

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
441 G STREET, NW
WASHINGTON, DC 20314-1000

CECW-CE

MEMORANDUM FOR ALL MSC Value Engineering Program Managers/District VEOs

SUBJECT: Federal VE Requirement Intent and How USACE is Meeting the Intent

1. To implement the statutory intent to utilize the Value Methodology to reduce program and acquisition costs, improve performance, enhance quality, and foster the use of innovation, USACE has adopted industry accepted practices (i.e. ASTM E1699 and SAVE International® Value Methodology Standard). The USACE VE Workshop Standard and Evaluation Index were developed to establish the expectations of what must be accomplished in order to meet and demonstrate compliance with the statutory and Federal requirements for VE. Please refer to the HQ USACE VE website for the USACE VE Workshop Standard, USACE VE Evaluation Index and HQ USACE FAST 1 and 2 Workshop Proceedings that developed these standards.
2. The USACE VE workshop standards requires a multidisciplinary workshop format; performed by agency or contract personnel qualified in the Value Methodology (i.e. CVS) with the expert application of continuous function analysis; and utilization of the Standard Value Methodology Job Plan. The USACE VE Evaluation Index evaluates compliance with policy, management procedures, workshop (including pre- and post-workshop effort), and outcomes
3. To further facilitate compliance with statutory requirements, OMB Circular A-131 Value Engineering (issued December 2013) and USACE policy, USACE has integrated an automated Screening and Strategy Selection Tool into the business process to assist with producing a Value Management Plan. Refer to ECB 2013-21, subject: Automated Value Engineering (VE) Screening and Strategy Selection Tool.
4. Any questions should be directed to the undersigned at (202) 761-5533, or for more information visit the USACE VE website at www.usace.army.mil/ValueEngineering.aspx.

JEFFERY T. HOOGHOUSE, AIA, DBIA, CVS
Chief Value Officer (CVO)

USACE Standard for Performing VE workshops

The purpose of this document is to enhance the application of industry standards for the use of Value Engineering (VE) within USACE. This standard emphasizes key functions that must be accomplished within the application of value engineering to better achieve the spirit and letter of the federal requirements. This USACE VE Standard establishes the expectations of what must be accomplished in order to meet the intent of VE. The value engineering industry has primarily defined VE with ASTM Standard E1699 and the SAVE International[®] Value Methodology (VM) Standard. USACE has identified herein key functions of the industry standards critical to the application of VE within the USACE area of responsibility (AOR). Therefore, the USACE VE Standard is a compilation of the ASTM E1699 standard, the SAVE International[®] VM Standard, and this document. The standard is applicable to projects, products, and processes; for simplification, this standard will use the term project to refer to all three.

The USACE VE Standard includes:

1. Use of the industry accepted standard VE process
2. Application of the process in a workshop format
3. Use of a multidisciplinary team of subject matter experts
4. Facilitation of the process by a qualified team leader such as a Certified Value Specialist[®] (CVS[®])
5. Focus on expanding the solution-set, analyzing functions, and supplementing the knowledgebase of the project delivery team (PDT)

The SAVE International[®] VM Standard defines the six step Job Plan (Information, Function Analysis, Creativity, Evaluation, Development, and Presentation phases), the requirement to have a multidisciplinary team, led by a qualified team leader with expertise in the application of this process, and in a workshop environment. The USACE VE Standard recognizes, accepts, and adopts industry standards as being essential components that create the framework for success; however, what is accomplished within this framework is what is truly most important. Merely stepping through the Job Plan does not guarantee the desired outcome is achieved. The intent of this supplement to the industry standards is to improve the outcome and consistency of USACE VE workshops.

VE is uniquely different from other existing processes, tools, and techniques used in project development or improvement. The overall objective of VE is to make projects better specifically by challenging and testing the proposed solutions. The term challenge, in this context, is not intended in any way to criticize the proposed solutions but rather to push against the boundaries or project parameters looking for opportunities to improve the value of the project.

To better realize this objective, the USACE VE Standard puts greater emphasis on the following functions that must be accomplished within the application of the Job Plan:

Expand Solution-Set

Expand the solution-set to identify alternatives not previously considered that may optimize the efficiency and effectiveness of the solution.

- Foster an environment to challenge constraints, criteria, and decisions
- Exploit misperceptions, misinformation, misunderstandings, disconnects, assumptions, and/or perceived constraints to identify targets of opportunity

Analyze Functions

Analyze functions to specifically understand the rationale of the proposed solution and validate that it achieves the project objectives in the most efficient and effective manner.

