





# **COURSE CATALOG**









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## **Overview**

### **INTEGRATED SYSTEM DIAGNOSTICS**

**Integrated System Diagnostics (ISD)** is the premier, high value supplier of model-based process improvement training, consulting, appraisal services, and tools. ISD was founded in 1994 for the purpose of commercializing Software Engineering Institute (SEI) CMM<sup>®</sup> for Software training, Software Capability Evaluation (SCE) method development, and SCE appraisals. ISD is the joint copyright holder with Carnegie Mellon University for SCE Version 3.0.

#### General

- We are a CMMI<sup>®</sup> Institute Partner for Introduction to the CMMI<sup>®</sup> for Development and Services, all SCAMPI<sup>SM</sup> appraisal services, including High Maturity, and CMMI ML2 and ML3 for Practitioners.
- We are a SEI Partner for the Implementing Goal Driven Software Measurement training.
- We use a global commercial pool of Certified SCAMPI<sup>SM</sup> Lead Appraisers, Certified High Maturity Lead Appraisers, and Certified CMMI<sup>®</sup> instructors.
- Developed the Appraisal Wizard<sup>®</sup> suite of tools, including Model Wizard<sup>®</sup> and Model Mapper<sup>®</sup>.
- ISD originally operated under a Software Engineering Institute (SEI) Cooperative Research and Development Agreements (CRADA), with commercial licenses; competitively selected to commercialize SEI software process improvement training and services.

#### **Appraisal and Process Improvement Experience**

- ISD staff and consultants consists of former SEI personnel, with more than 100-person years' experience in services, systems and software process improvement.
- ISD staff and consultants have participated in or led over 400 process appraisals, within many different application domains and organizational sizes and types, through all maturity levels.

#### **Appraisal Method Development**

- Member of the CMMI<sup>®</sup> Institute SCAMPI<sup>SM</sup> V1.3 upgrade team.
- Developed the Comprehensive Appraisal Method (CAM), ISD's proprietary, ARC Class A, B, and C compliant appraisal method, a source method of SCAMPI<sup>SM</sup> V1.1.
- Developed the SCE method V3.0 under contract to the SEI.
- Led the development and initial release CBA IPI version while working at the SEI.
- Member of the eSourcing Capability Model for Service Providers (eSCM-SP) Method team.

#### **Model and Appraisal Training Development**

- Piloted and contributed to the High Maturity Process Areas for CMMI®-DEV v1.3.
- Invited participant to the V1.2a High Maturity Workshop.
- Contributed to the development of the SCAMPI<sup>SM</sup> Lead Appraiser training.
- Member of the Introduction to CMMI<sup>®</sup> for Services Training development team.
- Member of the eSCM-SP Model and Training Development teams.

#### Model, Appraisal Method, and Training Leadership

- Core member of the NDIA Multi-Model working group
- Core Member of the CMMI<sup>®</sup> Next Gen multi-model appraisal working group.
- Charter member of the SCAMPI Lead Appraiser Body of Knowledge (BoK) Advisory Board.
- Charter member of the eSCM Advisory Board.
- Charter Member of the Enterprise SPICE Advisory Board.



#### **OUR COURSE TYPES**

Our courses include several on-site or public settings delivery types. We define these as:

#### **Seminars**

Seminars are a mix of lecture and student exercises. They are information transfer and knowledge building events typically 1-2 days in length. "Executive Briefings" are 1 day or less seminars. Although participative, there is no specified "output" from the seminars other than conveying informational material to the student. There are multiple versions of our seminars. We use a modular approach to delivering our seminars which allows for combinations and tailoring to best suit the client's needs.

#### **Training**

Training courses are skill-building classes. The outcome of lectures and exercises deliver a specific capability to the student that they use after the event. They are typically 2-3 days in length. Courses in this category help prepare the participants to use process improvement models and appraisal methods in their organizations. Most of these courses are officially licensed to ISD through the CMMI Institute or another officially sanctioned entity outside of ISD. (e.g., Introduction to CMMI<sup>®</sup> DEV and SVC, SCAMPI<sup>SM</sup> Team Training, Introduction to CMMI<sup>®</sup> - DEV ML2 and ML3 for Practitioners, Implementing Goal Driven Software Measurement, and eSCM-SP and eSCM-CL). We also teach our own Appraisal Method Training, designed around our Comprehensive Appraisal Method (CAM).

#### **Workshops**

Workshops are enabling and skill building events that produce tangible work products. They are "roll up your sleeves" events that use lectures to primarily frame concepts and techniques to be used in workshop exercises. Lectures facilitate the instructor/consultant in supporting useful outputs from the exercises being created by the students. Focus of all lectures and exercises are on producing tangible draft work products to support the process improvement program. Other assets (examples, samples, templates) are used to illustrate and boot-strap creation of the work products. Our workshops are typically 3-5 days in length. Our highly interactive workshops teach participants to apply the workshop principles and techniques. Workshop objectives are focused on implementation in specific application areas such as internal improvement, process development, and measurement.





## **OUR TRAINING LOCATIONS**

ISD can deliver courses on site at your location. For many courses this is the ideal solution. We often schedule public courses in various locations around the country. ISD has offices in Pocasset, MA, Melbourne and Tampa, FL, Las Vegas, NV, and a global partnership in Sao Paulo with ISD Brazil. So we are sure to be able to set up a course near you.

Our standard public training location is Melbourne, FL. Please visit this beautiful city; build your skills and help your organization improve its performance.



Get more information about ISD via our website at: <u>http://isd-inc.com/</u> and training calendar and course descriptions online at: <u>http://isd-inc.com/training/</u>

<sup>®</sup> CMMI, Capability Maturity Model, CMM, and Carnegie Mellon are registered in the U.S. Patent & Trademark Office by Carnegie Mellon University.

# **Executive Briefings**

Process Improvement and Reference Model Executive Briefing eSCM for Service Providers and Client Organizations Executive Briefing Integrating CMMI<sup>®</sup> and Six Sigma Executive Briefing Building the Business Case for Process Improvement Executive Briefing Integrating CMMI<sup>®</sup> practices with Agile Methods Executive Briefing Systems and Software Engineering – System Lifecycle Processes: ISO/IES/IEE 15288:2015 Executive Briefing





Executives need solid information before committing resources to improvement or innovation strategies. ISD offers executive briefings that answer your questions about the characteristics, costs, benefits, and risks of technology adoption or process improvement activities.

Our executive briefings give you the foundational information you need to sponsor focused efforts that yield measurable improvements in systems and software acquisition, product development and maintenance, or service delivery and management. These interactive presentations are designed to help the organization identify risks and alternative solutions relevant to adopting advanced technology-based solutions and implementing process improvement programs.

Topics include: Model-Based Process Improvement, Reference Models (e.g., DMM, eSCM, CMMI<sup>®</sup>), Appraisal Methods (e.g., SCAMPI<sup>SM</sup>), Technology Transition, and Organizational Change Management. Briefings are modular and can be tailored to meet specific sponsor needs.

Course Attribute	Course Details
Course Content	Process improvement concepts and principles
	Reference Model overview
	Costs, Benefits, and Risks of model based process improvement
	• Sponsor roles and managing the change effort
	• Interpreting the reference model for different environments
	• Applying the reference model to meet your business goals
Material Provided	Presentation materials
Wateriar i fovided	Reference materials
Course Duration	• 2-4 hours
Course Duration	• This class is typically delivered on site to clients but can also be done publicly
Prerequisites	• None
Who Will Benefit	• Industry and government executives who need to understand benefits and risks associated with technology transition, acquisition management, process improvement, or change management.
Logistics	LCD projector and screen
Requirements	• Flip charts
Requirements	Classroom for up to 20 participants and 1 instructor



### ESOURCING CAPABILITY MODEL FOR SERVICE PROVIDERS (ESCM-SP) EXECUTIVE BRIEFING

The eSourcing Capability Model for Service Providers (eSCM-SP) is a set of industry best practices that IT service providers use to improve delivery capabilities and evaluate current capabilities against a comparative standard. IT service clients use the eSCM-SP Capability Model to evaluate service provider capabilities.

