

keyboard

COLLABORATORS

	<i>TITLE :</i> keyboard		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY		March 28, 2025	

REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

1	keyboard	1
1.1	keyboard.doc	1
1.2	keyboard.device/CMD_CLEAR	1
1.3	keyboard.device/CMD_RESET	1
1.4	keyboard.device/KBD_ADDRESETHANDLER	2
1.5	keyboard.device/KBD_READEVENT	2
1.6	keyboard.device/KBD_READMATRIX	3
1.7	keyboard.device/KBD_REMRESETHANDLER	3
1.8	keyboard.device/KBD_RESETHANDLERDONE	4

Chapter 1

keyboard

1.1 keyboard.doc

CMD_CLEAR	KBD_READEVENT	KBD_RESETHANDLERDONE
CMD_RESET	KBD_READMATRIX	
KBD_ADDRESETHANDLER	KBD_REMRESETHANDLER	

1.2 keyboard.device/CMD_CLEAR

NAME

CMD_CLEAR - clear keyboard input buffer

FUNCTION

Remove from the input buffer any keys transitions waiting to satisfy read requests.

IO REQUEST

io_Message	mn_ReplyPort set if quick I/O is not possible
io_Device	preset by the call to OpenDevice
io_Command	CMD_CLEAR
io_Flags	IOB_QUICK set if quick I/O is possible

1.3 keyboard.device/CMD_RESET

NAME

CMD_RESET - reset the keyboard

FUNCTION

CMD_RESET resets the keyboard device without destroying handles to the open device.

IO REQUEST

io_Message	mn_ReplyPort set if quick I/O is not possible
io_Device	preset by the call to OpenDevice
io_Command	CMD_RESET
io_Flags	IOB_QUICK set if quick I/O is possible

1.4 keyboard.device/KBD_ADDRESETHANDER

NAME

KBD_ADDRESETHANDER - add a reset handler to the device

FUNCTION

Add a function to the list of functions called to clean up before a hard reset:

```
    Handler(handlerData);
    A1
```

Note that the A500 does not support this. CTRL-Amiga-Amiga on an A500 does an immediate hard processor reset.

IO REQUEST

io_Message	mn_ReplyPort set
io_Device	preset by OpenDevice
io_Unit	preset by OpenDevice
io_Command	KBD_ADDRESETHANDLER
io_Data	a pointer to an interrupt structure.
is_Data	the handlerData pointer described above
is_Code	the Handler function address

NOTES

The interrupt structure is kept by the keyboard device until a KBD_REMRESETHANDLER command is satisfied for it.

1.5 keyboard.device/KBD_READEVENT

NAME

KBD_READEVENT - return the next keyboard event.

FUNCTION

Read raw keyboard events from the keyboard and put them in the data area of the ioRequest. If there are no pending keyboard events, this command will not be satisfied, but if there are some events, but not as many as can fill IO_LENGTH, the request will be satisfied with those currently available.

IO REQUEST

io_Message	mn_ReplyPort set if quick I/O is not possible
io_Device	preset by the call to OpenDevice
io_Command	KBD_READEVENT
io_Flags	IOB_QUICK set if quick I/O is possible
io_Length	the size of the io_Data area in bytes: there are sizeof(inputEvent) bytes per input event.
io_Data	a buffer area to fill with input events. The fields of the input event are:
ie_NextEvent	links the events returned
ie_Class	is IECLASS_RAWKEY
ie_Code	contains the next key up/down reports

ie_Qualifier
 only the shift and numeric pad bits are set
 ie_SubClass, ie_X, ie_Y, ie_TimeStamp
 are not used, and set to zero

RESULTS

This function sets the error field in the IORequest, and fills the IORequest with the next keyboard events (but not partial events).

1.6 keyboard.device/KBD_READMATRIX

NAME

KBD_READMATRIX - read the current keyboard key matrix

FUNCTION

This function reads the up/down state of every key in the key matrix.

IO REQUEST

io_Message	mn_ReplyPort set if quick I/O is not possible
io_Device	preset by the call to OpenDevice
io_Command	KBD_READMATRIX
io_Flags	IOB_QUICK set if quick I/O is possible
io_Length	the size of the io_Data area in bytes: this must be big enough to hold the key matrix.
io_Data	a buffer area to fill with the key matrix: an array of bytes whose component bits reflect each keys state: the state of the key for keycode n is at bit (n MOD 8) in byte (n DIV 8) of this matrix.

NOTE

For V1.2/V1.3 Kickstart, io_Length must be set to exactly 13 bytes.

RESULTS

This function sets the error field in the IORequest, and sets matrix to the current key matrix.

1.7 keyboard.device/KBD_REMRESETHANDLER

NAME

KBD_REMRESETHANDLER - remove a reset handler from the device

FUNCTION

Remove a function previously added to the list of handler functions.

IO REQUEST

io_Message	mn_ReplyPort set
io_Device	preset by OpenDevice
io_Unit	preset by OpenDevice

io_Command	KBD_REMRESETHANDLER
io_Data	a pointer to the handler interrupt structure.

1.8 keyboard.device/KBD_RESETHANDLERDONE

NAME

KBD_RESETHANDLERDONE - indicate that reset can occur

FUNCTION

Indicate that reset cleanup associated with the handler has completed.

IO REQUEST

io_Message	mn_ReplyPort set
io_Device	preset by OpenDevice
io_Unit	preset by OpenDevice
io_Command	KBD_RESETHANDLERDONE
io_Data	a pointer to the handler interrupt structure.
