



# Software Estimation on a Shoe String

by: William D. Hart



Tuesday, September 25, 2007

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

*and*

**Society for Software Quality (SSQ), Washington, DC Area Chapter**

This presentation looks at one organization's journey to estimating without the benefit of extensive formal estimating training or an estimating tool. Examine how they moved from reliance on domain expertise, to a simple function point like spreadsheet, to a statistically sound method, to its current function point count method for estimating the development and maintenance of a software project. As knowledge and experience was coupled with textbook references, the PMI Body of Knowledge (PMBOK), and a function point subject matter expert their estimating process has matured to a level to receive accolades from their CMMI Appraisal Team. The presentation will cover some of the basics of analyzing change requests such that function point counting can be facilitated, and how we move from an expression of size in function points to an actual estimate of effort. In addition, the presentation looks at lessons learned along the way that should benefit those who are on a similar journey.

Presenter **William D. Hart, PMP**, has worked with software development and project management supporting government and commercial applications for over 19 years. His experience includes performance as a Software Developer, Database Administrator, Systems Administrator, and currently as a Project Manager. During the last 8 years he has successfully led multiple software development projects using CMMI and other methodologies for clients. In 1998, he established Soft Solutions Consulting, Inc., a software development consulting firm, and has led it as President and CEO since its inception. He is a Project Management Professional (PMP) and has been a member of the Project Management Institute since 2001. He also has held Member status in IEEE since 1990 and is a member of the IEEE Computer Society. He holds a Bachelor of Science degree in Computer Science.

## This Meeting Will Be Held at 3 Locations!

MITRE, room 0N136  
7515 Colshire Drive  
McLean, VA 22102

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

MITRE, room 1M306  
202 Burlington Rd. (Rt. 62)  
Bedford, MA 01730

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

**NEW → At McLean, VA, park in front of the buildings, before passing the gate..**

**Software SIG Chairman:** T. Scott Ankrum – member ASQ

**Software SIG Committee:** Chris Jones – member SSQ and ASQ

Richard Eng – member ASQ

Tim Rice

Ben Walther

Alfred Kromholz – member SSQ

**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:**

Please register for the meeting by COB Monday, September 24<sup>th</sup>, 2007 by contacting Scott Ankrum at [ankrums@mitre.org](mailto:ankrums@mitre.org) or 703-983-6127 for the Virginia and Massachusetts sites, or contact Richard Eng at 732-578-6352 or [reng@mitre.org](mailto:reng@mitre.org) 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.

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

**A monetary contribution is requested at Eatontown and at Bedford.**

**The Meeting Is Scheduled For:**

Tuesday, September 25<sup>th</sup>, 2007  
6:30 - 7:00 Pizza and Sodas  
7:00 - 8:00 Program

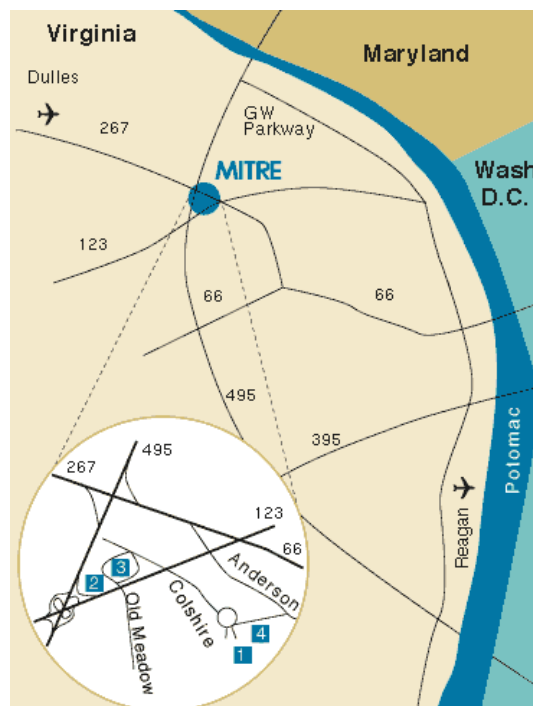
**Will Be Held At:**

MITRE building 2 room 0N136, Mclean, VA  
MITRE room 1002, Eatontown, NJ  
MITRE building M room 1M306, Bedford, MA

