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The Digital viking



Twin Cities
PC USER GROUP

NEWSLETTER

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TC/PC Exists to Facilitate and Encourage the Cooperative Exchange of PC Knowledge and Information Across All Levels of Experience

December 2019

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General Meeting Tuesday, Dec. 10, 2019 7:00 PM

Current State of Smart Home Technology Presenter: Jack Ungerleider

Summit Place
8505 Flying Cloud Drive
Eden Prairie, MN

As the Minnesota winter settles around us we find ourselves inside more. Join us for a review of the current state of Smart Home Technology. Smart speakers, Smart TVs, and home control/security devices are all on the menu. For the cord cutters, or would be cord cutters in the group we'll leave some time to discuss the not so mundane world of antennas and DVRs. 📺

Tech Topics with Jack Ungerleider at 6:00 PM.

We will look at the current state of Crafting Tech: 3D Printers, Laser Engravers, and Pattern Cutters.

TC/PC is a Member of



24-Hour Information • www.tcpc.com
Application form inside back cover

The Digital Viking

The Digital Viking is the official monthly publication of the Twin Cities PC User Group, a 501(c)(3) organization and an all-volunteer organization dedicated to users of IBM-compatible computers. Subscriptions are included in membership. We welcome articles and reviews from members. The Digital Viking is a copyrighted publication and reproduction of any material is expressly prohibited without permission. Exception: other User Groups may use material if unaltered and credited.

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Full page (7½ x 9½)	\$100.00
Two-thirds page (7½ x 6)	80.00
Half page (7½ x 4¾)	65.00
One-third page (7½ x 3)	50.00
Quarter page (3½ x 4¾)	40.00
Member Bus. Card (2 x 3½)	10.00

Multiple insertion discounts available.

Contact Sharon Walbran at: SQWalbran@yahoo.com

Deadline for ad placement is the 1st of the month prior to publication. All rates are per issue and for digital or camera-ready ads. Typesetting and other services are extra and must be requested in advance of submission deadlines.

Payment must accompany order unless other arrangements are made in advance. Place make checks payable to: Twin Cities PC User Group

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Meets once or twice per year. All members welcome to attend.

Visit www.tpc.com for meeting details.

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TC/PC Member Benefits

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and demonstrations

Special Interest Groups
Monthly Newsletter

Discounts on products
and services

Contests and prizes

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payment of each renewal

20% discount on all ads
Placed in the *Digital
Viking* Newsletter

Up to 5 newsletters mailed to
your site
(only a nominal cost for each
additional 5 mailed)

Newsletter Staff

Editor Sharon Walbran

How to Clean Your Dirty Laptop

Author: David Kretchmar, Computer Technician

Sun City Summerlin Computer Club, NV

September 2019 issue, Gigabyte Gazette

www.scscclab.com, dkretch@gmail.com

After being used regularly for months or years, our laptops accumulate dust, grime, skin oils, sneezes, and who knows what else. Your laptop is most likely due for a cleaning, and I'm going to pass along some suggestions on how to do it effectively without harming this delicate piece of equipment.



You know your laptop is filthy. You can see the dirt and grime on your keyboard. You might also be able to see grime accumulated on your trackpad. So, it's time for a cleaning.

A shining newly cleaned laptop is a joy to use; the keys are clean; the screen is free of smudges and splatters. These cleaning suggestions might also be useful if you buy a used laptop, since the previous owner doesn't always leave them in pristine condition.

Your Supplies

You don't need much to clean a computer; rubbing alcohol, a mild dish detergent, soft lint-free cloths (microfiber cloths are ideal), Q-tips, and canned air. Ninety percent or higher isopropyl alcohol is what you want, since it won't damage the internal components. And if you have some particularly embedded dirt, a Mr. Clean Magic Eraser (or other melamine sponge) can also work wonders, though it should be an absolute last resort since it's abrasive and can leave permanent scratches.



Don't waste your money on specialty cleaners you see at big box electronics stores like Best Buy. They work just fine but no better than what you have at home.

Start With the Inside

Starting with that dirt on the keyboard and screen might be tempting, but you should start with the internals. Canned air will blow dust and dirt everywhere, so if you started by cleaning

the screen, you'll just end up having to clean it again after you've used canned air. Start by blowing out the dust, then move on to the outside.

You shouldn't have to open your laptop to clean the inside. Turn off the laptop, unplug the power cable and remove the battery, if it pops out (removable batteries are becoming a thing of the past). Give the canned air a quick burst away from the laptop to get rid of any condensation, and then start blowing air into any cracks and crevices: the keyboard, the vents and even the USB and other ports. Blow in short bursts, since longer sprays can cause moisture to accumulate inside your computer. You can also damage the fans by making them spin too fast.

