

Metodologi Perangkat Lunak

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Silabus

- Pengertian Metodologi (#1)
- Agile Software Development (#2)
- Pengenalan Extreme Programming (#3)
- Dasar-dasar Extreme Programming dengan Java: (#4)
 - Pemakaian JUnit dan Ant
- Pemakaian JUnit dan Ant untuk aplikasi web J2EE (#5)

Silabus

- Contoh Kasus (#6)
- Pemakaian JUnit dan Ant untuk aplikasi Aplikasi J2ME (#7)
- Pengenalan Aspect Programming (#8)
- Dasar-dasar Pemrograman AspectJ (#9)
- Pemrograman AspectJ (#10 - #12)
- Presentasi Tugas

Penilaian

- TTS : 20%
- TAS : 30%
- Tugas : 50%
 - Setiap Tugas dipresentasikan!

Metode Belajar

- Membaca!
- Mau mencoba di rumah!
- Tidak bermain di kelas/lab

Buku Referensi

- Alistair Cockburn, "Agile Software Development", Addison-Wesley, 2002
- Eric M. Burke, Brian M. Coyner, Java Extreme Programming Cookbook, O'Reilly, 2003
- Russell Miles, AspectJ Cookbook, O'Reilly, 2004

Software

- NetBeans 5.5 atau 6.0
- Netbeans Web Package
- Netbeans Mobility Packages
- JUnit Netbeans plugin (already include)
- Ant Netbeans plugin (already include)
- AspectJ

Metodologi

Bahan: Agile Software Development, chapter 4

Software

- Software is engineered
 - Software doesn't wear out
 - Software is complex
 - Software is a 'differentiator'
 - Software is like an 'aging factory'
- > can be manufactured, bought, or customized

Software Application

- System software
- Real-time software
- Business software
- engineering/scientific software
- Embedded software
- PC Software
- AI Software
- WebApps

Problem with Software Quality

- Do not meet expected requirements
- Cannot cope with dynamic changing environment
- Poor architectural design and technical specifications
- Problems with scalability and other related performances
- Difficult to maintain and to revise

Ekosistem Software

- Metodologi adalah sebuah konstruksi sosial.
- Metodologi yang Anda gunakan sangat penting untuk keberhasilan pengembangan software:
 - Who you hire,
 - What you hire them for,
 - How they work together,
 - what they produce,
 - How they share.

Ekosistem Software

- Metodologi menggabungkan antara:
 - Job descriptions,
 - procedures,
 - Conventions of everyone on your team.
- “Methodology is the conventions that your group agrees to”.
 - “the conventions your group agrees to” adalah suatu tatanan sosial yang selalu ditinjau dari waktu ke waktu.

Konsep metodologi

- Methodology: “A series of related methods or techniques”.
- Method adalah suatu “systematic procedure”, similar to a technique.
- Methodology:
 - For the larger issues of coordinating people's activities on a team.
 - Coordinating is important.

Elemen Metodologi

- Roles
- Skills
- Teams
- Techniques
- Activities
- Process
- Work products
- Milestones
- Standards
- Quality
- Team values

