Management Development Program

From

SITARA Technologies, Inc.

RN-STPL-TRG-REPT 01.0.0
January 01, 2003

SITARA
Excellence Combining Expertise™

CONTENTS

Statement of Confidentiality

Document Type	Report
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Management Philosophy

Building relationships based on trust and esteem for human dignity

Our Values

Learn, leverage and realize value entitlement in the shortest possible time while building relationships

Our Mission

Excellence Combining Expertise – in everything we do!

Management Development Program

1.0   Background

The Management Development Programs of SITARA Technologies address organizational development initiatives by providing a practitioners view to strategic management. Highly specialized topics for effective organizational development include –

- Ø   Leadership Skills and Styles for Effective Management

- Ø   Holistic treatment of Total Quality Management issues using Total Quality People orientation (TQM & TQP)

- Ø   Strategic Management using the latest management paradigms and proprietary models such as the Universal Excellence Framework™ and 10W5D Domain Competency Sandwich Model™ from SITARA

- Ø   Change Management & Techniques for Sustaining Strategic Competitive Advantage

1.1   About SITARA Technologies Pvt. Ltd. & SITARA Technologies, Inc.

SITARA Technologies Pvt. Ltd. was established as a professional services Company with core competencies in strategic management consulting and process assessments using the Capability Maturity Model (CMM) for Software, People CMM and the CMMI-SE/SW/IPPD/SS (CMM Integration Project).

SITARA was chosen to represent the Software Engineering Institute in its technology transfer mission as a transition partner with the SEI in Asia on the more recent CMMI-SE/SW/IPPD/SS framework. SITARA has SEI authorized individuals who can offer both, the Introduction to CMMI-SE/SW/IPPD/SS course and the associated SCAMPI(sm) assessment. [Please refer: http://www.sei.cmu.edu/collaborating/partners/trans.partners.html]

The unique advantages we offer in our process solutions are -
- to engineer and facilitate software process improvement programs
- using the most current software management paradigm
- in the shortest possible cycle time
- with unquestionable credibility and integrity

We believe SITARA's professional services and execution capability is unquestionably complete. SITARA's core competency in strategic management consulting and assessment services includes the latest management paradigms such as 6 sigma process calibration and Malcolm Baldrige National Quality award. Several of SITARA's proprietary work products and professional services have been rendered the world over in companies such as LG-EDS Systems, Inc (South

Korea, Intelligroup Asia Pvt. Ltd. (India and USA), Motorola India Electronics Ltd. (India), Bharatplanet.com Ltd. (India), Visteon Software Operations (India) and Network Solutions Ltd. (India) to name a few.
[Please refer: http://www.SITARATECH.com/customer_feedback.htm]

We recognize a need for continuous renewal and professional growth. Therefore, to remain at the frontiers of knowledge, SITARA maintains professional relationships through partnerships with Companies worldwide and engages in active knowledge sharing and renewal process through publications called SITARA Technical Reports.

The Software Capability Maturity Model (CMM), People CMM and the CMMI-SE/SW from the Software Engineering Institute, Carnegie-Mellon University, have been used among several other proprietary innovations of SITARA to provide the necessary depth and choice of solutions to process innovations.

Examples of SITARA innovations include:

SITARA Universal Excellence Framework – Process to derive a Process

SITARA 10W5D Domain-Competency Sandwich Model – SITARA Innovation that fulfills the Key Process Areas of Competency Analysis, Competency Based Practices, Competency Development, Competency Based Assets and Competency Integration on the People CMM.

SITARA ODER Paradigm – SITARA Innovation that enables "strategic management" of a software initiative. (*Accepted in the European Software Engineering Process Group Conference 2002 for presentation*)

SITARA Process JewelBoxTM – Collection of Global Best Practices addressing the domain of software development, software testing and software maintenance. SITARA Process Startup Kit is derived from the Process JewelBox™ and is based on SITARA's Synergy Approach and the Package Selection and Integration Process. Both of these are available FREE of cost as technical reports on SITARA's website at http://www.SITARATECH.com/innovations.htm

SITARA Technologies, Inc. based in the United States of America is a dedicated research and development center. Our on going research in software management are in the areas of software strategies & competency management, metrics, automation and cycle time reduction, mitigating software risks and building self-sustaining software process improvement programs in development environments working on emerging technologies. Many of SITARA's proprietary work products, strategies and software techniques have been designed into the manifest processes of high maturity organizations the world-over.

