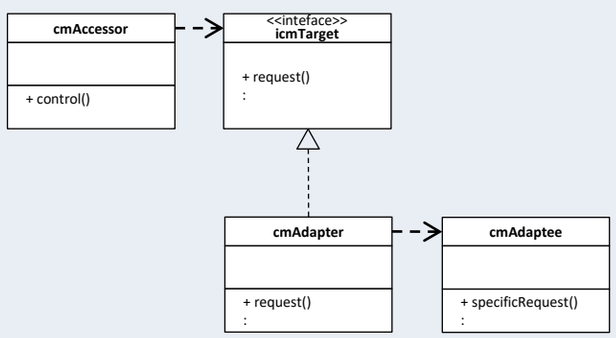
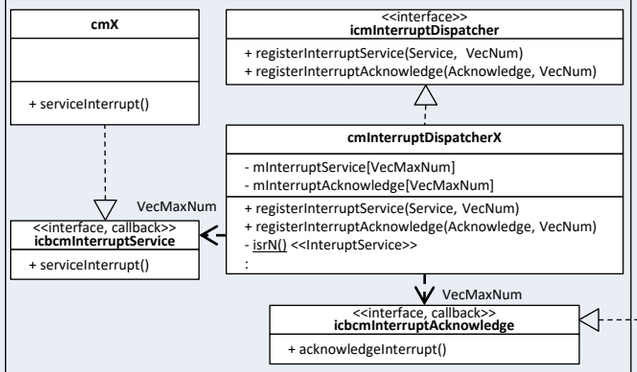
Embedded Software Design Patterns Map

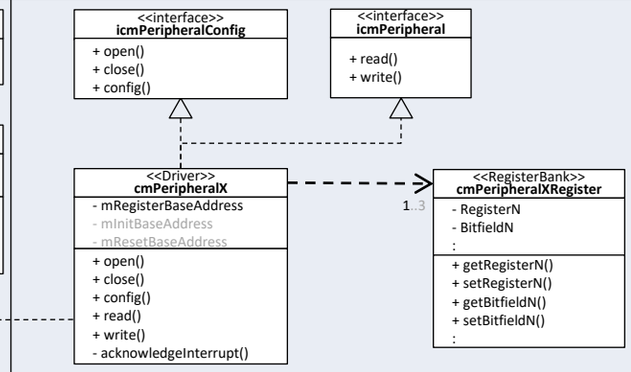
Structure::**Adapter**



Structure::**Interrupt**



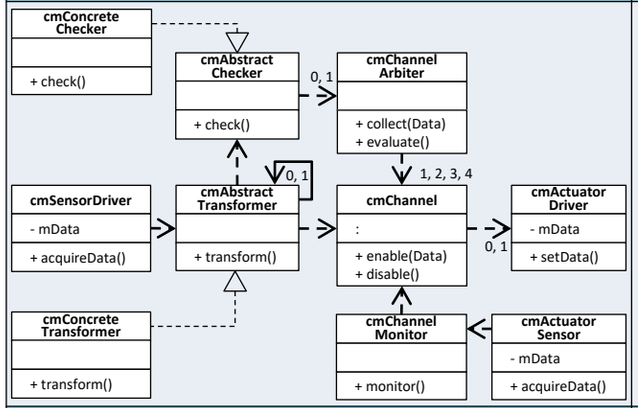
Structure::**Hardware Driver**



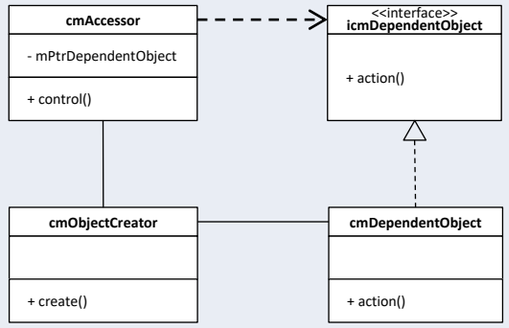
Embedded Software Design Patterns Overview

