



Well-Designed Application Framework

Created by
Elton Tsao

Christopher Alexander

- The Quality Without a Name
 - Remember that **QWAN is never changed** when the change happened to the requirement of software function.
- The Gate
- The Way

The Timeless Principle of Design

Application Framework Design

Maintainability and Reusability

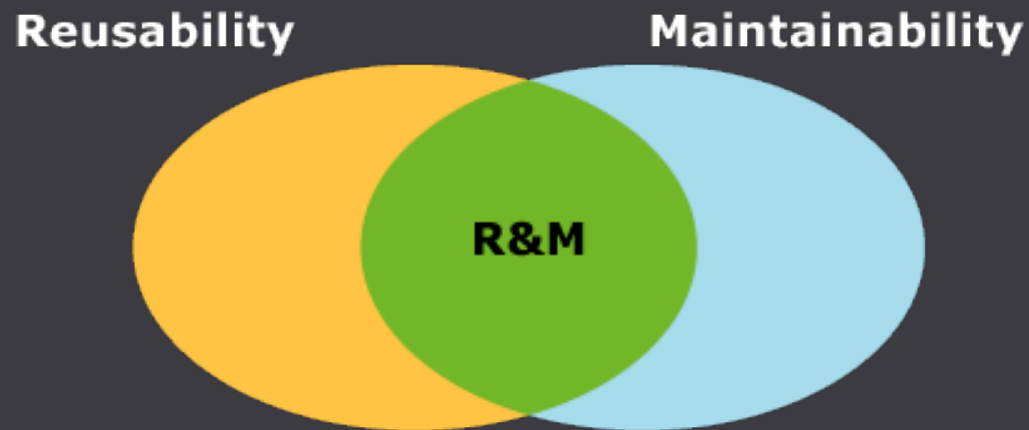
Target of Maintenance

Extensibility 、 Flexibility 、 Pluggability

Target of Reusability

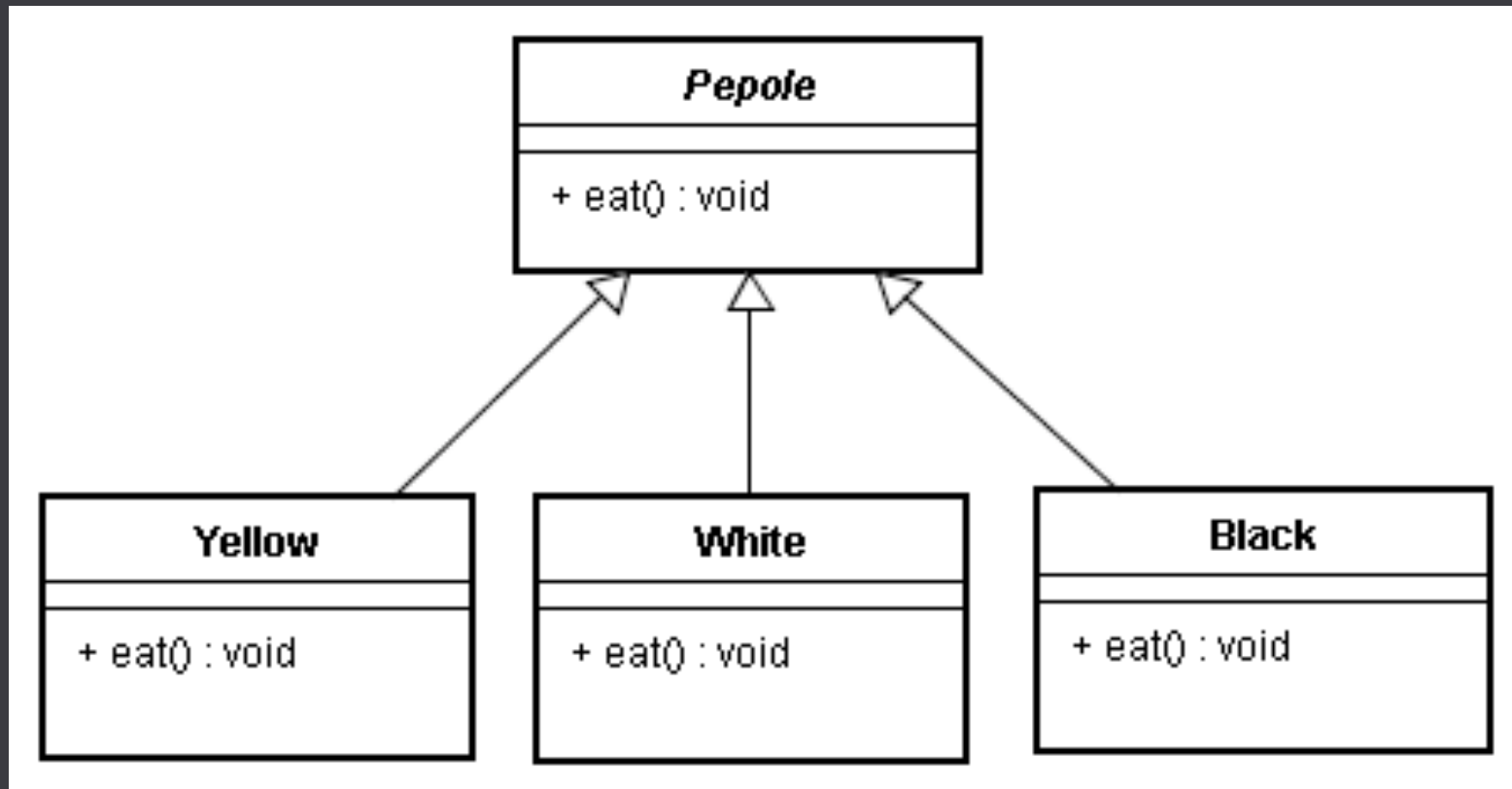
- high production efficiency
- high software quality
- improve the system maintainability

Traditional Reusability



Could resolve this problem by the viewpoint of OO
(**abstract, inherence, encapsulation, polymorphism**)
- focus on **the reusability of software architecture**

System Reusability



Design Principal

Open-Closed Principle (OCP)

- Close to **abstract layer**, but Open to **implementation layer**.

