AS/AP™

Apparel Manufacturing & Distribution Software ᴿᴹ

HARDWARE AND NETWORK REQUIREMENTS

This Hardware/Network review has been compiled to assist our clients and potential clients in selecting the correct hardware for use with the **AS/AP™** accounting and manufacturing software. It is not intended as the final word and only represents our opinions. It is also very important to recognize that this information is general in nature and not in any way specific to your company. Only someone with intimate knowledge of your business, its requirements, and its goals can determine the correct size and speed of hardware that you need as well as the cost you can justify.

We tend to recommend brand named hardware from such manufacturers as IBM, Dell, Gateway, and HP. The most important concern is the person or company that will install and support the hardware. It is our experience that brands such as these have better reliability records than unbranded clones, but all computers can fail. It will be important to have someone, locally, who you can call for support.

FILE/CENTRAL SERVER

To run Visual AS/AP™ and AS/AP™ SQL we would recommend buying a **minimum** of a 1+ GHz Pentium IV server with at least a 80 GB hard drive (200+ GB is not overkill today) and at least 1 GB of RAM (more is better). SQL Server, MySQL, and Oracle versions will require more RAM and should have Dual processors. We also strongly recommend **only** considering computers sold as Server class machines. If you will be running Citrix, Terminal Server, Remote Desktop or any other software, you should have considerably more Server memory and speed.

Most computers sold through retail stores use IDE type hard drives, but it is advisable to investigate more sophisticated hard drives, such as SCSI drives for your file server. SCSI drives have a better throughput than IDE drives and provide better performance. In addition, SCSI drives are virtually a standard on Server class computers.

Although mirrored and Fault Tolerant systems are more sophisticated than most clients need, if you know what these are, you definitely want to investigate whether they are

appropriate for your company.

Companies using Windows NT Server (2000, 2003, etc.) as a network operating system should consider more RAM in the server and all clients should give serious consideration to servers with multiple processors. Companies must also consider other applications that will run on the workstations and file server.

WORKSTATIONS

New computers should not be slower than a 1+ GHz Pentium IV and should have at least 512MB of RAM.

Clients running Citrix WinFrame, MetaFrame, and/or Microsoft Terminal Server should also give serious consideration to Wyse WinTerminals for security as well as cost.

We strongly recommend only considering computers that are offered with built-in network cards for use as a workstation. Dealers can add a network card to virtually any computer, but THAT DOES NOT MAKE IT AN ACCEPTABLE CHOICE AS A WORKSTATION. Be careful not to purchase machines designed for home use. They are not adequate. **We do not recommend the use of Celeron processors.**

Again, any additional software that will be run on the workstation will determine your actual speed and memory requirements.

MONITORS

The monitors attached to the workstations should be selected carefully. **Visual AS/AP™ is designed to operate in 800x600 or greater resolution minimum and performs much better on 1024x768 resolution.** The minimum CRT monitor is a 15" SVGA Color with a .28 pitch (the size of the dots). Newer software developments will be designed for 1024x768 and greater resolution.

You should **seriously consider 17 or 19" CRT monitors (15" to 17" LCD monitors)** due to the small icons and fonts used today by all Windows software. And remember, price and brand name often translate into specifications and quality, but not always. Also keep in mind that flat-panel displays (not flat-screen but flat-panels) have an increase in the viewable screen size.

It is very important to check the compatibility of the monitors you select with your environment. We have found that some monitors perform better than others under specific fluorescent lighting. This is determined by the mode used and the refresh rate of the monitor. The net result is that we found some monitors could not be used in

1280x1024 resolution without generating an annoying flicker.

Monitors last for years. Our monitors seem to outlast 2 or 3 computer body upgrades. In fact, we still have monitors in use today, which were purchased in the early 90s. It is worth putting more money into a bigger, better monitor.

NETWORK COMMUNICATIONS

At least one workstation must have an Internet connection with NetMeeting or Terminal Services Capacity. This is required for remote support. Support further requires one of the following Internet Service types be used for remote support access: DSL, T1, and Dialup. Cable Modem Internet connections *are not valid* for support access due to restrictions to access imposed by this service type. Regardless of the chosen internet connection, it is the client responsibility to provide the necessary access needed by AS/AP to assist in support matters.

If your company has need for regular remote access capability to AS/AP, Citrix MetaFrame or Microsoft Terminal Server are excellent solutions. These are known as Thin Client solutions. If selected, this software should be running directly from the file server running the **AS/AP™** application. For more information see AS/AP Terminal Server Setup Instructions available in the General Downloads section of the AS/AP support site (http://www.visualasap.com/support_downloads.php)

LOCAL AREA NETWORK

The local area network we recommend is either Windows or Novell Netware, which we have run in-house since 1985. However, the dominance of Microsoft cannot be ignored. Since Windows is the only viable workstation operating systems, we cannot dismiss the fact that the Windows work stations interface more seamlessly with a Windows file server than they do to a Novell Netware file server.

Unfortunately, Novell has released more than one Windows Client (the work station software) over the last few years that has caused serious data file corruption. Although Microsoft is guilty of bug prone releases we have never encountered the wide-spread data corruption with a Microsoft release that we encountered with the Novell software.

Whichever operating system you select, remember that someone must install and maintain your network, so expect to pay the dealer for that service or you could be left having to handle that portion of the installation in-house, or paying extra for the assistance.

No matter which network is selected we suggest EtherNet topology (interfaces and

cabling) along with level 5 cable. We recommend at least 100BaseT (100mbps) when running Visual **AS/AP™** and 1000BaseT would not be overkill today.

