ArcBITS Newsletter

ArcSys Hot Tip

We are often asked what the minimum requirements are for a computer to handle Red Planet. Wintegrate, the client application which runs on the pc, requires hardly any cpu or memory.

The major things to look for in a Windows laptop are battery life, screen size, screen brightness and an adequate sized keyboard.

Airplanes and Batches

I remember a time flying from Salt Lake City to Chicago in the middle of winter. It was a clear day and I was passing the time looking out the window and observing the ground below. Snow covered the ground for quite a distance when all of a sudden there was this sharp demarcation where it went from snow to brown earth. From 30,000 feet, it was very easy to see. It made me think it wouldn't have been so obvious if I had been driving by car. You notice a slow and gradual change in the decrease of snow, but you can't see a magical diagonal line scratched over the surface of the earth.

Batch processing, in some ways, is similar in the sense that it gives you the chance to see a "30,000 foot overview" of a bunch of transactions. As one user recently mentioned, just a quick scan down the page can show where there is a break in a "pattern". When you implement a procedure where transactions are posted one at a time, you don't get that big picture view and it tends to make for errors in the long run. After all, humans have an amazing cognitive ability to pick out anomalies when looking at a picture. A batch is nothing more than just a picture of data. The trick becomes on how you choose to organize it.

The common methods of proofing a batch are by patient name, sequence of entry, reference number, or pro-

vider. If you entered things by sequence, for instance, you would see a pattern that follows the source documents from how the data was collected. Having the ability to sort a batch is a good way of detecting problems. When you sort information, the more likely errors will appear either at the front or end of the list.

How many entries should go into a batch? If a batch has too many entries, then it can become harder to find a problem when balancing. If a batch is too small, you tend to skim past the anomalies. In the "old" days of using fan-fold paper with dot matrix printers, you could easily see four sheets of paper with one flick of the wrist. Not so with laser printers. It takes at least 3 paper shuffles to get to the 4th page and then another 3 to return to the 1st. On the other hand, you can laser print a batch in a much smaller and more readable font than could be provided by a dot matrix printer.

Another question that pops up is whether or not a batch should be proofed on the screen or on paper. After all, you can burn a lot of trees printing proofs. But, spotting problems can sometimes be easier when looking at paper. We see this same thing with programming. Looking at code on paper is easier and gives a bigger picture.

So, the next time you're on a trip across the USA in an airplane, just put your pattern recognition brain in gear, and enjoy the scenery.

Remote Backups

If you are using a remote backup service such as Carbonite or Mozypro, it is a good idea to know how fast your Internet connection operates. There are two measures, upload speed and download speed. The major Internet Service Providers (ISP) are primarily interested in being able to push data to you, fast. Uploading data from your pc or server to other computers is less important to the ISP. This makes sense. You want to see, play, or listen to a lot of content at once. Your home or office pc isn't really in the business of broadcasting movies to the rest of the world.

An ISP will typically have a tool by which you can run a speed test. CenturyLink, as an example, has a link http://internethelp.centurylink.com/internethelp/speedtest-q.html which can show you the speed of your connection. Additionally they have links to help you determine what to do if it seems like your connection is sluggish.

For sake of argument, let's assume your download speed is as shown here:

> **Last Result:**
> Download Speed: **13.468** Mbps (1.7 MB/sec transfer rate)
> Upload Speed: **0.736** Mbps (0.1 MB/sec transfer rate)
> The closest server located in **Salt Lake City, UT** performed this test with a latency of 23 milliseconds.
> Test Date: Thursday, February 27, 2014 10:51:29 AM

You'll notice that there are two measures for each. Mbps is for million bits per second and MB/sec is million bytes per second. We typically measure computer files in bytes, not bits, so the MB/sec is the more critical figure. If your File Save backup is 1,500,000,000 bytes (1.5GB), your upload speed is 100,000 bytes per second, then it would take 15,000 seconds or about 4 hours and 10 minutes. 3GB would take 8 and half hours. On the flip side, let's say you lost your server and had to restore from the last backup it would take about 15 minutes for our 1.5GB example. That's good news. It would take much longer to get a machine replaced or install spares.

In an earlier newsletter, we offered a Tip about checking the scan resolution size setting. Our recommendation is 150 x 150. A typical Adobe document after scanning can be 100KB to 200KB in size. If your resolution setting is to high, the same file could be as much as 2MB. So once again, the cumulative size of all your scanned images becomes another critical factor when backing up data to the cloud.

The market place for doing remote backups is growing and the pricing can be from $0 on up. We can tell you that MozyPro has their customer support center located in Pleasant Grove, Utah, and has been reliable.

Incremental Backups

ArcSys normally configures your system to perform a full data base backup in the evening or early morning. As part of the full backup, all of the cross reference files are rebuilt and any batch processing of reports is also performed.

During the day, we can also configure your system to perform what is known as an incremental backup. This is a process that looks to see what records in which files have changed since the last full backup. This data is backed up, usually every 1 to 2 hours. In the event your system were to crash, we recover all your data from the last full backup and then restore the most recent incremental. Thus you would only lose a couple hours of work.

If your incremental backup takes about 10MB by the end of the day and you were using the above through put rates, it would be taking about 2 minutes to backup the incremental save into the cloud.