



# TERATECH NEWS

## Tools for Programmers

12221 Parklawn Drive Ste 200 Rockville, MD 20852  
(800) 447-9120 • (301) 881-1440 • Fax (301) 881-3586  
<http://www.teratech.com/> [info@teratech.com](mailto:info@teratech.com)

Caitlin Mara, Editor

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This month we cover:

- CFXGraphicsServer
- Annapolis CFUG
- Shared Scope Variable Problems
- An Access Problem and Solution
- Access and SourceSafe Notes

### CFXGraphicsServer

We are pleased to announce that we have purchased the rights to CFXGraphicsServer. CFXGraphicsServer, for use with Allaire's ColdFusion, is a 100% server-side graphing and charting solution, which graphically displays data, generated from static or dynamic data sources within a Web-based environment.



There are 3 versions of the product that are available:

- **Developer Version:** This will allow you to create graphs that you will only be able to view on the local machine that you are developing on. They will not be visible from external machines, e.g. over the internet.
- **Server Version:** This allows you to create graphs that can be viewed externally over an intranet or the Internet. It is however restricted to use on 1 IP address.
- **Enterprise Version:** This is the same as the Server version, but is able to generate graphs for an unlimited amount of IP addresses on 1 server. This can therefore

be used to generate graphs for multiple websites that are hosted on a server.

For more information:

<http://www.cfxgraphicsserver.com/>

### Annapolis CFUG

The first ever Annapolis CFUG meeting was held on Thursday, February 22, 2001. That was the day of the small snowstorm, so we didn't get as much of a turn out as we had hoped but it was a fun, successful first meeting. The speakers were Dan O'Connell, a DP programmer Analyst for the MD Department of Natural Resources and Mark Mathis, a Unix guru extraordinaire from TeraTech and co-manager of the Maryland CFUG. Their topics were respectively, CFX\_GraphicsServer and Apache tips and tricks. Thanks to the eight folks who braved the weather to join us!

All meetings will be held on the 4th Thursday of every month from 6:30pm to 9:30pm. The location of the meeting is the Maryland Department of Natural Resources, 1st floor. If you leave in or near Annapolis and have thought about joining the MDCFUG, but the meetings were too far, the ANCFUG is for you!

Our next meeting will be held on March 22, 2001 and the scheduled speakers are Arden Weiss and Rick Blaha.

For more information: <http://www.ancfug.com>



*Some of the folks who came to the first ANCFUG Meeting.*

## Why Do Shared Scope Variables Need Locking?

I have to CFLOCK session and application variables now. Why?

Because ColdFusion Server uses multiple threads (multithreading), it is able to simultaneously work on requests from multiple users at the same time. It is also able to work on multiple requests from the same user at the same time.

This can happen with a Web site that utilizes frames, when a user clicks the reload button on her browser before the initial request has completed, or when a user has multiple browser windows open.

Since these threads can access the same variables in memory at the same time, we are presented with the problem of the threads competing for the same resource. This competition normally leads to memory corruption.

In addition, if the data structures that track memory allocation become corrupted, the allocator will work incorrectly and large amounts of memory can "leak." Memory corruption also leads to crashes and/or server instability. Some of the symptoms of memory corruption follow:

- ColdFusion PCode errors
- CFserver process crashing/stopping/restarting
- Unexpected shared scope variable evaluation results
- Large growth in the amount of memory used by the CFserver process
- Operating system instability

Locking variables prevents these problems by only allowing one thread to access the shared scope variable at a time. All of the other threads must wait in line to access the shared variables until the previous thread completes its action.

In effect, access to the locked piece of code is single threaded.

Here's a link for a good locking article:

<http://www.allaire.com/Handlers/index.cfm?ID=17318>

If you need help coding safer locking to your ColdFusion code let us know.

## Access Slow over network?

We had a problem recently with using an Access 2000 database over the network, shared among 4 programmers. The tables were linked to another Access 2000 database on the same fileshare. Two people found that almost any kind of open or design action took a really long time. Also, now and then, data edits had a long delay too. We found a

Knowledge Base article on the Microsoft site, and downloaded a fix.

If the Windows NT Service Pack (Not Office SP or Access/Jet SP, but Windows NT SP!) is different between the client and the fileserver, Access has delay problems opening objects over a network connection. There is a Jet 4 SP 5 to fix the problem.

<http://support.microsoft.com/support/kb/articles/Q264/2/39.ASP>

## Access and SourceSafe Notes

Usually, Visual SourceSafe (and other source control programs) works by saving and comparing versions of individual files. With an Access database, this won't be enough, since you want lower-level control of each form and report, and want to be able to track versions of each one individually.

Microsoft Office Developer includes a Visual SourceSafe add-in to Access that translates the Access objects into separate files for VSS to archive. An Access database (MDB file) translates to the VSS project; each query, form, report, macro, and module is a "file" under that VSS project, and all tables, data, and properties are combined together in another "file". The add-in does the translation transparently; appears to act mostly like the VSS integration with Visual Basic, etc. When checking out, gets from SourceSafe to subdirectory under where the MDB is, then imports to Access; to check in, exports to that subdir and then checks in to VSS.

For more information on using with Access 2000:

<http://msdn.microsoft.com/library/techart/srcctrl.htm>

Or with Access 97:

[http://msdn.microsoft.com/library/techart/msdn\\_ssctrl.htm](http://msdn.microsoft.com/library/techart/msdn_ssctrl.htm)

## Maryland ColdFusion Users Group

We host the MDCFUG meeting every second Tuesday of the month. For more information on past meetings and next meetings topics visit:

<http://www.cfug-md.org/>

### TERATECH CUSTOM PROGRAMMING

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12221 Parklawn Drive, Suite 200  
Rockville, MD 20852