
Topic / Issue: Choosing a Hardware I/O Base Address (I/O Base)

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Memory on PCs is divided into two types: conventional RAM or ROM, and the Input/Output (I/O) address space that is used by most hardware (serial ports, joysticks, network adaptors, etc) for communication between system software and hardware.

Selection of the proper I/O base address involves choosing a range of I/O addresses that do not conflict with existing hardware. Note that most network cards use more than one I/O port for example, an Ethernet card set for a base address of 320h can actually use (up to) 32 ports numbered 320h through 33Fh. You must ensure that none of the required range of port addresses will conflict with existing hardware.

Options Assignments

200h and 201h ALLOY IMP cards

201h-20Fh Game Adaptor

210h-21Fh Expansion Unit

220h-277h ALLOY IMP cards

278h-27Fh LPT2 (2nd Parallel Printer)

280h-2AFh Available

2B0h-2DFh EGA Adaptor

2E0h-2F7h Available

2F8h-2FFh COM2 (2nd Serial Port)

300h-31Fh Available

320h-32Fh Available

330h-377h ALLOY Tape Adaptor (Configurable)

378h-37Fh LPT1 (1st Parallel Printer)

380h-3AFh Available

3B0h-3BFh VGA, Hercules, and Monochrome Adaptor plus optional LPT port

3C0h-3CFh .VGA and EGA Adaptor

3D0h-3DFh VGA and CGA Adaptor

3E0h-3EFh Available

3F0h-3F7h Floppy Disk Controller

3F8h-3FFh COM1 (1st Serial Port)

Suggestions:

Network Cards: An address of 300h, 320h or 340h is recommended.

Warnings:

A common reason for a "frozen" system upon rebooting your machine is choosing an I/O base address that overlaps another device. Ensure that you allow, at least, a 20h buffer between the setting of the card and other devices.

Summary:
(If required)