParam )
```

initialization applib config parameter

Parameters

pParam	[in] tsAppLibParm

Return values

void	

3.9.2.5 AppLib_SetParam()

```
void AppLib_SetParam (
             void(∗)(tsAppLibParm ∗param) setParamFunc )
```

set applib config parameter

Parameters

setParamFunc	[in] set param callback function

Return values

void	

3.9.2.6 commu_connect()

```
int commu_connect (
            void )
```

connect host

Return values

=0	: success
!0	: fail

Precondition

commu_set_para

3.9.2.7 commu_disconnect()

```
int commu_disconnect (
            void )
```

disconnect link

Return values

=0	: success
!0	: fail

3.9.2.8 commu_get_header()

```
const char* commu_get_header (
            const char * header,
            int size )
```

get http response header value

Parameters

const	char ∗header [in] header key name
int	size [in] header key name size

Return values

!NULL	: success
=NULL	: fail `For example: char *authToken = commu_get_head("Cookie", sizeof("Cookie"));`

3.9.2.9 commu_get_preconnect_errcode()

```
int commu_get_preconnect_errcode (
             void   )
```

get preconnect error code

Return values

preconnect	error code

3.9.2.10 commu_preconnect()

```
int commu_preconnect (
             void   )
```

connect host before online trade

Return values

=0	: success
!0	: fail

Precondition

commu_set_para

3.9.2.11 commu_recv()

```
int commu_recv (
             char * recv_buff,
             int * p_recv_len,
             const int max_recv_len )
```

receive data

Parameters

recv_buff	[out] recv buff
p_recv_len	[out] recv data length
max_recv_len	[in] max size of recv buff

Return values

=0	: success
!0	: fail

3.9.2.12 commu_send()

```
int commu_send (
            const HTTP_SEND_PARA * p_http_send_para,
            const char * send_buff,
            const int send_len )
```

send data without format

Parameters

p_http_send_para	[in] HTTP_SEND_PARA struct pointer
send_buff	[in] send data buff
send_len	[in] send data length

Return values

=0	: success
!0	: fail

Precondition

commu_set_para

3.9.2.13 commu_set_para()

```
int commu_set_para (
            COMMU_PARA * pCommuPara )
```

set communication common parameter

Parameters

pCommuPara	[in] pointer of COMMU_PARA struct for setting value

Return values

=0	: success
!0	: fail

3.9.2.14 mmi_clearLine()

```
void mmi_clearLine (
            unsigned int line )
```

remove a line

Parameters

line	[in] DISP_ClearALL and vertical alignment

3.9.2.15 mmi_display()

```
int mmi_display (
            DISP_VAlign line,
            unsigned int column,
            char * pszFmt,
             ...  )
```

display string

Parameters

line	[in] vertical alignment
column	[in] horizontal alignment
pszFmt	[in] display string

Return values

next	line number

3.9.2.16 mmi_displayBMP()

```
int mmi_displayBMP (
            DISP_VAlign line,
            unsigned int column,
            unsigned char * bmpData,
            unsigned short width,
            unsigned short height )
```

display bmp picture

Parameters

in	*line*	vertical alignment
in	*column*	horizontal alignment
in	*qrcode*	qrcode string
in	*width*	qrcode width
in	*height*	qrcode height

Return values

return	next line

3.9.2.17 mmi_displayEx()

```
int mmi_displayEx (
            tsDispParam * pDispParam,
            DISP_VAlign line,
            const char * text )
```

display string

Parameters

pDispParam	[in] display param
line	[in] vertical alignment
text	[in] display string

Return values

next	line number

3.9.2.18 mmi_displayOfBlackBg()

```
int mmi_displayOfBlackBg (
            DISP_VAlign line,
            unsigned int column,
            char * pszFmt,
             ... )
```

display string

Parameters

in	*line*	vertical alignment
in	*column*	horizontal alignment
in	*pszFmt*	display string

Return values

return	next line

3.9.2.19 mmi_displayPixs()

```
int mmi_displayPixs (
            DISP_VAlign line,
            unsigned int column,
            unsigned char * pPixsBuff,
            unsigned short width,
            unsigned short height,
            int color )
```

display pixs

Parameters

line	[in] vertical alignment
column	[in] horizontal alignment
pPixsBuff	[in] pixs buff
width	[in] pixs width
height	[in] pixs height
color	[in] pixs color

Return values

next	line number

3.9.2.20 mmi_displayProgressbar()

```
void mmi_displayProgressbar (
            DISP_VAlign line,
            int borderColor,
            int backgroundColor,
            unsigned int percent )
```

display progress bar

Parameters

line	[in] vertical alignment
borderColor	[in] border color
backgroundColor	[in] background color
percent	[in] percent

3.9.2.21 mmi_displayQrCode()

```
int mmi_displayQrCode (
            DISP_VAlign line,
            unsigned int column,
            unsigned char * qrcode,
            unsigned short width,
            unsigned short height )
```

display qrcode

Parameters

line	[in] vertical alignment
column	[in] horizontal alignment
qrcode	[in] qrcode string
width	[in] qrcode width
height	[in] qrcode height

Return values

next	line number

3.9.2.22 mmi_displayTimerStart()

```
void mmi_displayTimerStart (
            DISP_VAlign line,
            unsigned int column,
            unsigned char flipEnable,
            int timeout )
```

timer display start

Parameters

line	[in] vertical alignment
column	[in] horizontal alignment
flipEnable	[in] enable the countdown (0-disabled, 1-enable)
timeout	[in] timeout

3.9.2.23 mmi_EventClose()

