

# TimeForce

## Hardware and Software Specifications (Required & Recommended)

Concurrent Web Users*	Required Minimum			Recommended		
	Server(s)	CPU Speed	Memory	Server(s)	CPU Speed	Memory
1 - 50	Combined Web/DB	2GHz	512 MB	Combined Web/DB	3GHz	1GB
51 - 200	Combined Web/DB	2GHz	1GB	Dedicated Web	P4 3GHz	2GB
				Dedicated SQL	P4 3GHz	2GB
201 - 500	Dedicated Web	P4 2GHz	1GB	Dedicated Web	P4 3GHz	2GB
	Dedicated DB	P4 2GHz	2GB	Dedicated DB	P4 3GHz	3GB
501 - 1000	Dedicated Web	2x Xeon @ 3GHz ea.	2GB	2 Dedicated Web**	2x Xeon @ 3GHz ea.	2GB
	Dedicated DB	2x Xeon @ 3GHz ea.	2GB	Dedicated DB	2x Xeon @ 3GHz ea.	4GB
1001 - 3000	2 Dedicated Web**	2x Xeon @ 3GHz ea.	2GB	3 Dedicated Web**	2x Xeon @ 3GHz ea.	2GB
	Dedicated DB	2x Xeon @ 3.7GHz ea.	4GB	Dedicated DB	2x Xeon @ 3.7GHz ea.	4GB

\* Concurrent web users means any combination of NetClock, Employee Self Service, Supervisor, Administrator, and Custom Role web users at the highest peak time, when all users may be using the system at the same time. \*\* Multiple web servers requires the use of a hardware/software-based load balancer. Note: Actual requirements vary based on your system configuration and the applications and features you choose to install.

### Other Hardware Requirements & Recommendations

CD ROM drive  
UPS back up power supply recommended  
Internet access strongly recommended

### Operating System Requirements

U.S. Date / Time Format

Microsoft .NET Framework 2.0  
Microsoft Internet Explorer 6.0 SP1 or later

Windows Vista - Business, Home Premium, or Ultimate Editions (32 or 64 bit architecture)  
Internet Information Services, Windows Vista CD required to install

Windows 2000 Server (recommended)  
Internet Information Services  
Windows 2000 CD required to install  
No limit on concurrent users

Windows 2000 Professional  
Internet Information Services  
Windows 2000 CD required to install  
Maximum of 10 concurrent users

Windows XP Professional 32 bit  
Home Edition is not supported.  
Internet Information Services  
Windows XP CD required to install  
Maximum of 10 concurrent users

Windows 2003 32 bit (recommended)  
Internet Information Services  
Windows 2003 CD required to install  
No limit on concurrent users

Windows 2003 Server 64 bit  
Windows 2003 CD required to install  
No limit on concurrent users

64 bit systems will run TimeForce and ClockLink only. Other Qquest Software applications need to run on a supported 32 bit operating system.

### Database

SQL 2000  
Microsoft SQL Server Desktop Engine (MSDE) (Maximum of 10 concurrent connections)

SQL Server 2000 Recommended—When concurrent users exceed 10.

SQL 2005  
SQL Server 2005 Express (included)

SQL Server 2005 – 1 GB of RAM required.  
Computer must be a dedicated SQL Server 2005 machine

If the SQL Server 2005 machine is also going to be the IIS Server for TimeForce it is recommended to use at least 1.5 GB of RAM.

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# Specifications

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## Network

Client Computer (computer accesses TimeForce via a web browser)

Pentium III 550 Mhz or faster processor  
128 MB of RAM (256 MB recommended)  
Internet Explorer 6.0 SP1 or higher  
Internet access strongly recommended  
Must be networked to the TimeForce web server

TimeForce is a web application. However, for most web server configurations and firewall/router setups, the default configurations will not allow TimeForce to be available outside your LAN on the internet.

## Remote Time Punch Retrieval Options & Requirements

### Local Clocks

Dedicated serial port required or Qquest's USB to Serial Cable Kit

Master clock – maximum cable length 250 feet

Maximum of 4000 feet total cable length for concurrent clocks USB to Serial Cable Kit is compatible only with Windows 2000 or better.

### Modem Clock

Clock requires a dedicated analog phone line (digital phone lines are not compatible with analog modems)

Desktop PC requires a 28.8 kbs modem or faster

### Ethernet Clock

TCP/IP networks only, uses UDP port 5402

Requires a static IP address

Minimum 56k LAN/WAN/Dial-up networking connection for computer that is downloading the clock

10 mega bit or 100 mega bit Ethernet connection required for clock

Cat 5 cable or better with a maximum cable length of 300 feet

Cat 3 cable is not recommended and may be unreliable

## Utilities

### ClockLink

Downloads all clock types

Used with ClockLink Scheduler

### TimeForce ASP System Requirements (Client Computer)

If you choose to use our hosted solution (TimeForce ASP) instead of installing TimeForce servers in-house, these are the minimum requirements for the computer used to access TimeForce over the internet.

Pentium III 550 Mhz or faster processor  
128 MB of RAM (256 MB recommended)

Internet Explorer 5.5 (6.0 recommended)

56K or faster internet connection