Quick Reference

High Level Language
Application Program Interface

Communications Family

IBM

74X9881

Function Summary

Information about the calling conventions for individual functions is provided below. For information about interpreting returned information, refer to your EEHLLAPI book.

Name	Description
Connect Presentation Space	Establishes a connection between your EEHLLAPI program and a specified presentation space.
Convert Position or RowCol	Converts a presentation space positional value into the display row/column coordinates, or vice versa.
Copy Field to String	Transfers characters in the connected field-formatted host presentation space into a string beginning at the specified PS position.
Copy OIA	Returns the OIA data from the connected host presentation space.
Copy Presentation Space	Copies the contents of the connected host presentation space into a data area that you define in your EEHLLAPI program.
Copy Presentation Space to String	Copies all or part of the connected host presentation space into a data area that you define in your EEHLLAPI program.
Copy String to Field	Transfers a string of characters into a specified field in the connected field-formatted host presentation space.
Copy String to Presentation Space	Copies an ASCII data string directly into the connected host presentation space at the location specified by the "PS Position" calling parameter.
Disconnect Presentation Space	Drops the connection between your EEHLLAPI program and the connected presentation space.

Function Number	Required Parameters
1	*Data String:* 1 character short name of host PS

99	*Data String:* presentation space short name and
	        P for convert position
	        R for convert row/col
	Length: = row
	PS Position: = Col or PS position

34	*Data String:* target *Length:* length of the target data string *PS Position:* position in the source field in the PS from which to copy
13	*Data String:* target *Length:* must be 103
5	*Data String:* preallocated target size of your PS
8	*Data String:* maximum 255 for Interpretive BASIC *Length:* of the target data string *PS Position:* start of copy position
33	*Data String:* data to be transferred *Length:* of the data string or EOT *PS Position:* of the target field
15	*Data String:* string of ASCII data to be copied into the presentation space *Length:* length of the data string or EOT *PS Position:* position in PS to begin copy where row 1/column 1 = 1
2	None

Name	Description
Find Field Length	Returns the length of the target field in the field-formatted host presentation space.
Find Field Position	Returns the beginning position of a target field in the field-formatted host presentation space.
Pause	Waits a specified amount of time. May be ended by a host event if Function 23 **Start Host Notification** was called prior to calling Pause.
Query Cursor Location	Indicates the position of the cursor in the connected host presentation space.
Query Field Attribute	Returns the attribute byte of the field containing the presentation space position in the connected host presentation space.
Query Host Update	Lets your EEHLLAPI program determine if the host has updated the PS/OIA since the last time this request was made.
Query Session Status	Returns host session-specific information.

Function Number	Required Parameters
32	*Data String:* Two bytes, one of the following: Blanks or "T " This field "P " Previous protected or unprotected field "N " Next protected or unprotected field "NP" Next protected field "NU" Next unprotected field "PP" Previous protected field "PU" Previous unprotected field *PS Position:* within the presentation space from which to start the Find
31	*Data String:* Two bytes, one of the following: Blanks or "T " This field "P " Previous protected or unprotected field "N " Next protected or unprotected field "NP" Next protected field "NU" Next unprotected field "PP" Previous protected field "PU" Previous unprotected field *PS Position:* relative to the origin in the presentation space from which to start the Find
18	*Data Length:* the pause duration in half-second increments
7	None
14	*PS Position:* position in the connected host PS
24	*Data String:* short name of the target presentation space
22	*Data String:* short name of the target presentation space *Length:* 18 bytes

Name	Description
Query Sessions	Returns number of host sessions.
Query System	Lets your EEHLLAPI program determine the level of Entry Level Emulation Program support and other system-related values.
Receive File	Lets you receive a file from the host session to the PC session.
Release	Unlocks a host presentation space that has been reserved using Function 11 **Reserve**.
Reserve	Locks the connected host presentation space to prevent input from the terminal operator.
Reset System	Reinitializes EEHLLAPI and resets system parameters to the defaults.
Search Field	Examines a field within the host connected presentation space for the occurrence of a string and returns the decimal number of the location (where row 1/column 1 = 1).
Search Presentation Space	Lets your EEHLLAPI program examine the connected host presentation space for the occurrence of a specified string.
Send File	Lets you send a file from the PC session where EEHLLAPI is running to a host session.

