



# Tri-Service Automated Cost Engineering System

Program Manager 256-895-1773

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

The Tri-Service Automated Cost Engineering System (TRACES) consists of a suite of software applications designed to support the cost engineers throughout the U.S. Army Corps of Engineers, as well as the cost engineers with the U.S. Air Force and U.S. Navy. TRACES applications are used in support of military, civil works, hazardous and radioactive toxic waste (HTRW), and other projects worldwide. Managed by the U.S. Army Engineering and Support Center, Huntsville, TRACES provides a standard suite of automated tools used for the preparation of planning and budgetary estimates for analysis on budget cost data during design, Independent Government Estimates (IGEs) during bid opening or negotiations, modification estimates during construction, and captures contract costs for historical purposes. TRACES supports the Tri-Services (Army, Navy and Air Force), as well as the Office of the Secretary of Defense, Department of Energy, and the Environmental Protection Agency.

TRACES reduces the time required to prepare or review construction cost estimates by enabling the cost engineer to develop standard formats, processes and procedures. TRACES results in more accurate construction cost estimates. The mission of TRACES is to build a user-friendly cost engineering platform in a true Windows environment with all systems and databases required to prepare, analyze, review and maintain all types of cost estimates and schedules.

Several TRACES applications are currently being converted from a PC-based environment to a web-based environment, and some are already web-based. This is being done in preparation to migrate all software to the cloud as directed by the Department of Defense (DOD). The initial part of this conversion is the development of a TRACES portal, which will become a one-stop-shop for all cost engineering requirements for Tri-Service Cost Engineering requirements. The initial portal is scheduled to be released in the fall of 2018, with modules being converted over to it during fiscal years 2018 and 2019.

## TRACES modules include the following:

- **Micro-Computer Aided Cost Estimating System Second Generation (MII):** The MII software application is PC-based and is currently used by the Army Corps of Engineers and architect-engineer firms for the preparation of detailed construction cost estimates. The software is used for the preparation of programming estimates, current working estimates, bid opening IGEs and construction modification estimates.
- **Parametric Cost Estimating System (PACES):** Licensed to the DOD, the PACES PC-based software application is used for preparing parametric construction cost estimates and cost estimates where little or no real design has been developed.
- **Cost Book/Unit Price Book (UPB):** Rather than being a software application, this is a database containing construction cost data for approximately 70,000 different cost tasks. The Cost Book is used by MII as the line item costs associated with the project cost estimate and by PACES for the development of assemblies used within its system to develop project cost estimates.
- **Area Cost Factors (ACF):** ACF is a web-based application used to analyze the associated cost for construction at a specific location (worldwide) as compared with a U.S. average construction cost.
- **Historical Analysis Generator second generation (HII):** HII is a web-based software application developed for collecting construction cost data and for evaluating building costs based upon common facility types. Military construction and civil works sections are available.
- **Cost Risk Analysis (Crystal Ball):** Crystal Ball is a DOD-licensed application applied on top of Excel to provide the capability of evaluating risks associated with the project and how they affect the construction costs for the proposed project.

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Distribution A - Approved for Public Release - Unlimited Distribution - Release 1902