



www.ntpcug.org

# North Texas PC News

2ND SATURDAY  
Microsoft Las Colinas  
7000 Highway 161  
Irving, Texas

3RD SATURDAY  
King of Glory Lutheran Church  
6411 Lyndon B. Johnson Freeway  
Dallas, Texas

## Prez Sez

August 2011  
VOLUME 31 • NUMBER 8

by Chuck Fiedler  
chuck.fiedler@ntpcug.org

At the July meeting, I had the pleasure of meeting a first-time visitor who had heard about us in a class she was taking elsewhere. She attended the Windows Tips 'n' Tricks SIG and later came up to the registration desk expressing joy that she had found somewhere where people over 14 years old knew something about computers. She subsequently went back downstairs for more SIGs. She subsequently joined on-line.

This got me to thinking about our oft-discussed membership issues and concluding that all we need to do is have folks visit and attend some SIGs of interest and we're likely to gain a new member. And this is where you come in – invite others to visit our meeting, bring them if you can so they're not left feeling all alone; talk up our organization and some of the things you have learned by attending; and finally, distribute our monthly flyer so others can learn of our existence. Let's quit being "the best kept secret in North Texas."

Finally, if at all possible, reserve third Saturdays for your personal attendance and your chance to ask questions and to add the benefit of your experience to the discussions. Remember, we are the place to "Share what you know, learn what you don't."

## In this Issue....

Prez Sez .....	1
Special Interest Groups (SIGs)	
2nd Saturday .....	2
3rd Saturday .....	2
Advertising Rates.....	7
News from the Northwest	8
This Month in our History	12
NTPCUG Member	
Websites .....	13
Make free calls in the US and	
Canada .....	14
Monthly NTPCUG Meeting	
Flyer — Can You Help	
Distribute?.....	19
Volunteering.....	19
Emeritus Members, Board	
of Directors, Calendar,	
Mailing Address .....	20

*We never really grow up; we only learn how to act in public.*

*Hospitality is making your guests feel at home, even if you wish they were.*

*I always take life with a grain of salt. Plus a slice of lemon, and a shot of tequila.*

---

# Special Interest Groups (SIGs) ...

Sessions with presentations, discussion, and exchanges of information

---

## 3rd Saturday

**Until further notice, all second Saturday meetings will be at King of Glory along with all the other SIGs (normally third Saturday of each month.).**

### **.NET Developers – 9:00 am**

*Tuc Goodwin*  
*tgoodwin@ntpcug.org*



### **Ongoing Series – Learning C# 2010**

In August, Shawn Weisfeld will lead a .NET Open Space discussion - your chance to interact with your peers and talk about anything you want that is .NET related. Got a bit of code you want to show off? Got a problem and would like to bounce it off of your peers? Want to discuss the future of HTML 5 vs. Silverlight? The floor is yours -- bring your questions, concerns, ideas!

The book we are using is Teach Yourself Visual C# 2010 in 24 hours by Scott Dorman, ISBN: 0672331012, SAMS Publishing.

### **SharePoint – 11:30 am**

*Ram Yadav*  
*ram\_yadav@hotmail.com*



No topic or presenter has been announced for this month.

## 3rd Saturday

All meetings at King of Glory Lutheran Church, 6411 LBJ Fwy in Dallas (between Preston & Hillcrest, north side of LBJ).

*Alphabetically*

### **Building Web Sites — 8:00 am**



*Bill Parker, SIG Leader*  
*bill.parker@ntpcug.org*

*presented by Alan Lummus*



In June we set up an online presence to sell a physical product. In July, we got the shopping cart and additional plug-ins working in our WordPress template, plus we modified the shopping cart to charge sales tax and shipping as appropriate. In August, we'll add more products to our shopping cart, set up the onsite SEO plug-in, and get our Google Analytics and Webmaster Tools functioning properly. In subsequent months we'll focus on testing various approaches to maximize conversion and profitability. The 8 o'clock and 9 o'clock SIGs will be combined this month, so come early or come in the middle of the discussion.

### **Digital Photography — 10:00 am**

*Spike Smith, NCE*  
*harold.smith@ntpcug.org*



**\*\*\*\*\* SPECIAL PRESENTATION \*\*\*\*\***

### **Photoshop Tips for Better Graphics**

Come join us as A.J. Wood presents tips for creating great graphics in Photoshop. Learn about proper image sizing for printed brochures or on-screen presentations, the difference between RGB & CMYK colors, tricks for changing background colors and some of the cool tools in the latest update Photoshop CS5.

A.J. Wood is an Adobe Community Professional and Adobe Certified Instructor. A veteran presenter, he has been recognized as the #1

instructor worldwide more than once. He is the acting NAPP Evangelist in Dallas, belongs to the Professional Photographers of America (PPA), and is an instructor for the Special Kids Photography of America (SKPA).

In addition to creating video tutorials for LayersMagazine.com, A.J. contributes art & technology content for ajwood.com, TipSquirrel.com, GeekBeat.tv, WebBeat.tv and Photoshop User Magazine. Catch his podcast "I Create Content" every Monday-Wednesday-Friday on YouTube (<http://ajwood.com/youtube>)

If you want to transform your ordinary photos into something better be sure to attend this session.

Want more? Watch his podcast at <http://www.drtpodcast.com/>. Lots of good stuff there.

### Digital Photo Editing Software — 11:00 am

*Spike Smith, NCE*  
*harold.smith@ntpcug.org*



Our SIG usually spends more time getting members started than for using advanced techniques. Our goals are to learn the basics, advance our techniques, and editing images to provide interesting eye catching, images for impressing ourselves, friends, and clients.

Whether you are using Photoshop, Paint Shop Pro, Gimp, Google, or perhaps another excellent product, come join us as we learn, share, and enjoy the improving the beauty of our captured and created images.

Let's make our improved products suitable for framing, an interesting show and tell, and/or documenting history. Let's go for it!

Our SIG was originally formed to learn which photo editors we may purchase. Now we must add new cameras that perform editing and never see one's personal computer.

We will use and refine these basics -

- Layers, masks
- Effects, filters
- Cropping, re-sizing
- Quick fixes

- Retouching
- Collages, story books, posters
- Vectors, curves.

Join us at our third Saturday meeting at 11:00 am. Participate, learn, share, socialize and enjoy yourselves.

### Internet — 11:00 am

*Glynn Brooks*  
*glynn.brooks@ntpcug.org*



### How to Download and Save Streaming Videos

I am frequently asked how to capture videos from various web sites, so in this session we'll talk about why you might want to do that and what software you need to have to make it happen.