The eSCM Executive Briefing leads executives and managers through a discussion of the model's basic concepts and structure, benefits and risks, and organizational implementation approaches. The objective of the briefing is to provide executives and managers with information they need to make cost effective decisions about improving the organization's IT-enabled service capabilities. Executive briefings are designed to give you the information you need to sponsor focused, measurable improvements. Briefings are tailored to meet specific needs and content.

The Instructor will be an ITSqc Authorized Lead Evaluator or Consultant.

Course Attribute	Course Details
Course Content	• What is IT-Enabled Sourcing?
	Benefits and Risks
	Successes and Failures in Sourcing
	The Capability Determination Process
	Introducing the eSCM into Organizations
Material Provided	• <sup>1</sup> / <sub>2</sub> day
	• This class is available in public and client site forums
Course Duration	Course notebook
Course Duration	Reference and Supplemental Material
	• The eSCM-SP and eSCM-CL books are available from book sellers
Prerequisites	• There are no formal prerequisites.
Who Will Benefit	Senior managers responsible for providing IT-enabled outsourcing services
	<ul> <li>Service providers who are interested in quality improvement or planning an improvement program</li> </ul>
	• Service providers who will be participating in an eSCM capability determination or self-appraisal
	• Quality consultants and evaluators who want to learn about a new quality model
Logistics	LCD projector and screen
Requirements	• Flip charts
	Classroom for 20 participants and 1 instructor





INTEGRATING CMMI<sup>®</sup> AND SIX SIGMA EXECUTIVE BRIEFING

This briefing is designed as an orientation for management to explain how Six Sigma techniques can be successfully integrated with and build on the CMMI<sup>®</sup> process improvement infrastructure. This seminar shows you how these two proven process improvement techniques can be integrated to:

- Enhance your implementation of CMMI, and
- Provide a structure for performing Six Sigma techniques and projects that support CMMI practices.

The briefing is best presented on-site where the management team can attend. Your instructor will be certified in CMMI, Six Sigma, or both methodologies.

Course Attribute	Course Details
Course Content	• Overview of the basic concepts of Six Sigma and CMMI <sup>®</sup>
	• Demonstrate how Six Sigma concepts can be integrated with a CMMI <sup>®</sup>
	infrastructure
	<ul> <li>Demonstrate how Six Sigma tools will enhance, compliment, and support CMMI<sup>®</sup> processes</li> </ul>
	<ul> <li>Explore next steps towards an action plan to integrate the two methodologies</li> </ul>
Material Provided	Presentation slides
Waterial Flovided	Reference materials
Course Duration	• <sup>1</sup> / <sub>2</sub> day. Duration is tailorable from 2 hours to 1 full day.
Course Duration	• This class is available in public and client site forums
Prerequisites	• No in-depth knowledge of CMMI <sup>®</sup> or Six Sigma is required
Terequisites	• Helpful if the participant's organizations are already implementing
	CMMI <sup>®</sup> or Six Sigma or both.
Who Will Benefit	• Executives who need to determine the best approaches to leverage
Who whi belieft	multiple improvement models
	• Managers responsible for implementing process improvement programs
	with multiple techniques
	Process Group members
Logistics	LCD projector and screen
Requirements	Flip charts
	Classroom for 20 participants and 1 instructor

### **BUILDING THE BUSINESS CASE FOR PROCESS IMPROVEMENT EXECUTIVE BRIEFING**

This briefing is designed as an orientation for management to explain how process improvement programs improve organizational performance. This seminar describes both the typical costs and the expected return on investment (ROI) that can be achieved. The briefing is best presented onsite but may also be delivered virtually. Your instructor will be an expert in delivering model based improvement programs.

Course Attribute	Course Details
Course Content	<ul> <li>Overview of process improvement principles and concepts</li> <li>Depiction of typical costs for starting up and maintaining an organizational infrastructure for continuous process improvement</li> <li>Depiction of typical ROI expected from implementing a process improvement program</li> <li>Discussion of typical schedules and risks in process improvement programs</li> </ul>
Material Provided	<ul> <li>Presentation slides</li> <li>Reference materials</li> </ul>
Course Duration	<ul> <li>½ day. Duration is tailorable from 2 hours to 1 full day</li> <li>This class is available in client site forums and virtually</li> </ul>
Prerequisites	• None
Who Will Benefit	<ul> <li>Executives who need to decide on and leverage improvement program investments</li> <li>Managers responsible for implementing process improvement programs</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen</li> <li>Flip charts</li> <li>Classroom for 20 participants and 1 instructor</li> </ul>

INTEGRATING CMMI<sup>®</sup> PRACTICES WITH AGILE METHODS EXECUTIVE BRIEFING

Executives need solid information before committing resources to improvement or innovation strategies. ISD offers executive briefings that answer your questions about the characteristics, costs, benefits, and risks of technology adoption or process improvement activities.

Our executive briefings give you the foundational information you need to sponsor focused efforts that yield measurable improvements in systems and software acquisition, product development and maintenance, or service delivery and management. These interactive presentations are designed to help the organization identify risks and alternative solutions relevant to adopting advanced technology-based solutions and implementing process improvement programs.

This executive briefing helps senior management, line managers, and process group members understand how CMMI<sup>®</sup> practices support and improve on agile methods being implemented by organizations. Our executive briefings are modular and can be tailored to meet specific needs.

Course Attribute	Course Details
Course Content	<ul> <li>Understanding how CMMI<sup>®</sup> and Agile work together to deliver quality products.</li> <li>Mapping CMMI<sup>®</sup> practices against standard Agile activities.</li> <li>Applying other CMMI<sup>®</sup> practices to improve and leverage your Agile methods.</li> </ul>
Material Provided	<ul><li>Presentation materials</li><li>Reference materials</li></ul>
Course Duration	<ul> <li>2-4 hours</li> <li>This class is typically delivered on site to clients but can also be done publicly and virtually.</li> </ul>
Prerequisites	• None
Who Will Benefit	<ul> <li>Executives and line managers who want to understand how CMMI<sup>®</sup> practices can improve their Agile implementation.</li> <li>Process Group members who need to understand CMMI<sup>®</sup> practices to improve, create, or revise existing Agile method based processes.</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen</li> <li>Flip charts</li> <li>Classroom for up to 20 participants and 1 instructor</li> </ul>



#### Systems and Software Engineering – System Lifecycle Processes: ISO/IEC/IEEE 15288:2015 Executive Briefing

Executives need solid information before committing resources to improvement or innovation strategies. ISD offers executive briefings that answer your questions about the characteristics, costs, benefits, and risks of technology adoption or process improvement activities.

The new ISO/IEC/IEEE 15288:2015 standard (ISO 15288) was recently released as a joint effort. ISO 15288 "establishes a common framework of process descriptions for describing the life cycle of systems created by humans." It defines a set of processes and associated terminology from an engineering viewpoint. It is similar to CMMI<sup>®</sup> for Development in terms of organizational scope and product development perspective. The NDIA Multi-Model Working Group established an approved mapping between ISO 15288 and ISO 15288.1 and CMMI<sup>®</sup>-DEV V1.3 to facilitate transition for organizations already invested in and familiar with CMMI<sup>®</sup>. ISD is a core member of this working group.

This briefing helps executives understand the purpose of this new standard, and what to expect as client organizations begin to adopt it and potentially levy it on suppliers. Our Executive Briefings are modular and can be tailored to meet specific sponsor needs.

Course Attribute	Course Details
Course Content	<ul> <li>Overview of the ISO 15288 and ISO 15288.1 structure and content</li> <li>Comparison and mapping overview of ISO 15288 and CMMI<sup>®</sup>-DEV</li> <li>Transition guidance and recommendations</li> </ul>
Material Provided	<ul><li> Presentation materials</li><li> Reference materials</li></ul>
Course Duration	<ul> <li>2-4 hours</li> <li>This class is typically delivered on site to clients but can also be done virtually</li> </ul>
Prerequisites	None
Who Will Benefit	• Industry and government executives and managers who need to understand benefits and risks associated with transitioning to this new ISO standard applicable to engineering and product development.
Logistics Requirements	<ul> <li>LCD projector and screen</li> <li>Flip charts</li> <li>Classroom for up to 20 participants and 1 instructor</li> </ul>





# Seminars

High Maturity Seminar Appraisal Wizard<sup>®</sup> Seminar Appraisal Preparation Seminar Implementing Process Improvement Seminar Reference Model Seminar Systems and Software Engineering – System Lifecycle Processes: ISO/IEC/IEEE 15288:2015 Seminar







The High Maturity Seminar builds participants' knowledge necessary for leading organizations through successful implementation of Maturity Level 4 and 5. Foundational organizational elements supporting evolution of high maturity practices and key attributes of high maturity organizations are explained in addition to a detailed walkthrough of high maturity practices. Participant provided data is used where ever possible to illustrate concepts.

