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The Open Unified Process (OpenUP): Agile, Open Source, and Straightforward



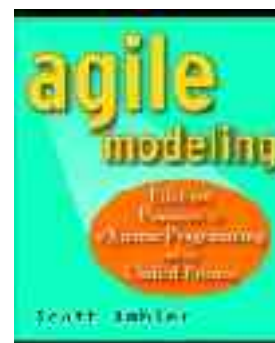
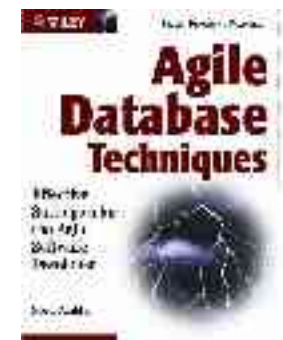
Scott W. Ambler
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www.ibm.com/rational/bios/ambler.html



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Scott Ambler - Background

- Practice Leader – Agile Development
- Fellow – International Association of Software Architects
- www.ibm.com/rational/bios/ambler.html



Agenda

presenter tellLameJoke.

presenter giveStandardWarning.

presenter discuss: agileOverview values.

presenter discuss: agileOverview principles.

presenter discuss: unifiedProcess history.

presenter discuss: unifiedProcess asAgileProcess.

presenter discuss: openUP overview.

presenter demo: openUP.

presenter discuss: openUP whyYouShouldCare.

presenter discuss: openUP whereToGetIt.

presenter concludeKeynote.

Warning!

- I'm spectacularly blunt at times
- Many new ideas will be presented
- Some may not fit well into your existing environment
- Some will challenge your existing notions about software development
- Some will confirm your unvoiced suspicions
- Don't make any "career-ending moves"
- Be skeptical but open minded

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Agile Software Development

- ▶ Agile Software Development (ASD)
 - ▶ ASD Values
 - ▶ ASD Principles
 - ▶ Why Agile Works



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Agile Software Development

An iterative and incremental (evolutionary) approach
performed in a highly collaborative manner
with "just enough" ceremony
that cost effectively produces high quality software
which meets the changing needs of its stakeholders.

Agile Values

www.agilealliance.com

We value:

2. Individuals and interactions
3. Working software
4. Customer collaboration
5. Responding to change

Over:

