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Profinit Software Process Overview

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1. Software Process Schematic View

Software Process Definition & Enactment:

- Software Process Definition ~ at an Organization Level
- Software Process Practice ~ at a Software Project Level (Organization Standard Software Process Tailoring)
- Software Process Supervision
- Software Process Sustaining

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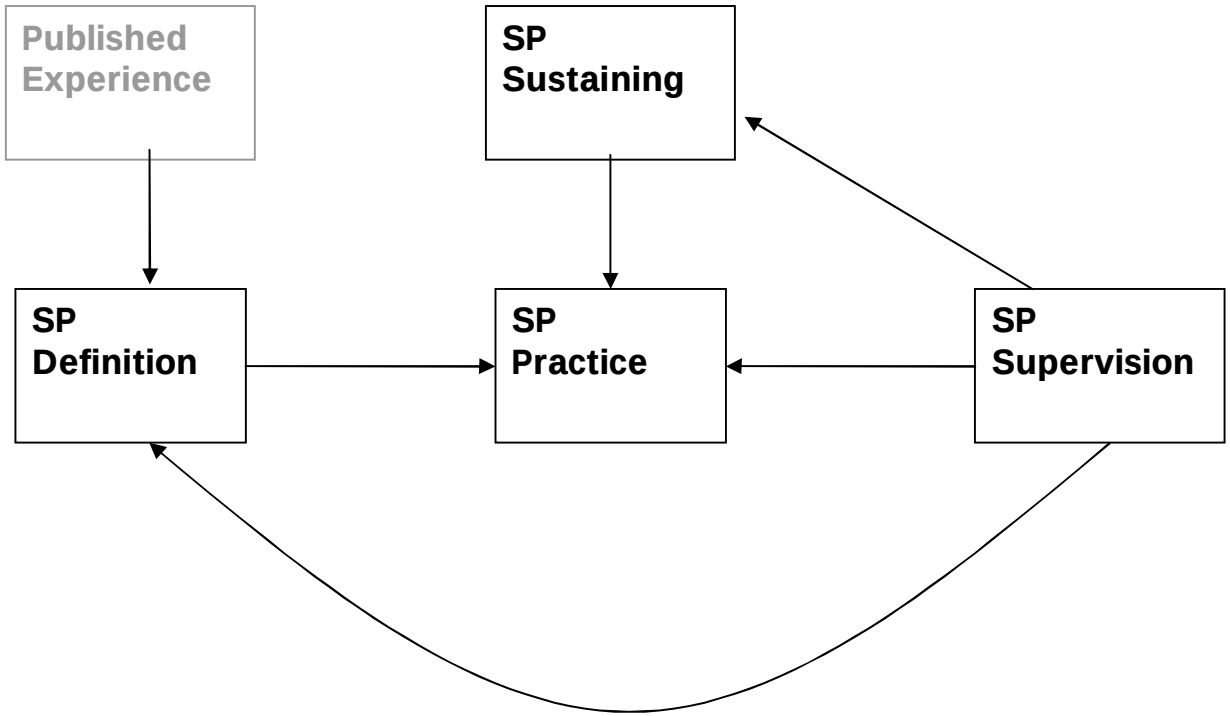

Note: Standard sw process terminology and taxonomy are deliberately left out.

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2. Software Process Definition in Profinit

Based on *Software Engineering Minimal Practices*

Supported by:

- Goodies
- Policies
- And other resources like books etc.

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Minimal Practices are decomposed as follows:

- Project Management and Organization
- Configuration Management
- Development Environment
- Requirements
- Design
- Programming
- Testing
- Documentation
- V&V
- Proposal

Based on the published and Profinit specific experience.

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Raison d'etre:

- **minimal and compact set of general truths that we believe/ recognized[1] are relevant to us**

Form:

- **maximum two A4/ Letter**
- **checklist (max up to one A4)**
- **comments, notes, explanations (max up to one A4)**
  - **mandatory templates**
  - **mandatory articles**
  - **reusable stuff**
  - **goodies**
  - **general things for inspiration and efficient employment of the minimal practice**

[1] This is the very NASA SEL & Experience Factory - like approach.