Function Number	Required Parameters
10	*Data String:* preallocated string of 12 bytes for each available session type. (Entry Emulator has only one session and requires 12 bytes. If your program is also run with a 3270 Workstation Program, there can be up to 12 sessions or 144 bytes.) *Length:* 12 to 144 bytes
20	*Data String:* preallocated string of 35 bytes
91	*Data String:* the same receive parameters as are usual for the PC file transfer request *Length:* length of the data string or an EOT in the data string *PS Position:* drive number where receive.com is located, where 1 = A, 2 = B, etc.
12	None
11	None
21	None
30	*Data String:* target string for the search *Length:* of the target string or an EOT in the data string *PS Position:* position within the host presentation place where the search is to begin. Valid only if SRCHFROM parameter had been specified using Function 9 Set Session Parameters.
6	*Data String:* target string of the Search *Length:* of the target string or an EOT in the data string *PS Position:* position within the host presentation space where the search is to begin. Valid only if SRCHFROM parameter has been specified using Function 9 Set Session Parameters.
90	*Data String:* the same send parameters as are usual for the PC file transfer request *Length:* length of the data string or an EOT in the data string *PS Position:* drive number where send.com is located, where 1 = A, 2 = B, etc.

Name	Description
Send Key	Sends a string of keystrokes to the connected host presentation space.
Set Session Parameters	Lets you change the default session options in EEHLLAPI.
Start Host Notification	Begins the process by which your EEHLLAPI program determines if the host presentation space and/or the host OIA has been updated. It also enables the designated host to end a Pause.
Stop Host Notification	Disables the capability of Function 24 **Start Host Update** to determine if the host OIA/PS has been updated. Also stops host events from the designated host from affecting the Pause function.
Storage Manager	Used to allocate or deallocate queue storage for function 23 **Start Host Notification**.
Wait	Checks the status of the connected host presentation space. If XCLOCK or XSYSTEM, then EEHLLAPI.EXE waits one minute for the condition to clear.

Function Number	Required Parameters
3	*Data String:* a string of keystrokes, maximum length 255 characters; refer to **Mnemonics for Function 3 Send Key** on the back of this card *Length:* of the data string or EOT at end of data string if in EOT mode.
9	*Data String:* string containing the session parameters; See **Parameter List for Function 9 Set Sessions Parameters** on the back of this card *Length:* explicit length of the data string; no EOT
23	*Data String:* (6-byte string containing the PS ID + : B for both + the 4-byte address of a preallocated buffer *Length:* the length of the host event buffer; 256 is recommended
25	*Data String:* short name of the target presentation space

17	*Get Storage:*
	  Data String: preallocated to 4 bytes
	  Length: size (in bytes) of the requested storage area
	  PS Position: 01
	Free Storage:
	  Data String: preallocated to 4 bytes
	  Length: ID of the storage block to be freed
	  PS Position: 02
	Free All Storage:
	  Data String: preallocated to 4 bytes
	  Length: N/A
	  PS Position: 04

4	None

Parameters List for Function 9 Set Session Parameters

The following tables summarize sets of parameters that you can specify using Function 9 **Set Session Parameters**. The default in each set is underlined. Parameters in the calling data string are separated by blanks or commas. The functions that each parameter affects are listed with the parameters.

Parameter	Explanation	Functions
CONPHYS	During a Connect, jump to the requested presentation space (Do a physical connect). During a Disconnect, jump to the PC session where the EEHLLAPI application program is running (Do a physical disconnect).	Connect and Disconnect Presention Space functions (1 and 2).
<u>CONLOG</u>	During a Connect, do not jump to the requested presentation space (Do a logical connect). During a Disconnect, do not jump to the PC session, stay at the current presentation space - could be at the Host or PC (Do a logical disconnect).	Connect and Disconnect Presention Space functions (1 and 2).