2. Processes and tools
3. Comprehensive documentation
4. Contract negotiation
5. Following a plan

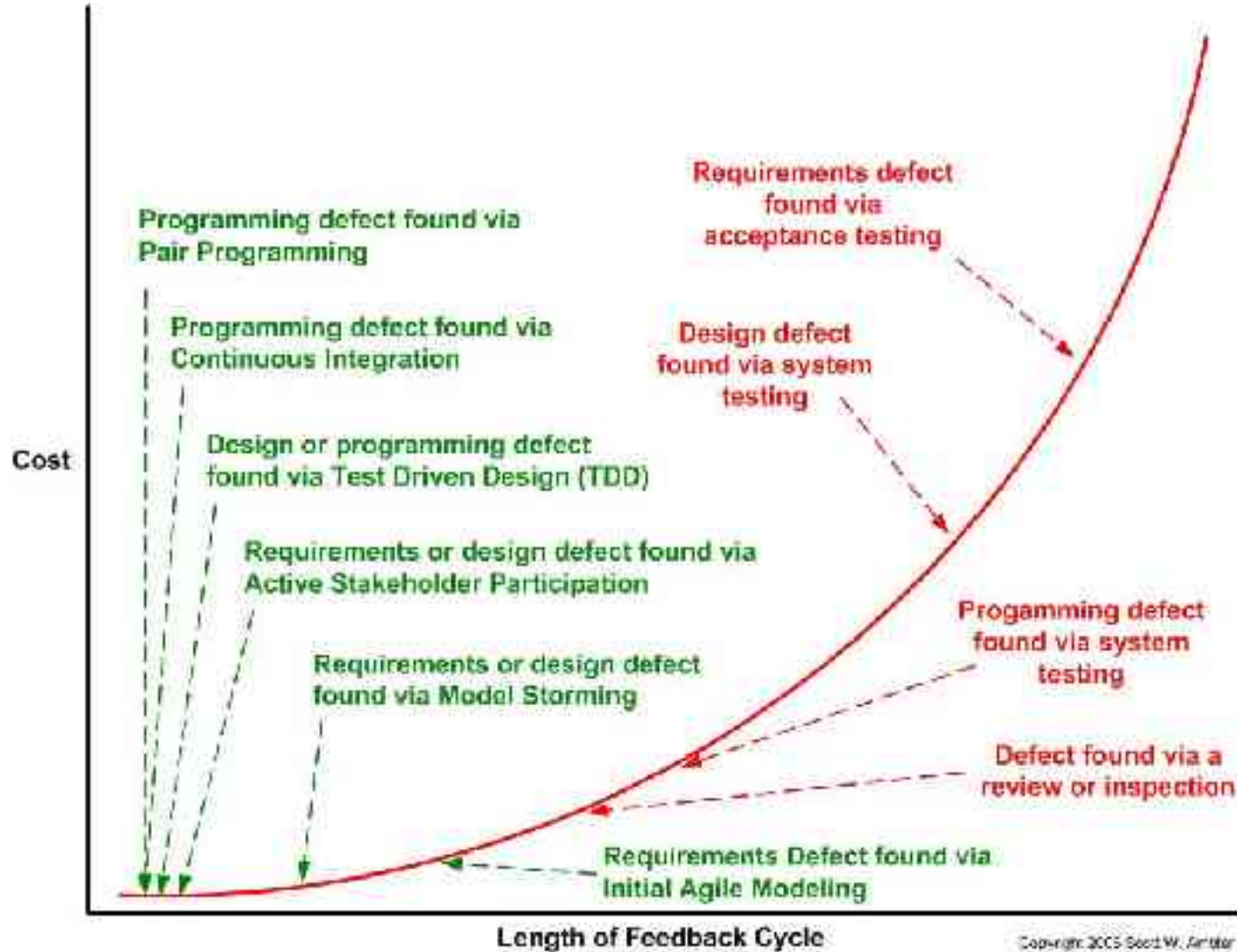
Agile Principles

www.agilealliance.com

1. Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
2. Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
3. Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
4. Business people and developers must work together daily throughout the project.
5. Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
6. The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
7. Working software is the primary measure of progress.
8. Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
9. Continuous attention to technical excellence and good design enhances agility.
10. Simplicity--the art of maximizing the amount of work not done--is essential.
11. The best architectures, requirements, and designs emerge from self-organizing teams.
12. At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

Why Agile Works

www.ambysoft.com/essays/whyAgileWorksFeedback.html



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Introduction to the Open Unified Process (OpenUP)

Some History

The Spirit of UP

What is a Method Framework?

