

Conversion Constructors

A **conversion constructor** is a constructor (usually 1-argument) that **implicitly converts between one type and another**. Here's an overloaded conversion constructor that converts between fractional hours and hours and minutes:

```
Time(double hours);
```

The implementation of the constructor (converting first to seconds, then extracting the hours and minutes) could look like this:

```
Time::Time(double hours)
{
    assert(hours >= 0 && hours < 24);
    const int kSecondsPerHour = 3600;
    const int kHoursPerMinute = 60;
    auto time = static_cast<int>(hours * kSecondsPerHour);
    m_hours = time / kSecondsPerHour;
    m_minutes = time % kSecondsPerHour / kHoursPerMinute;
}
```



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