

## SOFTWARE

# TZOLKIN 2.0 - RBI

An application designed to facilitate the user's daily work. It allows to generate and optimize Qualitative or Quantitative risk-based inspection plans based on API 580, API 581 Ed 2016, ASME PCC3; identify mechanisms of damage by API 571; develop inspection plans in accordance with API 510, 570, or 653;

## Optimal integration of information, design and technology.

GIE Group has more than 20 years in the **Oil & Gas Industry**. Thinking about making the daily work of the end user easier, we designed Tzolkin, so that they can focus on making their operation cleaner and safer.

The application allows you to generate and optimize risk-based inspection plans, manage the residual life of fixed equipment, monitor thicknesses, calculate the serviceability of corroded equipment, and calculate risks. At the same time, it allows compliance with the documentation requirements of different regulatory entities. **RBI made simple.**



**FOCUS ON MECHANICAL INTEGRITY MANAGEMENT**

# Optimize Outcomes with Limited Risks

You can achieve significant cost savings by optimizing tasks and inspection intervals.

- Flexible deployment methods. Built and tested for real organizations throughout the lifecycle.
- Risk-free projects. Our experience in implementations allows us to make safe and reliable projections ensuring projects that are executable on time and at cost.
- Quality assurance. Software production and implementation of projects with independently audited processes.
- Track record. Our team has implemented RBI projects for the past 10 years with proven results.

## Tzolkín 2.0 allows you to focus on managing the mechanical integrity of your facility in a practical way.

From the Christmas tree to the dispatch terminal, you are working to minimize leaks and ensure a clean and safe operation; Tzolkín is an ally to optimize the management of risk-based inspections



## Benefits

Eliminate up to 50% of inspection points. Prioritize tasks on a risk-and-availability basis

Optimize your downtime. Select Appropriate Inspection Tasks with the Greatest Risk Reduction

Avoid unscheduled shutdowns. Focus your resources on critical equipment

Evaluate the probabilities and consequences of failures using API 581 Ed 2016, API 580.



**GIE GROUP**  
[contact@giegroup.net](mailto:contact@giegroup.net)

We are by your side, ensuring clean and safe operations

# Functionalities and specifications.



## Web application

The server requires a minimum of 4Gb RAM and a Windows Server 2008R2, IIS 7, NET Framework 4.5, and SQL Server 2014 platform. Customers require at least 4 Gb RAM, IE 10 or higher (recommended)



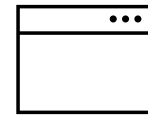
## Inspection planning

You can create Qualitative or Quantitative Risk-Based Inspection Plans based on API 580, API 581 Ed 2016, ASME PCC3; Identify mechanisms of damage by API 571; develop inspection plans in accordance with API 510, 570, or 653;



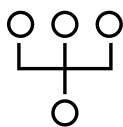
## Risk calculation

Calculation of probability and consequence of failures according to API 581 Ed 2016; API 580 simplified model, criticality and financial risk model. Risk ranking, presentation of matrices and risk lists.



## Thickness Management

Import thicknesses from flat files. Calculation of required thicknesses, remnants, corrosion rates and residual life according to API 570 and 510. Thickness loss serviceability analysis per API 579 Part 4 and ASME B31G.



## Taxonomy

Tzolkin allows you to define the taxonomy of your asset with up to six levels of grouping. This disaggregation allows you to see risk values grouped by plant, unit, business, region, or whatever your business demands.



## Reports

The following are included as standard reports: Risk Hierarchy / Equipment Catalog Report / Inspection Summary / Failure and Repair History / Inspection Planning / Inspection History.

