

RISKWISE™

Advanced code-compliant RBI software for optimising plant inspection



- ASME/API-compliant software for **optimising inspection and maintenance intervals** based on API RP 580 and 581
 - allows operators to establish inspection plans as an **alternative to the traditional requirements** in, for example, API 510
 - based on **generally accepted risk engineering principles** for oil and gas production, petroleum refining and chemical plant
 - high level of ongoing technology development by subjecting the software to the scrutiny of a **worldwide group of end-users**
- evaluates the distribution of the risk of failure for **all types of process equipment** (pressure vessels, piping, rotating equipment, valves, *etc.*)
 - provides estimates of remaining life for **all API RP 571 in-service damage mechanisms** (corrosion, mechanical, metallurgical, high temperature, *etc.*)
 - designed for use by plant personnel so that **implementation and maintenance are not dependent on the use of external RBI consultants**
 - TWI's code-compliant RBI software helps focus your inspection resource allocation and lower your failure risks and is supported via the **Support Forum** at www.twi.co.uk/forums
 - TWI provides training, support and practical advice for its software tools, from **leading authors of the world's best practice RBI guides**

RISKWISE for Process Plant™

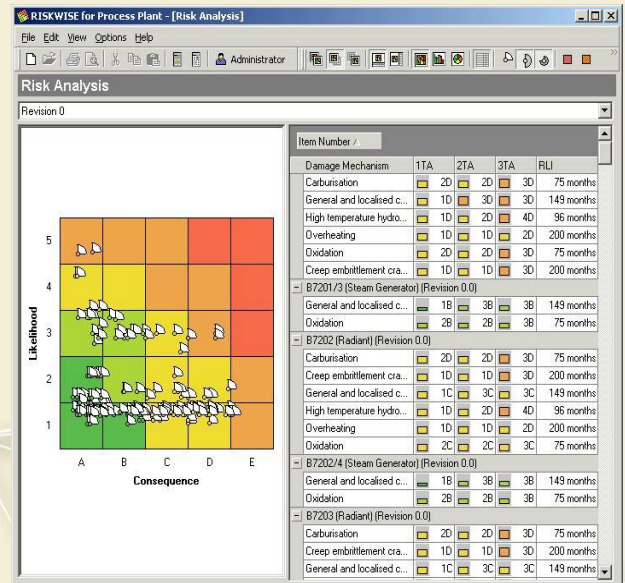
- RISKWISE is intuitively designed so that it can be easily learned, and the risk model allows **qualitative** (Level 1) as well as **quantitative** (Level 3) **input**
- includes the full **API RP 571 technical modules** for all relevant in-service damage mechanisms (description, affected materials and equipment, critical factors, appearance, prevention, mitigation, inspection and monitoring)
- users can undertake a '**what if**' **likelihood and consequence appraisal** of each component, to determine the minimum level of inspection and maintenance, to mitigate the risk of failure and optimise the current inspection programme
- provides an indication of **remaining life** for all damage mechanisms, based on an implicit time dimension of risk (risk of failure generally increases over time) which is the only rational basis for setting safe operating periods between inspections
- English, Chinese, Japanese and Spanish language versions available



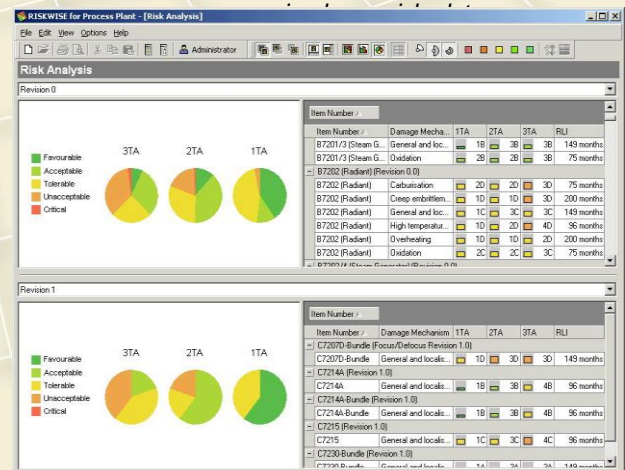
RISKWISE™ is a TWI software product

Key features

- semi-automatic **inspection planning** to evaluate the current level of inspection
- a consequence model based on the API 581 and NFPA library for **all fluids and gases** encountered in the production, refining, petrochemical and chemicals industries
- discrete risk values calculated for **each damage mechanism** in each item of equipment
- fully quantitative financial cost-risk calculation optimisation available via **LIFEWISE™**
- **Fitness-for-service** assessment using TWI's ENGFit™ Toolbox
- **data transfer and import utility** from other inspection and maintenance databases or spreadsheets, to speed up data and information entry and to minimise errors
- expert damage modules from **API RP 571 provided under licence** from the American Petroleum Institute
- **electronic reporting** of risk plots, consequence and likelihood factors, inspection plans, mitigating actions and activity notes, as required by API 570 etc.
- 'glass box' risk model in highly user-friendly software which ensures **ease of understanding** and buy-in from stakeholders in the inspection optimisation process
- audit team approach as **prescribed by API RP 580** which accommodates all plant experience, from process engineers, operators, maintenance supervisors, inspectors etc.
- interfaces with existing inspection management systems (IMS), such as **UltraPIPE®**, to avoid 'double-keying' and integrated scheduling, record management etc.
- inspection frequency based on formal reliability rules, estimated remaining life for each damage mechanism in a **fully-auditable output** (Written Scheme of Examination)



risk profile of all equipment within the facility is



impact of mitigation actions on the risk distribution and RLIs

Equipment requirement

PC (stand-alone or networked) with MS-Windows operating system (NT 4.0 or higher)

Contact

Please contact riskwise@twi.co.uk or visit our website for up-to-date information on TWI's complete suite of RISKWISE™ products.

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