

# Components

## Units of deployment — build ability and maintainability

- Smallest entities that can be deployed as part of a system
  - Compiled languages: aggregations of binary files, e.g., DLLs in .Net, jar in Java
  - Interpreted languages: aggregations of source files, e.g., gem files in Ruby
- Components can be linked together into a SINGLE executable
  - Relocatable binaries, external reference, external definition
- Compile -> Link -> Load
  - Linking loader
  - Linker & Loader
  - Component plugin architecture

# Component Cohesion

Which classes belong in which components?

- Cohesion
  - A module performs one, and only one function
  - Component cohesion — Reusability v.s. Develop-ability
- Principles
  - REP: the reuse/release equivalence principle
  - CCP: the common closure principle
  - CRP: the common reuse principle