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Pwr Mac DOS Compatibility Card: Using Trumpet Winsock (9/95)

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TOPIC --

This article provides information on using Trumpet Winsock with the DOS
Compatibility Card for the Power Macintosh.

DISCUSSION --

Introduction
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This document assumes a working knowledge of MS-DOS and Windows. This document
will focus on aspects of network software installation that deviates from normal
DOS/Windows installations. This document is not a substitute for the
documentation provided with the DOS Compatibility Card and Trumpet Winsock.
These instructions should be used in conjunction with other product
documentation.

Simultaneous Macintosh and DOS networking
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Your Power Macintosh 6100 DOS Compatible can have simultaneously active
connections in both environments, provided different networking prtocols are
used. You cannot have two identical protocols running in both environments. If
identical protocol support in both environments is needed, the only solution at
this time is to encapsulate one protocol inside a different protocol, referred
to as "tunneling". For example, there are various options to have TCP/IP active
on both the Macintosh and the DOS side; They all require some form of gateway to
either route IP encapsulated in AppleTalk, or IP encapsulated in IPX. One
solution is to set MacTCP for EtherTalk and put an Apple IP Gateway on the
network.

DOS networking and Memory
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If you will be using the Power Macintosh 6100 DOS Compatible networking
functions, it is recommended that you maximize conventional memory by removing
unecessary device drivers and TSRs. Also, load the remaining device drivers and
TSRs high if possible. Windows for Workgroups 3.11 requires greater than 540K of

conventional memory for it's Browser to function properly.

Windows for Workgroups: Installation considerations
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If you will be installing Windows for Workgroups 3.11, the Novell Netware
client, AND TCP/IP support, install the NetWare client first, Windows for
Workgroups 3.11 second, and the IP stack third.

ODI to NDIS translation issues
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Novell provides an ODI to NDIS translator called "ODINSUP.COM", which is copied
to the same directory as the client software. This allows ODI drivers to be
used in an NDIS environment. When using ODINSUP.COM, you must specify an
interrupt in the NET.CFG file. Use the statement:

INT 6

in the Link Driver section of the NET.CFG file. Failure to do this results in
the following error message:

"ERROR: "First Mac ODI MLID does not conform to the latest ODI MLID
specification. Call adapter manufacturer and request a newer MLID that
preserves the PIC mask bit."

For a complete discussion of ODINSUP.COM and configuration information for it,
please contact Novell.

Windows for Workgroups 3.11
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If Windows for Workgroups 3.11 is to be installed, it is recommended that you
become familiar with the protocol.ini file, which Windows for Workgroups 3.11
uses for setting up the networking environment. Without the proper entries in
this file, Windows for Workgroups 3.11 networking will not function properly.
The installer for Windows for Workgroups 3.11 does NOT modify the PROTOCOL.INI
or NET.CFG file correctly, which means they must be manually edited. A suggested
resource is the Windows for Workgroups 3.1 Resource Kit, available from
Microsoft.

MACODI
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MACODI.COM is located on the DOS Compatibility Card Installer Disk for DOS
Environment.

It is important to note that the Power Macintosh 6100 DOS Compatible does not
require any special settings where networking is concerned. The DOS side

functions as would any DOS machine using ODI drivers. The only special
consideration is to be sure the same protocols are not running in both
environments unless tunneling is used.

Binding TCP/IP protocols in NET.CFG
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For any TCP/IP setup, you MUST bind IP and ARP in the NET.CFG file. The only
notable exception to this that we know of is FTP Software's PC/TCP. If the IP
protocol stack you use requires RARP, you MUST bind this also. The entries that
bind IP, ARP, and RARP will ALWAYS be the same, unless you are binding to a
frame type other than Ethernet_II, which is unlikely. This is the standard IP,
ARP, and RARP listing that MUST be in the NET.CFG file for IP support:

```
Link Driver MACODI
 Frame Ethernet_II
 Protocol IP 800 Ethernet_II
 Protocol ARP 806 Ethernet_II
 Protocol RARP 8035 Ethernet_II
```

As a general rule, do not add PORT or INT statements to the NET.CFG file. ODI
drivers do not necessarily require them, and MACODI does not use interrupts. If
using odinsup.com for NDIS compatibility, set the INT value to 6.