This seminar assumes foundational Maturity Level 2 and 3 knowledge. Given the current maturity of the organization and the skills of the process group members, the High Maturity Seminar should include individuals involved in process improvement or definition who need to expand their knowledge level of high maturity practices. Participants learn about the components needed to build a successful High Maturity process improvement program. Exercises focus on building skills to identify and manage high maturity implementation issues, barriers, and risks.

Course Attribute	Course Details
Course Content	• CMMI <sup>®</sup> structure review
Course Content	• Level 3 building blocks to higher maturity
	• Walk though of Level 4 and 5 practices
	Group Exercises
Material Provided	Participant's notebook
Wateriar i rovided	Reference and exercise material
Course Duration	• 1 day
Course Duration	• This class is available in public and client site forums
Prerequisites	Knowledge of foundational Maturity Level 2 and 3 practices
Trerequisites	• Knowledge or experience with appraisal methods is helpful
Who Will Benefit	Project personnel implementing high maturity practices
who whi beleft	Prospective Appraisal team members
	• Process group and action team members responsible for defining high
	maturity practices
Logistics	LCD projector and screen and Flip charts
Requirements	Classroom for 20 participants and 1 instructor
	• Desktops or laptops set up with AW licenses installed.

## Appraisal Wizard<sup>®</sup> Seminar

Appraisal Wizard<sup>®</sup> is a comprehensive process compliance tool for facilitating the collection, analysis, and reporting of process and quality assurance, appraisal, and compliance data. The purpose of this seminar is to help users understand Appraisal Wizard<sup>®</sup> features and practical implementation guidance for using the tool. Learning is enhanced through hands-on experiential learning for the most commonly used tool features.

The seminar is conducted using explanations and illustrations of tool features, providing step by step guidance and examples, and allowing the participants to practice the steps using the tool with simulated appraisal data. This approach gives participants the knowledge and skills needed to use the tool during many different types of appraisals, and to support objective evidence data collection, management, and reporting leading up to your events.

Seminar material can be tailored to meet your specific needs and objectives. We recommend adding one day of ISD consulting with this seminar to provide expert tool setup and configuration recommendations to best support your specific implementation after purchase.

Course Attribute	Course Details
Course Content	<ul> <li>Product Overview</li> <li>Appraisal Planning</li> <li>Preparation</li> <li>Data Collection</li> <li>Ratings</li> <li>Graphing and Reporting</li> <li>Appraisal Wizard<sup>®</sup> Utilities</li> </ul>
Material Provided	Participant's notebook
Course Duration	<ul> <li>One day. This course is tailorable</li> <li>This class is typically delivered on client sites but may also be done in pubic settings</li> </ul>
Prerequisites	<ul> <li>Class provided after tool purchase and installation</li> <li>No prior knowledge or experience with appraisal tools is needed</li> <li>Knowledge or experience with appraisal methods and data collection needs are helpful</li> </ul>
Who Will Benefit	<ul> <li>Process and Quality Assurance specialists performing internal compliance activities</li> <li>Appraisal team members</li> <li>Individuals involved in collecting and providing evidence for an appraisal</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen and Flip charts</li> <li>Classroom for 20 participants and 1 instructor</li> <li>Desktops or laptops set up with AW licenses installed.</li> </ul>

#### **APPRAISAL PREPARATION SEMINAR**

The Appraisal Preparation Seminar provides practical guidance for improving the efficiency and effectiveness of your organization's appraisal preparation activities. This course explains evidence types and requirements, and how to determine how much objective evidence is required to support a successful appraisal. We discuss typical model interpretation issues and institutionalization guidelines. We propose a technique for validating the collected data to ensure it demonstrates your best capability. We explain our appraisal life cycle model and how it relates to the data collected. We provide techniques, guidelines, work instructions, and checklists for ensuring your data collection effort is successful the first time.

Our instructors are Certified Lead Appraisers who have deep model and appraisal knowledge and experience; all are Lead Appraisers, usually in multiple methods, and against multiple reference models. As a course participant you will receive the foundational knowledge to enable you to

- Understand the importance and benefit of using a well-defined data collection process
- Comprehend the appraisal life cycle and the relationship of the reference model to the appraisal process.
- Understand practical approaches to collecting, organizing and evaluating evidence

The direct benefit of this course is to ensure your organization is ready to succeed in an objective appraisal, reducing preparation costs while simultaneously mitigating appraisal risk.

Course Attribute	Course Details
Course Content	Appraisal life cycle model overview
	Understanding objective evidence needs
	Data collection and validation techniques
	Practice interpretations and institutionalization rules and guidelines
Material Provided	Presentation hard copy and exercise materials
	• Reference materials (i.e., checklists, guidelines, frequently asked questions, etc.)
Course Duration	• 1 day
Course Duration	Lectures, demonstrations, and class exercises
	• This class is available in public and client site forums
Prerequisites	• There are no prerequisites. Reference model and appraisal process knowledge is helpful.
Who Will Benefit	• Practitioners and managers preparing their organization for a process appraisal
	• Individuals designated as team members for a model-based appraisal.
	• Process group members who are responsible for leading process
	appraisal preparation activities
Logistics	LCD projector and screen and Flip charts
Requirements	Classroom for 20 participants and 1 instructor
Requirements	• ISD will use its tool, Appraisal Wizard <sup>®</sup> , to demonstrate concepts and
	techniques presented.



IMPLEMENTING PROCESS IMPROVEMENT SEMINAR

The Implementing Process Improvement Seminar provides foundational knowledge about process improvement principles and concepts. We discuss factors that enable or inhibit success in achieving program objectives.

Our instructors are Certified Lead Appraisers and consultants who have deep model and appraisal knowledge and experience; all are Lead Appraisers, usually in multiple methods, and against multiple reference models.

The benefit of this seminar is to ensure your organization is aware of the roles, responsibilities, costs, and risks in implementing a process improvement program prior to establishing formal objectives, schedules, and resources.

Course Attribute	Course Details
Course Content	<ul> <li>Process improvement principles and concepts</li> <li>Improvement program life cycle model everying</li> </ul>
	<ul> <li>Improvement program life cycle model overview</li> <li>Costs and henefits of process improvement</li> </ul>
	Costs and benefits of process improvement
	Risk in process improvement programs
	Process Group operations
Material Provided	Presentation hard copy and exercise materials
	• Reference materials (i.e., checklists, guidelines, frequently asked
	questions, etc.)
Course Duration	• 1 day
	<ul> <li>Lectures, demonstrations, and class exercises</li> </ul>
	• This class is available in public and client site forums
Prerequisites	• There are no prerequisites. Reference model and appraisal process knowledge is helpful.
Who Will Benefit	• Management needing information about process improvement programs
who will belieft	• Practitioners who will be involved in process action teams
	• Process group members who are responsible for leading improvement
	programs
Logistics	LCD projector and screen and Flip charts
Requirements	Classroom for 20 participants and 1 instructor

#### **REFERENCE MODEL SEMINAR**

Our reference model seminars are tailored short courses targeted at specific model content desired by end users and sponsors. These are not official CMMI Institute licensed courses. This means there is much more flexibility in the course content and exercises. And they are delivered at a more cost effective price point over a shorter duration. Many people in the organization may need knowledge and awareness of the target model but do not need the official course that is required for assessment team members.

Some of the reference models that can be delivered in this format include: CMMI-DEV, CMMI-SVC, CMMI-ACQ, Data Management Maturity Model (DMM), eSCM-SP and eSCM-CL, ISO 15288, and ISD's Integrated System Framework (ISF).

The purpose of these seminars are to provide foundational knowledge about a target reference model leading to establishment of a process improvement program, or as a first step in the enabling phase of such a program.

