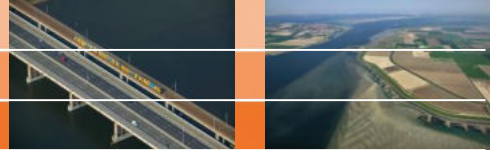


## Running WANDA from Python



Sam van der Zwan, Deltares

# Introduction

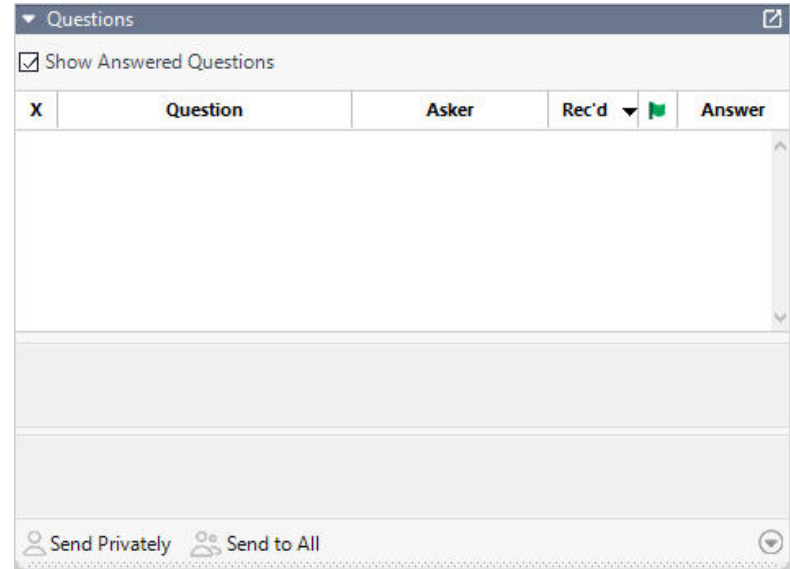


## Questions?

During webinar via text  
At the end live Q&A

## Contents:

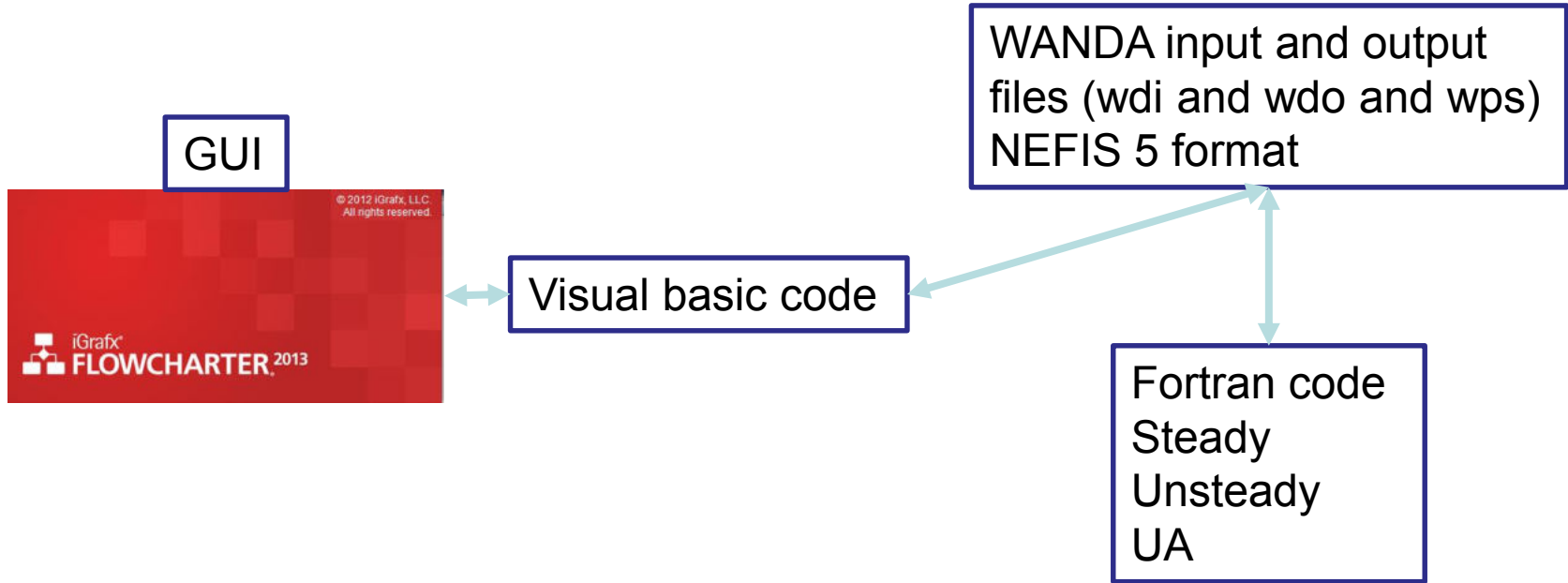
1. What is the WANDA API
2. What can you do with the WANDA API
3. Structure of the WANDA API
4. Some examples



