

Refactoring

Refactoring is a disciplined technique for restructuring an existing body of code, altering its internal structure without changing its externally observable behavior.

Refactoring is usually done to :

- Improve quality
 - improve design quality
 - improve maintainability
 - improve extensibility
 - requires proper testing, so it improves testability
 - helps to find bugs
 - Without refactoring, agile methods are likely to create code whose further development will be exponentially costly.
- Improve productivity
 - improve code readability & comprehensibility
 - simplify code structure
- Improve sustainability of development
 - By improving the code's structural quality, reducing confusion and making the code more understandable, it reduces the effort involved in further development.
 - This is very important in agile software development methods, whose focus on productivity and changes are likely to create lower quality code.
 - Without refactoring, agile methods are likely to create code whose further development will be exponentially costly.

Our refactoring

- Observer design pattern For Player, MapView.
- Rename methods and fields: we did some refactoring for increasing the readability and maintainability by changing the method and field's names.
- Remove some code redundancies in the RiskUI
- Try to use the shorter methods because those are easier to read, understand, and easier to troubleshoot.
- Implemented strategy pattern for different player behaviours
- Implemented builder pattern for saving/loading game
- Implemented adapter pattern for both domination and conquest map files