

Workshop Report on

Pattern-Aided Software Documentation

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Workshop's

Home Page: <http://www.ti.et-inf.uni-siegen.de/Entwurfsmuster/EuroPLoP/Workshop/Home.htm>

The workshop gathered a total of 13 participants from various academic and industry backgrounds. It provided an open forum for sharing ideas and experiences on pattern-related aspects of software documentation.



Taken from the
Call for Participation:

Where software is a company's main asset, two problems become vital:

- ? How can a company's design knowledge and experience be preserved from brain drain?
- ? How can we effectively integrate a newcomer into a design team, that is, how can we shorten the learning process?

These problems indicate a widespread negligence of effective software documentation. Where can newcomers find and understand a design decision underlying some code fragments? What are the invariant parts and where to look for the variant spots of the design model? In this workshop, we discuss the *state of the art* of using design patterns for documentation purposes. The aim is to document designs for better understanding and for identifying, evolving, and applying reusable components.

Facing a time constraint of two hours, we were forced to prepare a rather brisk agenda:

10 min *Welcome and Introduction*

Group Mirror and Introduction to the moderation method.

20 min *Finding the topics*

Brainstorming on questions like these:

Documentation through patterns: has it worked and at what cost?

Other forms of documentation: can they be related to the workshop's goal?

What tool support have you used and what results have you obtained?

What are suitable pattern forms, what are suitable publication venues (web versus text versus the two in combination)?

When, where, and how to use patterns in documentation: towards a skeleton pattern language.

- 10 min *Evaluation of topics and Formation of small groups*
Which topics should we discuss here?
- 30 min *Small group sessions*
- 45 min *Presentation of the small groups' results to the plenum*
- 5 min *Close*
How satisfied am I with the results of the workshop?
Reflection on the process; follow-up activities.

Small Groups

Having outlined the connotations of the workshop's topic (see the Card Spider poster) the plenum started to brainstorm on them. The hand-drawn circles on the Card Spider indicate the sub-topics that were found to be most interesting to the plenum (the voting was carried out with the help of self-sticking dots ●). According to this voting three small groups were formed:

- ❶ “Preserving design knowledge and experience from brain drain”
- ❷ “Training of a replacement or newcomer in a company”
- ❸ “Methods and Tools”

The small groups discussed their topics for about 30 minutes, using the brainstorming cards, and then presented their results to the plenum.

Summary

As a particular result, the participants have marked out what pattern-aided software documentation is all about and prioritised the sub-topics that are of high interest. At the end of the workshop, we asked the participants to vote again on the sub-topics of the Card Spider – after having gone through all the discussions. The vote is visualised by solid dots ●. A slight shift to other topics can be noticed. We interpret this shift of interest as follows: Pattern-aided software documentation is still a broad topic and one of the most interesting issues in the patterns community. It could not, of course, be settled in this workshop. However, the participants made clear on which sub-topics further investigation should be focused.

Related Work

Underscores indicate URLs that can be found on the workshop's home page.

- [Documenting Frameworks Using Patterns](#) by Ralph E. Johnson
- Articles from [ECOOP 97](#):
[A Model for Structuring User Documentation of Object-Oriented Frameworks Using Patterns and Hypertext](#) by Matthias Meusel, Krzysztof Czarnecki, Wolfgang Kopf;
[Using Patterns for Design and Documentation](#) by Georg Odenthal, Klaus Quibeldey-Cirkel
- [Reverse Engineering a Framework Using Design Patterns](#) by Markus Blachnik
- [Pedagogical Framework Documentation](#) by Ian Chai
- EuroPLoP 98:
[The Structure and Layout of Technical Documents](#) and [Writing and Reviewing Technical Documents](#) by Andreas Rüping