SITARA Technologies Pvt. Ltd. is organized into strategic business units (SBU). Each SBU has a specific business objective to achieve.

ProcessXperts SBU

ProcessXperts SBU is involved in providing strategic & professional consultancy services for developing, improving, enhancing and assessing the process capability of organizations dealing with Information Technology. Professional services include using the most current management paradigms to effectively leverage value on the software and people management processes.

ProcessXperts SBU grew out of professional consulting, management consulting and implementation experience of its founder since 1992, in diverse technologies including but not limited to development environments such as –

- Real-time Software Development
- Telecommunication industry
- Systems Integration
- Application development for the Web using COTS integration
- ERP Implementation & Product Development

Professional experience of the people behind ProcessXperts ranges from dealing with methodologies such as Structured Methods for Real-time Application, Object Oriented Methods including Objectory, Package Selection and Integration Process using a COTS approach for web application. The scope of the engagement since 1992 included, at a minimum the following-

- Study of the development process
- Improving the development process
- Executing pilots
- Large scale deployment of the process for organizational impact
- Assessing the progress and rating the quality of the development process using industry standard frameworks

The people behind ProcessXperts have the distinction of providing the best value and benefit to the customer in the shortest possible cycle times.

Notable examples in the recent past include –

- Level 1 to Level 2 on SW-CMM in 11 months for LG-EDS Systems, Inc. a multinational client in South Korea and over 12 informal

assessments for multiple divisions of LG-EDS Systems, Inc. spanning 24 months

- Ø ISO 9001 to Level 3 on SW-CMM in 8 months for a development center of Intelligroup Asia Pvt. Ltd., a multinational in India

- Ø Level 3 to Level 5 on SW-CMM in a record 12 months for a development center of Intelligroup Asia Pvt. Ltd., a multinational in India

- Ø Level 2 on People CMM in a record 4 months for Intelligroup Asia Pvt. Ltd., a multinational location in India.

- Ø Level 3 on SW-CMM in 10 months for the Internet Technologies Practices of a development center of Intelligroup Asia Pvt. Ltd., a multinational in India working on emerging technologies

- Ø An observation assessment at Level 2 for BharatPlanet.com based in India

- Ø An observation assessment for a large insurance company in Columbus, Ohio on the People CMM version 2.0

- Ø Level 4 on SW-CMM for SPAN Corporation based in India

- Ø Level 4 on SW-CMM for Visteon Software Operations based in India

- Ø An observation assessment at Level 4 on SW-CMM for Celstream Technologies based in India

- Ø Several high maturity Class B assessments on CMMI and SCAMPI for leading multinationals such as Motorola GSG India, Motorola GSG Malaysia, Visteon Software Operations and Network Solutions

  [January 01, 2003]

Besides process improvement, considerable development experience exists with the principals of the SBU using the best in class approaches to defining software solutions. SEI authorized lead assessors on both the Software and People CMM frameworks who have pioneered improvement initiatives in leading multinationals form the core group of SITARA Technologies Pvt. Ltd.

About the instructor

Raghav S. Nandyal has numerous years of software engineering and management experience. He is authorized by the SEI to teach the Introduction to CMMI course. He is among the very few authorized lead assessors on all the three popular CMM based models, CMMI (SCAMPI Method), Software CMM and the People CMM in the world. He has been a prime consultant, mentor and coach on Software and People-CMM based process improvement initiatives in leading multinationals, worldwide since 1996. He has trained a number of people in the United States of America, India, Bangkok and South Korea on Software and People CMM. He is currently the Chief Executive Officer and Chairman of the board – SITARA Technologies Private Limited. SITARA Technologies has been identified as the a transition partner with the Software Engineering Institute in Asia Pacific on CMMI and the SCAMPI[sm] appraisal services [1].

Approach

The approach of the workshop consists of regular classroom type lectures and instructions from 9:00AM to 5:30 PM. Lectures will be interspersed with hands-on exercises and group interactions. Facilitated discussions and brainstorming are part and parcel of every training program of SITARA.

The teaching approach is based on the Socratic Method – by questioning the validity of the model and concepts within the context of an organization. In organizations where these trainings have been conducted so far, process solution and the exercises have been found to help organizations "evolve" an appropriate response keeping "their organizational context" in mind.

The belief behind this approach is, – "Process is not a one size fits all. It has to make sense within a local context."