- Extract knowledge to create a common understanding of the required project functions
- Distill the knowledge obtained into basic elements that define “what the project must do” rather than how it is being done (Function Analysis)
- Force a collaborative dialogue by encouraging multidisciplinary interaction with thought-provoking questions to stimulate creative thinking

Supplement Knowledgebase

Supplement the PDT with additional knowledge and expertise in the subject matter to enrich the knowledgebase.

- Infuse expertise to achieve different perspectives on the subject or to scrutinize areas that may not have been thoroughly explored previously
- Expand knowledge with the addition of expertise not included on the PDT

These are crucial functions that **MUST** occur in order to achieve successful results. It is also very important to understand the Job Plan is a sequential process that builds off the previous step, where Function Analysis is a common thread throughout. Each step provides a unique and critical component that contributes to the success of the overall outcome. Although the steps are clearly listed within the SAVE International[®] VM Standard, it is important to further expand USACE expectations within each step. These expectations are further defined in the USACE VE Community of Practice Manual of Practice and are made a part of the USACE VE Standard by reference.

HQ/MSC	
District	
Project Name	
Project Location	
VE Study #	
Project Budget	
Cost Factor	
Study Duration (in days)	
The Study was conducted at what point in the project development process?	
Number of Technical Team Members (excluding Team Leader)	
Number of Disciplines included on VE Team	
Study Team Configuration	
Team Leader	
Certification of Team Leader	
Study Cost	
Is project based on a standard design?	
Is this a Programmatic Study or Design Standard?	
What type of acquisition will be used?	
Rate the project complexity on a scale of 1-4	
Size & Complexity Factor	0
Number of Ideas Generated	
Number of Quantitative (\$) Ideas Developed	
Maximum Total Savings Proposed	
Total Savings Accepted	

Low

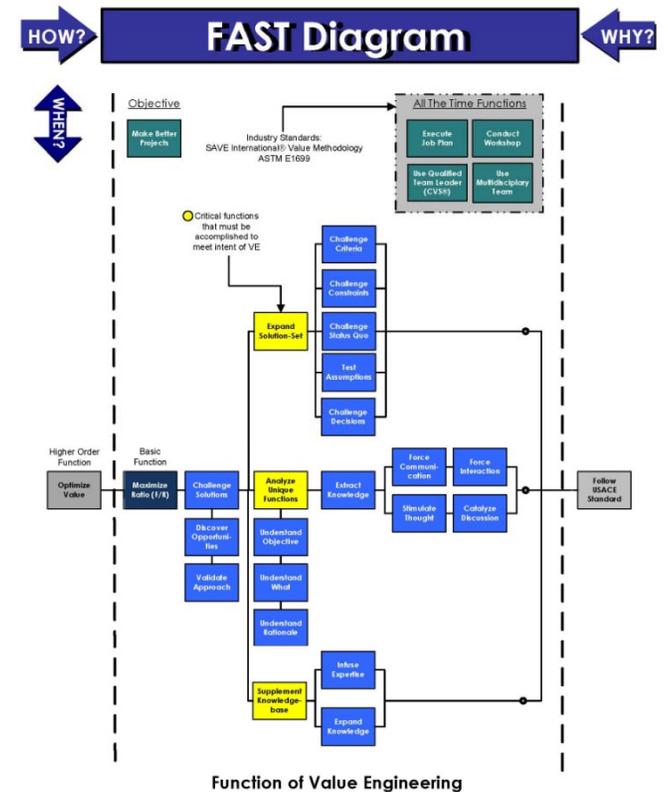
Notes:

Overall Grade			
	Weights	Actual Score	Score By Category
Compliance	15%	0.0%	0.0%
Management Procedures	20%	0.0%	0.0%
Workshop	50%	0.0%	0.0%
Outcome	15%	0.0%	0.0%
Overall Score			0.0%
Letter Grade			F

VALUE TEAM PRESENTATION

Value Engineering FAST 1 & 2 Workshops for HQ USACE CVO

July 15-18, 2014 & November 11-14, 2014



VALUE TEAM

Value Team Leader

John L. Robinson PE, CVS-Life

Strategic Value Solutions, Inc.

