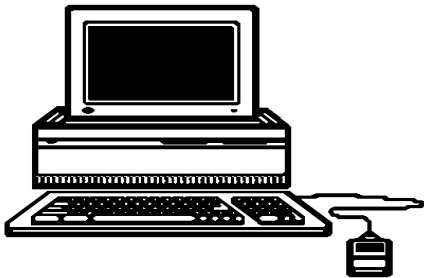


DIGICOM

The Newsletter of MAXPAK,
The Midlands Packet User Group

DC65

February / March 2003



Node/BBS News

GB7MAX /BLOX Node

The BBS has now been upgraded to WinFBB with a direct telnet connection. The Xrouter Node continues to work well.

GB7PMB

BBS is working satisfactorily on 2m and 4m. Telnet access is available.

GB7WV NODES

All nodes and the UI digipeater are working OK

DY and PP NODES

These nodes are working OK

G7BUG-8 NODES

The SALOP BPQ node is working OK.
The SALOP1 Xrouter node now has an Internet connection and is directly wired to the BPQ SALOP node, giving full connectivity via the radio ports.

Any feedback should be sent to Chris
G0CNG@GB7MAX

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2003 MEMBER'S MEETINGS

held in the Perton Centre near Wolverhampton
until April 2003

March 3rd 2003 Pre-AGM Natter Night Meeting.

April 7th 2003 AGM 2003

Please book this important date in your diary!

CHAIRMAN'S JOTTINGS

Greetings to all Members. May I firstly apologise (again!) for the late release of this issue, due to work commitments and also to include news of my upgrades to the GB7MAX BBS only completed yesterday, Sunday 23rd February following a profitable and enjoyable use of my Half Term Break to carry out the work. My apologies to all users who were inevitably inconvenienced by frequent outages of the BBS during the work. I hope you will find the end results worth while. See the separate column for details of the work carried out and the new facilities available.

I hope that as many of you as possible will be able to attend this years AGM which will be held, this year on MONDAY 7th APRIL 2003 commencing at 20.00 hrs at the Perton Community Centre, Coleridge Drive, Perton, nr Wolverhampton. The Community Centre is immediately adjacent to Sainsbury's Supermarket in Perton, and it has a large, well lit car park. It would be nice to have some new faces on this year's Committee. All Committee Positions are up for grabs so if you are interested in standing for any of them, please feel free to contact me either via packet, email or landline (my contact details on Who's Who page) and I'd be delighted to tell you about what is involved.

Please put this important date in your diary NOW !

Also, due to other commitments, the committee has reluctantly had to cut back on some rally attendances this year. At the time of writing, we are scheduled to attend Drayton Manor, Aldridge, Telford (At Cosford) and Kings Heath. We MAY also attend Elvaston Castle but have not made a definite decision on this one as yet.

We have also decided to reduce the prices of our MAX-01 and MAX-02 Modems in order to encourage more back onto radio packet again. We hope some of you may be encouraged to consider purchasing one of these excellent units. See the price list for full details.

Another important decision to be made at April's AGM is the future of our Maxpak Members Meetings. With the current monthly attendance averaging about 3 or 4, it is clearly uneconomic to continue our monthly hire of the Perton Centre, which expires in April this year. With most of those attending coming from the Bloxwich and surrounding area, I am considering reducing the Members Meetings to once every other month, e.g. June, September, November etc and move the meeting location to one of the Bloxwich Hostelrys who offer a private function room. I am sure the availability of a Bar would be welcomed at our Meetings. Your ideas and comments on this proposed move will be much appreciated at the AGM.

Hope to see as many of you as possible at the AGM on 7th April.

73's for now.

Chris Roberts, G0CNG
Chairman.

www.maxpakgb.org.uk

GB7MAX and BLOX Upgrade News, February 2003

During my February Half Term break, I have upgraded the GB7MAX BBS and its front end BLOX node. Originally running under DOS on two separate PC's, interlinked via a serial wire link running at 38400Bd, the bottleneck effect of the serial wire link between the two PC's had often become a limitation on speed, especially during busy forwarding times. It has always been my ambition to combine both to run on the same machine. The big problem has been that DOS is unable to support multitasking, i.e. it can only run one thing at a time. G8PZT's XROUTER node software, which BLOX has been using since October last year is too big to run as a DOS TSR. Attempts at multitasking using Desqview failed miserably and earlier attempts to use DOS windows within WIN98 proved equally unsuccessful. However, thanks to much work by Paula, G8PZT who is continually developing her XROUTER Software, XROUTER now runs very happily and stably within a Windows 98SE DOS Window. This is linked to the FBB Software via PZTHOST, a TSR which provides multiple channel links between XROUTER and FBB, only much faster than a wire link could ever do.