```
int mmi_EventClose (
            unsigned int event )
```

event close

Parameters

event	[in]

Return values

SUCCESS	success
other	failure

3.9.2.24 mmi_EventOpen()

```
int mmi_EventOpen (
            unsigned int event )
```

event open

Parameters

event	[in]

Return values

SUCCESS	success
other	failure

3.9.2.25 mmi_EventWait()

```
int mmi_EventWait (
            unsigned int * pEvent,
            unsigned char * pDrvData,
            unsigned int * pDrvDataLen,
            unsigned int timeout )
```

event wait

Parameters

pEvent	[in/out]
pDrvData	[out]
pDrvDataLen	[out]
timeout	[in] timeout

Return values

SUCCESS	success
other	failure

3.9.2.26 mmi_InputAmount()

```
int mmi_InputAmount (
            unsigned int dispLine,
            int column,
            unsigned char inputType,
            unsigned long * pAmount,
            int minAmount,
            int maxAmount,
            unsigned int timeout )
```

input amount

Parameters

dispLine	[in] vertical alignment
column	[in] horizontal alignment
inputType	[in] integer Unit
pAmount	[in] buff amount
minAmount	[in] minimum amount
maxAmount	[in] maximum amount
timeout	[in] timeout

Return values

SUCCESS	success
other	failure

3.9.2.27 mmi_inputDigital()

```
int mmi_inputDigital (
            unsigned int dispLine,
            unsigned int column,
            unsigned char * pBuff,
            int buffSize,
            unsigned long minValue,
            unsigned long maxValue,
            unsigned int timeout )
```

input digital

Parameters

dispLine	[in] vertical alignment
column	[in] horizontal alignment
pBuff	[out] buff address
buffSize	[in] buff sizeof
minValue	[in] minimum value
maxValue	[in] maximum value
timeout	[in] timeout

Return values

SUCCESS	success
other	failure

3.9.2.28 mmi_inputGetKeypress()

```
int mmi_inputGetKeypress (
            void )
```

get keypress value

Return values

keypress	value

3.9.2.29 mmi_InputIPV4Addr()

```
int mmi_InputIPV4Addr (
            unsigned int DispLine,
            unsigned char * pucBuf,
            int timeOut )
```

input IP

Parameters

line	[in] vertical alignment
pucBuf	[in] buff address
timeOut	[in] timeout

Return values

SUCCESS	success
other	failure

3.9.2.30 mmi_InputPasswd()

```
int mmi_InputPasswd (
            unsigned int dispLine,
            unsigned int column,
            unsigned int inputType,
            unsigned char * pwdData,
            unsigned int minLen,
            unsigned int maxLen,
            unsigned int timeout )
```

input password

Parameters

dispLine	[in] vertical alignment
column	[in] horizontal alignment
inputType	[in] input methoed
pwdData	[in] buff address
minLen	[in] minimum len
maxLen	[in] maximum len
timeout	[in] timeout

Return values

SUCCESS	success
other	failure

3.9.2.31 mmi_inputString()

```
int mmi_inputString (
            unsigned int dispLine,
            unsigned int inputType,
            unsigned char * pBuff,
            int minLen,
            int maxLen,
            char * pucMask,
            unsigned int timeout )
```

input string

Parameters

dispLine	[in] vertical alignment
inputType	[in] input methoed
pBuff	[in] buff address
minLen	[in] minimum len
maxLen	[in] maximum len
pucMask	[in] Mask
timeout	[in] timeout

Return values

SUCCESS	success
other	failure

3.9.2.32 mmi_inputWaitKeypress()

```
int mmi_inputWaitKeypress (
            unsigned int timeout )
```

wait keypress, blocking mode

Return values

>	0 : keypress value
<=0	: timeout

3.9.2.33 printer_add_barcode()

```
int printer_add_barcode (
            ts_barcode_type barcode_type,
            int code_width,
            int code_height,
            const char * barcode_text )
```

add barcode data to printer cache
the text will be transfered to barcode

Parameters

in	*ts_barcode_type*	barcode_type
in	*int*	code_width
in	*int*	code_height
in	*const*	char∗ barcode_text

Return values

0	: success
!0	fail

3.9.2.34 printer_add_barcode_with_param()

```
int printer_add_barcode_with_param (
                 const ts_printer_para * p_printer_para,
                 ts_barcode_type barcode_type,
                 int code_width,
                 int code_height,
                 const char * barcode_text )
```

add barcode data to printer cache with param
the text will be transfered to barcode

Parameters

in	*const*	ts_printer_para ∗p_printer_para
in	*ts_barcode_type*	barcode_type
in	*int*	code_width
in	*int*	code_height
in	*const*	char∗ barcode_text

Return values

0	: success
!0	fail

3.9.2.35 printer_add_bmp()

```
int printer_add_bmp (
             const char * bmp_data,
             int bmp_data_len,
             int need_reverse )
```

add bmp data to printer cache

Parameters

bmp_data	[in] bmp data to be printed
bmp_data_len	[in] bmp data length
need_reverse	[in] int need_reverse

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.36 printer_add_bmp_path()

```
int printer_add_bmp_path (
             const char * bmp_path,
             int need_reverse )
```

add text data to printer cache

Parameters

bmp_path	[in] bmp file path to be printed
need_reverse	[in] int need_reverse

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.37 printer_add_bmp_path_with_param()

```
int printer_add_bmp_path_with_param (
             const ts_printer_para * p_printer_para,
             const char * bmp_path,
             int need_reverse )
```

add bmp file to printer cache with param

Parameters

p_printer_para	[in] pointer of ts_printer_para struct for setting value
bmp_path	[in] bmp file path to be printed
need_reverse	[in] int need_reverse

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.38 printer_add_bmp_with_param()