Course Material & SITARA Continuing Education Points

SITARA Technologies will provide the relevant course material to all participants. Participants will also receive a certificate of completion and will be credited with the necessary SITARA Continuing Education Points (SCEP).

Individuals who accumulate up to 10 SCEP will be permitted to register for any one public offering of SITARA Management Development Program of their liking for **FREE**.

List of Available Programs

TITLE: 6 Sigma Approach to Determining the Process Capability of a Software Process [Code: 100SIXSIG1]

TUTORIAL OBJECTIVES:

- Participants will understand the method that has to be employed to determine process capability of a software process through hands-on practice sessions

- Definition of two of the most intriguing terms: Defect and Critical to Quality Characteristics as applicable to software will be elaborated in the tutorial

SITARA Continuing Education Points: 1 point

TUTORIAL DURATION: 1 Day

PREREQUISITES:

- Understanding the use of Statistical Process Control Techniques

ABSTRACT:

This tutorial describes the approach that should be adopted while determining the process capability of the software development process. In simple terms: the Sigma Capability of a process is known by first quantifying two numbers, determining a ratio between them and then reading off a table that maps this ratio to the sigma equivalent. But, are these two numbers - one, the number of post release defects and two, the number of critical to quality characteristics subject to individual interpretation?

Further, since the ratio is defined as the number of post release defects to the number of critical to quality characteristics (CTQ), and it is after all human to err, the number of defects become inherent to the process due to common-cause variations of the process after a point. Therefore, if the number of CTQ is increased it is theoretically possible to arrive at a fantastic process capability that is much closer to the 6 sigma level of perfection! But, what is the right way to do it?

The purpose of this tutorial is to establish a proven way of knowing these two measures - the number of post release defects and the critical to

quality characteristics. Emphasis of this tutorial will be to provide a technically sound definition and understanding of the method that should be employed to determine the process capability in statistical terms after first, defining the terms "defect" and "critical to quality characteristic".

The daylong tutorial will describe the essential technical and management processes that must be built into the measurement program to ensure that phase-wise process capability is tracked and measured. It will expand on this topic and show with examples as to how the final process capability of a software development process should be arrived at for it to be termed-technically   correct.

Should the sigma capability be known at every phase in the lifecycle of the development process? The answer is, yes. Will the process capability of the overall lifecycle, then be limited and restricted to the weakest capability of a phase? The answer again is, yes. How many repeated cycles of measuring the process capability be used to arrive at this statistical number and how do I do it? Attend the tutorial!

INTENDED AUDIENCE:

- ☒ Senior Management & Process Champions
- ☒ Software Engineering Process Group
- ☒ Measurement and Analysis Team
- ☒ Software Quality Assurance Team

TITLE: Applying the Software & People CMM to a Learning Environment [Code: 200APPCMM2]

TUTORIAL OBJECTIVES:

- Factors that influence the creation of a learning software organization will be described

- In depth understanding of the relationship between the 5 core disciplines of Systems Thinking, Personal Mastery, Mental Models, Shared Vision & Team Building to accomplish larger organizational objectives using the CMM initiatives will be explored.

SITARA Continuing Education Points: 2 points

TUTORIAL DURATION: 2 Days

PREREQUISITES: Understanding the CMM & People Issues in SEI-CMM Implementation

ABSTRACT:

Application of the concepts of "The Fifth Discipline" by Peter M. Senge, as an effective leverage tool to exploit the benefits from implementing the People-CMM and Software-CMM frameworks in learning organizations is examined in a holistic manner. Peter Senge's seminal work is coupled with field experiences from implementing the Software Capability Maturity Model (SW-CMM) and People Capability Maturity Model (P-CMM) frameworks in leading multinationals to provide insights into how to create and sustain a successful process culture. This tutorial describes how to exploit the synergy among the two reference frameworks of the CMM and concepts such as, Systems Thinking, Personal Mastery, Mental Models, Shared Vision & Team Building to accomplish larger organizational objectives. The central message of The Fifth Discipline is that organizations work the way they work, because of how people and other constituencies in it think and interact. Only by improving this collective thought, can we change deeply embedded policies and practices for the better. And, only by improving the interaction among all constituencies can shared visions and shared understandings, with new capacities for coordinated action, be established. This notion is pretty new for most of us.