- Structure:: **Adapter**
- Structure:: **Interrupt**
- Structure:: **Hardware Driver**
- Structure:: **N-Channel**
- Interface:: **Dependency Injection**
- Interface:: **Facade**
- Interface:: **Curiously Recurring Template (CRTP)**
- Memory:: **Smart Data**
- Behavior:: **Mediator**
- Behavior:: **Observer**
- Behavior:: **Command**
- Behavior:: **Object Oriented State Table**
- Behavior:: **State**

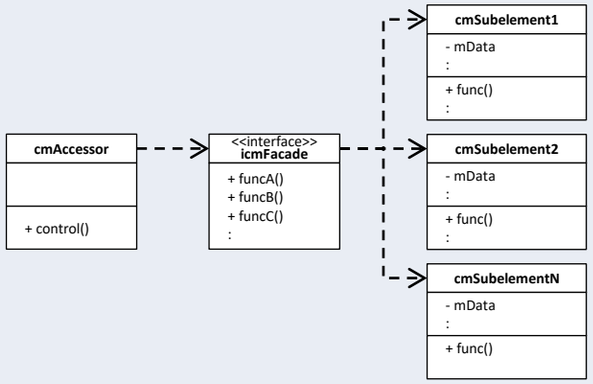
Structure::**N-Channel**



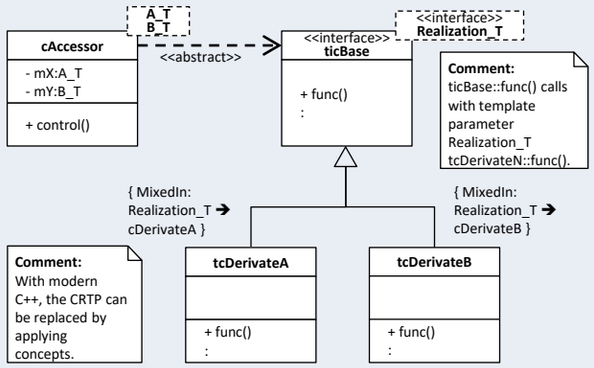
Interface::**Dependency Injection**



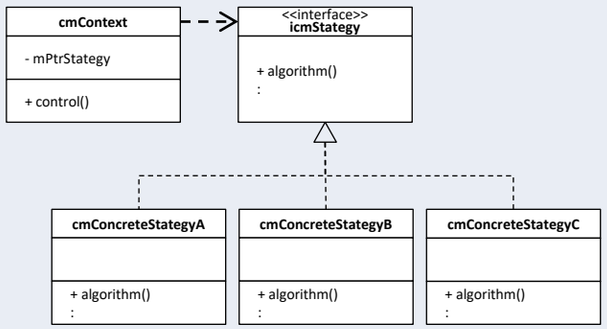
Interface::**Facade**



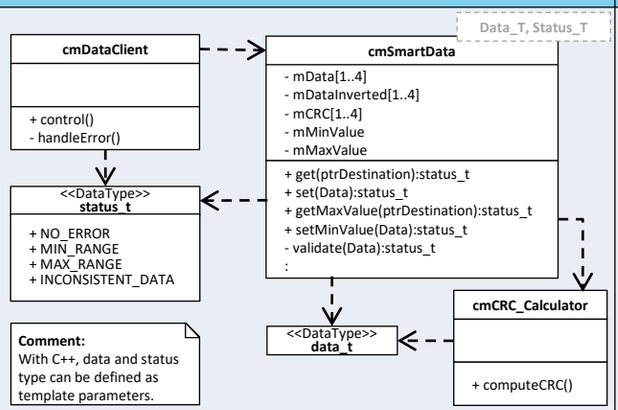
Interface::**Curiously Recurring Template (CRTP)**