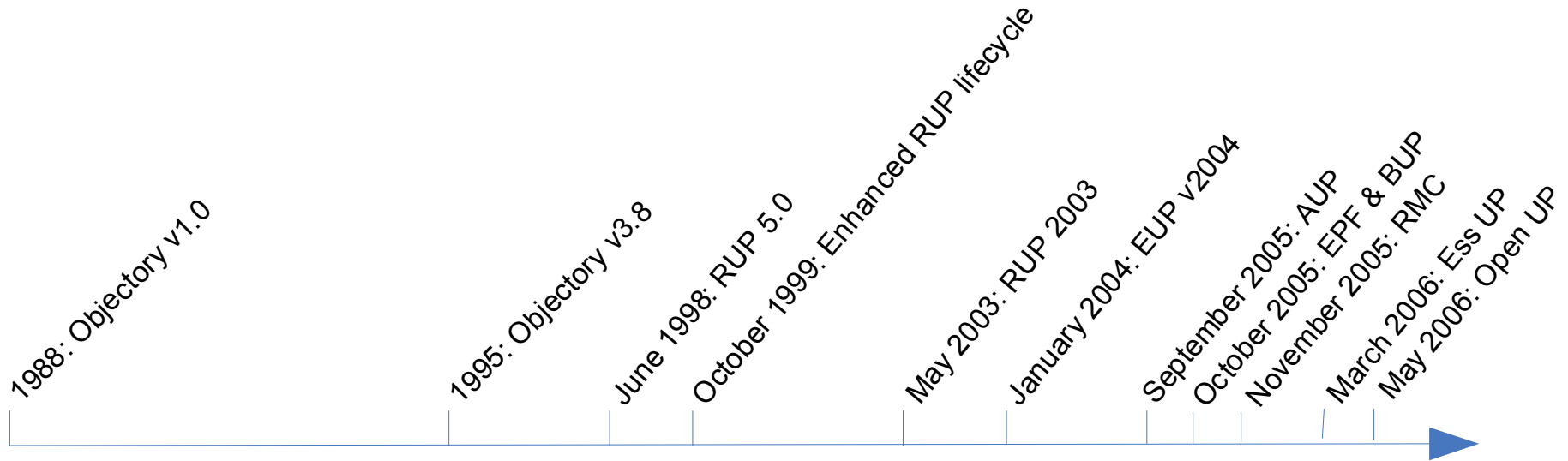
The OpenUP

Current Status



Some History

www.enterpriseunifiedprocess.com/essays/history.html



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The Spirit of UP – It's As Agile As You Want

- Attack major risks early and continuously – or they will attack you
- Ensure that you deliver value to your customer
- Stay focused on executable software
- Accommodate change early in the project
- Baseline an executable architecture early on
- Build your system with components
- Work together as one team
- Communicate early and often
- Make quality a way of life, not an afterthought

What Is a Method Framework?

A framework is based on a common set of principles →

- All pieces within a framework fits together
- Enables rapid assembly of a diverse set of processes
- A process framework can contain sub frameworks

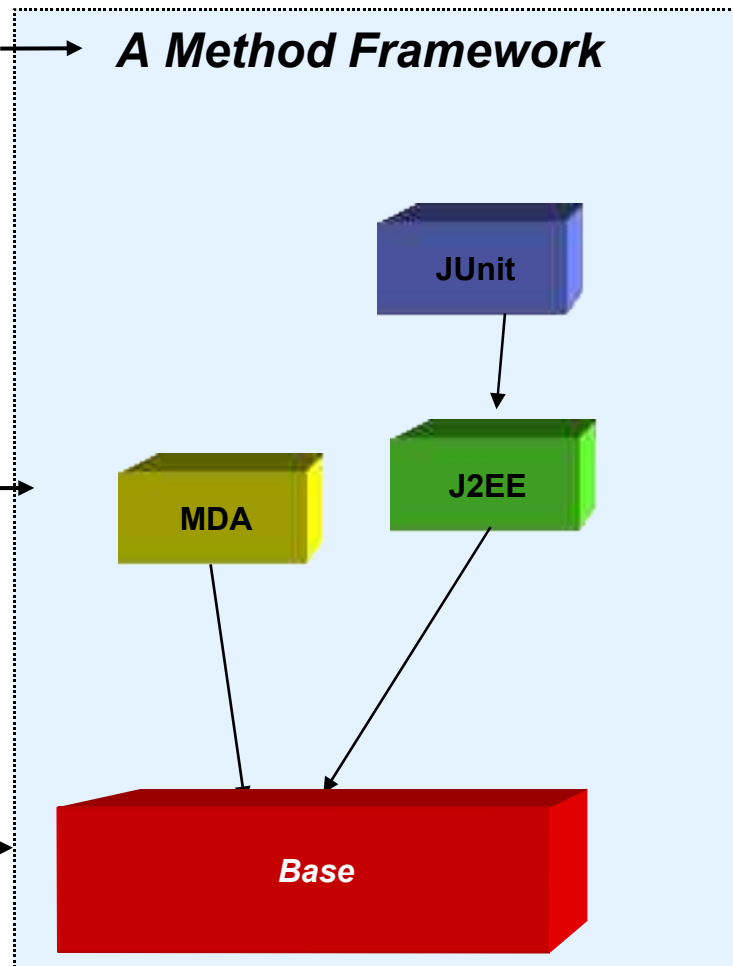
Contains any number of extension plug-ins →

- Adds additional processes or modifies existing processes
- Adds additional method content

Contains a base of standard content →

- Base content (principles, practices, roles, work products, tasks, ...)
- Optionally a base process (lifecycle)

