

CLARION TECHNICAL BULLETIN

Bulletin #114

Alternate Printing Devices

Overview

This document explains how to print reports to devices other than LPT1 using the DEVICE attribute and DOS PRINT.COM. Examples are included for both of these topics.

Alternate Printing Devices

Printing Reports To Devices Other Than LPT1

Alternate printing devices can be defined in a Clarion report by specifying the DEVICE attribute in your REPORT structure. The DEVICE attribute may be a DOS device name (LPT1, LPT2, CON, COM1, etc.) or a filename (e.g., YEAR_END.RPT). It may be hard-coded (fixed) to always print to the same device/filename, or it may be a string variable which displays a prompt for the entry of the name of the printing device.

Example of a FIXED device on a report:

```
MYREPORT    REPORT    WIDTH(80),DEVICE('LPT2')
```

Example of a VARIABLE device on a report:

```
DEVICENAME    STRING(20)
MYREPORT      REPORT    WIDTH(80),DEVICE(DEVICENAME)
```

Using DOS PRINT.COM For Printing To A Device Other Than LPT1

When you initially run PRINT.COM, the program prompts you for the name of the printing device to be used. The default value for this entry is "PRN," the first parallel port. You have the option, however, of specifying any DOS device (LPT2, COM1, etc.) and this device will be always used by PRINT.COM.

Unfortunately, there is a drawback to using this option. When a device is specified, PRINT.COM does not allow you to name a different device (short of rebooting your computer). However, there is a little trick that may work if you are only concerned with changing between two serial or two parallel printers. It is accomplished by changing the values of the port address stored in DOS's data area. The Clarion program example (shown below) illustrates this concept:

```
COM1    EQUATE(00400000H)    !ADDRESS OF COM1 PORT
COM2    EQUATE(00400002H)    !ADDRESS OF COM2 PORT
LPT1    EQUATE(00400008H)    !ADDRESS OF LPT1 PORT
LPT2    EQUATE(0040000AH)    !ADDRESS OF LPT2 PORT

PRINTER1  SHORT
PRINTER2  SHORT

CODE
PEEK(LPT1,PRINTER1)    !GET LPT1 PORT
PEEK(LPT2,PRINTER2)    !GET LPT2 PORT
POKE(LPT1,PRINTER2)    !SWAP LPT1 AND LPT2
POKE(LPT2,PRINTER1)    !*
RETURN                !EXIT TO DOS
```

By changing the port addresses stored in DOS, you can "fool" DOS into using the printer attached to LPT2 when DOS is instructed to print to LPT1 (and vice versa). PRINT.COM and almost every other program that uses the DOS print interrupt will be "fooled" into changing printers. Of course, if this program is run a second time, it would swap the printer ports back to their original values. This trick should not be used to swap between a serial and a parallel printer.