You probably won't see a big change after doing this. The goal is to prevent dust buildup over time, which can cause your laptop to overheat and possibly spontaneously shut down. If you can see dust bunnies in the vents, you've let it go too long without a cleaning. If there is a dust bunny that you see is stuck behind the vent

that you can't dislodge by blasting it with compressed air, consult your user manual on how to open the case. Be sure you remember which screws went where for the reassembly; snap a picture or two of your laptops before opening the case for a reference and be super-organized with the screws as you remove them.

Smokers and pet owners should take special care to clean the inside often, since you're likely to experience much quicker buildup of dust, smoke, hair and other dirt.

Wipe Down the Outside

Remember, when cleaning a laptop (or desktop) computer, you want to apply the cleaning product to the tool you're using to clean, never ever directly onto the computer. So, grab your microfiber cloth, pour a little alcohol onto it, wring it out so it isn't dripping wet, and wipe down the surface. Cotton swabs with alcohol are useful for the keyboard keys and the small spaces between them. (If there are marks that won't come off, you can try rubbing them with a Mr. Clean Magic Eraser or other cleaner very lightly, but again, they're mildly abrasive and this can alter the finish of the surface.)

It may take a few passes to get all that grime off, but once you do, you should notice a dramatic difference. If your laptop is particularly old, you may not be able to get rid of the shine on the keys; some of us may have worn down the top layer of plastic and even the letters on the keys. There's not much you can do about that.

You should be able to wipe fingerprints off your screen with a dry microfiber cloth. If you need some more cleaning power, a slightly damp cloth that has been completely wrung out first, can help. Some



manufacturers, including Dell and Lenovo, even say you can use a 50:50 mixture of isopropyl alcohol and water, if need be, to remove really tough dirt. Just avoid household cleaners with harsher chemicals like ammonia or Windex on the screen.

Get Rid of Bad Smells

Let's say you have a particularly terrible case of gross laptop, and even after the above steps, your laptop still carries the essence of whatever it has been exposed to. I've seen many laptops that smelled like smoke and getting rid of that is a challenge or maybe impossible. Cleaning the surface can help, but a lot of those smells may also be

inside the computer. For that, you can turn to a natural deodorizer: charcoal. Don't go digging through your grill for briquettes – cooking charcoal is different from activated charcoal. Activated charcoal is made with much more (micro) surface area to be more absorbent.

Another common item will do - kitty litter. Because most kitty litter formulas have activated charcoal in them to neutralize litter box smells, it's a great odor eliminator.

Seal the laptop up in a bag or closable bin with a cup or so of the activated charcoal or litter and leave it for at least 24 to 48 hours. If you don't have a cat, people also had good luck with diaper pail deodorizers, which are neat little packets of charcoal you can throw away when you're done. The longer you leave the computer in the bin, the better. 🖥️

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Free Windows Programming Tools: Visual Studio 2019 Community Edition

Author: Tom Burt, Vice-President, Sun City Summerlin Computer Club, NV

July 2019 issue, The Gigabyte Gazette

www.scsccl.com, [tomburt89134 \(at\) cox.net](mailto:tomburt89134@cox.net)

Most of our club members are content to simply use software programs that are provided with their computer's operating system, or programs that they purchase or download for free. However, a few may wish to have the freedom and flexibility that comes with being able to create your own custom programs to do some specific function or to use a preferred user interface. Programming an application for Windows can be daunting because so much of the coding effort goes into managing the screen, keyboard and mouse interactions.

For several years, Microsoft has been providing a free version of their Visual Studio developer tools called "Visual Studio Express" or, recently, "Visual Studio Community Edition". The newest version is "Visual Studio 2019 Community Edition". It includes the Visual Basic.Net, Visual C#.Net and Visual C++ languages, an extensive set of built in interactive components, plus an Integrated Development Environment with debugger and Microsoft's "Intellisense" assistance to make Windows programming easier than ever. It is designed to run on the Windows 7, 8.1, and 10 desktops. It can create many types of applications, including traditional desktop apps, "Modern/Metro/Universal" apps, web applications and even apps for Android and iOS mobile devices.

