

The

Computer Link

May 2011

The Newsletter of the Northern Neck Computer Users' Group

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→**DEADLINE**←
for **NEXT ISSUE**,
One week after meeting

3D Animation and Artwork

Brian Riley spoke to the NNCUG General Meeting about **computer generated 3D animations and artwork**. In addition to being the newly elected Vice President of the NNCUG, Brian has many years of experience working at the National Institute of Technology. He has designed many web sites, and written two sci-fi books.

3D modeling began with CAD in the old days when enormous “super computers” were used. Now, that degree of power is replicated in desktop and laptop computers.

Using **Daz 3D** software on a laptop, Brian **demonstrated basic concepts involved in 3D modeling**. Due to the current speed of processing, a 3D image can be constructed, even though it will be a two dimensional representation on the screen and paper.

Taking an object and breaking it into multiple triangles or polygons allows changes to be made to particular parts of an object that replicates real life. One can think of a certain object -- Brian showed us an elephant -- as occupying one cube, height, width, and depth. But within that

cube there are many smaller units, also polygons that allow the object to be represented in the way the human eye perceives it.

One begins with a cube. Then either the cube itself can be moved within the framework of the picture, or the cube can be seen from different camera

viewpoints. Different representations can be chosen from the software program, e.g. an elephant or a person. Although the **basic Daz 3D software is free, it is possible to build a library of images that are not free!** Speed is referred to as the



Brian Riley

Photo by Alan Christensen

number of polygons rendered per second.

3D modeling is **used in video games, art-work and movies such as *Avatar***. The underlying geometry includes points, vertices (lines that join points), and surfaces (planes) that make up the mesh (the overall object). Brian took an image of an elephant and then showed it as a mesh object. Then he added texture. A UV map can be created, which makes it much more realistic. The program Mimic can be used to incorporate sound into visuals. It is possible to pose the image, and have a series of scripts that create movement. It also is possible to use layers to enhance texture. Of course with each enhancement, more processing power is needed, a steeper learning curve is encountered, and probably additional costs will be incurred.

Using a cone as an example, Brian showed us ways to create some visual effects. Texture includes color and light reflection. This can be achieved with actual changes to each smaller polygon within the cone, and lots of math, or one can use bump maps (a texture feature), which give the illusion of an irregular surface.

While creating a picture, it is helpful to use a bounding box around a particular object. This narrows the calculation area for changes. The reset of the picture will remain the same. There is a tradeoff between realism and speed of re-creation. Once an image is ready to render it can take as long as 24 hours to run just one picture.

People images are complex structures. Brian showed us an image in which a person was broken into multiple bounding boxes, e.g. head, chest, legs, and feet. From there one can build a detailed image. Examples are images of a human body with the organs inside, and the organs can show movement such as a heart beating. All of this is possible, but again, takes a lot of time and can be quite expensive to have all the objects available.

He then showed us some ways to make movement. One can simply shift the position of a particular part of the image, e.g. the hand moves. Or one can use inverse kinematics, so that if the hand is moved, the arm will also follow. One observer commented that this might come in handy for something like a yoga class, to show collateral movement. One can use a camera to show whole walking movements, or use Biovision (BVH files) a software product that captures body movement. There is also Mimic, a software program that can move the mouth to match speech.

Brian said the **learning curve for Daz 3D is manageable depending on the complexity of one's effort. The basic free version of DAZ studios is available at <http://www.daz3d.com>**. He finds some items are harder to learn and that the documentation is a bit spotty. Much of the learning is intuitive. Then, as if to prove his point, the somewhat underpowered laptop balked at an instruction, and the only solution was to end the demo. By then, this viewer, for one, was fascinated with the possibilities of creating 3D art and movable objects using just a home computer and free software.

Brian, many thanks for talking about this very interesting topic!

Anne Moss

Home Networking

Rob Mink of Northern Neck Computer Consultants will speak at our **May 21 meeting**. He will discuss home networking.

This will cover the ways ISPs offer services and what that means when you set up your network. Rob will address Ethernet and wireless setups, installing wireless cards, and connecting them to the router. He also will discuss **wireless security** and how it is defeated.

