

Object-Oriented Software Engineering

Practical Software Development using UML and Java

Architecting and Designing Software
Chapter 9 in OOSE Textbook plus
Almost all taken directly from textbook.
→ Finish Process + Software Architecture
Architectural Patterns

Design Principle 5: Increase Reusability where possible

- **Design for Reusability (in other contexts)**
 - Goal is to increase reusability;
 - **Actively reuse the work of others.**
 - (think ‘application layer’ and ‘domain layer’)
 - **Generalize your design as much as possible**
 - Layers, packages, subsystems help greatly!
 - Some address the GUI; some general business domain; others: application specifics.
 - Design your system to contain hooks
 - Essentially this means to design your system where some things are provided, but can be modified. Others must be added...
 - **Simplify your design as much as possible**
 - Divide and conquer; low coupling; high cohesion...
 - **Separation of ‘concerns’** (subsystems, packages) etc.



Design Principle 6:

Reuse existing designs and code where possible

- **Design with Reuse is Complementary to Design for Reusability**
 - **Actively reusing designs or code** allows you to take advantage of the investment you or others have made in reusable components