You can download Visual Studio 2019 Community Edition at the following hyperlink:

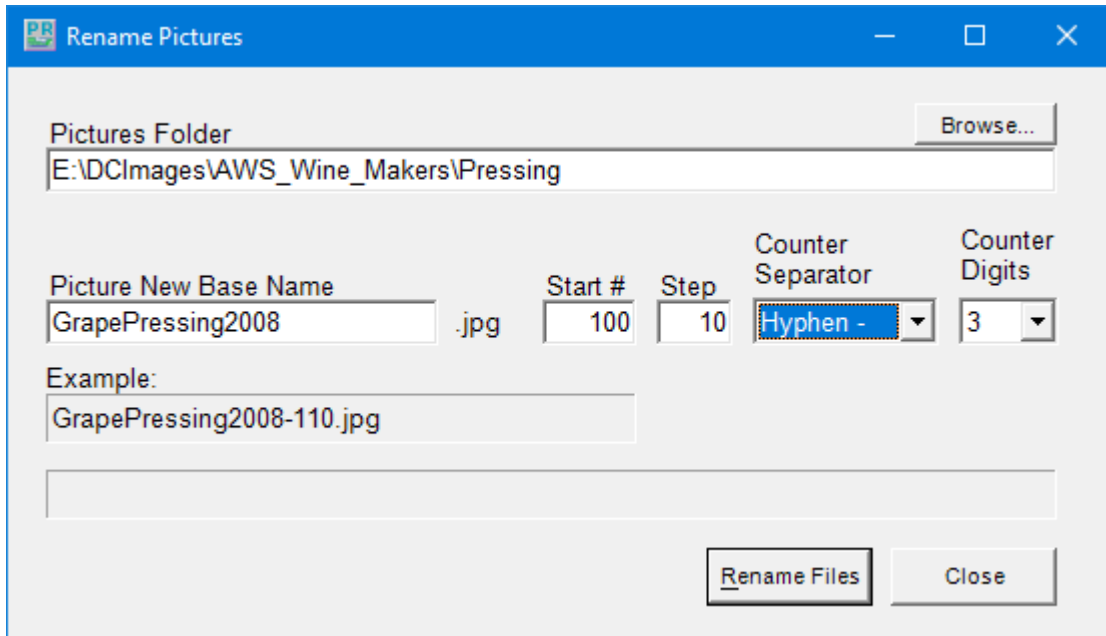
<https://visualstudio.microsoft.com/vs/>

Space here doesn't allow me to even scratch the surface of programming in Visual Studio, which uses the ".Net" framework runtime environment. However, for those interested, I've built PictureRenamer.exe, a simple bulk picture renaming tool using VB.Net 2019. I use this tool often to rename a set of images in a folder to something more meaningful than the "Img-nnnn.jpg" names that come from my cell-phone camera.

The picture renamer program lets you select a folder of images, set a base name, a starting number, a step increment, a separator pattern and the number of digits to use in the sequence number to use for the resultant file names. As these settings are changed, an example of the resultant file name is displayed.

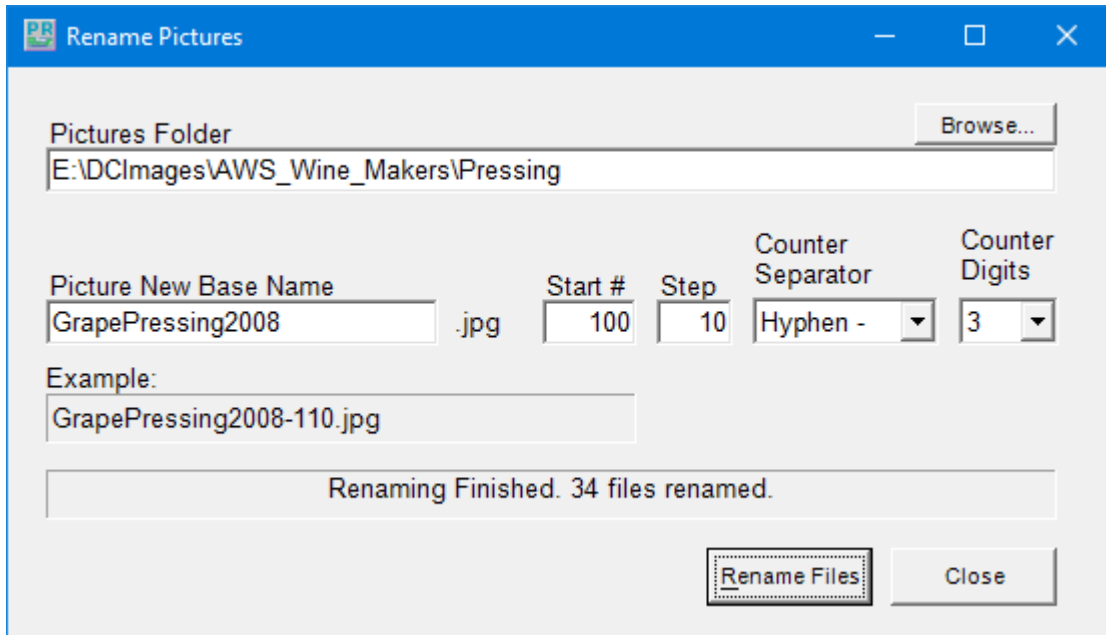
When the rename settings are suitable, the user clicks the "Rename Files" button and the program sets about renaming the image files in that folder. A file is considered an image file if its suffix is: .jpg, .png, .bmp or .tif. Files with other suffixes are ignored.

