Making Risk Based Inspection (RBI) more structured and efficient (delivering the benefits).

RBI software helps to ensure RBI’s are conducted efficiently and that all failure scenarios are considered and assessed. The software needs to enhance the process of delivering RBI and provide an auditable record that may be updated as knowledge of the equipment is gained.

It is important in RBI to ensure:
- Excursions from operating conditions including cleaning activities are considered
- The Written Scheme of Examination (WSE) is updated
- Inspection data is available and validated

Although many operations of pressure systems have undertaken RBI assessments with organisations other than ABB it is increasingly recognised that the full extent of the benefits available has not been achieved.

**What we offer**
ABB has developed unique software that assists the inspection engineers with the RBI assessment process. It ensures that the results are consistent with our clients risk assessment profiles and uses knowledge databases to identify failure mechanisms and assess the likelihood of failure. ABB can provide a study team to complete RBI using the software, or provide the software package as a standalone tool enabling client’s to complete the RBI themselves. We can provide training in the RBI process, software and an auditing service to assess the compliance of the output with relevant legislation.

**Our software offering**
The web based software complies with American Petroleum Institute 581, the industry wide guide for undertaking RBI. The software workflow supports ABB’s qualitative team based approach which has the advantage of identifying the real operating and maintenance conditions to optimise decision making. Our software prompts users to ensure that all creditable operating conditions are described and the impact of these conditions assessed. This software helps ensure that the RBI assessment is thorough, effective and uses the clients time efficiently.
RBI+ records the decisions made by the teams, the background to these decisions and the logic used to assess the risk associated with each item of equipment. The software also enables similar items of equipment, with similar operating conditions and deterioration mechanisms to be grouped together to form what are sometimes called corrosion loops. This ensures that the range of and changes in process conditions are considered consistently across the complete series of equipment affected. This also minimises the input required.

The software gathers data from the different disconnected team members, allowing it to be shared and reviewed. As each item is reviewed, different stage gates are passed in the workflow process. This locks the documents and allows the overall progress of the project to be tracked by a traffic light system. All of the information generated during the study can be automatically transferred to structured reports in MS Word and Excel at any time. The format of these reports are configurable in the field on a project by project basis.

The tool considers the business consequences as well as the SHE consequences (Safety, Health and Environment) for the different failure scenarios. This allows the inspection programme to be tailored to customers own business risk assessment.

**Key functionality**
- **Access from anywhere** - the application can be accessed through a web browser or by using a local copy from the users machine
- **Secure** - the application is secured using tiered access. Meaning that access and edit permissions can be set person by person, module, by module
- **Offline use** - Individual team members can add and edit information while disconnected
- **Knowledge bank** - historical data can be viewed and copied
- **Consistent workflow and management reporting** - Each equipment item review goes through a series of secure stage gates to ensure that all of the information has been collected, analysed and the recommendations captured
- **Automated generation of reports** - Highly configurable reports can be created in Word and Excel to meet project requirements

**Benefits**
- Reduces risk and the time taken for RBI studies
- Reduces total inspection costs by offering a focused approach
- Ensures written schemes are updated and optimised
- Supports efficient and consistent approach to RBI
- Data can be accessed from anywhere as the tool is web enabled
- Consistent and auditable results are ensured by the in-built work flow
- A project status is easy to attain using the progress dashboards
- RBI+ is configurable to comply with clients’ specific requirements and strategies

**Why use ABB’s software?**
The software utilises ABB’s unique RBI+ methodology to help target the higher potential benefit items and avoid wasting valuable time and resource on low risk items. ABB’s methodology has delivered significant benefits and has been applied to over 100,000 items.

The software is part of ABB’s pRIME programme to improve asset integrity. The pRIME approach is a consultancy programme supported by tried, tested, consistent and coherent tools, methodologies and capability.

Ready made section specific templates and corrosion loops, give greater efficiency. The tool was developed to support the requirements of practising RBI leaders.

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**Failure scenarios plotted on a customised risk matrix.**

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To see how RBI+© pRIME software can benefit your business try our free demo at: [www.prime-toolkit.com](http://www.prime-toolkit.com)