Cracking the Code for Improving the Productivity of Knowledge Workers

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**Force multiplication** refers to a combination of attributes or advantages which makes a given force more effective than another force of comparable size.

A **force multiplier** refers to a factor that dramatically increases (hence "multiplies") the effectiveness a group.

Some common force multipliers:
- Morale
- Technology
- Geographical features
- Weather
- Recruitment through diplomacy
- Training and experience
- Fearsome reputation
- Deception

*What are the "force multipliers" when talking about improving the productivity of knowledge workers?*
The idea with this presentation

The idea is to convey some of our ideas and thoughts about aspects are important related to the technical infrastructure supporting process modeling, authoring, tailoring, use, and improvement in knowledge worker environments.

Hopefully, you can use this as inspiration when building, improving or evaluating process infrastructures to make them true force multipliers for your organization.
(Simplified) Concept of Operation

- Define
- Improve
- Use

Process owners ➔ Document, X-ref, Checks, Overviews, Change Log, Publish ➔ Organizational Process Set(s)

Tailor ➔ Project’s Defined Process ➔ Project A ➔ Follow ➔ Work Products

Suggest improvement ➔ Work Products
The Force Multipliers

For each of these
- The often seen situation
- Consequences for knowledge worker productivity
- An alternative approach
- Examples

Harvest (pull) the "proven in practice" improvements

Automate "build & deployment"

Organizational Process Set(s)

Change to "Continuous Tailoring"

Process owners

Project A

Work Products

Callis
Automate "build and deployment"

**Often seen practice**
- Lots of manual work and schedule required to from change to release
- Resistance to change in process group
- Bi-yearly releases of process sets

**Consequences for Know. Workers**
- Non-optimal presentation of process sets (process group starts to think of "ease of maintaining" insted of "ease of use")
- Not updated to "real practice"
- Lower quality of documentation
- Slows down the "learning loop"
Automate "build and deployment"

An alternative approach

- Strive towards "Continuous build & deployment" setup
- "Do things which are hard often"
- Drive down the effort and schedule required to build & publish

Example

...in less than 5 min...
Change to "Continuous Tailoring"

**Often seen practice**
- Tailoring by copy-paste process descriptions
- Tailoring in a file separate from process set
- Tools where tailoring is practically impossible
  - Yes, we can do that, but it requires an army of consultants and a PhD in process modelling

**Consequences for Knowledge Workers**
- Doesn’t capture the real process
- Tailoring turns into a “formal thing”
- Limited “connection” between documented process and real process – the WIKIs take over...

- Improvements are not based on existing processes
Change to "Continuous Tailoring"

An alternative approach

- Combine structured processes with wiki approach – "continuous tailoring"

- Make it easy to add operational comments directly into the process set

Example
Change to "Continuous Tailoring"

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 2 | Requirements Manager | Document needs and expectations  
The needs and expectations should be documented in the Requirements Management Plan. |
| 3 | Requirements Manager | Decide which Requirements Management System to use  
If no special technical or customer related needs mandates the use of a special Requirements Management System, the organizational standard system must be used. |
| 4 | Requirements Manager | Prepare specification of project specific setup of Requirements Management System |

Low ceremony  
Empowers people  
Practical project learning
Learning Across Projects

Short circuit knowledge generation

- Creates local learning in project
- Makes it easier to learn across projects
Harvest (pull) the "proven-in-practive" improvements

Often seen practice
- Employee "push" improvement suggestions to a queue
- Hard to see the "quality" of the improvement suggestion
  - Theory or "proven in practice"
- Improvement suggestions queue up, action slows down
- Learning loop does not work

Consequences for Know. Workers
- "The EPG / process owners don’t do anything"
- Outdated process descriptions
- Slow/limited build-up of intellectual capital
Harvest (pull) the "proven-in-practice" improvements

An alternative approach

"Pull" the "proven-in-practice" operational tailorings

Do this in the "structure of the process" as this makes it easy to compare tailorings across projects

Example

Process Set

Tailor
Use Tailor
Use

Project A
Project B

Process owners
Harvest (pull) the "proven-in-practive" improvements

Oversee tailorings across multiple projects

See the tailoring in the process description
The new "Concept of Operation"

Automated "model, author, build, and publish" mechanism

Automate "build & deployment"

Process sets

Author and publish

Process owners

Harvest

Tailoring

Use

Change to "Continuous Tailoring"

Low ceremony, tailoring mechanism, empowers people and enables local learning and improvement

Pull mechanism build on practical experiences and enables organizational learning

Harvest (pull) the "proven in practice" improvements

Project A

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Thank you!

Please contact pvp@callis.dk for demos and trials

• Or just to discuss the concepts 😊
Backup slides from here
Stuff you need to address...

- Well defined process architecture supporting re-useable process content / method libraries
- Automated consistency checking
- Generate and/or integrate graphics (MS Visio AddIn)
- Multi-model compliance mapping / cross referencing
- Multiple views, multiple variants, multiple output formats
- Activation – e.g. instantiating roles and best practices (MS Sharepoint integration)
- Lightweight tailoring / operationalization
- Understand tailoring across projects
- Profiling use of processes
- Automated compare (diff) process definitions / change list
Supporting knowledge workers is supporting the lifecycle of processes!

Organize, structure, and author process sets

Define

Manage compliance to standards and requirements

Improve

Consistency and uniformity (in text and graphics)

Use

Automated publishing of multiple versions

Consistency and uniformity (in text and graphics)

Integrate best practices

Compare process sets

Lightweight and practical tailoring

Understand tailoring across projects

Effective access to process sets and assets

Profile use of process sets

Activate the process, e.g. artifact and role instantiation

Integrate best practices