

Pattern Writing



To write a pattern is not about finding new solutions to existing problems...

..., but it is to abstract recurrent solutions that can be used for a problem in several contexts.



Context

In which situations can I apply this pattern?

Problem

What the pattern try to solve? Which question it answers?

Solution

What solution is recurrently used to solve that problem?

Writing a pattern...

Think about a practice that is applied recurrent in the field of your expertise...

Let's try to document that practice as a pattern?









PROCESS

THING

The solution should not describe only the final result, but ways and paths that you can achieve it.

Improving Solution

Let's improve the solution descrition, to include more details and prevent it to be misused or misunderstand



PROCESS



THING

Are both described on the pattern?



It is not enough to be recurrent, the solution needs to be









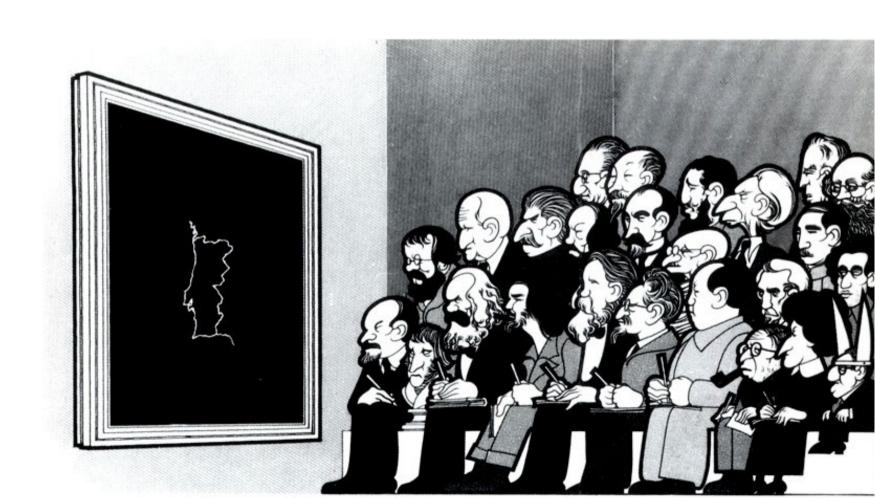
Drawbacks

Do not try to sell the pattern at all costs...

Try to brainstorm the positive and negative consequences of the pattern application.



A pattern usually focus on a nontrivial problem in which several things need to be considered.

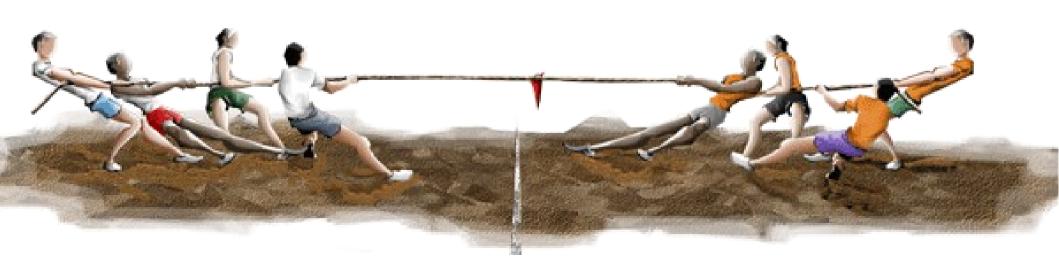


FORGES

Forces are parts of the problem that have influence on the solution: requirements, desired properties, and constraints.

Pattern forces are usually contradictory and pull for different directions.

This tension between forces is what makes the problem complex!



Showing the tension...

What are the forces that you need to balance to solve the problem?



Are the consequences complete?



A very specific context can left out situations where the pattern can be applied.

A very general context can make the pattern to be applied in situation where it is not appropriate.

Add on context concrete examples of the pattern problem followed by a more general description.

Add on the pattern body a descrition of its aplicability listing scenarion where it can be used.

