

## final

## Chapter 3 Unsafe Features

```

        return policy.allocate();
    }
};

static_assert(
    sizeof(LargeObjectCreator<int, OpNewCreator>) > sizeof(std::size_t), "");

static_assert(
    sizeof(LargeObjectCreator<int, MallocCreator>) > sizeof(std::size_t), "");

```

Alternatively, the author of `OpNewCreator` and `MallocCreator` might reconsider and remove `final`.

### See Also

- “**override**” (§1.1, p. 104) describes a related contextual keyword that verifies the existence of matching virtual functions in base classes instead of preventing matching virtual functions in derived classes.

### Further Reading

- Barbara Liskov discusses in her seminal 1987 keynote paper a remarkable number of issues relevant to the ongoing design and development of modern C++; see **liskov87**.
- Barbara Liskov and Jeanette Wing followed up with a precise notion of subtyping in which any property provable about objects of a supertype would necessarily hold for objects of proper subtypes; see **liskov94**. This notion of proper subtyping (which is manifestly distinct from C++-style inheritance) would later come to be known as the Liskov Substitution **Principal** (LSP)<sup>16</sup>:

Let  $\phi(x)$  be a property provable about objects  $x$  of type  $T$ . Then  $\phi(y)$  should be true for objects  $y$  of type  $S$  where  $S$  is a subtype of  $T$ .

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<sup>16</sup>**liskov94**, section 1, “Introduction,” p. 1812