Our instructors are Certified Lead Appraisers and consultants who have deep model and appraisal knowledge and experience; all are Lead Appraisers, usually in multiple methods, and against multiple reference models, or Certified Instructors in the target reference model.

Course Attribute	Course Details
Course Content	Process improvement principles and concepts
	<ul> <li>Costs and benefits of model based process improvement</li> </ul>
	Model overview and structure
	Process area or functional area detailed walk through
Material Provided	Presentation hard copy and exercise materials
	• Reference materials (i.e., checklists, guidelines, frequently asked
	questions, etc.)
Course Duration	• 1 day
Course Duration	Lectures, demonstrations, and class exercises
	• This class is available in public and client site forums
Prerequisites	• None
Who Will Benefit	• Project managers needing information about a target reference model
who will belieft	<ul> <li>Practitioners who will be involved in process action teams or pilot projects</li> </ul>
	• Process group members who are responsible for leading improvement programs but will not be on formal benchmarking assessment teams
Logistics	LCD projector and screen and Flip charts
Requirements	Classroom for 20 participants and 1 instructor



#### Systems and Software Engineering – System Lifecycle Processes: ISO/IEC/IEEE 15288:2015 Seminar

The new ISO/IEC/IEEE 15288:2015 standard (ISO 15288) was recently released as a joint effort. ISO 15288 "establishes a common framework of process descriptions for describing the life cycle of systems created by humans." It defines a set of processes and associated terminology from an engineering viewpoint. It is similar to CMMI<sup>®</sup> for Development in terms of organizational scope and product development perspective. The National Defense Industrial Association (NDIA) Multi-Model Working Group established an approved mapping between ISO 15288 and ISO 15288.1 and CMMI<sup>®</sup>-DEV V1.3 to facilitate transition for organizations already invested in and familiar with CMMI<sup>®</sup>. ISD is a core member of this working group.

This seminar provides managers and practitioners with a solid foundation for understanding this new standard, and what to expect as client organizations begin to adopt it and potentially levy it on suppliers. Our seminars are modular and can be tailored to meet specific sponsor needs.

Course Attribute	Course Details
Course Content	<ul> <li>Overview of the ISO 15288 and ISO 15288.1 structure and content</li> <li>Comparison and mapping overview of ISO 15288 and CMMI<sup>®</sup>-DEV</li> <li>Detailed walk through of each process/functional area</li> <li>Transition guidance and recommendations</li> </ul>
Material Provided	<ul><li> Presentation materials</li><li> Reference materials</li></ul>
Course Duration	<ul> <li>1 or 2 days, tailorable</li> <li>This class can be delivered on site to clients or delivered in one of our public settings</li> </ul>
Prerequisites	• None
Who Will Benefit	<ul> <li>Managers who need to transition to this new ISO standard applicable to engineering and product development.</li> <li>Process Group members who need to identify gaps in existing processes and define new or revised compliant processes.</li> <li>Practitioners interested in this new system lifecycle process standard.</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen</li> <li>Flip charts</li> <li>Classroom for up to 20 participants and 1 instructor</li> </ul>



## Training

Event Specific Appraisal Training eSourcing Capability Model for Service Providers (eSCM-SP) Training Appraisal Method Training (AMT) SCAMPI<sup>SM</sup> Team Training Introduction to Capability Maturity Model® Integration for Services (CMMI®-SVC) V 1.3 Introduction to Capability Maturity Model® Integration for Development (CMMI®-DEV) V1.3 Services Supplement for Capability Maturity Model Integration (CMMI®)

CMMI<sup>®</sup>-DEV Maturity Level 2 for Practitioners

CMMI®-DEV Maturity Level 3 for Practitioners



#### **EVENT SPECIFIC APPRAISAL TRAINING**

This <sup>1</sup>/<sub>2</sub> day SCAMPI<sup>SM</sup> event specific training class prepares appraisal team members to participate in the appraisal process. It is unique and cost effective for teams whose members have been trained previously on other appraisals. As required by the SCAMPI<sup>SM</sup> method, the Lead Appraiser must deliver team training as part of preparations for performing a CMMI<sup>®</sup> Class A compliant SCAMPI<sup>SM</sup>. This course assumes that the participants have all received training in CMMI<sup>®</sup> and SCAMPI<sup>SM</sup> before attending this course. It is highly tailored to team building and refresher topics to ensure the appraisal team, whose members may have been trained at different times in the past, have a common foundation for working together on a specific event.

ISD's Appraisal Wizard<sup>®</sup> tool will be used to review appraisal techniques to be used on this appraisal. Appraisal Wizard<sup>®</sup> may also be used for the various interim appraisals conducted to establish a baseline for incrementally building the appraisal database and reduce risk in executing the formal SCAMPI<sup>SM</sup>. This course focuses on key SCAMPI<sup>SM</sup> refresher topics, including the appraisal and data collection plans, evidence rules, rating rules, team building and team norms, and the automated tooling techniques to be used.

This course is delivered using tailored CMMI Institute licensed course materials, and is augmented with ISD specific material and is with your event specific appraisal assets. It is delivered by a CMMI Institute Certified Lead Appraiser.

Course Attribute	Course Details
Course Content	<ul> <li>Review the Appraisal and Data Collection Plans;</li> <li>Review the evidence rules and the state of evidence entering this appraisal;</li> <li>Review data consolidation rules;</li> <li>Review SCAMPI<sup>SM</sup> rating rules;</li> <li>Review and finalize team norms and operating guidelines;</li> <li>Review data processing techniques using automated tooling.</li> </ul>
Material Provided	<ul> <li>Presentation and exercise materials</li> <li>Reference Material</li> </ul>
Course Duration	<ul> <li>1/2 day</li> <li>This class is presented in client site forums</li> </ul>
Prerequisites	<ul> <li>Participants must verify completion of the CMMI Institute Introduction to CMMI<sup>®</sup> course.</li> <li>Participants must verify completion of prior SCAMPI<sup>SM</sup> or Comprehensive Appraisal Method (CAM) method team training.</li> </ul>
Who Will Benefit	<ul> <li>Appraisal team members (including team alternates) assigned to perform a specific appraisal event.</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen</li> <li>Flip charts</li> <li>Classroom for 10 participants and 1 instructor</li> </ul>

ESOURCING CAPABILITY MODEL FOR SERVICE PROVIDERS (ESCM-SP) TRAINING

The eSourcing Capability Model for Service Providers (eSCM-SP) is an officially licensed Carnegie Mellon University Information Technology Services Qualification Center (ITSqc) course that introduces participants to eSCM-SP model concepts, structure, and a walkthrough of the capability areas and practices. The objective is to provide a foundation for using the eSCM-SP content. Discussions also include a description of the Capability Determination Methods used to evaluate service provider capability.

A set of industry best practices for outsourcing IT capabilities has emerged to support both the outsourcing client and the service provider. Developed originally by the Carnegie Mellon University, a new spin-off firm, ITSqc, LLC, continues and this work to establish best-practice models and certification procedures for the global sourcing of information technology-based services. The eSCM-SP serves as a

- Guide for improving IT capabilities throughout all phases of the contract,
- Standard for comparison in the marketplace.
- Means for objectively evaluating the capability of service providers.

The ISD Instructor will be an ITSqc Authorized eSCM-SP Instructor and Lead Evaluator

Course Attribute	Course Details
Course Content	• What is IT-Enabled Sourcing?
	Benefits and Risks, and Successes and Failures in Sourcing
	Model Structure, and Practice Implementations
	Support Practices and Capability Levels
	• Using the Model, and The Capability Determination Methods
	Introducing the eSCM into Organizations
Material Provided	• eSourcing Capability Model for IT-Enabled Service Providers V2 book
Wateriar i Tovided	Course notebook
	Reference Material and Supplemental Readings
Course Duration	• 3 days
Course Duration	• This class is presented in both public and client site forums
Prerequisites	• Bachelor of Arts or Sciences from an accredited institution of higher
Terequisites	learning
	• Relevant experience in quality management or IT outsourcing.
Who Will Benefit	• Service providers who will be participating in an eSCM capability
	determination or self-appraisal
	• Consultants who want to become authorized as part of an eSCM
	Capability Determination Team
	Managers responsible for providing IT-enabled outsourcing services
	• Service providers who are interested in quality improvement or in
	planning a quality improvement program
Logistics	LCD projector and screen and Flip charts
Requirements	Classroom for 20 participants and 1 instructor







Comprehensive Appraisal Method (CAM) training prepares participants to be appraisal team members or help support preparations for a model based appraisal. The focus is appraisal team techniques and methods. ISD's CAM is a foundational method that can be used with any reference model, standard, or framework. The course provides fundamental appraisal concepts needed for an individual to perform as an effective team member. We use a guided case study to simulate actual appraisal activities. The interactive simulation uses our Appraisal Wizard<sup>®</sup> tool to further facilitate the learning experience.