Chris Christensen

Service Packs Explained (and Needed)

By Sandy Berger, Compu-KISS
www.compukiss.com
sandy (at) compukiss.com

Although most of us still think of **Windows 7** as a brand new operating system, it is, in fact, **starting to show its age**. Windows 7 made its debut on October 22, 2009. Is one and one-half really old? Well, in the computer world, it is not old, but it is certainly full-grown. **One sign of this is that Microsoft has just released the first Service Pack for Windows 7.**

A service pack is a collection of updates, bug fixes, and enhancements for a software program. As you know, Microsoft routinely offers updates for their Windows operating systems. These updates come out weekly and they patch or, you might say, repair the operating system so that they remain safe from hackers. They can also include improvements or enhancements to the operating system. At a certain point in time, Microsoft gathers all of those updates, adds any other updates and enhancements they have and issues this batch of updates as a service pack. It is also important to note, that when Microsoft issues a service pack, this service pack also makes sure that all of the updates and enhancements work well together and offer good stability for the operating system.

The question that I am most often asked is this, **"If I have installed every update that Microsoft has released, do I still need to install the service pack?" The answer is "yes."** Often the service pack contains additional updates and/or enhancements that were not included in the weekly updates. Also, a service pack makes sure that all of the updates are put together properly to make your system run well.

In fact, Microsoft thinks that this is so important that they only support the operating system when it has the proper service packs

installed. Each service pack should be installed when it is released. If for some reason, they are installed all at the same time, each is installed sequentially.

So, for Windows XP you should have Service Pack 3 installed. Windows Vista should have Service Pack 2, and Windows 7 should have Service Pack 1. To learn what service pack you have installed, just click on the Start button, right-click on Computer or My Computer, and then click Properties. You will see the service pack listed under the Windows edition.

You can go to the Microsoft website and install a service pack from there, if you happen to be missing one. All service packs from Microsoft are free. If you are using Window 7, the new service pack will be offered to you through Microsoft's automatic update service. This Windows 7 service pack can take up to 30 minutes and will re-boot your computer. I have installed Window 7, Service Pack 1 on several computers without a problem, but you should be aware that installing a service pack is a big update. Microsoft recommends that you back up your computer before installing a service pack. And to be honest, you should be backing up your computer anyway. So if you don't have a backup strategy in place, this is a good time to implement one.

The newest version of Internet Explorer - IE 9 is now in testing and it is already available for free download in a beta version. This is by far, the best version of Internet Explorer that Microsoft has ever released. IE 9 won't run on Windows XP; it requires Windows Vista or Windows 7. Although Microsoft is not requiring Windows 7 Service Release 1 to install IE 9, it is advisable to install this Service Release before you install IE 9.

Service Packs are a fact of life for Windows users. Installing them may be a bit of a pain, but you really need them to make sure that your Windows system is secure and stable and that it performs well.

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21st Century Photos

*By Wil Wakely, President, Seniors Computer Group, California
January 2011 issue, Bits and Bytes, The Official Electronic Newsletter of the Seniors Computer Group
www.SCGsd.org
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The advent of the digital camera, about 1990, marked the demise of the film camera, much to the displeasure of Eastman Kodak. Digital technology allows the average amateur photographer the ability to manipulate the image very easily with his computer, even better than the skilled dark-room professional of yore.

Each digital pixel is a tiny area of the picture, so the more pixels available, the more detail the picture contains. Modern cameras have 10 megapixels or more (10 million pixels) which provide pictures almost as detailed as film, a difference hardly discernable by the naked eye. Also, the picture is shown on the LCD display on the back of the camera so you know immediately whether the shot is what you wanted. Automatic focus and exposure settings are welcome features of modern cameras and eliminate the confusing settings of film cameras. Small "Point-and-shoot" cameras now take great pictures with no operator skill required.

Even cell phones now come with built-in digital cameras.

Unlike film cameras, many more pictures are taken since the cost of each digital image is zero. As a result, **the size of photo albums has exploded with the greater number of photos being stored on DVDs for posterity**, or on a free Internet web site to be shared with friends.

There are now many computer programs available for modifying the image, from simple ones like "Picture-it" to powerful ones like "Photoshop," with many others in between. Perhaps the most common one is Picasa, a free program from Google. It provides common photo fixes like cropping, brightness and contrast adjustments, along with many other more subtle controls. It also categorizes and stores your photos for rapid retrieval. Be sure to download this marvelous program from the Google web site.

We can now digitize older photos so they can be modified and stored with ease.

There are many scanners on the market to convert your photo to a digital file, whether it is from a photograph, 35mm slide, or film. A scanner will also let you convert a page of text to a digital file that a word processor can read and edit. A separate program called an OCR (Optical Character Recognition) is necessary to make the conversion from image to computer readable text file. These programs usually come bundled with the purchase of a scanner. A word of caution: scanning can be a very slow process so plan to do it while watching TV. A bevy of commercial scanning companies will convert your photos for prices ranging from five cents to fifty cents each, depending upon volume. Once they are in digital form, you can modify them at will and store them on DVDs.

