

C++ Software Design

Design Principles and Patterns in Modern C++

Klaus Iglberger
January, 23th-24th, 2023

C++ Software Design @ O'Reilly

1. Introduction

Klaus Iglberger
December, 15th, 2022

Content

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Introduction of the Trainer

C++ Trainer since 2016

Author of the bl🔥ze C++ math library

Author of “C++ Software Design”

(Co-)Organizer of the Munich C++ user group

Regular presenter at C++ conferences



Klaus Iglberger

Content of this Training

1. Introduction
2. C++ Software Design
3. Summary/Literature

Schedule

Monday, January, 23rd, 2023 (EDT time zone)

<i>10:00am - 10:10am</i>	<i>Introduction</i>
<i>10:10am - 11:00am</i>	<i>Understanding Software Design and Patterns</i>
<i>11:00am - 11:10am</i>	<i>Break</i>
<i>11:10am - 12:00pm</i>	<i>The Visitor Design Pattern</i>
<i>12:00pm - 12:10pm</i>	<i>Break</i>
<i>12:10pm - 1:00pm</i>	<i>The Visitor/Strategy Design Patterns</i>
<i>1:00pm - 1:10pm</i>	<i>Break</i>
<i>1:10pm - 2:00pm</i>	<i>The Strategy Design Pattern</i>

Schedule

Tuesday, January, 24th, 2023 (EDT time zone)

<i>10:00am - 10:10am</i>	<i>Recap</i>
<i>10:10am - 11:00am</i>	<i>The Prototype and Adapter Design Patterns</i>
<i>11:00am - 11:10am</i>	<i>Break</i>
<i>11:10am - 12:00pm</i>	<i>The Bridge Design Pattern</i>
<i>12:00pm - 12:10pm</i>	<i>Break</i>
<i>12:10pm - 1:00pm</i>	<i>The External Polymorphism Design Pattern</i>
<i>1:00pm - 1:10pm</i>	<i>Break</i>
<i>1:10pm - 2:00pm</i>	<i>The Type Erasure Design Pattern</i>

Miscellaneous

I assume you have some experience with C++. If something remains unclear or somewhat vague, **please ask!**

Miscellaneous

Also remember: **You are in control!**

Guidelines

(Core) Guideline: ...

The green boxes represent ...

- ... the most important take-aways;
- ... common idioms and best practice;
- ... markers in the slides.

Programming Tasks

Task (Subchapter/Name): ...

The yellow boxes represent ...

- ... hands-on programming tasks;
- ... links to the provided source code examples.

email: klaus.iglberger@gmx.de

LinkedIn: [linkedin.com/in/klaus-iglberger-2133694/](https://www.linkedin.com/in/klaus-iglberger-2133694/)

Xing: [xing.com/profile/Klaus_Iglberger/cv](https://www.xing.com/profile/Klaus_Iglberger/cv)