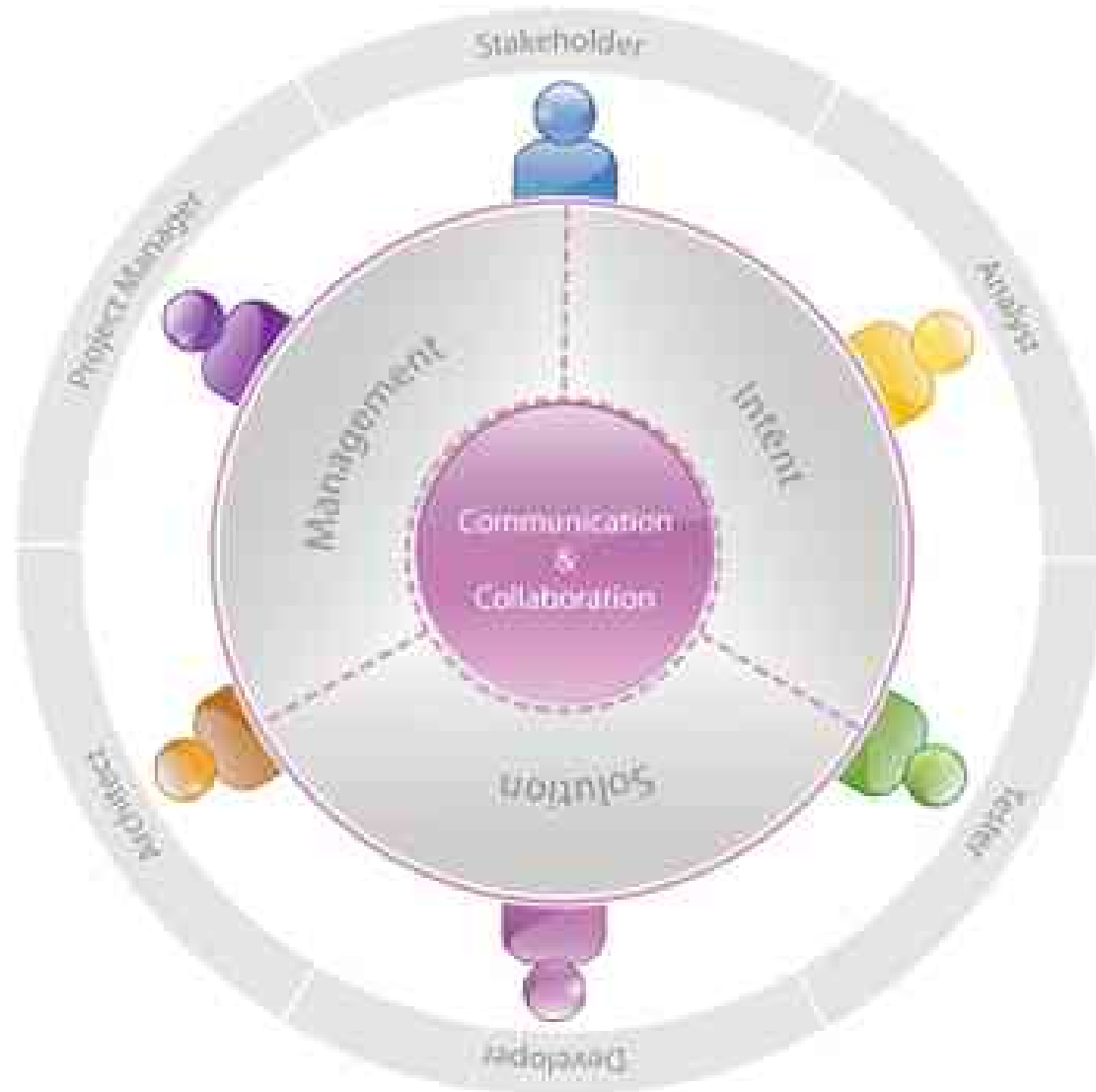
A Method Framework



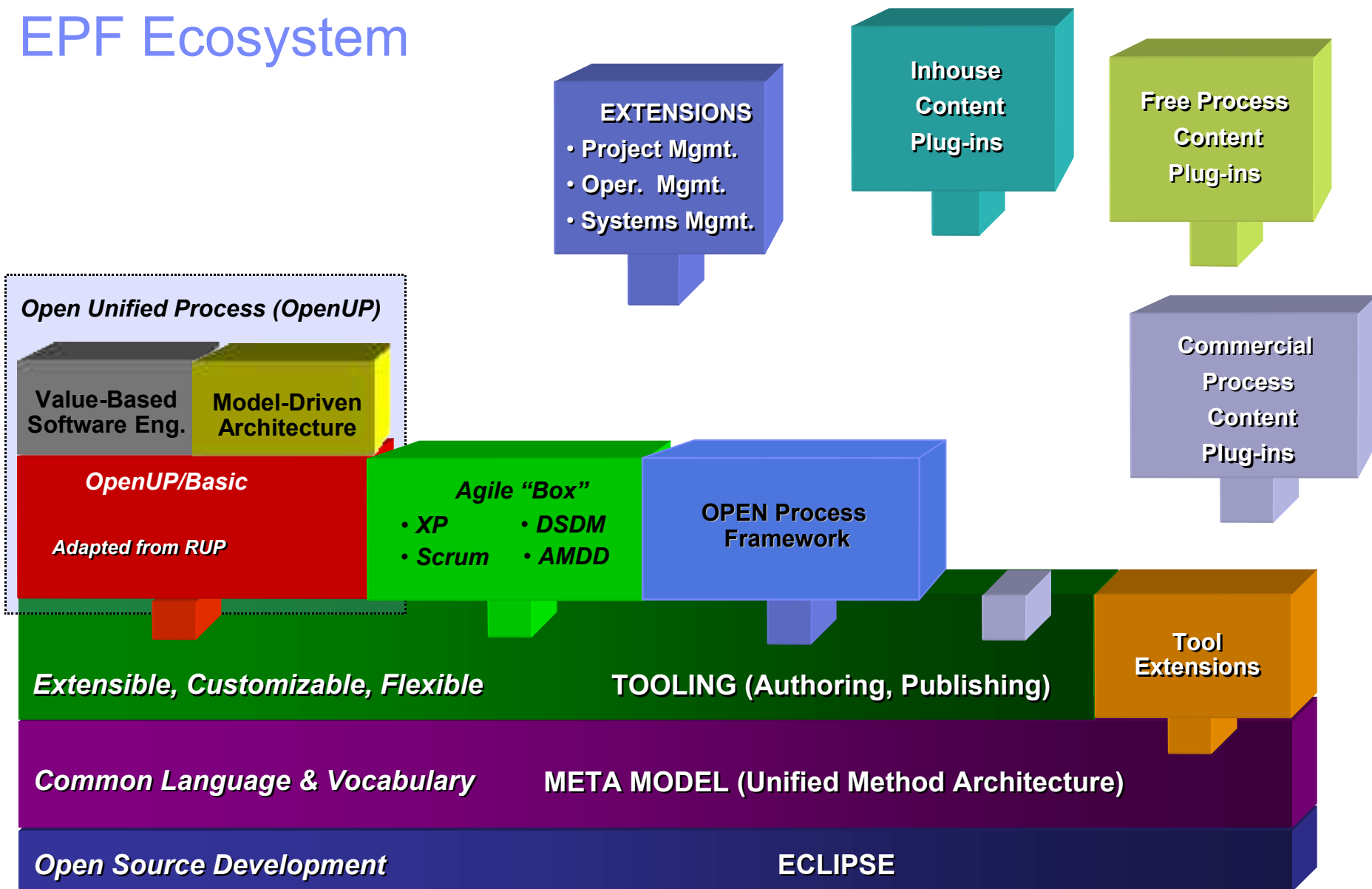
What Is the Open Unified Process (OpenUP)

- A process framework united by a set of core principles
 - ▶ Application of an **iterative lifecycle** that mitigates risk early and often, and shows results early and often
 - ▶ Focus on the **collaboration** within a development team including the product stakeholders to maximize results
 - ▶ Management of **requirements** in a form that represents stakeholder value and drives the development process
 - ▶ Cognizance of **architecture** as a means to increase quality and technical understandability
- OpenUP consists of
 - ▶ A base process - OpenUP/Basic
 - ▶ Extensions to this base process, such as agile database content

