



S P R

Software Productivity Research
Asia Pacific Corporation, Ltd.



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1. FPA Concepts Overview 1-day (FP-100)

Course Duration: 1 day

Course Objective:

At the completion of this course, participants will be familiar with the basic concepts of Function Point Analysis, the Function Point Methodology and Components, and the most current version of the International Function Point Users Group (IFPUG) counting practices.

Course Description:

This course is certified by IFPUG and focuses on Function Point Counting techniques consistent with IFPUG counting practices Release 4.2.1. Participants will apply IFPUG Counting Practices in a hands-on interactive course environment. Course includes a conceptual overview of FP counting with case study examples and opportunity for questions and answers.

Target Audience:

This course is designed for novice Function Point counters, application experts, users, developers, IS Supervisors, business analysts and managers with no Function Point counting experience and for counting practitioners with less than six months of experience who desire a hands-on introduction to IFPUG Counting Practices. Selected training candidates should have sufficient schedule flexibility, interest and aptitude for function point counting activities.

Course Outline:

1. Introduction to FPA
2. FPA counting rules and approach
3. Illustrative Case Studies (New Development and Enhancement Project)
4. SPR Approximating size (early phases of a project)
5. Use of counting tools
6. Using Function Points for software management
 - How to use the results of a FPA
 - Using FPA for effort estimation

If further, more in-depth training is required by your organization, SPR offers a discount program for services and training initiated within six months of this session. 50% of course fees will be credited toward follow-on training, mentoring, or consulting.

Course Policy:

This is a lecture-based class, limited to 50 participants. It may be delivered in person (at the SPR site or at your corporate site) or via the Internet (we use WebEx™ Training Center.)

2. FPA Methodology 3-day (FP-101)

Course Duration: 3 days

Course Objective:

The workshop is designed to reinforce the concepts and practices introduced to the participants of the Basic Function Point Course through practical counting experience. Materials presented may include actual projects and/or applications from the organization's own portfolio. By the end of the class, participants will have a working knowledge of the IFPUG rules (CPM 4.2.1) methodology and will have some experience applying rules to their own projects.

Course Description:

Includes IFPUG-certified FPA training with numerous hand-on case studies and examples. We use teaching materials from the International Software Benchmarking Standards Group (ISBSG) and each participant will receive a copy of the ISBSG workbook together with SPR course materials. In addition, we include a module on Using FP for Estimation and Project Management.

At your option (if sufficient time and documentation is provided in advance) the instructor will use application and project examples from your organization's portfolio as the basis for case studies.

Target Audience:

This course is designed for the Function Point novice. Students without any experience in function point counting will obtain a basic introduction to the IFPUG FPA rules from the latest Counting Practices Manual (CPM 4.2.1) and will understand how to apply the rules appropriately to derive function point size.

Course Outline:

1. Introduction to FPA
 - Types of Counts
 - User View
 - Counting Scope and Application Boundary
 - Identifying and counting Logical Files
 - Identifying and counting Elementary Processes
 - Calculating the unadjusted FP size
 - The Value Adjustment Factor
 - Calculating the adjusted FP size
2. The IFPUG Counting Practices Manual (CPM) 4.2.1
3. Illustrative Case Studies (new development and enhancement projects)
4. Validating Function Point counts
5. SPR Approximating size
6. Use of counting tools

7. Using Function Points for software management

- Parametric modeling best practices
- How to use the results of a FPA
- Using FPA for effort estimation

For 30 days following the workshop, the instructor will answer questions via email from participants. If further mentoring and support is required, SPR offers a complete “help desk” solution with discounted pricing for previous customers.

Course Policy:

Because this is a hands-on workshop and requires significant interaction between the instructor and participants, it is only offered in person (at the SPR USA site or at your corporate site.) Strictly limited to no more than 20 participants.

3. FPA and Estimation Workshop 5-day (FP-201)

Course Duration: 5 days

Course Objective:

The workshop is designed to reinforce the concepts and practices introduced to the participants of the Basic Function Point Course through intensive practical counting experience. Materials presented may include actual projects and/or applications from the organization's own portfolio. By the end of the class, participants will have a working knowledge of the IFPUG rules (CPM 4.2.1) methodology and will have some experience applying rules to their own projects.

Course Description:

The focus of this 5-day session is to provide participants with an intensive preparation to count function points. After the first 3 days, two full additional days are dedicated to hands-on counting of projects and applications drawn from your organization's portfolio. Documentation on these projects is requested in advance of the class so that we can prepare a customized workshop based on them.

The first part of the class begins with a standard IFPUG-certified FPA training with numerous hand-on case studies and examples. We use teaching materials from the International Software Benchmarking Standards Group (ISBSG) and each participant will receive a copy of the ISBSG workbook together with SPR course materials.

In addition, we include a one-day workshop on Using FP for Estimation and Project Management. This estimation workshop includes use of SPR KnowledgePLAN® and participants receive a 30-day evaluation copy of the software for use after the class.

Target Audience:

This course is designed for the Function Point novice. Students without any experience in function point counting will obtain a basic introduction to the IFPUG FPA rules from the latest Counting Practices Manual (CPM 4.2.1) and will understand how to apply the rules appropriately to derive function point size.