### Investors - 1:30 pm

*Gil Brand*  
*gbrand@ntpcug.org*



In August, We will have our usual Q&A session. Bring your questions and experiences in investing and share with the group.

### IT Professional — 9:00 am - 11:00 am

*Larry Copeland, Co-SIG leader*  
*Lacopeland2000@yahoo.com*  
*Mark Phelps, Co-SIG leader*  
*eytukan@gmail.com*

#### Open Forum for August Meeting

As we haven't met for several months, we are going to open the meeting for question and answers.

Let's share any developments on any projects or new systems that you're working on.

Note: We now meet in room LL17 at 9:00 AM.

### Linux Installation Project – 9:00 am

The Linux Install Project helps users with their Linux install or configuration problems. Bring your machine and we will help you get it running.

### Making Money on the Internet — 9:00 am



*Bill Parker, SIG Leader*  
*bill.parker@ntpcug.org*  
*presented by Alan Lummus*



In June we set up an online presence to sell a physical product. In July, we got the shopping cart

and additional plug-ins working in our WordPress template, plus we modified the shopping cart to charge sales tax and shipping as appropriate. In August, we'll add more products to our shopping cart, set up the onsite SEO plug-in, and get our Google Analytics and Webmaster Tools functioning properly. In subsequent months we'll focus on testing various approaches to maximize conversion and profitability. The 8 o'clock and 9 o'clock SIGs will be combined this month, so come early or come in the middle of the discussion.

### Microsoft Access SIG — 11:00 am



Larry Linson  
[larry.linson2@ntpcug.org](mailto:larry.linson2@ntpcug.org)

Jim Wehe  
[jimwehe@gmail.com](mailto:jimwehe@gmail.com)



**On August 20, 2011**, SIG Co-Leader **Larry Linson** will present **“VBA: Working with Windows Files”**. Many well-meaning pundits tell you to use the functions of the Windows Scripting Host for this purpose, but input-output functionality is included in the Visual Basic for Applications (VBA) programming language supported by Access. Use these built-in features and you'll avoid being surprised if someone tries to execute your application in an environment in which the System Administrator has removed, and banned, the Windows Scripting Host because it can be a security exposure. Planned topics include: Opening and closing a file, modes of working with files, reading data, writing data, and “running” a folder hierarchy to determine the files it contains. The demo will be done in Access 2003, but the information is not “version-specific”

**In July**, SIG Co-Leader **Larry Linson** demonstrated an Access database application that can be used to “keep a library” of pictures (or documents), allowing the files to be “cataloged” but stored outside the database (so as not to run into Access' size limits). Larry says he has a little work to do on the application before he uploads it into the Access SIG SharePoint site “Shared Files”.

**Access Versions Used by our Attendees**, in June, SIG Co-Leader **Jim Wehe** surveyed

attendees as to which version of Access they are using. Results were a bit of a surprise:

Version	Users
2010	5
2007	4
2003	2

**Coming attractions:** We solicit your suggestions for topics.

Our list of suggested, but not yet presented, topics include:

- VBA: When, where, and how to use it
- More about the look and feel, and the features and functions, of Access 2010.
- Access and the Web

We need to know what topics you'd like to hear, see, and learn. Come to the meetings and let's discuss them. Write some suggestions, add your contact information so we can explore details if what you want isn't clear to us, and give them to **Jim** or **Larry**.

**A continuing call for presenters:** We want you to show us a **Microsoft Access** database you created and use, a tutorial on an Access-related topic, other Access- or Office-related material, or to contact a friend of yours who'd be a good guest speaker. If you need help constructing the presentation, see Jim or Larry – we're not from the government, but we're here to help.

**Valuable prizes:** We resumed drawing for valuable prizes at our meetings in July. Because we had skipped this fun part for a few recent meetings, we “played catch-up” and gave away two Microsoft Mice – an Arc Mouse, and a Notebook Mouse. We plan another drawing in August – attend and see what the prize will be.

### Microsoft Certification SIG - 1:30 pm

Tom Perkins  
[tomperki@gmail.com](mailto:tomperki@gmail.com)

CertSIG is initiating a series of hands-on sessions to explore and develop skills in using Entity Framework as a development platform.

**Questions or comments?**

Contact Tom Perkins ([tomperki@gmail.com](mailto:tomperki@gmail.com)) or Chris Morgan ([chris.morgan@ntpcug.org](mailto:chris.morgan@ntpcug.org))

---

## Microsoft Excel – 8:00 am

Frank Tubbs, SIG leader  
ftubbs@sbcglobal.net

Topic to be determined.

## Microsoft Expression Web — 10:00 am

Chris Morgan  
chris.morgan@ntpcug.org



At this meeting we will begin a 4-part series on the basics of HTML and CSS. These two topics cover the core foundation of internet web pages. We will discuss and demonstrate how to use various HTML elements to build a web page and then how to use CSS to apply “styles” to it.

## Powershell – 9:00 am



Larry Weiss  
lfw@airmail.net

Gil Brand  
gbrand@ntpcug.org



### Powershell class topic

#### “Format Right ... Filter Left”

The PowerShell class using examples from Chapter 8 and 9 “Format Right - Filter Left” from the book “Learn Windows PowerShell in a Month of Lunches” by Don Jones continues, followed by a Q&A session. <https://sites.google.com/site/powershellsig>

## Windows Inside Out — 12:30 pm

Glynn Brooks  
glynn.brooks@ntpcug.org



### What’s new in Windows Home Server 2?

Now that the dust has settled on the new WHS release, it’s time we looked at the new features and talked about whether it makes sense to add one to your home network. We’ll also show remote connections and media streaming over the internet.

## Windows Tips & Tricks — 8:00 - 9:00 am



Chuck Stark  
chuck.stark@ntpcug.org

gb1@ntpcug.org



Open Q&A session. With any luck we may have another of the famous

“Live No Net” presentations.

## Wireless Communications — 11:00 am

Birl Smith  
birl.smith@ntpcug.org



Is your WPA network secure? Recent developments with Rainbow Tables have rendered encryption for passwords and wireless networks open to attack. WPA and WPA2 once thought to be totally secure can be attacked using readily available tools.

## Word — 9:00 - 11:00 am

Sharon Dorsey  
Sharon.Dorsey@ntpcug.org



### No Word Sig This Month

We’re taking a summer break. Go do something cool. See you in September.

