Practical Application of the CMMI® and PMBOK® for Building a Strong Project Management Infrastructure

PMI - NAC and DAU 3rd Annual Professional Development Symposium Von Braun Center Huntsville, Alabama September, 15 2005

“quality people doing a quality job”

* CMM and CMMI are service marks of Carnegie Mellon University - The PMBOK is a registered trademark of the Project Management Institute
Purpose

• Provide “quick look” at CMMI and the PMBOK

• Understand growing need for consolidation and integration of project management processes

• Provide insight into leveraging both the CMMI and PMBOK for project management

• Provide one perspective on developing a practical project management infrastructure
Topics

• Overview of MRC

• Overview of SEI CMMI v1.1 SE/SW

• Overview of PMI Project Management Body of Knowledge (PMBOK) – Third Edition

• Building a Mature Project Management Infrastructure at MRC
Madison Research Corporation (MRC)

MRC . . .

- Incorporated 1986
- Dynamic growing company with 500+ employees and $66.6M FY04 revenues
- Strong quality focus
  - ISO 9001:2000 registered
  - SEI CMM Level 3 / migrating to CMMI
  - DCMA/ACO approved purchasing system
- Recognized for business ethics and success

Experts In . . .

✓ Software Engineering
✓ Information Technology
✓ Modeling & Simulation
✓ Systems Design & Analysis
✓ Acquisition Support
✓ Logistics Support
✓ Test Planning, Conduct, & Evaluation
✓ Facility Operations & Maintenance
✓ Network & Database Administration
✓ Information Assurance & Security
✓ Product Assurance
✓ Configuration Management
✓ Hardware Fabrication
✓ Risk Assessment
✓ Program Management

“Quality People . . . Doing A Quality Job”
Huntsville, AL (HQ)
- On-site at AMCOM, SMDC, NASA
  MSFC, DIA Missile & Space
  Intelligence Center

Dayton, OH
(Wright-Patterson AFB)

Warner Robins, GA
(ALC, Robins AFB)

Orlando, FL
(US Army PEO STRI)

Montgomery, AL
(USAF HQ SSG)

Field office location
On-site at customer facility

“Quality People . . . Doing A Quality Job”
## MRC Core Competencies

### Software Engineering
- Lifecycle software development
- Process Improvement
- Databases
- Web applications
- Modeling and simulation
- Legacy system migration
- Testing/IV&V
- COTS selection & integration

### Information Technology
- Systems integration
- Data center operations
- Systems administration
- High performance computing
- Network solutions
- Storage solutions
- Information assurance
- Telecommunications

### Systems Acquisition
- Program documentation
- Acquisition planning
- Scheduling
- Risk management
- Systems engineering
- Cost/economic analysis
- System analysis

### Systems Sustainment
- Engineering
- Logistics
- Configuration Management
- Manufacturing
- Test & evaluation
- Range operations
- Depot operations
- Obsolescence/reverse engineering

"Quality People . . . Doing A Quality Job"
Process Improvement History

- **CMM**
  - Achieved SEI CMM Level 2 December 1998
  - Achieved SEI CMM Level 3 March 2003

- **CMMI**
  - Migration to CMMI underway

- **PMI**
  - Leveraging best practices and process components of the PMBOK
  - Project Management staff moving forward with Project Management Professional (PMP) training and certification

- **ISO 9001:2000** *(standard for quality management systems)*
  - Certified 2002
  - Quality Management System (QMS) in place

“Quality People . . . Doing A Quality Job”
CMMI

“Quick Look”
What Is CMMI?

- **Capability Maturity Model Integration**
- **Provides framework for improving process maturity**
  - Goals and Practices guide process evolution
  - Basis for benchmarking performance
- **CMMI Project was formed to:**
  - build set of integrated models
  - improve best practices from source models
  - establish a framework to enable integration of future models
  - create an associated set of appraisal and training products
- **Collaborative endeavor (over 100 people from nearly 30 organizations involved)**
  - Industry
  - Government
  - Software Engineering Institute (SEI)
# CMMI Coverage

