



- Thread-safe wrappers
  - synchronized\_value
  - std::mutex/shared\_mutex/spin\_lock
  - crill::seqlock\_object
- Value wrappers around shared objects
  - Automatic reference counting (arc)
  - Copy-on-write objects (cow)

#### Async classes

• P2996 - Reflection for C++26

Accepted

- P3294 Code Injection with Token Sequences

  Hopeful for C++26 ➡
- P3096 Function Parameter Reflection in Reflection for C++26 Proposed C++29 ▲
- P3394 Annotations for Reflection
   Proposed C++29 ↓
- P0707 Metaclasses
   Proposed C++29

C++29

- P3294 Code Injection with Token Sequences
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- P3096 Function Parameter Reflection in Reflection for C++26 Accepted C++26 ✓
- P3394 Annotations for Reflection
   Accepted C++26
  - PO707 Metaclasses
     Proposed C++29

## Wrapping with Reflection

# Implicit synchronized\_value



synchronized\_value

std::mutex/shared\_mutex/spin\_lock

Copy-on-write objects (cow)

#### **Async classes**

Automatic reference counting (arc)

crill::seqlock\_object

#### Thread-safe wrappers

#### Value wrappers around shared objects



P3096 - Function Parameter Reflection in Reflection for C++26

P3294 - Code Injection with Token Sequences

P2996 - Reflection for C++26

## Proposed C++29 🙏

## Accepted 🔽

### Proposed C++29 🙏

P3394 - Annotations for Reflection

### Proposed C++29 🙏

P0707 - Metaclasses

### Hopeful for C++26 soon



+29

### Proposed C++29 🙏

## Accepted C++26 🔽

### Accepted C++26 🔽



person() = default; std::string get\_first\_name() const

# class(synchronized) person





## private:

std::string first\_name, last\_name;

# void set\_first\_name (std::string\_view new\_first)

first\_name = new\_first;

## // Repeat for last\_name

## public:



### return first\_name;

