

## Key Features

- Deterministic model-based digital twin
- Instantly calculate causes and consequences for any guide word
- Explainable AI models
- Share knowledge, learnings and model with the Control room assistant tool
- Analysis across multiple nodes
- Automatically populate HAZOP worksheet
- Optimize level of instrumentation
- Early design integrity verifications
- Operability analysis
- P&ID view for HAZOP meeting
- Worksheet view for HAZOP documentation
- Safeguard map for instrumentation design
- Causal mode view for operability engineering



## Benefits

### Always updated HAZOP

The HAZOP has proven to be the best available process to ensure hazards and operabilities are dealt with in the design. The HAZOP assistant ensures that every change may be subject to a HAZOP for an always updated HAZOP during operation.

### Capture and reuse knowledge

Learning from incidents, HAZOP, and investigations are added to the model and immediately available for use. This enables continuous improvements and organizational learning.

### Improved quality and process

The tool provides an opportunity to improve the current work processes. The cases with sufficient safeguards can be verified prior to the HAZOP meeting. The multidiscipline team can use their valuable time and competence on the difficult scenario's analysis.

### Optimized level of instrumentation

The HAZOP Assistant provides a separate view to optimize instrumentation. Root causes are mapped against sensor detections. This is a powerful tool to optimize the level of instrumentation and ensure that all hazards are detectable.

### Operability engineering

The HAZOP Assistant provides a separate causal mode view, where the causality is displayed in a fault tree mode with detectability (sensors) and safeguards clearly identified. Perfect for development of best operational practice and procedures.

### Available in real-time

The model may be re-used in the control room with real-time sensor data. This way, the HAZOP will be available at the fingertip of the operators as the situation occurs.