Example:

...

1. The requirements specification (given the functional definition) has to be able to serve, at least, for the following purposes:

1.1 development (both form the scratch and during maintenance)

1.2 qualification testing

1.3 acceptance testing

1.4 change manegement

...

3. Software Process Practice ~ Project Level

- **Software Process Tailoring (gently but systematically)**

- **Individual Project Procedures ~ Defined Project Software Process**

… This topic is covered by the next presentation having the form of a Case Study.

4. Software Process Supervision

(Note on organization: Customer team/ Service Account Manager (Soft. Eng.)/ (PMs)/ professional staff)

- **Regular customer team revision**
  - **review of SAM knowledge**
  - **review of resource utilization and planning**
  - **individual projects review**
  - **Nice-to-have: reusable stuff, etc.**
- **Regular revision of individual project, if necessary**
- **Regular revision of Minimal Practices implementation for individual projects**
- **Bugzilla (defects, issues, change request, individual planning etc., basic effort metrics)**
- **Internal IS with basic effort metrics**

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1 "Checklist" - seřazeno co projít

Osoba SAM/ PM

Téma	Probralo, neprobralo, stav	PM
Minimální nároky (ví o existenci, četl, zná, rozumí, chápe, aplikuje, aplikuje rutinne)		ano
Přezkoumání (prop, reqs, arch, dbs des., dm, ?); odhad, organizace, plány Kdo vede? navrhuje? navrhuje dm? navrhuje arch.; kdo jedná? x role - kdo nemá PMIM nesmí s prostředky nad 50 čd bez dozoru etc.		ano
Policy (výběr/ ví o existenci, četl, zná, rozumí, chápe, aplikuje, aplikuje rutinne)		
staffPolicy.txt		ano
projectManagerPolicy.txt		ano
measurementPolicy.txt		ano
historyPolicy.txt		ano
proposalPolicy.txt		
financniTabulkaPolicy.txt		
samPolicy.txt		
Odpovědnosti PMs, SAMs		ano

Mechanika lidi a peněz (sheets/ sekce z PPS_kapacityProjektySystemyNabidky.xls)

Téma	Probralo, neprobralo, stav	PM
Kapacity		ano
Projekty		ano
Poptávka		
Disponibilní		
Core zakaznika		
Core projektů		ano
Finanční tabulka		
Role lidí initial assessment aktuální stav, řízený růst		

Projekty/ systémy (kap. č. 5)

Téma	Rutina organizace a vedení	
	stav	praxe činnoti
Termíny		
Plán (dlouhodobý, krátkodobý)		
Rozsah, závazky (co máme dělat; plán/ odhad; skutečnost/ prognóza; rozdíl - důvody)		
Rozsah řízení		
Zdroje (jsou k dispozici, spotřebováno, prognóza spotřeby)		
Rizika		
Věci k řešení (problémy)		
Balance zaplacených zdrojů vs prognózy rozsahu/ spotřeby zdrojů		
Téma	**Probralo, neprobralo, stav**	
Měření - praxe		
Historie		
Minimální nároky - praxe		
Udržba, rozvoj, podpora provozu, konzervace systémů		
Hlavní stránka projektů		

Kontext zákazníka (kp. č. 6)

Téma	Probralo, neprobralo, stav
Uerky	
Podřízení lidé	
Znovupoužitelnost	
Outsorcing	

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5. Software Process Sustaining

- Professional Ladder (Three Soft.Eng. Criteria: theory, practice, process) - heavily consumed
- Staffing (Who did/ does/ will do What; Roles)
- Resource planning
- Review (esp. source code)
- Proposal approval process
- Intranet pages
- Tuesdays