<table>
<thead>
<tr>
<th>Multiple Disciplines</th>
<th>Multiple Applications</th>
<th>Multiple Domains</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Engineering</td>
<td>• Architecture</td>
<td>• Defense</td>
</tr>
<tr>
<td>– Software Engineering</td>
<td>• Design</td>
<td>• Aerospace</td>
</tr>
<tr>
<td>– Systems Engineering</td>
<td>– Systems</td>
<td>• Telecommunications</td>
</tr>
<tr>
<td>– Concurrent Engineering</td>
<td>– Electrical</td>
<td>• Manufacturing</td>
</tr>
<tr>
<td>– Hardware Engineering</td>
<td>– Mechanical</td>
<td>• Manufacturing</td>
</tr>
<tr>
<td>• Program Management</td>
<td>– Software</td>
<td>– Information Technology</td>
</tr>
<tr>
<td>– Project Management</td>
<td>– System Integration/Test</td>
<td></td>
</tr>
<tr>
<td>– Quality Assurance</td>
<td>– Logistics</td>
<td></td>
</tr>
<tr>
<td>– Configuration and Data Management</td>
<td>– Operations</td>
<td></td>
</tr>
<tr>
<td>– Maintenance</td>
<td>– Maintenance</td>
<td></td>
</tr>
</tbody>
</table>

Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.

"Quality People . . . Doing A Quality Job"
CMMI – Birds Eye View

Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.

“Quality People . . . Doing A Quality Job”
CMMI Model Structure

Staged

- Maturity Levels (1-5)
  - Process Area 1
  - Process Area 2
  - Process Area N

  - Generic Goals (2-3)
  - Specific Goals

  - Common Features
    - Commitment To Perform
    - Ability To Perform
    - Directing Implementation
    - Verification

  - Generic Practices (2.1-2.10 3.1-3.2)
  - Specific Practices

Continuous

- Process Area 1
  - Specific Goals
  - Generic Goals (1-5)

- Process Area N
  - Specific Practices
  - Capability Levels (0-5)

  - Generic Practices (1.1, 2.1-2.10 3.1-3.2, 4.1-4.2 5.1-5.2)

“Quality People . . . Doing A Quality Job”
Comparing the SW-CMM to the CMMI

**Level 2**
- New Measurement and Analysis PA
- SSM: “Supplier” Instead Of “Subcontractor”

**Level 3**
- New Process Areas
  - Risk Management
  - Decision Analysis and Resolution
  - Organizational Environment For Integration
  - Integrated Teaming
  - Integrated Supplier Management
- Expansion of SPE Into 5 Process Areas
  - Requirements Development
  - Technical Solution
  - Product Integration
  - Verification
  - Validation

**Level 3 (continued)**
- Deletion of Peer Reviews As PA
  - Practices Included in Verification PA
- Merging of ISM and IC Into Integrated Project Management

**Common Features**
- Refocus of Measurement and Analysis CF to Directing Implementation CF

**All Levels**
- Addition of Practices in Process Areas, Where Necessary
- Expanded Scope

Adapted from “1-day CMMI Overview” by CSSA. Used with permission of CSSA.
CMMI Adoption Improvements

SEI, 2005 Data
Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.

“Quality People . . . Doing A Quality Job”
CMMI Value

• **CMMI Adds**
  - New Emphasis on Product As Well As Process
  - Coverage of Services As Well As Systems
  - Emphasis on Process Capability and Organizational Maturity
  - Early Emphasis on Measurement and Analysis
  - A Common, Integrated Vision of Improvement for All Elements of an Organization
  - Efficient, Effective Appraisals and Improvement Across Multiple Process Disciplines

• **CMMI Builds Upon SW-CMM Legacy**
  - Better, Expanded Model Scope
  - Since Many “Software Problems” Are Linked to Systems Issues, Capabilities Associated With Disciplines Other Than Software Contribute to Causal Factors

Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.

“Quality People . . . Doing A Quality Job”
CMMI Value (continued)

- **CMMI Helps Organizations to:**
  - Improve Delivery of Promised Performance, Cost, Schedule, and Quality
  - Integrate Stakeholders Into Project Activities
  - Provide Competitive World-class Products and Services
  - Implement an Integrated, Enterprise, Business and Engineering Perspective
  - Use Common, Integrated, and Improving Processes for Systems and Software
  - Implement Proactive Program Management Techniques
  - Enable Staff Members to Move Between Projects and Still Use the Same Processes
  - Create and Improve Processes That Adapt to a Changing Business Environment

Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.