```
int printer_add_bmp_with_param (
             const ts_printer_para * p_printer_para,
             const char * bmp_data,
             int bmp_data_len,
             int need_reverse )
```

add bmp data to printer cache with param

Parameters

p_printer_para	[in] pointer of ts_printer_para struct for setting value
bmp_data	[in] bmp data to be printed
bmp_data_len	[in] bmp data length
need_reverse	[in] int need_reverse

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.39 printer_add_qrcode()

```
int printer_add_qrcode (
            int code_size,
            const char * qrcode_text )
```

add qrcode data to printer cache
the text will be transfered to qrcode

Parameters

in	*int*	code_size
in	*const*	char∗ qrcode_text

Return values

0	: success
!0	fail

3.9.2.40 printer_add_qrcode_with_param()

```
int printer_add_qrcode_with_param (
            const ts_printer_para * p_printer_para,
            int code_size,
            const char * qrcode_text )
```

add qrcode data to printer cache with param
the text will be transfered to qrcode

Parameters

in	*const*	ts_printer_para ∗p_printer_para
in	*int*	code_size
in	*const*	char∗ qrcode_text

Return values

0	: success
!0	fail

3.9.2.41 printer_add_text()

```
int printer_add_text (
            const char * text )
```

add text data to printer cache

Parameters

text	[in] text to be printed

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.42 printer_add_text_with_param()

```
int printer_add_text_with_param (
            const ts_printer_para * p_printer_para,
            const char * text )
```

add text data to printer cache with param

Parameters

p_printer_para	[in] pointer of ts_printer_para struct for setting value
text	[in] text to be printed

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.43 printer_check()

```
int printer_check (
            void )
```

check printer state

Return values

=0	: success
!0	: fail

3.9.2.44 printer_clear()

```
int printer_clear (
             void  )
```

clean printer cache

Return values

=0	: success
!0	: fail

3.9.2.45 printer_close()

```
int printer_close (
             void  )
```

close printer

Return values

=0	: success
!0	: fail

3.9.2.46 printer_feed()

```
int printer_feed (
             int point_lines )
```

printer feed paper

Parameters

point_lines	[in] >0:forward <0:rollback

Return values

=0	: success
!0	: fail

Precondition

none

3.9.2.47 printer_formblank()

```
int printer_formblank (
             const te_printer_align align_mode,
             char * dest,
             char *const src,
             const te_printer_fontsize nfont,
             const unsigned int available_dot )
```

printer_formblank

Parameters

align_mode	[in] align mode
dest	[out] in & out buff
src	[in] in buff
nfont	[in] font type
available_dot	[in] default value 384

Return values

=0	: success
!0	: fail

3.9.2.48 printer_get_para()

```
int printer_get_para (
             ts_printer_para * p_printer_para )
```

get printer parameter

Parameters

p_printer_para	[out] pointer of ts_printer_para struct for getting value

Return values

=0	: success
!0	: fail

Precondition

none

3.9.2.49 printer_get_status()

```
te_printer_status printer_get_status (
             void )
```

get printer status

Return values

printer	status

3.9.2.50 printer_open()

```
int printer_open (
             void )
```

open and init printer

Return values

=0	: success
!0	: fail

3.9.2.51 printer_print()

```
int printer_print (
             void )
```

start printing the data in the cache

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.52 printer_print_barcode()

```
int printer_print_barcode (
            ts_barcode_type barcode_type,
            int code_width,
            int code_height,
            const char * barcode_text )
```

print barcode
the text will be transfered to barcode

Parameters

in	*ts_barcode_type*	barcode_type
in	*int*	code_width
in	*int*	code_height
in	*const*	char∗ barcode_text

Return values

0	: success
!0	fail

3.9.2.53 printer_print_barcode_with_param()

```
int printer_print_barcode_with_param (
            const ts_printer_para * p_printer_para,
            ts_barcode_type barcode_type,
            int code_width,
            int code_height,
            const char * barcode_text )
```

print barcode with param
the text will be transfered to barcode

Parameters

in	*const*	ts_printer_para ∗p_printer_para
in	*ts_barcode_type*	barcode_type
in	*int*	code_width
in	*int*	code_height
in	*const*	char∗ barcode_text

Return values

0	: success
!0	fail

3.9.2.54 printer_print_bmp()

```
int printer_print_bmp (
             const char * bmp_data,
             int bmp_datalen,
             int need_reverse )
```

print bmp data

Parameters

bmp_data	[in] bmp data to be printed
bmp_datalen	[in] bmp data length
need_reverse	[in] int need_reverse

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.55 printer_print_bmp_path()

```
int printer_print_bmp_path (
             const char * bmp_path,
             int need_reverse )
```

print bmp file

Parameters

bmp_path	[in] bmp file path to be printed
need_reverse	[in] int need_reverse

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.56 printer_print_bmp_path_with_param()

```
int printer_print_bmp_path_with_param (
            const ts_printer_para * p_printer_para,
            const char * bmp_path,
            int need_reverse )
```

print bmp file with param

Parameters

p_printer_para	[in] pointer of ts_printer_para struct for setting value
bmp_path	[in] bmp file path to be printed
need_reverse	[in] int need_reverse

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.57 printer_print_bmp_with_param()

