

REAL-TIME-CONTROL (RTC) VIENNA DEVELOPMENT AND IMPLEMENTATION OF A RTC FOR THE CITY OF VIENNA

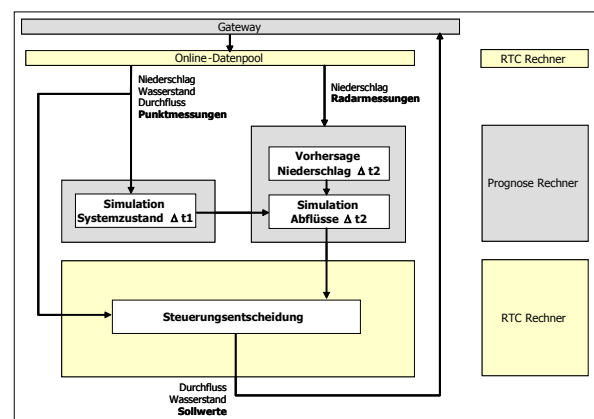
Assignment

The sewer system of Vienna has a total storage capacity of 628,000 m³. Managing these capacities is the main objective of the project “sewage disposal and water protection for Vienna”.

Primarily two goals shall be achieved:

- First, the reduction of sewer discharge into the water bodies.
- Second, the optimization of the interaction Sewer network – WWTP - outlet

The primary focus is on reducing peak loads to the WWTP. Constantly arriving measurement values are used to operate the control system and to meet the target values. The software HYSTEM-EXTRAN is applied as simulation model combined with CONTROL.



Data flow RTC Vienna

Scope

- Set up of the run-off-model
- Determine potential storage volumes with primary and secondary blockage effects
- Establish a measuring program and simulation of historic rainfall events
- Narrowing possible controlling options
- Simulation of typical test cases and estimating their impact
- Developing forecast models
- Developing learning algorithms
- Planning controlling structures and storage capacities
- Design control technology
- Implementation, trial operation, regular operation
- The project is conducted by three local engineering companies and the itwh GmbH as expert for real-time control of sewer networks

Short description

Client City of Vienna, Magistrat MA30

Project period 12/1999 - 07/2005

Fee 1,500,000 €

Characteristics

Content conception and implementation of a control system

Planning and controlling with HYSTEM-EXTRAN and CONTROL

Control decisions in real-time operation using HYSTEM-EXTRAN and CONTROL

Project number 10570

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