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

GUI

Visual basic code

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

Fortran code
Steady
Unsteady
UA
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#)
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
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
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