



Contents

<i>From the team leaders</i>	1
<i>Signs of the times?</i>	1
<i>COSMIC relationship with ISO</i>	1
<i>New publications</i>	2
<i>Certification</i>	3
<i>ISBSG database</i>	3
<i>COSMIC usage</i>	3
<i>COSMIC organization</i>	4
<i>Further information</i>	4

From the team leaders...

The COSMIC-FFP method of measuring software size continues to make steady progress with the refinement of its documentation, acceptance for practical use in major organizations, and in teaching and research.

As with the previous COSMIC News, we are again

pleased to confirm the method's stability, a critical factor for the use and acceptance of a measurement method in the market place. Nothing more has changed since a year ago, when we reported that we had needed to publish only two refinements of the original definitions of the

method's underlying concepts. These refinements are published as 'Method Update Bulletins'. The two 'Method Update Bulletins' are available from www.gelog.etsmtl.ca

Charles Symons & Alain Abran

Signs of the times ?

. If you type 'functional size measurement' into Google or Yahoo, the first reference takes you to the COSMIC web-site www.cosmicon.com. Of course!

. When the Australian Software Metrics Association's annual ACOSM conference was held in November 2005, two FSM Method training courses were included in the programme. The IFPUG

course had to be cancelled due to low numbers, but the COSMIC course attracted a lot of interest and went ahead successfully. Experts from the real-time, process control and business application software communities attended.

. The UK subsidiary of a major US hi-tech systems manufacturing company received a training course in COSMIC-FFP. One of the conclusions from the course

was that their requirements specifications were not clear enough to measure precisely. (They could be measured, but only by making assumptions that were not clear from the requirements). Does that remind you of the article in our last COSMIC News where we claimed that size measurement with COSMIC-FFP is one of the best quality control checks that you can apply to a requirements specification?.

COSMIC relationship with ISO

COSMIC has been officially accredited with a 'Category C Liaison' status such that it can send a delegate to the ISO working group on Functional Size Measurement (ISO/IEC JTC1 SC7 WG12). The COSMIC delegate, Tony Rollo (t.rollo@measuresw.com) represents our position on

the development of standards on the basic principles of FSM.

Tony attended the recent meeting in Tokyo where much of the work in WG-12 is now devoted to seeking consistency between the terminology and definitions in the field of FSM with that

of other related fields, notably of software quality. Maintaining this consistency of ISO terminology is extremely important for software engineering in general and for FSM in particular.

New publications

“The most significant new publication released in 2005 by the COSMIC Measurement Practices Committee was the Guideline for Sizing Business Application Software using COSMIC-FFP”

The most significant new publication released in 2005 by the COSMIC Measurement Practices Committee was the ‘Guideline for Sizing Business Application Software using COSMIC-FFP’. Its 56 pages are packed with practical advice on how to measure business applications from the ‘End User Measurement Viewpoint’, drawing on years of experience of applying ‘1st Generation’ Functional Size Measurement (FSM) methods in this domain.

The Guideline was developed over a period of nearly two years during which time the method was tested against dozens of ‘classic’ FSM cases that have proven difficult to solve with 1st Generation FSM methods. The end-result has shown that COSMIC-FFP can satisfactorily measure all

these classic cases. The original underlying concepts are rock-solid. Only one minor change to an existing definition was found to be necessary during the Guideline development and that involved deleting a non-normative Note to the definition of an ‘object of interest’. This change was published in Method Update Bulletin 2, as envisaged in the previous COSMIC News.

The Guideline aims to assist measurement specialists in three ways, namely by

- advising on the relationship between the concepts of data analysis methods and those of COSMIC-FFP, which is especially important for business application software

- discussing ‘how to get started’ with applying COSMIC-FFP in various circumstances, e.g. with varying purposes of the measurement, as requirements evolve during the early life of a software project, for sizing components of distributed applications, etc

- providing many examples of how to apply the method to specific measurement problems

Work has now started on a parallel Guideline for the application of COSMIC-FFP to sizing real-time software.

The Guideline and all other COSMIC publications can be down-loaded free-of-charge from www.gelog.etsmtl.ca.

The full hierarchy of COSMIC publications is now as illustrated in the diagram below.

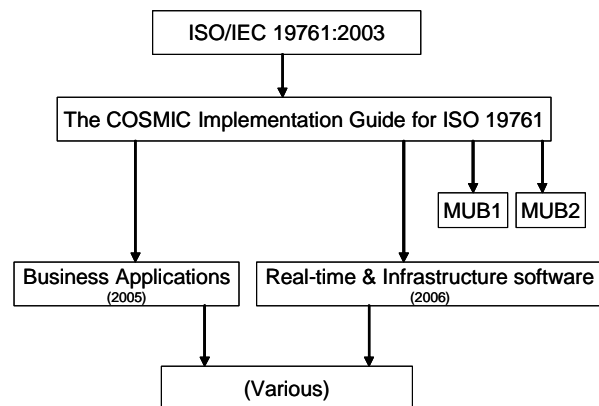
The ISO Standard

The ‘Measurement Manual’

Method Update Bulletins

Domain-specific Guidelines

Case Studies



For 2006, the MPC's priorities will be an update to the Measurement Manual to improve some explanations, producing the 'Real-time Guideline' and upgrading various case studies to discuss issues in

interpreting the stated requirements. Two improved case studies have recently been added to the www.gelog.etsmtl.ca site.