I have now succeeded in upgrading my FBB V 7.00i for DOS to WINFBB V7.00i which has not only resulted in much more reliable operation of the telephone modem port, due to a much better Windows Modem Driver, but also supports full TELNET access direct into FBB on Port 6300. Now I am satisfied about the stability of WINFBB, I have opened public user access to GB7MAX's TELNET Port on Port 6300. This is offered in addition to existing TELNET Access to BLOX on Port 2323. See article in Digicom 64 for full details of this. If you have mislaid your copy, I'd be delighted to email you a copy of this article. You will need to request an access (fixed) password from me. Log on using your Callsign and the Password I will give you. If you already use Telnet access to BLOX, you are welcome to use the same access password for FBB too. Let me know and I'll set you up accordingly. Telnet logins to GB7MAX on Port 6300 automatically by-pass the normal 5 character password system since your inward link is secure. If you log in via BLOX Telnet or via Radio you will need your random 5 character password matrix as normal. I hope you will find these improvements and enhancements useful. Normal radio access, both 1K2 and 9K6 will continue to be available as before.

Sample Winpack BBS Script for Telnet Connection to GB7MAX on Port 6300

HOTKEY F2

TITLE Telnet connection to GB7MAX on Port 6300

SEND C 81.7.12.236:6300 (IP Address of GB7MAX)

WAITFOR Callsign :

SEND g2xyz (Substitute with your Callsign)

WAITFOR Password :

SEND abcdefg (Fixed Telnet password issued by sysop)

WAITPROMPT (waits for BBS Prompt)

PS You may log onto Port 6300 using just your Callsign, but you will have Read Only access to GB7MAX. Please send a message to Sysop (i.e. G0CNG) to request a password for full Telnet access.

MAXPAK AGM AGENDA 2003
TO BE HELD AT THE PERTON CENTRE ON
Monday April 7th, 2003 at 20:00 hrs

1. MINUTES OF THE LAST ANNUAL GENERAL MEETING
2. MATTERS ARISING
3. CHAIRMANS REPORT
4. PRESENTATION OF ANNUAL ACCOUNTS
5. SUBSCRIPTIONS FOR THE FORTHCOMING YEAR
6. ELECTION OF CHAIRMAN
7. ELECTION OF SECRETARY
8. ELECTION OF TREASURER AND MEMBERSHIP SECRETARY
9. ELECTION OF COMMITTEE MEMBERS
10. VOTE ON THE CHANGE OF THE CLUB'S VENUE
11. VOTE TO CHANGE THE MEETING DAY
12. VOTE TO CHANGE MEETINGS TO BI-MONTHLY
13. A.O.B.

How RADIO WLANs Work

Wireless LANs (WLANs) use electromagnetic radio waves to *transport data* between computers in a *Local Area Network (LAN)*, without the limitations set by "hard wired *network cable* or *phone wire* connection". Whilst simple *optical links* are commercially available, radio is presently more useful since it is not strictly restricted to *line-of-sight* paths.

Radio waves are often called *radio carriers* when they are used to carry information. The data to be transported is superimposed on the radio carrier by various *modulation techniques* which allow the data to be faithfully reconstructed at the receiving end. Once data is superimposed (modulated) onto the radio carrier, this combined "*radio signal*" now occupies more than a single frequency since the frequency components or *spectra* of the modulating data add frequency *bandwidth* to the basic carrier (in direct proportion to its information content or *bit rate*). The *frequency range* which is needed to accommodate a radio signal with any given *modulation bandwidth* is called a *channel*. Radio receiver techniques can *select* one radio channel while efficiently rejecting signals on other frequencies. Many radio signals to and from many *users* can thereby co-exist in the same place and time without interfering with each other if the radio waves are transmitted at minimum necessary power within different radio channels.

