DIVISION HEAD MESSAGE

This month I have invited a guest columnist, Gene Hawkins, to write an article “Keys to Successful Research with TxDOT”.

Tom Urbanik

CALENDAR MARKS

Apr 7  Daylight Savings Time Begins
Apr 8  SPR Proposals due to Research Development Office
Apr 8  SPR Continuations and Modifications due at Research Development Office
Apr 15  ITS America Annual Meeting, Houston
May 6  SFR Continuations and Modifications due at Research Development Office
May 10-11  Graduation TAMU
May 17  Division Retreat 1996
May 20  SFR Proposals due to Research Development Office
Jun 13-14  ITS Texas Meeting, Houston
Jun 14-15  TexITE Annual Meeting, Houston
Sep 30  FY 96 Reports are due to TxDOT

PROFESSIONAL DEVELOPMENT

The next Paradox training class will be held in April. Contact Beth Neilsen if you are interested. Software training courses available on campus include: Excel, Quattro Pro, Windows 95, Word, WordPerfect, and Browsing the Internet. Both introductory and intermediate levels are offered. Enrollment is limited to 10 students, and course length ranges from 1 - 3 half days. Check the schedule and description of classes at http://www.tamu.edu/training/ on the World Wide Web. Call or e-mail Norma Teetes to register (Administration pays your fee!).

Don't forget about the computer training library located in Room 405M. Contact Beth to find out what is available.

Beth Neilsen

KEYS TO CONDUCTING SUCCESSFUL TxDOT RESEARCH

TxDOT is TTI's biggest sponsor and the research we do with TxDOT provides us with many challenges and opportunities. TxDOT sponsored research allows us to solve real-world problems, provides the continuity needed to support a highly qualified staff, and builds the experience needed to conduct further research on a national level. Therefore, it is vital that we emphasize quality and success in our TxDOT research.

Being successful with TxDOT research can be summed up in a single phrase “make the Project Director happy.” The Project Director is the focal point of the TxDOT research program. If he or she is satisfied with the quality of the research, then the rest of TxDOT will likely be satisfied. There are three rules for making sure the Project Director is content:

#1  Communicate
#2  Communicate
#3  Communicate

In research, as in many other facets of life, communication is the key to success. Effective communication with your Project Director will bring about many benefits, including:

• Gaining a better understanding of the problem from the TxDOT perspective, not the researcher's perspective.
• Developing a better understanding of the TxDOT organization and how the organization's characteristics affect the research problem and solution.
• Gaining a technical understanding of the problem from the practitioner’s viewpoint.
• Understanding the framework and constraints under which research solutions must be implemented.
• Developing a working relationship where problems or difficulties can be addressed or resolved before they get out of hand.
• Building a long-term relationship that can foster future research efforts.

Communicating with the Project Director requires effort from the researcher. Every situation is different and requires adaptation to fit the project and personalities involved. A few guidelines for effective communication are listed below.

• Listen to what the Project Director actually says, not what you want to hear him or her say. Researchers are sometimes accused of solving the problem as they see it, instead of working on the problem from the sponsor's viewpoint. If you do not solve their problem, then they cannot use the research product.

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SUCCESS
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- Recognize that most TxDOT research projects are intended to solve a practical problem (applied research) instead of expanding scientific frontiers (basic research). When conducting applied research for TxDOT, you need to strive for an end product that will help them solve the practical problem.

- Schedule several face-to-face meetings throughout the year with just the Project Director. This will help you get a better feel for the problem and how the solution needs to be implemented. These meetings can also be used to bounce new ideas/solutions off the Project Director before going to the full Advisory Panel.

- Conduct at least two Advisory Panel meetings per year. This will help you identify the opinions and concerns of others about the research problem. The first panel meeting should be conducted during the first month of the project.

- Have monthly telephone contact. If you do not have something to discuss at least once a month, you are probably behind on your research.

- Keep the Project Director informed of the project status.

- Identify problems or potential problems early and seek guidance from the Project Director on the solution. If you ignore a potential problem until it becomes critical, you may make the Project Director look bad and put him or her in a difficult position with TxDOT. It is better to set off a false alarm than wait until the problem is out of control.

- Pay a courtesy call on your Project Director when you are in town for another project. All you have to do is stop by to say hello, you do not need a list of research items to discuss.

- Participate in an occasional social activity (such as going to lunch or socializing at a professional society meeting). Although above and beyond the scope of research, the social activity is an important part of building a relationship. It allows each of you to develop an understanding of one another’s backgrounds and fosters the trust needed for a successful relationship.