Photo Minutes

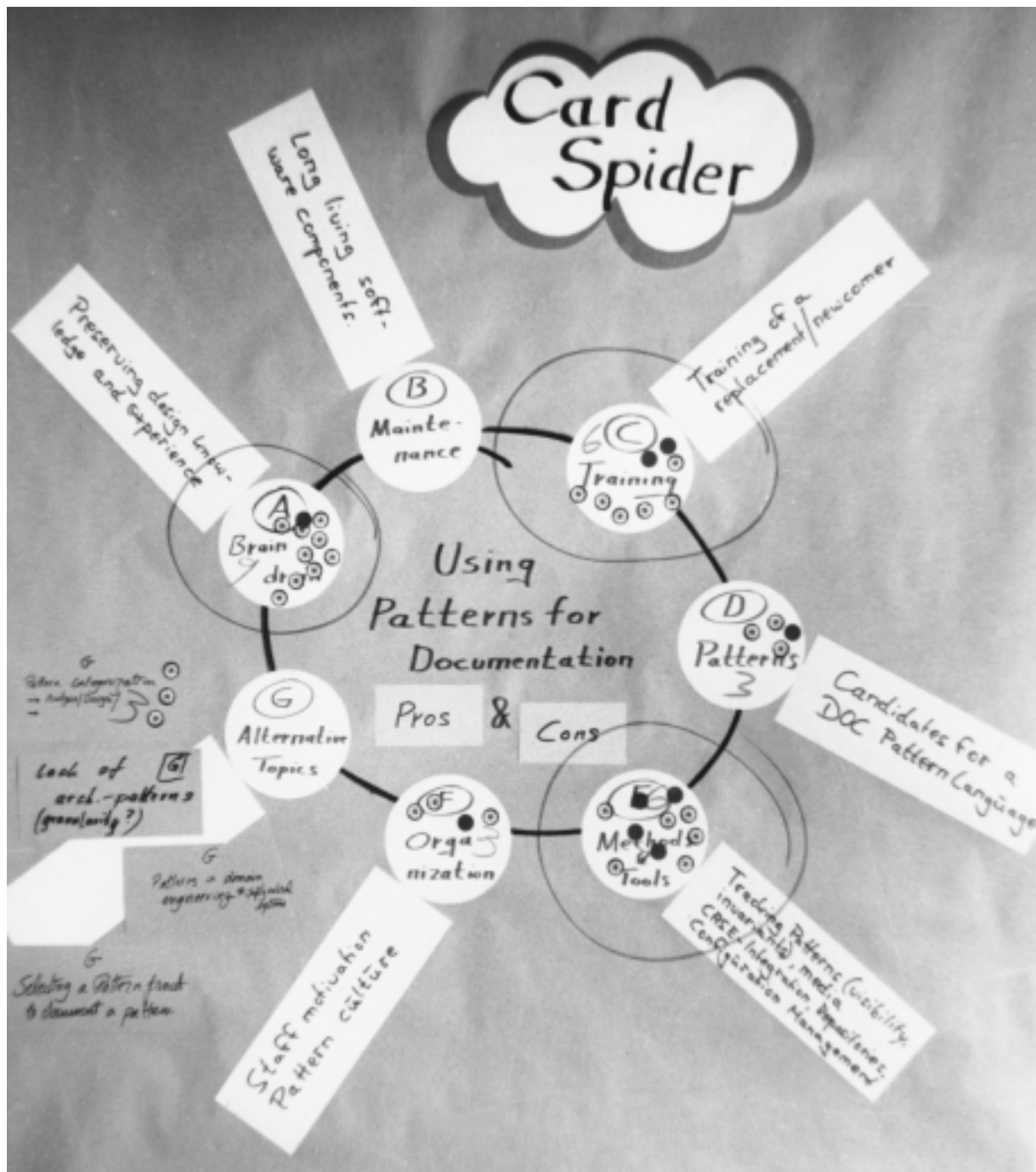
Group Mirror cont'd

I have used patterns for...

- teaching OO concepts + methods
- Sharpening my own thoughts about a topic
- To describe some aspects in my PhD Thesis...
- Learning OO design elements
- Designing Frameworks and framework using design patterns
- Learning communication and management issues primer design a pattern for
- describing principles of OO framework design
- Learning OO design + math design OO systems design design design...
- describing documentation principles
- developing and documenting software designs

I have made ... experiences with using patterns for documentation.

++	+	-	--
⊙ ⊙	⊙ ⊙ ⊙	⊙ ⊙	⊙



Acknowledgement

Many thanks to [Jim Coplien](#) who has “shepherded” our workshop proposal.