Vertigo

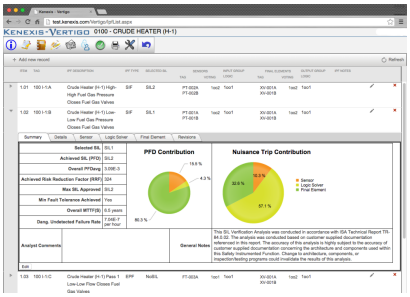
SIS Design Basis Software

KENEXIS SOFTWARE

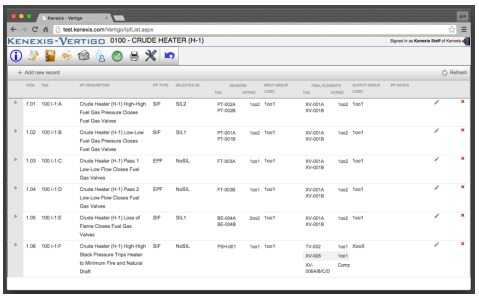
Provides an all-in-one software solution of the design of Safety Instrumented Systems in accordance with the industry consensus standards ISA 61511 / ISA 84. The software provides users with a powerful enterprise solution for developing conceptual designs, documenting / tracking design changes and maintaining design documentation throughout the life of the system.

Safety instrumented systems (SIS) are flexible and effective tools for safeguarding process plants. SIS can be configured in many ways to meet a variety of process goals and performance targets. Kenexis helps our clients to utilize Safety Instrumented Systems by assisting in the design, verification and ongoing mechanical integrity programs. This assistance includes risk-based establishment of Safety Integrity Level (SIL), developing Safety Requirement Specifications (SRS), quantitative design verification (SIL Verification), Test planning and assistance and continuing performance assessment and auditing. Through our work on standards and our ongoing effort to train engineers in this field, it became apparent that we could continue to improve the quality, accuracy, and repeatability if we created software tools for our team and yours.

Vertigo was developed with our expertise in SIS design, our process knowledge, and overall risk analysis capabilities. This expertise is then deployed using best-in-class tools such as the Vertigo™ SIS Design Basis software. This combination provides the most rigorous analysis, which results in a robust and well-designed Safety Instrumented System,



which ensures compliance with applicable requirements.



Features

- Extensive Equipment Failure Rate Database Developed by Kenexis Over 10+ Years of Experience Executing SIS Design Work
- SIL Verification Calculation Engine in Conformance with Recommended Practice from *ISA-TR84.00.02-2002 – Part 2*
- Enterprise, Multi-User Web-Based Platform
- Robust Data Structure for Documentation of Safety Requirements Specifications (SRS)
- Vertigo was designed and built by SIS consulting engineers that perform risk assessment and engineer design basis solutions for industry.

Extensive Equipment Failure Rate Database

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Vertigo utilizes an extensive database of sensor, logic solver and final element failure rate data developed over years of experience by Kenexis engineers and consultants. This database includes both generic and application specific failure rate data collected from both published industry sources as well as data collected by Kenexis from various client sites worldwide. In addition, vendor specific data is included for most popular makes/models of instruments based on third party SIL certification testing.

SIL Verification in Compliance with ISA TR84.00.02-2002 – Part 2

SIL Verification calculations can be performed in Vertigo using a simple, easy to use interface. All calculations performed by the Vertigo calculation engine have been extensively validated and are in conformance with the recommended practice of *ISA TR84.00.02 Safety Instrumented Functions (SIF) – Safety Integrity Level (SIL Evaluation Techniques Part 2: Determining the SIL of a SIF via Simplified Equations.*

Multi-User Web-Based Platform

Vertigo is a module in the Kenexis Instrumented Safeguard Suite that assist in the performance based design and ongoing management of instrumented safeguards, such as safety instrumented systems and fire and gas systems. The suite is online web browser based, always up to date, supports multi-user, and is priced based on annual seats or by project.

Robust SRS Data Structure

Allows users to quickly develop SRS documentation with intuitive data structure. Simplifies the process of creating SRS by avoiding duplicate entries while providing outputs in a variety of formats which are specific to the needs of the document user. Requirements are collected at the individual instrument level at the SIF level and at the overall system/project level. In addition to the written requirements of the system, Vertigo also automatically creates a compact and efficient functional logic representation of your system through cause and effect diagrams.

About Kenexis

Kenexis is an independent engineering consulting firm. We ensure the integrity of instrumented safeguards and industrial networks. Using skills in risk analysis, reliability engineering, and process engineering, we help establish the design and maintenance specification of instrumented safeguards, such as safety instrumented systems (SIS), alarm systems, fire and gas systems. We use the same skills for industrial control systems (ICS) network design, cyber security assessments, and industrial network performance analysis.