Example Installation and Settings Files
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The following are some examples of networking configurations on the Power
Macintosh 6100 DOS Compatible. Note that for all of these installations, Novell
Netware was loaded. Also note that defaults were selected in all of these
scenarios, which may not be valid for your environment. These are included as
examples only. In some situations, the installer may not respond as outlined due
to differences in files loaded into memory at the time of the installation. If
that occurs, proceed per the software's documentation for using the software
with ODI drivers. For the sake of brevity, only portions of files specific to
the discussion will be listed. For further help in setting up the various
networking environments, please contact the vendor of your network operating
system.

Trumpet WinSock
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You must have successfully installed the NetWare client software and Windows
before performing this step. "Successfully" means you are able to connect to a
NetWare server and you are able to run Windows. Windows comes pre-installed on
the Power Macintosh 6100 DOS Compatible. If you are not able to connect to a
NetWare server, check your files against those listed above. Make sure all of
the programs needed (called) are in the proper location. Also, make sure you do
not have networking software loaded on the Macintosh that would cause a
conflict, such as MacIPX. Once you have successfully connected to a server,

follow these steps to load Trumpet WinSock. Again, only the steps that deviate
from standard installations will be thoroughly outlined. Please note that for
this installation, Windows for Workgroups 3.11 was installed. Note the Windows
for Workgroups 3.11 entries in the AUTOEXEC.BAT are not listed, as they are not
modified by the Trumpet WinSock.

Step 1

Before beginning the installation, you will need to have the following
information:

IP ADDRESS:

SUB-NET MASK:

DEFAULT ROUTER IP ADDRESS:

DOMAIN NAME:

DOMAIN NAME SERVER IP ADDRESS:
(If DNS services will be used)

Step 2

This document assumes you have gathered all the pieces necessary for Trumpet
WinSock install.

Step 3

For the sake of brevity, it is assumed that all Trumpet WinSock files are in the
same directory. In this example, the files are located in C:\TRUMPET. Since
there is no installer for Trumpet Winsock, edit the NET.CFG and whatever batch
file you use to call the networking software to match the files listed below.

NET.CFG

Link Driver MACODI

  Frame Ethernet_802.2
  Frame Ethernet_802.3
  Frame Ethernet_SNAP
  Frame Ethernet_II
  PROTOCOL IPX E0 ETHERNET_802.2
  PROTOCOL IP 800 ETHERNET_II
  PROTOCOL ARP 806 ETHERNET_II
  PROTOCOL RARP 8035 ETHERNET_II

LINK SUPPORT
 Max Stacks 8
 Buffers 8 1600
 MemPool 4095

```
AUTOEXEC.BAT
----------------------------------------------------------
C:\NWCLIENT\LSL.COM
C:\NWCLIENT\MACODI.COM
C:\NWCLIENT\IPXODI.COM
C:\TRUMPET\ODIPKT.COM 3 107
C:\TRUMPET\WINPKT.COM 107
```

Description of Files
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LSL.COM

Link support layer driver. Supplied by Novell client software.

MACODI.COM

Network interface card driver. Supplied by Apple.

IPXODI.COM

IPX Protocol stack layer. Supplied by Novell client software.

ODIPKT.COM 3 107

ODI Packet driver. The first number selects the frame type from the entries in the net.cfg file. The first frame listed in the net.cfg is considered 0. Since we are using Ethernet_II, and it is the last of 4 frame types specified in the net.cfg file, this number is 3 in this example. The second number is the "line number" and should always be set to 107 for Ethernet.

C:\TRUMPET\WINPKT.COM 107

Windows Virtual Packet Driver. Takes the line number as an argument. Must be the same as the line number for the packet driver.

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18 Aug 1995 - Made corrections for technical accuracy.
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