```
int printer_print_bmp_with_param (
            const ts_printer_para * p_printer_para,
            const char * bmp_data,
            int bmp_data_len,
            int need_reverse )
```

print bmp data with param

Parameters

p_printer_para	[in] pointer of ts_printer_para struct for setting value
bmp_data	[in] bmp data to be printed
bmp_data_len	[in] bmp data length
need_reverse	[in] int need_reverse

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.58 printer_print_qrcode()

```
int printer_print_qrcode (
             int code_size,
             const char * qrcode_text )
```

print qrcode
the text will be transfered to qrcode

Parameters

in	*int*	code_size
in	*const*	char∗ qrcode_text

Return values

0	: success
!0	fail

3.9.2.59 printer_print_qrcode_with_param()

```
int printer_print_qrcode_with_param (
             const ts_printer_para * p_printer_para,
             int code_size,
             const char * qrcode_text )
```

print qrcode with param
the text will be transfered to qrcode

Parameters

in	*const*	ts_printer_para ∗p_printer_para
in	*int*	code_size
in	*const*	char∗ qrcode_text

Return values

0	: success
!0	fail

3.9.2.60 printer_print_text()

```
int printer_print_text (
             const char * text )
```

print text data

Parameters

text	[in] text to be printed

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.61 printer_print_text_with_param()

```
int printer_print_text_with_param (
             const ts_printer_para * p_printer_para,
             const char * text )
```

print text data with param

Parameters

p_printer_para	[in] pointer of ts_printer_para struct for setting value
text	[in] text to be printed

Return values

=0	: success
!0	: fail

Precondition

printer_open or printer_set_para

3.9.2.62 printer_set_para()

```
int printer_set_para (
            ts_printer_para * p_printer_para )
```

set printer parameter

Parameters

p_printer_para	[in] pointer of ts_printer_para struct for setting value

Return values

=0	: success
!0	: fail

Precondition

none

3.9.2.63 UFile_CheckAllValidFiles()

```
int UFile_CheckAllValidFiles (
            DATA_FILE_INFO fileInfoList[ ],
            unsigned int fileCount )
```

check file exist of all

Parameters

fileInfoList	[in] file lists
fileCount	[in] number of files

Return values

FileRet	

3.9.2.64 UFile_CheckValidFile()

```
int UFile_CheckValidFile (
            unsigned int fileIndex )
```

check file exist

Parameters

fileIndex	[in] file index

Return values

FileRet	

3.9.2.65 UFile_ClearFile()

```
int UFile_ClearFile (
            const char * fileName )
```

clear file

Parameters

fileName	[in] file name

Return values

FileRet	

3.9.2.66 UFile_ClearFileIndexOf()

```
int UFile_ClearFileIndexOf (
            unsigned int fileIndex )
```

clear file

Parameters

fileIndex	[in] file index

Return values

FileRet	

3.9.2.67 UFile_GetErrCode()

```
int UFile_GetErrCode (
             void  )
```

get file error code

Return values

error	code

3.9.2.68 UFile_GetResource()

```
char* UFile_GetResource (
             char * sourceName,
             int * width,
             int * height )
```

get resource

Parameters

sourceName	[in] resource name
width	[out] resource width
heightth	[out] resource height

Return values

resource	data

3.9.2.69 UFile_ReadFile()

```
int UFile_ReadFile (
             const char * fileName,
             unsigned char * fileData,
             unsigned int fileSize )
```

read file

Parameters

fileName	[in] file name
fileData	[out] file pointer address
fileSize	[in] read size

Return values

FileRet	

3.9.2.70 UFile_ReadFileIndexOf()

```
int UFile_ReadFileIndexOf (
            unsigned int fileIndex )
```

read file

Parameters

fileIndex	[in] file index

Return values

FileRet	

3.9.2.71 UFile_ReadFileToMalloc()

```
int UFile_ReadFileToMalloc (
            const char * fileName,
            char ** fileData )
```

read file

Parameters

fileName	[in] file name
fileData	[out] file data pointer address

Return values

FileRet	

3.9.2.72 UFile_ReadRecord()

```
int UFile_ReadRecord (
             const char * fileName,
             unsigned int recordIndex,
             unsigned char * dat,
             int datLen )
```

read record

Parameters

fileName	[in] file name
recordIndex	[in] record index
dat	[out] file pointer address
datLen	[in] read data size

Return values

FileRet	

3.9.2.73 UFile_ReadRecordIndexOf()

```
int UFile_ReadRecordIndexOf (
             unsigned int fileIndex,
             unsigned int recordIndex )
```

read record

Parameters

fileName	[in] file name
recordIndex	[in] record index

Return values

FileRet	

3.9.2.74 UFile_RemoveFile()

```
int UFile_RemoveFile (
            const char * fileName )
```

remove file

Parameters

fileName	[in] file name

Return values

FileRet	

3.9.2.75 UFile_RemoveFileAll()

```
int UFile_RemoveFileAll (
            void  )
```

remove file of all

Return values

FileRet	

3.9.2.76 UFile_RemoveFileIndexOf()

```
int UFile_RemoveFileIndexOf (
            unsigned int fileIndex )
```

remove file

Parameters

fileIndex	[in] file index

Return values

FileRet	

3.9.2.77 UFile_SearchRecord()

```
int UFile_SearchRecord (
             const char * fileName,
             tsDBExec * pExec )
```

search record

Parameters

fileIndex	[in] file name
pExec	[in/out] file exec

Return values

FileRet	

3.9.2.78 UFile_SearchRecordIndexOf()

```
int UFile_SearchRecordIndexOf (
             unsigned int fileIndex,
             tsDBExec * pExec )
```

search record

Parameters

fileIndex	[in] file index
pExec	[in/out] file exec

Return values

FileRet	

3.9.2.79 UFile_WriteFile()

