Applying Agile Techniques to Process Development: Lessons Learned

Part 2 of 2 by: Nelson Perez and Ernest C. Ambrose

Tuesday, April 22nd, 2008

The American Society for Quality (ASQ) — Washington, DC & Maryland Metro Section
Software Special Interest Group (SSIG),
Society for Software Quality (SSQ) — Washington, DC Area Chapter,
IEEE Computer Society — Washington, DC & Northern Virginia Chapters

This presentation is based on an article published in the August 2007 issue of Crosstalk, the Journal of Defense Software Engineering. It presents lessons learned from a process improvement effort that took an organization from no formal process capability to the implementation of the Software Engineering Institute (SEISM) Capability Maturity Model Integration (CMMI®) using the continuous representation with a focus on the staged representation's maturity level 2 process areas. This presentation summarizes techniques that were used to reduce the overall time to achieve institutionalization of new processes as well as what worked well and what could be further improved. The topics to be covered are a) resource utilization, b) process development, c) using Agile methods to run the process improvement effort and develop related outputs, d) process piloting approach used, e) addressing process improvement via technology improvements, f) leveraging the internet and IEEE standards to speed process development, g) employing the continuous representation of the CMMI model, h) issues associated with QA, and i) process rollout management strategies used.

Nelson Perez is president and principal consultant of Sierra's Edge, Inc. (an SEI Transition Partner) and was the architect and author of all the policies and process assets associated with this presentation. Perez has over 20 years of work experience and has worked the entire life cycle and held numerous management and engineering positions on such high visibility programs as the B2 Stealth Bomber; NASA Space Shuttle; and National Missile Defense. He has worked as a software engineer in several domains including IT, avionics, modeling and simulation, automated manufacturing, non-destructive test, electronic warfare, and large scale security systems. He has co-authored 1 NASA-related patent and his first process improvement effort helped garner the US Air Force/TRW (now part of Northrop Grumman) SOF EISE program the USAF 21st Century Partnership Team Quality Award. He is a candidate SCAMPI Lead Appraiser with an observation appraisal planned for August, 2008

Ernest C. Ambrose is the SEPG Lead as well as a Project Lead for MORI Associates, Inc., a Woman-Owned, SBA 8(a) certified, Small Disadvantaged Business providing professional consulting services for sophisticated information technology solutions, program support, staff augmentation, and engineering operations for Government agencies and Fortune 500 companies. MORI is the recent recipient of Maryland's Top 100 Minority Business Enterprise Award, and is ranked as one of Washington Technology's FAST 50 Companies.

This Meeting Will Be Held at 5 Locations!

MITRE, room 1N100
7515 Colshire Drive
McLean, VA 22102

NIST, Lecture Room C *
100 Bureau Dr.
Gaithersburg, MD 20879

FDA, Bld 22, room 1311 *
White Oak Campus
10903 New Hampshire Avenue
Silver Spring, MD 20993

MITRE, room 1002
260 Industrial Way West
Eatontown, NJ 07724

MITRE, room 1M506
202 Burlington Rd (Rt. 62)
Bedford, MA 01730

The five locations will be linked using video tele-conferencing (VTC) facilities.

** To RSVP for NIST or FDA, please indicate your citizenship.*
If not a US citizen, please provide your title, employer, and address,
and register 2 business days before the regular deadline.

Software SIG Chairman: T. Scott Ankrum –ASQ & IEEE.
Software SIG Committee: Paul Black – IEEE; John Blyskal – IEEE; Richard Eng –ASQ; Chris Jones –ASQ & SSQ; Alfred Kromholz –SSQ; Tim Rice; Rey N. Robles – IEEE; James M. Simpson –ASQ; Tom Starai – IEEE.

Sponsored Jointly By: The American Society for Quality (ASQ), Washington DC & Maryland Metro Section (509), Software Special Interest Group (SSIG) and Society for Software Quality (SSQ), Washington, DC Area Chapter. 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:

New!!!! ⟶ Please use this link: http://www.asq509.org/ht/d/DoSurvey/i/26913 **to register on-line.**

You must register by noon on Monday, April 21st.
For registration problems, contact Scott Ankrum at ankrums@mitre.org or 703-983-6127.

