Unified Modeling Language (UML)

Good tutorial on object-orientation development process and short (about 200 pages) introduction to the UML.

Unified Modeling Language

- Graphical language for designing, documenting and communicating designs object-oriented software
- Standardized by the Object Management Group (OMG) and backed by a large group of software companies
- Allows the specification and description of object-oriented software at various levels of detail
- Supported by many different CASE tools for
  - Designing OO software
  - Documenting OO software
  - Reverse engineering OO software
  - Creating skeleton code for OO software
  - Refactoring OO software
Overview of Basic UML Notation for Object Orientation (OO)

Simple UML Class Diagram

Compatible C++ declarations

```cpp
class BaseA {
    public:
        virtual ~BaseA() {}  
        virtual int aFunc() const = 0;
        virtual C& c() = 0;
    ...
};

class DerivedB : public BaseA {
    public:
        ...
    private:
        std::vector<BaseD*> d_;
    ...
};

class C {...};

class BaseD {...};

class DerivedE : public BaseD {
    public:
        void eFunc(const C& c);
    ...
};
```