Technology Corner
By: George Champine

Large Screen TV
Large screen TVs are now very popular because of the dramatic cost reduction in flat panel technology. There are four different technologies that can be used to implement large screen TVs, each with its own benefits and weaknesses. The characteristics of picture quality that are important are: brightness, color saturation, contrast, and maximum viewing angle, and any purchase decision should consider these. The technologies are:

Plasma – This technology uses a large sheet of glass with a million tiny cells that provide the image and is about four inches thick. It has excellent overall picture quality. It is preferred in sizes over about 40-50 inches. However, it is expensive, heavy, and uses considerable power.

LCD flat panel – This also uses a large sheet of glass with a million small liquid crystal cells that provide the image. It is thinner (about three inches), lighter and also has excellent picture quality. It is generally preferred for sizes under about 40-50 inches. It can easily be wall-mounted.

LCD projection – This technology uses a small LCD chip to form the image, and projects light through the chip onto a screen for the image. It is much lighter than either LCD or plasma because it does not have the large sheet of glass, and can give excellent image quality. It is thicker from front to back (about 16 inches) than the other technologies and therefore can not be wall-mounted. The greater the size of television the greater the advantage of projection.

DLP – This technology uses a single chip with one million tiny mirrors to project the image. It requires the least amount of electronics and thus has excellent reliability and low weight. It is similar to LCD projection in cabinet size and weight. It has excellent picture quality: compared to projection LCD it has a somewhat smoother picture and better contrast, but somewhat lower color saturation and brightness. Recent advances in technology have made these differences very small or negligible.

All of these technologies can give excellent picture quality, but there is considerable variation among manufacturers. An actual comparison should be made in any buying decision.

HD TV -- A closely related consideration is High Definition (HD) TV. It provides a much higher quality picture with about five times the number of pixels. The greatest use of HD TVs presently is to view DVD movies. To receive HD programs over the cable requires an HD-ready TV and an additional receiver. The receiver can be either a set-top box or a receiver CABLEcard that fits in the TV if suitably equipped. In both cases the receiver must come from the cable provider (Comcast) for a monthly rental. The rental for the CABLEcard is $2.45 and provides 16 channels in HD. The rental on the set-top box is about $13.00 and it provides over 100 channels in high definition. More information can be viewed at: http://www.comcast.com/Support/ChannelGuide.ashx.

A final note on TVs for those who use an antenna rather than cable. All TV broadcasters are required to change from the analog channels we have had for 60 years to new digital channels at the end of 2008. All current TV sets will require a $50 converter to continue to operate. If you buy a new TV for use with an antenna, you should consider getting one that is digital-ready. This is not a concern for those who use cable.

Free computer available

I have a computer and printer that I would like to give away free to someone who does not have one and who would use it. If you know someone send me e-mail at: george.champine@computer.org.

Sudoku Craze

The Sudoku puzzle craze has taken the country by storm. It was invented here, recycled through Japan, and then brought back here. The puzzle is a set of nine grids, each 3X3 squares in size. The object is to fill in the grids so that every row, every column, and contains the digits 1 through 9. You can get new puzzles on the internet every day in three levels of difficulty at http://www.miniclip.com. Scroll down on the opening page until you see “Sudoku” in the left column. You can also print them and take them along.