“Quality People . . . Doing A Quality Job”
PMBOK
Third Edition 2004
“Quick Look”
• Project Management Body of Knowledge (PMBOK)

• A collection of processes and knowledge areas generally accepted as best practices within Project Management

• Provides fundamentals of project management, irrespective of the type of project (software, construction, aerospace, defense, etc.)

• Recognizes 5 process groups and 9 knowledge areas typical of almost all projects

• Basic concepts applicable to all projects and programs (and operations)
Project Management Process Groups

- Commitment to executing the project
- Approach to executing project
- Coordinating people and resources
- Monitoring, measuring and taking corrective action
- Formal product acceptance and project close out

Initiating Processes → Planning Processes → Executing Processes → Closing Processes

“Quality People ... Doing A Quality Job”
Knowledge Areas

- Project Integration Management
- Project Scope Management
- Project Time Management
- Project Cost Management
- Project Quality Management
- Project Human Resources Management
- Project Communications Management
- Project Risk Management
- Project Procurement Management

“Quality People . . . Doing A Quality Job”
### PMBOK – Third Edition 2004

#### Knowledge Areas

<table>
<thead>
<tr>
<th>Knowledge Areas</th>
<th>Process Groups</th>
<th>Initiating</th>
<th>Planning</th>
<th>Executing</th>
<th>Controlling</th>
<th>Closing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration</td>
<td></td>
<td></td>
<td>Plan Development</td>
<td>Plan Execution</td>
<td>Change Control</td>
<td></td>
</tr>
<tr>
<td>Scope</td>
<td></td>
<td>Initiation</td>
<td>Scope Planning / Scope Definition</td>
<td></td>
<td></td>
<td>Scope Verification / Scope Change Control</td>
</tr>
<tr>
<td>Time</td>
<td></td>
<td>Activity Definition Activity Sequencing / Effort Estimating / Schedule Development</td>
<td></td>
<td></td>
<td></td>
<td>Schedule Control</td>
</tr>
<tr>
<td>Quality</td>
<td></td>
<td>Quality Planning</td>
<td>Quality Assurance</td>
<td></td>
<td>Quality Control</td>
<td></td>
</tr>
<tr>
<td>Resources</td>
<td></td>
<td>Organization Planning / Staff Acquisition</td>
<td>Team Development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td></td>
<td>Communication Planning</td>
<td>Information Distribution</td>
<td>Performance Reporting</td>
<td>Administrative Closure</td>
<td></td>
</tr>
<tr>
<td>Risk</td>
<td></td>
<td>Management Plan / Risk Identification / Qualitative Analysis / Quantitative Analysis / Response Planning</td>
<td></td>
<td></td>
<td>Risk Monitoring and Control</td>
<td></td>
</tr>
<tr>
<td>Procurement</td>
<td></td>
<td>Planning / Solicitation</td>
<td>Solicitation / Source Selection / Contract Administration</td>
<td></td>
<td>Contract Closeout</td>
<td></td>
</tr>
</tbody>
</table>

“Quality People . . . Doing A Quality Job”
<table>
<thead>
<tr>
<th>Framework Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CMMI</strong></td>
</tr>
<tr>
<td><strong>Current version</strong></td>
</tr>
<tr>
<td><strong>Best practices</strong></td>
</tr>
<tr>
<td><strong>Structure</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Domains</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Authority</strong></td>
</tr>
<tr>
<td><strong>Certification</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Applicable to projects / programs</strong></td>
</tr>
<tr>
<td><strong>Emphasizes continuous improvement</strong></td>
</tr>
<tr>
<td><strong>Assesses Process Maturity</strong></td>
</tr>
</tbody>
</table>

“Quality People . . . Doing A Quality Job”
Building a Mature Project Management Infrastructure at MRC

“Quality People . . . Doing A Quality Job”
Project management is the application of the knowledge, skills, tools, techniques and processes to meet or exceed stakeholder needs and expectations.