### Mailings Tab – Part 1

In May, we started a discussion of the Mailings tab, which we finished at the June meeting. Here is what we talked about at that May meeting.

The Mailings Tab is the fourth tab on the 2007/2010 ribbon view. There are five groups – Create, Start Mail Merge, Write and Insert Fields, Preview Results and Finish. The Write and Insert Fields, Preview Results and Finish are active only when you start merging data with a document. So really, there are only three activities on the Mailings Tab – printing envelopes, printing labels and merging.

Let’s start with printing envelopes. If you want to print a delivery and return address on a #10 envelope, you can put your envelope in your printer, click on the Envelopes icon, type your information in the appropriate boxes and click the Print button. Simple. But you may find you want to print on an envelope size that is not the default or you may want to print your information larger.

Click on the Options button to change envelope or printing options. On the Envelope Options tab, you can change the envelope size, font for delivery and/or return address and where they are positioned on the envelope. There are 25 envelope sizes in the dropdown list, plus a custom size option. Perfect for sending out invitations of a special size. If you want to use a font and/or size other than Word’s default, you can select it.

---

Otherwise, it will use the default Headings font. If you don't know what your default Heading font is, go back to the Home Tab and click on the dropdown list of fonts. It will be listed at the top. If you have an address line that is so long it runs off the side of the envelope, you can adjust where it prints by changing the From Left field (which is not the same as being out in left field).

Another feature when printing envelopes is the Omit checkbox. Click this and as you see in the preview the return address will not print. This is very handy if you have envelopes with a return address preprinted.

The last feature to note is Add to Document. If you type your letter first, you can highlight the address to which you are sending your letter, and then click on the Envelopes function icon. This places that information in the Delivery Address box. Then you can add, or not, a return address. Next click the Add to Document button and a page is added to your letter document. The new page will be the first page of your letter document. When you print, the envelope will print first and then your letter. Depending on your printer, you might need two paper trays for the different sizes of paper.

Now we move on to printing labels. Put your sheet of labels in your printer, click on the Labels icon, type the information, select print full page of labels (if you are printing the same address multiple times), click the Print button. Simple.

There are times you may not want to print a full page with the same information. I'll walk us through a couple of examples. Before you print, click the New Document button. You will see a document that is a sheet of labels with the same address. One scenario is that you want to print half a sheet of your home address and half a sheet of your business address. In the New Document, delete information on the number of rows you need for the second address, type the second address once and then copy that into the other labels. Then click Print.

A second scenario is to print one individual label. Perhaps you mail an envelope from time to time and always to a different person so you need only one label. After you print your one label, you're not going to toss an 8 ½ x 11 sheet with 29 remaining labels on it. Therefore, as you use labels on the sheet, the next time you will want to designate where to start. Click on the Single Label button and designate the row and column for your one label. Then click Print.

The label sheet you have will have a template number on the paper and if not, refer to the original packaging. The label sheet you have purchased may be for a different vendor or a different template number than that shown in the print labels dialog box. You change the selection by first clicking the Options button. This brings up the Label Options dialog box. One dropdown list is for vendor selection and the other is for template or product number.

As you change product numbers, notice the label information on the right side. We have focused on labels but you can print a variety of other items such as file tabs, CD labels, business cards, badges, decals, stickers, magnets and three types of cards – greeting, note and post.

If after looking through all the Label vendors and their product numbers, you still cannot find what you need, you can create your own. In the Label Options dialog box, click on New Label. This opens the Label Details box. Since this will be a custom label, you start with giving it a unique name. Then as the Preview area shows you, you will define top and side margins, width and height, vertical and horizontal pitch, number of labels across and down on a page, and the paper size.

When you click OK, your unique label is saved in the dropdown list for Label Vendor in the Other/Custom group and the Product Number is the Label Name you gave it. That's it for labels.

---

## MORE PROVERBS

*To steal ideas from one person is plagiarism. To steal from many is research.*

*A bus station is where a bus stops. A train station is where a train stops. On my desk, I have a work station.*

*I thought I wanted a career. Turns out I just wanted paychecks.*

*A clear conscience is the sign of a fuzzy memory.*

*I asked God for a bike, but I know God doesn't work that way. So I stole a bike and asked for forgiveness.*

## NTPCUG NEWSLETTER AD RATES AND DESCRIPTION

Paid advertising is available within the North Texas PC News at reasonable rates. The online Newsletter is published monthly and is distributed in PDF format to approximately 200 registered members.



SIZE	Price / One Issue	Price Each - Six Issues
Full Page	\$120	\$ 85
Half Page (vertical)	\$ 75	\$ 65
Half Page (horizontal)	\$ 75	\$ 65
Quarter Page	\$ 50	\$ 40
Business Card	\$ 35	\$ 25
NTPCUG Members	Half Price	

### Policies & Mechanicals

- Commercial ads –
  - o repro form, final size, ready for printing
  - o JPEG or approved format
  - o 300 DPI minimum
- Text ads should follow most commonly used font styles
- No ads on front page
- Related only; suitable at discretion of NTPCUG
- Payment in advance
- Send requests for information, contacts, or orders to: [Advertising@ntpcug.org](mailto:Advertising@ntpcug.org)

---

# News from the Northwest

---

By Teresa Hennig

## **News from the Northwest**

By Teresa Hennig

*Microsoft MVP for Access, President of the Seattle Access Group and Pacific Northwest Access Developers, INETA Community Champion, and member of the North Texas PC User Group since 2008.*

## **Special Item Well-Worth a Place at the Top of the Column**

### **Free Trial of FMS Total Visual CodeTools 2010 (July 2011)**

Hurry and try it NOW --- For versions of Office 2000 - 2010 and VB6. Originally offered through July but the Download Button is still there – so try it and you'll see why so many rely on FMS tools! [www.fmsinc.com/MicrosoftAccess/VBACodingTools.html](http://www.fmsinc.com/MicrosoftAccess/VBACodingTools.html)

## **Downloads, Updates and Other Good Stuff**

### **Office 2010 SP1 Downloads and Answers (July 2011)**

Those of you using Office 2010, may be wondering if you should install SP1, and if you do, what are some of the consequences that you should be prepared to deal with. A search for Office 2010 SP1 Issues could overwhelm a person with posting about both the issues it fixes and the issues it creates – during and after installing. If you're searching for answers, you might find useful information and help at <http://answers.microsoft.com>

You can also find Access related issues at the Access Blog <http://blogs.office.com/b/microsoft-access/>