See the following screen shot to get an idea how this actually looks.



Picture Renamer Set Up to Perform Renames

After the user clicks the “Rename Files” button, the program renames the qualifying image files in the folder using the base name, separator and successive sequence numbers.

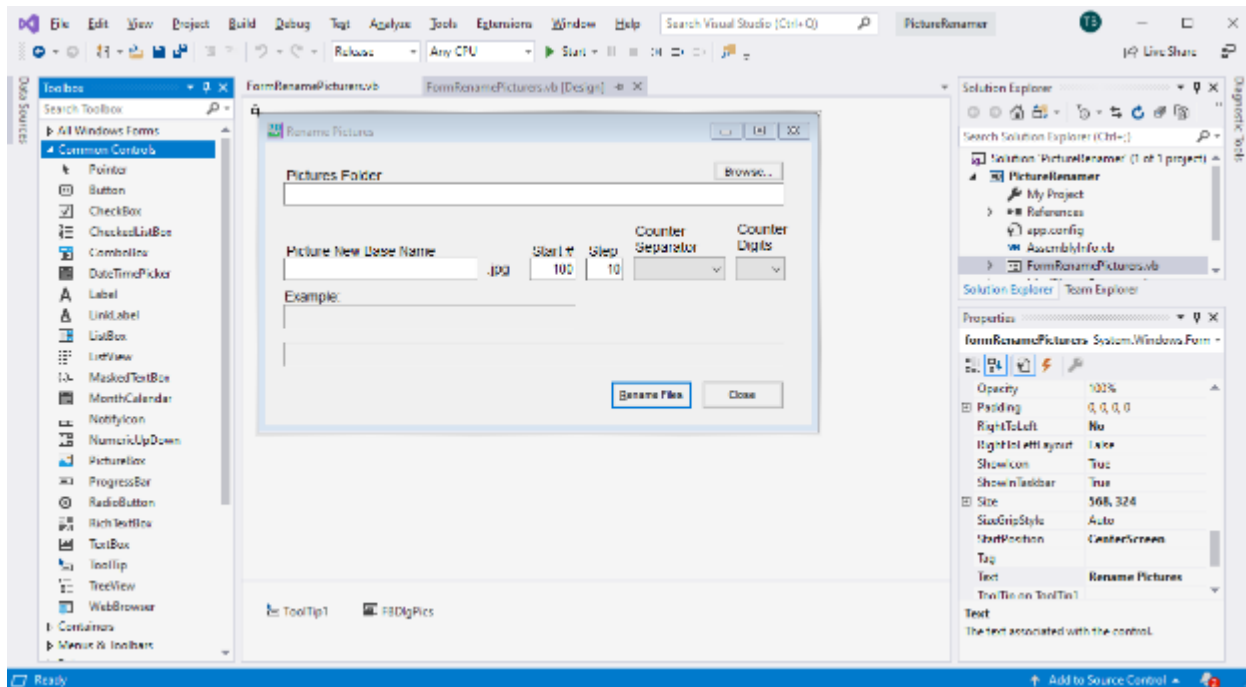


Picture Renamer After Run

The Picture Renamer program is implemented as a Windows Desktop application. It has only a single screen. The “Browse” button opens a standard Windows “Select Folder” dialog that allows the user to pick the folder whose images are to be renamed.

To view or edit the program's project file and source code, you must first have installed

Visual Studio 2019 Community Edition. Double click the PictureRenamer.vbproj file in the extracted set of files. From there you're off and running.



