

1. General Device Interface

The printer driver is a very simple device which just sends characters to a printer (or other device) using the built in centronics type parallel interface.

Only one channel at a time may be open to the printer driver, if an attempt is made to open a second channel then an error (.2NDCH) will be returned. A channel can be opened by giving the device name "PRINTER:", any filename or unit number is ignored.

Having opened a channel characters can be written using either the single character write or the block write function call. The characters will be sent without any interpretation at all, and all 8 bits are sent.

2. Hardware Details

The hardware consists of one eight bit output port for the parallel data (port 0B6h), one other output bit for a data strobe (bit 4 of port 0B7h) and one input bit as a ready signal (bit 3 of port 0B6h).

To send a byte the printer driver outputs the character to the data port and then waits until the ready signal goes low. When the ready signal is low it strobos the data by setting the data strobe low for a few microseconds and then setting it high again (it is normally high when not in use). This completes the sending of a character.

The other bits of output port 0B5h are used for various control operations such as scanning the keyboard, and controlling remote control relays. A variable (PORTB5) which is at a fixed address defines the current state of this port and the printer driver ensures that all other bits of the port are maintained in their correct state.

3. Quick Reference Summary - EXOS calls

OPEN/CREATE CHANNEL	- Treated identically. Only one channel. Device name "PRINTER:". Filename and unit number ignored. No EXOS variables to be set before open.
CLOSE/DESTROY CHANNEL	- Treated identically.
READ CHARACTER/BLOCK	- Not supported.
WRITE CHARACTER/BLOCK	- Writes bytes without interpretation.
READ STATUS	- Not supported.
SET STATUS	- Not supported.
SPECIAL FUNCTION	- No special functions.

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