KNOWLEDGE TECHNOLOGIES IN WATER RESOURCES MANAGEMENT

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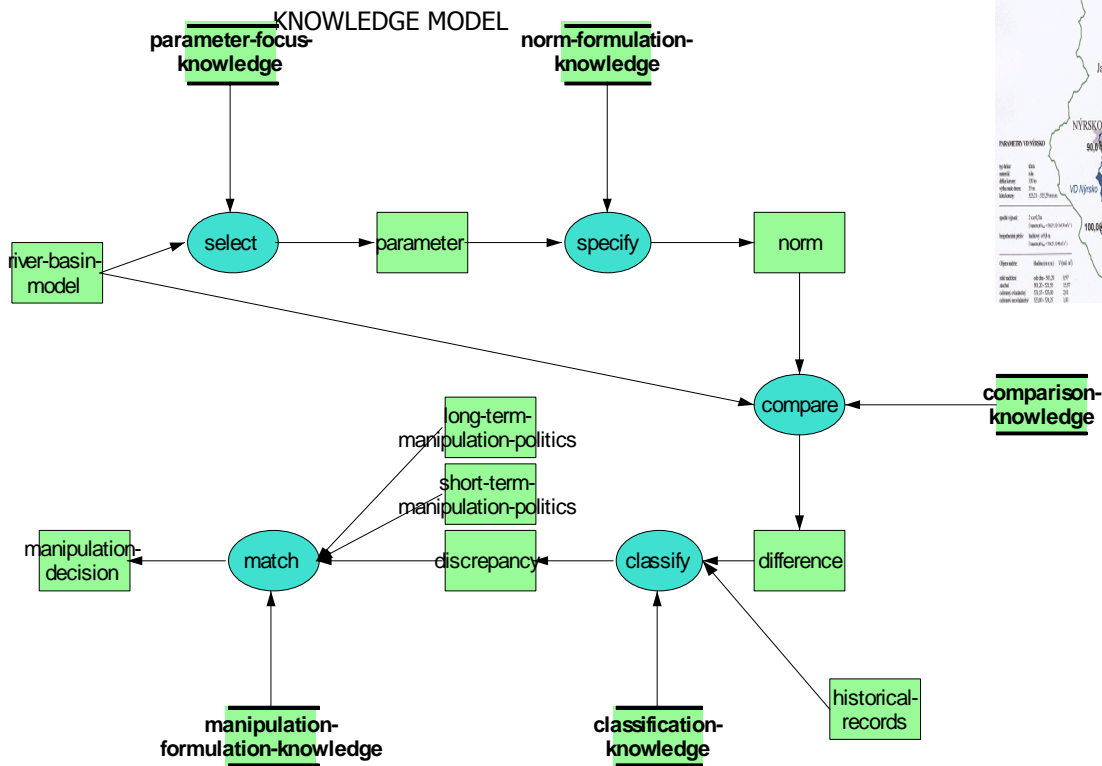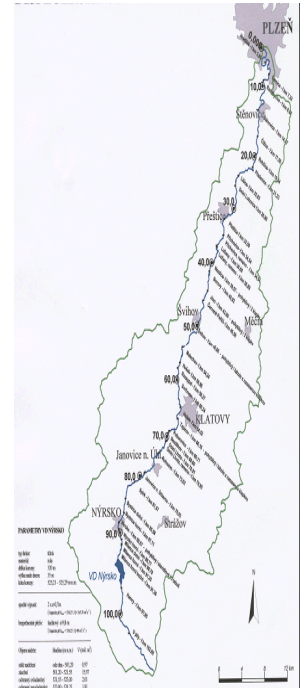
Problem characteristics in numbers

Average annual flow: 1.45 m^3/s – 5.85 m^3/s

Q_{364} daily flow: 0.24 m^3/s – 0.64 m^3/s

Q_{30} daily flow: 2.94 m^3/s – 12.90 m^3/s

Flow times res. Nýrsko – Plzeň: Q_{180}: 3.8 days (91 h), Q_{355}: 5 days (120 h)

Water take: res. Nýrsko (0.135 m^3/s), waste water plant Plzeň (0.58 m^3/s)

KNOWLEDGE MODEL

Typical expert tasks: current basin model set-uo, manipulation formulation

Used information: reservoir and basin state, weather forecast, manipulation requirements and objections

Used knowledge :Reservoir dynamics, heuristic dynamics of water basin and local weather, hydrological and meteorological data interpretation, reservoir operation guide and heuristic operation rules

Results
- Reusable knowledge-based model of water reservoir operation created
- Design of knowledge-based model of water reservoir operation exploiting information technologies
- Formulation of knowledge management goals of oragnization operation enabling effective integration of decision support system integration