



# 19th Annual Tutorials and Conference

## Tutorial Programme

**Wednesday 15<sup>th</sup> October 2008**

**Union Jack Club, Waterloo, London**

[www.ukσμα.info](http://www.ukσμα.info)

### Overview

#### Full Day Tutorials

Introduction to Software Metrics – Paul Goodman, Gartner

#### Half Day Tutorials

##### Morning

Benchmarking

–

Grant Bayne, Gartner

Introduction to Software Sizing Using Functional  
Size Measures

–

Dr Tony Rollo, SMS

##### Afternoon

Lean Software Development : Beyond Agility

–

Grant Rule, SMS

Introduction to Estimating

–

Clifford Shelley, OSEL

### Schedule

**9.00 Registration and Coffee**

**9.30 Tutorials**

**10.45 Coffee**

**11.00 Tutorials**

**12.30 Lunch**

**14.00 Tutorials**

**15.30 Coffee**

**15.45 Tutorials**

**17.00 Close**

## Detailed Programme

### Full Day Tutorials

#### Introduction to Software Estimating

##### Paul Goodman – Gartner

The morning session introduces the use of Application Development and Maintenance (ADM) measures within IT, sometimes called Software Metrics. With the ever increasing emphasis on value for money from IT functions (in house or outsourced), quantitative management techniques are becoming much more widely needed, and indeed required. However, many organizations have little experience of using such techniques. Software Metrics may be common sense but their use is still not common practice.

Consequently, when organizations start to address this area they often struggle to understand what metrics can be most effectively applied to solve real business problems. To address this need, the tutorial describes five topic areas that fall under the heading of Software Metrics:

- Metrics for Managers (presented in ways that they will relate to)
- Estimation
- Project Sizing (including an introduction to Function Point Analysis)
- Project Tracking (including an overview of Earned Value Analysis)
- Complexity Metrics

Each area is defined and described and is supported by many practical examples of how organizations are using such metrics to achieve and demonstrate bottom line improvements. Delegate participation and interaction is encouraged throughout the tutorial.

The afternoon session addresses the issue of implementing a measurement programme, a Software Metrics Programme, within an organization. The tutorial presents a project lifecycle for the development and implementation of a measurement programme. This includes the definition of metrics including an introduction to the Goal, Question, Metric paradigm, the design of supporting staff infrastructures and the marketing of a measurement programme within an organization. The tutorial is supported by many practical examples based on the experience of the presenter and colleagues within the industry.

Paul Goodman, a Director with Gartner, is the author of “Software Metrics – Best Practices for Successful IT Management” published by Rothstein. He has worked in the area of measurement and Software Metrics for over twenty five years and has established successful measurement initiatives in numerous organizations across many industry sectors. Paul is also the co-author of the ISO Standard for Functional Sizing metrics (ISO 14143) and has worked with the Software Engineering Institute and the European Software Process Improvement Foundation. He is a previous Chairman of the UK Software Metrics Association (UKSMA) and also of both the International Function Point User Group and UKSMA Counting Practices Committees.

## Half Day Tutorials

| Half Day Tutorials   |  |
|--|--|
| <b>Morning</b>   | <b>Afternoon</b>   |
| <b>Benchmarking</b>  | <b>Lean Software Development : Beyond Agility</b>  |
| <b>Grant Bayne – Gartner</b>   | <b>Grant Rule – SMS Ltd.</b>   |
| <p>Organisations performing or considering benchmarking need to understand what is involved and how they should prepare. What needs to be in place before embarking on a benchmarking exercise? Gartner has observed how many organisations have approached benchmarking. Some organisations have been successful and some have failed. What lessons can be learned from these experiences, good and bad?</p> <p>This tutorial will describe the various types of benchmarking that have been performed. Common metrics are examined. Preparation for benchmarking will be discussed along with critical success factors. Execution of a benchmarking exercise will be explained including key benchmarking concepts and benchmarking best practices. Post benchmark activities are important too and will be covered. The tutorial aims to be interactive with plenty of opportunity for audience participation!</p> <p>Grant Bayne is a consultant with Gartner, based in the United Kingdom. Mr. Bayne has more than 25 years of experience in the IT industry, and has been with Gartner since 1995. Mr. Bayne's primary area of expertise is performance management for applications development and support, and he is a member of Gartner's application development and support benchmarking group.</p> <p>Mr. Bayne has worked on more than 100 applications benchmark engagements with companies around the world. He also provides advice and training on software process improvement, performance management, software metrics programmes and software sizing and estimation. Mr. Bayne has taken part in several SEI-CMM/CMMI (the Software Engineering Institute's Capability Maturity Model/Capability Maturity Model Integration) assessments.</p> | <p>In today's tough economic climate, organisations need to achieve more while limiting resource consumption, to meet the customer's desire for value-for-money coupled with innovation. Many software developers have turned to agile methods in response to such demands. The foundation principles underlying modern agile methods originated decades ago, in other industries, where organisations found they needed to optimise production, to deliver improved quality, with the few resources available. These principles, given the name 'lean' by Dr. Jim Womack and Prof. Dan Jones, have since been adapted to a wide variety of domains, including service management and the development of software-intensive systems. One result has been the creation of a variety of 'agile methods'. These have become relatively popular with software developers, although some of the foundation principles have been forgotten, misunderstood, or ignored in practice. This tutorial aims to expose participants to the lean engineering principles that underpin agile methods, and explores what a truly lean software development environment and its accompanying practices would be like. The tutorial will suggest measures &amp; metrics relevant to agile &amp; lean software development. Participants will leave with an Action Plan they can apply in their own situation, regardless of their current methods and life-cycles.</p> <p>Target Audience: Senior managers, department managers, programme &amp; project managers wishing to understand how they can facilitate a strong focus on customer requirements, defect prevention and removal, improved productivity, and reduced time-to-delivery. Software team leaders and developers who wish to understand the origins of agile and to implement practices that extend beyond a narrow focus on coding for code's sake.</p> <p>Grant Rule is a founder and current Managing Director of Software Measurement Services Ltd. With over 35 years experience in IT, Grant is a recognised authority in using quantitative methods to continuously improve the quality of the software process and its products. He is in the forefront of applying lean engineering principles to the software improvement. Recent projects include pioneering the use of COSMIC size measurement to manage continuous improvement for a CMMI Level 5 organisation using Agile project delivery.</p> <p>Grant worked with Ken Dymond to introduce the Software Engineering Institute's 'Capability Maturity Model' into the UK, and helped bring to Europe the first public 'Introduction to the CMMI®' training. He has contributed to structured methods and to ISO standards, and helped improve the inter-counter consistency of counting practices for IFPUG and MkII Function Point Analysis. He is a member of the COSMIC Core development team</p> |

