

Builder



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Module Overview



Motivation

Builder

Fluent Builder

Groovy-style Builder

Builder Facets

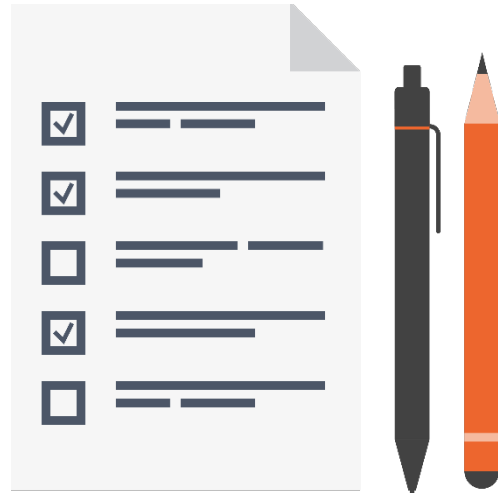
Builder

When piecewise object construction is complicated, provide an *API* for doing it succinctly.

Builder Examples

- Building a string out of substrings
 - E.g., web server page rendering
- Concatenate a single `std::string`
 - `my_text += boost::lexical_cast<string>(my_int);`
- `printf("%s = %n", "meaning of life", 42);`
- `Boost.Format`
 - `format("%1%,x=%2% : %3%-th try") % "toto" % 40.23 % 50`
- Represent as OO structure and implement operator<< on an object graph

Summary



A builder is a separate component for building up a complex object

You can give the builder a public constructor or return it via a static function

To make a fluent builder, return `this` or `*this`

Initializer lists let you implement Groovy-style builders with ease

Different facets of an object can be built with different builders working in tandem