Manor Training
DELIVERING EXCELLENCE

PC Configuration Introduction - 1 Day

Identifying Key Hardware Components
The motherboard and power supply
Display adapters and memory cards
Floppy and hard disk drives
The keyboard and mouse
Seeing how the PC is Designed
Structuring memory
Bus types: ISA, EISA, PCI, AGP, USB and FireWire
Distinguishing among the x86, Pentium I, II, III, IV and Itanium systems
Basic Software Components
BIOS and device drivers
Comparing operating system versions
CONFIG.SYS and AUTOEXEC.BAT
Setting a Universal Troubleshooting Strategy for PCs
Designing a Troubleshooting Methodology
Avoiding trouble: preventive maintenance
Ascertaining where to begin testing
Pinpointing common failure causes
Finding the board with the problem
Running the Power On Self Test (POST)
Troubleshooting system faults with POST
Using POST audio and video error codes
Determining what POST doesn't test
Employing Advanced Diagnostic Programmes
Testing for motherboard failures
Isolating keyboard and display problems
Solving interrupt (IRQ) and I/O conflicts
Working with Basic PC Components
Exploring the Motherboard
CPU types: x86, Pentium I, II, III, IV
Configuring jumper and CMOS settings
Upgrading motherboards
Adding plug-and-play components
Troubleshooting the Power Supply
Common power-supply problems
Uninterruptible power supplies and UPS monitoring software
Configuring I/O Devices and Displays
Making Use of Input/Output Devices
Configuring network interface cards
Setting I/O device configurations
Monitors and Display Adapters
Types of display adapters: VGA, SVGA and graphic accelerators
Accelerated Graphics Port (AGP) video
Refresh, interlace & multisync capability
The Memory
Upgrading Memory
Choosing and installing memory
Packaging memory: SIMMS, DIMMS, RIMMS
Memory types: DRAM, EDO, ECC, SDRAM, RAMBUS
Troubleshooting Memory Problems
Locating failed memory devices using memory diagnostic tests
Solving adapter card memory conflicts
Installing Disk Drives
Selecting Diskette Drives
Diskette types: 3-1/2", 1.44 MB, ZIP
Setting drives and cable orientation
Using Hard Disk Drives
IDE, E-IDE, SCSI and Ultra-SCSI
Upgrading to larger hard disks
Optimising hard-disk performance
Mastering Advanced Drive Technologies
CD-ROM: multispin, SCSI
CD-R, CD-RW, DVD-ROM, DVD+R/RW
Solving Software Problems
Troubleshooting Driver Problems
Real-mode vs. protected-mode drivers
Configuring driver software switches
CONFIG.SYS in the Windows environment
Working with Printers and Ports
Diagnosing Printer Problems
Solving common printer problems
Configuring serial and parallel ports
Installing and Testing Serial Devices
Setting communication parameters
Diagnosing serial port problems