


# Heatington

[Open Coding Style Guidelines](#)


## What are we developing

- Heat production optimization for a district heating utility
  - Secure heat availability for all buildings in the district heating network
  - Produce heat for the lowest costs
  - Utilize the electricity market for the highest profit or lowest costs
- Five Components
  - Asset Manager (AM)
  - Source Data Manager (SDM)
  - Result Data Manager (RDM)
  - Optimizer (OPT)
  - Data Visualization (DV)
- Two Scenarios
  - Single heating area, one gas boiler, one oil boiler
  - Single heating area, one gas boiler, one oil boiler, one gas motor, one electric boiler
- Two Periods
  - Winter period
  - Summer Period

## Example of heating net


img.png

## Component Diagram

component-diagram.png

---

## Class Diagram

class-diagram.png

# Introduction

This is Group's number 16, Second Semester Project Documentation

**Project Name:** Heatington

## Installation

following the official documentation

[Documentation Link](#)

To install using .NET SDK (it has to be installed previously)

```
dotnet tool update -g docfx
```

## How does it work?

DocFx automatically creates documentation based on the contents of a file. This Documentation is available in the **API** tab on server.

If you want to add your own, more detailed documentation. Simply add a Markdown (**.md**) file to **/docs** directory in the right folder corresponding to the real location of a class in a project.

It's available in the **Docs** tab.

## How to run it?

Run in the same directory as **docfx.json**

```
docfx docfx.json --serve
```

Now you can preview the website on <http://localhost:8080>.

**If you want to rebuild your documentation run this command in a *new* terminal window**

```
docfx docfx.json
```

## How to add Markdown files?

in **toc.yml** file inside your directory add a desired markdown file, then add this to the YAML file

- name: <Name of the component>
- href: <NameOfTheFile>.md

## How to add new directories?

in `toc.yml` file inside your directory add a new directory then add this to the YAML file

- name: <Name of the directory>
- href: <PathToTheDirectory>/

**REMEMBER** to add the `toc.yml` file later inside of the new directory, pointing onto the `.md` files

## Useful Resources

DocFx runs their own (of course) version of Markdown

[Brief Introduction to a DocFx \(15min Video\)](#) 

Intro to DocFX



[Documentation about docfx markdown](#) 

# Namespace Heatington.AssetManager

## Classes

[AssetManager](#)

[HeatingGrid](#)

[ProductionUnit](#)

## Enums

[ProductionUnitsEnum](#)