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

The Meeting Is Scheduled For:

Tuesday, April 22nd, 2008

6:30 - 7:00 Pizza and Sodas

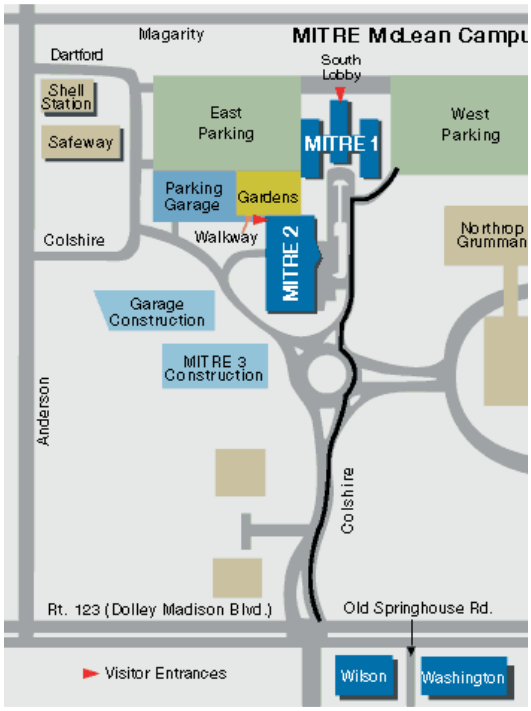
7:00 - 8:00 Program

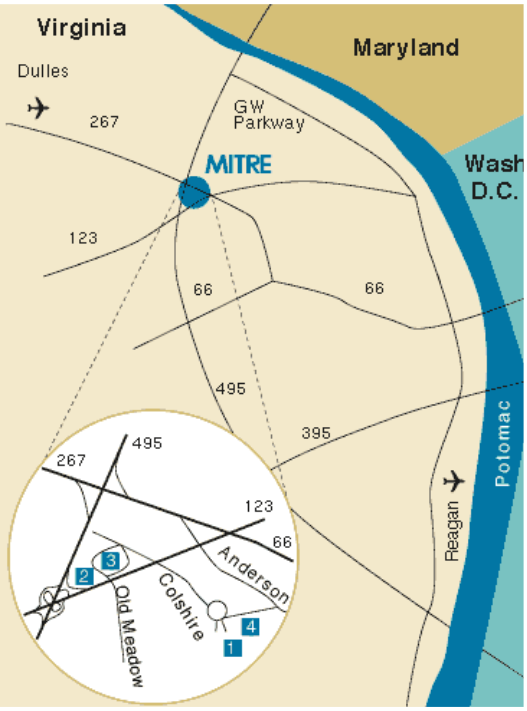
Will Be Held At:

MITRE building 1 room 1N100, Mclean, VA
MITRE building M room 1M506, Bedford, MA
MITRE room 1002, Eatontown, NJ
NIST, Gaithersburg, MD, Admin. Building, Lecture Room C
FDA, Silver Spring, MD, Building 22, room 1311, White Oak Campus

If you cannot be at any of these locations, select the telephone dial-in location.

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. **Park in front of or to the right of the buildings, before passing the gate. (The gates are closed at 7:00)** Enter the lobby of the building near the top of the hill to the left, which is MITRE-2 #7215. Additional directions can be found at:
http://www.mitre.org/about/locations/mitre1_map.html