The course objectives include preparing students to effectively participate as team members, understand how to support the appraisal plan goals and objectives, know how to obtain appropriate objective evidence, perform evidence review, interviewing, observation writing, data consolidation, team consensus, ratings, and reporting.

Course Attribute	Course Details
Course Content	<ul> <li>Appraisal Framework and Team Concepts</li> <li>Developing Critical Skills</li> <li>CAM Overview</li> <li>Planning and Preparing for an Appraisal</li> <li>Developing and Using the Appraisal Plan</li> <li>Practicing Interviewing and Document Review Techniques</li> <li>Analyzing and Validating Data</li> <li>Opening, Preliminary, and Final Findings Presentations</li> <li>Recording Observations and Validating Data</li> <li>Performing Rating Rules and Rating Process, and Generating Findings</li> <li>Preparing and Delivering Findings Presentations</li> <li>Documenting and Reporting Appraisal Results</li> <li>Tailoring CAM for Different Applications</li> </ul>
Material Provided	<ul> <li>Training and Reference materials</li> <li>Exercises and Case Study materials</li> <li>Comprehensive Appraisal Method (CAM) technical report</li> <li>Fundamental Appraisal Concepts paper</li> <li>Fact-Inference-Judgement paper</li> </ul>
Course Duration	<ul> <li>2, 3 days, or up to 5 days. 3 days is the standard delivery.</li> <li>This course can be delivered on site or in public forums</li> </ul>
Prerequisites	<ul> <li>Reference model knowledge will be confirmed prior to admittance.</li> <li>A knowledge pretest must be completed as part of the registration process.</li> </ul>
Who Will Benefit	<ul> <li>Practitioners and managers in services, systems and software engineering, acquisition, and quality improvement</li> <li>Individuals designated as team members for a Model-Based appraisal</li> <li>Process group members who are responsible for leading process improvement programs</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen and Flip charts</li> <li>Computers/laptops for students for use of Appraisal Wizard<sup>®</sup></li> <li>Classroom for up to 15 participants and 1 instructor</li> </ul>

### SCAMPI<sup>SM</sup> TEAM TRAINING

SCAMPI<sup>SM</sup> team training prepares participants to perform as a team members using the SCAMPI<sup>SM</sup> method. The objective is to prepare students to effectively participate as team members. This includes understanding appraisal planning, reviewing documents, interviewing people, recording and consolidating data, and documenting and reporting appraisal results.

This course uses lectures, exercises, and a guided case study that simulates an actual appraisal. It is highly interactive and is delivered in a team-based environment. This format helps participants develop appropriate skills and confidence in applying their skills. Students use our automated tool, Appraisal Wizard<sup>®</sup>, to further facilitate the learning experience. Participants receive read-ahead material and there are homework assignments.

This course is delivered by a CMMI Institute Certified Lead Appraiser using CMMI Institute licensed course materials, augmented with ISD materials.

Course Attribute	Course Details
Course Content	<ul> <li>Understanding the Appraisal Framework;</li> <li>Learning about the SCAMPI<sup>SM</sup> method</li> </ul>
	• Planning and Preparing for your Appraisal;
	Reviewing Documents;
	Practicing Interviewing Skills and Techniques;
	Analyzing and Validating Data;
	• Preparing and Delivering Findings Presentations;
	• Performing the Rating Rules and Process;
	Documenting Appraisal Results.
Material Provided	Presentation hard copy and exercise materials
	Reference Material
Course Duration	• 2 or 3 days (tailorable)
	• This class is typically presented on a client site but can also be delivered in public forums
Prerequisites	• Participants must validate that they have attended Introduction to
	CMMI <sup>®</sup> V1.3 training
Who Will Benefit	• Prospective appraisal team members (including team alternates)
Logistics	LCD projector and screen
Requirements	• Flip charts
	Classroom for up to 15 participants and 1 instructor

## INTRODUCTION TO CAPABILITY MATURITY MODEL<sup>®</sup> INTEGRATION FOR SERVICES

### (CMMI-SVC)

Capability Maturity Model Integration (CMMI<sup>®</sup>) for Services (SVC) extends the CMMI Product Suite to provide best practices for improving your organization's delivery of services. This course explains the model content and structure, and how to use it as a guide to improving organizational processes. It helps your organization establish improvement priorities, guide improvement implementation, and appraise your organizational maturity or process capability.

This course is a prerequisite for being on a CMMI-SVC SCAMPI<sup>SM</sup> Class A appraisal. It uses CMMI Institute licensed course materials and is delivered by certified instructors who have the depth of knowledge and experience to relate the model to the real world. ISD worked on the CMMI Institute team that developed this course, and we augment it with our own materials.

As a course participant you will receive the foundational knowledge to enable you to:

- Understand the importance and benefit of using and improving defined processes
- Understand how the CMMI-SVC model helps an organization improve their performance
- Comprehend the architecture and content of the CMMI-SVC model

Course Attribute	Course Details
Course Content	<ul> <li>Overview of CMMI-SVC components and model-based process improvement concepts</li> <li>Benefits of CMMI implementation and comparison with other models</li> </ul>
	<ul> <li>Structure of the model and details of each Process Area in the model</li> <li>Process area relationships and institutionalization practices</li> </ul>
Material Provided	<ul><li>CMMI-SVC model book</li><li>Presentation hard copy and exercise materials</li></ul>
Course Duration	<ul><li> 3 days</li><li> Presented in both public and client site forums</li></ul>
Prerequisites	• Reading homework is required for the first two days of the course
Who Will Benefit	<ul> <li>This is an introductory course, and there are no prerequisites. Some knowledge of providing services, quality management, and basic management principles is deemed helpful.</li> <li>Service providers and process implementers</li> <li>Candidate CMMI-SVC instructors and lead appraisers</li> <li>Individuals designated a CMMI-SVC appraisal</li> <li>Process group members who are responsible for leading process improvement programs</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen and Flip charts</li> <li>Classroom for 20 participants and 1 instructor</li> </ul>



## INTRODUCTION TO CAPABILITY MATURITY MODEL<sup>®</sup> INTEGRATION FOR DEVELOPMENT (CMMI-DEV)

Capability Maturity Model Integration (CMMI<sup>®</sup>) for Development (DEV) provides best practices for improving your organization's ability to develop products. This course explains the model content and structure, and how to use it to improve organizational processes. Understanding the CMMI<sup>®</sup> helps your organization establish improvement priorities, guide improvement implementation, and appraise your organizational maturity or process capability.

This course is a prerequisite for being on a CMMI-DEV SCAMPI<sup>SM</sup> Class A appraisal. The course is delivered using CMMI Institute licensed course materials and certified instructors who have the depth of knowledge and experience to relate the models to the real world. We also augment the course with our own materials.

As a course participant you will receive the foundational knowledge to enable you to:

- Understand the importance and benefit of using and improving defined processes
- Comprehend the architecture and content of the CMMI<sup>®</sup> models
- Understand how CMMI-DEV helps an organization improve their performance

Course Attribute	Course Details
Course Content	<ul> <li>Overview of CMMI<sup>®</sup> components and model-based process improvement concepts</li> <li>Benefits of CMMI<sup>®</sup> implementation and comparison with other models</li> <li>Structure of the model and details of each Process Area in the model</li> <li>Process area relationships and institutionalization practices</li> </ul>
Material Provided	<ul><li>CMMI-DEV model book.</li><li>Presentation hard copy and exercise materials</li></ul>
Course Duration	<ul><li> 3 days</li><li> Presented in both public and client site forums</li></ul>
Prerequisites	• Reading homework is required for the first two days of the course.
Who Will Benefit	<ul> <li>This is an introductory course, and there are no prerequisites, some knowledge of systems or software engineering, quality management, and basic management principles is helpful.</li> <li>Practitioners and managers in systems and software engineering, development, and quality improvement</li> <li>Individuals designated for a CMMI-DEV appraisal</li> <li>Process group members who are responsible for leading process improvement programs</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen and Flip charts</li> <li>Classroom for 20 participants and 1 instructor</li> </ul>

### Development and Services Supplements for Capability Maturity Model Integration (CMMI<sup>®</sup>)

Capability Maturity Model Integrated (CMMI<sup>®</sup>) for Development (CMMI-DEV) and Services (CMMI-SVC) cover product development and service delivery. CMMI-DEV and CMMI-SVC are process improvement frameworks that build on industry best practices. They help organizations set process improvement goals and priorities, provide guidance for quality processes, and provide a benchmark for appraising current processes.

