

Work Item Estimating Fundamentals: Decomposing and Estimating MSC Work Items

Course Content

This course provides in-depth training on MSC estimating policies and practices pertaining to researching, decomposing, and estimating detailed and performance-like work items, followed by practical exercises in the decomposition and estimating of new and existing detailed and performance-like work items. This course consists of the following modules:

- Work Item Estimating Fundamentals
- Decomposition and Estimating of Exercises
- Creating Bottom-up Estimates for Detailed and Performance-like Work Items

Target Audience

The target audience for this course is new and current N7 Engineers who may be required to estimate work items and/or change-orders. This course is appropriate for engineers at all experience levels, as many estimates are based on experience and reliance of contract specialist negotiations, without providing details on the assumptions used to create the estimate, estimate breakdowns associated with specific sections of the statement of work, that could be used by negotiators or those who conduct post-availability reviews.

Pre-Requisites

A basic understanding of ship construction and repair.

Administration

The class size is limited to 15 students, and enrollment is on a first come, first served basis. You can self-register for this course online at <http://mscn7training.com>. Successful completion of this course requires 100% attendance.

Schedule

This course is conducted over a period of 3 consecutive days. Classes begin at 8:00 AM and end at 5:00 PM each day, with a one-hour lunch period from 1200-1300. The schedule for the course modules is as follows:

Day One	0800-1700	Work Item Estimating Fundamentals
Day Two	0800-1700	Decomposition and Estimating Exercises
Day Three	0800-1700	Creating Bottom-up Estimates

Module Descriptions:

Work Item Estimating Fundamentals - The topics covered in this module include: MSC's work item estimating policies and practices; FAR Requirements for Independent Government Estimates (IGE); how to establish "or equal" pricing; sources of material estimates; estimating growth work; establishing Cat B work item rates; MSC Work Item Estimating Guide; Butler's Estimating Guide; learning how to decompose a work item's statement of work; standardized estimating template; differences between various levels of estimate accuracy (e.g. ROM vs Feasibility estimate); understanding the difference between parametric and non-parametric estimating techniques; establishing labor hour requirements for new work; need to revise work type estimates based on location.

Decomposition and Estimating Exercises - This module provides an opportunity to decompose the statement of work in MSC work items for the purpose of creating detailed cost estimates. Students will perform exercises that reveal the accuracy and variability of estimates on even the simplest tasks. Students will conduct exercises using a standardized, yet customizable template that populates data onto MSC estimating forms, providing details for later review or use by contract representatives during negotiations. Students will participate in individual and collective estimating exercises, provide insights based on their experience, and share approaches used. Students will have the opportunity to bring their own work items in for estimating, or address any of several existing work items provided by the instructor.

Creating Bottom-Up Estimates- This module provides an opportunity for each student to create bottom-up, detailed estimates which will be subsequently reviewed by their peers. Students will create a ROM followed by a detailed estimate of a historical item that caused a 2-week delay in negotiation due to differences in approach by the port engineer and the contractor. Students learn the value of using a 3rd party review of their estimates during discussions on the approach and detail contained in their estimates. Students will gain insights based on creating and critiquing the estimates of their peers, while learning more about the subjective "art" of estimating.

Date	Version	Description	Author
5/14/19	0.0	Initial draft	Kevin Sorbello