

Architecting Interaction Styles

-

provocation	when in an impasse: provoke effective when used sparsely
facilitation	especially recommended when new in a field: contribute to the team, while absorbing new know how
leading	provide vision and direction, make choices risk: followers stop to give the needed feedback
empathic	take the viewpoint of the stakeholder acknowledge the stakeholders feelings, needs, concerns
interviewing	investigate by asking questions
whiteboard simulation	invite a few engineers and walk through the system operation step by step
judo tactics	first listen to the stakeholder and then explain cost and alternative opportunities

Gerrit Muller

Buskerud University College

Den Dolech 2 (Laplace Building 0.10) P.O. Box 513, 5600 MB Eindhoven The Netherlands

gerrit.muller@embeddedsystems.nl

Abstract

A system architects needs skills to apply different interactions styles, depending on the circumstances. This document discusses the following interaction styles: provocation, facilitation, leading, empathic, interviewing, white board simulation, and judo tactics.

Distribution

This article or presentation is written as part of the Gaudí project. The Gaudí project philosophy is to improve by obtaining frequent feedback. Frequent feedback is pursued by an open creation process. This document is published as intermediate or nearly mature version to get feedback. Further distribution is allowed as long as the document remains complete and unchanged.

All Gaudí documents are available at:
<http://www.gaudisite.nl/>

version: 0.2

status: draft

July 8, 2010

1 Introduction

A system architect has to use different interaction styles in different circumstances. In some circumstances a *leading* style is appropriate, while in other circumstances a *facilitating* style is more effective. Figure 1 shows the styles that are discussed in this chapter.

provocation	when in an impasse: provoke effective when used sparsely
facilitation	especially recommended when new in a field: contribute to the team, while absorbing new know how
leading	provide vision and direction, make choices risk: followers stop to give the needed feedback
empathic	take the viewpoint of the stakeholder acknowledge the stakeholders feelings, needs, concerns
interviewing	investigate by asking questions
whiteboard simulation	invite a few engineers and walk through the system operation step by step
judo tactics	first listen to the stakeholder and then explain cost and alternative opportunities

Figure 1: Interaction styles for architects

2 Provocation

A provocative style can be used by the architect when the discussion is in an impasse. The provocation can be based on taking an extreme viewpoint of one of the stakeholders and confronting the other stakeholders with the consequences. Such a provocation forces the involved stakeholders to formulate their needs more sharp, including the consequences of following the recommendation.

A provocative style should be applied scarcely. Once team members get used to this style then the style becomes ineffective. Most people do not like to be provoked continuously, so they stop to respond after a few provocations.

3 Facilitation

The facilitation style is a style where the architect serves the team by facilitating meetings and workshops. Facilitating a meeting means:

- preparing the meeting or workshop together with the owner of the meeting:
determining the goal, participants, place, agenda, means.

- facilitating the meeting itself: timekeeping, managing the flips, writing action point and conclusions.
- finalizing the meeting: writing a report and presentation of the results, chasing follow-up actions.

The facilitation style is especially useful for architects entering a new domain. The architect provides visible value for the team, while as a spin off the architect learns a lot about the new domain.

4 Leading

A leading style is a style where the architect is highly visible. The architect provides vision and direction to the team. The leading architect can be recognized by looking at the followers: if they really follow the architect then the architect is effective as leader.

The risk of this style is that the team starts to trust the architect decisions too much. Most of the team members have much more know how about the design issues than the architect. The architect will often make decisions based on limited know how that should be corrected by the specialists with more know how. The leading style sometimes inhibits the specialists to oppose the architect. The leading architect must be aware of this effect. Sometimes even invitations to oppose and provocations do not help to loosen up the followers.

5 Empathic

The empathic style is based on taking the viewpoint of the stakeholder under discussion. This goes much further than the objective rational view. The feelings and emotions of this stakeholder must be taken into account as well. The understanding of the state of mind is communicated back to the stakeholder. The result of this way of interacting is that the architect gets a much better insight in the stakeholder, while at the same time the stakeholder has the feeling to be taken seriously.

6 Interviewing

Architects pose lots of questions, questions are one of the most important instruments of the architect. The interviewing style makes excessive use of questions. The architect uses a priori knowledge to formulate open questions. These open questions must lead to an understanding of the stakeholder concerns.

The difficult part of this style is to use a priori know how in a limited and constructive way. The danger of a priori know how is that it limits observation and that suggestive questions are formulated instead of open questions.

7 White-board simulation

The white-board simulation style is used in meetings where a few specialists are present. The architect guides the specialists through a use case, where every specialist explains the system behavior from the specialist viewpoint. For example, the use case can be to push a *next channel* button on the user interface. In this example the user interface signal will trigger an avalanche of events in the system, going through many layers and propagating to many subsystems.

This guided simulation often reveals a lot of unknown system behavior, strange dependencies, inefficient sequences and many more engineering surprises. The normal reactions of the participants is that after a few steps they want to redesign the system. The architect should suppress this urge, by parking improvements at the side. The main purpose of this style is to build a shared understanding of the current design.

8 Judo tactics

The basis of judo tactics is that the architect starts to listen to the stakeholder, especially when the architect feels an urge to contradict the stakeholder. After listening to the stakeholder, and acknowledging the validity of the needs, the architect explains the costs and trade-offs. In many cases the stakeholders have a healthy feeling for value and cost and look for a reasonable balance. Quite often the result is a decision that the architect wanted to make right at the beginning. However, this style works only if the architect really listens, and is willing to take a different direction if needed. It might be that the architect discovers that the value for the stakeholder is much larger than originally assumed!

In many cases ill communication and bad listening skills block reasonable decisions. The judo style, where the architect starts to listen, avoids this trap.

References

- [1] Gerrit Muller. The system architecture homepage. <http://www.gaudisite.nl/index.html>, 1999.

History

Version: 0.2, date: June 28, 2010 changed by: Gerrit Muller

- subsection -> section for styles

- minor textual updates

- changed status into draft

Version: 0.1, date: April 7, 2004 changed by: Gerrit Muller

- Added Interaction to the title

Version: 0, date: March 24, 2004 changed by: Gerrit Muller

- Created, no changelog yet