

Put a SPIN on XP!

What happens when you introduce a seemingly chaotic methodology like XP to a serious software process improvement network with 35 member companies, mostly product-oriented with a big stake in software?

After successful workgroup activities, member pilot projects, and a large grass-root XP conference, SPIN-SYD has added agile methodologies like XP to the individual/team department of the growing arsenal of different aspects of organizational process improvement. XP and its agile cousins do not attempt to solve all problems in an organization, just the problems of an intended specific target audience. Agile software development methodologies, like XP, might dramatically improve the software product development process. Other agile methods like Critical Chain, makes e g life with multi-project management much easier.

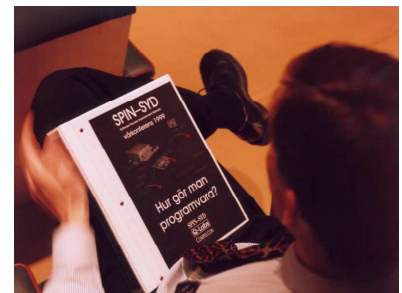


Kent Beck in a Swedish SPIN cap!

In mid-1999, SPIN-members from Lund University started to gently introduce the concepts of eXtreme Programming, XP, to the SPIN-SYD community. People at the computer science faculty in Lund had a longstanding, friendly relationship with XP's chief articulator, Kent Beck.

The SPIN-SYD community dipped their toe in XP waters late 1999 by running a small XP project simulation at a SPIN meeting, trying to write requirements and plan XP-style. That got us into trouble at once! SPIN people were used to write a set of clear, concise, easily verified requirements. That does not work well in XP! Requirements in XP come in two flavors: user stories that need to be "fuzzy" to initiate exploration and negotiation during planning, and acceptance tests that mostly are generated out of user stories, but sometimes stand on their own as requirements, that the customer/business side of the planning table cannot capture in user stories. We discovered the importance of requirement fuzziness in the agile planning process, that one need to express the requirements as user stories that sometimes sound more like ad slogans. The un-sharpness acts as an agent for stepwise refinement and mutual understanding that is much harder to achieve in a more traditional planning process.

The acronym **SPIN** stands for Software Process Improvement Network, originally a peer-to-peer network for experience exchange among companies and individuals involved in the implementation of the Capability Maturity Model, CMM. Software Engineering Institute, SEI at Carnegie Mellon University, where the CMM was developed, started the first SPINs after a proven and successful quality improvement network pattern. SEI could not handle the demand for support from CMM implementers when CMM evolved from an assessment model to an improvement roadmap. The legendary Motorola unit in Bangalore reached CMM level 5 in 1993 as the first non-military/non-space organization in the world. The unit was started from scratch two years earlier in 1991. SPIN-Bangalore was started at the same time. In Sweden the national SPIN-SWEDEN and the regional south-Swedish SPIN-SYD started in 1996.

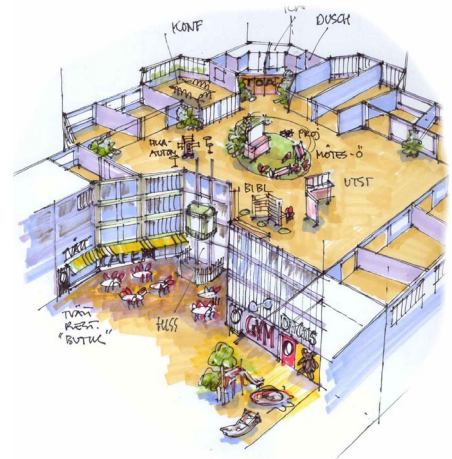


During a visit to Bangalore in early 2000 I firsthand learned that Motorola in Bangalore and other members of their SPIN community were looking for processes and frameworks beyond the processes that has given organizations in Bangalore and India more CMM level 5 ratings than any other region in the world. I talked to people within Indian organizations that had great processes for product realization from specification. But they felt that they needed improvement in the area of product definition processes.

That was a revelation to me, visiting the leading nation of CMM implementation in the world! I later found it very tempting to try combining what I learned about the Motorola experiences of rapid process maturity (The Bangalore unit was assessed at CMM level 5 in 1993, after two years of existence) with the frontrunner of agile methodologies, XP.

I started to try to fit impressions from India with the growing XP movement, into my pet project since 1998, a cross-industrial product software development center, close to a university branch in my hometown Helsingborg.