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

**Directions to the MITRE Facility in McLean, Virginia:**

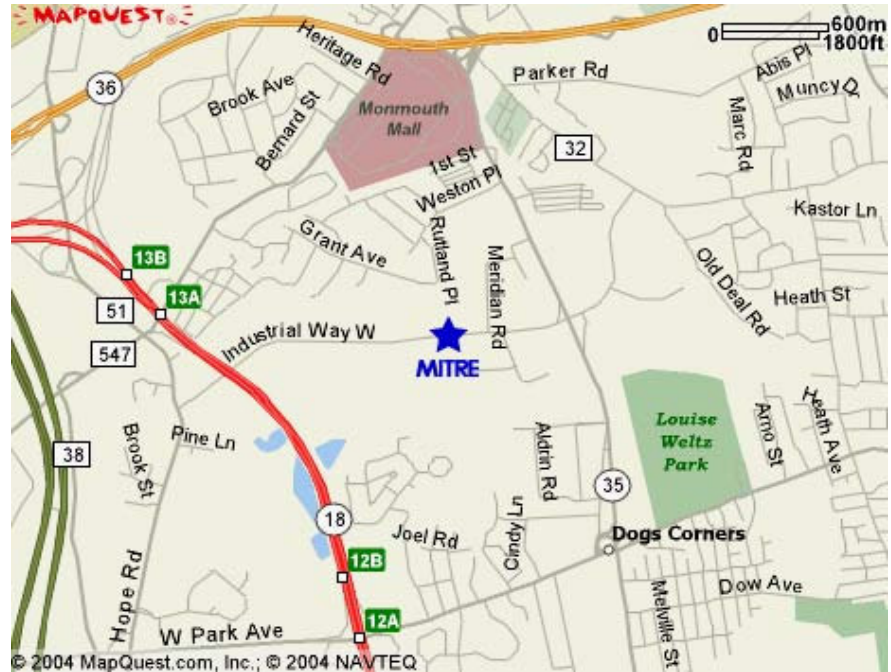
Take the Beltway, I-495 to Virginia. Take Exit 46B (McLean, Route 123). Take Route 123 North, (also called Dolley Madison Blvd.) and go to the second traffic light at Colshire Drive. Turn right on Colshire Drive and continue through circle on Colshire. **Park in front of or to the right of the buildings, before passing the gate. (The gates are closed at 7:00)** Additional directions can be found at: [http://www.mitre.org/about/locations/mitre1\\_map.html](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.



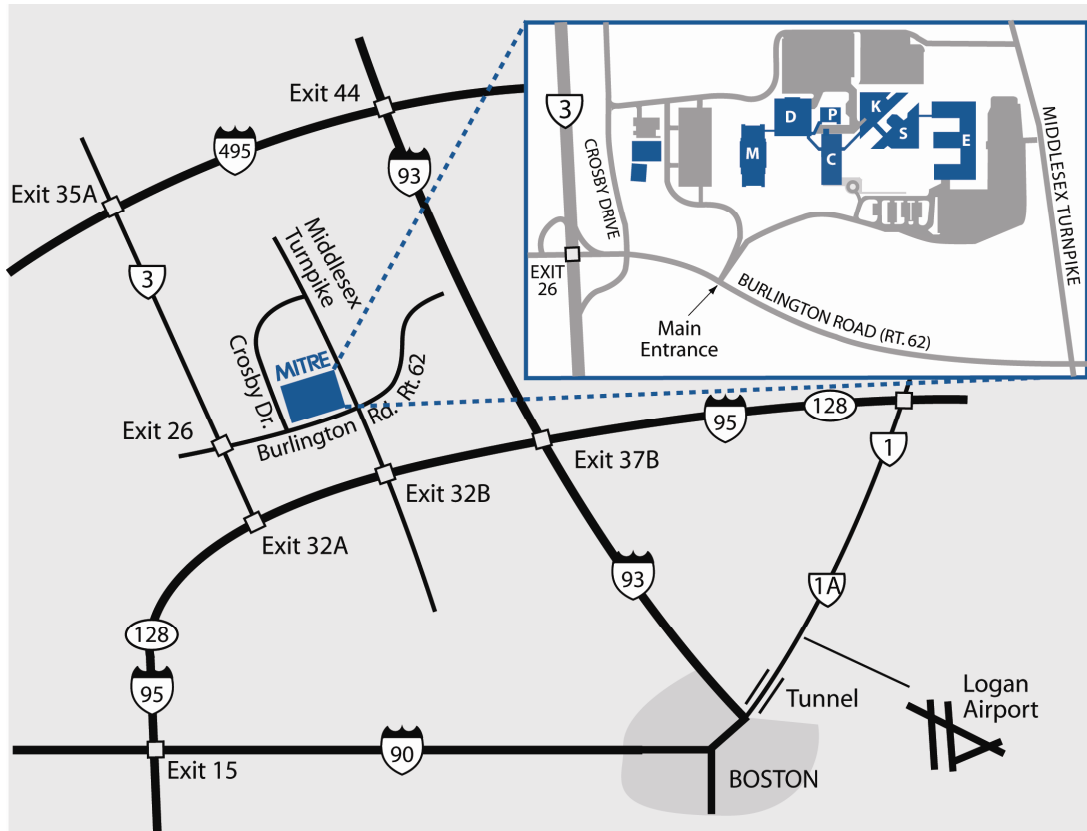
There are two buildings on the left side of Industrial Way. The first building is MITRE, the second building is TYCO. Take a left turn into the parking lot of the first building, which is MITRE.

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 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.