### **NSIS - Open Source System to Create Windows Installers**

At the May meeting, we discussed some options for creating Windows installers that can smoothly deploy Access solutions. NSIS was among the systems that some members have used and recommended. Thanks to David F for sending the link [http://nsis.sourceforge.net/Main\\_Page](http://nsis.sourceforge.net/Main_Page)

### **Windows Thin PC (WinTPC) -- Repurpose your old PC and stream maintenance (June 2011)**

You and your clients may benefit from using the new WinTPC to save time and resources. See if the locked down version of Windows 7 fits with your plans. [www.microsoft.com/windows/enterprise/solutions/virtualization/products/thinpc.aspx](http://www.microsoft.com/windows/enterprise/solutions/virtualization/products/thinpc.aspx)

### **Back up and Recovery.. Win IT Pro White Paper (June 2011)**

Download the paper on how to select a provider for online backups. [www.windowsitpro.com/whitepaper/windows-7/migrating-to-windows-7-how-to-select-a-provider-for-pc-online-backup-and-recovery-135628?code=EPDedIronMountainNov10WP01\\_061511](http://www.windowsitpro.com/whitepaper/windows-7/migrating-to-windows-7-how-to-select-a-provider-for-pc-online-backup-and-recovery-135628?code=EPDedIronMountainNov10WP01_061511)

### **On the topic of Online folders -- The Tech Republic Article – Dropbox: Convenient, but is it Secure? (June 2011)**

[www.techrepublic.com/blog/security/dropbox-convenient-absolutely-but-is-it-secure/5618?tag=nl.e101](http://www.techrepublic.com/blog/security/dropbox-convenient-absolutely-but-is-it-secure/5618?tag=nl.e101)

---

## **Tech-ED 2011 -- Content and Labs for online viewing and download (June 2011)**

Just because you missed Tech Ed doesn't mean that you have to miss out on the content and training opportunities. You can register online (you aren't really registering for 2012 -- it just looks that way). After you set up a Tech Ed account, you can navigate the links to find Post Session Content -- or search for Content Catalog. This gives you and then have access to hundreds of session videos (903 --- really??), downloads, 108 hands-on-labs, webcasts and more. And, if you really just want to check out the resources, you don't have to "Join the Community." Maybe you'll be lucky and this link will get you there directly. <http://northamerica.msteched.com/contentcatalog#fbid=LvABfvtoM1L>

### **Access Tip - Streamline Reporting on Recurring Data Imports (May 2011)**

Leading the way with scenario based articles, Mike Stowe walks you through creating an Access database to import and analyze data from a text file, complete with sample database. Visit the Microsoft Access Blog for this new article on how to make data easier. Link to article on the Microsoft Office Blog - <http://blogs.office.com/b/microsoft-access/archive/2011/04/26/streamline-reporting-on-recurring-data-imports.aspx>

Link to the article: <http://office.microsoft.com/en-us/access-help/streamline-reporting-on-shared-business-data-by-using-queries-and-macros-HA102571244.aspx>

**PLEASE - use the blog post to share thoughts about the article** and your preferences about scenario based articles -- as compared to feature based. --- For those who are hesitant to make public comments, you may send your feedback in an email to [accesshelp@microsoft.com](mailto:accesshelp@microsoft.com)

### **Microsoft Access Small Business Solutions, by Teresa Hennig and an MVP team. - Free Chapter Download (May 2011)**

A team of 11 Access MVPs share their expertise and experiences to help you design table structures that will support your current and anticipated needs. It start with the fundamentals of good table structure, and then delves into specific issues and options of different business functions, from contact management, to manufacturing and accounting. You'll see a variety of techniques for determining requirements, interviewing users, and storing data. For a limited time, you can download **Chapter 4, People, Organizations, Addresses** from [www.SeattleAccess.org](http://www.SeattleAccess.org)

### **Access 2010 Programmer's Reference, by Teresa Hennig, et al. - Free Chapter Download (May 2011)**

This chapter will help you to VBA to expand and leverage the features that Access provides. You'll learn about events, procedures, expressions, and recordsets You'll also see how to use VBA behind forms and reports as well as working with variables and error handling. The book contains 25 chapters and 9 appendixes. Visit [www.SeattleAccess.org](http://www.SeattleAccess.org) to download **Chapter 7, Using VBA in Access**. Then ... let me know what you think!

### **Rick Fisher's Find and Replace (May 2011)**

Rick's tool will search through the design elements, such as the table and field names and modules (not the data). It can change the names of objects throughout the entire database. Version 9.0 works with Access versions from 2000 through 2010. For more details and the download, visit <http://rickworld.com>

### **Doug Steele's Web Site (May 2011)**

Access MVP and author of "Access Solutions" shares tips and links to other resources at

---

[www.accessmvp.com/djsteele/AccessIndex.html](http://www.accessmvp.com/djsteele/AccessIndex.html)

### **Optimize Access when using ODBC data source (May 2011)**

Article referred to in George Hepworth's Seattle Access Group presentation April 2011 on "DNS Less data connections". Read KB286222 at <http://support.microsoft.com/kb/286222>

### **Designing and Deploying SQL Server on VMWare - on demand seminar by Windows ITPro (May 2011)**

Learn about the design considerations for vitalizing SQL Server. The discussion will cover workloads, performance, scalability, high-availability and support. The seminar is provided as a free download so that you can watch the seminar when it fits with your schedule.

[www.windowsitpro.com/utility/virtualization2/apps-quickstart-series-part-2-designing-and-deploying-sql-server-on-vmware-vsphere-135755?code=EPDedVMwareAppsMar11WS05051211](http://www.windowsitpro.com/utility/virtualization2/apps-quickstart-series-part-2-designing-and-deploying-sql-server-on-vmware-vsphere-135755?code=EPDedVMwareAppsMar11WS05051211)

### **Hosted or On-Premises Archiving - OnDemand Presentation by Windows ITPro (May 2011)**

With the convenience and affordability of external drives, it might seem that local backups are the easy answer. This presentation will cover several key factors that you should consider when determining what back-up option might be better for a given situation.

<https://www.vconferenceonline.com/event/regeventweb.aspx?id=185&CID=EPDedIronMountainMar11WS01050311>

### **Virtual Environments - 7 Essential Backup Capabilities OnDemand Presentation by Windows ITPro (May 2011)**

Going virtual is just part of the process; just like the real world, you still need to manage backups. This seminar discusses considerations and approaches so that you can fast and efficient backups for your virtual systems.

