Bending Time with Asynchronous C#

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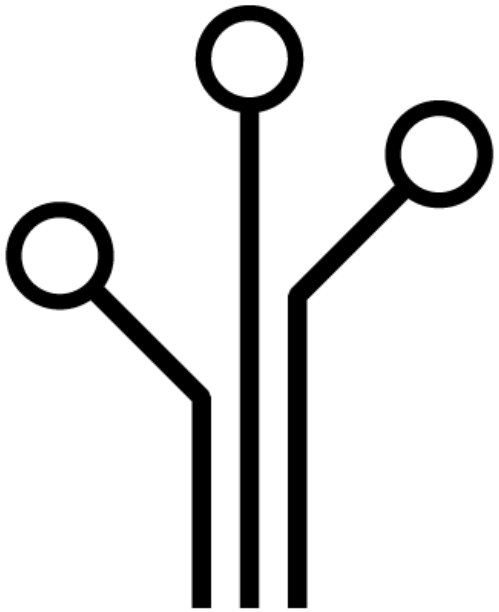
Programs can be split up into **“threads”** that can all run at the same time

Threads



The main thread is typically a User Interface thread

Without asynchronous programming, starting a long operation can freeze the main thread

With asynchronous programming the long thread can continue while the main thread is unaffected

await

Wait for this to finish and then continue.

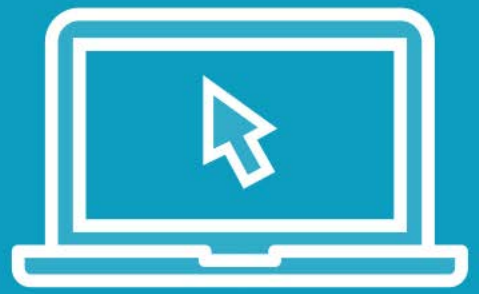
If you use await
you must use async

Using "Await"

```
public async void Work() {
     await SlowTask();
}


public void SlowTask() {
    int i;
    for (i = 0; i < 50; i++) {
        Console.WriteLine(i);
        for (int j = 0; j < 10000; j++) {
            var k = Math.Sqrt(j);
        }
    }
}
```

Demo



Async & Await

Module Summary

Asynchronous programming

Await keyword

Async keyword