







```
auto gain = 1.0f;
```

```
void processSensorData (float* sensorInOut, int n)
{
    // do some dsp
    ...

    for (int i = 0; i < n; ++i)
        sensorInOut[i] *= gain;
}
```

```
// called on another thread
void setSensorGain (float newGain)
{
    gain = newGain;
}
```

is this ok?

• How about on a single core machine?

- Sharing data between threads where one of them is a write is a data-race

• Adara is undefined behavior





36

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- Is this ok?
- How about on a single core machine?
- Sharing data between threads where one of them is a write is a data-race
- A data-race is undefined behaviour

```
auto gain = 1.0f;
```

```
void processSensorData (float* sensorInOut, int n)
{
    // do some dsp
    ...

    register auto gain_copy = gain;
    for (int i = 0; i < n; ++i)
        sensorInOut[i] *= gain_copy;
}
```

```
// called on another thread
void setSensorGain (float newGain)
{
    gain = newGain;
}
```