- Send the Project Director technical information that they might be interested in, even if it is not related to your project.

At first, it may seem difficult, and even awkward, to put so much effort into communications. However, it will become easier as you get to know your Project Director. TxDOT relies upon the Project Director to run the research project. If the Project Director is satisfied with the research, then the rest of TxDOT will also be satisfied. Communication is the key.

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MEANWHILE BACK AT THE RANCH

The Systems Applications Program has moved. Their new offices will be in the TransGuide Building. Their address is 3500 NW Loop 410, Suite 315, San Antonio, TX. 78229. Their phone numbers will remain the same.

A multimedia task force has been formed for the Division to identify software/multimedia capabilities and come up with recommendations for improvements. Committee members are Shirley Kalinec, Ivan Lorenz, Mark Woolridge, Larry Rilett, Mark Simmons, Kandis Salazar, and Beth Neilson.

TRANSPORTATION TRIVIA

Here are the answers to the trivia questions in last month’s newsletter.

The Delaware Memorial Bridge connects Delaware to New Jersey.

New York City has the longest subway system with 132.05 miles of routes.

The letter “J” was omitted as a street name in Washington, D.C. to avoid confusion with the letter “I”.

The port of Los Angeles is the largest man-made harbor in the country.

Trivia Questions for this month

What American River did Charles Dickens describe as “a slimy monster hideous to behold”?

Most of the immigrants who worked on the first transcontinental railroad in the U.S. were of two nationalities. Can you name them?

On what river did Robert Fulton make the first commercial steam boat trip in 1807?

Good luck! Look for the answers next month!
Tip of the month

Running out of disk space? Before considering a larger hard-disk, consider the two available alternatives.

(1) Double-Spacing Software and Operating Systems: Many of the double spacing software like Stacker are available for under $50. Also remember that the latest versions of DOS and Windows-NT give the double spacing/On-Line File Compression as a standard option. So effectively your hard-disk that had, say, 500 MB, can store close to 1 GigaByte of files.

(2) Plain File Compression: Generally, most of us have plenty of files on our computer that are rarely used. To conserve disk space, you need to consider zipping files. Zipping programs like PKZIP, LHA, ARC, GZIP, etc. are available free of cost. First get a free copy of your LHA program (Please contact me if you need a freely distributable copy). Copy the file to your C:\DOS. Type to get all the information that you need to use this program.

For example: lha a zipfile.** (a for add) will add all the files in your directory to compressed file called zipfile.lzh. If you want to list what files are in the zipfile, use lha v zipfile (v for view). To extract the files from the zipfile for later use, use lha e zipfile somefile.wp (e for extract). To zip a file and delete the original (since it is already compressed), use lha m zipfile.** (m for move).

Compressed files are typically 25% to 75% the size of the original files. Don't worry, information is not lost during compression. To be on the safe side, try zipping some of the unimportant files first.

Questions and Answers

(a) I have figured out sending email outside the system, but what about attaching other documents to email? Several people have indicated that the attachments arrive coded and need to be decoded. How do we do it on this end? What do we tell sponsors and colleagues on the other end?

Attachments, like WordPerfect files, are generally in binary code (i.e., they are not pure text, they also contain funny looking characters). SMTP (mail protocol) does not take binary data. So we first need to convert binary-to-plain text using some coding. The other person will then need to convert text-to-binary code (to undo what we did) so that they can read it possibly using a program like WordPerfect.

The binary-to-text conversion (and vice-versa) can be done using the WINCODE program available on the G:\PCTCP\directory. You can convert back from encoded stuff by using the decode option with this program. These coding encoding programs are also called "uuencode" and "uudecode" in Unix systems. The others will need to use one of the programs to uudecode the stuff that we sent to them.

When using the WINCODE program, remember that the output of the program is stored in the WINCODE directory with the name of the file (without the index). So the best way to use the program is to copy all the files within the WINCODE directory from G:\ drive onto your local drive (like C:\).

Quiz-Time

Last month's question: You probably know that the term bit means a binary digit. You may even know that a byte is eight binary digits. Now, what is a nibble? (Whoever named it number crunching :-)).

A nibble is 4 bits. Dave Berry hit the answer first! Congrats!!!

This month's question: What was "Gopher" (the precursor of Mosaic and Netscape) named after? Send your questions/comments/answers to Deborah Jasek@TRA@TTI by e-mail).

Joseph Koothrappally@TRA@TTI