

HVAC Controller-in-the-Loop Test Rig

Accelerated Commissioning of Building Automation



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PROJECT GOALS

Reduced Commissioning Time

Controller-in-the-Loop Methodology

Building Applications

- A Ventilation
- B Concrete Core Activation
- C Cooling

BUILDING APPLICATION: A VENTILATION

Controller in the Loop

- Assessment of control strategies
- Controller Hardware: Sauter SPS EY-modulo 5 (EY-AS 525)
- Coupling: BACnet ↔ Building Control Virtual Test Bed (BCVTB)

Office Ventilation System

Simulation Environment: BCVTB (Ptolemy II)

Result: Heat Recovery and Heat Register in Ventilation System

DEMONSTRATOR

Post am Rochus (Vienna)

- Headquarter Office Building
- New-built and Refurbishment
- Approx. 40.000m² gross area

HVAC-System

- District heating
- Compression chillers, free cooling
- Mechanical ventilation for hygienic air exchange

