



The Open Source Quality Paradox: How Can Code Done Bad Be So Good?

by: Terry Bollinger

Wednesday, October 25th, 2006

American Society for Quality (ASQ) — Washington, DC & Maryland Metro Section
Software Special Interest Group (SSIG)

One of the curiosities of the modern software industry is its reluctance to focus on end results. Instead, enormous time and resources are allocated to process-level metrics that can too easily become self-propagating, and too often end up having little or no correlation to the operational quality of products in field use. In contrast, certain open source products such as the Apache web server and the OpenBSD operating system were developed under self-organizing rules that violate nearly ever process premise of software quality development, yet they rank among the most field-reliable large software products ever created. This talk will explore the paradox of open source software quality, and will look at both hidden similarities and stark contrasts between traditional and open source quality processes. The talk will end with a physics-derived quality model that addresses how relatively disorganized systems can in some cases end up producing higher levels of operationally meaningful quality than do software processes that are tightly controlled and explicitly focused on maximizing quality.

Presenter: **Terry Bollinger** is best known for his 2003 MITRE report that documented extensive, mission-critical use of open source software within the U.S. Department of Defense. His report helped redirect an internal DoD debate on whether or not to ban open source software, and contributed strongly to the eventual DoD policy of providing a level playing field for both proprietary and open source software. He has received a Best Paper award from IEEE Software, and later became an editor for IEEE Software for six years. He has done two special issues of IEEE Software and is a recipient of the IEEE Millennium Medal. Terry is a quality heretic who believes that well-intended but fundamentally invalid comparisons of software development to assembly-line manufacturing have seriously damaged the ability of the U.S. and many other countries to create high-quality software. His personal web site is terrybollinger.com.



This Meeting Will Be Held at 3 Locations!

The MITRE Corporation
7515 Colshire Drive
McLean, VA 22102

The MITRE Corporation
260 Industrial Way West
Eatontown, NJ 07724

Lockheed Martin
700 North Frederick Avenue
Gaithersburg, MD 20879

The three locations will be linked using video tele-conferencing facilities.

Sponsored By: The American Society for Quality (ASQ), Washington DC & Maryland Metro Section (509), Software Special Interest Group (SSIG). Members of the ASQ SSIG include software quality professionals, software engineers, and others interested in applying quality principles to the field of software development. See our web page: <http://www.asq509.org/ht/d/sp/i/2499/pid/2499>
We meet every month, usually at the MITRE facility in Tyson's Corner, Virginia, with VTC to other locations. If you can host another location via VTC, please contact Scott Ankrum.

Registration:

Please register for the meeting by COB Tuesday, October 24, 2006 by contacting Scott Ankrum at ankrums@mitre.org or 703-983-6127 for the Maryland and Virginia sites, or contact Richard Eng at 732-578-6352 or reng@mitre.com for Eatontown, NJ. Please include your company affiliation, your citizenship, and the location you plan to attend. You do not need to be an ASQ member to attend.

There is no cost to attend. Pizza and soda will be served.

The Meeting Is Scheduled For:

Wednesday, October 25th, 2006
6:30 - 7:30 Pizza and Sodas
7:30 - 8:30 Program

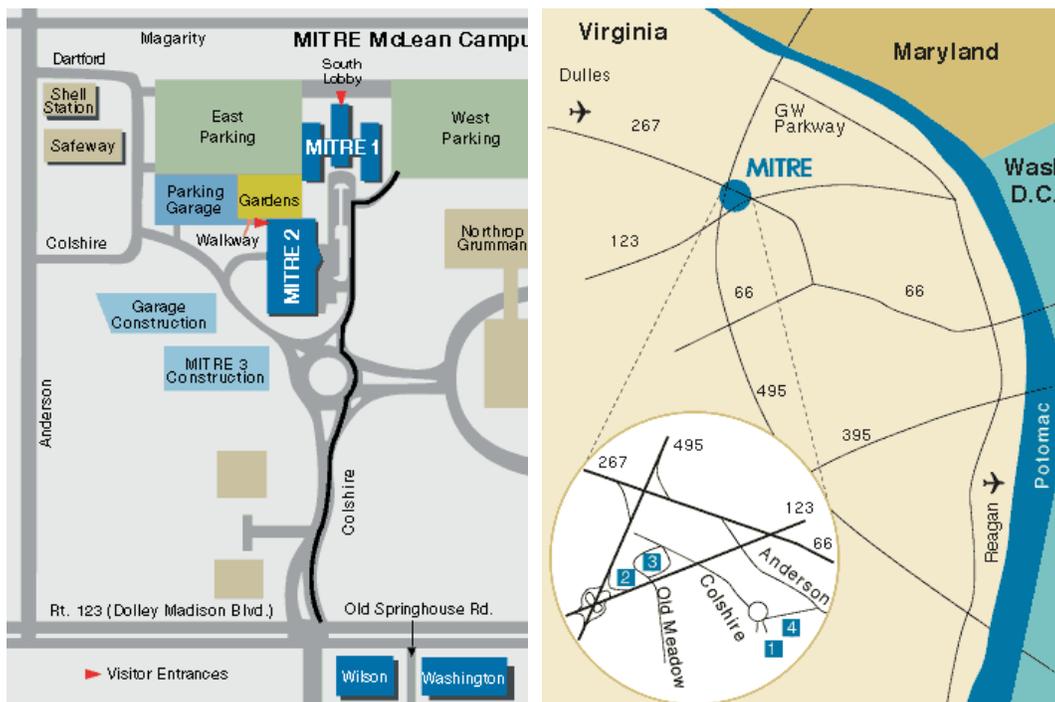
Will Be Held At:

MITRE building 2, McLean, VA
MITRE Eatontown, NJ
Lockheed Martin, Gaithersburg, MD

If you cannot be at any of these locations, ask about the telephone conference call number.