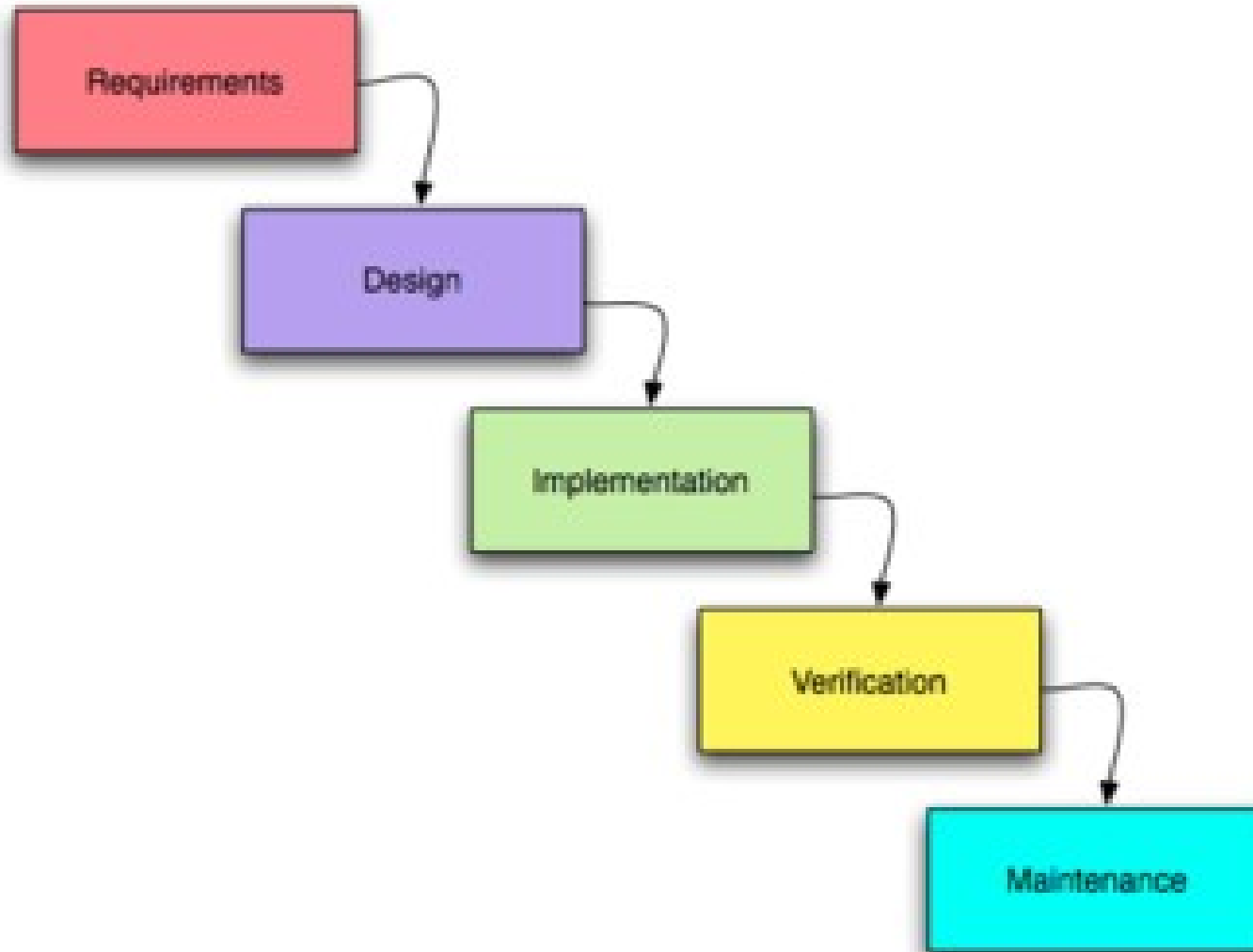
Tipe Metodologi

- Normative
- Rational
- Participative
- Heuristic

Beberapa contoh metodologi

- Waterfall paradigm
- Prototyping paradigm
- Spiral Model Paradigm
- WaterSluice
- Unified Process
- V-model

