DOTVVM COMMUNITY
VIRTUAL MEETUP
24.10.2020
16:00 UTC

# View compilation in DotVVM 2.5
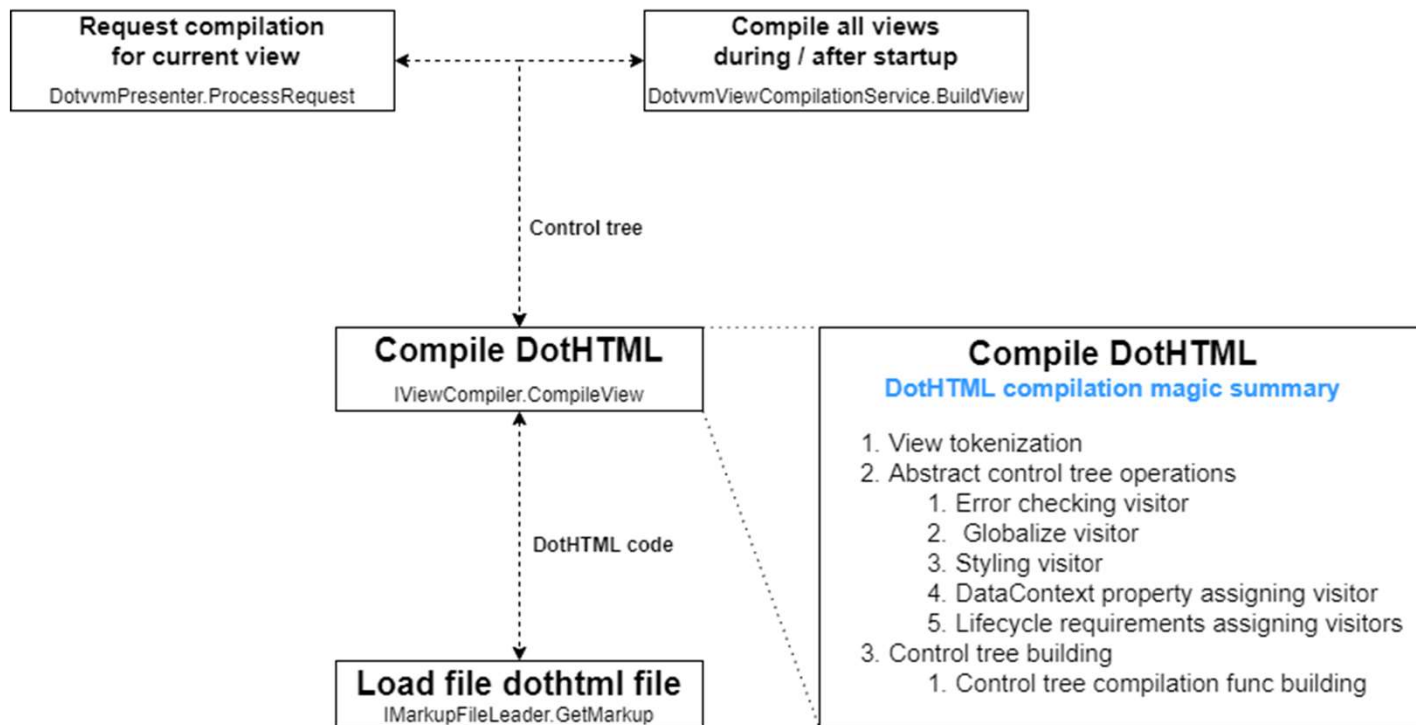
## Michal Tichý

https://github.com/MichalTichy/DotVVM-Meetup-DotvvmStatusPage-Demo

# DotVVM Compilation
## SIMPLIFIED

COMPILATION MODE:
**LAZY**

COMPILATION MODE:
**DuringApplicationStart**
**AfterApplicationStart**

| Request compilation for current view | Compile all views during / after startup |
|---|---|
| DotvvmPresenter.ProcessRequest | DotvvmViewCompilationService.BuildView |

Control tree

**Compile DotHTML**

IViewCompiler.CompileView

DotHTML code

**Load file dothtml file**

IMarkupFileLeader.GetMarkup

**Compile DotHTML**
**DotHTML compilation magic summary**

1. View tokenization
2. Abstract control tree operations
   1. Error checking visitor
   2. Globalize visitor
   3. Styling visitor
   4. DataContext property assigning visitor
   5. Lifecycle requirements assigning visitors
3. Control tree building
   1. Control tree compilation func building

DOTVVM

# View compilation modes

- Lazy

- DuringApplicationStartup

- AfterApplicationStartup

```csharp
0 references | Michal Tichý, 44 minutes ago | 1 author, 2 changes
public void Configure(IApplicationBuilder app, IWebHostEnvironment env)
{

    var dotvvmConfiguration = app.UseDotVVM<DotvvmStartup>(env.ContentRootPath,modifyConfiguration:
        configuration =>
        {
            configuration.Markup.ViewCompilation.Mode = ViewCompilationMode.Lazy;
        });

    dotvvmConfiguration.AssertConfigurationIsValid();

}
```

DOTVVM

# DEMO

View compilation modes

# View compilation modes

- **Lazy**
  - Views are compiled when first request to given page is handled.
  - Ideal for development and small applications.

- **DuringApplicationStartup**
  - View are compiled during application startup.
  - Application does not respond to incoming requests until compilation is done.
  - Ideal when using slot swapping on azure. Slots are swapped after view compilation is done.

- **AfterApplicationStartup**
  - Views are compiled after application startup.
  - Application starts handling incoming requests. Views are compiled in the background.
  - Compilation can be postponed.
  - Ideal for production environment where slot swapping is not used.

DOTVVM

# Compilation Status Page

- Part of DotVVM Contrib
  - https://github.com/riganti/dotvvm-contrib

- Compilation status page
  - _diagnostics/status

- Compilation status page API
  - _diagnostics/status/api

# DEMO

Compilation Status page + API