Particular
Software

Welcome

Async best-practices

webinar

Particular
Software

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Goals

target

CPU-bound vs IO-bound

Threads and Tasks

Async best-practices

Terminology → Code → WrapUp

Terminology Code WrapUp

async

event-driven

Task

uniform

Task

IO-bound

Task

CPU-bound

concurrent
concurrent
concurrent concurrent
concurrent
interleaved

parallel
parallel
simultaneous

Continuation

function

Terminology **Code** WrapUp

async/await

simplicity

```
function1(function(err, res) {
  function2(function(err, res) {
    function3(function(err, res) {
      function4(function(err, res) {
        function5(function(err, res) {
          // do something useful
        })
      })
    })
  })
})
```

```
cleanLaundry.ContinueWith(t => {
  dryLaundry;
})
```

```
await cleanLaundry;
dryLaundry;
```

await Demo

Terminology | Code | **WrapUp**

Forget thread!

thinkTask

NSB v6

Will be Async all the way

Applies the shown best-practies like ConfigureAwait(false) consequently, checked with Roslyn analyzer

Recap
reminder

Use **Task.Run**, **Factory.StartNew** for CPU-bound work

Use **Task** directly for IO-bound work

Use **async Task** instead of **async void**

Recap
reminder

Libraries and frameworks should use **ConfigureAwait(false)**

Async all the way, don't mix blocking and asynchronous code

particular.net/async-await-webinar-series

Next

Particular
Software

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Live Webinar Series
Async/Await

with Daniel Marbach

SIGN UP

February 25 - Async/Await best practices
See how to avoid common pitfalls in asynchronous code bases.

March 3 - Task Parallel Library and Message Pumps
Learn how to combine Async/Await and Task Parallel Library to create a message pump for a service bus.

March 10 - Async/Await NServiceBus v6 API Update
See how the v6 API update helps to avoid common Async/Await pitfalls and makes your code ready for asynchronous APIs in the cloud.

* all webinar sessions start at 12:00 EST / 17:00 GMT

Slides, Links...

github.com/danielmarbach/02-25-2016-AsyncWebinar

await Q & A

Thanks