Directions to the MITRE Facility in McLean, Virginia:

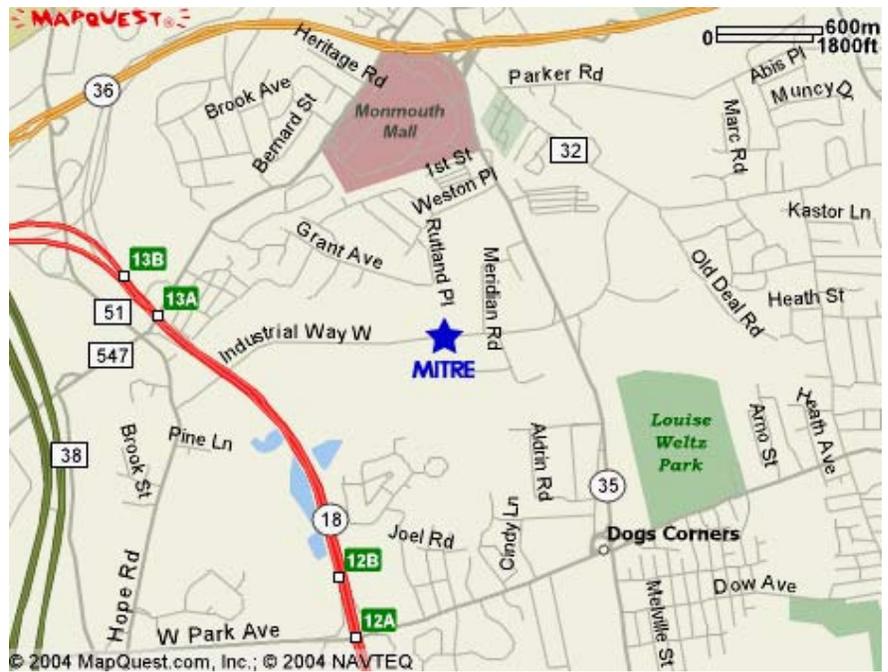
Take the Beltway, I-495 to Virginia. Take Exit 46B (McLean, Route 123). Take Route 123 North, (also called Dolley Madison Blvd.) and go to the second traffic light at Colshire Drive. Turn right on Colshire Drive and continue through circle on Colshire. Drive around the back of the building to the East (left) parking lot. The entrance is past the fountain, on the left. Additional directions can be found at: http://www.mitre.org/about/locations/mitre1_map.html



Directions to the MITRE Facility in Eatontown, New Jersey:

From the New Jersey Turnpike

If traveling from the **SOUTH**, get off the Turnpike at Exit 7A (195 toward Shore Points). Take 195 East towards the ocean and shortly after 195 turns into Route 138 (approximately 35 miles) watch for Route 18 North (Eatontown). Take Route 18 North to Exit 13A (Wayside West/Wyckoff Road). At end of ramp, bear left. At first traffic light (Hope Road) make a left turn. Make second left turn onto Industrial Way. The MITRE Corporation is next to the First Atlantic Credit Union on the left hand side of Industrial Way. There is a MITRE sign out front.



There are two buildings on the left side of Industrial Way. The first building is MITRE, the second building is TYCO. Take a left turn into the parking lot of the first building, which is MITRE.

If traveling from the **NORTH**, get off the Turnpike at Exit 11 (Garden State parkway exit). Follow the Garden State Parkway until Exit 105 (Eatontown). Follow the directions from the Garden State Parkway below.

From the Garden State Parkway: Follow the Garden State Parkway from the North or from the South to Exit 105 (the exit numbers increase going from south to north). After paying the toll at Exit 105, make first right turn onto Hope Road. Follow Hope Road to Industrial Way (second left turn after crossing Wyckoff/Shafto Road). Make second left turn onto Industrial Way. The MITRE Corporation is next to the First Atlantic Credit Union on the left hand side of Industrial Way. There is a MITRE sign out front. There are two white buildings on the left side of Industrial Way. The first building is MITRE, the second building is TYCO. Take a left turn into the parking lot of the first building, which is MITRE. **When you are facing the front of the MITRE building, the entrance to the ASQ meeting will be from the left parking lot opposite First Atlantic bank. Follow the signs to the conference room.**

Directions to Lockheed Martin in Gaithersburg, Maryland:

From I-270, take Exit 11 onto Route 124 East (Montgomery Village Avenue). Make the 1st left at the intersection with Route 355 (Frederick Avenue) and take your first left into the Lockheed Martin Mission Systems facility.

