



Frontier Technology, Inc.

Crafting Quality IT and Engineering Solutions

Product Information

Current ICE™ Features

Version 5.6 released in September 2004 with Additional Cost Estimating Capabilities, now includes AFTOC CAIG data for O&S Analogy Estimates

Frontier Technology, Inc., has added more capability to the ICE tool with the release of version 5.6. This release of ICE expands the capability to estimate weapon systems life cycle cost with Department of Defense (DoD) accepted models, data, and methods. Version 5.6 of the ICE cost-estimating tool enables the novice and experienced analyst or manager to generate easily estimates of the effect of real-world scenarios on the cost of developing, manufacturing, maintaining, upgrading, and retiring DoD systems such as aircraft, space systems, tanks, weapons, etc. This computer application continues to mature, providing cost impacts of investment alternatives, enabling decision-makers to determine the most affordable option.

The ICE tool integrates into a single application the tools, data, models, processes, and methods used by financial analysts to estimate the cost of new weapon system development or modification of existing systems. FTI recognized, in response to a DoD need for estimating weapon system costs, the value of automating the process in a tool such as ICE. For example, ICE can estimate a life cycle cost impact of modifying an aircraft or a fleet of aircraft with a new technology communication system and include the impact of the eventual retirement of that aircraft or fleet from the overall inventory. This unique capability provides decision makers with cost information enabling them to assess quickly the affordability of multiple modifications, system investments, or retirement of a system before committing to a course of action.

At the top of the new features list in ICE version 5.6 is the integration of the Cost Analysis Improvement Group (CAIG)-formatted Operations and Support (O&S) data available from the AFTOC data warehouse for aircraft and non-aircraft systems. This data is incorporated to provide a means to perform analogy estimates of O&S costs for similar weapon systems.

The latest ICE upgrades and enhancements in version 5.6 include:

- Five years of Air Force Total Ownership Cost CAIG data for both aircraft and non-aircraft weapon systems. The addition of the actual reported costs of Air Force Weapon Systems enables an analogy method on which to base an O&S estimate of a new weapon system or modifications. With five years of data, an ICE user can choose which year (or years) of data to include for the system being estimated. When multiple years are selected, ICE automatically averages the selected years and presents an average single year of information to the ICE user for review. Similar to other O&S estimating models in ICE, the format of the information is a cost per aircraft syntax so the ICE user can input a variety of inventory scenarios for “what-if” estimates or fleet sizing exercises. For the first time, actual non-aircraft O&S cost information is available when using ICE. Previously, only the user-input questionnaire or appropriate adjustments to the inputs for the CORE O&S model could be used to estimate the O&S cost of non-aircraft systems. With the addition of the AFTOC CAIG data for non-aircraft systems in the Air Force inventory, the actual reported cost of those systems is available to ICE users in an easy-to-use tool, seamlessly integrated with the other cost models integrated in ICE.
- An operations and support cost growth adjustment factor is now available to approximate increasing O&S costs each year. A factor can be entered to represent the potential decrease in reliability of components causing increased replacement costs or represent the increase in cost of new parts, repairs, or labor.

- A concept cost rollup feature was added that sums the costs across concepts in a grouping of concepts within a computer file. This capability enables the user to establish a “system-of-systems” cost estimate that includes several different concept elements in the overall “system”.
- SEER default values for material composition and circuitry composition were added in the SEER-H questionnaires. The default values are from industry averages and help the user to complete the SEER model questionnaire in these areas when little information is available.
- A capability to import into ICE component costs from an existing SEER or PRICE file.
- Aircraft Operating and Support Data updated from AFI 65-503, to include the latest information available from official Air Force sources.

ICE 5.6 provides capabilities that will accommodate experienced cost analysts who need a “quick-turn” analysis capability, and the scientist, engineer, or planner who is not experienced with cost analysis but needs to understand and assess the cost and affordability of weapon system developments or modifications.

About Frontier Technology, Inc. / www.fti-net.com

Southern California based Frontier Technology, Inc. (FTI), is an information technology services firm providing high-level systems engineering, customized software, and operations support to a diverse client base in the Department of Defense, aerospace, business, and industry. FTI regional offices are located in Washington, D.C., Dayton, Ohio, and Beverly, Massachusetts.

For more information, visit www.fti-net.com/AS/ice/; or e-mail Frontier Technology at ICE@fti-net.com.