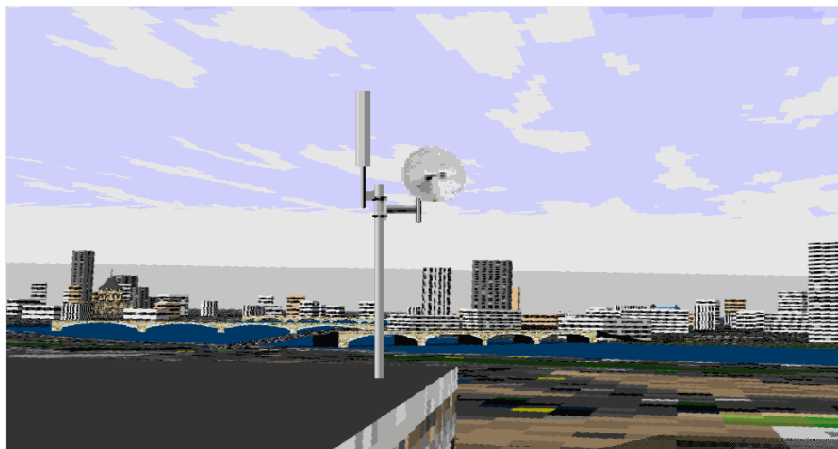


Figure 1 Omnidirectional and High Gain Directional Antenna for 2.4GHz

Commercial Wireless Access Points (WAPs)

In a typical *commercial WLAN* configuration a radio transmitter/receiver (*transceiver*) called a *Wireless Access Point (WAP)*, connects to a *wired network* from a fixed location using a standard *Ethernet (IEEE 802.3)* cable connection. At a minimum, the access point receives, buffers, and transmits data between the WLAN and the wired network infrastructure.



Figure 2. IEEE 802.11 11Mb/sec Wireless Access Point

A single *commercial* wireless access point can support a group of simultaneous users typically with (specification IEEE 802.11) at a range of not more than a couple of hundred metres in free space and much less via obstructions at the very restricted power levels therein specified for *licence free users*.

The Wireless Access Point (WAP) (or antenna attached with co-axial cable fed, free antenna versions) is usually mounted high and may be mounted essentially anywhere that is practical as long as the desired radio coverage is obtained.

In the United Kingdom, use of *IEEE 802.11 equipment* is covered by the standard *Amateur Radio Operator Licence's* 2.4 GHz frequency allocation which allows unlimited antenna gain and the notional use of self-built linear transmitter power amplifiers, receiver pre-selectors and low noise mast-head amplifiers up to 2450MHz.

With practical and inexpensive improvements to the antenna systems alone, distant users can anticipate reliable working up to 25 Km (18 miles) line-of-sight distance even from a WAP using a low gain (13dBd omni-directional) antenna. Much better performance (over obstructed paths) may be had with (sector directional) gain antenna systems and amateur licenced *power amplification*.

WLAN Adapters

End users access the WLAN through *WLAN Adapters*, which are implemented as PCIMCIA cards in notebook computers (Figure 3), or use ISA or PCI adapters in desktop computers (Figure 4) or fully integrated devices within hand-held computers.



Figure 3 11 Mb/sec PCIMCIA Adapter



Figure 4. Standard PCI bus Adapter

WLAN adapters provide an interface between the client network operating system (NOS) and the airwaves (via an antenna). The nature of the wireless connection is transparent to the NOS.

TO BE CONTINUED IN THE NEXT DIGICOM

MAXPAK modems price list for 2003

Specially reduced prices
Prices include P & P

MAX-01 1200 baud PACKET MODEM
Baycom type modem (3 IC's), PCB, circuit diagram & parts list plus all the components required to populate the PCB.

Members price £15.00
Non members price £20.00
Ready built and tested modems available
£5.00 extra

**PRE DRILLED AND PUNCHED CASE
including installation kit etc.**

Members price £5.00
Non members price £6.00

MAX-02 1200 & 9600 baud MODEM.
This unit is available and comes complete with, PCB, all the components required to populate the PCB, full construction details and agw software on 3.5" floppy disk. FOC

Members prices
Kit including PCB/power kit £30.00
Pre drilled case £ 5.00
Ready made and tested modems are available
for £10.00 extra.
agw software on 3.5" floppy disk. FOC

Non members prices
Kit including PCB/power kit £40.00
Pre drilled case £ 7.00
Ready made and tested modems are available
for £10.00 extra.
agw software on 3.5" floppy disk. FOC

The MAX-01 has been tested with,
Windows 3.1x, Windows95, Windows98
and Windows ME

The MAX-02 will **NOT** work with Win 3.1x
but has been tested with,
Windows95, Windows98
and Windows ME

MAXPAK who's who

2002 - 2003 COMMITTEE MEMBERS

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Acting Treasurer and Membership Secretary

Chris G0CNG
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Hon SysOp GB7PP nodes

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**All sales items available from Chris
G0CNG, QTHR as above.**