

# WEB DAY



## 2022

ONLINE CONFERENCE



# MINIMAL APIS, FOR MANY BUT NOT FOR EVERY SCENARIOS

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CODICEPLASTICO

**managed/designs**



# Controller vs Minimal API Call Stack

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Call Stack	
Name	
ControllerSample.dll!ControllerSample.Controllers.WeatherForecastController.Get() Line 30	[Lightweight Function]
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Infrastructure.ActionMethodExecutor.SyncObjectResult	
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Infrastructure.ControllerActionInvoker.InvokeActionMet	
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Infrastructure.ControllerActionInvoker.Next(ref Microso	
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Infrastructure.ControllerActionInvoker.InvokeNextActio	
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Infrastructure.ControllerActionInvoker.Next(ref Microso	
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Infrastructure.ControllerActionInvoker.InvokeNextActio	
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Infrastructure.ControllerActionInvoker.Next(ref Microso	
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Infrastructure.ControllerActionInvoker.InvokeInnerFilter.	
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Infrastructure.ResourceInvoker.Next(ref Microsoft.AspNet	
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Infrastructure.ResourceInvoker.InvokeFilterPipelineAsyn	
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Infrastructure.ResourceInvoker.InvokeAsync()	
Microsoft.AspNetCore.Mvc.Core.dll!Microsoft.AspNetCore.Mvc.Routing.ControllerRequestDelegateFactory.CreateRequ	
Microsoft.AspNetCore.Routing.dll!Microsoft.AspNetCore.Routing.EndpointMiddleware.Invoke(Microsoft.AspNetCore.I	
Microsoft.AspNetCore.Authorization.Policy.dll!Microsoft.AspNetCore.Authorization.AuthorizationMiddleware.Invoke(N	
Microsoft.AspNetCore.HttpsPolicy.dll!Microsoft.AspNetCore.HttpsPolicy.HttpsRedirectionMiddleware.Invoke(Microsof	
Microsoft.AspNetCore.StaticFiles.dll!Microsoft.AspNetCore.StaticFiles.StaticFileMiddleware.Invoke(Microsoft.AspNetC	
Swashbuckle.AspNetCore.SwaggerUI.dll!Swashbuckle.AspNetCore.SwaggerUI.SwaggerUIMiddleware.Invoke(Microsof	
Swashbuckle.AspNetCore.Swagger.dll!Swashbuckle.AspNetCore.Swagger.SwaggerMiddleware.Invoke(Microsoft.AspNet	
Microsoft.AspNetCore.Http.Abstractions.dll!Microsoft.AspNetCore.Builder.UseMiddlewareExtensions.UseMiddleware./	
Microsoft.AspNetCore.Routing.dll!Microsoft.AspNetCore.Routing.EndpointRoutingMiddleware.Invoke(Microsoft.AspNet	
Microsoft.AspNetCore.Diagnostics.dll!Microsoft.AspNetCore.Diagnostics.DeveloperExceptionPageMiddleware.Invoke	
Microsoft.AspNetCore.HostFiltering.dll!Microsoft.AspNetCore.HostFiltering.HostFilteringMiddleware.Invoke(Microsof	
Microsoft.WebTools.BrowserLink.Net.dll!Microsoft.WebTools.BrowserLink.Net.BrowserLinkMiddleware.ExecuteWithout	
Microsoft.WebTools.BrowserLink.Net.dll!Microsoft.WebTools.BrowserLink.Net.BrowserLinkMiddleware.InvokeAsync(Mi	
Microsoft.AspNetCore.Watch.BrowserRefresh.dll!Microsoft.AspNetCore.Watch.BrowserRefresh.BrowserRefreshMiddlew	
Microsoft.AspNetCore.Http.Abstractions.dll!Microsoft.AspNetCore.Builder.Extensions.MapWhenMiddleware.Invoke(Mi	
Microsoft.AspNetCore.Hosting.dll!Microsoft.AspNetCore.Hosting.HostingApplication.ProcessRequestAsync(Microsoft.	
Microsoft.AspNetCore.Server.Kestrel.Core.dll!Microsoft.AspNetCore.Server.Kestrel.Core.Internal.Http.HttpProtocol.Proc	
Microsoft.AspNetCore.Server.Kestrel.Core.dll!Microsoft.AspNetCore.Server.Kestrel.Core.Internal.Http.HttpProtocol.Proc	
Microsoft.AspNetCore.Server.Kestrel.Core.dll!Microsoft.AspNetCore.Server.Kestrel.Core.Internal.Http2.Http2Stream <M	
System.Private.CoreLib.dll!System.Threading.ThreadPoolWorkQueue.Dispatch()	
System.Private.CoreLib.dll!System.Threading.PortableThreadPool.WorkerThread.WorkerThreadStart()	
System.Private.CoreLib.dll!System.Threading.Thread.StartCallback()	