Visual Studio 2019 Developer Interface – Design View

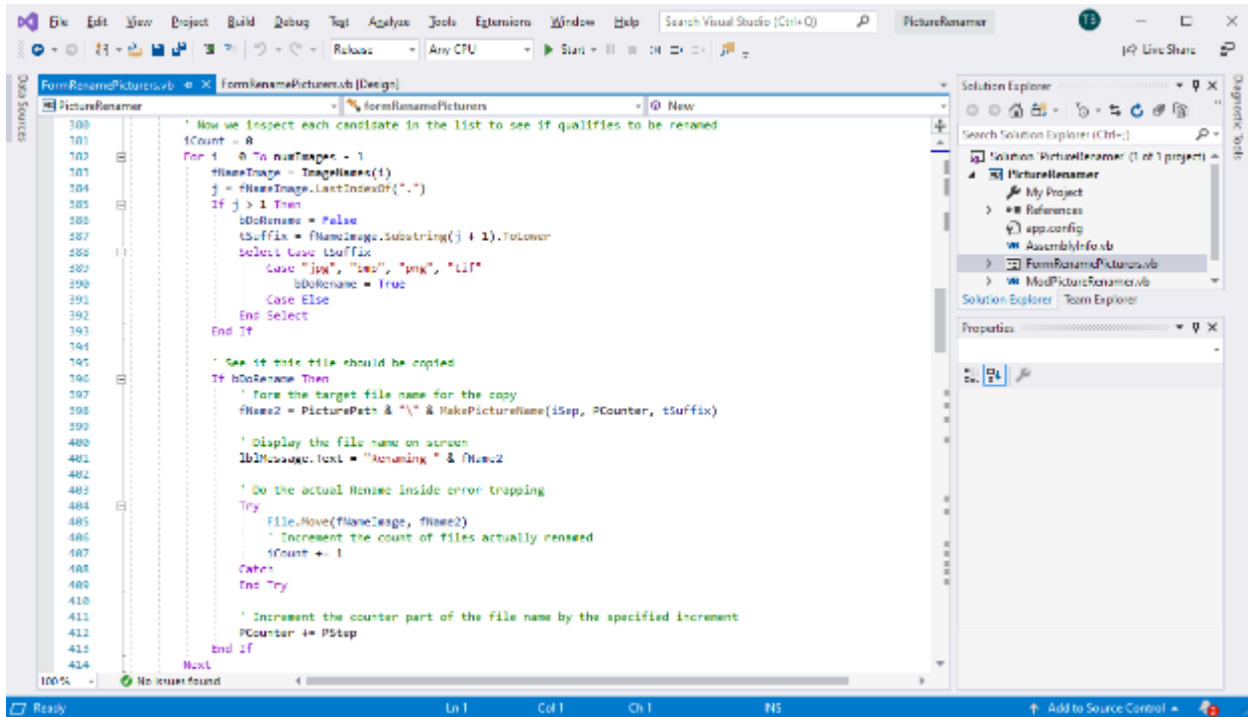
In the Design view, the program's window appears as it would look when it is running. The developer can drag and drop Windows "Controls" (buttons, text boxes, check boxes, labels, dropdown lists, ...) onto the program window and then set their properties by dragging with the mouse or by typing into the control's property sheet. Controls can be given meaningful names (e.g. btnRenameFiles instead of Button1) to make the underlying program code easier to understand.

Once the program's window is laid out nicely, with all the controls properly sized and aligned, the developer moves to the Code view and enters the program code needed to operate the user interface and perform the application's functions. When a user clicks on or types into a Control, that action is converted by Windows into a message that is sent to the application indicating which Control was acted on and what type of action it was (click, double-click, keypress). Each such message is received by the program and converted by the .Net runtime to a function call to an event handler. The developer codes event handlers for actions he/she wants the program's UI to respond to in some special way.

In this example, the key action is the user clicking on the "Rename Files" button. That action triggers a Click event that is sent to the Click handler function for the "Rename Files" button. That Click event handler function executes a sequence of VB.Net code instructions that carries out the actual series of file renames for the image files in the designated folder. In the programming world, this is called an event-driven, object-oriented model.


The following screen shot shows the code window displaying the key VB.Net code loop that

does the image file renames. You can right click on it and choose “Copy Image” to copy the screen shot to an image editor like MS Paint to view it in more detail.



Visual Studio 2019 Developer Interface – Code View

I've uploaded the Picture Renamer program to the club website as a .zip file. The direct hyperlink is: <http://www.sccsc.club/smnr/PictureRenamer.zip>. Just click the link or copy and paste it into your web browser's address bar. Your browser will download the .zip file to your PC's hard drive. If you're interested in getting the source code and project files, send me an email at tomburt89134@cox.net and I'll send you a .zip file with the complete package.

Unlike many Windows programs, the Picture Renamer does not need to be *installed*; just copy it to some folder on your hard drive To *run* the Picture Renamer, just double-click on the PictureRenamer.exe file. To make a desktop *shortcut*, left click the PictureRenamer.exe file to select it, then right-click to bring up a context menu. Choose “Send to” and then “Desktop (create shortcut)”. 

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Crowns and Computers

Author: Maryellen Amato, M.D., Member, ICON Users Group, MO

July 2019 issue, The ICON Newsletter

Meamato76 (at) gmail.com, www.iconusersgroup.org

Like most professions, dentistry has been deeply impacted by computer technology. Many dentists, for example, have been using digital x-rays. Several months ago in an article entitled Musings on Medicine, I discussed the advantages of using digital radiography, including quicker imaging times and decreased radiation.

Another major facet of dentistry that has been affected by computers has to do with the way dental crowns are made. A crown is a small prosthetic cap that fits over an entire tooth to restore its strength and appearance. A crown may be necessary for a variety of cosmetic and/or functional reasons. A tooth might require a crown if it is broken, racked, heavily decayed, worn, damaged in some way, or compromised by a root canal.