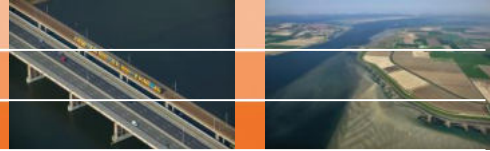
# What is the WANDA API



Current WANDA version



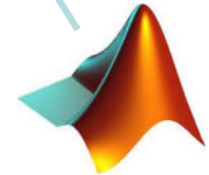
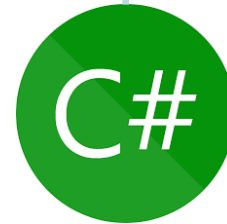
# What is the WANDA API



WANDA input and output files (wdi and wdo)  
NEFIS 5 format

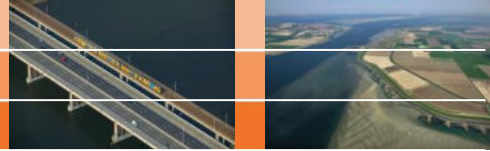


WANDA API:  
Library of classes and function  
to access and edit WANDA files  
from most common  
programming languages  
(Python, Matlab, C, C#)

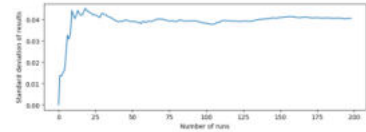
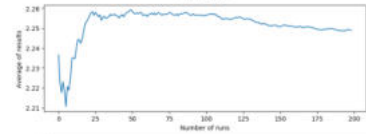
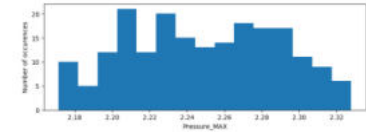
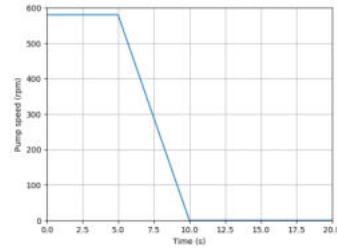


```
Program.cs X
using System;
namespace DotsnetBot {
public static class Program {
public static void Main(string[] args) {
string message = "";
if (args.Length < 1) {
message = "Welcome to .NET Core!";
}
else {
foreach (string item in args) {
message += item;
}
}
}
}
```

# What can you do with the WANDA API



- Create figures (or automatize figure creation)
- Adjust models
- Run simulations
- Build models
- Run scenarios
- Couple WANDA to other software
- Model calibration
- Monte Carlo simulation
- Build model from GIS database



WAND  
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# Structure of WANDA API



## Classes:

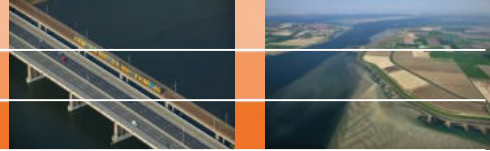
- WandaModel: main class for loading a model and used to access other classes
- WandaItem
  - WandaComponent
  - WandaNode
  - WandaSignalLine
- WandaProperty
- WandaTable

# Examples



- Creation of figure
- Creation of WANDA model

# What is next



WANDA API will be released with WANDA 4.6 Fall 2019

WANDA courses during Delft Software days 2019:

- Basic course: 11-12 November
- Advanced course: 13-14 November
- Running WANDA from Python 15 November

See: <https://softwaredays.deltares.nl>