Dependency Inversion Principle (DIP)

- Depend on abstraction, not on implementation.

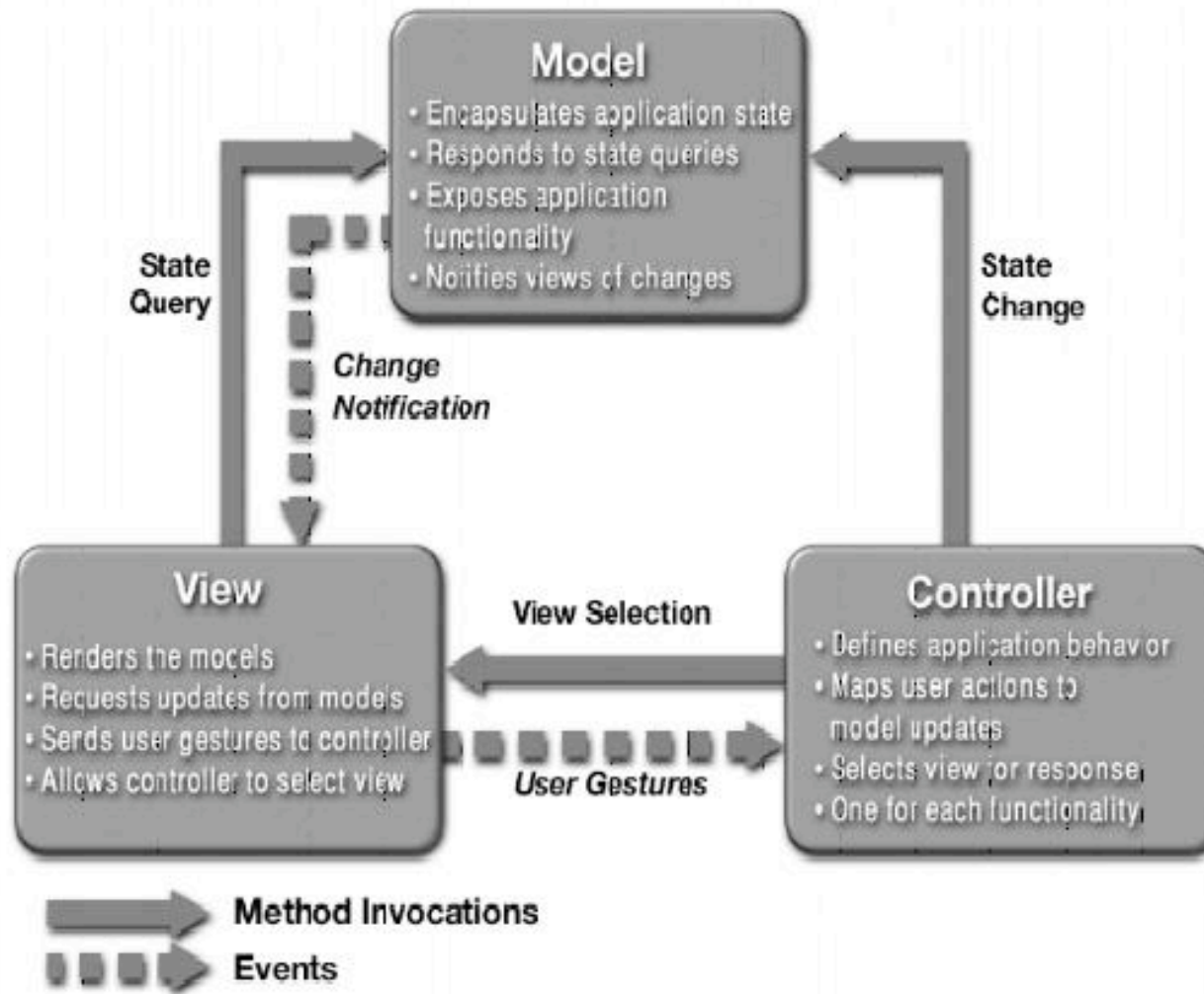
Demeter Principle

- one software entity should reduce interaction with other entities as possible.

- Model
 - The domain-specific representation of the information on which the application operates.
- View
 - Renders the model (theoretically, not necessary)
- Controller
 - Processes and responds to events.

Originated from the late 70's, Trygve ReensKaug

Higher Level Arc Pattern- MVC



Higher Level Arc Pattern- MVC

- Defects of MVC
 - System architecture and implementation become more complex.
 - View and Controller probably **get too closed**.
 - View probably **inefficiently** interview Model.



See you !

Kat Digital Corp.

5F, No.19-11, SanChong Rd. NanGang Taipei 115, Taiwan

Phone: 886 2 3789 5223

Website: www.katdc.com