

QUASAR PROJECT KIT # 3074 - PC PARALLEL PORT RELAY BOARD

DOS SOFTWARE BATCH FILE HELP

There are three DOS-based utilities that accompany the kit 3074 "PC RELAY BOARD" kit:-

1. RELAY used to output a hex byte to the designated parallel port
2. DELAY used to wait for a user-defined number of seconds
3. WAITFOR used to wait until a specified time (HH:MM)

Batch files using these programs can be written to control the operation of any of the eight relays on the "PC-RELAY" board.

The programs were written using Borland Turbo C/C++ 3.0. The original C source code is also provided.

RELAY.EXE

Syntax: RELAY <hex byte> or
RELAY/1 <hex byte> or
RELAY/2 <hex byte>

Output the <hex byte> to the specified parallel port. The value of <hex byte> can be in the range 00h to FFh.

The parallel port can be specified following the command name (see command syntax). If none is given then LPT1 is used by default.

Example: RELAY 5A

Outputs the hex value 5A (binary 0101 1010) to LPT1, causing relays RL7, RL5, RL4 and RL2 to operate.

DELAY.EXE

Syntax: DELAY <seconds>

Waits for the number of <seconds> before exiting. It will accept tenths of seconds eg. 5.3. Only the first number after the decimal point is accepted eg. 5.37 becomes 5.3.

The allowed range for <seconds> is 0.1 to 100000. Entering a value outside this range will print an error message and the program exits with an error code of "1" (see below).

During operation, the remaining number of seconds is displayed. The program can be terminated at any time by pressing the "ESCAPE" key.

Exiting via the "ESCAPE" key causes the program to return an exit code of "1". This condition can be detected within batch files using the "IF ERRORLEVEL ..." command.

Example: DELAY 10.5

Causes the program to wait until 10.5 seconds has elapsed before exiting.

WAITFOR.EXE

Syntax: WAITFOR <hh:mm>

Waits until the specified time <hh:mm> is reached before exiting. A 24 hour clock is used to specify the time. The program does not test for invalid time settings eg. 25:00 or 12:75, etc.

During operation, the current time in HH:MM:SS is displayed and updated every second. The program can be terminated prematurely by pressing the "ESCAPE" key.

Exiting via the "ESCAPE" key causes the program to return an exit code of "1". This condition can be detected within batch files using the "IF ERRORLEVEL ..." command.

Example: WAITFOR 18:30

Causes the program to wait until 6:30pm before exiting.

EXAMPLE BATCH FILE

The following short batch file illustrates the use of the three utilities. The batch file waits until the time is 11:00am and then sequentially operates each relay in turn for 5 seconds. Pressing the "ESCAPE" key during operation causes the batch program to terminate immediately. All relays are released upon exit.

```
waitfor 11:00
@if errorlevel 1 goto end
relay 01
delay 5
@if errorlevel 1 goto end
relay 02
delay 5
@if errorlevel 1 goto end
relay 04
delay 5
@if errorlevel 1 goto end
relay 08
delay 5
@if errorlevel 1 goto end
relay 10
delay 5
@if errorlevel 1 goto end
relay 20
delay 5
@if errorlevel 1 goto end
relay 40
delay 5
@if errorlevel 1 goto end
relay 80
delay 5
:end
relay 00
```