Waterfall



Prototyping

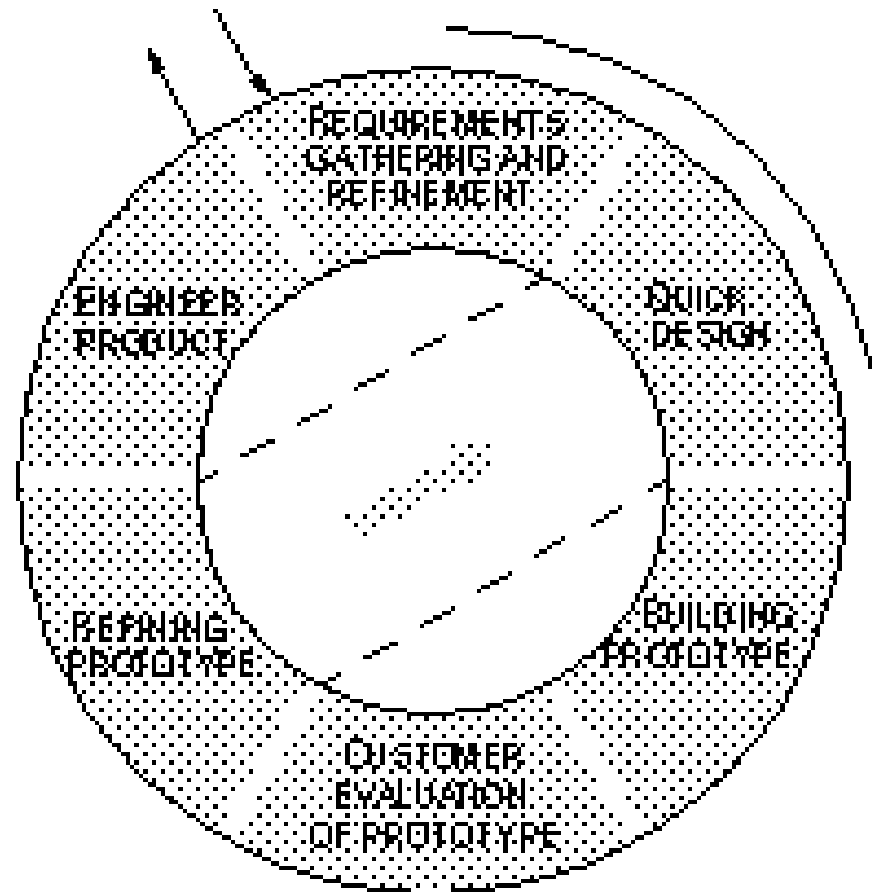


figure 3. The prototyping paradigm of software development