Value Team Members – FAST Workshop #1 July 15-18, 2014

Name	Organization	Role
Jeff Hooghouse, AIA, DBIA, CVS	USACE HQ Chief Value Officer	SME
Benjamin Robertson, PE, CVS	USACE Louisville District Value Engineering Officer	SME
Kyle Shafersman, PE, CVS	SVS	SME
Ryan Robinson, AVS	SVS	Admin

Value Team Members – FAST Workshop #2 Nov 11-14, 2014

Name	Organization	Role
Jeff Hooghouse, AIA, DBIA, CVS	USACE HQ Chief Value Officer	SME
Carole Lee Rankin, PE, CVS *	USACE Deputy Chief Value Officer	SME
Benjamin Robertson, PE, AVS	USACE Louisville District Value Engineering Officer	SME
Ryan Robinson, AVS	SVS	Admin

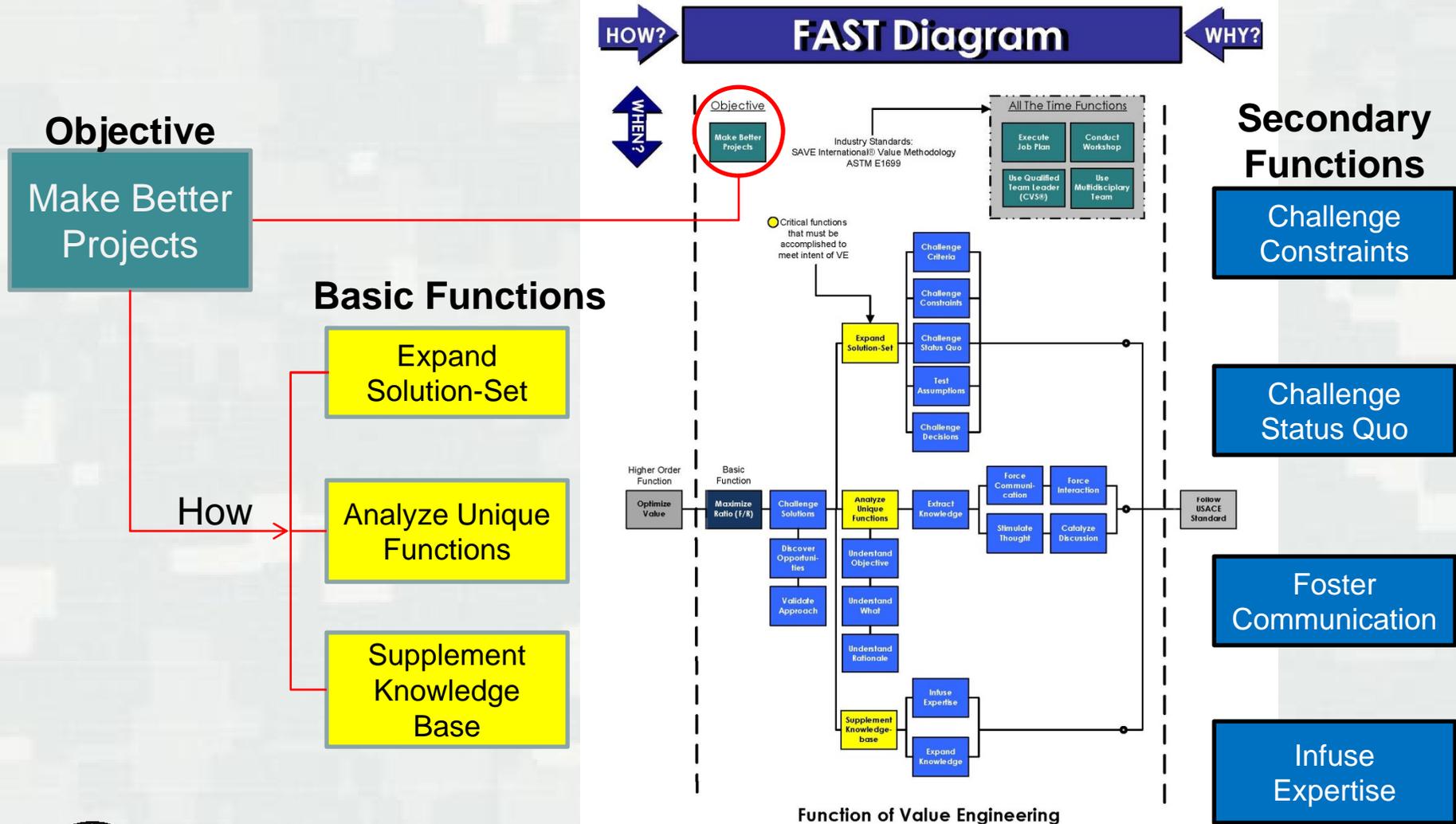


* Via Conference Call

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Answer the Question – What Is VE!



