Introduction to the ACE Team Benchmarking Process:

A New Benchmarking Tool from The Maintenance Excellence Institute

A True Team-Based Approach: Here we will outline a new and highly recommended methodology for establishing team-based maintenance performance standards which we call ***reliable planning times***. The ACE Team Benchmarking Process (ACE System) was developed by TMEI founder back in the 1980's. It is a true team-based process that utilizes skilled crafts people, technicians, supervisors, planners and other knowledgeable people to do two things;

1. Improve current repair methods, safety and quality and then
2. Establish work content time for selected "benchmark jobs" for planners and others to use in developing **reliable planning times**

Benchmark Jobs: This is a proven process that uses "**a c**onsensus of **e**xperts" **(ACE)** who have performed these jobs and can also help improve them. In turn, a relatively small number of representative "benchmark jobs" is developed for the major work areas/types within the operation. Benchmark jobs are then arranged into time categories ("time slots") on spreadsheets for the various craft work areas.

Spread Sheets: By using spread sheets to do what is termed "work content comparison" or "slotting", a planner is then able to establish planning times for a large number of jobs using a relative small sample of "benchmark jobs". This publication also provides the step-by-step process on using the ACE System. Most importantly it will illustrate how this method supports Continuous Reliability Improvement and quality repair procedures for all types of maintenance repair operations.

Nearly every computerized maintenance management system (CMMS) allows a user to enter "planned" or "standard" hours on a work order, and then report on actual versus planned hours (the Craft Performance element of OCE) when the job is complete. This holds true for both preventive and corrective maintenance work orders as well a project type work for renovation, major overhauls and capitalized repairs. Most do not use this for one main reason; they do not have reliable planning times or standard hours available.

Determining the standard hours an average maintenance technician will require to complete a task under standard operating conditions provides everyone involved a sense of what is expected. The standards provide management with valuable input for backlog determination, manpower planning, scheduling, budgeting and costing. Labor standards also form the baseline for determining craft productivity and labor savings for improved methods.

The ACE System Supports Continuous Reliability Improvement: Maintenance work by its very nature seldom follows an exact pattern for each occurrence of the same job. Therefore, exact methods and exact times for doing most maintenance jobs cannot be established as they can for production-type work. However, the need for having reliable performance measures for maintenance planning becomes increasingly important as the cost of maintenance labor rises and the complexity of production equipment increases.

To Work Smarter, Not Harder maintenance work must be planned, have a reasonable time for completion, use effective and safe methods, performed with the best personal tools and special equipment possible and have right craft skill using the right parts and materials for the job at hand.

Investment for Planners: With an investment in maintenance planners there must be a method to establish reliable planning times for as many repair jobs as possible. The ACE System provides that method as well as team-based process to improve the quality of repair procedures.
Various methods for establishing maintenance performance standards have been used, including reasonable estimates, SWAGs, historical data, and engineered standards such as Universal Maintenance Standards (UMS) using predetermined standard data. These techniques generally require that an outside party establish the standards, which are then imposed upon the maintenance force. This approach often brings about undue concern and conflict between management and the maintenance work force over the reliability of the standards.

The ACE System: A Team-Based Approach: Rather than progressing forward together in a spirit of continuous improvement, the maintenance work force in this type environment often works against management's program for maintenance improvement. The ACE System overcomes this problem with a team-based approach involving craft people who will actually do the work that will be planned later as the planning and estimating process matures. As shown later, The ACE System is truly a team-based process that looks first at improving maintenance repair methods, the reliability of those repairs to improve asset uptime and then secondly to establish a benchmark time the job.