These one-day Supplements discuss the process areas that are unique to either CMMI-DEV or CMMI-SVC. This course is a prerequisite for being a lead appraiser, team leader, or team member on a SCAMPI<sup>SM</sup> appraisal using either CMMI-DEV or CMMI-SVC. It is only for individuals who have already received the full officially licensed Introduction to CMMI-DEV or CMMI-SVC training, and need to learn the other constellation. This course is delivered using CMMI Institute licensed materials and Certified instructors; augmented with ISD material.

As a course participant you will receive the foundational knowledge to enable you to:

- Understand how CMMI-DEV or CMMI-SVC helps organizations improve
- Describe the unique elements of either CMMI-DEV or CMMI-SVC

Course Attribute	Course Details
Course Content	Development or Services Overview
	<ul> <li>Model-based process improvement concepts</li> <li>Walkthrough of CMMI-DEV or CMMI-SVC Unique Process Areas</li> </ul>
	<ul> <li>Walkthrough of CMMI-DEV or CMMI-SVC Unique Process Areas</li> <li>Walkthrough of Development or Service Specific Practices</li> </ul>
	<ul> <li>CMMI-DEV or CMMI-SVC book.</li> </ul>
Material Provided	<ul> <li>Presentation hard copy and exercise materials</li> </ul>
	<ul> <li>I day</li> </ul>
Course Duration	<ul> <li>The course is composed of lectures and class exercises</li> </ul>
	<ul> <li>This class is presented in both public and client site forums</li> </ul>
	<ul> <li>Introduction to CMMI-DEV course is a prerequisite to attending the</li> </ul>
Prerequisites	Services Supplement
	• Introduction to CMMI-SVC course is a prerequisite to attending the
	Development Supplement
Who Will Benefit	Product developers/service providers, and process implementers
who will belieft	• Candidate CMMI-DEV or CMMI-SVC instructors and lead appraisers
	• Individuals designated as team members for a CMMI-DEV or CMMI-
	SVC appraisal
	• People who have CMMI-DEV or SVC knowledge and are interested in
	the other constellation
Logistics	LCD projector and screen and Flip charts
Requirements	Classroom for 20 participants and 1 instructor

#### **CMMI-DEV MATURITY LEVEL 2 FOR PRACTITIONERS**

The course is delivered using CMMI Institute licensed materials and certified instructors. This course provides students with an in-depth understanding of the CMMI-DEV Maturity Level 2 practices. The course is focused on detailed walkthroughs and exercises for each Maturity Level 2 process area. Our certified instructors have the depth of knowledge and experience to relate the models to the real world. This course was designed for CMMI-DEV, but much of the material is common and applies to all CMMI constellations.

Students who complete the course will have:

- A deeper understanding of the interrelationships among model components
- Better interpretations and examples of the CMMI-DEV practices at maturity level 2
- Improved ability to apply CMMI-DEV maturity level 2 practices in process improvement and appraisal activities

Course Attribute	Course Details
Course Content	<ul> <li>CMMI-DEV Overview</li> <li>Maturity Level 2 Generic Goals and Practices, and Process Area to Generic Practice Relationships</li> <li>Process Areas at CMMI-DEV Maturity Level 2         <ul> <li>Requirements Management</li> <li>Project Planning</li> <li>Project Monitoring and Control</li> <li>Supplier Agreement Management</li> <li>Measurement and Analysis</li> <li>Process and Product Quality Assurance</li> <li>Configuration Management</li> </ul> </li> </ul>
Material Provided	<ul><li>Presentation notebook</li><li>Reference and exercise material</li></ul>
Course Duration	<ul><li> 3 days</li><li> This class is presented in both public and client site forums</li></ul>
Prerequisites	• Students should successfully complete the Introduction to CMMI for Development course
Who Will Benefit	<ul> <li>Those needing more in-depth CMMI-DEV ML2 information</li> <li>Those developing, deploying, or implementing CMMI-DEV ML2 practices</li> <li>SCAMPI team members preparing for a CMMI-DEV ML2 appraisal</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen; Flip charts</li> <li>Classroom for 20 participants and 1 instructor</li> <li>Students should bring a CMMI-DEV model (book or technical report). The technical report is available for free on the CMMI Institute website. The book is available from most book sellers.</li> </ul>

### **CMMI-DEV MATURITY LEVEL 3 FOR PRACTITIONERS**

The course is delivered using CMMI Institute licensed materials and certified instructors. This course provides students with an in-depth understanding of the CMMI-DEV Maturity Level 3 practices. The course is focused on detailed walkthroughs and exercises for each Maturity Level 3 process area. Our CMMI Institute certified instructors have the depth of knowledge and experience to relate the models to the real world. We augment the course with our own materials and exercises. This course was designed for CMMI-DEV, but much of the material is common and applies to all CMMI constellations.

Students who complete the course will have:

- A deeper understanding of the interrelationships among model components
- Better interpretations and examples of the CMMI-DEV practices at Maturity Level 3
- Improved ability to apply CMMI-DEV Maturity Level 3 practices in process improvement and appraisal activities

Course Attribute	Course Details
Course Content	<ul> <li>Context for CMMI-DEV Maturity Level 3</li> <li>Maturity Level 3 Generic Goals and Practices</li> <li>Process areas at CMMI-DEV Maturity Level 3</li> <li>Requirements Development, Technical Solutions, Product Integration, Verification, and Validation</li> <li>Organizational Process Focus, Organizational Process Definition, and Organizational Training</li> <li>Integrated Project Management, Risk Management, and Decision Analysis and Resolution</li> </ul>
Material Provided	<ul><li>Presentation notebook</li><li>Reference and exercises</li></ul>
Course Duration	<ul><li> 3 days</li><li> This class is presented in both public and client site forums</li></ul>
Prerequisites	<ul> <li>Successfully complete Introduction to CMMI for Development</li> <li>Understand CMMI-DEV Maturity Level 2 practices (It is recommended that participants complete the CMMI-DEV Level 2 for Practitioners course prior to attending this course).</li> </ul>
Who Will Benefit	<ul> <li>Those needing more in-depth CMMI-DEV ML3 information</li> <li>Those developing, deploying, or implementing CMMI-DEV ML3 practices</li> <li>SCAMPI team members preparing for a CMMI-DEV ML3 appraisal</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen; Flip charts</li> <li>Classroom for 20 participants and 1 instructor</li> <li>Students should bring to class a copy of the CMMI-DEV model (book or technical report)</li> </ul>





# Workshops

Measurement Workshop High Maturity Workshop Process Group Workshop Quality Assurance Workshop Tailoring Workshop Process Definition Workshop Managing Organizational Change Workshop Technology Transition Workshop



#### **MEASUREMENT WORKSHOP**

This Measurement Workshop prepares participants to initiate and lead measurement activities that are consistent with the organization's process improvement program using the Goal-Driven Measurement method. This class uses tailored SEI licensed materials. Workshop participants

- translate business goals into concrete operational statements with a measurement focus,
- identify indicators that are directly related to meeting these goals, and
- develop a measurement specification for gathering, analyzing, and reporting measurement data and analysis results.

Goal-Driven Measurement provides a structured approach to defining and implementing measurements that ensures your measurement program is aligned with organizational business processes and objectives. This class will be presented by a Certified Instructor, and is augmented by ISD material. Participants will produce draft measurement assets that can be used in subsequent improvement activities. Using the techniques in this class directly supports satisfying measurement practices in Maturity Levels 2-3 of the CMMI<sup>®</sup> or similar reference models.