```
int UFile_WriteFile (
             const char * fileName,
             unsigned char * fileData,
             unsigned int fileSize )
```

write file

Parameters

fileName	[in] file name
fileData	[in] file pointer address
fileSize	[in] write data size

Return values

FileRet	

3.9.2.80 UFile_WriteFileIndexOf()

```
int UFile_WriteFileIndexOf (
             unsigned int fileIndex )
```

write file

Parameters

fileIndex	[in] file index

Return values

FileRet	

3.9.2.81 UFile_WriteRecord()

```
int UFile_WriteRecord (
             const char * fileName,
             unsigned int recordIndex,
             unsigned char * dat,
             int datLen )
```

write record

Parameters

fileName	[in] file name
recordIndex	[in] record index
dat	[in] file pointer address
datLen	[in] write data size

Return values

FileRet	

3.9.2.82 UFile_WriteRecordIndexOf()

```
int UFile_WriteRecordIndexOf (
            unsigned int fileIndex,
            unsigned int recordIndex )
```

write record

Parameters

fileIndex	[in] file index
recordIndex	[in] record index

Return values

FileRet	

3.10 macros

display related macros

Macros

- #define SCREEN_WIDTH (26)

  screen display biggest character
- #define DISP_ClearALL 255

  clear the screen

3.10.1 Detailed Description

display related macros

3.11 printer

printer related interface

Modules

- enum

  applib config related enum
- interface

  applib config related interface
- retval

  net communication related retval definition
- struct

  applib config related struct

3.11.1 Detailed Description

printer related interface

3.12 retval

net communication related retval definition

Macros

- #define COMMU_RET_OK (0)

  communication retval code definition
- #define COMMU_ERR_COMMU_MIN (-100)

  Communication fail error code definition.
- #define COMMU_ERR_NULL_ARG (COMMU_ERR_COMMU_MIN - 1)

  null parameter
- #define COMMU_ERR_COMMU_UNSET (COMMU_ERR_COMMU_MIN - 2)

  communication parameters unseted
- #define COMMU_ERR_UNCONNECTED (COMMU_ERR_COMMU_MIN - 3)

  unconnected
- #define COMMU_ERR_MODE (COMMU_ERR_COMMU_MIN - 4)

  communication type error
- #define COMMU_ERR_NET_UNAVAILABLE (COMMU_ERR_COMMU_MIN - 5)

  Network unavailable.
- #define COMMU_ERR_CREATE_THREAD (COMMU_ERR_COMMU_MIN - 6)

  create thread error
- #define COMMU_ERR_SOCKET_BREAK (COMMU_ERR_COMMU_MIN - 7)

  Socket disconnected.
- #define COMMU_ERR_HTTP_URL (COMMU_ERR_COMMU_MIN - 8)

  url is null
- #define COMMU_ERR_NEED_DISCONNECT (COMMU_ERR_COMMU_MIN - 9)

  need to call disconnect first
- #define COMMU_SET_ERR_MIN (-200)

  error code of set communication parameters failed
- #define COMMU_SET_ERR_SOCKET_TYPE (COMMU_SET_ERR_MIN - 2)

  Socket type error.
- #define COMMU_SET_ERR_ADDR_TYPE (COMMU_SET_ERR_MIN - 3)

  host addr error
- #define COMMU_SET_ERR_CACRT (COMMU_SET_ERR_MIN - 4)

  cacrt error
- #define COMMU_SET_ERR_HTTP_METHOD (COMMU_SET_ERR_MIN - 5)

  HTTP METHOD error.
- #define COMMU_SET_ERR_SERVER_ARG (COMMU_SET_ERR_MIN - 6)

  host ip or port error
- #define COMMU_SET_ERR_SWITCH_FLAG (COMMU_SET_ERR_MIN - 7)

  error of switch network parameter
- #define COMMU_SET_ERR_TIMEOUT (COMMU_SET_ERR_MIN - 8)

  error of receive timeout parameter
- #define COMMU_SET_ERR_MALLOC (COMMU_SET_ERR_MIN - 9)

  malloc failed
- #define COMMU_CONNECT_ERR_MIN (-300)

  error code of connection failed
- #define COMMU_CONNECT_ERR_HTTPSHAKE (COMMU_CONNECT_ERR_MIN - 1)

httpsInit failed

- #define COMMU_CONNECT_ERR_CREATE_SOCKET (COMMU_CONNECT_ERR_MIN - 2)

  create socket failed
- #define COMMU_CONNECT_ERR_CONNECT (COMMU_CONNECT_ERR_MIN - 3)

  connect host failed
- #define COMMU_CONNECT_ERR_HTTP_HEADER (COMMU_CONNECT_ERR_MIN - 4)

  set HTTP Header failed
- #define COMMU_CONNECT_ERR_HTTP_INIT (COMMU_CONNECT_ERR_MIN - 5)

  http init failed
- #define COMMU_CONNECT_ERR_ESTABLISH_SSL (COMMU_CONNECT_ERR_MIN - 6)

  ssl establish failed
- #define COMMU_SEND_ERR_MIN (-400)

  error code of sending failed
- #define COMMU_SEND_ERR (COMMU_SEND_ERR_MIN - 1)

  send failed
- #define COMMU_RECV_ERR_MIN (-500)

  error code of receiving failed
- #define COMMU_RECV_ERR (COMMU_RECV_ERR_MIN - 1)

  receive failed
- #define COMMU_RECV_TIMEOUT (COMMU_RECV_ERR_MIN - 2)

  receive timeout
- #define COMMU_RECV_ERR_SSL_CONNECT (COMMU_RECV_ERR_MIN - 3)

  ssl connect error
- #define COMMU_RECV_ERR_REMOTE_CLOSED (COMMU_RECV_ERR_MIN - 4)

  remote server close connection
- #define PRINTER_RET_OK (0)

  definition of printer retval code
- #define PRINTER_ERR_MIN (-1000)

  definition of printer fail error code
- #define PRINTER_ERR_NULL_ARG (PRINTER_ERR_MIN - 1)

  null parameter
- #define PRINTER_ERR_GET_INFO (PRINTER_ERR_MIN - 2)

  get printer information failure
- #define PRINTER_ERR_SET_DEFAULT_PARA (PRINTER_ERR_MIN - 3)

  set default printer parameter failure
- #define PRINTER_ERR_IN_PARA (PRINTER_ERR_MIN - 4)

  input parameter error
- #define PRINTER_ERR_SET_PARA (PRINTER_ERR_MIN - 5)

  set printerparameter failure
- #define PRINTER_ERR_CLEAR (PRINTER_ERR_MIN - 6)

  clean printer cache failure
- #define PRINTER_ERR_CLOSE (PRINTER_ERR_MIN - 7)

  close printer failure
- #define PRINTER_ERR_FEED (PRINTER_ERR_MIN - 8)

  printer feed paper error
- #define PRINTER_ERR_GET_PRINT_FONT (PRINTER_ERR_MIN - 9)

  get print font failure
- #define PRINTER_ERR_GET_BITMAP_DATA (PRINTER_ERR_MIN - 10)

  get bitmap data failure
- #define PRINTER_ERR_ARG_OVER_RANGE (PRINTER_ERR_MIN - 11)

  over range parameter

- #define PRINTER_ERR_GET_LAYOUT (PRINTER_ERR_MIN - 12)

  get print bar layout failure
- #define PRINTER_ERR_CACHE (PRINTER_ERR_MIN - 21)

  print error code
- #define PRINTER_ERR_NO_PAPER (PRINTER_ERR_MIN - 22)

  printer no paper
- #define PRINTER_ERR_OVERHEAT (PRINTER_ERR_MIN - 23)

  printer over heat
- #define PRINTER_ERR_BMARK (PRINTER_ERR_MIN - 24)

  printer bmark
- #define PRINTER_ERR_COMM (PRINTER_ERR_MIN - 25)

  printer communication error
- #define PRINTER_ERR_NO_PRINTER (PRINTER_ERR_MIN - 26)

  have no printer
- #define PRINTER_ERR_LOW_BATTERY (PRINTER_ERR_MIN - 27)

  low battery
- #define PRINTER_ERR_NO_FONT (PRINTER_ERR_MIN - 28)

  no print font lib
- #define PRINTER_ERR_NO_CACHE_MEMORY (PRINTER_ERR_MIN - 29)

  no cache memory
- #define PRINTER_ERR_CACHING (PRINTER_ERR_MIN - 30)

  printer is caching
- #define PRINTER_ERR_PRINTING (PRINTER_ERR_MIN - 31)

  printer is printing
- #define PRINTER_ERR_NO_BATTERY (PRINTER_ERR_MIN - 32)

  no battery

3.12.1 Detailed Description

net communication related retval definition

printer related retval

3.12.2 Macro Definition Documentation

3.12.2.1 COMMU_RET_OK