I had a number of crowns made back in the “old days” before the advent of computers. A tray of goeey putty was placed over my teeth for a few minutes and then the impression was sent off to a distant lab where the permanent crown was made. In the meantime, for the next two weeks I had to endure a fragile temporary crown.

All that has changed with CEREC-3d CAD/CAM. CEREC stands for “Chairside Economical Restoration of Esthetic Ceramic Crowns.” CAD/CAM stands for ‘computer assisted design/ computer assisted manufacturing.’”

CAD/CAM has been used in industry for many years, but dental CAD/CAM applications were not available until the 1980s, and CEREC technology has only become popular in the last decade.

My dentist, Mr. Jeff, DD, was one of the first dentists in Springfield to embrace this technology approximately 10 years ago. He has made several crowns for me with this technique, and it was so much easier than the old method – and much faster, too. Instead of taking two visits and two weeks to get the permanent crown, it only required about two hours total in one visit to have the new crown made and placed in my mouth.



Ceramic tooth material

Here is what is involved: The first thing my dentist does is take a picture using a dental program which allows him to make a 3D map of my teeth, including top and side views. This allows him to design the crown chairside right then and there on his computer monitor, bypassing the need for filling my mouth with goop and sending the impression off to a lab. This computer data is then transferred wirelessly to a milling instrument that carves the crown out of a block of strong nonmetallic ceramic




The milling machine used to make crowns using CAD/CAM technology.

material. A block of a harder material is chosen for back teeth because they are subjected to stronger grinding forces. The milling machine (about two feet long by one foot wide) takes up to 30 minutes to make the crown, which is then bonded into place in the patient's mouth.

This method is so precise that there is virtually no risk of damage to adjacent teeth. My crowns also have a very natural feel because they are customized to my bite. They blend in well with the rest of my teeth and look and feel natural.

Dr. Jeff estimates he has made approximately 3,000 crowns using CEREC CAD/CAM. Currently only about 20% of dentists in the Springfield area have this technology, so if you need a crown, be sure to check if it is available at your dentist's office and ask how many crowns they have made using it, since like everything else with computers there is a learning curve.

In summary, I am very lucky that my dentist is on the cutting-edge of dentistry and that he could offer me this computer-based technology. I can attest from my personal experience that it is definitely easier, faster, and more accurate than the old method of creating crowns. 

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A Birthday you might have forgotten :-)

Author: Art Gresham, Editor, Under the Computer Hood UG, CA

September 2019 issue, Drive Light

1editor101 (at) uchug.org, www.unchug.org

September 19 is the birthday of something you might use every day. At the very least you are familiar with it even if you do not text, write emails, handwritten notes or communicate with other humanoids. In fact, it came into existence before there even existed text messages, the Internet, or email

Back in 1982, none of our modern digital communication methods, or even the networks that evolved, existed. On university campuses there existed something called USENET boards. USER Network message boards on which the locally connected users could carry out discussions, some scientific, some not as much.

Well... It all started on a Usenet message board on September 16, 1982 because some guy wanted to know how a drop of Mercury would react in a falling elevator. (Evidently the Physics department guys had a strange sense of humor.) After several rounds of remarks, some of them with attempts at humor, there developed a discussion about how to indicate to the readers that the message should be read as a playful joke, and not so seriously interpreted.

You can read an excellent summary of the message board conversation here:

<https://www.ttlg.com/forums/showthread.php?t=73941>

The key entry was on Sunday, September 19, 1982, by Professor Scott Fahlman of Carnegie

Mellon University in Pittsburgh

401298269,0,0

19-Sep-82 11:44 Scott E Fahlman

I propose that the following character sequence for joke markers:

:)

Read it sideways. Actually, it is probably more economical to mark things that are NOT jokes, given current trends. For this, use:

:-)

These symbols, composed of normal keys used in standard text, and available on our keyboard, have long been used, albeit in simpler forms, for a very long time.

A summary discussion of the Emoticon at <https://en.wikipedia.org/wiki/Emoticon>
An entertaining version, at <https://www.kidscodex.com/history-of-emoticons/> credits Victor Hugo with perhaps the first digitally transmitted emoticon

in 1862, Victor Hugo sent a telegram to his publisher with a single character, ?, to ask how his new book Les Misérables was selling. The publisher, equally clever, sent a single character telegram back, !.

So happy birthday to the smiley face Emoticon :-) 🖨

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A few of my favorite things (aka websites)

By Lou Torraca, President Emeritus, The Tug – MOAA User Group, HI

August 2019 issue, The Tug Newsletter

www.the-tug.org, editor (at) the-tug.org

Time for an update of My Favorite Things...can you hear Julie Andrews singing the song: Raindrops on Roses and Whiskers on Kittens; Bright Copper Kettles and Warm Woolen Mittens; Brown Paper Packages tied up with Strings, These are a few of my favorite things.

