



C++29? P3274: Profiles

Profiles Framework

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Settle

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A framework for Profiles development

1. Introduction

This document outlines a structured framework for developing and implementing safety profiles in ISO standard C++. It addresses the industry's urgent need for improved safety and the challenges of standardization.

Profiles (e.g., see [P2687r0](#), [P2816R0](#), and [P3038R0](#)) can deliver guarantees; that's how they differ from guidelines and from many tools for detecting errors. To deliver the strongest guarantees, such as complete type-and-resource safety, we need analysis that may not fit into current tool chains and may require sophistication that is not available at scale.

C++ Profiles

- Type
- Arithmetic
- Concurrency
- Ranges
- Pointers
- Algorithms
- Initialization
- Casting
- Invalidation
- RAI
- Union