Another word of **caution: digital image files (JPG) can be huge and sending them by email can cause you to lose a lot of friends when their computer is tied up for a very long time while the large file is being received.** Several programs are available that will reduce the file size suitable for email (<200KB) without losing much quality. One free program you can download that does this is called IrfanView: terrible name – wonderful program. Ain't technology great!

Genealogy Field Trip

The Computer Genealogy Group annual field trip is **scheduled for Wednesday, May 25th**. The Group will visit the **Library of Virginia in Richmond for a special tour focusing on the genealogy interests of the group**. There will be time for independent research. **Lunch is on your own**, but there is a café at the Library with a good menu. Arrangements are being made for carpooling from the Northern Neck. **Please advise Ann Thompson (e-mail: athompson@kaballero.com) about carpooling, or of any special topics you would like included during the tour.**

For an introduction to the many genealogy resources found at the library there is a guide available online at <http://www.lva.virginia.gov/public/guides/Generesearch.pdf>

Ann Thompson

April 16 Meeting Notes

MEMBERS ATTENDING: 22.

TREASURER'S REPORT: 114 members.
Treasury Balance: \$3906.45.

PRESIDENT'S REPORT: President **Chris Christensen** reported that the Technology Fair at the Lancaster Community Library (LCL) went well. NNCUG partnered with the LCL for the event. See the article in the April 2011 issue of the Computer Link.

Chris said that he has tentatively arranged for a speaker from the Christchurch Foundation for the May meeting. (**Note change in speaker as listed on Page 2.**)

REMINDER: **Betty Lehman** asked members to **bring in used printer cartridges for recycling. The proceeds are used to purchase very nice raffle prizes!**

SIG REPORTS:

PHOTOGRAPHY: **Jim Sapione** encouraged all who are interested to attend. The group meets on the second

Tuesday of the month from 9:30 to 12 at the Lancaster County Library in Kilmarnock. A topic is identified before the meeting. The May assignment will be to remove haze from photos. Bring your laptop. If you don't have one, you can bring a flash drive with your pictures to use on the laptops that are available at the meeting.

GENEALOGY: On **May 25, the genealogy group will journey to Richmond to tour the Library of Virginia.** There will be carpools leaving from Heathsville and the Kilmarnock area. The program will include a tour of the resources at the Library, and allow some time for independent research. Please contact **Ann Thompson** at athompson@kaballero.com.

WEBSITE: **Betty Lehman** said she now could link to photos on the web site. One can also find photo tips posted there.

Q and A: Can one do a system restore but protecting one program from any changes? It is possible, if one moves and saves the Registry and program. It is difficult to do

and lots of work. Not really recommended.

A member asked about preventing news feeds from other Facebook users from inundating her Facebook page; no easy solution was offered.

SPEAKER: **Brian Riley** - Computer Generated 3D Animations and Artwork.

RAFFLE WINNERS: **George Cadmus** - 8GB Flash Drive and case; **Alan Christensen** - Laminator; and **Linda Williams** - 4X6 Photo Storage Kit and Kodak Picture Paper.
Anne Moss, Secretary

Membership Report - April 2011

Welcome - None

RENEW May 2011 - Susan Barrick, Russell Buxton, Tom Duke, Jean Ehlman, Robert Headley, Thomas Warner

RENEW April 2011 - David Alberts, Mahlon Brown

Membership dues are \$20 annually. Please send to:
George Cadmus, Treasurer, NNCUG, 150 Pine Drive,
White Stone VA 22578

The Computer Link

Northern Neck
Computer
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150 Pine Drive
White Stone, VA 22578

NNCUG Meeting Dates

NNCUG GENERAL MEETING
Third Saturday, 10:00 a.m.

Rappahannock Westminster-Canterbury Meeting Room

BEGINNERS SIG

*Meets three times a year. Those interested, contact
B.J. McMillan at 580-8666*

GENEALOGY SIG

*Meets bi-monthly, 2nd Thursday, 1:00 p.m.—RW-C
Contact Ann Thompson at athompson@kaballero.com
to get on the mail list for announcements.*

PHOTOSHOP SIG

*Second Tuesday, every month, 9:30 a.m.
Lancaster Community Library, Kilmarnock
For more information, Call Jim Sapione, 804-462-5831
or message Bird@kaballero.com*



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Coming Attractions

*Membership - May 21, 10:00 am, Rob Mink, Home Networking
Genealogy - May 25, Wed., Field Trip to Library of Virginia
Photo SIG - May 10, 09:30 am, Lancaster Community Library*