

PICAXE NET WEB SERVER

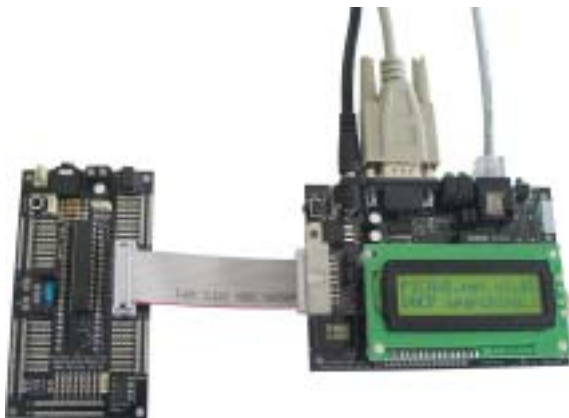
PICAXE Net Server is an exciting new embedded microcontroller web server, designed to operate in partnership with a PICAXE chip. This small (112 x 76mm) board acts as a stand-alone web-server without the need for a computer. Special routines enable PICAXE-28X or 40X chips to exchange data with the web-server, enabling dynamic real-time display of variable and input/output data on web pages broadcast from the PICAXE net server.

TYPICAL APPLICATIONS INCLUDE:

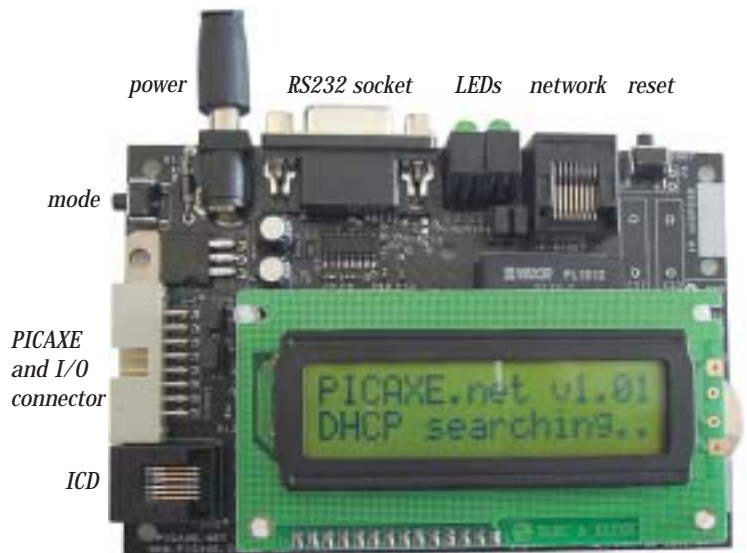
- Use as a stand-alone web server with updated input/outputs e.g. an environmental monitoring system or weather station
- Use as a PICAXE integrated web server, so that variables from a PICAXE controlled project can be displayed on a web page over the internet.
- Use as an internet connection for a hardware project controlled by a PICAXE chip, so that the PICAXE control program can be remotely updated via FTP.

METHODS OF USE:

- Use as a stand-alone web server, with eight on-board configurable input/output pins, or
- Link to a PICAXE-28X or 40X chip and share memory space so that PICAXE variables and input/output pin conditions can be displayed on web pages served from the PICAXE net board. The PICAXE chip can also read the time from the PICAXE net clock and update messages on the LCD screen.



PICAXE net connected to PICAXE-28X protoboard



KEY FEATURES:

- Control on-board outputs and LCD, respond to digital/analogue inputs, and send data to or from the PICAXE chip via dynamically updated web pages (HTTP with CGI scripting).
- On-board 24LC512 EEPROM to store web pages.
- Download a new website image to the onboard EEPROM memory via FTP (password protected). Easy to use software wizard in the free Programming Editor software (v4.1.16 or later) builds the EEPROM web image automatically from .htm, .cgi and graphic/sound files.
- Direct link to the AXE022P proto board for easy interfacing to PICAXE-28X or 40X projects.
- Download a new program to an attached PICAXE chip over the internet via FTP (password protected).
- Supports MAC, IP, ARP, ICMP ("ping"), TCP, HTTP, FTP and DHCP.
- Set IP address manually or via DHCP.
- On board real time clock with battery backup.
- On board (detachable) 16x2 LCD for user messages.
- 10baseT socket and network interface with diagnostic LEDs.
- Remote control of SPE030 speech synthesizer (purchase separately).

For further information please see

www.picaxe.co.uk

PICAXE NET STARTER PACK

It is recommended that new users purchase the starter pack. This includes all the main items required to use the system, including PICAXE net web server, PICAXE-28X protoboard, interface cable, RS232 serial cable and CAT5 patch leads. The NET006 demo board is also included. A 9V DC supply (2.1 tip+) is also required.



PICAXE net starter pack: NET001
9V DC power supply (UK only): PWR009

PICAXE NET OPTIONS

It is recommended that PICAXE net is connected to your network via a hub or switch. If you do not already have a hub/switch the 5 port 10/100 switch (HUB001) with an additional CAT5 patch lead (CAB005) are recommended.

10/100 5 Port Switch : HUB001
Standard CAT5 patch lead: CAB005
Cross wired CAT5 patch lead: CAB006

The shared memory space can be expanded (additional 256 bytes) by adding a Philips PCF8570P i2c RAM chip to the system.

PCF8570P RAM chip: MIC052

Spare PICAXE.net starter pack parts:

PICAXE Net Web Server: NET002
PICAXE Net Demo board: NET006
Assembled 28X protoboard: AXE022P
PICAXE-28X chip: AXE015X
Replacement Net firmware: NET003
Replacement serial cable: CAB010

PICAXE NET FIRMWARE

PICAXE net uses a FLASH memory PIC microcontroller. The Net firmware is available separately as a replacement / upgrade part (part NET003) to registered PNS users.

For further PICAXE Net info see
www.picaxe.co.uk

The PICAXE net board is also backwards compatible with the Microchip PICDEM.net reference design. This compatibility enables users to develop their own C or assembler source code for the PICAXE net board if desired (e.g. using Microchips free TCP/IP stack). An ICD2 programming socket is included on the PICAXE net board for users wishing to develop and program the microcontroller with their own code.

For further Microchip info see
www.microchip.com