

## Section 1.1 C++11

## override

```
void i(int) override; // OK, explicitly overrides Base::i(int)
};
```

Using this feature expresses design intent so that (1) human readers are aware of it and (2) compilers can validate it.

As noted, **override** is a contextual keyword. C++11 introduces keywords that have special meaning only in certain contexts. In this case, **override** is a keyword in the context of a declaration, but not otherwise, using it as the identifier for a variable name, for example, is perfectly fine:

```
int override = 1; // OK
```

## Use Cases

### Ensuring that a member function of a base class is being overridden

Consider the following polymorphic hierarchy of error-category classes, as we might have defined them using C++03:

```
struct ErrorCategory
{
    virtual bool equivalent(const ErrorCode& code, int condition);
    virtual bool equivalent(int code, const ErrorCondition& condition);
};

struct AutomotiveErrorCategory : ErrorCategory
{
    virtual bool equivalent(const ErrorCode& code, int condition);
    virtual bool equivalent(int code, const ErrorCondition& condition);
};
```

Notice that there is a defect in the last line of the example above: `equivalent` has been misspelled. Moreover, the compiler did not catch that error. Clients calling `equivalent` on `AutomotiveErrorCategory` will incorrectly invoke the base-class function. If the function in the base class happens to be defined, the code might compile and behave unexpectedly at run time. Now, suppose that over time the interface is changed by marking the equivalence-checking function `const` to bring the interface closer to that of `std::error_category`:

```
struct ErrorCategory
{
    virtual bool equivalent(const ErrorCode& code, int condition) const;
    virtual bool equivalent(int code, const ErrorCondition& condition) const;
};
```