Spiral Model

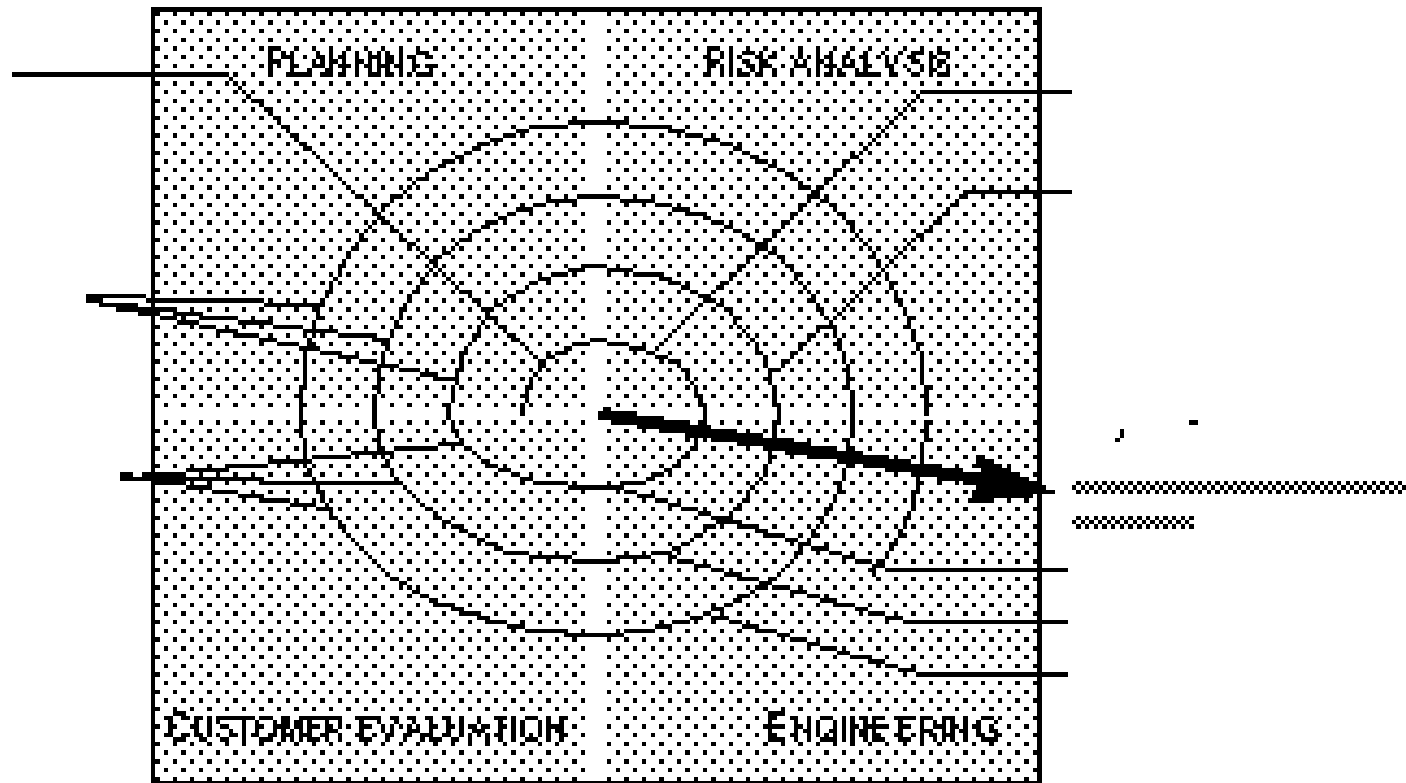
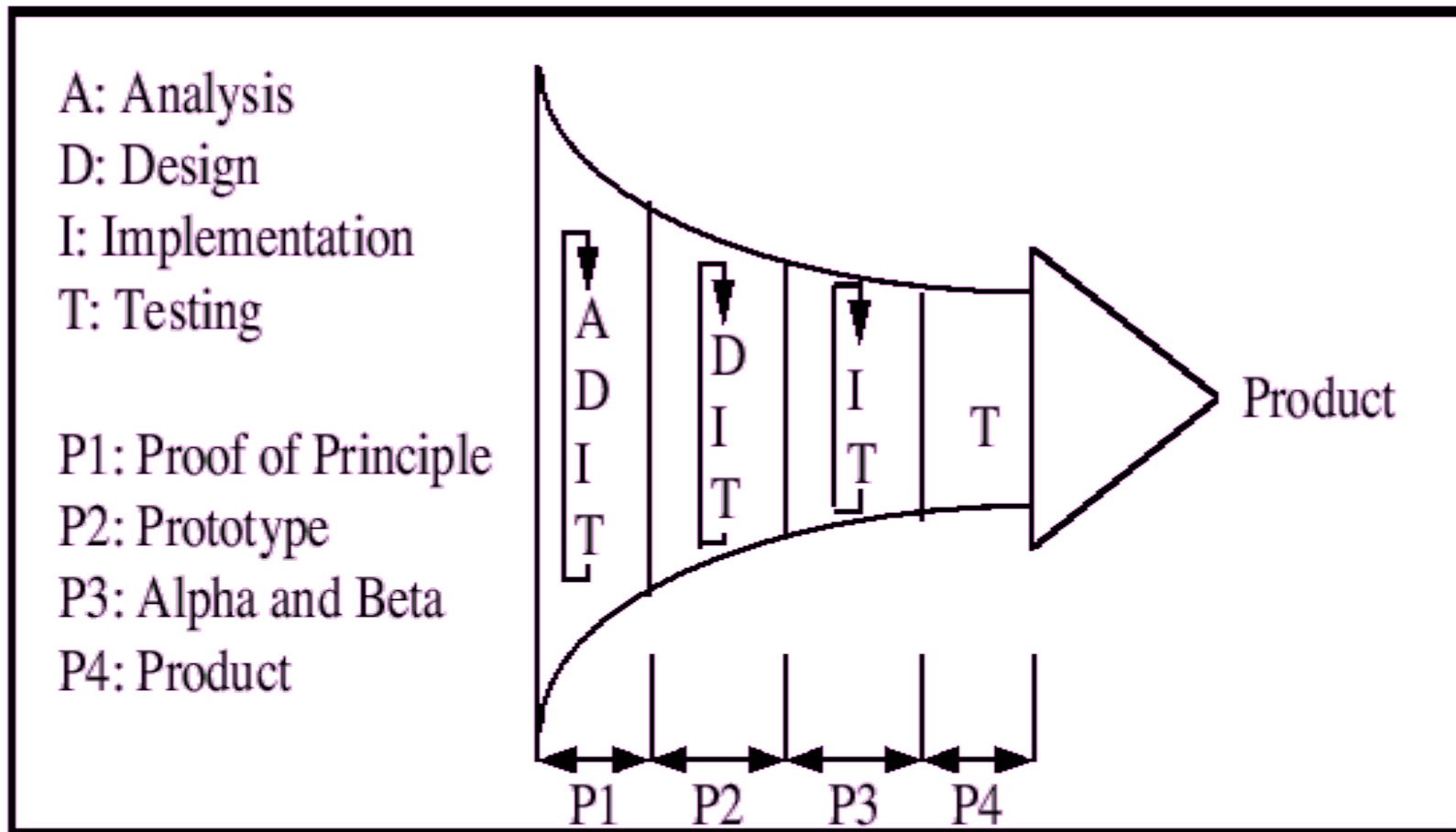