[https://www.vconferenceonline.com/event/regeventweb.aspx?id=134&CID=AppAssureDec10WS01\\_P2M2](https://www.vconferenceonline.com/event/regeventweb.aspx?id=134&CID=AppAssureDec10WS01_P2M2)

### **Clonezilla - Image Your Drives for Free -- (Tech Republic article and instructions for using Clonezilla) (April 2011)**

Disc imaging is a valuable resource for disaster recovery, but it can also be used for maintaining and upgrading systems. Clonezilla is a free download that allows you to clone the image of a machine and use it to restore the image to a single machine or multiple machines. In this Tech Republic article, Jack Wallen provides the background and walks you through the process. [www.techrepublic.com/blog/doityourself-it-guy/diy-image-your-drives-for-free-with-clonezilla/179?tag=nl.e056](http://www.techrepublic.com/blog/doityourself-it-guy/diy-image-your-drives-for-free-with-clonezilla/179?tag=nl.e056)

### **RESOURCE TIPS:**

#### **Doug Steele's Web Site (May 2011)**

Access MVP and author of "Access Solutions" shares tips and links to other resources at [www.accessmvp.com/djsteele/AccessIndex.html](http://www.accessmvp.com/djsteele/AccessIndex.html)

#### **Access Blog – by the Access Team --- one of the top blogs on MSDN!!!**

Stay tuned to the community ... The team shares insights into their schedule, their favorite features, new features and how to use them. This is also an ideal avenue for the team to talk about issues that are of interest to the Access community. You'll learn about the people and some of the factors that are helping to shape the future of Access. Whether you're a seasoned developer or just learning about Access, you'll find invaluable information and techniques. From creating a

---

database template to getting help when you need it, The Access Blog covers the gamut. <http://blogs.msdn.com/access/default.aspx>

### **Access 2003 Solution Center**

Find the materials and answers that you need for Access 2003. Downloads, articles, tutorials and other reference materials are conveniently listed in an easy to search fashion. Check out <http://support.microsoft.com/?scid=ph;en-us;2509>

### **Other Good Access and Office Resources**

A couple of good sites to search for information and programming assistance are <http://www.mvps.org/access> and the Office Developer Center on MSDN at <http://msdn.microsoft.com/en-us/office>.

And, we've been mentioning the newsgroups. You can search and drill through thousands of threads. Check out <http://www.microsoft.com/office/community/en-us/FlyoutOverview.msp> for a comprehensive display topics. You may also find what you are looking for by using <http://groups.google.com> or try <http://www.google.com/microsoft.html> for Microsoft related pages or by setting multiple search criteria at [http://www.google.com/advanced\\_search?hl=en](http://www.google.com/advanced_search?hl=en).

### **Utter Access Discussion Forum**

Touted as the number one Access community forum! This may be a great place to get answers to your questions. And, you'll see several familiar names as some of our members are prolific posters. Hey, there are even photos from the MVP Summit, so check it out! <http://www.utteraccess.com/forums/index.php>

### **A compilation of links to Access Resources**

This site provides an impressive array of links to a variety of resources for Access developers and users. [http://www.cbel.com/ms\\_access/](http://www.cbel.com/ms_access/)

### **DYNAMIC LINK LIBRARY ARTICLE by Mark Liron, MVP**

Learning more about DLL's is in ongoing theme, so you might want to bookmark or download this page. <http://www.updatexp.com/dynamic-link-library.html>

### **Access Developer Portal MSDN**

Database samples and tutorials provided by Access MVP and other experts.

<http://msdn2.microsoft.com/en-us/office/aa905400.aspx>

### **Database Issue Checker**

Access MVP, Allen Browne offer tips and utilities for casual users through expert developers. The Issue Checker can be used during development or to trouble shoot legacy files. Allen's site provides a host of other tips and resources, including a compilation of reserved words. <http://allenbrowne.com/> or <http://allenbrowne.com/ApplIssueChecker.html>.

### **A Final Note:**

Seattle Access Group Newsletters are archived on [www.SeattleAccess.org](http://www.SeattleAccess.org)

---

Light travels faster than sound. This is why some people appear bright until you hear them speak.

---

# This Month in Our History

---

by Chuck Fiedler  
chuck.fiedler@ntpcug.org

Summer is certainly here in full force. As I write this, we are looking toward exceeding the record of 1980 for most days over 100 degrees. It makes me thankful that I don't have an outdoor job.

Anyway, let's take a look at the August editions of PC News from 1986 and 1991 as taken from our website.

In August 1986, Borland representatives made three auditorium presentations and also made presentations at the Advanced Programmers, Artificial Intelligence and Turbo Pascal SIGs. It was noted that Borland had door prizes at each presentation. This had to be the most ambitious undertaking ever presented to NTPCUG.

**Ray Quay** wrote an extensive review titled *A Novice's Walk Through Turbo Prolog*, noted as an inexpensive, easy-to-use interactive environment for learning the Prolog language. How many of us have even heard of the Prolog computer language? This review went on for nearly six full pages which HAS to set some kind of record for a single article.

SIG reports were shown from Advanced Programmers, APL Language, Advanced Programmers, Assembler, BASIC, Business Applications, C Language, Communications, DOS, Genealogy, Graphics, N-Squared Analysis, Science/Engineering, and Turbo Pascal SIGs. With a reported total membership close to 1,000, these SIGs would clearly indicate a preponderance of computer professionals among the membership.

Reading through this issue, it seems the 80386 PC was about to be released by Compaq, several months ahead of IBM's release. It was reported that a mail order house in Tulsa would be selling the Compaq offering for less than \$3,000!

According to a reported survey at the time, 50% of American retail stores carried Apple computers while 41% carried IBM and 24% carried Compaq. Another survey, this one conducted by Computerland's advertising agency, reported that a majority of computer buyers were unhappy with the service given by store employees. One buyer compared shopping for a computer to going to the dentist.

Five years later, in 1991, IOMEGA Corp made a presentation on its new Bernoulli box, a 90MB device for removable storage. Seiko Instruments USA made a presentation on its new color monitors, color thermal transfer printers and digitizers. It was noted that Seiko would be having a drawing for its Smart Label Printer Plus.

**Jim Hoisington**, president wrote in *Prez Sez* that he had found a volunteer to take over the Membership Director position he had held (along with being President) for 2½ years. He also reported that a well-publicized InfoMart open house attracted some 3,500.

Jim also had his 54th installment of *On Complexity* in which he observed that only one in twenty corporate employees actually understood the software the company had issued and became informal support sources for the other nineteen. In my experience, this continued to hold well into the 21st century.