The two CMM frameworks provide ample scope to define the stakes in the ground while providing for a boundary to operate. Organizations have confused the real intent behind the CMM by assuming that Level 5 was to be the ultimate. They have failed to understand that it might sometimes not be possible to be there at all because of the business model! It requires Statistical Process Control to be in place for an organization to be at level 4.

If an organization has a simplistic delivery process with predictable inputs, and a predictable process with zero-known defects at every given process step, with almost no process variation, then, is it possible to have SPC instituted? Again, if process & product attributes such as noncompliance and defects are viewed in binary terms without ever having to define a gray scale of measurement, then what is the meaning of variance when a random variable is no longer random but can assume one of two values? It is challenging to think that while we redesign the manifest processes of our organizations, we must consider business objectives. This also requires a redesign of the internal structures of our "mental models." But anything less will fall short of the changes required. Companies that have "reengineered themselves" around horizontal processes often discover that they "have little or no experience in actually operating in such an environment," says Michael Hammer. "Radical change in how work is done inevitably leads to the definition of new jobs with new skill requirements, which in turn demand new kinds of people."

INTENDED AUDIENCE:

- Senior Management
- Process Champions
- Software Engineering Process Group
- Measurement and Analysis Team
- Software Quality Assurance Team
- Change Agents

TITLE : Creating an Innovative Organization
[Code: 100INNORG1]

TUTORIAL OBJECTIVES:

- Factors that influence the creation of an innovative software organization will be described

- In depth understanding of applying the PCMM and SW-CMM to innovative organizations would be described.

SITARA Continuing Education Points: 1 point

TUTORIAL DURATION: 1 Day

PREREQUISITES: Understanding the CMM & People Issues in SEI-CMM Implementation

ABSTRACT:

The energy behind an innovative organization can virtually be felt! Higher the degree to which this energy is perceived, better are the chances of creating an innovative organization. A few of the hallmarks of an innovative organization can be summarized as follows.

- People have high self-esteem and are highly geared to accept responsibilities.

- Not only does everybody think about what they do, but they think about how they do and make the day-to-day changes that are necessary for optimal performance.

- An innovative organization is oriented to continuous exploration of best practices by forcing a change when things get too comfortable. Ideas that have business value are often actively sought by the organization and rewarded suitably.

- Innovative organizations look at problems as opportunities and tend to profit from their problems by building adequate solutions.

- They capitalize on their crises by thinking about possibilities. Have strong, visionary leaders who can communicate their dreams to high-energy teams who work with a   sense of urgency to get things accomplished.

- It is okay to fail is their motto. Failure is often encouraged and not discouraged. Both successes and failures are discussed openly so that everybody else in the organization can capitalize on them.

These and many more will be explored in the tutorial giving a good idea of how to build vibrant innovative organizations. Application of the concepts of "The Fifth

Discipline" by Peter M. Senge, as an effective leverage tool to exploit the benefits from implementing the People-CMM and Software-CMM frameworks in learning organizations is examined in a holistic manner. Peter Senge's seminal work is coupled with field experiences from implementing the Software Capability Maturity Model (SW-CMM) and People Capability Maturity Model (P-CMM) frameworks in leading multinationals to provide insights into how to create and sustain a successful process culture.

INTENDED AUDIENCE:

- Senior Management & Process Champions
- Software Engineering Process Group
- Functional Area Representatives
- Process Action Teams
- Change Agents

TITLE : Introduction to CMMI V1.1 (SEI Authorized Course)

[Code: 300INTROCMMI3]

**Carnegie Mellon
Software Engineering Institute**

TUTORIAL OBJECTIVES:

- Ø Factors that influence the creation of an innovative software organization will be described

- Ø In depth understanding of applying the PCMM and SW-CMM to innovative organizations would be described.

SITARA Continuing Education Points: 3 points

TUTORIAL DURATION: 3 Days

PREREQUISITES: Overview of CMMI OR

Participants must have knowledge of systems engineering, software engineering, and management, including exposure to quality assurance, configuration management, and basic management principles. This course can fulfill one of the prerequisites for CMMI-Based Appraisal training.

ABSTRACT:

The Introduction to Capability Maturity Model-Integrated V1.1, Staged and Continuous Representation courses introduces participants to the CMM-Integrated Model and its fundamental concepts. The course discussion emphasizes understanding of the five maturity levels and the grouping of process areas (PAs). The course is based on version 1.1 of the CMMI.

This three-day course describes a framework that organizations can use to determine their ability to develop and maintain systems; it is a model for organizational improvement. The course is composed of lectures and class exercises with ample opportunity for participant questions and discussions.