figure 4. The spiral model of software development

WaterSluice

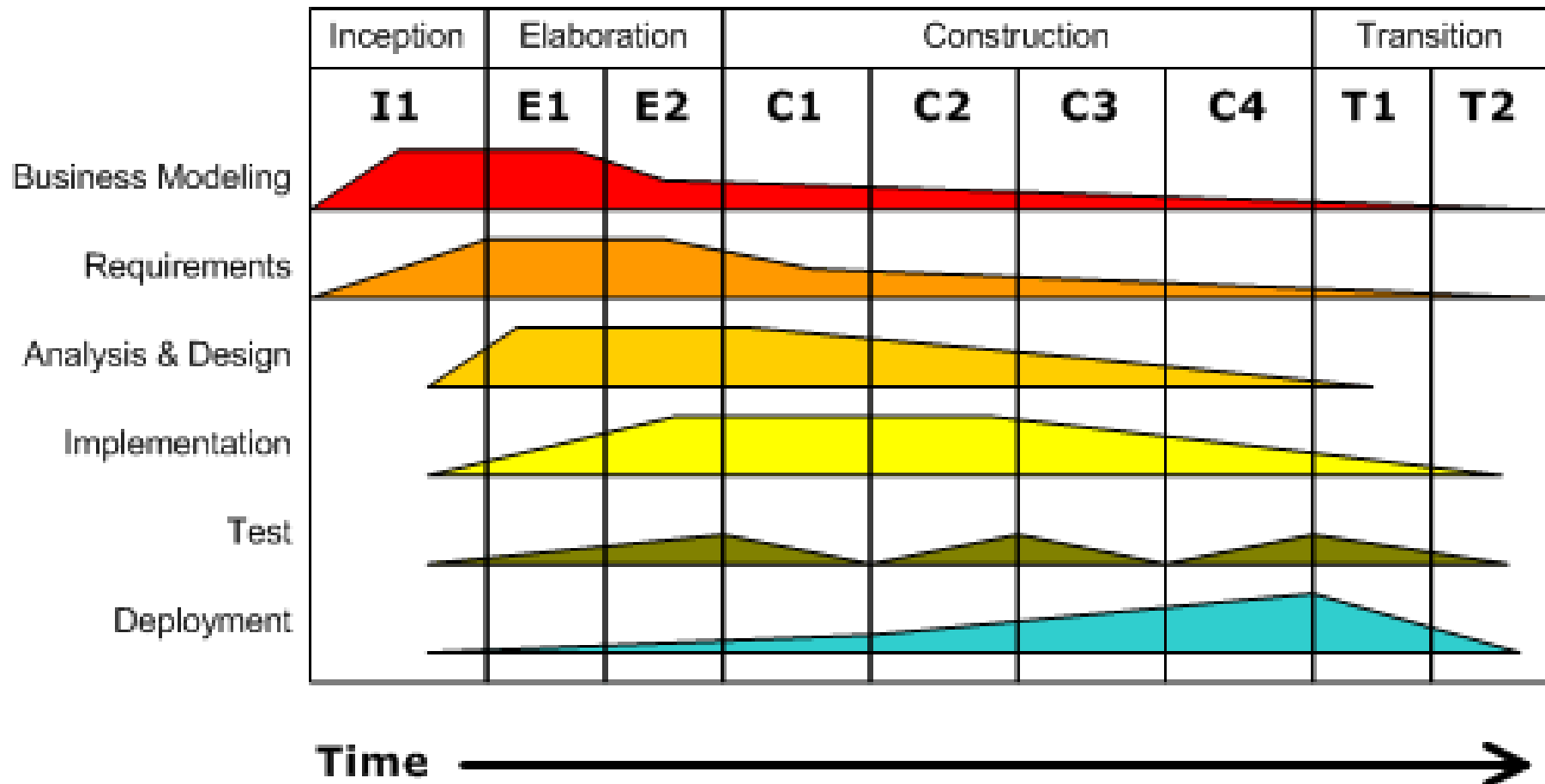
The WaterSluice Methodology



Unified Process

Iterative Development

Business value is delivered incrementally in time-boxed cross-discipline iterations.



Unified Process