**Objective:**

- Define a structured, disciplined approach for project management using industry best practices and standards.
- Focus on:
  - Scope
  - Cost
  - Schedule
  - Performance
  - Risk

“Quality People . . . Doing A Quality Job”
Strategy

- Consider enterprise view of organizational activities related to managing, tracking and controlling projects

- Utilize CMMI and PMBOK processes to ensure a solid project management infrastructure

- Build on proven project management best practices

- Utilize industry lessons learned

- Consolidate process assets (policies, procedures, standards, work instructions, etc.) where appropriate

- Develop integrated process for deployment, institutionalization and maintenance of PM processes
Approach

- Project Management Professionals (PMP)
- Project Planning
- Project Monitoring and Control
- Integrated Project Management
- Customer Satisfaction Surveys
- Process Improvement
- Quality Assurance
- Risk Management
- Cost Benefit Analyses & ROI Studies
- Configuration Management
- Workflow & Reporting
- Technical Documentation
- Earned Value Management
- Long-range Planning

MRC’s Approach to Project Management

- Exceed Stakeholder Expectations
- Attract New Business
- Innovation
- Lower Risk
- On-time Delivery
- Quality Products & Services
- Maintain State-of-Art
- Mature Processes

“Quality People . . . Doing A Quality Job”
MRC Project Management Attributes

- Success Oriented
- Value Driven
- Customer Focused
- Strong Stakeholder Involvement
- Organizational Transparency
- Leverage Best Practices

“Quality People . . . Doing A Quality Job”
Advantages of Using Formal Project Management Process

• Better control of resources
• Improved stakeholder relations
• Shorter development times
• Lower costs / Higher profit margins
• Higher quality and increased reliability
• Improved productivity
• Better internal coordination and communication
• Higher morale
Project Planning

Purpose: Establish and maintain Plans that define Project activities.

Goals

Establish Estimates

- Estimate the Scope of The Project
- Establish Estimates of Work Product & Task Attributes
- Define Project Life Cycle
- Determine Estimates of Effort & Cost

Develop a Project Plan

- Establish the Budget & Schedule
- Identify Project Risks
- Plan for Data Management
- Plan for Project Resources
- Plan for Needed Knowledge & Skills
- Plan Stakeholder Involvement
- Establish the Project Plan

Obtain Commitment To the Plan

- Review Plans That Affect The Project
- Reconcile Work and Resource Levels
- Obtain Plan Commitment

Practices

Typical Work Products

- WBS
- Technical Approach
- Project Life-cycle Phases
- Project Schedules
- Identified Risks
- Project Effort Estimates
- Overall Project Plan
- Documented Commitments

Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.

“Quality People . . . Doing A Quality Job”
Project Monitoring and Control

Purpose: Provide an understanding of the Project’s progress so that appropriate corrective actions can be taken when the Project's performance deviates significantly from the plan.

Goals

- Monitor Project Against Plan
  - Monitor Project Planning Parameters
  - Monitor Commitments
  - Monitor Project Risks
  - Monitor Data Management
  - Monitor Stakeholder Involvement
  - Conduct Progress Reviews
  - Conduct Milestone Reviews

- Manage Corrective Action to Closure
  - Analyze Issues
  - Take Corrective Action
  - Manage Corrective Action

Practices

Typical Work Products

- Records of Project Performance
- Records of Significant Deviations
- Records of Commitment Reviews
- Records of Stakeholder Involvement
- List of Issues Needing Corrective Actions
- Corrective Action Plan
- Corrective Action Results

Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.

“Quality People . . . Doing A Quality Job”
Supplier Agreement Management

Purpose: Manage the acquisition of products from suppliers for which there exists a formal agreement.

Goals
- Establish Supplier Agreements

Practices
- Determine Acquisition Type
- Select Suppliers
- Establish Supplier Agreements

Satisfy Supplier Agreements
- Review COTS Products
- Execute the Supplier Agreement
- Accept the Acquired Product
- Transition Products

Typical Work Products
- List of Candidate Suppliers
- Preferred Supplier List
- Rationale for Selection of Suppliers
- Evaluation Criteria
- Trade Studies
- Supplier Review Materials and Reports
- Acceptance Test Procedures
- Transition Plans

Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.

