

A day with C++11

C++11 represents a major upgrade of C++. The standard has increased by approximately 30 %. There are a lot of new advanced features but also a lot of simplifications and more expressive constructs for easing daily life programming. The major news in C++11 will be presented and accompanied by small hand-on exercises

Contents

The topics of the day will be

- uniform initializations
- enum classes
- tuple – a new "quick and dirty" data structure
- user-defined literal constants
- auto declaration of variables
- the new easy range for-loop
- memory-leak prevention with `unique_ptr`, `shared_ptr` and `weak_ptr`
- `constexpr` functions (compile-time functions)
- lambda functions
- polymorphic function object wrapper
- functions with variable number of parameters
- new keywords for more precise control over the class inheritance hierarchy
- new "right-side" reference variable `rvalue reference` `T&&`
- move constructors and move-assignments
- variadic templates (templates with variable number of parameters)
- type-traits for acquiring type details on run-time static assertions (for debugging and verification)
- some of the news in the standard library
- C++14 wraps up the loose ends from C++11

Audience

The course is addressed to skilled professional programmers knowing about C++ in advance.

Søren Top holds a master degree in computer science and a Ph.D. in software technology. He has taught engineer students advanced programming for decades.

Time and place

20. January 2015

The course is held at University of Southern Denmark, Sønderborg campus

Price

3.000 kr. excl. VAT

The price includes tuition, materials and meals during the course days.

The price does not include accommodation.

Registration

Deadline 12. December 2014

On our website: www.sdu.dk/sdue

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