Introduction to CMMI helps prepare participants to make valid judgments regarding an organization's implementation of the process areas. The course is helpful in identifying issues that should be addressed in performing process improvement as structured by the CMMI SE/SW model.

Course Topics: Topics covered in this course include-

- Ø Introduction

- Ø CMMI overview

- Ø Engineering process maturity - CMMI principles

- Maturity levels and process areas of the CMMI Model Staged Representation
- Linking the process areas together
- Interpreting CMMI
- Application of CMMI

Course Objectives: The course will help participants

- Understand the importance of having defined processes within an engineering organization and the rationale for process improvement.
- Comprehend the architecture of the CMMI models (maturity levels, process areas, goals, and generic practices).
- Gain a sufficient understanding of PA components to function on a CMMI-Based Appraisal team member.
- Be able to apply the CMMI principles to meet the needs of systems engineering and software engineering organizations.

INTENDED AUDIENCE:

- Senior Management & Process Champions
- SCAMPI Assessment Team*
- Software Engineering Process Group
- Functional Area Representatives
- Process Action Teams
- Change Agents
- Quality Assurance Team
- Measurement Team
- Reliability Engineering Team

* This course fulfills one of the prerequisites for CMMI based appraisal training.

TITLE: Overview of CMMI
[Code: 100OVWCMMI1]

TUTORIAL OBJECTIVES:

- ✂ CMMI-SE/SW/IPPD/SS Model will be applied to the mechanics of engineering a process improvement program

- ✂ A good exposure and understanding of the structure of the CMMI-SE/SW/IPPD/SS can be obtained

- ✂ Serves as a prerequisite for a more elaborate treatment of the SEI's official Introduction to CMMI-SE/SW/IPPD/SS taught by SITARA Technologies as a Transition Partner of the SEI

SITARA Continuing Education Points: 1 point

TUTORIAL DURATION: 1 Day

PREREQUISITES:

No prior knowledge of CMMI-SE/SW is assumed. Knowledge of the CMM for Software would be an advantage.

ABSTRACT:

This tutorial is a good introductory course providing an overview of the Capability Maturity Model$^®$ – Integrated for Systems Engineering/Software Engineering/Integrated Product and Process Development (CMMI-SE/SW/IPPD/SS) framework. CMMI as it is popularly known; it is next in the evolution of the family of CMM models. The Software Engineering Institute, Carnegie Mellon University, released Version 1.02 of the CMMI-SE/SW/IPPD in November 2000 as a Technical Report. Version 1.1 was released in March 2002.

As a transition partner with the Software Engineering Institute, SITARA Technologies has expertise and specialist knowledge on how you should adopt the CMMI-SE/SW/IPPD/SS in your process improvement initiatives.

The framework is represented as both a staged and the continuous model for managing changes to the software development process by making "incremental changes" through a transition management approach. The differences between the staged and the continuous models will be explored. Categories of Process Areas belonging to the Engineering, Process Management, Project Management and Support will be explored.

This tutorial provides ample scope to gain a good understanding of the essential requirements of the CMMI-SE/SW/IPPD/SS to make the transition from the SW-CMM.

INTENDED AUDIENCE:

- Ø Senior Management & Process Champions
- Ø Software Engineering Process Group or People Process Group
- Ø Human Resource Executives and Managers
- Ø Training and Competency Management Staff
- Ø Change Agents

TITLE: Overview of People CMM
[Code: 100OVWPCMM1]

TUTORIAL OBJECTIVES:

- ✍ Participants will understand how to sustain the momentum gained toward becoming a learning organization

- ✍ Cultural component and people issues that form part of any change initiative will be explored using the PCMM framework

- ✍ A good exposure and understanding of the structure of the PCMM can be obtained to serve as a prerequisite for a more elaborate treatment of the PCMM framework

SITARA Continuing Education Points: 1 point

TUTORIAL DURATION: 1 Day

PREREQUISITES:

Project Management & Team Building experience in a software development environment. Good understanding of issues concerning Process Engineering.

ABSTRACT:

This tutorial is a good introductory course to provide an overview of the PCMM framework. In order to sustain the gains of a change initiative, we now see that we must work to change the relationship styles, attitudes and self-esteem of the people who are expected to live out these changes. A strong blend of both technical skills and people skills are needed for a successful management of a change initiative. Whatever an organization is doing now, no matter how bizarre or dysfunctional it might appear, it was at one time a successful response to the reasons surrounding the exhibited behavior. The PCMM framework helps an organization to continually clarify and explore whether the exhibited response is still a valid response ... or should the organization do something different with the changes to the circumstances. The framework is a staged approach to managing the circumstances that surround an organizational competency development program.

