

SEMAT All Hands Meeting Report

November 15, 2013
by Paul E. McMahon

Introduction

A SEMAT all hands meeting was conducted on November 15, 2013. Ivar Jacobson opened the meeting by going over the agenda and explaining that the intent of the meeting was to engage the participants in discussing the issues which were most important to them and to the SEMAT community.

June Park provided an overview of what has happened in SEMAT lately. Highlights covered by June include the work that is going on by the OMG Finalization Task Force (FTF) which is driving toward the first release of the Essence standard by the OMG early next year, and active Practice and Education Area working groups driving toward the first release of an Essence Users Guide and providing support for professors in multiple Universities as they introduce Essence in their software engineering courses. SEMAT has also recently become a legal entity with a Board of Directors that includes, Dr. Ivar Jacobson, Dr. Paul Nielsen, Director and Chief Executive Officer of the SEI, and Dr. Martin Griss, Director of Carnegie Mellon University, Silicon Valley Campus.

Paul McMahon provided additional details on the status of the Users Guide. A table of contents outlining the long term plan for the guide was first established. The guide is intended for practitioners/students, practice/method authors, tool builders, process engineers/assessors. Our current focus is on the practitioners/students. The working group is developing multiple scenarios that demonstrate how a team could use the Essence kernel to help them figure out where they are, and where they need to focus next by using the Essence alphas, states and checklists. There is also a scenario that shows a team how it can use the kernel to help investigate a specific problem area such as having difficulty getting key stakeholders involved. Other scenarios demonstrate how a team could use the Activity Spaces to help them work through a difference of opinion on which state they have achieved with a given alpha. There is also ongoing work to develop a practice development guide. This working group is currently focusing on the content of cards used to define Essence practices.

Ivar asked a number of questions to the group to stimulate discussion. Questions included:

- Are we working with the right things?
- Are our technical solutions the right ones?
- How could we improve what we do?
- What do you think about a yearly conference on SEMAT?

Comments from participants

Ivar opened the floor for comments related to two issues of interest:

- We need to refresh our understanding of the vision of SEMAT, Kernel, and Essence -- and to re-commit to that vision
- What do we need to do to effectively communicate what SEMAT and Essence are, why it is different and why people should care? Today many people have difficulties to really "get it".

Following are some of the comments made by those in attendance at the meeting.

Paul McMahon:

Some people quickly see what SEMAT and Essence are about, and others, including some very smart people, have great difficulty seeing its value. I believe we need to provide more practical and understandable examples demonstrating how Essence is different from past approaches and how it can help with specific problems often faced by practitioners.

Ed Seidewitz:

If we feel that SEMAT/Essence is really a kind of paradigm shift, then it is not surprising that many people have difficulties "getting it." In fact, even if we communicate as effectively as we can, they may just not be able to understand the "language" yet, which is why they keep trying to relate it back to terminology and concepts of the old paradigm.

The only way to complete a paradigm shift is to demonstrate that the new paradigm is "better" by actually showing success with the new paradigm, so that, eventually, more and more of the community transitions over to it of their own accord. Case studies are good in this regard, but what we really all need to do is actually use SEMAT/Essence in our own work and get our clients/students exposed to success with it.

Someone else mentioned the importance of dealing with architecture on large systems. I agreed and suggested that a great example of the advantages of SEMAT/Essence would be to use Essence to describe architectural practices in a way that could naturally be combined with agile practices to provide agile-at-scale ways of working.

Barry Myburgh:

Barry Myburgh supported the idea that SEMAT is the essential foundation from which any approach to software engineering can emerge. He stressed the importance of SEMAT's holistic approach that includes lightweight process and outcomes (activity spaces and alphas) as well as people in terms of the required competencies. The Kernel can be applied on its own, but its impact can be strengthened by invoking practices from existing ways of working such as XP, Scrum, RUP, CMMI, etc. Barry used the metaphor of a flower – with SEMAT in the centre, surrounded by petals representing existing ways of working that are powered by SEMAT.

Martin Griss:

There have been many attempts to define process software building blocks or process definition languages. I recall Watts Humphreys' book, Ivar's development cases, Osterweil's process programming and various other attempts to codify in a standard way the various elements that make up any particular software process.

I also have been fond of Basili's distinction "Technique, Method, Process" (e.g., for "inspections" - Technique is reading, Method is a systematic step-by step group review, and Process could be "Fagan inspections", with details on forms, preparation time, metrics, etc.).

So, I come at SEMAT as someone looking for the commonality and variability of the elements and the rules of combination and constraints to produce a coherent "method product line" to generate "any" method from these well founded elements. Ie, an extendable and reusable family of components and a framework.

Yury Katkov:

During the meeting I've noted that we need to have clear short message for our target audiences. We now have good slogan for academics: "SEMAT provides background knowledge and grounded theory for software engineering". We need to have such slogans for developers and managers.

Sifiso Motha:

We should develop specific approaches to communicate SEMAT across specific interest groups. Media such as Videos and Blogs could be used to communicate SEMAT better in some interest groups more effectively compared to papers and users guides.

The user's guide can also be interpreted to other communication mediums to facilitates how we bring across certain concepts and their applicability to the practice domain. An interactive app showing the core components of the kernel, or a short animated clip explaining how to use cards in a poker scenario for example.

The functionality to support the two proposals above is currently being built in to the new website. To truly bring it to life it will take the contribution of the broader community and to refine it to the different needs of various interests group within SEMAT.

Closing comments

Ivar closed the meeting by thanking everyone for their energetic participation. The plan is to have future similar meetings to continue the discussion and drive actions to address the important topics raised.