Call Stack	
Name	
MinimalSample.dll!Program.<Main>\$.AnonymousMethod_0() Line 35	[Lightweight Function]
Microsoft.AspNetCore.Http.Extensions.dll!Microsoft.AspNetCore.Http.RequestDelegateFactory.Create.AnonymousMet	
Microsoft.AspNetCore.Routing.dll!Microsoft.AspNetCore.Routing.EndpointMiddleware.Invoke(Microsoft.AspNetCore.I	
Microsoft.AspNetCore.HttpsPolicy.dll!Microsoft.AspNetCore.HttpsPolicy.HttpsRedirectionMiddleware.Invoke(Microsof	
Microsoft.AspNetCore.StaticFiles.dll!Microsoft.AspNetCore.StaticFiles.StaticFileMiddleware.Invoke(Microsoft.AspNetC	
Swashbuckle.AspNetCore.SwaggerUI.dll!Swashbuckle.AspNetCore.SwaggerUI.SwaggerUIMiddleware.Invoke(Microsof	
Swashbuckle.AspNetCore.Swagger.dll!Swashbuckle.AspNetCore.Swagger.SwaggerMiddleware.Invoke(Microsoft.AspNet	
Microsoft.AspNetCore.Http.Abstractions.dll!Microsoft.AspNetCore.Builder.UseMiddlewareExtensions.UseMiddleware./	
Microsoft.AspNetCore.Routing.dll!Microsoft.AspNetCore.Routing.EndpointRoutingMiddleware.Invoke(Microsoft.AspNet	
Microsoft.AspNetCore.Diagnostics.dll!Microsoft.AspNetCore.Diagnostics.DeveloperExceptionPageMiddleware.Invoke	
Microsoft.AspNetCore.HostFiltering.dll!Microsoft.AspNetCore.HostFiltering.HostFilteringMiddleware.Invoke(Microsof	
Microsoft.WebTools.BrowserLink.Net.dll!Microsoft.WebTools.BrowserLink.Net.BrowserLinkMiddleware.ExecuteWithout	
Microsoft.WebTools.BrowserLink.Net.dll!Microsoft.WebTools.BrowserLink.Net.BrowserLinkMiddleware.InvokeAsync(Mi	
Microsoft.AspNetCore.Watch.BrowserRefresh.dll!Microsoft.AspNetCore.Watch.BrowserRefresh.BrowserRefreshMiddlew	
Microsoft.AspNetCore.Http.Abstractions.dll!Microsoft.AspNetCore.Builder.Extensions.MapWhenMiddleware.Invoke(Mi	
Microsoft.AspNetCore.Hosting.dll!Microsoft.AspNetCore.Hosting.HostingApplication.ProcessRequestAsync(Microsoft.	
Microsoft.AspNetCore.Server.Kestrel.Core.dll!Microsoft.AspNetCore.Server.Kestrel.Core.Internal.Http.HttpProtocol.Proc	
Microsoft.AspNetCore.Server.Kestrel.Core.dll!Microsoft.AspNetCore.Server.Kestrel.Core.Internal.Http.HttpProtocol.Proc	
Microsoft.AspNetCore.Server.Kestrel.Core.dll!Microsoft.AspNetCore.Server.Kestrel.Core.Internal.Http2.Http2Stream <M	
System.Private.CoreLib.dll!System.Threading.ThreadPoolWorkQueue.Dispatch()	
System.Private.CoreLib.dll!System.Threading.PortableThreadPool.WorkerThread.WorkerThreadStart()	
System.Private.CoreLib.dll!System.Threading.Thread.StartCallback()	

# Minimal APIs «limitations»

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- No project structure enforcement
- No support for model binding
  - No support for binding from forms (IFormFile, IFormFileCollection, ...)
- No built-in support for validation
- No support for API versioning
- No support for content negotiation
  - Support for System.Text.Json only

**DEMO**



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# References

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- <https://docs.microsoft.com/aspnet/core/fundamentals/minimal-apis>
- <https://github.com/marcominerva/MinimalApiSample>
- <https://github.com/marcominerva/MinimalHelpers.Routing>
- <https://github.com/marcominerva/MinimalHelpers.Binding>
- <https://github.com/DamianEdwards/MiniValidation>
- <https://fluentvalidation.net>

# Thank you!

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Questions?



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