



Recommended Computer Technology NOVAtime 3000 (MSDE) or SQL Express

Minimum PC Requirements

MSDE Data **Server** Requirements:

Component	Requirement
Processor (CPU)	1.8 GHz with 80% of available utilization
Operating System	Microsoft 2000 or 2003 Server with latest service pack
RAM (Memory)	1GB with 50% of available physical memory
Disk Space	2 GB
Network Protocol	TCP/IP - SQL Communication
Ethernet Connectivity	100MB

WEB **Server** Requirements:

Component	Requirement
Processor (CPU)	1.8 GHz with 80% of available utilization
Operating System	Microsoft 2000 or 2003 Server with latest service pack
RAM (Memory)	1 GB with 50% of available physical memory
Disk Space	1 GB
Network Protocol	TCP/IP - IIS HTTP Communication
Ethernet Connectivity	100MB
Internet Information Server	IIS – Version 5.1 or higher
Web Browser	Internet Explorer Version 6.0 or higher

LAN **Workstation** Requirements:

Client Workstation – SQL Server User

Component	Requirement
Processor (CPU)	1.8 GHz or Higher
Operating System	Microsoft Windows 2000 or XP Professional
RAM (Memory)	512MB
Disk Space	250 MB
Graphics Display	800 X 600 is acceptable
Remote Support	High Speed Web Access (Linktivity)
CDROM Drive	Software Installation
Web Browser	Internet Explorer Version 6.0 or higher with Java or Microsoft Virtual Machine enabled

* Note – see WAN section for running the Client program over a WAN

Client Workstation – Web User

Component	Requirement
Processor (CPU)	1.0 GHz MHz or Higher
Operating System	Microsoft Windows 2000 or XP Professional
RAM (Memory)	256MB
Disk Space	100 MB
Graphics Display	800 X 600 is acceptable
Connection	High Speed Web Access
Web Browser	Internet Explorer Version 6.0 or higher

Workstation Requirements for clock communication:

Application	Requirement
Ethernet Clock	10/100MB Auto-sensing connection
Modem Clock	Modem, Phone Line, and Serial port - Hayes compatible for remote polling (An external modem is preferred)
Direct Connect Clock	Serial Ports – Comm Port

WAN (Wide Area Network) Requirements:

Application	Requirement
AWS Login	High speed internet web access
SWS Login	High speed internet web access
EWS Login	High speed internet web access
Client program *	Requires Citrix or Terminal Services connection

Cable Requirements (used only for local clocks direct wired to serial port)

RS232 or RS485 - 2 pair(4 wire), twisted shielded communication cable
Recommended Manufacturer/Model: Belden 8102

NOTE: Regarding existing server applications... It is NOT recommended to have NOVAtime and Microsoft Exchange Server on the same server.

This is a core application for your business. We strongly suggest going with “Name Brand” servers only.

These requirements are subject to change without notice.