Alternatives

Boundaries on the right place

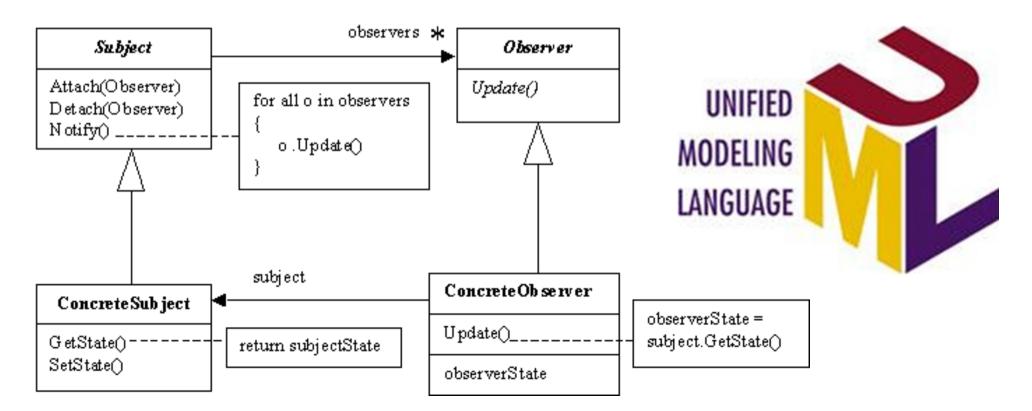
Choose the best way to express the pattern context, making clear when it should be used.

May the reader use the pattern on a wrong scenario or do not use when appropriate?

More than a 1000 words!

Try to create a image that represent the pattern and make easier for people to remember it!

Be careful on using UML to represent the pattern because it can be seen as the only way to implement it!



Make it memorable...

test system

system under test

set expected behavior access inner state

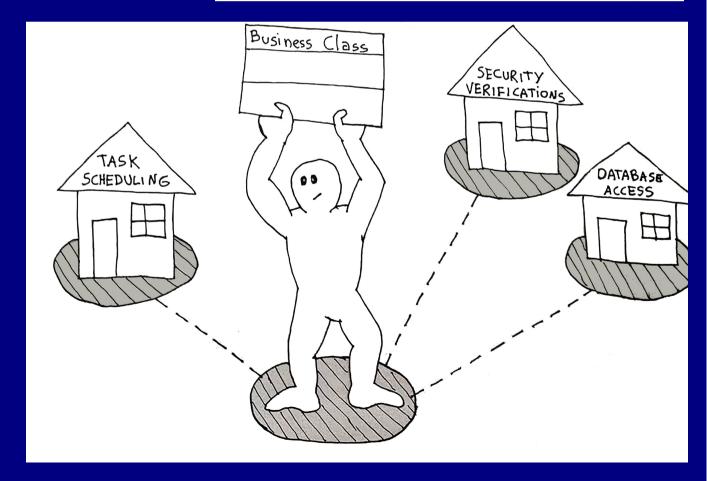
remote system

remote access

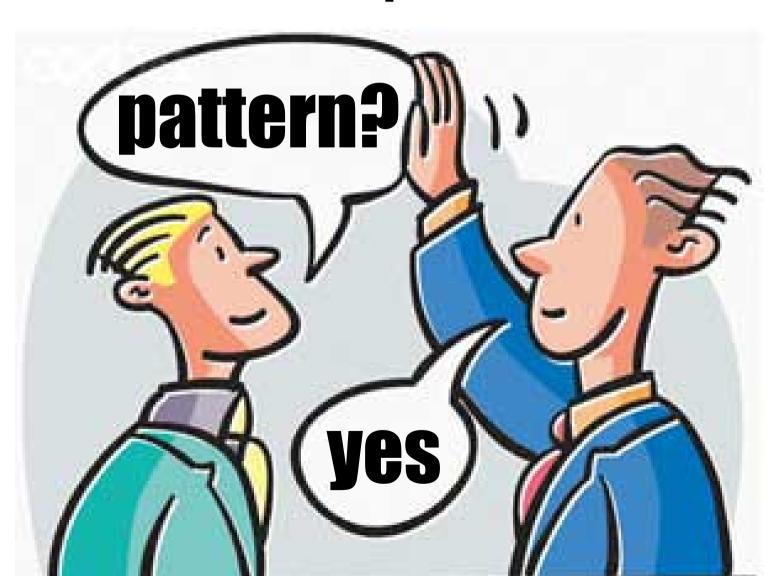
remote access

remote agent

Create a picture that represents the pattern solution.