**Mark Gruner** reported on his attendance at the Lotus Week 1991 gathering. Sounds like it was a week full of Lotus' new product introductions.

**Reagan Andrews** wrote his *The Variety Store* column writing of the agreement between Apple and IBM yielding benefits to both corporations. He also noted the 386/33 laptop introduced by Micronics Computers, Inc. The 14.8 pound machine sported a 386 DX processor, 32K cache and 4 MB RAM expandable to 8 MB. This reportedly really fast machine retailed for a mere \$5,495 with

---

a 120 MB hard drive. Ah for the good old days.

In 1991 we still had a Bulletin Board System (BBS) where members could post questions or suggestions and receive other members' responses. The August issue had several pages of reported interchanges on the BBS.

Thanks for reading. If you wish to see the full historic newsletter issues, log on to our website, WWW.NTPCUG.ORG and look for News.

## NTPCUG Member Websites

---

Are you an NTPCUG member? Do you have a website that you would like to share with other members? Here is your opportunity to publicize your hobby, personal interests or perhaps a business.

NTPCUG now permits each member to post their name along with one website at www.NTPCUG.org and in our newsletter. Member links to be posted are subject to Board approval, and cannot contain inappropriate content or promote illegal activities – all the usual conditions that responsible persons expect. Send us your links now!

Here are our current member sites:

<b>Member Website</b>	<b>Member Website</b>
Howard Lee Harkness www.choicetraveltx.com	Bob Hawkins www.fairviewmicrowave.com
Bill Parker www.Partec.net	Doug Gorrie www.JanetGorrieInteriors.com

If you wish to post as shown above, just e-mail [webmaster@ntpcug.org](mailto:webmaster@ntpcug.org) with your name, member number and the URL of your desired website. We'll post your name and URL on our website and in the newsletter for as long as your membership remains current.

### **MORE PROVERBS**

*I used to be indecisive. Now I'm not so sure.*

*You're never too old to learn something stupid*

*Nostalgia isn't what it used to be.*

*Change is inevitable, except from a vending machine*

---

# Make free phone calls in the US and Canada

---

by Ralph Green, Jr,  
VP of ntlug.org

My past articles have gone step by step into how to install a system. This month, I am going to describe the use of a Linux appliance for making phone calls.

In this case, there is already a good article that explains the installation, so I will point you to that. I will then go over some of the pluses and minuses of using this system to someone who has never used **Asterisk**. I will give you some background on the pieces I choose, so you can understand them a little better and have the basis for some of your own research.

The way we talk to each other when separated by distance is changing. At one time, the analog phone system was the only way, but many now believe the old analog phone won't be of any use much longer. I like the idea of setting up a relatively simple system where you can bridge the old and new, and have control over the process yourself.

There are several ways of talking to people across the country for free or cheap. **Skype** will let you connect to other people who are running their software and talk for free. They will let you call into the POTS (Plain Old Telephone System) for a penny a minute in the US. Skype works well, but has many disadvantages. It can put a heavy load on your network and uses proprietary protocols. You have no idea who is listening.

Alternately, you can buy a **MagicJack** device. This requires you to have a Windows machine running all the time. It is bad enough to ever run Windows, but add in MagicJack's proprietary protocols and license agreement and this is something I would never recommend.

You can buy a device from **ObiHai** for about \$50 that lets you connect a phone to Google Voice. This gets you a system that, at its most basic, is very similar to what we will set up in this article. I would trust ObiHai more if it were open source, but because it has some interesting features, I would not completely rule it out. I am concerned that ObiHai is too proprietary and keeps too much hidden from the user.

**Askozia** is a small Linux appliance that is easy to setup. I thought they were making good progress towards what I wanted, but they put themselves behind a paywall and I have not tested it since then. Askozia may be worth what they ask, but you have to spend money to even test it. Hence, I can't widely recommend that.

**AstLinux** is a nice little appliance for Linux and Asterisk. It is too difficult for the average person to setup, but can work well if you like to tinker.

I chose the approach we follow below because it is the most flexible of all these choices, and I have good visibility into what it is doing. It is simple to setup and has lots of features. It does not burden you with choices, if you want to keep it simple, but lets you tweak if you want to. Ward Mundy has really produced a nice product and I will tell you more about it.

If you set this up, you will gain the ability to make free phone calls to people in the US and Canada and they will be able to call you back. This system has many more features than its alternatives, and uses open protocols to communicate. I trust open protocols more, because it is more likely they have been thoroughly studied. It is usually true that they lead to more interoperability with other systems in the long run, while closed protocols are used to lock people into a vendor's product.

Google is big on using open standards for their products, and that is one of the things I like best about them. Some Google products are better than others, and **Google Voice** is shaping up to be a winner. Google Voice is based on SIP (Session Initiation Protocol, RFC 3261)

---

and XMPP (Extensible Messaging and Presence Protocol). You can download the CD image (<http://pbxinaflash.net/downloads/>) and setup your Google Voice account through the web (<http://voice.google.com/>). Once these steps are done, you should have this up and running in less than half an hour.

Asterisk is software to let a computer act like a telephone PBX. It was created by **Mark Spencer**, who later created a company to commercialize it when he founded Digium. Thankfully, Mark did not turn his back on open source. His company continues to develop Asterisk and still releases it as open source.

For those not familiar, a PBX (Public Branch Exchange) is a telephone switch. In its simplest form, such a switch merely routes calls to their intended extension. Using a computer as the switch opens up many possible ways we can interact with the phone to perform whatever feature someone is willing to write code for. Since Asterisk is a popular open source project, it has attracted contributions from lots of people and many features are available.

Asterisk is not alone in this field. **FreeSwitch** and **Yate** are also good products. My choice of what to use was guided here by the availability of a secure, well thought out appliance version of Asterisk, which is called **The IncrediblePBX**.

The IncrediblePBX is a Linux appliance that has Asterisk installed. It guides you through the basic setup during its installation. To be a bit more accurate, it has you start by installing a fairly vanilla version of CentOS and then running a script to install and customize the Asterisk software.

An appliance, in the way I am using it, is a computer that serves a single use, or a closely related set of uses. A media computer, for example is often used to play video to the TV and music to the stereo and nothing more. You usually don't do your finances on the media computer and you could call this computer a media appliance. The first place I saw the word "appliance" being used this way was after VMWare came out with its free virtual machine player software. They offered a number of appliances to let you try out **VMWare**.