## Half Day Tutorials

### Morning

### Afternoon

#### Introduction to Software Sizing Using Functional Size Measures

#### Introduction to Estimating

**Dr. Tony Rollo – SMS Ltd.**

**Clifford Shelley – Oxford Software Engineering**

The purpose of this tutorial is to introduce the topic of functional sizing of software. The delegate will be shown some of the disadvantage of the usual software size measure – namely Source Lines of Code (SLOC). The tutorial will then examine issues such as the difference between software size and project size; explore what functional sizing is; and what it can be used for. Finally the tutorial will present an overview of the three methods in use in the UK and Globally. These overviews will also address the issue of which sizing method might be the most suitable in certain circumstances.

At the end of this tutorial delegates will have an understanding of the need for functional size measures and their uses. In addition they will have a grasp of the essential differences between three methods for calculating the functional size and therefore which method may be the most suitable for their purposes.

Dr Anthony (Tony) Rollo BA PhD MBCS is a Director and Principal Consultant for Software Measurement Services Ltd. He has worked and taught in the field of software engineering since 1973.

He is an expert in estimation & cost modelling with extensive experience of the three main ISO-standard Functional Size Measurement methods. A contributor to the COSMIC Metrics Practices Committee, Tony is a Certified Function Point Specialist in both IFPUG and Mk II Function Point Analysis. He has a strong background in structured programming, analysis and design, both from the practical and academic viewpoints.

Tony is a specialist in Performance Benchmarking. He is the Lead Author of the International Software Benchmarking Standards Group's Standard Benchmarking Process, and a member of the SEI's Performance Benchmarking Consortium.

He is experienced in the practical implementation of Process Improvement and Software Measurement. Tony has performed process assessments based on the SEI's Capability Maturity Model and provided support to organisations re-engineering their software development processes. He has conducted supplier capability assessments against the CMMI® and elements of P-CMM. Tony has presented introductions to the CMMI in both Russia and the USA, and.

Tony is an amusing presenter who has contributed to a variety of conferences. He was a Keynote speaker at the 2005 UKSMA conference on the topic – The end of Software Engineering in the West, and has also been a frequent presenter at the European SEPG conference; the Software Measurement Forum in Rome, and the Australian conference on software measurement. He spoke at the Chinese conference on software Process Improvement in Beijing in 2006 and has been invited to address the Chinese Software Process Improvement Conference (SPIN) in Beijing, China, during 2008.

Estimates are an essential part of software development: they are the basis of project planning and project monitoring and control. Good estimates are the foundations of successful projects. They inspire confidence in the software to be delivered, and that the software will be delivered.

This tutorial reviews software estimation practice and identifies the principles underlying all good software estimates. The three most widely applicable estimating approaches are then worked through in detail, together with exercises. Templates, tools and process descriptions for these approaches are provided. At the end of the tutorial participants should understand what is required to deliver good, credible estimates, and recognize when estimating practice, and the estimates themselves, are being compromised. Participants will be equipped to share best practice and lead software estimation teams.

Clifford Shelley is a consulting software engineer with experience of software development across several industry sectors and in diverse development and support environments. He has been involved in all phases of software development from requirements capture through to operations and has been responsible for the development of many software systems and products.

A particular strength is his ability to identify workable solutions to pressing software engineering problems in organizations operating within severe resource constraints.

He has a long term, wide ranging interest in software measurement, and has been involved in a number of initiatives to promote measurement in software organizations.

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**Why not stay over and join us for our conference on Thursday 16<sup>th</sup> October!**