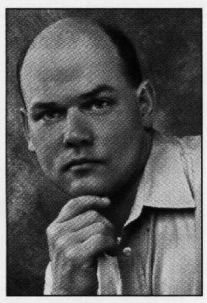
Values, principles and practices equal success

Agile modeling extends eXtreme programming ideas



By Scott W. Ambler

Agile Modeling (AM) is a collection of values, principles and practices for effectively and efficiently modeling software with respect in eXtreme Programming (XP). AM defines a modeling approach that is applicable to both XP and unified process software projects.

AM practitioners believe the values, principles and practices followed are key to success, not the modeling techniques applied.

AM values are communication, simplicity, feedback, courage and humility. Factors leading to modeling success include promoting effective communication between all project stakeholders, striving to develop the simplest possible solution that meets all of your needs and obtaining feedback on your efforts often and early.

It also means making and sticking to your decisions and admitting you may not know everything and that others have value to add to your project efforts.

AM also adopts several of XP's principles, including that you must embrace change and accept that requirements and technologies evolve over time. When you do this, you quickly realize that effective software development requires an iterative and incremental approach in which you travel light — minimize the amount of documentation and management artifacts needed to be updated to reflect your environment.

You can travel light with simple designs proven with concrete experiments and rapid feedback on work as it progresses.

Project stakeholders need to accept their responsibilities, make decisions in a timely manner and change them when they prove wrong. They need to play to win instead of playing not to lose.

AM also extends XP's principles to include the concept that a model is often worth 1,024 lines of code.

Develop with a purpose, or you are likely to waste time creating unnecessary additional documentation. You should learn to not only apply the right model, but be prepared to apply multiple models in an effort to develop complex software.

> AM Defines a Modeling Approach That Is Applicable To Both XP And Unified Process Software Projects.

A contract model is often required when your project team needs to define the interface your system uses with other systems or to support a hand-off of your system to another group. Know your models in order to model successfully.

You should similarly know your tools to work with them effectively.

It is also important to think through a problem before coding the solution and where appropriate, re-use existing artifacts such as an enterprise requirements model or business process models.

AM also adopts several XP practices, including collective ownership which is the idea that everyone on the team can work with and update any of the development artifacts (models, source code, test cases, etc.) to ensure the team won't be greatly affected by the loss of a person or two. This also improves communication.

By supporting pair development practices, an approach where everyone works with a partner and the pairs change on a regular basis, you don't have to worry about a rogue developer ruining a collection of project artifacts.

Since you can't get it right the first time, your pairs will refactor the existing models and code as needed to reflect changes in your environment, producing small, regular releases of your system to be put into production.

You model to understand and in order to explore a part of your problem or solution space that puzzles you, often developing small throwaway diagrams as you discuss various issues.

You also model to communicate with people external to your team to justify your project or to obtain resources.

Because you spend the majority of your time modeling to understand, you discover that you can make do with simple models, showing a small part of your overall system, created with simple tools such as a whiteboard and markers.

You will often find that your development team needs to work together to create the core set of models critical to your project. In other words, you will be collective modeling as a team.

Effective modelers apply patterns, and to improve communication within your team and with your project stakeholders, you will often implement a modeling wall where you post your models for everyone to see.

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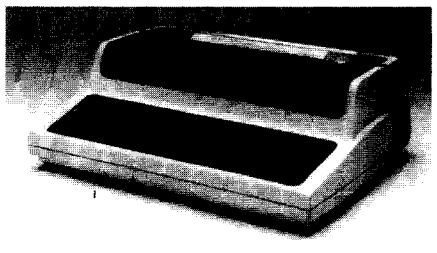
LOOKING BACK

20 years ago

• Metro Toronto's reluctance to automate its services departments was evident in a study conducted by staff under the direction of Metro's chief administrative official. The report indicated conflict between civic administrators and the staff assigned to develop new management systems was caused by a fear of computer technology and resulted in the abandonment of some programs, overspending on others and a failure to complete other projects on time.

• Canada's first computer disaster recovery centre became operational. C.D.P. Cadre d'Informatique Protegee, formerly Canadian Data Protection, established a shell backup facility in downtown Montreal. The facility was equipped with a raised floor, air conditioning, a Halon fire control system and access control.

• Federal public servants who operated computers prepared to strike if the government did not increase its wage offer. The union was seeking a 17 per cent raise in one year — the government offered three, six per cent raises in three eight-month intervals. Most of the employees had an average salary of

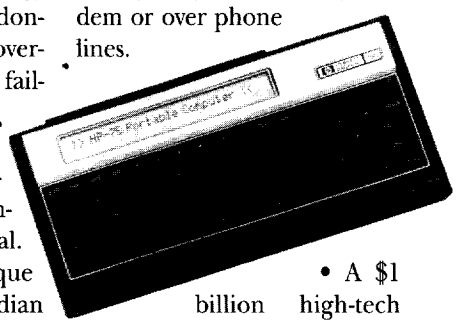


$15,000 and worked for Supply and Services, National Defence or the Employment and Immigration Commission.

15 years ago

• Bell Canada announced it would start selling a mainframe-based office productivity system that "has been so successful internally" that it decided to offer it commercially. The Professional Support System (PSS) was based on IBM VM/CMS mainframe technology and used various programs from different vendors. PSS applications included electronic messaging, document and report preparation, directory applications, coloured graphics display and spreadsheet and chart preparation aids.

• Rogers Cable TV launched XPress, an information facility that allowed PC users with Rogers' cable services in Toronto, Mississauga and Brampton to access online databases and stock exchanges previously only available via modem or over phone lines.



• A $1 billion high-tech fund, chaired by Ontario Premier David Peterson, was to put Ontario at the forefront of the international marketing scene. About $500 million of the fund was to be new money. The total $1 billion fund was to be allocated over the following 10 years.

10 years ago

• IBM Corp. fell headlong into the recession pit with a 49 per cent drop in earnings for the first quarter of fiscal 1991. IBM was down from US$1 billion in 1990 to US$0.5 billion. Meanwhile, Digital Equipment Corp.'s operating revenues for its third quarter were up eight per cent.

• If senior executives want to see their companies gain a competitive advantage, they had to stop viewing technology as a time-saving device and use it as a creative tool, concluded a Canadian MIS panel.

• The partnership between Lotus and WordPerfect ended. The agreement between the two companies was formed in 1989 in an attempt to jointly develop the OS/2 user interface Presentation Manager for their respective products. Lotus licensed 1-2-3 to WordPerfect but Lotus officials said Lotus never sold WordPerfect products, nor was there a strategic agreement between the two companies.