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So How Do We Accomplish These Functions? – Follow USACE Standards

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MEMORANDUM FOR ALL MSC Val

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...emphasize key functions that must be accomplished...

...what must be accomplished to meet intent of VE...

...workshop format... multidisciplinary team of subject matter experts... qualified team leader...

...expand solution-set... analyze functions... supplement knowledgebase of PDT

...SAVE job plan sets framework... however, what is accomplished within this framework is what is truly most important...

...intent is to improve outcome and consistency...

...make projects better... challenging and testing the proposed solutions... expand solution set... analyze functions... supplement knowledge base

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JEFFERY T. HOOGHOUSE, AIA, CVS
Chief, Office of the Value Engineer



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How Do We Know When VE is Accomplished?

Evaluation Index:

• Compliance with Requirements Weighted @ 15%

- Analyze Functions
- Workshop Environment
- Follow Job Plan
- Multi Disciplinary Team
- Qualified Team Leader
- Expand Solution Set
- Supplement Knowledge

• Management Procedures Weighted @ 20%

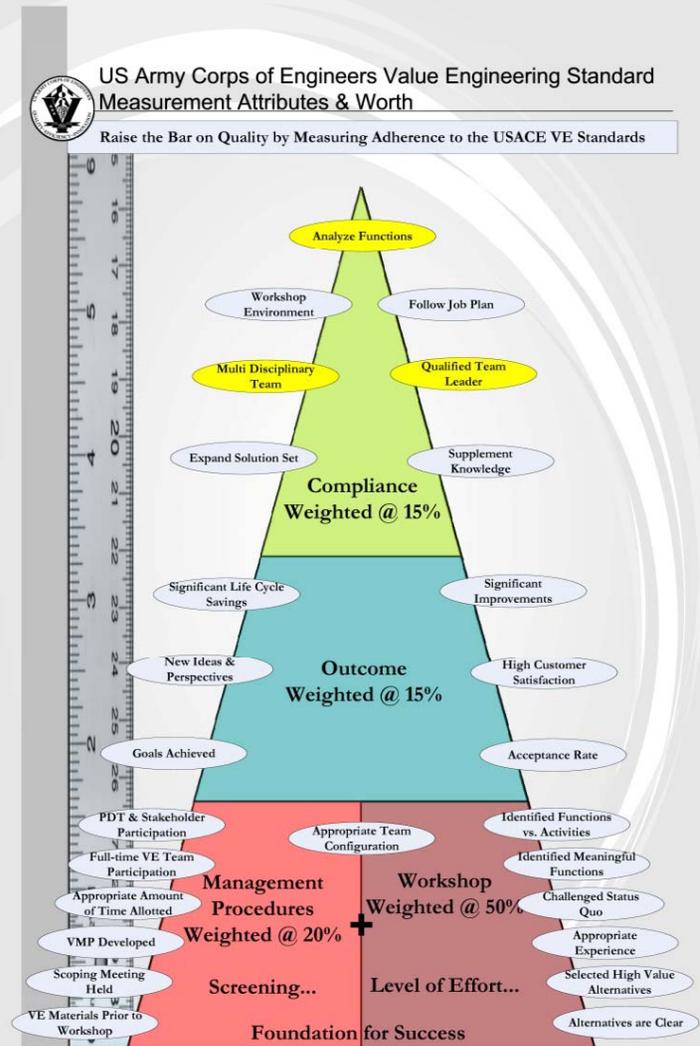
- PDT & Stakeholder Participation
- Full-time VE team participation
- Appropriate amount of time
- VMP Developed
- Scoping Meeting Held
- VE Materials Prior to Workshop

• Workshop Weighted @ 50%

- Functions vs. Activities
- Meaningful Functions
- Challenge Status Quo
- Appropriate Experience
- Select High Value Alternatives
- Clearly Written Alternatives

• Outcome Weighted @ 15%

- Identified Significant LCCA
- Identified Significant Improvements
- Identified new perspectives and alternatives
- Acceptance rate 35% or greater
- Goals and Objectives achieved



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