# Setting Serial Console Parameters with the CONSOLE Utility
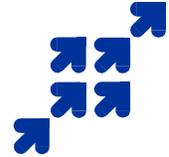
## Introduction

This document explains the use of the utility CONSOLE in setting parameters for the serial console redirection feature of Technologic Systems Embedded PCs.

## Background Information

All Technologic Systems Embedded PCs are able to redirect console I/O to a serial port, removing the need for a keyboard, video adapter, and monitor. Without the CONSOLE utility, redirection can only be turned on or off -- it is fixed at 9600 baud, 8n1, using serial port COM2. To make the redirection feature more flexible, we have released CONSOLE, which provides software control of the port and baud rate used.

## Usage

**CONSOLE.EXE /P:port [/S:speed] [/Q]**

**/P:port**

Specifies the serial port to which console I/O will now be directed, where **port** can be:

**0**    Turns off redirection completely.

**1-4**  Redirects the console to this serial port.

**/S:speed**

Specifies the serial port baud rate, where **speed** can be any standard baud rate from 50 to 115200 baud.

**/Q**

Quiet mode. Unless there are errors, no status messages are printed.

Some examples:

**CONSOLE.EXE /P:1 /S:38400**

Will change the console to COM1 at 38400 baud.

**CONSOLE.EXE /P:0**

Will turn off console redirection completely. If you have a video adapter installed on the PC/104 bus, it will continue to work, but keyboard input will no longer be redirected in from the serial port. This is useful for programs that use both the serial port and keyboard. See application note **AP-101** for a good example.

Removing the console redirection jumper on the EPC board performs the same action of shutting off console redirection completely. Combining this with an invocation of CONSOLE in the AUTOEXEC.BAT file will speed up boot time and provide a faster console as well.

CONSOLE can be run from the DOS command line or in batch files, including AUTOEXEC.BAT.

The CONSOLE utility uses a BIOS function call (int 15h, function A1h) to change the serial port used for redirection, and directly accesses the serial port UART to change baud rates. Take a look at the BIOS User's Guide and the source code for the CONSOLE utility for further information.

## Obtaining CONSOLE

The console utility can be obtained from the Technologic Systems web site (listed below) in the archive CONSOLE.ZIP, which includes both the executable and source code.