We all spend lots of time on the 'net, but the sheer size of it makes it hard to find lots of neat places unless someone tells us, so, I've made a list of some of my favorite things (aka web pages) and I've added a few brief comments on each, but you really need to go there yourself and see what's there and in some cases try out the program.

<https://alternativeto.net>

It's really easy to find any alternatives for a software program that you don't want to spend big bucks on when you use the search function at this website.

<http://www.nasa.gov>

Hard to beat this one for kids of all ages. Lots of great information and images, things to do

and games for everyone.

<http://www.wpclipart.com>

This is where some of the clipart you see at the top of this column comes from. The owner, Mr. Paul Sherman has posted them for public use, free of any restrictions. So, feel free to use them in your letters, e-mails or whatever. Thanks, Paul!

<http://www.musipedia.org>

The folks at Musipedia are busy building a searchable, editable, and expandable encyclopedia of tunes. And you're invited to take part in the action. Their Melodyhound can find a tune even if all you know is the melody. Or, see the next one.

<http://thenostalgiamachine.com/>

Pick a year and you will get a list of that year's hit to listen to

<https://www.popularmechanics.com/>

Pretty much anything you can think of is probably on this webpage!

<https://radio.garden/listen/wpkn/e0ID4oHy>

This is one you will love. Search the globe for radio stations anywhere in the world!

<http://www.merriam-webster.com>

If you do any amount of writing, whether for the office or just e-mails, I'd be surprised if you haven't found this one, which, along with the Encyclopedia Britannica are essential tools.

5

<http://twitter.com>

After blogs, this one was inevitable...you "twitter" (yes, it's a verb) by answering the question "What are you doing?" in 280 characters or less. It looks like more of a fun thing than a serious one as you can see from the example of how little 280 characters is.

<http://www.gcflearnfree.org>


This page is an incredible online learning site from the Goodwill Community Foundation. On the site, there are thousands of video lessons covering 125 topics, taught by professional educators. Topics are geared to everyone from kids, to college students, to people who want to learn English, or even adults who need to beef up on job skills, like learning to write a resume or using Microsoft Office.

<https://www.travelblog.org>

This is a place where you can write an ongoing blog documenting your travels. It's a great way to share stories and chronicle your trip.

<https://www.afi.com>

Here you will find an amazing amount of information about films you have seen or wanted to...complete story lines, a list of the top 100 films and lots more to explore. If you are a film buff, you will love this site.

Hope you enjoy exploring these; have fun out there on the www, but remember to be safe! Aloha, Lou 

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Special Interest Groups (SIGs)

w Work phone h Home phone c Cell phone
* Meets at an alternate location

Most SIGs will meet at Edina Executive Plaza, Conference Room #102, 5200 Willson Road, Edina, MN

Confirm with a SIG group if they meet elsewhere.
For more info contact the SIG Leader(s) listed here.

Get SIG announcements!
Link from www.tpc.com

Board of Directors*

All members are welcome! Check www.tpc.com for location.

Selected Saturday mornings

Linux on Saturday

This is for the Linux newbie and those trying to come over from Microsoft to a different operating system.

Second Saturday @ 9 AM-Noon

Note: No Meetings June-August

Jack Ungerleider 612/418-3494 c
jack@jacku.com

Tech Topics

Technical presentation/discussion on various technical topics from the following areas:

- Web/Internet
- Mobile Devices and Apps
- Playing with Programming
- DIY (3D Printing, R-Pi, other hobby electronics, etc.)

Second Tuesday @ 6:00-7:00 PM

Every month

Right before the general meeting.

Jack Ungerleider 612/418-3494 c
jack@jacku.com

Microsoft Access

All levels. Presentations by expert developers within the group and by MS reps.

Third Saturday 9:00 AM—Noon

Note: No Meetings June-August

Steve Kuhlmeier 952/934-8492
skuhlmeier@hotmail.com

Microsoft Office

Addresses the use, integration, and nuances of the Microsoft Office applications.

Combined with Systems on Saturday

Third Saturday of the Month

9:00 AM—Noon

Note: No Meetings June-August

Steve Kuhlmeier 952/934-8492
skuhlmeier@hotmail.com

Directions to Summit Place for General Meetings:

Proceed to Eden Prairie Center Flying Cloud Drive . [Flying Cloud Drive runs along the West side of the Eden Prairie Center.] Once you have driven past Eden Prairie Center (on the left) along Flying Cloud Drive you will come to a stop light at Prairie Center Drive. The next intersection with a stop light and left turn lane is Fountain Place. Turn left at Fountain Place and go straight into the parking lot. Turn left again to the first covered entry way of Summit Place. There is plenty of parking in the large parking lot in front of the first Summit Place covered entry way. When you enter the door at the first covered entry way, ask to be directed to the Performance Room for the TC/PC meeting. For a map of more detailed directions and *info on Web SIG and Board meeting*, check the TC/PC website.