Note also that translations of the Measurement Manual

into several languages exist already. Work has started on a Dutch translation by a COSMIC working group from NESMA. An Italian translation of the Business Application Guideline is also promised for 2006..

Certification

"Software measurement is of such commercial importance that the market requires measurement specialists to be accredited in standard FSM Methods. Three University Professors (Alain Abran from Montreal, Javier Dolado from the Universidad del Pais Vasco, in San Sebastian (Spain) and Naji Habra from the Facultés Universitaires Notre-Dame de la Paix à Namur (Belgium) are therefore jointly developing examinations to certify expertise in the COSMIC-FFP method.

The intention is to provide initially an examination leading to an 'Entry-level' certification followed later by an 'Expert-level' examination. Trials of an Entry-level exam have been

held, and a pilot training course and exam will be held at the Software Measurement European Forum (SMEF) conference in Rome in May 2006. For more information see www.gufpi-isma.org.

For those wishing to use the COSMIC-FFP method for software sizing as a first step in project estimating, it's very helpful to have benchmark performance data available. In 2003, COSMIC conducted a very successful exercise jointly with the International Software Benchmarking Standards Group (ISBSG) to gather data on software project performance measurements. Data were collected (anonymously) from over 60 projects from all over the world and the results analysed to provide some

first benchmarks. For more see www.isbsg.org.

Work is now starting to repeat this exercise jointly with the ISBSG during 2006. Those interested to participate should contact Ton Dekkers via ton.dekkers@sogeti.nl.

de la Paix à Namur (Belgium) are therefore jointly developing examinations to certify expertise in the COSMIC-FFP method.

The intention is to provide initially an examination leading to an 'Entry-level' certification followed later by an 'Expert-level' examination. Trials of an Entry-level exam have been

held, and a pilot training course and exam will be held at the Software Measurement European Forum (SMEF) conference in Rome in May 2006. For more information see www.gufpi-isma.org.

ISBSG database

For those wishing to use the COSMIC-FFP method for software sizing as a first step in project estimating, it's very helpful to have benchmark performance data available. In 2003, COSMIC conducted a very successful exercise jointly with the International Software

Benchmarking Standards Group (ISBSG) to gather data on software project performance measurements. Data were collected (anonymously) from over 60 projects from all over the world and the results analysed to provide some

first benchmarks. For more see www.isbsg.org.

Work is now starting to repeat this exercise jointly with the ISBSG during 2006. Those interested to participate should contact Ton Dekkers via ton.dekkers@sogeti.nl.

COSMIC usage

New users of the COSMIC-FFP are often reluctant to announce publicly their use of a relatively new software metric until they have gained substantial experience with the method. So we only hear about or

are allowed to report a small proportion of the real usage that we know is taking place. The following are some of the more interesting market-place developments.

. The Beijing research laboratories of a company making digital cameras is piloting the method to size its embedded camera software

. In Japan, a JFPUG group

“These various efforts are resulting in COSMIC-FFP recently becoming widely known in Japanese industry...”

has been studying COSMIC-FFP and how to use it since 2001. Recently the group has been making its own case studies and holding training courses in COSMIC-FFP. Although the JFPUG COSMIC-FFP activities are the most well-known in Japan, some activities have also started outside of JFPUG. One of them is a COSMIC-FFP training course

held by the JUSE (Union of Japanese Scientists and Engineers). These various efforts are resulting in COSMIC-FFP recently becoming widely known in Japanese industry, especially in real-time software companies

. A major institution of the European Union is currently piloting the use of COSMIC-FFP as a prelude to using it to control the

price/performance of future software contracts. One of its supplier software houses is similarly piloting use of the method

. The Project Support Office of one of Europe's largest electrical/electronic system manufacturers has recently decided to adopt COSMIC-FFP..

The COSMIC organization

The COSMIC organization is organized into two different bodies: the International Advisory Committee (IAC) of 22 members from 15 countries and the Measurement

Practices Committee (MPC).

The COSMICON web-site, www.cosmicon.com, is kept up to date and

describes the COSMIC organization. It also provides complete background data on functional size measurement, FSM methods, etc.

Further information

If you have any questions or require further information on COSMIC-FFP, please contact your national representative on the COSMIC International Advisory Committee (see www.cosmicon.com, IAC).

If you would like to publish an article in this newsletter relating your experience with COSMIC-FFP, please forward a draft to the editor at: serge.oligny@bell.ca