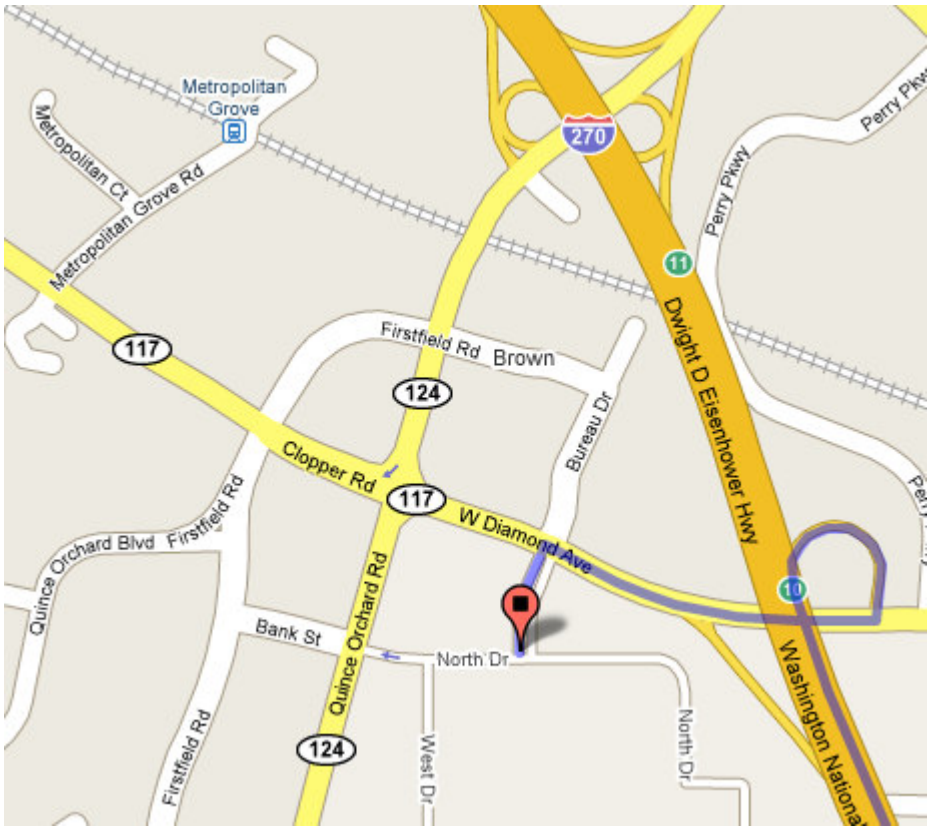




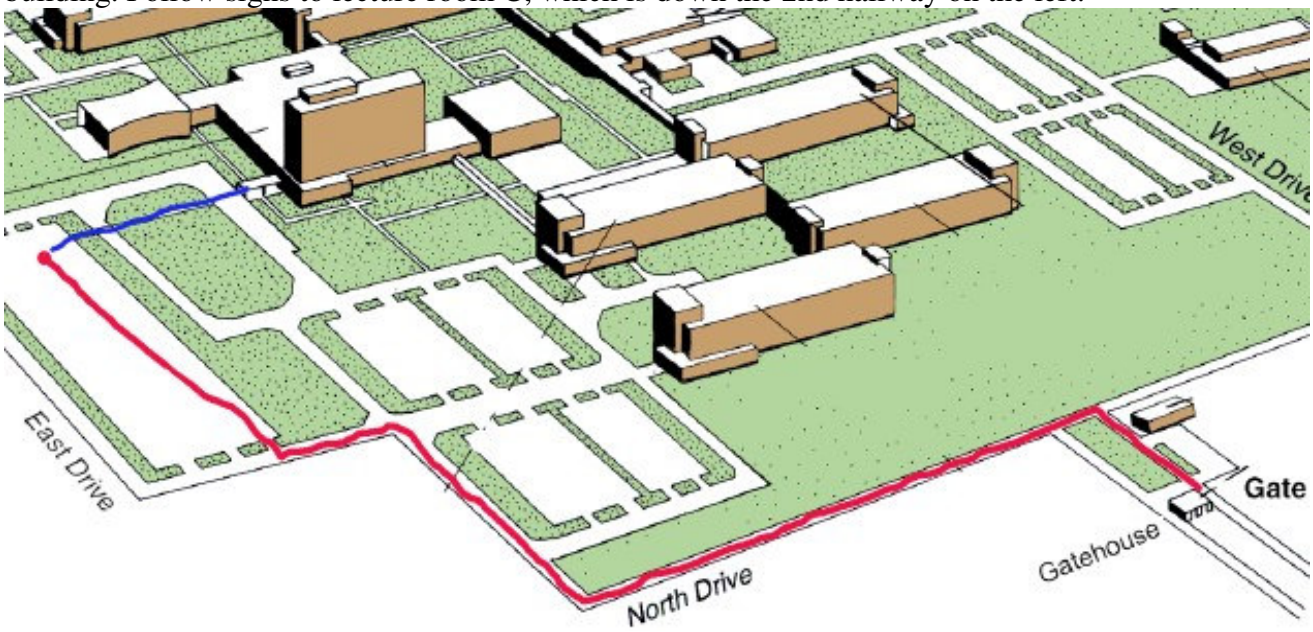
Directions to the NIST facility in Gaithersburg, MD:

From northbound I-270 take Exit 10, Route 117 West, Clopper Road. Bear right at the first light onto Clopper Road/West Diamond Avenue. At the next light, turn left onto the NIST grounds.