In-house we use a Cisco Catalyst 2950 switch (installed in 2005) and a Cisco PIX 506E firewall (installed in 2002) and we would recommend both very highly.

DATA BACKUP

You will need a method of backing up your system and, in particular, the databases from our system. It is critical to have a backup system, but the type of hardware and method of backing up will rest with your hardware supplier.

Although we would traditionally recommend tape backup, with the advent of inexpensive DVD burners, removable hard drives and large hard drives in workstations, there are many new options available. In fact, we recently added a Maxtor 250Gb Firewire Drive to our system, which provides 250 GB of hard disk storage.

Just keep in mind this is YOUR data. Protect it!

PRINTERS & BAR CODING

AS/AP™ will operate with any printer that can be installed in Windows. Since Windows tries to perform all printing in graphic (near-letter quality) mode, fast printers are a must. HP LaserJet and DeskJet printers are a **VERY** good choice.

Since April, 1999, **AS/AP™** generates bar-codes through TrueType fonts in Windows. These barcodes should work on any printer for which you have a windows printer driver.

For specialty printing, such as UCC128 labels we support and recommend Monarch 9800 E series printers.

Barcode for piece work coupons or scan-packing purposes can be done with any PC compatible barcode scanner. In general, we recommend CCD type scanners instead of laser type scanners because CCD scanners are less delicate. Beyond the fact or reliability, any scanner that operates with a 'keyboard interrupt' is acceptable.

If more extensive scanning tasks are being considered there may be requirements for different types of scanner. We have clients scanning cartons on conveyor belts to shipping docks and totes traveling to the warehouse. Each of these more sophisticated applications requires scanners designed specifically for the particular project.

Our newest 'real-time' piece work scanning is performed with the RF based HHP model

3875. This unit could be used for any similar custom scanning tasks.

BACKUP POWER SUPPLIES

We expect all systems to have a UPS (Un-interruptible Power Supply) on the file server and all critical path workstations. In addition to protecting your investment in hardware, a UPS can save hours of file recovery in the event of a power outage, allowing users to close open files and shut down their system.

Workstations from which you are printing checks, running updates (end-of-day, cash receipts, etc.), payroll, and any similar activities should have at least a small Un-interruptible Power Supply that will hold the work station through a short power inter-ruption.

Web Portal Requirements

Keep in mind that this evaluation is NOT specific to your company and your requirements might vary greatly from the information provided here. Because the demand and client based accessing a web page can range greatly, the requirements here only online the minimum and should be reviewed by internal IT staff to determine actual needs.

AS/AP's Web Portal can run internally hosted on the same server where the AS/AP application is installed, internally hosted on a separate server but on the same LAN, or externally hosted with a Hosting provider. Because requirements for each of these configurations varies, each will be noted separately below:

Internal Hosting on the AS/AP Application Server:

- Server must have a Server Class Operating System installed (Windows 2000 or Windows 2003).
- Web Server software must support PHP version 5.x with ODBC libraries. Testing and development has been done on IIS versions 5 & 6.
- Server must be behind a secure firewall and must have a Natted Static IP.

Internal Hosting outside the AS/AP Application Server:

- EasySoft Bridge ODBC software is required for most Web Servers to allow authenticated ODBC across the LAN – Additional licensing fees apply.
- EasySoft supports a wide range of Operating Systems, the Web Server OS requirements are the same as those supported by EasySoft (www.**easysoft**.com).
- WebServer Software must support PHP version 5.x with ODBC libraries. Testing and development has been done on IIS versions 5 & 6.

- Server must be behind a secure firewall and must have a Natted Static IP.

External Hosting:

- EasySoft Bridge ODBC software is required for most Web Servers to allow authenticated ODBC across the WAN – Additional licensing fees apply.
- EasySoft supports a wide range of Operating Systems, the Web Server OS requirements are the same as those supported by EasySoft (www.**easysoft**.com).
- WebServer Software must support PHP version 5.x with ODBC libraries. Testing and development has been done on IIS versions 5 & 6.
- AS/AP Application Server must be behind a secure firewall and must have a Natted Static IP.
- Firewall must be configured to allow access to ODBC connection ports.

GENERAL

Keep in mind that this evaluation is NOT specific to your company and your requirements might vary greatly from the information provided here. In addition, these requirements are based on the standard AS/AP™ in-house system and do not cover web based or thin client systems.

Although price is not directly indicative of quality, you do get what you pay for. Unfortunately, in the computer marketplace the computer manufacturers deliberately add to the confusion.

It is definitely worth spending additional money on your file server. That is where you need better reliability, so it is wise to study that single piece of hardware carefully. Our suggestion again is, if you do not have staff members capable of guiding the selection and installation of hardware and network software, that it is very important to select a hardware dealer who can be trusted to handle the installation for you.

Finally, we cannot anticipate what types of gimmicks the hardware and software manufacturers might think of next, so it's hard to warn you with specifics. For instance, Windows ME was unacceptable for office use. It was designed for low-end systems use. The same is true of some hardware. It is generally a good rule to stay away from hardware and software designed for home or home/office use. Another example is the 3Com OfficeConnect line of networking products. Although their specs appear to be adequate, this hardware is not robust enough for the load of running an integrated accounting system like **AS/AP™ in a business environment**.

The information contained in this document represents the current view of ASAP of Georgia, Inc. on the issues discussed as of July, 2006. Because ASAP of Georgia, Inc. must

respond to changing market conditions, this document should not be interpreted to be a commitment on the part of ASAP of Georgia, Inc. and ASAP of Georgia, Inc. cannot guarantee the accuracy of any information presented herein.