

# A Goal-Function Approach to Analysis of Control Situations

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**Abstract:** The concept of situations plays a central role in all theories of meaning and context. and serve to frame or group events and other occurrences into coherent meaningful wholes. Situations are typed, may be interconnected and organized into higher level structures. In operation of industrial processes situations should identify operational aspects relevant for control agent's decision making in plant supervision and control. Control situations can be understood as recurrent and interconnected patterns of control with important implications for control and HMI design. Goal-Function approaches to systems modeling like Multilevel Flow Modeling can be used to represent control situations. The paper will describe an action theoretical foundation for MFM and its use for the development of a theory of control situations.

**Keywords:** Modelling, Control Systems Design, Human Machine Interaction, Knowledge Representation, Complexity.

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