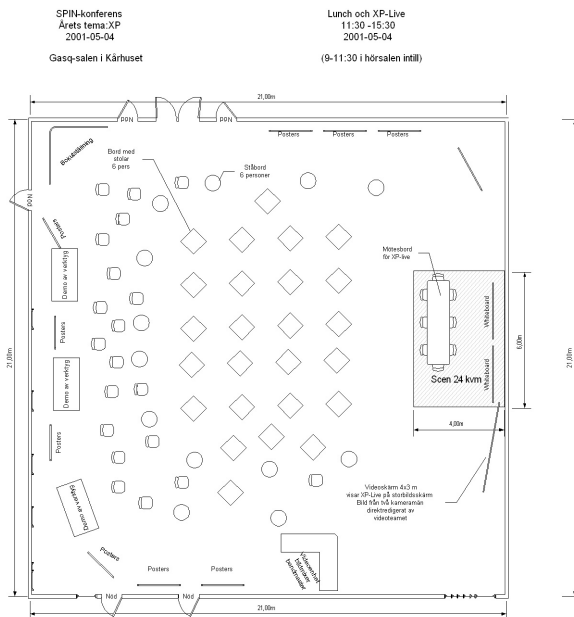
I established an official but friendly contact between SPIN-Bangalore and SPIN-SYD. I also got more involved in the XP community, attended the first international XP conference XP2000 in Sardinia and promoted XP in presentations, talks and newsletters. The Association of Swedish Engineering Industries, VI, invited me to write another of their industry newsletters on software, this time about XP. VI:s newsletters on software reaches some 2 500 decision makers, with a stake in software, within Swedish Engineering Industry.



In 2001, we started a joint XP workgroup with SPIN-SYD and the LUCAS research institute. It was one of the most successful workgroup ever, judging from level of participation. People were standing along the walls for lack of chairs at the first meeting in January 2001. The group had half-day meetings every 14 days, exploring different aspects of XP. The goal for the group was to be able to demonstrate XP abilities at the yearly SPIN-SYD conferences in early May. The group became especially proficient in XP planning, the Planning Game, through XP project simulations in the well-known format Extreme Hour. When, due to the large interest, half of the participants had to stand by as audience while a team ran through the project simulations, we realized that the audience could act as a market that gave input to the marketing people, the XP teams customer. Many SPIN-SYD members develop volume products. The early XP literature described contract-programming projects being successful with XP. In those case the customer role in XP really was a customer representative. In a XP volume product project the customers in the team is from marketing and sales.



Kent Beck among friends from the combined faculties of LUCAS at Lund University during a XP-seminar 2000



XP project simulation in theory and practice!

We finally ran the Extreme Hour simulation for a conference audience of 155 people. The marketing people within the team walked around in the audience and collected market input and user stories live, while the developers realized the product.

Also don't forget that XP is closely related to the experience transfer focused "design patterns" community. XP is no hack-o-rama, its hard work and strict discipline. Strangest thing: people usually love doing it!

All my public SPIN work is non-profit, but I have also personally coached XP teams within member companies. Quite contrary to our beliefs, all-out XP in pilot projects has been much more successful than trying to introduce XP one practice at a time. We underestimated the dramatic effect of the positive interaction and support between the practices.

Another surprise: XP talks directly to the heart and soul of developers, and XP is often introduced on their initiative. But in my experience, once full XP is in effect, the marketing and sales people become the real XP ambassadors within an organization. We now have several XP success stories among SPIN-SYD members. Even some members doing telecom and safety-critical development are preparing their own XP pilots.

The fact that SPIN-SYD could attract 155 people from all over Sweden to a regional XP conference with no poster names seems to have impressed on people like Kent Beck. Beck showed his appreciations this summer by wearing our conference cap "Put a SPIN on XP!" at the closing session of the second international XP conference XP2001 in Sardinia.

At the upcoming third international XP conference, in Sardinia 26-29 May 2002, we will see more contributions from SPIN-SYD activities. I will also serve as workshop chair for XP2002. (Call for Papers ends Dec 31 2001!) www.xp2002.org

In my own presentations I strongly suggest that XP could help organizations mature and rise on the CMM scale by reaching the large mass of developers in teams. CMM is an excellent top-down view from a management and organization perspective. But many western world developers do not have managerial ambitions. In their eyes CMM is the perspective of the pointy-haired boss. Teams working in the spirit of XP can be coached to exhibit many or all the external characteristics of a successful team in a CMM level 4-5 organization. SEI's Mark Paulk, CMM program Manager, agrees in recent

speeches and IEEE publications on XP. Mark Paulk was keynote speaker at the first US conference, XPUniverse, in July 2001.

XP is not a substitute for CMM and similar frameworks at an executive level. But XP and other agile methodologies might accelerate the organizational maturity process.

Erik Lundh – Developing Software Industry

Erik Lundh has 20 years of experience of product oriented software development.

In a project to create a cross-industrial center of excellence XP was chosen as the preferred process early 2000. Erik got exposed to XP fairly early through the design patterns community and some people in Lund that has worked closely with Kent Beck.

Erik is an independent who still crank out code, but prefer to offer his consultancy time as mentor and coach to companies that develop software for products. He serves as an advisor to management and as a director at the board of select companies.



Erik is very active in both the regional SPIN-SYD for the south of Sweden and the national SPIN-SWEDEN. Erik has initiated international exchanges e g with SPIN in Bangalore, India. Erik currently acts as coach to several XP-teams working with product oriented software development.

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