Directions to Edina Executive Plaza for Systems on Saturday, Access, Word and Picture Perfect SIGs: Take Highway 100 to the 50th Street/Vernon exit. [If you have come from the north, cross back over Highway 100 to the east side.] Take the first right and go past Perkins [The golf course will be on your left.] and continue on the east frontage road (Willson Road) to the next building—5200 . There is ample parking in the building's lot. Conference Room #102 is on 1st floor.

Help yourself by helping others!

Join the team & share your knowledge with others.

Contact TC/PC at www.tpc.com

Meetings start at 7:00 PM (9:00 AM on Saturday) unless otherwise noted. *Meets at Edina Executive Plaza.

December January

SUN	MON	TUES	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10 General Mtg Smart Home- Technology 6pm Tech Topics	11	12	13	14 9am-Noon Linux on Sat- urday
15	16	17	18	19	20	21 9am-Noon Microsoft Office (including Access)
22	23	24	25	26	27	28
29	30	31	1	2	3	4
5	6	7	8	9	10	11 9am-Noon Linux on Sat- urday
12	13	14 General Mtg TBA 6pm Tech Topics	15	16	17	18 9am-Noon Microsoft Office (including Access)
19	20	21	22	23	24	25
26	27	28	29	30	31	

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You have just read an issue of The Digital Viking.

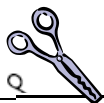
Would you like to receive this delivered directly to your email or business each month?

As a member of TC/PC, the Twin Cities Personal Computer Group, one of the benefits is reading this monthly publication at www.tcpc.com.

As a member of TC/PC, you may attend any or all of the monthly Special Interest Group (SIG) meetings and be eligible for software drawings. The small membership fee also includes access to real-live people with answers via our helplines, discounts, and various other perks.

Does membership in this group sound like a good way to increase your computer knowledge?

It's easy to do! Simply fill in the form below and mail it to the address shown.
(If you use the form in this issue, you will receive an extra month for joining now.)



		12/19
Here's the info for my TC/PC Membership:		I'm signing up for:
Full name _____		<input type="radio"/> Individual/Family Membership (\$18)
Company name _____		<input type="radio"/> Business Membership (\$100)
Address _____		If an existing member your # _____
City _____ State _____ Zip _____		Make checks payable to:
<input type="radio"/> Home <input type="radio"/> Business <input type="radio"/> Change address: <input type="radio"/> Perm. <input type="radio"/> Temp. 'til _____		Twin Cities PC User Group
Home phone _____ Work phone _____		341 County Rd C2 W
Online address(es) _____		Roseville, MN 55113
Where did you hear about TC/PC? _____		http://www.tcpc.com
<input type="radio"/> I DO NOT want any of my information disclosed.		<input type="radio"/> Check # _____ <input type="radio"/> Bill me
<input type="radio"/> I DO NOT want to receive any mailings		<input type="radio"/> New member <input type="radio"/> Renewal <input type="radio"/> Prior member
		I'm interested in:
		<input type="radio"/> Training classes <input type="radio"/> Volunteering
		<input type="radio"/> Special Interest Groups: New User, Access, etc.
		List here:
Administrative Use Only Rec'd _____ Chk# _____		

December 10, 2019

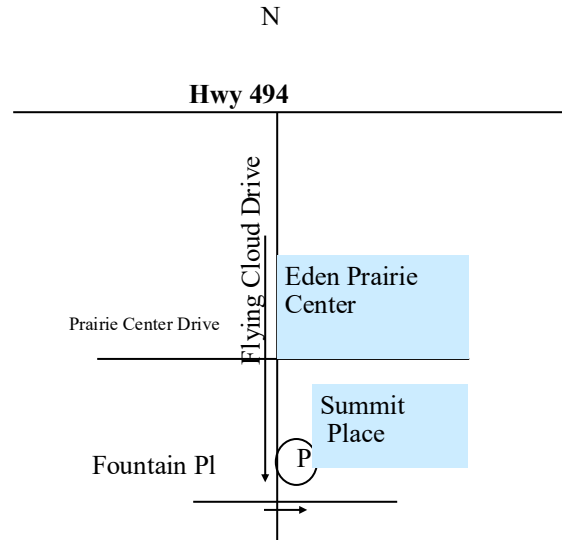
General Meeting

Smart Home Technology

Presenter: Jack Ungerleider

**Summit Place
8505 Flying Cloud Dr
Eden Prairie, MN**

More info and map: www.tpc.com



341 County Rd C2 W
Roseville, MN 55113

FIRST CLASS MAIL