

# APPLYING ONTOLOGICAL APPROACH TO STORING CONFIGURATION DATA

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## Project Goal

Developing a **knowledge base** for storing configuration data of double-direction bipolar transfer line **K-500** at BINP

### Functional Requirements on Storage:

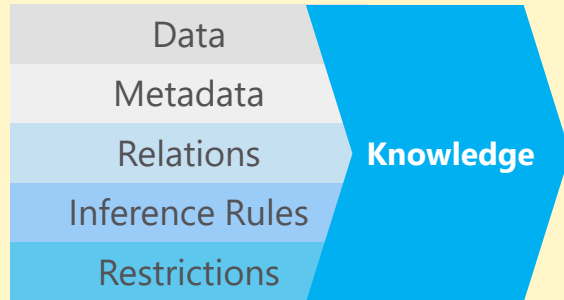
- Storing diverse facility data in a centralized way
- Avoiding data duplications and inconsistencies
- Automating control system software configuration
- Documenting facility information in various forms
- Tracking changes made by system users



# Semantic Modelling Approach



**Ontology** is a formal representation of concepts and relations of the domain of discourse, enriched by rules for inferring assumed knowledge.



**Knowledge base** is built upon **ontology model**. It contains facts about facility in triplet statements:

**object + relation + subject**

**Benefits of semantic approach:**



Expressing complex relations in a natural way

Inferring assumed knowledge



Verifying data consistency

# Architecture of Developed Web Platform