Course Outline:

1. Introduction to FPA
 - Types of Counts
 - User View
 - Counting Scope and Application Boundary
 - Identifying and counting Logical Files
 - Identifying and counting Elementary Processes
 - Calculating the unadjusted FP size
 - The Value Adjustment Factor
 - Calculating the adjusted FP size
2. The IFPUG Counting Practices Manual (CPM) 4.2.1
3. Illustrative Case Studies (new development and enhancement projects)

4. Validating Function Point counts
5. SPR Approximating size
6. Use of counting tools
7. Using Function Points for software management
 - Parametric modeling best practices
 - How to use the results of a FPA
 - Using FPA for effort estimation
8. Hands-on counting workshop -2 days

Following the workshop, SPR will provide 60 days of email support to answer questions from participants about the IFPUG methodology. If further mentoring and support is required, SPR offers a complete “help desk” solution with discounted pricing for previous customers.

Course Policy:

Because this is a hands-on workshop and requires significant interaction between the instructor and participants, it is only offered in person (at the SPR USA site or at your corporate site.) Strictly limited to no more than 20 participants.

4. IFPUG CFPS Exam Preparation (FP-301)

Course Duration: 1 day

Course Objective:

At the completion of this course, participants will be better prepared to take and pass the IFPUG Certified Function Point Specialist Exam.

Course Description:

This workshop is designed to help students prepare to take and pass the IFPUG CFPS examination. We provide examples of exam questions and discuss techniques for preparing to take the CFPS exam. It includes a detailed review of FP 4.2 counting rules.

Target Audience:

This course is designed for experienced Function Point counters as they prepare to take the exam. We recommend that students take the exam shortly after this preparation course.

Course Outline:

1. Important points about the certification process
2. Case studies and suggestions for practicing counting
3. Take the practice exam
4. Instructor-led review of answers to the practice exam

Course Policy:

Maximum class size is 15 participants.

5. Overview: Software Measurement Concepts (OV-001)

Course Duration: 1/2 day

Course Objective:

The objective of this class is to acquaint management and non-technical and business users with the basic concepts of metrics and an overview of Function Point methodology.

Course Description:

This course acquaints the non-technical customer with software measurement concepts and the basics of function points. Participants will become familiar with the identifying and counting IFPUG function points. In addition, participants will learn to use function points to create early estimates of project size.

Target Audience:

Management and business users that need a basic understanding of metrics and Function Points

Course Outline:

1. Why Measure? Costs and benefits.
2. Measuring Quality
3. Function Points
4. Measuring Productivity in Software
5. Understanding tradeoffs in effort, duration, and staffing
6. Why estimation using Function Points can help

Course Policy: Maximum class size is 20 participants.

6. Overview: Estimating Software Projects (OV-002)

Course Duration: 1 day

Course Objective:

Participants will be able to monitor and manage impacts on estimates resulting from changes in user-requested functionality. A detailed implementation approach will be presented that allows participants to return to their organization and begin to implement the techniques and methods discussed in the classroom.

Course Description:

This course provides participants with an introduction to the concepts and techniques to estimate relationships between project size and project effort, cost and duration. Given the estimated function point size, participants will gain hands-on skills practice developing high-level software project effort and schedule estimates. Topics include the considerations and uses of various attributes in software project estimating, such as personnel, process, technology, and environmental impacts. Techniques for assessing the impact of these attributes on project estimates will be explored.

All case studies and exercises will use industry averages to estimate relationships.

Target Audience:

This course is designed for project managers, project leaders, and senior analysts responsible for planning and estimating software projects.

Prerequisites: Function Point Analysis training or equivalent. Participants should have at least six months experience estimating software projects of any size.

Course Outline:

1. Basic Issues and Problems with Software Estimation
2. Manual vs. Automated Estimating Approaches
3. Factors that Affect Software Estimates
4. Change Control Issues
5. Examining Productivity
6. Measurement and Estimation
7. Implementation Considerations

Course Policy: Maximum class size is 20 participants.

7. Overview: Managing Software Quality (OV-003)

Course Duration: 1 day

Course Objective:

Participants will obtain a solid understanding of what it takes to deliver high quality software.

Course Description:

This workshop deals with the concepts for measuring quality of software development in order to establish benchmarks and provide for the improved quality of the products being delivered. The requirements to establish a quality measurement program as well as the techniques available to predict product quality will be outlined. Measurements include quality activities in relationship to the function points being delivered. Participants will learn techniques to measure actual quality delivered against predicted quality in order to analyze gaps and provide continuous improvement opportunities. The workshop will help to identify those activities that contribute to quality throughout each phase of the life cycle of a project. Staffing levels and costs of a quality measurement program are also covered.

Target Audience:

This workshop is designed for quality assurance managers, project managers, project leaders, and senior analysts responsible for the quality of software projects.

Course Outline:

1. Introduction
2. Defining Quality Concepts
3. Quality Assessment Baselineing
4. Estimating Defects
5. Quality in the Lifecycle
6. Quality Planning
7. Defect Prevention & Removal
8. Quality Model
9. Managing Quality
10. Quality Assurance
11. Total Quality Management

Course Policy:

Participants should have at least six months of experience in managing software development projects.

