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by Robert Green

IQF Begins Certifying Six Sigma Black Belts

The International Quality Federation (IQF) has begun beta testing its Six Sigma Black Belt certification system. Boeing Satellite Systems of El Segundo, California, and the University of Arizona's Partnership for Six Sigma are working with the IQF to validate the examination and the certification process. Boeing tested its first wave of 15 Black Belts on Feb. 2, which cultivated a great deal of feedback on examination content and procedures.

"The Boeing Satellite Systems beta test went very well," reports IQF President Thomas Pyzdek. "As is to be expected with the first beta test of complex software, there were a few bumps in the road. But the feedback was excellent and we are busy incorporating Boeing's suggestions into our program. In coming weeks we will be collecting additional data and using it to validate the exam."

The IQF developed its Six Sigma Black Belt examination and effectiveness validation process after reviewing the certification processes of a number of large organizations.

The IQF Black Belt examination is believed to be the first attempt to provide third-party validation that an individual has mastered the Six Sigma body of knowledge (BOK). The examination is computer-based and takes a full day to complete. Unlike other certification exams in the quality field that forbid the use of computers, the IQF exam requires the use of computers and tests the candidate's ability to use them to solve difficult problems. The categories tested includes basic tools, descriptive and exploratory statistical analyses, enumerative and analytic statistical analysis, finance, measurement, modeling, process capability analysis, process optimization, SPC, project management, reliability, simulation, statistical theory, and sociometric analysis.

Another innovation in the IQF process is the "sponsoring organization" concept. With the IQF certification model, in addition to passing the exam, the candidate must also obtain certification from an organization verifying that the knowledge was effectively applied more than once. The IQF provides minimum standards and guidelines for assessing effectiveness. The sponsoring organization must certify that the candidate meets the effectiveness criteria before recommending him or her for IQF certification. Thus, IQF-certified Black Belts will be co-certified by at least two organizations. IQF Black Belts automatically become IQF members-at-large, and sponsoring organizations become IQF member organizations.

To ensure confidentiality—and to protect sponsoring organizations from raids by headhunters and competitors—IQF doesn't publicize the names of certified individuals. Instead, it issues numbered certificates and maintains a database on the IQF Web site. Prospective employers wishing to confirm the certification status of applicants will enter the certificate number and the individual's name to determine if that person is actually certified.

If you are interested in providing IQF certification for your organization, contact the IQF through its Web site at *www.iqfnet.org*. You may also contact Pyzdek at *www.pyzdek.com*.
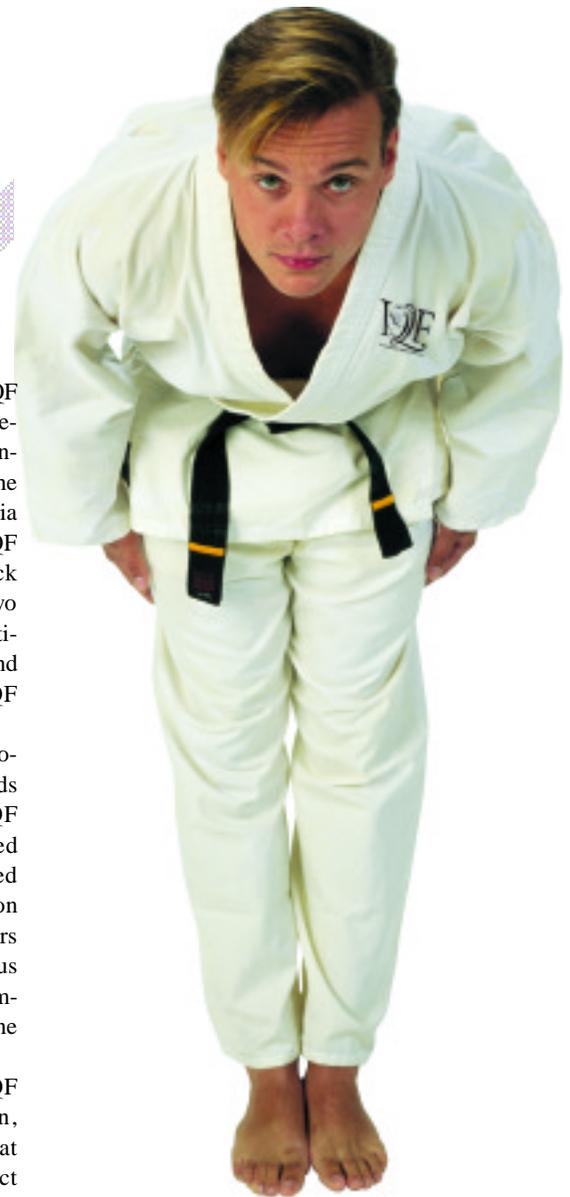
Examples of Effectiveness Criteria

In addition to passing the IQF BOK exam, certification requires the following:

- Acceptable completion of a Black Belt training curriculum approved by the sponsoring organization
- Demonstration of clear and rational thought processes, including the ability to analyze a problem following a logical sequence and the ability to use facts and data to guide decisions and action
- Ability to clearly explain Six Sigma and the define, measure, analyze, improve and control (DMAIC) project cycle in lay terms
- Ability to achieve tangible results, for example:
  - Complete two or more projects that employ the Six Sigma approach (DMAIC or equivalent)
  - Perform benefit-cost analysis
  - Quantify deliverables in terms meaningful to the organization (e.g., cost, quality, cycle time and safety improvement)
  - Identify and overcome obstacles to progress
  - Work within time, budget and operational constraints
- Demonstration of the ability to explain Six Sigma tools to others
- Demonstration of interpersonal and leadership skills necessary to serve as an effective change agent within the organization