



Implicit mutex locking





Cppcon.org

Video Sponsorship Provided By





# Now in EDG... godbolt.org/z/fex55qq50

```
consteval auto make_interface_functions(info proto) -> info {
    info ret = ^^{};
    for (info mem : members_of(proto)) {
        if (is_nonspecial_member_function(mem)) {
            ret = ^^{
                \tokens(ret)
                virtual [:\(return_type_of(mem)):]
                    \id(identifier_of(mem)) (\tokens(parameter_list_of(mem))) = 0;
            3;
          --- reporting compile time errors not yet implemented ---
        // else if (is_variable(mem)) {
             print_error( "interfaces may not contain data members" );
        // } // etc. for other kinds of interface constraint checks
   return ret;
```

Peering Forward

C++'s Next Decade

Herb Sutter



```
consteval void interface(std::meta::info proto) {
    std::string_view name = identifier_of(proto);
    queue_injection(^^{
        class \id(name) {
        public:
            \tokens(make_interface_functions(proto))
            virtual ~\id(name)() { }
```



### // Repeat for last\_name



### private:



first\_name = new\_first;

### public:

#### return first\_name;

std::string get\_first\_name() const



person() = default;

## class(mutex) person

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

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