Course Attribute	Course Details
Course Content	<ul> <li>Understand the Goal/Question/Metric (GQM) paradigm;</li> <li>Identify business goals and sub-goals;</li> <li>Identify measurable attributes;</li> <li>Identify indicators (graphs, charts, etc.) and the data elements necessary to support the indicators;</li> <li>Identify the actions needed to implement defined measures;</li> <li>Prepare a draft measurement specification or plan.</li> </ul>
Material Provided	<ul> <li>Materials are tailored and augmented from SEI licensed materials:</li> <li>Goal Driven Measurement Guidebook (includes templates)</li> <li>Participant's notebook</li> <li>Reference and sample materials</li> </ul>
Course Duration	<ul> <li>2 or 3 days. Duration is tailorable.</li> <li>This class is available in public and client site forums</li> </ul>
Prerequisites	<ul> <li>Participants should have knowledge of the organization's business goals and existing processes.</li> <li>Prior training in a reference model such as CMMI<sup>®</sup> is extremely helpful and strongly recommended.</li> </ul>
Who Will Benefit	<ul> <li>Practitioners, managers and technical staff who need to learn how to identify, define, and use measures to manage projects and improve products</li> <li>Process and measurement group members chartered with defining organizational standard measures</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen</li> <li>Flip charts and markers</li> <li>Classroom for 15 participants and 1 instructor</li> <li>Students should bring available existing information related to organizational business goals and measurement assets that can be used or modified during class exercises.</li> </ul>

### HIGH MATURITY WORKSHOP

This High Maturity workshop is a skill-building class providing knowledge through application of model concepts in real world implementation scenarios. The workshop will

- increase your knowledge of high-maturity processes,
- improve your understanding of high maturity reference model practices, and
- understand the culture of a high maturity organization.

Class exercises use sample measurement plans and procedures provided by your organization. We describe the organizational components needed to build, deploy, and institutionalize a high maturity measurement system. Exercises uncover potential barriers, issues, or gaps that inhibit successful implementation. It provides a hands-on learning experience to understand the characteristics and behaviors of a high-maturity organization. The class can be tailored to focus on organization specific issues. The instructor will be a CMMI Institute Certified High Maturity Lead Appraiser and Instructor.

Course Attribute	Course Details
Course Content	<ul> <li>Understand High Maturity organizational characteristics;</li> <li>Understand CMMI<sup>®</sup> requirements for High Maturity and how they build on Maturity Levels 2-3;</li> <li>Understand the key elements and techniques of Quantitative Management and Analysis;</li> <li>Review and analyze existing measurement related assets and work products to identify potential gaps;</li> <li>Draft new or improved measurement assets such as the Project Measurement Plan or Organizational Quantitative Management procedure.</li> </ul>
Material Provided	<ul> <li>Participant's notebook</li> <li>Reference and Sample material</li> <li>Memory Jogger on Continuous Process Improvement techniques</li> </ul>
Course Duration	<ul> <li>3 days. Duration is tailorable</li> <li>This class is available in public and client site forums</li> </ul>
Prerequisites	• The course is composed of lectures and class exercises with opportunity for significant participant questions and discussions.
Who Will Benefit	<ul> <li>Participants should have substantial experience implementing the CMMI<sup>®</sup> Maturity Level 2-3 Process Areas.</li> <li>Students must validate successful completion of prior CMMI<sup>®</sup> training</li> <li>Practitioners and managers in organizations targeted for high maturity implementations</li> <li>Process group members responsible for leading high maturity process improvement or measurement programs</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen and Flip charts and markers</li> <li>Classroom for up to 15 participants and 1 instructor</li> <li>Internal measurement standard assets should be available for use in class exercises (e.g., procedures, metrics plan, repository structure)</li> <li>CMMI<sup>®</sup> books should be available for use in the classroom during lectures and exercises.</li> </ul>



#### **PROCESS GROUP WORKSHOP**

The Process Group (PG) Workshop helps participants develop the strategies, plans, and policies to initiate or sustain an effective process improvement program. ISD teaches you to effectively charter and operate a Process Group. We define the roles and responsibilities of a Process Group as well as the policies, procedures, training and other resources necessary to implement an effective process improvement program. We provide focused guidance if your PG has encountered obstacles and needs revitalization. We will discuss the Organization Standard Process, the Organization Process Asset Library, and the Metrics Database in relation to the daily project and work group implementation activities and review various alternative implementation strategies for these core organizational assets.

We'll prepare you for success by helping you identify risks and obstacles and discussing how to mitigate them. You'll walk away armed with the draft planning documents necessary to begin or step up your process improvement effort including the Process Group Charter, the Strategic Process Improvement Plan, and the Communications Plan.

Course Attribute	Course Details
Course Content	Process Improvement Overview;
	<ul> <li>Process Infrastructure and Process Management concepts;</li> </ul>
	Reference Models and Improvement Frameworks;
	Managing Process Improvement;
	<ul> <li>Defining process group roles and responsibilities, and policies and procedures;</li> </ul>
	• Evaluation of improvement areas;
	• Identifying risks, obstacles and associated mitigation techniques;
	• Developing a Charter, Strategic Process Improvement Plan and
	Communications Plan;
	• Establishing and maintaining appropriate levels of sponsorship.
Material Provided	Participant's notebook
	Reference material
Course Duration	• 2, 3, or 5 days. Duration is tailorable based on participant background
	and objectives.
	This class is available in public and client site forums
Prerequisites	• None
Who Will Benefit	• Members of the Process Group and other practitioners involved in process improvement
Logistics Requirements	LCD projector and screen
	Flip charts
	Classroom for 15 participants and 1 instructor

#### **QUALITY ASSURANCE WORKSHOP**

This workshop helps participants gain an in-depth understanding of Quality Assurance (QA) in order to create an effective organizational QA approach. This workshop provides an orientation of QA concepts and activities presented with a management flavor. The course content will equip managers with the know how to plan and document quality activities, understand the necessity of management commitment, understand the difference and need for both product and process QA, and how to verify the implementation of quality activities and use their results. The techniques presented are compatible with CMMI<sup>®</sup> and ISO 9001 and proven successful in both commercial and government organizations. Some concepts explored include how the position of the QA function in the organization affects its independence and effectiveness, and how the quality of a system is highly influenced by the quality of the process used to develop and maintain it. ISD instructors bring decades of process improvement, quality management, and project management experience to offer practical advice to attendees.

After attending this course the participants will be able to:

- Understand what is required to make Quality Assurance (QA) effective
- Describe the functions performed by the QA team
- Understand "your" QA role and responsibilities
- Describe QA functions, and where they should be applied during the project or work life cycle
- Define and apply a QA plan for individual projects or work groups
- Use measurements of process quality

Course Attribute	Course Details
Course Content	• Why QA?
	• QA Roles
	• QA Plan
	• QA and the Project/Work Group Life Cycle
	• QA and the CMMI <sup>®</sup>
Material Provided	Participant's notebook
	Reference material
Course Duration	• 2 or 3 days. Duration is tailorable depending on audience and depth of coverage
	• This class is typically delivered in client forums but can also be available in public forums
Prerequisites	• Participants should have a general awareness of process and quality management concepts
	<ul> <li>Participants should have awareness of their organization's current quality management practices</li> </ul>
	• Training in quality assurance concepts from models such as CMMI <sup>®</sup> is strongly recommended.
Who Will Benefit	Quality assurance personnel
	Process Group members
	Project/Work Group Managers
Logistics	LCD projector and screen and 1 Flip chart for each 3 participants
Requirements	Classroom for up to 15 participants



## TAILORING WORKSHOP

This workshop helps you to tailor the CMMI<sup>®</sup> or other reference model to fit your organizational needs and how to tailor a standard organization process for project needs. Tailoring the target model and your standard process is crucial to ensure that the organization's practices are appropriate for the environment in which they will be implemented. Tailoring is an essential step for managers to define processes for project use. Tailoring ensures that the organization's local environment, culture, and types of work are incorporated into the process. Tailoring is an essential activity and is a key process requirement in CMMI<sup>®</sup> Maturity Level 3. Deliverables include workshop materials, and a key outcome is a draft tailored CMMI<sup>®</sup> and/or tailored elements of your standard process. Draft tailoring guidelines, criteria, and draft adjusted processes for distinct product lines or types of work are typical outcomes.