Maximum class size is 20 participants.

8. Overview: Managing the Impact of Change (OV-004)

Course Duration: 1 day

Course Objective:

This workshop intends to teach participants methods to identify those causes and upon identification, how to manage changes to project plans (such as scope creep, resource capacity and unanticipated cost constraints).

Course Description:

This workshop is a combination of lectures and exercises. It is designed to provide insight into the potential impact of change to the actual deployment of software or to the changes in delivered functionality. The workshop also includes a brief history of the use of function point metrics in project estimation and demonstrates how sizing metrics can be the catalyst to predictable results in software projects.

Target Audience:

This workshop is designed for project managers with the responsibility of developing and managing software development plans who are finding it challenging to stay on schedule; and anyone with an interest in understanding how to enhance their project estimation and risk management through implementing a sizing program (preferable function points) or expanding their current sizing initiatives to supplement their project planning processes.

Course Outline:

1. Key attributes of Change Management
2. Balancing project quality, effort, duration, and staff
3. Establishing a project baseline
4. Estimating project best-case and worst-case scenarios

Course Policy:

Participants should have at least six months of experience in managing software development projects.

Maximum class size is 20 participants.

9. Overview: Assessments and Benchmarking (OV-005)

Course Duration: 1/2 day

Course Objective:

This seminar is an introduction to SPR's assessment process.

Course Description:

This seminar is a lecture, designed to explain the basic concepts of benchmarking and the role that measurement plays in the process.

Target Audience:

This seminar is intended for management and key project personnel in anticipation of or participating in an assessment.

Course Outline:

1. Introduction
2. Benchmarking Principles
3. Developing a Model
4. Measurement as a Key Component of Benchmarking
5. Interpreting Comparative Results
 - Productivity
 - Time-to-Market
 - Staffing
 - Duration
 - Defects and Defect Removal Efficiency
6. Risk to Value
7. Targets for Improvement

Course Policy:

Participants should have at least six months of experience in managing software development projects.

Maximum class size is 20 participants.

10. FP Sizing with Total Metrics SCOPE™ (TM-101)

Course Duration: 1 day

Course Objective:

At the completion of this course, participants will have a working knowledge of how to use SCOPE for function point counting.

Course Description:

This course is a combination of lecture and exercises designed to provide hands-on experience with the tool.

Target Audience:

This course is intended for function point counters.

Course Outline:

1. Introduction and Background
2. Basic Counting and Reporting
3. Tool Data Management
4. Advanced Functions
5. Maintaining the Count Repository
6. Exercises

Course Policy:

Prerequisites: Function Point Analysis training or equivalent experience.

The class size is limited to 20 participants.

11. Estimating Projects with SPR KnowledgePLAN® (KP-101)

Course Duration: 2 days

Course Objective:

The objective of this class is to acquaint project managers and estimation specialists with the basic concepts of software estimation using SPR KnowledgePLAN.

Course Description:

This course provides participants with an introduction to the concepts and techniques to estimate relationships between project size and project effort, cost and duration. Given the estimated function point size, participants will gain hands-on skills practice developing high-level software project effort and schedule estimates using SPR KnowledgePLAN. Topics include the considerations and uses of various attributes in software project estimating, such as personnel, process, technology, and environmental impacts. Techniques for assessing the impact of these attributes on project estimates will be explored.

Target Audience:

This course is designed for project managers, project leaders, and senior analysts responsible for planning and estimating software projects.

Course Outline:

1. The Estimation Process
2. KnowledgePLAN Basics
3. Estimating with KnowledgePLAN
4. Analyzing and Reporting Estimation Results
5. Refining Estimates
6. Project Management Links
7. Hands-on case studies

Course Policy:

Prerequisites: Function Point Analysis training or equivalent experience.

The class size is limited to 20 participants.

12. Advanced KnowledgePLAN®: Customization (KP-102)

Course Duration: 1 day

Course Objective:

The objective of this class is to acquaint estimation specialists with advanced concepts of creating and customizing knowledge bases within SPR KnowledgePLAN.

Course Description:

This course provides participants with the concepts and techniques to create and customize knowledge bases specific to the participants' organizations. Practical exercises are included to give participants hand-on experience in applying the course material.

Target Audience:

This course is designed for project managers, project leaders, and senior analysts responsible for planning and estimating software projects.

Course Outline:

1. Templates and Knowledge Bases
2. KnowledgePLAN components and approaches
3. Overview of template parameters and design
4. Overview of Knowledge Base parameters and design
5. Creating and customizing templates
6. Creating and customizing Knowledge Bases
7. Hands-on workshop
 - Building templates and Knowledge Bases
 - Calibration
 - Classification
 - Testing
 - Managing the KnowledgePLAN repository

Course Policy:

Prerequisites: Participants must be knowledgeable in the estimation process in general and with domains and knowledge bases in particular, with specific experience in estimating software projects using KnowledgePLAN.

The class size is limited to 15 participants.