Setting up separate computers for different tasks may seem a little wasteful, but it has advantages. Computers are fast enough and have enough memory these days to make the extra overhead a reasonable cost. It allows the people who setup these appliances to not worry about the other programs installed on your computer, and how this program will interact with those other programs. This isolation makes it easier to add and remove appliances because you don't have to worry about mutual dependencies.

These appliances can run directly on computers, as is usually done with media computers. Or, they can run as virtual machines, using software like **KVM**, **VirtualBox**, **VMWare**, or other programs. I run The Incredible PBX as one of 2 or 3 virtual machines almost always running on a Celeron e3300 and I give it 384 to 512 megs of RAM. I usually give it 512 meg, but have seen no problems when I dropped to 384 megs.

You do need a broadband connection. In theory, VOIP (Voice over IP) needs at least 9Kbps (9000 bits per second) of bandwidth both up and down. This low number depends upon having support for a low bit rate codec all along the path you are talking to. Dialup could do that in theory, but you will have a difficult time actually getting by on that bandwidth. That is because at the start of a call, the ends of a call negotiate which codec to use, and most people only support a few codecs.

If you want to do anything more with your internet connection at the same time, you need plenty of bandwidth for everything. It is more realistic to say that you should plan on a bit rate less than 100Kbps of bandwidth, up and down, for each phone call you wish to make at

---

one time.

The most common codec is G.711. It uses 8000 samples per second at 8 bits each. There is some overhead and I pad generously because you need it to be sure the bits are available in a timely manner. You don't want the line to stutter.

**Google Voice** is a service that provides free phone calls in the US and Canada and fairly cheap calls to many other countries. Google Voice is based on Yate, and I understand they chose Yate because of how well it scales.

Google offers some interesting call forwarding options, and will try to convert your voicemails to text if you let calls go to their voicemail. I prefer to let my Asterisk machine keep the voicemails locally, but this setup works either way. You decide which service will get your voicemails by adjusting the number of rings it takes your Asterisk machine to go to its voicemail.

I'm sure Google is collecting data about your calls, just like they do when you search with Google. You should think about that before you let them know more about your life, although I think they are worth trusting with this information.

You may have read that SIP has difficulty getting through firewalls. Google Voice uses two open standards for controlling calls - XMPP to signal that calls are coming, and SIP to make the actual audio connection.

A nice thing about setting up this system to make free phone calls in the US and Canada is that you can easily expand it. Since this is based upon widely used Asterisk software and uses open standards, there are hundreds of companies competing for your business to make calls anywhere in the world. You can add a secondary provider, or replace Google as the primary provider account. "Provider" is the VOIP term for the company that takes your call and routes it to the destination. I am not going to endorse any commercial provider here, but talk to me if you want a recommendation.

There are so many things an Asterisk system can do. A free account with Google lets you do your experimentation easily and get started.

I have been searching for a while for an Asterisk or FreeSwitch appliance that is simple to set up. My ideal setup would allow me to do almost everything Asterisk is capable of, run on thin client type hardware, have no moving parts and not consume much power. The best solution I know of at the moment is The Incredible PBX ( <http://incrediblepbx.com/> ) and it comes pretty close. It takes more hardware to run it than my ideal system, but it works fine in a virtual machine, and that is almost as good.

I have been using The Incredible PBX off-and-on for more than a year. In the last few months, it has become plenty good enough to use every day. As said previously, it is produced by Ward Mundy, who has been active in the Asterisk community for years. He has packaged Asterisk with CentOS (based on RedHat) to produce a system complete enough for home and small business users. The Incredible PBX is at least the third iteration I have seen from Ward Mundy of his project to produce such a package and really builds upon his prior system (**PBX In A Flash**, or PIAF). Asterisk 1.8 added native support for using Google Voice as a phone provider. Ward has worked to make that combination perform smoothly, and since release of version 1.8.4 of Asterisk, it has done a great job for me.

If you set it up, I urge you to follow his advice about getting a separate Google account to use with Google Voice. I have tried it with my main gmail account and with a new account, and Ward is right about it being more reliable with a unique account. The reason is that Google will use Google Chat to talk to your Asterisk system and tell it about incoming calls. If you don't setup a second account, and are logged in to your main Google account, the Asterisk system

---

will not get the notifications.

The best article to start with is: <http://nerdvittles.com/?p=740/>. That page will walk you through the installation steps. If you have any questions, you can look in the forums at <http://pbxinaflash.com/forum/> or ask in the **#ntlug** irc channel on freenode. If you want to read more about PBX in a Flash, I suggest the article at <http://nerdvittles.com/index.php?p=677> as a good starting point.

I'd suggest you use PIAF-Purple and Asterisk 1.8 to start with. If you are going to use Google Voice, you need Asterisk 1.8, because that was when support was added for using Google Voice as a provider in a clean manner.. PIAF-Purple uses the latest stable version of Asterisk 1.8 that Ward has tested. Once you understand how this works, you might then want to experiment with newer versions, which are experimental as of this writing.

Asterisk 1.8 is a long term supported version from the creators of Asterisk, Digium. The next version, known as Asterisk 10 is adding some nice features, but I would never suggest starting with an experimental version. I installed The IncrediblePBX into a VirtualBox virtual machine and it has worked just fine.

As you install The IncrediblePBX, make note anything unusual you have to do to get it working, because you may have to do it again. As well as this system works, it has a few problems. One of them is that Ward Mundy does not really support upgrades of Asterisk. If a new version of PIAF comes out with some important security fixes for Asterisk or the additions from Mr. Mundy, you will usually need to install again. You can, though, update FreePBX modules through the web portal.

A few other weaknesses in this setup are:

- 1. Google voicemail picks up after 25 seconds. You can't change this and it is too short for my tastes. I was taught that you should let the phone ring 8 to 10 times, but most people do not wait that long these days.
- 2. Google has said their service will be free until the end of 2011 and has not said what happens after that. They might keep it free, start charging or discontinue the service.
- 3. You cannot call some numbers. There are not many restrictions. Some rural phone companies charge much more money to terminate a phone call to them than is typical. I have seen it reported that there are about 100 phone numbers that Google will not put calls through to. These are mostly free conference calling services and porn sites, so I will not miss them.
- 4. Google Voice does not support Emergency 911 calls. This is not important to me based on the way I use this system, but it could be important to you. If you decide to use this as your *only* phone, you should really think about how you are going to handle emergencies. If you have young children, you would need to plan for them as well.