As a course participant you will receive the foundational knowledge to enable you to

- Understand the importance and benefits of tailoring processes from a defined standard
- Practice fundamental approaches by applying tailoring concepts in your environment

Course Attribute	Course Details
Course Content	<ul> <li>CMMI<sup>®</sup> components refresher and Maturity Level 3 building blocks review</li> <li>Tailoring Overview</li> <li>Tailoring to the Environment and Tailoring Based on Process Attributes</li> <li>Defining Tailoring Choice Sets</li> <li>Tailoring Practices</li> <li>Tailoring Measurements</li> <li>Establishing a Tailoring "Project"</li> </ul>
Material Provided	<ul><li>Presentation and exercise materials</li><li>Reference and sample materials</li></ul>
Course Duration	<ul><li> 2 or 3 days. Course duration is tailorable.</li><li> This class is typically delivered in client site forums</li></ul>
Prerequisites	<ul> <li>Homework may be required for the first two days of the workshop.</li> <li>Introduction to CMMI<sup>®</sup> training or equivalent</li> <li>Familiarity with target projects and standard processes which will be subject to tailoring</li> </ul>
Who Will Benefit	<ul> <li>Practitioners and managers responsible for tailoring processes</li> <li>Process designers responsible for defining organizational standard processes</li> <li>Process group members responsible for leading process improvement programs</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen and Flip charts and markers</li> <li>Classroom for 15 participants and 1 instructor</li> <li>This is an asset building workshop. Organizations are expected to provide current processes for use in workshop exercises.</li> </ul>

### **PROCESS DEFINITION WORKSHOP**

This workshop provides a method for analyzing process needs and techniques for documenting processes in a usable and effective format. Participants learn how to define processes using Context Diagrams, Data Flow Diagrams, and Role Activity Diagrams. They also learn to analyze defined processes for required inputs and outputs, missing elements, and inefficient work flow. Draft processes are rapidly documented using the proven ETVX and IDEF0 process definition techniques. Participants perform hands-on exercises of two types: they learn by defining or refining their own processes and identifying solutions for their organizations' problems, and they also use a case study and examples provided during the workshop.

Documenting effective standard processes is crucial to ensure that the organization's desired practices are adopted uniformly and applied consistently by users. Performing these activities supports implementing CMMI<sup>®</sup> practices at Maturity Level 3. Deliverables include workshop materials, and key outcomes are draft standard processes for targeted areas.

As a workshop participant you will receive the foundational knowledge to enable you to

- Analyze existing processes or new process needs.
- Define and document processes using formal process definition techniques
- Practice fundamental skills by applying these techniques to your environment

Course Attribute	Course Details
Course Content	• Foundations of process definition, process improvement and
	organizational change management
	Understanding process architecture and components
	Process analysis techniques
	Process definition techniques
	Documenting targeted processes using these techniques
Material Provided	Presentation and exercise materials
	Reference and sample materials
Course Duration	• 2, 3, or 5 days. Course duration is tailorable.
Course Duration	This class is typically delivered in client site forums
Prerequisites	• Homework may be required during the workshop to support workshop exercises.
	• Familiarity with your target projects and current processes which need to be defined
Who Will Benefit	• Practitioners and managers responsible for applying standard processes
	<ul> <li>Process designers responsible for defining organizational standard processes</li> </ul>
	<ul> <li>Process group members responsible for leading process improvement programs</li> </ul>
Logistics	LCD projector and screen and Flip charts and markers
Requirements	Classroom for 15 participants and 1 instructor
Requirements	• This is an asset building workshop. Organizations are expected to
	provide current processes for use in workshop exercises.

#### MANAGING ORGANIZATIONAL CHANGE WORKSHOP

This workshop provides methods for managing complex organizational change efforts. Draft processes to support the change management program are rapidly documented using the proven ETVX and IDEF0 process definition techniques. Participants perform hands-on exercises of two types: they learn by defining or refining their own processes for change management, and identifying solutions for their organizations' problems, and they also use a case study and examples provided during the workshop.

Performing these activities supports implementing some CMMI<sup>®</sup> practices at Maturity Level 3 and Maturity Level 5. Deliverables include workshop materials, and key outcomes are draft standard processes for change management related areas.

As a workshop participant you will receive the foundational knowledge to enable you to

- Understand organizational change management principles
- Analyze your organization's readiness for change
- Define roles and responsibilities for a change program
- Analyze existing processes or new process needs for managing change.
- Define and document change management processes using formal process definition techniques

Course Attribute	Course Details
Course Content	<ul> <li>Foundations of organizational change management</li> <li>Understanding the existing organizational readiness for change</li> <li>Building and sustaining infrastructure for managing change</li> </ul>
	<ul> <li>Process piloting and deployment</li> <li>Measuring change effectiveness</li> </ul>
Material Provided	<ul><li>Presentation and exercise materials</li><li>Reference and sample materials</li></ul>
Course Duration	<ul> <li>2, 3, or 5 days. Course duration is tailorable.</li> <li>This class is typically delivered in client site forums</li> </ul>
Prerequisites	<ul> <li>Homework may be required during the workshop to support workshop exercises.</li> <li>Familiarity with your target projects and current processes which need to be defined</li> </ul>
Who Will Benefit	<ul> <li>Practitioners and managers responsible for deploying standard processes</li> <li>Process change agents responsible for managing standard processes</li> <li>Process group members responsible for leading process improvement programs</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen and Flip charts and markers</li> <li>Classroom for 15 participants and 1 instructor</li> <li>This is an asset building workshop. Organizations are expected to provide current processes for use in workshop exercises.</li> </ul>

#### **TECHNOLOGY TRANSITION WORKSHOP**

This workshop provides methods for managing complex technology change efforts. Draft processes to support the technology change program are rapidly documented using the proven ETVX and IDEF0 process definition techniques. Participants perform hands-on exercises of two types: they learn by defining or refining their own processes for change management, and identifying solutions for their organizations' problems, and they also use a case study and examples provided during the workshop.

Performing these activities supports implementing several CMMI<sup>®</sup> practices at Maturity Level 3 and at Maturity Level 5. Deliverables include workshop materials, and key outcomes are draft standard processes for applicable areas.

As a workshop participant you will receive the foundational knowledge to enable you to

- Understand technology change management principles
- Analyze your organization's readiness for change
- Understand the technology adoption curve
- Define roles and responsibilities for a technology change program
- Analyze existing processes or new process needs for managing technological change.
- Define and document technological change management processes using formal process definition techniques

Course Attribute	Course Details
Course Content	<ul> <li>Foundations of technological change, adoption, and transition</li> <li>Understanding the interaction between people, process, and tools</li> <li>Analyzing the current environment and readiness for change</li> <li>Process piloting and deployment and transition techniques</li> <li>Documenting processes for using these techniques</li> </ul>
Material Provided	<ul><li>Presentation and exercise materials</li><li>Reference and sample materials</li></ul>
Course Duration	<ul> <li>2, 3, or 5 days. Course duration is tailorable.</li> <li>This class is typically delivered in client site forums</li> </ul>
Prerequisites	<ul> <li>Homework may be required during the workshop to support workshop exercises.</li> <li>Familiarity with your target projects and current processes which need to be defined</li> </ul>
Who Will Benefit	<ul> <li>Practitioners and managers responsible for implementing new technology</li> <li>Personnel responsible for acquiring and deploying new technology</li> <li>Process group members responsible for leading technology changement management programs</li> </ul>
Logistics Requirements	<ul> <li>LCD projector and screen and Flip charts and markers</li> <li>Classroom for 15 participants and 1 instructor</li> <li>This is an asset building workshop. Organizations are expected to provide current processes for use in workshop exercises.</li> </ul>



#### **ABOUT ISD**

Your full service process improvement provider.

We deliver integrated performance improvement to organizations worldwide.

ISD is a full service model-based process improvement consulting company, dedicated to helping companies achieve their process improvement goals in the most effective and efficient manner. ISD delivers integrated improvement programs including consulting, training, appraisals, and tools.