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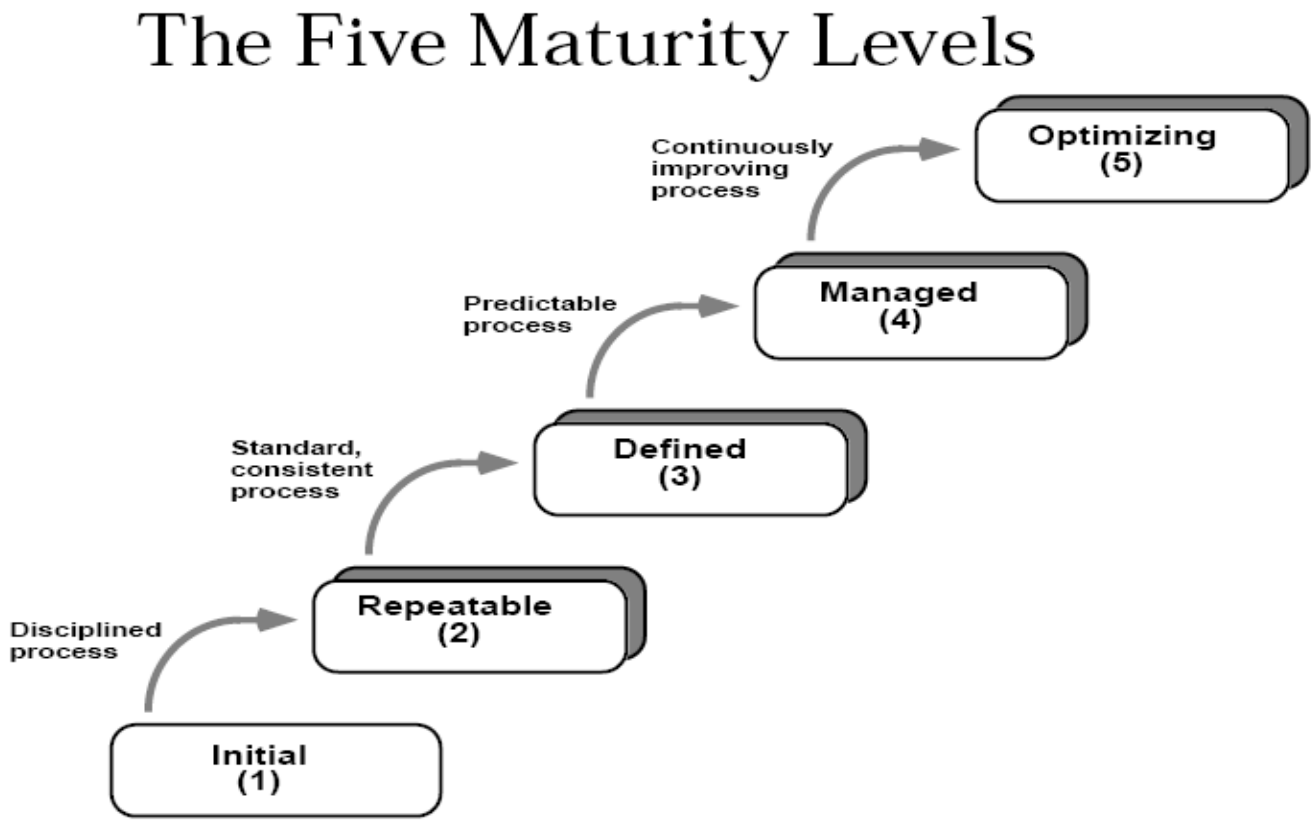
Appendix

Inspiration - SPI Approaches & Related Works Overview

6. Two Basic Approaches to SPI

SEI Capability Maturity Model - CMM

(http://www.sei.cmu.edu)



(Note: CMM Tutorial, slides: MLs: 17, CMM Structure: 23, KPAs: 27 - 30)

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SEL NASA Approach

(http://sel.gsfc.nasa.gov/website/welcome.htm)