From southbound I-270 take Exit 11, Route 124, Montgomery Village Avenue/Quince Orchard Road. Bear right at the first light onto Route 124 West, Quince Orchard Road. After you merge onto Rt. 124, Quince Orchard Road, turn left at the second light onto Route 117, West Diamond Avenue. Turn right at the first light onto NIST grounds.



Get visitor's badge from guard in gatehouse. Park in main lot (red line), and enter Administration building. Follow signs to lecture room C, which is down the 2nd hallway on the left.



Directions to the FDA facility in Silver Spring, MD:

From the Capital Beltway, I-495, take New Hampshire Ave, Rt 650 north to Michelson Rd.

From Columbia Pike, Rt 29, take New Hampshire Ave, Rt 650 south to Michelson Rd

Due to construction, all traffic must use the Michelson Rd entrance. Follow signs to visitor parking.

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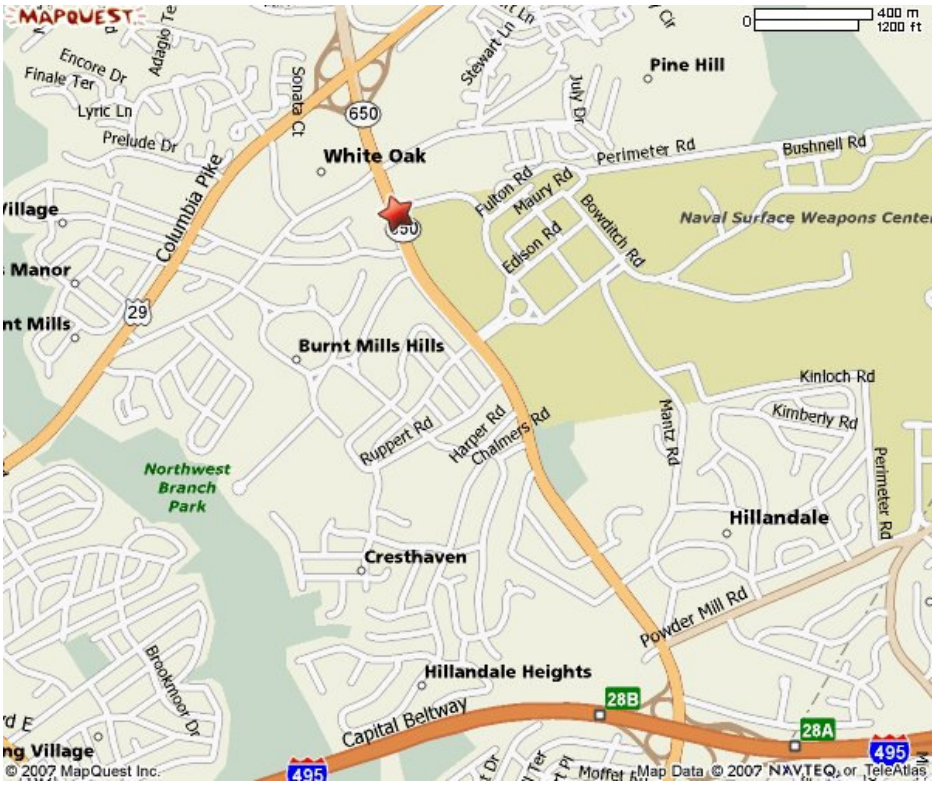
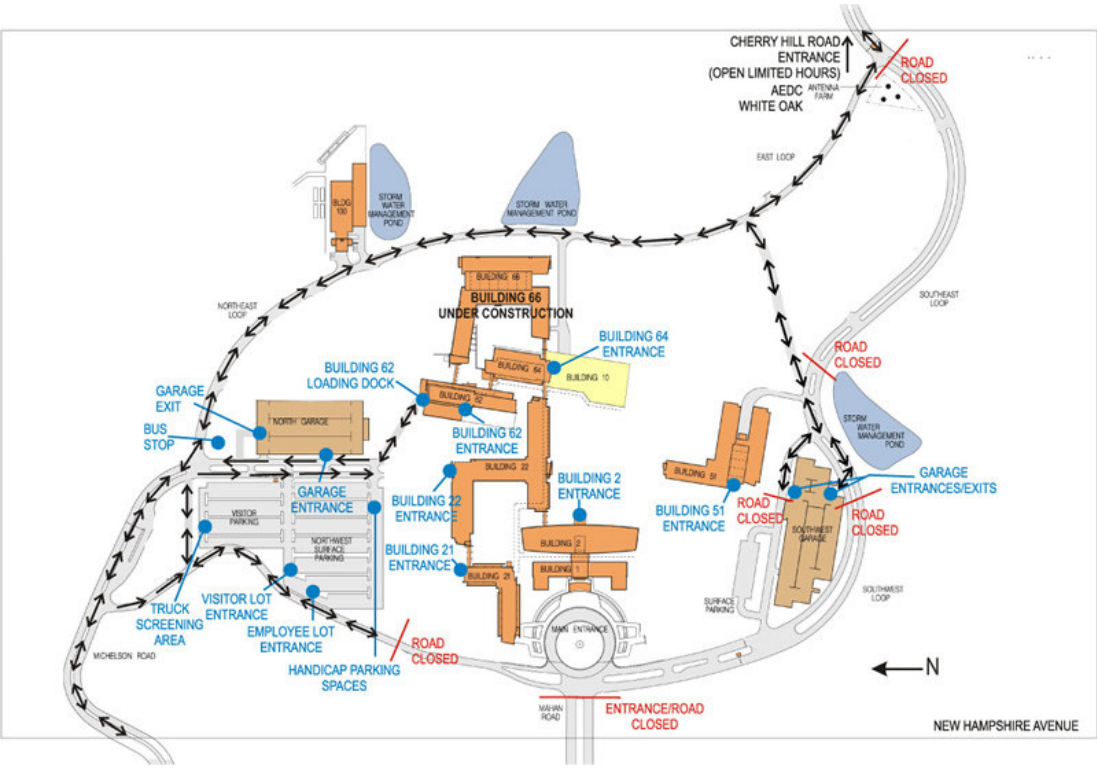
From Columbia Pike, Rt 29, take New Hampshire Ave, Rt 650 south to Michelson Rd