Parameter	Explanation	Functions
ATTRB	Pass back all codes that do not have an ASCII equivalent as their original values.	Copy functions (5, 8, 13, 15, 33, 34)
<u>NOATTRB</u>	Convert all unknown values to blanks.	Copy functions (5, 8, 13, 15, 33, 34)

Parameter	Explanation	Functions
STRLEN	An explicit length will be passed for all strings.	Copy functions (5, 8, 13, 15, 33, 34)
STREOT	String lengths are not explicitly coded. String lengths are terminated with an EOT (End of Text) character.	Copy functions (5, 8, 13, 15, 33, 34)

Parameter	Explanation	Functions
EOT = n	Allows you to specify the EOT character for string terminators (in STREOT mode). Binary zero is the default. Do not leave a blank after the equals sign.	Copy functions (5, 8, 13, 15, 33, 34) Functions 90, 91

Parameter	Explanation	Functions
AUTORESET	The application will attempt to reset all inhibited conditions by prefixing all strings of keys sent using Function 3 **Send Key** with a reset.	3
NORESET	Do not AUTORESET.	3

Parameter	Explanation	Functions
ESC = n	Specify the escape character for keystroke mnemonics (@ is the default). Do not leave a blank after the equals sign. Blank is not a valid character.	3

Parameter	Explanation	Functions
SRCHALL	SEARCH will scan the entire presentation space.	Search functions (6, 30)
SRCHFROM	SEARCH will start from a specified beginning position.	Search functions (6, 30)

Parameter	Explanation	Functions
SRCHFRWD	SEARCH will be performed in an ascending direction.	Search functions (6, 30)
SRCHBKWD	SEARCH will be performed in a descending direction. A SEARCH will be satisfied if the first character of the requested string starts within the bounds specified for the SEARCH.	Search functions (6, 30)

Parameter	Explanation	Functions
TRON	Turns trace on.	Trace
TROFF	Turns trace off. The trace function may conflict with messages on the screen from languages or applications that manage their own displays. For more information about Trace messages, refer to Appendix A in your EEHLLAPI book.	Trace

Parameter	Explanation	Functions
TWAIT	WAIT will wait up to a minute before timing out on XCLOCK or XSYSTEM.	4
LWAIT	WAIT will wait until XCLOCK/XSYSTEM clears. **Note:** This option is not recommended since control does not return to your application until the host is available	4
NWAIT	WAIT checks status and returns immediately (no wait)	4

Parameter	Explanation	Functions
FPAUSE	Full-duration pause.	18
IPAUSE	Interruptible pause. Function 23 **Start Host Notification** and a host event will satisfy a Pause.	18

Parameter	Explanation	Functions
QUIET	To keep SEND and RECEIVE messages from being displayed. EEHLLAPI will keep track of the message number and discard the message.	90, 91
NOQUIET	To restore the display of messages.	90, 91

Parameter	Explanation	Functions
TIMEOUT = N	A one-character indicator from the table below will tell EEHLLAPI how many 30 second cycles (how many messages with TRANS010) it should accept before issuing a CTRL + BREAK itself. ``` Character Character Value (in Value (in minutes) minutes) 1 .5 8 4.0 2 1.0 9 4.5 3 1.5 J 5.0 4 2.0 K 5.5 5 2.5 L 6.0 6 3.0 M 6.5 7 3.5 N 7.0 ```	90, 91
TIMEOUT = 0	Timeout messages will be displayed every 30 seconds until the operator presses CTRL + BREAK (these messages would not be visible in the QUIET mode). This is standard for operator usage of SEND and RECEIVE.	90, 91

Mnemonics for Function 3

This set of keyboard mnemonics is provided to allow you to use ASCII characters to represent the special function keys of the PC keyboard when using Function 3 **Send Key**. Note that the upper and lower case alphabetic characters are mnemonic abbreviations for different keys.

@B Backtab   @I Insert   @T Tab
@C Clear   @L Cursor Left   @U Cursor Up
@D Delete   @N New Line   @V Cursor Down
@E Enter   @P Print   @Z Cursor Right
@F Erase EOF   @R Reset.

@0 Home   @7 PF7   @e PF14   @l PF21
@1 PF1   @8 PF8   @f PF15   @m PF22
@2 PF2   @9 PF9   @g PF16   @n PF23
@3 PF3   @a PF10   @h PF17   @o PF24
@4 PF4   @b PF11   @i PF18   @x PA1
@5 PF5   @c PF12   @j PF19   @y PA2
@6 PF6   @d PF13   @k PF20

@A@C - Test   @A@d - Doc Mode
@A@D - Word Delete   @A@e - Wrap
@A@F - Erase Input   @A@f - Change Format
@A@H - System Request @A@m - Cursor Position
@A@I - Alt + Insert   @S@x - DUP
@A@J - Cursor Select   @S@y - Field Mark
@A@P - Ident
@A@Q - Attention
@A@R - Device Cancel

EEHLLAPI Functions (by number)