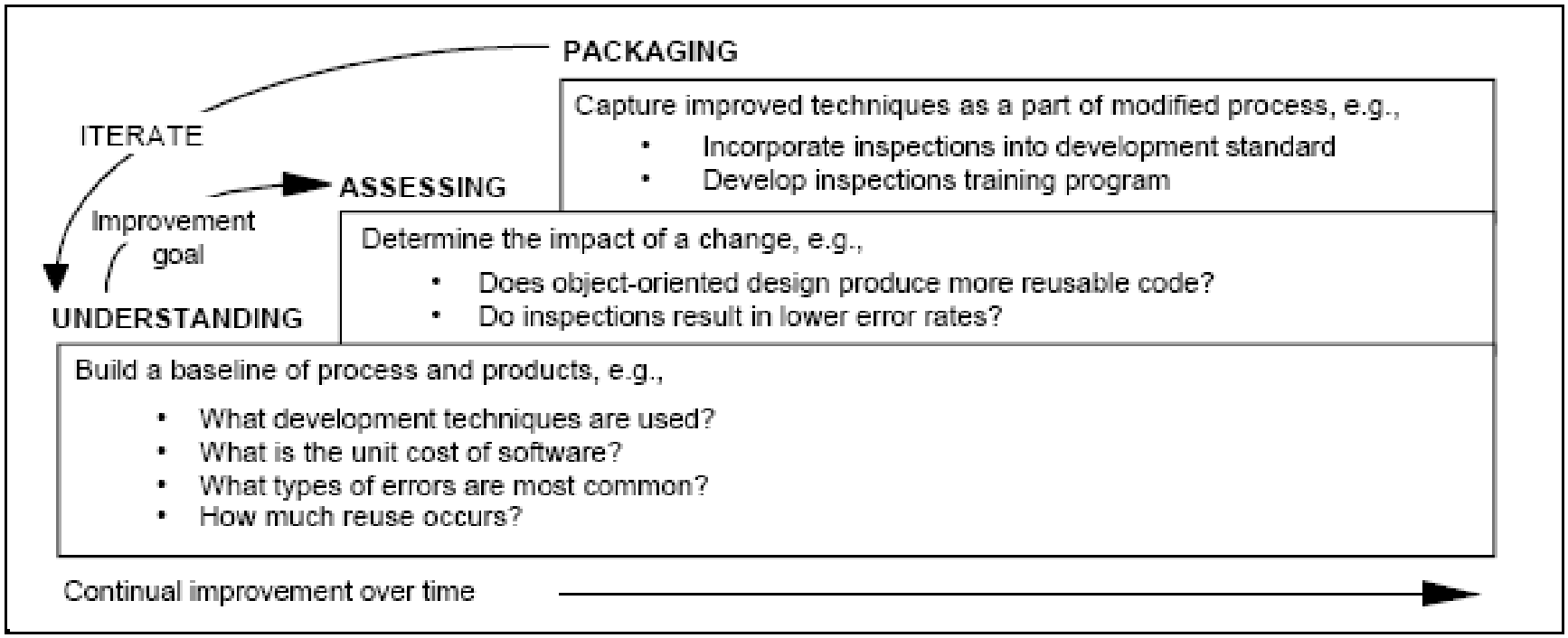
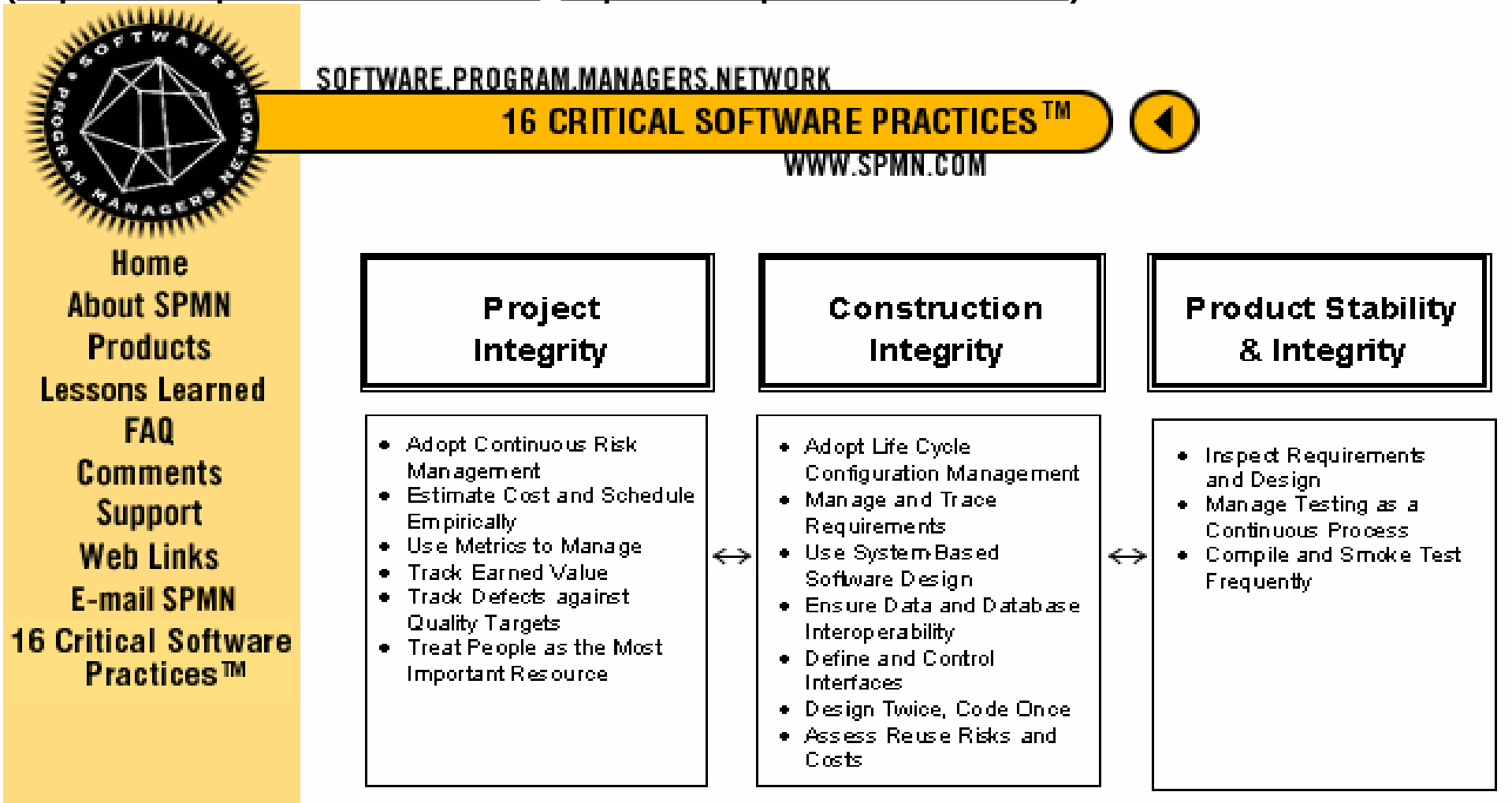


Figure 2-2. Three-Phase Approach to Software Process Improvement

7. How to survive I - DoD Context

(Pragmatic and efficient setting in DoD/ large organization's context)
(http://www.spmn.com/16CSP.html http://www.spmn.com/index.html)



8. How to survive II - Moderate size Context

(Pragmatic and efficient setting in moderate size organization's context)

Construx, Process impact, Joel on software, the pragmatic programmers...

Process, Checklists, Goodies, Ladder, IEEE Software articles, Books ...

(http://www.construx.com/professionaldev/organization/pdl/)

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