

Carl Bulger presided.

Remember the Holiday Luncheon on December 5th beginning at noon. It will be at the Osaka Grill and Buffet in the Crofton Shopping Center next to Kmart.

Our first meeting of 2014 will be January 2nd.

Today's meeting featured the long-awaited forum on Backing Up. The planners and panel included Irv Salzberg, Bob Blum, Eric Hein, Dennis Evans, and Tom McCabe. PowerPoint slides have been posted to the website on the Training page. There are two sets, one prepared by Irv Salzberg, et.al., and the other by Bob Blum.

One of the advantages of frequent backups is peace of mind knowing that you are avoiding the emotional trauma that comes with loss of your operating system or loss of your data.

One of the reasons to back up is to have a recent copy of your data in case it is corrupted. One of the possible causes of data corruption was listed as "Removal of external drives". Although it doesn't occur often, there is the possibility of removing the file index on an external drive and losing data if the external drive is pulled from the computer before the data has been copied to the drive from the buffer. To prevent this, click on the "Safely Remove Hardware" icon in the system tray. It will tell you when it is safe to remove the flash drive, or any external drive.

Be sure to prepare Rescue disks containing miniature Windows or Linux operating systems. The Windows system is called Windows PE (Pre-installation Environment).

When backing up, the "System Image" includes the Master Boot Record which is not included in the image of just the operating system. That is why having a copy of the operating system is insufficient for restoring your system. Also, the operating system doesn't include your data and programs.

Back up to a place or component that isn't likely to suffer the same fate as your computer or system hard drive. Many people back up to an external hard drive or flash drive, then remove the external drive and put it in a safe place where fire, theft, power surges, or malware affecting the system will not also affect the external drive. Backing up to the "cloud" formerly was relatively safe. But now CryptoLocker, a dangerous form of ransomware, encrypts your important data and apps, and then gives you 72 hours to pay a \$300 dollar ransom. Online backups aren't likely to protect you from CryptoLocker because when they encrypt the files, they have changed. The backup software then backs up the encrypted files to the server, erasing the originals.

Validate your backups with the backup software. This will take as much additional time as it took to backup, but it will avoid faulty backups.

Bob Blum recommended EaseUS ToDo for data backups and Macrium Reflect for System Backups. They work for Windows XP, Vista, 7, 8, and 8.1.

Eric Hein recommended 7-Zip as a file backup program. See his Freeware page on our website for links to sources for all three of these backup programs under "System Tools".

Submitted by Barry Hammond, Secretary