“Quality People . . . Doing A Quality Job”
Integrated Project Management

Purpose: Establish and Manage the Project and the Involvement of the Relevant Stakeholders According to an Integrated and Defined Process That Is Tailored From the Organization's Set of Standard Processes.

- **Use the Project's Defined Process**
  - Establish the Project's Defined Process
  - Use Organizational Process Assets for Planning Project Activities
  - Integrate Plans
  - Manage the Project Using the Integrated Plans
  - Contribute to the Organizational Process Assets

- **Coordinate and Collaborate With Relevant Stakeholders**
  - Manage Stakeholder Involvement
  - Manage Dependencies
  - Resolve Coordination Issues

- **Use the Project's Shared Vision for IPPD**
  - Define Project's Shared-vision Context
  - Establish the Project's Shared Vision

- **Organize Integrated Teams for IPPD**
  - Determine Integrated Team Structure for the Project
  - Develop a Preliminary Distribution of Requirements to Integrated Teams
  - Establish Integrated Teams

**Typical Work Products**

- Project's Defined Process
- Integrated Plans
- Work Products Created by Performing the Project’s Defined Process
- Proposed Improvements to the Organizational Process Assets
- Agendas and Schedules for Collaborative Activities

“Quality People . . . Doing A Quality Job”

Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.
**Project Management (ML 3)**

### Risk Management

**Purpose:** Identify Potential Problems Before They Occur, So That Risk-handling Activities May Be Planned and Invoked As Needed Across the Life of the Product or Project to Mitigate Adverse Impacts on Achieving Objectives.

**Goals**

- Prepare for Risk Management
- Identify and Analyze Risks
- Mitigate Risks

**Practices**

- Determine Risk Sources and Categories
- Define Risk Parameters
- Establish a Risk Management Strategy
- Identify Risks
- Evaluate, Categorize, and Prioritize Risks
- Develop Risk Mitigation Plans
- Implement Risk Mitigation Plans

**Typical Work Products**

- Risk Source Lists (External and Internal)
- Risk Evaluation, Categorization, and Prioritization Criteria
- Project Risk Management Strategy
- Updated Lists of Risks Status
- List of Risks, With a Priority Assigned to Each Risk

---

Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.

“Quality People . . . Doing A Quality Job”
Integrated Teaming

**Goals**

- Establish Team Composition
  - Identify Team Tasks
  - Identify Needed Knowledge and Skills
  - Assign Appropriate Team Members

**Govern Team Operation**

- Establish a Shared Vision
- Establish a Team Charter
- Define Roles and Responsibilities
- Establish Operating Procedures
- Collaborate Among Interfacing Teams

**Practices**

**Typical Work Products**

- List of Disciplines or Functions Required to Perform the Tasks
- List of Team Members
- Documented Shared Vision
- Team Charter
- Team Work Plans
- Input to Integrated Master Plan and Schedules

*Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.*

“Quality People . . . Doing A Quality Job”
Integrated Supplier Management

Purpose: Proactively identify sources of products that may be used to satisfy the project's requirements and manage selected suppliers while maintaining a cooperative project-supplier relationship.

Goals
- Analyze and Select Sources of Products
  - Analyze Potential Sources of Products
  - Evaluate and Determine Sources of Products
- Coordinate Work With Suppliers
  - Monitor Selected Supplier Processes
  - Evaluate Selected Supplier Work Products
  - Revise the Supplier Agreement or Relationship

Practices

Typical Work Products
- List of Potential Sources of Products That Might Be Acquired
- Market Studies
- Trade Studies
- Revisions to the Project's and Supplier's Processes and Work
- List of Processes Selected for Monitoring

Adapted from "1-day CMMI Overview" by CSSA. Used with permission of CSSA.

“Quality People . . . Doing A Quality Job”
Quantitative Project Management

**Purpose:** Quantitatively Manage the Project’s Defined Process to Achieve the Project’s Established Quality and Process-performance Objectives.