Regardless of its weaknesses, the system has many strengths as well. Ward Mundy is quite security conscious and has locked down the system pretty well. An open Asterisk system has historically been a risk. If it was known how to get into your system, you might wake up to find that thousands of calls had been placed through your system overnight. Ward reports people being surprised with bills for thousands of dollars.

I appreciate the security, although since I am only setting up a free Google Voice account, I don't believe I have much financial risk. I have not given any credit card information to Google, so I expect they would just shut down my number if a large number of calls started to appear. This is no vanilla install of Asterisk, either. Look for the section of the install document labeled Kicking the Tires for a bunch of features to try out.

---

Once you get the system installed, start it running. You will do your configuration work through a web portal. The computer you install The IncrediblePBX onto will come up as text mode server. There is no GUI there, because you are expected to interact with it through its web portal.

Login to the root account and note the IP address. Now, go back to your main computer, open up a web browser and use that IP address as the URL. The web portal uses javascript, so you must enable it for that IP address.

At the bottom, left hand corner of the PBX in a Flash panel, there is a button labeled ADMIN. The word ADMIN does not show up on my system until I click it. It is right next to another button labeled USERS. When you click ADMIN, you should see an icon appear for FreePBX Administration. That is where you need to go. Use the User Name of "maint" and the password you assigned during installation.

The main thing you need to get here is the passwords for the phone extensions that have been setup. Go to Extensions and look for the field called "secret" to find the password for that extension. You need to configure your telephone device to connect to your Asterisk system running The IncrediblePBX. It would take another article to explain setting up your phone device, so let me just suggest two things. First, use your favorite search engine for details on SIP clients available for your operating system and how to set them up. Let me also suggest that, if you buy a hardware ATA, be sure it is unlocked. An ATA is an Analog Telephone Adapter and is used to connect an old fashioned phone to the network.

I have used hardware devices like a Linksys SPA3102 and PAP2T, as well as software SIP phones like Ekiga and Twinkle to talk to the IncrediblePBX and then out to any phone number I wanted. Although most any SIP phone should work for you, some SIP devices may have better codec support than others. You don't have to have an old analog phone. I have used a Bluetooth adapter on a computer with no sound card and that works well, other than the concern I have about the security of Bluetooth. I just configured it to be my active sound device for input and output and then ran Twinkle, which is the VOIP software I installed on that computer.

I get a bad connection every once in a while, but that happens with the regular phone, too. I also notice that calls take a little longer to connect than using my old analog phone line. I sometimes ask people about the connection quality and they tell me it sounds like a regular phone.

I am quite happy with the service. I am thinking of switching my regular phone number to Google Voice and I may do that after I know Google's long term plans.

Questions? Feel free to come to the Linux SIG and talk about them. I am frequently in the #ntlug irc channel on freenode, logged in as Severian.

---

## Monthly NTPCUG Meeting Flyer – Can You Help Distribute?

---

Each month, we send members a flyer listing the upcoming second and third Saturday SIG meeting information. We work to fit it all on one page so it can be easily printed and posted in offices and public areas. It can also be sent by email to family members, friends, colleagues, etc.

With your help we hope to generate increased interest in User Group activities, thereby helping us grow. We rely on members, SIG leaders, Board members and volunteers to share this information with others. We also need you to consider new options beyond the obvious – bulletin boards, etc.

We ask you, our members, to think of places where you can post the monthly flyer and to e-mail it to anyone you know who may be interested.

We try mightily to get this out before the weekend preceding the second Saturday of each month so you have time to “do your thing”.

With your help we can grow our Group and reach others who can “Share what you know, learn what you don’t.”

***Where have you sent  
the August flyer?***

---

## Volunteering

---

Every board member, officer, chairman, and SIG leader is a volunteer. No one in this organization receives any payment for their work. Without our volunteers, NTPCUG would not exist.

Please consider volunteering for one of these important jobs:

### Information Desk — Charles Rem

*crem@ntpcug.org*

Assist with check-in process at 3rd Saturday. One or more hours will make a difference.

*This is an ongoing need. YOU can help, and it's not difficult. Training provided, so you really have no excuse not to assist - right?*

### Mentoring — Tom Sweet

*tom.sweet@ntpcug.org*

Communicate with new members to ensure they are aware of the benefits, SIG opportunities and help them in numerous ways to feel welcome and to know that we care about them.

### Newsletter — Doug Gorrie, Chuck Fiedler, David Franke

*doug.gorrie@ntpcug.org  
chuck.fiedler@ntpcug.org  
davef81@gmail.com*

Prepare, contribute to and distribute the monthly newsletter. Edit articles for better wording, formatting.

## Emeritus Members

John Pribyl (1924 – 1993)  
Reagan Andrews ( - 2006)  
Connie Andrews ( - 2008)  
Phil Chamberlain  
Jim Hoisington  
Guy Andrews  
Stuart Yarus  
Timothy Carmichael  
Mark Gruner  
David McGehee  
Tom Prickett  
Kathryn Loafman  
Fred Williams  
Andy Oliver  
Alex Lilly  
Doug Gorrie  
Claude McClure  
Robert McNeil  
Gil Brand  
Bill Parker  
Diane Bentley

## Thank you!

from your 2011

### Board of Directors and Officers

President: Chuck Fiedler  
chuck.fiedler@ntpcug.org

President-Elect: Bill Drissel  
bill@drissel.us

Directors: Larry Copeland  
larry.copeland@ntpcug.org

Jesse Hastcoat  
jesse.hastcoat@ntpcug.org

Chris Morgan  
chris.morgan@ntpcug.org

Spike Smith  
harold.smith@ntpcug.org

Chuck Stark  
chuck.stark@ntpcug.org

Secretary: Kathy Lee Brown  
KathyLeeBrown@live.com

Treasurer: Chuck Stark  
chuck.stark@ntpcug.org

Program Director: Howard Lee Harkness  
Programs@ntpcug.org

## Calendar

### August

Aug 20 8:00 am—2:30 pm

Both “**2nd Saturday**” and “**3rd Saturday**” SIGs meet at King of Glory

### September

Sept 17 8:00 am—2:30 pm

Both “**2nd Saturday**” and “**3rd Saturday**” SIGs meet at King of Glory

### October

Oct 15 8:00 am—2:30 pm

Both “**2nd Saturday**” and “**3rd Saturday**” SIGs meet at King of Glory

North Texas PC Users Group, Inc.  
P.O. Box 700055  
Dallas, TX 75370-0055

Copyright 2011 North Texas PC Users Group All rights reserved.