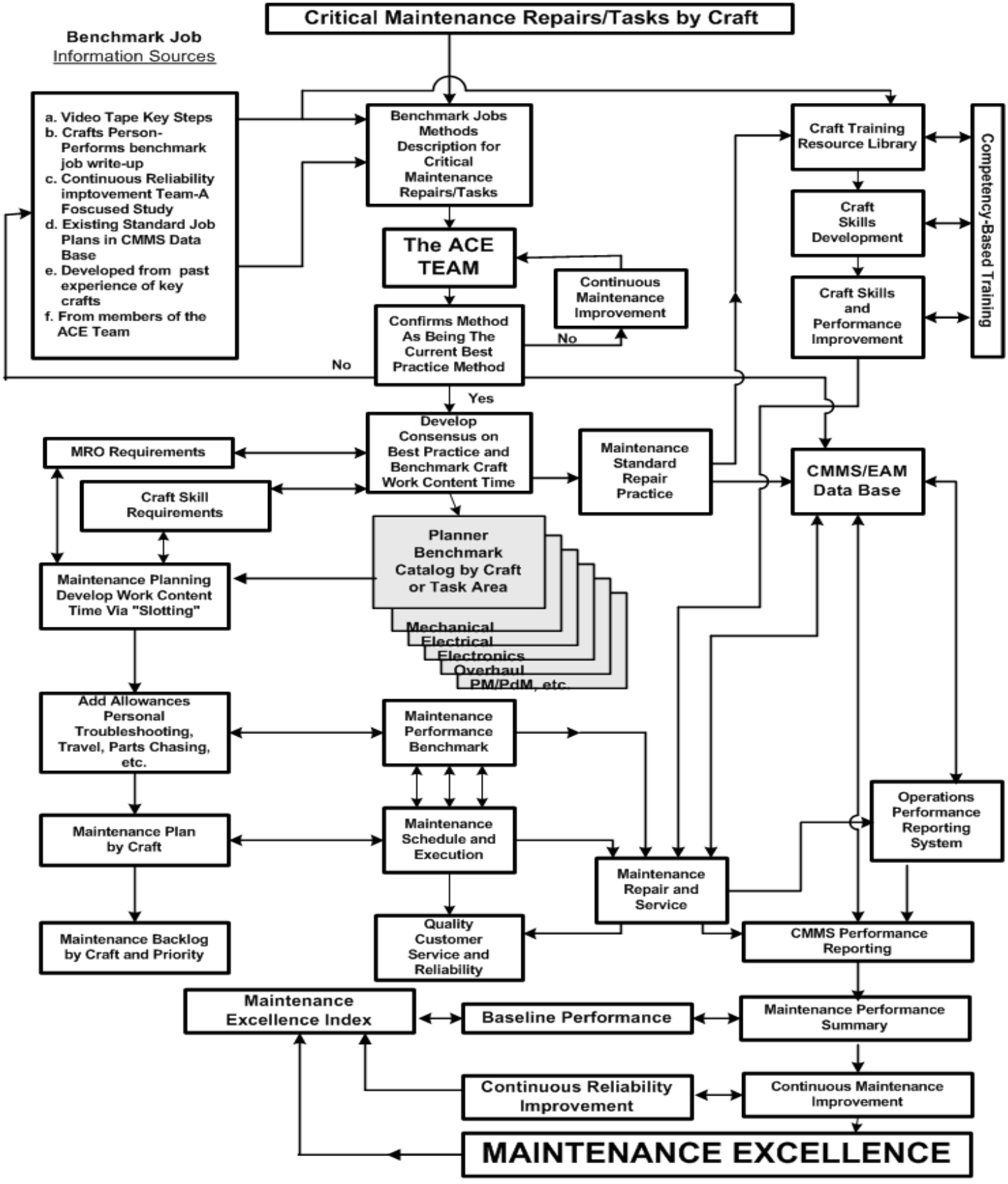
Gaining Acceptance for Performance Standards: The ACE Team overcomes many of the inherent difficulties associated with developing maintenance performance standards. The ACE (A Consensus of Experts) System is recommended and should be established as the standard process for modern maintenance management. Other methods such as the use of standard data can supplement the ACE System. The ACE System methodology relies primarily on the combined experience and estimating ability of a group of skilled crafts people, planners and other with technical knowledge of the repairs being made within the operation.

The Objective of the ACE Team Benchmarking Process is to determine reliable planning times for a number of selected "benchmark" jobs and to gain a consensus and overall agreement on the established work content time. This system places a very high emphasis on improving current repair methods, continuous maintenance improvement and the changing of planning times to reflect improvements in performance and methods as they occur. The ACE System is a very progressive method to developing maintenance performance standards a very hard area in itself to develop reliable and well-accepted planning times for maintenance.

The ACE Team's approach combines the DELPHI technique for estimating along with a proven team process plus the inherent and inevitable ability of most people to establish a high level of performance measures for themselves. As used in this application, the objective for the ACE Team process is to obtain the most reliable, reasonable estimate of maintenance-related "work content" time from a group of experienced crafts people, supervisors and planners. This process provides an excellent means to evaluate repair method, safety practices and even to do risk analysis on jobs that leads to improved safety practices.

The ACE Team's process (ACE Team process map shown on the next page) can contribute significantly to continuous reliability. Application of the ACE System promotes a commitment to quality repair procedures and provides the foundation for developing reliable planning times for a wide range of maintenance activities. The complete 10-step approach to implementing the ACE Team Process within your current planning, estimating and scheduling can be found at www.PRIDE-in-Maintenance.com.

The ACE TEAM Benchmarking Process for Reliability and Quality Maintenance Customer Service



The Maintenance Excellence Institute
6809 Foxfire Place, Raleigh, NC 27615 and 2625 East Beach Drive, Oak Island, NC 28465
Office: 919-270-1173 **Direct Cell:** 919-280-1253 **SKYPE:** PRIDEnWork **Web:** PRIDE-in-Maintenance.com