

ABB AlarmInsight® - ART

Enabling continuous alarm lifecycle management



ABB has been at the forefront of alarm management thinking for over 20 years. The methodology developed has culminated in the development of the current AlarmInsight® - Alarm Rationalisation Tool (ART).

ART supports both standalone alarm rationalisation projects as well as onsite integration, providing a best in class foundation for continuous alarm lifecycle management.

The core benefit of ART is efficiency and simplicity. The tool allows the user to safely and effectively manage large amount of tags and alarms. The tool has a 'rule' and 'copy' feature, which allows for both quickly replicating alarm settings across similar alarms and for keeping these alarms synchronized over time. Large rationalisation projects see time saving in the order of 30-50% utilizing this methodology.

ART is a master alarm database aligned with IEC 62682 and ISA18.2 lifecycle recommendations. It incorporates audit tracking, which ensures full tractability of changes made during alarm rationalisation. Alarm records can easily be imported and exported using Excel. ART can be applied to rationalize alarm from any control system

Typical use cases

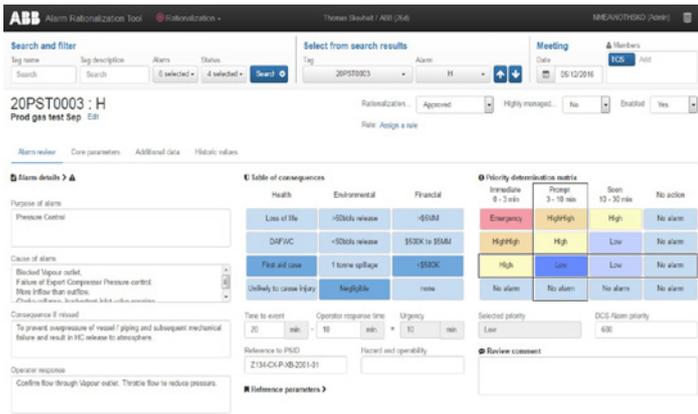
Implement

ART can be used to review all alarms in the control system in a systematic and efficient manner. ABB consultants use the standalone 'ART desktop' version as the basis for implementing alarm rationalisation projects, which can include advanced alarming like grouping, suppression and batch processes. In the design phase of a new plant ART can be used to gather alarm and tags and hence rationalise and align alarms across the plant before implementation in the control system.

Sustain

ART enables continuous alarm lifecycle management processes. When installed on-site as a web application, ART acts as a permanent master alarm database. Built in management of change functionality like to-do lists can be used to guide everyday work between teams. For example, you can create to-do lists based on top-10 bad actor alarms.

Some customers have external systems to capture work permits or plant design information. ART can easily integrate with these through export of alarms into Excel sheets that can be stored in relevant systems.



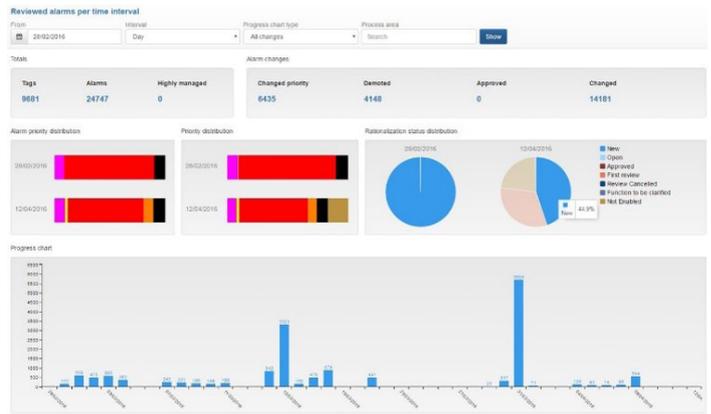
01

01 Main rationalisation window.

02 Alarm rationalisation progress over view reports.

ABB customers can integrate ART with 800xA control systems. This allows for direct coupling between the 800xA AlarmInsight® alarm helper window and operator response text found in ART. Not only can ART operator response text be displayed in a context sensitive manner on the 800xA operator console, but comments from operators (as entered into the 800xA alarm helper screen) can be directly reviewed in ART.

ART can also integrate with AlarmInsight® alarm change recorder and create ‘difference reports’ which compare actual 800xA alarm attribute values with those documented in ART. To-do lists are easily generated directly from the report to manage ad-hoc review processes of the alarms. This greatly ease the effort of keeping documentation up-to-date and synchronised with the actual alarm implementation.



02

Features in short:

- Based on alarm consultants experience and developed over 10+ years
- Specialist solution for alarm rationalisation exercises
- Independent of DCS systems
- It is a Master Alarm Database (MAD)
- Easy to configure to suit the clients standards or alarm philosophy
- Excel spreadsheet output
- Replication tools aids time savings in excess of 30% compared to Access or Excel variants
- Can be integrated on site with ABB 800xA control systems and AlarmInsight® alarm helper and alarm change recorder
- Microsoft SQL database based
- Ease of data import and export
- Proven in use

Alarm rationalisation is the process of applying the requirements for an alarm and generating the supporting documentation such as the basis for the alarm set point, the consequence and the corrective action that can be taken by the operator. Defining the correct alarm priority for each alarm is one of the important deliveries.

ABB UK has been at the forefront of alarm management thinking for over 20 years, advising and assisting customers to improve or design their alarm systems in a safe and effective fashion. We have been involved in authoring key industry guidance including EEMUA 191 where we had representation on the author committee and were substantial contributors to ISA 18.2, and IEC 62682.