Some of the key areas addressed by the PCMM framework include career development, compensation, competency development, culture development, performance management, training, team building, workforce management and personal competency development. When viewed as a staged model, at Level 2 the Repeatable Level, issues that keep people from being able to perform their work responsibilities are addressed by building a foundation of basic workforce practices to create a CULTURE OF COMMITMENT. At Level 3 the Defined Level, any inconsistencies in workforce practices are removed by analyzing skills required by its workforce to execute the business functions by identifying best practices and tailoring mechanism in its own workforce activities to create a

CULTURE OF PROFESSIONALISM. At Level 4 the Managed Level, experience of the organizational workforce is effectively leveraged to provide strong mentoring and alignment of individual performance to the team, unit and organizational goals by creating a CULTURE OF COMPETENCIES. At Level 5 the Optimizing Level, continuous clarification of individual competencies by finding innovative ways to improve workforce capability by providing an environment of perpetual improvement and growth of competencies using effective coaching programs to build a CULTURE OF CONTINUOUS IMPROVEMENT & EMPOWERMENT is established.

This tutorial provides ample scope to gain a good understanding of these essential requirements to keep an organization vibrant and alive.

INTENDED AUDIENCE:

- ✗ Senior Management & Process Champions
- ✗ Software Engineering Process Group or People Process Group
- ✗ Human Resource Executives and Managers
- ✗ Training and Competency Management Staff
- ✗ Change Agents

TITLE : Overview of Software CMM
[Code: 100OVWSCMM1]

TUTORIAL OBJECTIVES:

- ☒ IDEAL^{sm} Model will be applied to the mechanics of engineering a process improvement program

- ☒ A good exposure and understanding of the structure of the Software CMM can be obtained to serve as a prerequisite for a more elaborate treatment of the Software CMM framework

SITARA Continuing Education Points: 1 point

TUTORIAL DURATION: 1 Day

PREREQUISITES:

Software Engineering, Structured Software Development, Project Management & Team Building experience in a software development environment. Good understanding of analysis & design of technical solutions.

ABSTRACT:

This tutorial is a good introductory course to provide an overview of the SW-CMM framework. The SW-CMM framework helps an organization to build a robust change management initiative of its software development process. The SW-CMM orients itself toward building a strong foundation to support and sustain ongoing continuous process improvement by continuously exploring better ways of doing things. The framework is a staged approach to managing changes to the software development process by making "incremental changes" through a transition management approach.

Some of the key areas addressed by the SW-CMM framework include project management, requirements management, change management, quality management, product engineering, inter-group coordination and defect prevention. When viewed as a staged model, at Level 2 the Repeatable Level, a sense of responsibility and effective management of processes is inculcated by building a foundation of process discipline to create a CULTURE OF COMMITMENT. At Level 3 the Defined Level, software engineering and management processes for development and maintenance are integrated into a coherent whole by establishing a process definition standard - called the Organizational Standard Software Process to create a CULTURE OF BEST PRACTICES. At Level 4 the Managed Level, product quality, service quality and performance measures are understood in statistical terms to support fact-based decision-making by institutionalizing quantitative management of engineering processes to create a CULTURE OF MANAGED PRACTICES. At Level 5 the Optimizing Level, change management is applied to a continuous process

improvement program to establish a CULTURE OF CONTINUOUS IMPROVEMENT & EMPOWERMENT.

This tutorial provides ample scope to gain a good understanding of these essential requirements of the SW-CMM to keep an organization vibrant and alive.

INTENDED AUDIENCE:

- Senior Management & Process Champions
- Software Engineering Process Group
- Process Action Teams
- Functional Area Representatives
- Change Agents

TITLE: People CMM Model Training
[Code: 200PCMM3]

TUTORIAL OBJECTIVES:

- ∅ Participants will gain an in depth understanding of the PCMM framework.

- ∅ The structure and rationale of the PCMM framework will be explored and the interconnections between the Key Process Areas will be established.

- ∅ An ideal course, as a prerequisite for the assessment team

SITARA Continuing Education Points: 3 points

TUTORIAL DURATION: 3 Days

PREREQUISITES:

- ∅ Project Management & Team Building experience in a software development environment.