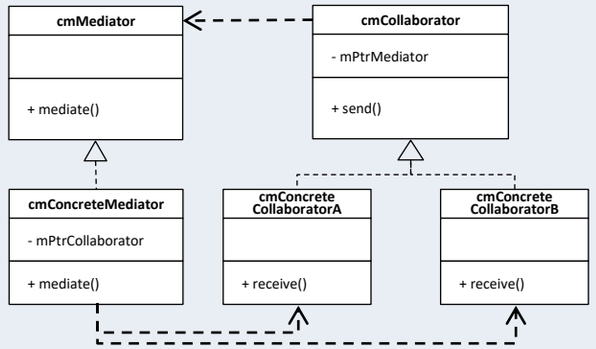
Interface::**Strategy**



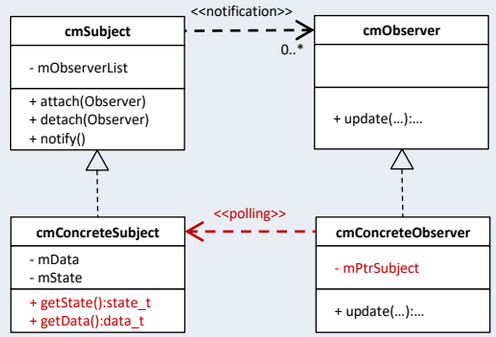
Memory::**Smart Data**



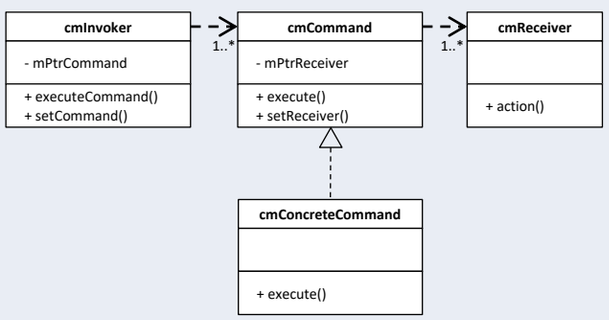
Behavior::**Mediator**



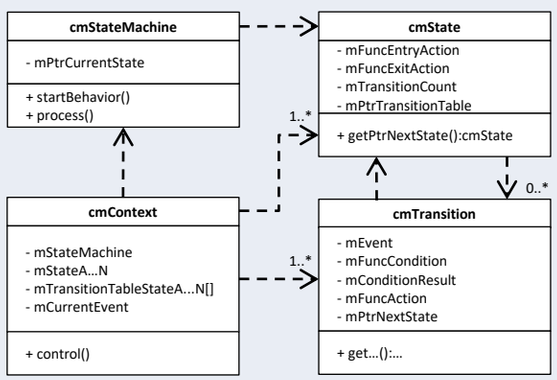
Behavior::**Observer**



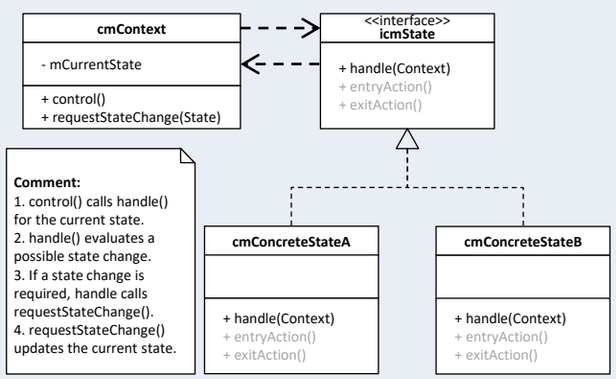
Behavior::**Command**



Behavior::**Object Oriented State Table**



Behavior::**State**



References

- **Literature**:
  - Real-Time Design Patterns (Bruce Powel Douglass)
  - Design Patterns for Embedded Systems in C (Bruce Powel Douglass)
  - Design Patterns (Erich Gamma et al.)
- **Internet**:
  - http://www.software-pattern.org
  - https://refactoring.guru
  - https://en.wikipedia.org
  - https://www.microconsult.de

- Common **abbreviations**:
  - **c**: class; **cm**: class or module; **m**: module or member data; **ptr**: pointer
  - **i**: interface; **ic**: interface class
  - **t**: template; **tc**: template class
  - **_t**: data type; **_T**: template parameter type
- Common **comments**:
  - Depending on the implementation (pointer / reference) and the programming language, it is necessary to replace dependency with association and interface realization with inheritance.

Version: 1.2

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