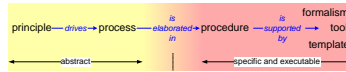


Nugget: What is a Process?

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Abstract

This nugget is explaining the concept of a "process", since this word is heavily overloaded.

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1 Introduction

We rely in this part heavily on the notion of a process. This intermezzo is defining “process” for the context of this book. We define “process”, since this word is heavily overloaded in our daily world. We also discuss the relationship of processes with organizations and the drive for process improvement.

2 What is a process

We use process as an abstracted way of working. A process can be characterized the attributes shown in Figure 1

Purpose	What is to be achieved and why
Structure	How will the goal be achieved
Rationale	What is the reasoning behind this process
Roles	What roles are present, what responsibilities are associated, what incentives are present, what are the criteria for these roles
Ordering	What phasing or sequence is applied

Figure 1: Process Attributes

In [1] the following definition is given:

A process is an activity which takes place over time and which has a precise aim regarding the result to be achieved. The concept of a process is hierarchical which means that a process may consist of a partially ordered set of sub-processes.

This definition parallels the characterization above. It adds explicitly the potential hierarchical decomposition of the process itself.

The notion of a process can be seen as one step in an abstraction hierarchy, as shown in 2. The most abstract notion in this hierarchy is the “principle”. A principle is a generic insight that can be used for many different purposes. An example of a principle is *decomposition*: Whenever we have something big, e.g. a problem or project, then we can decompose it in smaller pieces. These smaller pieces are easier to solve or create than the original big one.

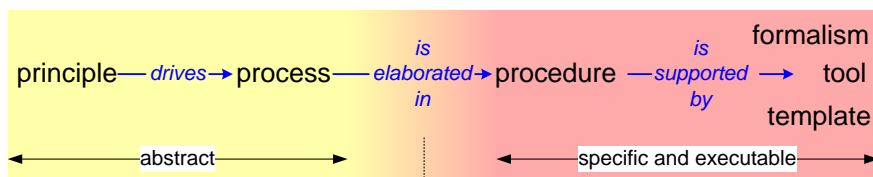


Figure 2: A process within an abstraction hierarchy

A process is rather abstract. It describes the essentials of the purpose, structure, rationale, roles and timing, leaving plenty of implementation freedom. The power of a process is its abstraction, which enables its application in a wide range of applications, by tailoring its implementation to the specific application.

A process can be tailored and elaborated in one or more procedures that describe cookbook-like what needs to be done when and by whom. The why in a procedure has often disappeared, to be replaced by practical information for the execution.

The implementation of a procedure can be supported by tools, notations, templates and other means.

In practice managers and employees ask for tools (means) and procedures (what and how). However, without understanding of the thinking behind the procedure (why), as given in the process, these tools and procedures can be meaningless. The process captures the rationale behind procedures, tools, notations, templates, and other means.

3 The relation between Processes and Organizations

Traditional management is focused on “organizations”. Where organization are characterized by the attributes shown in Figure 3.

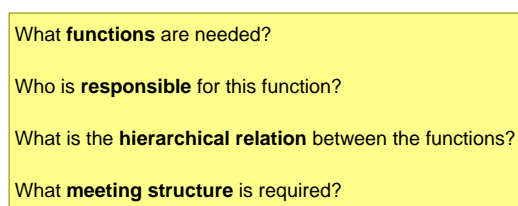


Figure 3: Organization Attributes

This management view is insufficient in today’s fast moving complex world. The weak spots of the organizational view are shown in Figure 4.

Processes are more modern instruments for management. Many processes are required to ensure the effective functioning of an organization. These processes are

Many activities cut arbitrarily through the 1-dimensional hierarchy, causing

- lack of ownership**, unclear responsibilities
- high impedance transitions** at organizational boundaries

Functions are a **combination of tasks**, where, in most cases, no single human exists with the required skills

Meeting structures are **insufficient** and **inefficient** to get things done

Figure 4: Weaknesses of the organizational view

interrelated and overlapping. Processes are non-orthogonal and don't fit in a strict hierarchical structure.

Most complex product developments don't fit in the classical hierarchical organization model, but require a much more dynamic organization model, such as the currently popular more chaotic network organization. Processes are the means which help to ensure the output of dynamic organization models such as a network organization.

Processes can be seen as the blueprint for the behavior of the people within the organization. People will fulfill multiple roles in multiple processes. The process description is intended to give them a hold on what is expected from them.

All important activities will be covered by a process, requiring the definition of ownership, relation with other processes et cetera. The allocation of roles to people is much more dynamic than in conventional hierarchies. More dynamic allocation enables a better match between personal capabilities and required skills. In practice dynamic allocation leads to more distribution of responsibilities, making it more feasible to match capabilities and skills.

The 80/20 rule is also valid for processes: 80% of the behavior is covered by the processes, while 20% requires independent creative behavior. An organization without processes drowns in chaos, while an organization which blindly implements them will be killed by its own inertia, its inability to adapt to the fast changing world.

For reasons of continuity and stability a hierarchical organization will remain. The slowest evolving dimension is mostly used as a basis for this hierarchy. This hierarchy functions as anchor point for people in the continuously changing process world, but should play only a minor role in the entire operation.

The **Centurion** turn around operation within Philips, orchestrated by CEO Jan Timmer in the early nineties, urged the Philips managers and employees to change from an introvert organization point of view to an external result oriented process

point of view.

References

- [1] Klaus Kronl f, editor. *Method Integration; Concepts and Case Studies*. John Wiley, Chichester, England, 1993. A useful introduction is given in Chapter 1, The Concept of Method Integration.
- [2] Gerrit Muller. The system architecture homepage. <http://www.gaudisite.nl/index.html>, 1999.

History

Version: 0.2, date: May 1, 2026 changed by: Gerrit Muller

- corrected a few linguistic errors

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