- ∅ Good understanding of issues concerning Process Engineering.

- ∅ Overview of PCMM

ABSTRACT:

This tutorial is an exhaustive treatment of the PCMM framework. Individuals interested to work on the assessment team on a PCMM assessment will find this course of immense value. In order to sustain the gains of a change initiative, we now see that we must work to change the relationship styles, attitudes and self-esteem of the people who are expected to live out these changes. A strong blend of both technical skills and people skills are needed for a successful management of a change initiative. Whatever an organization is doing now, no matter how bizarre or dysfunctional it might appear, it was at one time a successful response to the reasons surrounding the exhibited behavior. The PCMM framework helps an organization to continually clarify and explore whether the exhibited response is still a valid response ... or should the organization do something different with the changes to the circumstances. The framework is a staged approach to managing the circumstances that surround an organizational competency development program.

Some of the key areas addressed by the PCMM framework include career development, compensation, competency development, culture development, performance management, training, team building, workforce management and personal competency development. When viewed as a staged model, at Level 2 the Repeatable Level, issues that keep people from being able to perform their work responsibilities are addressed by building a foundation of basic workforce

practices to create a CULTURE OF COMMITMENT. At Level 3 the Defined Level, any inconsistencies in workforce practices are removed by analyzing skills required by its workforce to execute the business functions by identifying best practices and tailoring mechanism in its own workforce activities to create a CULTURE OF PROFESSIONALISM. At Level 4 the Managed Level, experience of the organizational workforce is effectively leveraged to provide strong mentoring and alignment of individual performance to the team, unit and organizational goals by creating a CULTURE OF COMPETENCIES. At Level 5 the Optimizing Level, continuous clarification of individual competencies by finding innovative ways to improve workforce capability by providing an environment of perpetual improvement and growth of competencies using effective coaching programs to build a CULTURE OF CONTINUOUS IMPROVEMENT & EMPOWERMENT is established.

This tutorial provides ample scope to gain a good understanding of these essential requirements to keep an organization vibrant and alive.

INTENDED AUDIENCE:

- Assessment Team
- Software Engineering Process Group or People Process Group
- Human Resource Executives and Managers

TITLE: Software CMM Model Training
[Code: 200CMM3]

TUTORIAL OBJECTIVES:

- Participants will gain an in depth understanding of the SW-CMM framework. The structure and rationale of the SW-CMM framework will be explored and the interconnections between the Key Process Areas will be established.

- An ideal course, as a prerequisite for the assessment team

- IDEAL[sm] Model will be applied to the mechanics of engineering a process improvement program

SITARA Continuing Education Points: 3 points

TUTORIAL DURATION: 3 Days

PREREQUISITES:

- Software Engineering, Structured Software Development, Project Management & Team Building experience in a software development environment.

- Good understanding of analysis & design of technical solutions.

- Overview of Software CMM

ABSTRACT:

This tutorial is an exhaustive treatment of the SW-CMM framework. Individuals interested to work on the assessment team on a SW-CMM assessment will find this course of immense value. The SW-CMM framework helps an organization to build a robust change management initiative of its software development process. The SW-CMM orients itself toward building a strong foundation to support and sustain ongoing continuous process improvement by continuously exploring better ways of doing things. The framework is a staged approach to managing changes to the software development process by making "incremental changes" through a transition management approach.

Some of the key areas addressed by the SW-CMM framework include project management, requirements management, change management, quality management, product engineering, inter-group coordination and defect prevention. When viewed as a staged model, at Level 2 the Repeatable Level, a sense of responsibility and effective management of processes is inculcated by building a foundation of process discipline to create a CULTURE OF COMMITMENT. At Level 3 the Defined Level, software engineering and management processes for development and maintenance are integrated into a coherent whole by establishing a process definition standard - called the

Organizational Standard Software Process to create a CULTURE OF BEST PRACTICES. At Level 4 the Managed Level, product quality, service quality and performance measures are understood in statistical terms to support fact-based decision-making by institutionalizing quantitative management of engineering processes to create a CULTURE OF MANAGED PRACTICES. At Level 5 the Optimizing Level, change management is applied to a continuous process improvement program to establish a CULTURE OF CONTINUOUS IMPROVEMENT & EMPOWERMENT.

This tutorial provides ample scope to gain a good understanding of these essential requirements of the SW-CMM to keep an organization vibrant and alive.

