C++11 / Boost Library Workshop

Using the C++11 Standard Library
Augmented by Boost

Durchführung:
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Agenda

Topics* Monday to Friday (last day course ends after lunch-break)

- Monday 1: Some Fundamentals
- Monday 2: Universal Basic Helpers

- Tuesday 1: Basic and Advanced String Processing
- Tuesday 2: A Mix of Useful Things

- Wednesday 1: Smart Pointers
- Wednesday 2: The STL and Beyond

- Thursday 1: Input and Output / Concurrency Basics
- Thursday 2: A Tour of Boost

- Friday: A Tour of Boost (cont.)

*: There is also a Small Appendix on related topics not explicitly covered during this training.

Online Version of this Presentation

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You may download the document from:
http://github.com/tbfe-de/mc-cpp11-BLWS

[!] The content was produced and checked with adequate care. The author may not be held liable for any errors or inaccuracies still contained.

You are welcome to point out errors or propose general improvements.

Online References

C++ has become a huge topic so it will frequently be necessary to lookup details in an online reference.

As general C++ reference the following can be recommended:

- http://en.cppreference.com/w/ - totally free, seems to be run by enthusiasts and now includes even live examples

- http://www.cplusplus.com/ - obviously financed by moderate pop-ups, nevertheless well organized and up-to-date

For topics specific to boost:

- http://www.boost.org - The Official Boost Site

- http://en.highscore.de/cpp/boost/frontpage.html
  A free Online Book[*] by Boris Schäling in English Language and

- http://www.highscore.de/cpp/boost - same in German Language

Online Compilation

A growing number of internet sites offer free* online compilation services and may be tried for small examples without having a C++ compiler or even a full IDE like Eclipse installed locally.

- For an overview see appendix: **Online Compilation**

> In most cases code can even be shared among developers by creating a permanent link that can be sent around via email. Others allow the use of browser local storage to save your code and retrieve it later.

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*: At least for some sites the motivation seems to be to offer upgrades for a fee. Details like guaranteed up-time, safety of your code (against accidental loss or being spied on) will then be based on the details of a service agreement.

Online Compilation (cont.)

Especially online compilation services that allow to chose from several compilers make it easy to find out whether some surprising behavior is just a glitch of a particular implementation.

> **[!]** In case of free services you should of course not *depend* on the site being up and available all the time and everywhere.

Similarly you should not count on your code is reliably saved in permanent store, even if the service allows to "save" your code and retrieve it later.

Finally – as data is sent over the Internet – the code compiled is not safe against preying eyes ...*

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*: ... so do not send out fragments for which your company (or your contractor, if you are a freelancer) has signed an NDA.

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*: Given an appropriate level of CSS knowledge you may be able to tweak the appearance.

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- Notes contained in the presentation itself will currently not be printed.[*]

[*]: That option may become available in a future version.

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[*]: With minor extensions, if you happen to know markdown already.

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