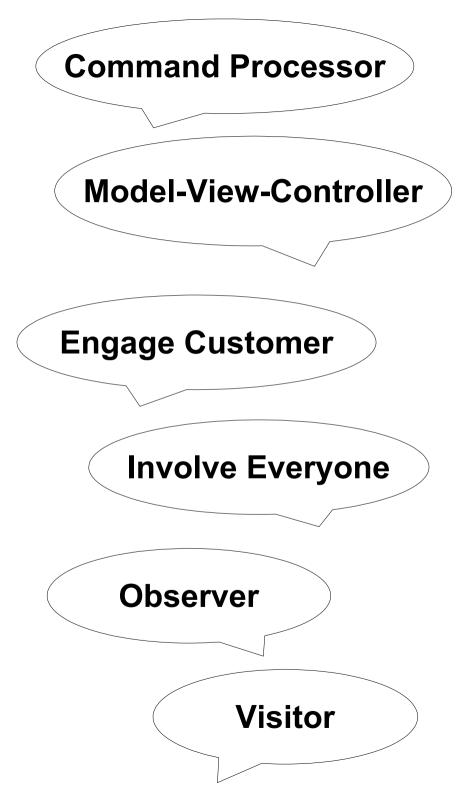
The name of the pattern is very important because is should be part of the developers vocabulary!



The result that is created by the pattern application.

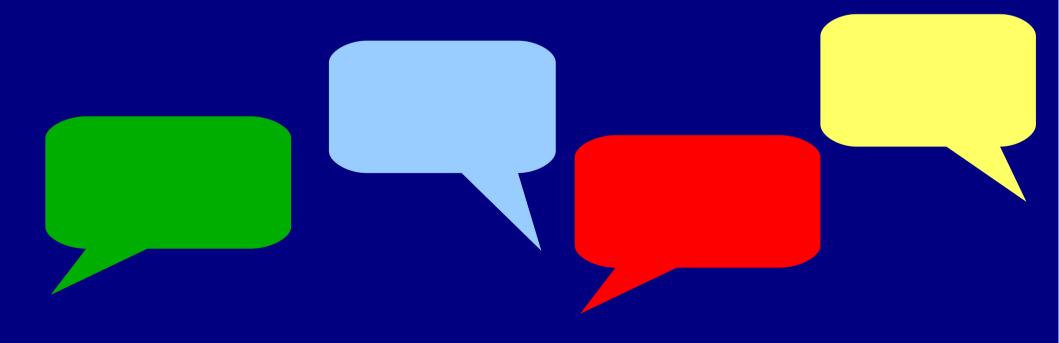
Instruction on how to achieve the pattern solution.

Metaphors that associate the pattern with other concepts.



Tell me your name!

Try to think different names for the pattern. Choose one to be the official and put the others on the "Also known as...".





Known uses

helps to validate that the solution is really recurrent and how it can be applied in practice.

Search for at least three to include on the description.

Search for usages...

Identify at least 2 known uses for the pattern being written...





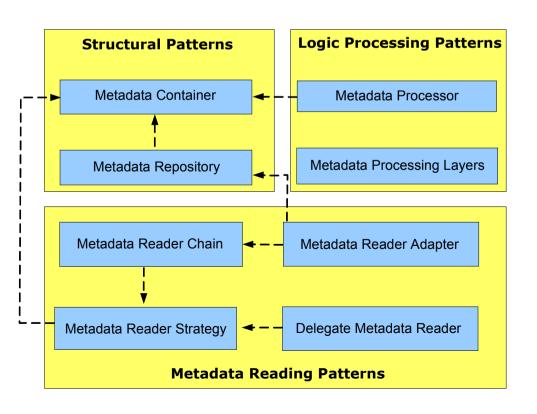
Example

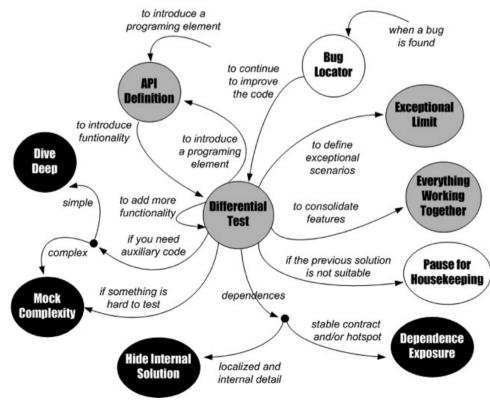
Implementation



Pattern Languages

Set of related patterns that document solutions of a given domain.





Can patterns documentation be part of a research?



"Patterns are an aggressive disregard of originality"



Brian Foote