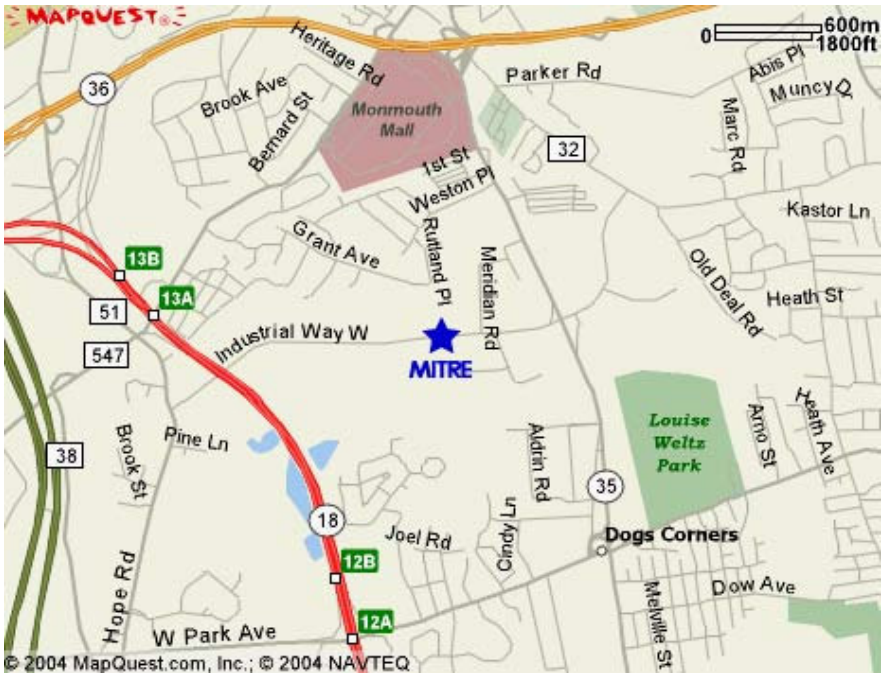


Due to construction, all traffic must use the Michelson Rd entrance. Follow signs to visitor parking.

Enter building 22.