The Open UP



EPF Ecosystem



Example Work-in-Progress

- Process
 - ▶ OpenUP
 - OpenUP/Basic – evolved by ~10 organizations
 - Model-Driven Architecture – ESI, Capgemini, IBM, ...
 - Value-Based Software Engineering – University Southern California
 - ▶ Agile
 - DSDM Consortium - DSDM
 - Agile Modeling – Scott Ambler
 - eXtreme Programming – Object Mentor / IBM
 - Scrum – Mike Vizdos
 - ▶ OPEN Process Framework - Contribution pending for OPFRO
- Tooling
 - ▶ XML schema
 - ▶ Proposed set of APIs
 - ▶ Export to Microsoft Project

OpenUP Demo



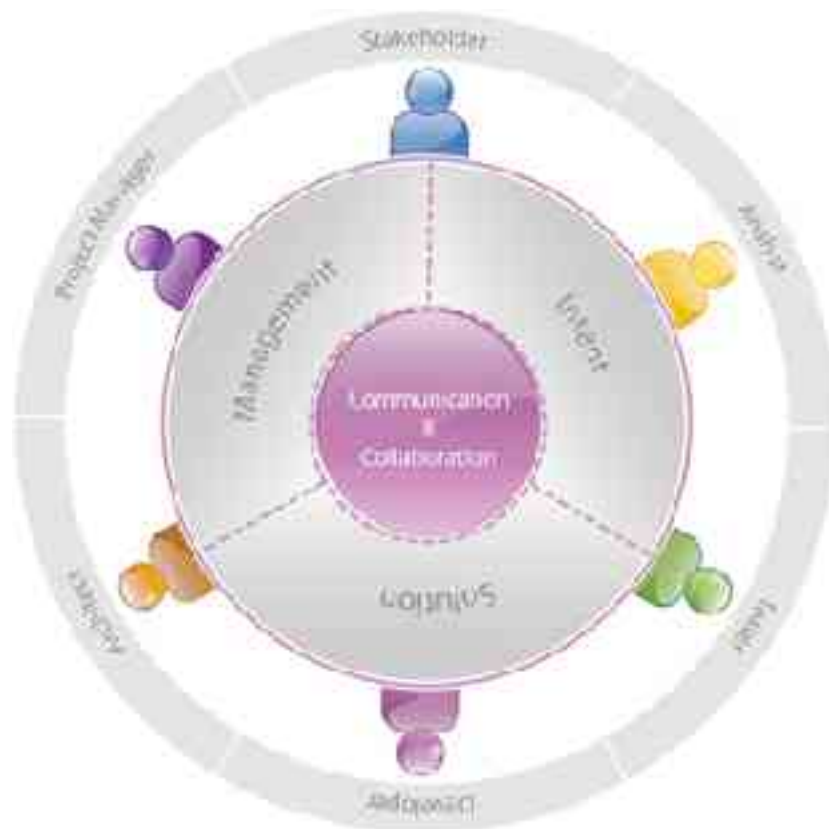
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Why Should You Care?

- For Management:
 - ▶ OpenUP is free
 - ▶ OpenUP is tailorable
 - ▶ EPF Composer, the tailoring tool, is also free
 - ▶ OpenUP is well defined
 - ▶ Mitigates scope, technical, and delivery risk
- For Developers:
 - ▶ OpenUP is agile
 - ▶ You can tell management it's well defined
 - ▶ OpenUP is a complete development process

Where to Get OpenUP?

www.eclipse.org/epf/



Parting Thoughts

- The UP has a long history and is well established within the IT community
- There are many flavors of the UP available to you
 - ▶ From very agile to “traditional evolutionary”
 - ▶ From very sparse to very thorough
- One process size doesn't fit all
 - ▶ You will likely need several instantiations
 - ▶ You will need to provide guidance as to which flavor to follow
- The UP can be extended to the entire IT lifecycle
- The UP is clearly evolving – Stay tuned



Keep In Touch!

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References and Recommended Reading

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