```
#define COMMU_RET_OK (0)
```

communication retval code definition

success

3.12.2.2 PRINTER_ERR_CACHE

```
#define PRINTER_ERR_CACHE (PRINTER_ERR_MIN - 21)
```

print error code

print cache data exception

3.12.2.3 PRINTER_RET_OK

```
#define PRINTER_RET_OK (0)
```

definition of printer retval code

success

3.13 struct

applib config related struct

Data Structures

- struct tsAppLibParm

  struct definition of application attribute
- struct SERVER_PARA_STRU

  sever parameter structure definition
- struct SOCKET_PARA_STRU

  socket parameter structure definition
- struct CACRT_PARA_STRU

  https parameter structure definition
- struct COMMU_PARA_STRU

  Communication parameter structure definition.
- struct HTTP_SEND_PARA_STRU

  send parameter structure definition
- struct tsDispParam

  struct definition of display param
- struct ts_printer_para

  struct definition of printer parameter
- struct DATA_FILE_INFO
- struct _DB_EXEC

Typedefs

- typedef struct SERVER_PARA_STRU SERVER_PARA

  sever parameter structure definition
- typedef struct SOCKET_PARA_STRU SOCKET_PARA

  socket parameter structure definition
- typedef struct CACRT_PARA_STRU CACRT_PARA

  https parameter structure definition
- typedef void(∗ commu_display) (const int rest_time)

  callback function for display receiving countdown time
- typedef struct COMMU_PARA_STRU COMMU_PARA

  Communication parameter structure definition.
- typedef void(∗ commu_set_http_header) (const HTTP_MODE_CTX ∗hmc)

  callback function for setting headers of
  http or https parameters
  implemented by caller.
- typedef struct HTTP_SEND_PARA_STRU HTTP_SEND_PARA

  send parameter structure definition
- typedef struct _DB_EXEC tsDBExec

Enumerations

- enum DISP_VAlign {
  DISP_Line1 = 1, DISP_Line2 = 2, DISP_Line3 = 3, DISP_Line4 = 4,
  DISP_Line5 = 5, DISP_Line6 = 6, DISP_Top = 0xE0, DISP_Bottom = 0xE1,
  DISP_Bottom2 = 0xE2, DISP_VCenter = 0xE3 }

  enum definition of display vertical alignment
- enum DISP_HAlign { DISP_Left = 0xE0, DISP_Right = 0xE1, DISP_HCenter = 0xE2 }

  enum definition of display horizontal alignment
- enum ts_barcode_type {
  BARCODE_TYPE_ANY, BARCODE_TYPE_CODE128, **BARCODE_TYPE_CODE39**, **BARCODE_TYPE_CODE93**,
  BARCODE_TYPE_CODE11, **BARCODE_TYPE_MSI**, **BARCODE_TYPE_I25**, **BARCODE_TYPE_EAN8**,
  BARCODE_TYPE_EAN13, **BARCODE_TYPE_UPCA**, **BARCODE_TYPE_UPCE**, **BARCODE_TYPE_CODABAR** }
- enum DATA_FILE_ATTR { DBA_RFile = 0, DFA_DataDB, DFA_RecordDB }
- enum FileRet {
  UFILE_UPDATE_FAIL = -11, UFILE_NO_EXIST = -10, UFILE_PARAERROR = -9, UFILE_NO_RECORD = -8,
  UFILE_REMOVE_FAIL = -7, UFILE_CLOSE_FAIL = -6, UFILE_DELETE_FAIL = -5, UFILE_READ_FAIL = -4,
  UFILE_WRITE_FAIL = -3, UFILE_CREATE_FAIL = -2, UFILE_OPEN_FAIL = -1, UFILE_SUCCESS = 0 }

3.13.1 Detailed Description

applib config related struct

applib file IO related enum

printer related struct

display related struct

net communication related struct definition

3.13.2 Typedef Documentation

3.13.2.1 commu_display