Directions to the MITRE Facility in Eatontown, New Jersey:



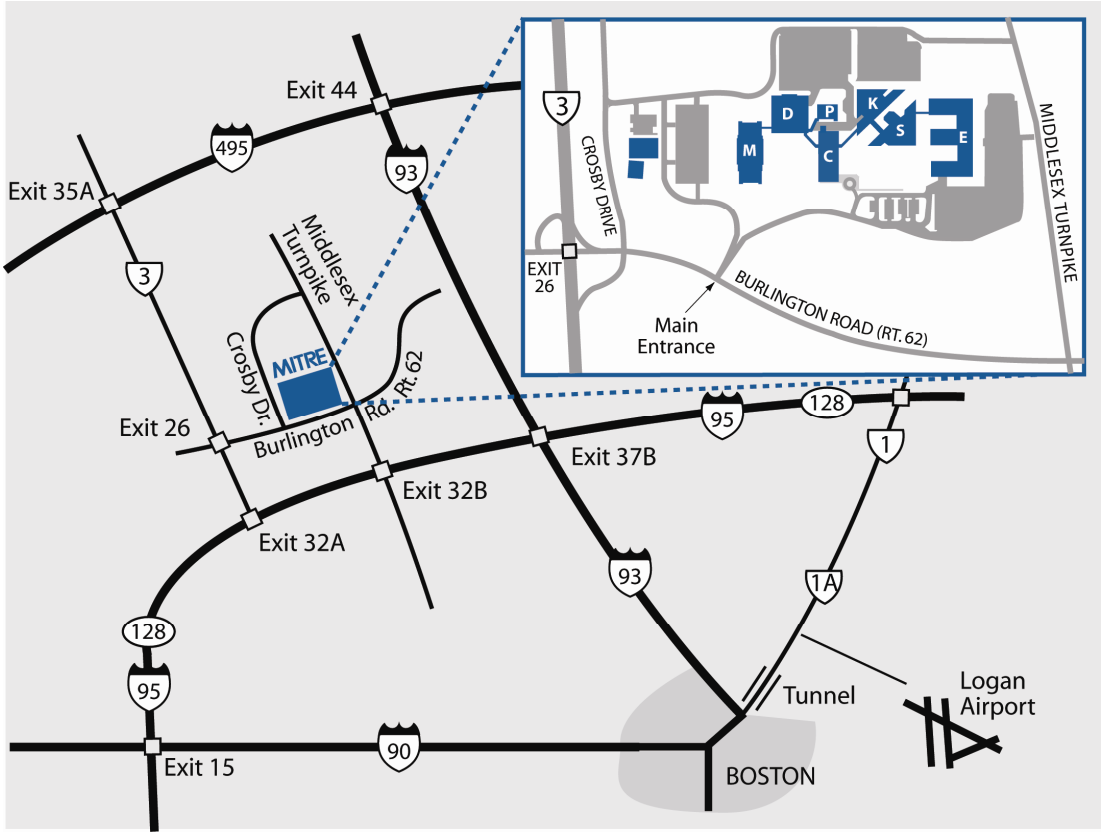
From the New Jersey Turnpike
If traveling from the **SOUTH**, get off the Turnpike at Exit 7A (195 toward Shore Points). Take 195 East towards the ocean and shortly after 195 turns into Route 138 (approximately 35 miles) watch for Route 18 North (Eatontown). Take Route 18 North to Exit 13A (Wayside West/Wyckoff 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 the MITRE complex in Bedford, Massachusetts:



From New Hampshire to MITRE Complex:
Take Route 3 South to Exit 26 (Route 62)
Turn Left on Route 62. It is a short distance to the MITRE entrance on left--watch for building directories on MITRE grounds

From Manchester Airport (NH) to MITRE Complex:
Start out going West on Airport Rd. toward parking
Turn slight right onto Brown Ave/NH-3A
Merge onto NH-101 West via the ramp on the left toward Bedford/Nashua
Take the Everett Turnpike South exit toward Merrimack/Nashua
Merge onto Everett Turnpike (toll road)
Everett Turnpike becomes US-3 South
Take exit 26 (Route 62) toward Bedford/Burlington
Turn Left onto (Route 62) Burlington Road
At second set of traffic lights, turn left at MITRE Bedford Campus entrance--watch for building directories on MITRE grounds.

Logan Airport to MITRE Complex:
Exit airport towards Route 1A South/Sumner Tunnel (I-93) Boston.
Proceed through tunnel towards Storrow Drive (I-93 North).
Take I-93 North eleven miles to Exit 37B (Route 128 (I-95) South).
Take Route 128 (I-95) South six miles to Exit 32A.
Take Exit 32A, and proceed on Route 3 North.
Take Route 3 North for two miles to Exit 26 (Route 62).
Bear right on Route 62.
Take Route 62 a short distance to the MITRE Bedford Campus entrance on left--watch for building directories on MITRE grounds.