**Goals**
- Quantitatively Manage the Project
- Statistically Manage Sub-process Performance

**Practices**
- Establish the Project’s Objectives
- Compose the Defined Process
- Select the Subprocesses That Will Be Statistically Managed
- Manage Project Performance
- Select Measures and Analytic Techniques
- Apply Statistical Methods to Understand Variation
- Monitor Performance of the Selected Subprocesses
- Record Statistical Management Data

**Typical Work Products**
- The Project’s Quality and Process-Performance Objectives
- Candidate Sub-processes for Inclusion in the Project’s Defined Process
- For Each Sub-process, Its Process Capability
- Collected Measures

Adapted from “1-day CMMI Overview” by CSSA. Used with permission of CSSA.

“Quality People . . . Doing A Quality Job”
Focusing on Process

1. Organization must believe that change is important and valuable to its future

2. There must be a vision, which provides a roadmap of the desired future-state

3. Existing barriers must be identified and mitigated

4. Organization “buy-in” must be present to achieve the vision

5. All leaders of the organization should support and drive the process

6. Organization Training must be provided for required skills

7. Measurement systems must be established so results can be quantified

8. Continuous feedback should be provided to the organization

9. Process mentoring is highly recommended

10. Reward systems should be established to effectively reinforce desired behaviour

“Quality People . . . Doing A Quality Job”
Putting it all Together

Strong management practices are necessary regardless of the domain

– CMMI is a process improvement model that provides an infrastructure that addresses productivity, performance, costs, and stakeholder satisfaction
  • is not a set of “bolt-on processes”
    – it provides a consistent, repeatable and enduring framework that accommodates new initiatives

– PMBOK is a body of knowledge that supports building a strong project management environment
  • is not a methodology..
  • is not life cycle driven
    – PMBOK provides processes that interact with one another throughout a project's life cycle

CMMI and PMBOK can and do complement each other

“Quality People . . . Doing A Quality Job”
Recommendations

- Implement proactive project management techniques
- Develop project leaders who look ahead and not over their shoulder
- Develop a staff that uses best practices to cope with changing technology and customers
- Enable staff members to move between projects and use the same processes
- Create and improve processes that adapt to an ever-changing business environment

“Quality People . . . Doing A Quality Job”
Getting Started...

• What are your business and operational goals?

• What processes do you perform; where are you problems and concerns now?

• What can you control in your process?

• Start small *(baby steps)*
  – Focus on core issues and problems

• Utilize processes and standards *(PMI, CMMI, ISO, etc.)*
A Bit of Humor…

Of course, there is always Dilbert…

“Quality People . . . Doing A Quality Job”
Further details and information related to the CMMI and PMBOK may be found at the following:

- Software Engineering Institute:
  - http://www.sei.cmu.edu/cmmi/

- Project Management Institute:

* Training Opportunity
  November 14-17, 2005 “Introduction to CMMI”
  Huntsville, Alabama (CSSA)
References

- Capability maturity Model Integration (CMMI) Carnegie Mellon University – Software Engineering Institute (SEI)


- "1-day CMMI Overview" by CSSA, Sandra Cepeda (Author)
 Questions...

“Quality People . . . Doing A Quality Job”
Gregg Taylor, has over sixteen years of management and engineering experience in such diverse areas as aerospace, defense, information systems, manufacturing and information technology. For the past ten years, Mr. Taylor’s efforts have concentrated on process improvement associated with product development, project management and systems engineering. He has led and supported successful efforts in achieving CMM and CMMI and has designed, developed and implemented several process models for deploying and implementing compliant development processes. Mr. Taylor has participated on several assessment teams and has provided support and leadership on projects with major companies such as USBI, Lockheed, PRC, Boeing, National Computer Systems, Motorola, Computer Sciences Corporation and SAIC. He has also served as a Process Advisor/Mentor to major commercial and government programs.

Mr. Taylor is currently the Quality Manager for Madison Research Corporation. He is responsible for directing and managing quality programs across the organization. He is a Six Sigma Green Belt, has recently completed and passed SEI’s “Intermediate Concepts of the CMMI” course and is pursuing ISO 9001:2000 Lead Auditor Certification. He holds a BS in Management Information Systems from the University of Alabama at Huntsville and is pursuing a Master’s Degree in Technology Management.

Email: gtaylor@madisonresearch.com