```
typedef void(* commu_display) (const int rest_time)
```

callback function for display receiving countdown time

```
void display_timeout(const int rest_time) {
    mmi_display(DISP_LINE3, DISP_Right, "%d", rest_time);
}
```

3.13.2.2 commu_set_http_header

```
typedef void(* commu_set_http_header) (const HTTP_MODE_CTX *hmc)
```

callback function for setting headers of
http or https parameters
implemented by caller.

Parameters

hmc	[in] http handle for httpHeadPar(hmc, ...) of sdk api

Return values

=0	: success
!0	: fail

3.13.2.3 tsDBExec

```
typedef struct _DB_EXEC tsDBExec
```

file error code

3.13.3 Enumeration Type Documentation

3.13.3.1 DATA_FILE_ATTR

```
enum DATA_FILE_ATTR
```

Enumerator

DBA_RFile	file type (read)
DFA_DataDB	trans db (read/write)
DFA_RecordDB	trans data table (read/write)

3.13.3.2 DISP_HAlign

```
enum DISP_HAlign
```

enum definition of display horizontal alignment

Enumerator

DISP_Left	to left
DISP_Right	to right
DISP_HCenter	to horizontal center

3.13.3.3 DISP_VAlign

```
enum DISP_VAlign
```

enum definition of display vertical alignment

Enumerator

DISP_Line1	line 1
DISP_Line2	line 2
DISP_Line3	line 3
DISP_Line4	line 4
DISP_Line5	line 5
DISP_Line6	line 6
DISP_Top	to top
DISP_Bottom	to buttom
DISP_Bottom2	to buttom 2
DISP_VCenter	to vertical center

3.13.3.4 FileRet

```
enum FileRet
```

Enumerator

UFILE_UPDATE_FAIL	update file fail
UFILE_NO_EXIST	file exist
UFILE_PARAERROR	param error
UFILE_NO_RECORD	record no find
UFILE_REMOVE_FAIL	remove file fail
UFILE_CLOSE_FAIL	close file fail
UFILE_DELETE_FAIL	delete file record fail
UFILE_READ_FAIL	read file fail
UFILE_WRITE_FAIL	write file fail
UFILE_CREATE_FAIL	file create fail
UFILE_OPEN_FAIL	file open fail
UFILE_SUCCESS	success

3.13.3.5 ts_barcode_type

```
enum ts_barcode_type
```

brief enum definition of barcode type

Enumerator

BARCODE_TYPE_ANY	self-adaption
BARCODE_TYPE_CODE128	recommended

Chapter 4

Data Structure Documentation

4.1 _DB_EXEC Struct Reference

Data Fields

- unsigned char exitLoop
- unsigned int **count**
- unsigned int **currIndex**
- unsigned char ∗ **recordData**
- unsigned int **recordDataSize**
- unsigned char ∗ **inData**
- unsigned char ∗ **outData**
- int(∗ **execFunc**)(struct _DB_EXEC ∗pExec)

4.1.1 Field Documentation

4.1.1.1 exitLoop

```
unsigned char exitLoop
```

flag: exit exec loop

4.2 CACRT_PARA_STRU Struct Reference

https parameter structure definition

```
#include <mmi_commu.h>
```

Data Fields

- char ∗ p_cacrt
- int cacrt_len

4.2.1 Detailed Description

https parameter structure definition

4.2.2 Field Documentation

4.2.2.1 cacrt_len

```
int cacrt_len
```

ca crt length

4.2.2.2 p_cacrt

```
char* p_cacrt
```

ca crt

4.3 COMMU_PARA_STRU Struct Reference

Communication parameter structure definition.