INTENDED AUDIENCE:

- ⌀ Assessment Team
- ⌀ Software Engineering Process Group or People Process Group
- ⌀ Change Agents

TITLE: Software Development Process - Synergy Approach
[Code: 100SDP5]

TUTORIAL OBJECTIVES:

- ✄ Good orientation course for the uninitiated programmer fresh from school

- ✄ Participants will understand the principles behind designing an effective software development process

- ✄ Structured Methods and Object Oriented Techniques for problem decomposition will be explored in the tutorial

SITARA Continuing Education Points: 1 point

TUTORIAL DURATION: 5 Days

PREREQUISITES:

Working knowledge of C/C++

ABSTRACT:

Activities that govern the processes that are necessary for the development and subsequent maintenance of software will be explored using Structured Methods and the Object Modeling Technique. Experiences with existing best practices coupled with practical needs from the many development projects are the major inputs in defining this tutorial. Synergy Approach^{TM} accommodates the real life situation of continuous change that the Waterfall Model cannot address. By doing away with separate verification and validation activities of the V model, it helps the team's effort to build robust solutions. By having the entire key perspectives represented in each phase of the life cycle to assist in harmonizing the different activities and the deliverables, it reduces the need to iterate among phases that is addressed by the spiral model. In providing all these advantages, the Synergy Approach improves the "quality" of the end of phase deliverables by doing the right thing right the first time.

This approach is made up of six phases that culminates with the final customer approval. Each phase will have an end of phase deliverable after the deliverable has been reviewed. Reviews of each of the end of phase deliverable will be conducted to weed out errors and defects from the configuration items.

The Synergy Approach^{TM} explores application of Structured Methods and Object Modeling Techniques in the following phases of software evolution:

- ✄ Requirements Definition Phase

- ✄ Requirements Analysis and High Level Design Phase

- ✄ Detailed Design Phase

- ❌ Coding or Implementation Phase
- ❌ Code Standardization and Unit Testing Phase
- ❌ System Integration and System Testing Phase
- ❌ Customer Approval Phase

INTENDED AUDIENCE:

- ❌ Process Champions
- ❌ Software Developers
- ❌ Software Systems Analysts
- ❌ Software Quality Assurance Team

TITLE: Understanding the Capability Maturity Model & People Issues in SEI-CMM Implementation
[Code: 100UNDCMM1]

TUTORIAL OBJECTIVES:

- Ø   Participants will get a good understanding of the structure and design of the Capability Maturity Model for Software and People CMM

- Ø   People Issues that will have to be kept in mind while engineering a change management program will be described using ideas from Meyers-Briggs Type Indicator (MBTI) and contributions of Virginia Satir to Family Therapy

- Ø   A broad range of methods and ideas from the Software and People CMM coupled with insights into the best practices in the industry will give a good orientation to facilitate change management initiatives back in your respective organizations

SITARA Continuing Education Points: 1.5 points

TUTORIAL DURATION: 1.5 Days

PREREQUISITES:

Hands-on project management, software engineering and development experience

WAIVERS: Overview of Software CMM AND Overview of People CMM

ABSTRACT:

The structure and design of the Capability Maturity Model (CMM)^{sm} for Software and People CMM will be described in detail. At the end of the session, participants will realize that CMM is not just a Quality Framework but a management paradigm for developing and managing a successful software initiative in an evolving learning environment that is capable of demonstrating economy of means. Knowledge and application of the 18 Key Process Areas of Software CMM and the 20 Key Process Areas of the People CMM to a change initiative will be described.

While this training program is by no means an exhaustive treatment of all there is to know about the Software and People CMM, it is a good pre-requisite for a more advanced treatment of these two CMM frameworks. Other skills and ideas from diverse topics such as Family Therapy, Organizational Paradigms and MBTI will be explored to gain a full perspective to the topic of effective change management. The two CMMs are known to hugely benefit organizations of all sizes and types.

INTENDED AUDIENCE:

- Senior Management & Process Champions
- Software Engineering Process Group
- Measurement and Analysis Team
- Software Quality Assurance Team
- Functional Area Representatives
- Process Action Teams
- Change Agents

Note   **Training programs addressing specific interpretation and implementation aspects of the CMMI, Software CMM, People CMM, Software Reliability Engineering, Quality Function Deployment and Application of Balanced Score Card Techniques for strategic management of IT initiatives are also available.**