```
#include <mmi_commu.h>
```

Data Fields

- COMMU_MODE commu_mode
- int is_auto_switch_net
- int commu_timeout
- SERVER_PARA server_para
- SOCKET_PARA socket_para
- CACRT_PARA cacrt_para
- commu_display display_timeout

4.3.1 Detailed Description

Communication parameter structure definition.

4.3.2 Field Documentation

4.3.2.1 cacrt_para

```
CACRT_PARA cacrt_para
```

ca crt para

4.3.2.2 commu_mode

```
COMMU_MODE commu_mode
```

communication mode

4.3.2.3 commu_timeout

```
int commu_timeout
```

the time of recv data timeout(>= 5)

4.3.2.4 display_timeout

```
commu_display display_timeout
```

display receiving countdown time,http/s unsupported

4.3.2.5 is_auto_switch_net

```
int is_auto_switch_net
```

auto switch net GPRS or WIFI, 0-NO 1-YES

4.3.2.6 server_para

```
SERVER_PARA server_para
```

remote server para

4.3.2.7 socket_para

```
SOCKET_PARA socket_para
```

socket communication para

4.4 DATA_FILE_INFO Struct Reference

Data Fields

- unsigned short fileVer

  version(+1 while changed)
- DATA_FILE_ATTR **attr**
- char **fileName** [30]
- unsigned char ∗ **fileData**
- unsigned int **fileSize**
- int(∗ **loadDefData**)(unsigned int fileIndex)

4.5 HTTP_SEND_PARA_STRU Struct Reference

send parameter structure definition

```
#include <mmi_commu.h>
```

Data Fields

- HTTP_METHOD http_method
- char ∗ http_url
- int http_url_len
- int is_keep_alive
- commu_set_http_header set_http_header

4.5.1 Detailed Description

send parameter structure definition

4.5.2 Field Documentation

4.5.2.1 http_method

```
HTTP_METHOD http_method
```

http request type

4.5.2.2 http_url

```
char* http_url
```

http url

4.5.2.3 http_url_len

```
int http_url_len
```

http url length

4.5.2.4 is_keep_alive

```
int is_keep_alive
```

http keep alive flag(1-yes,0-no)

4.5.2.5 set_http_header

```
commu_set_http_header set_http_header
```

set http header call back function pointer

4.6 SERVER_PARA_STRU Struct Reference

sever parameter structure definition

```
#include <mmi_commu.h>
```

Data Fields

- char host [128]
- unsigned short port

4.6.1 Detailed Description

sever parameter structure definition

4.6.2 Field Documentation

4.6.2.1 host

```
char host[128]
```

server address: IP or DOMAIN

4.6.2.2 port

```
unsigned short port
```

server port

4.7 SOCKET_PARA_STRU Struct Reference

socket parameter structure definition

```
#include <mmi_commu.h>
```

Data Fields

- SOCKET_TYPE socket_type
- ADDR_TYPE addr_type

4.7.1 Detailed Description

socket parameter structure definition

4.7.2 Field Documentation

4.7.2.1 addr_type

```
ADDR_TYPE addr_type
```

server address type, IP or DOMAIN

4.7.2.2 socket_type

```
SOCKET_TYPE socket_type
```

socket type, UDP or TCP

4.8 ts_printer_para Struct Reference

struct definition of printer parameter

```
#include <mmi_printer.h>
```

Data Fields

- te_printer_fontsize fontSize

  print font size
- te_printer_effect fontEffect

  print effect
- int lineSpace

  print line spacing (>= 0)
- te_printer_align printAlign

  print align mode
- int printGray

  print gray level(heat time.Value range:1800-5000)
- te_printer_heat_point printHeatpoint

  print heat point
- int printStep

  print step delay time(Value range:600-1200)

4.8.1 Detailed Description

struct definition of printer parameter

4.9 tsAppLibParm Struct Reference

struct definition of application attribute

```
#include <applib.h>
```

Data Fields

- CUSTOMER_TYPE customerType

  customer type
- char ∗ appVersion

  application version
- unsigned char bChargingFeature

  attribute of battery(0-none, 1-have)
- int fontColor

  font color
- int fontbackgroundColor

  background color of font
- int backgroundColor

  theme background color
- int barbroundColor

  status bar background color
- char ∗ backgroundImg

  pointer of background picture
- void(∗ networkInit)(void)

  Custom network initialization.

4.9.1 Detailed Description

struct definition of application attribute

4.10 tsDispParam Struct Reference

struct definition of display param

```
#include <mmi_display.h>
```

Data Fields

- unsigned int alignL
- int backgroundColor
- int color
- int fontBackgroundColor

4.10.1 Detailed Description

struct definition of display param

4.10.2 Field Documentation

4.10.2.1 alignL

```
unsigned int alignL
```

horizontal center

4.10.2.2 backgroundColor

```
int backgroundColor
```

background color

4.10.2.3 color

```
int color
```

font color

4.10.2.4 fontBackgroundColor

```
int fontBackgroundColor
```

font background color

4.11 tsInputMethodParam Struct Reference

Data Fields

- unsigned int displayLine
- unsigned char displayColumn
- unsigned char defInputMethod
- unsigned char inputMethodGroup
- unsigned int waitTimeout
- unsigned char **formatChar**

4.11.1 Field Documentation

4.11.1.1 defInputMethod

```
unsigned char defInputMethod
```

default input method

4.11.1.2 displayColumn

```
unsigned char displayColumn
```

horizontal alignment

4.11.1.3 displayLine

```
unsigned int displayLine
```

display lines

4.11.1.4 inputMethodGroup

```
unsigned char inputMethodGroup
```

input method group

4.11.1.5 waitTimeout

```
unsigned int waitTimeout
```

wait timeout