System 800xA
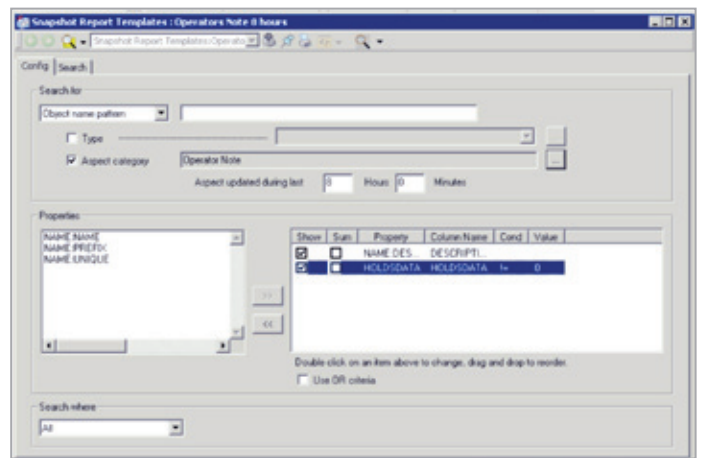# Boliden improves efficiency with aid of snapshot report

In the Aitik36 project, Boliden has created a modern and efficient process control environment. To achieve their vision regarding control and usability Boliden chose system 800xA including its standard functionality, system extensions and integration possibilities. One of the used system extensions is Snapshot Reports for 800xA.

"The Snapshot functionality comprehends with our vision of providing our operators and engineers with correct information at any given time in an easy and timely fashion," says Mikael Walter, Manager Process IT. During future 800xA system upgrades or maintenance stops in our other mines, the installation of Snapshot Reports for 800xA will be a recommendation from the Boliden Process IT Technical Department.

Snapshot Reports Template – Configuration View.

Easy information access with Snapshot Report
Snapshot Reports for 800xA is a fully integrated system extension that provides a powerful search engine and report tool for the 800xA system; it provides functionality to search and present information from the whole aspect object database. The search functionality of the Snapshot system extension is generic and makes it possible to combine search criterions for any 800xA object- or aspect property within the aspect object database. This means that the Snapshot tool is fully compatible with any 800xA Library or System Extension package like AC 800M, AC 400, Harmony, etc.

Increases engineering efficiency and system quality
Since the Snapshot searches can be combined in a variety of different ways and the search functionality is based on the very foundation of the 800xA system i.e. Object types, Aspects and Aspect properties, the 800xA engineers are provided with a search tool that can find and present basically any object in practically any specific state.
"It is not possible to recapture all type of searches made to sort out and investigate configuration settings during the Aitik36 project, but I can mention some important searches that definitely made a contribution to the quality of our system," says P-O Lundqvist, Senior Project Manager at Boliden.

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Gearless mill drive at Aitik. The capacity is 2,200 tonnes per hour.

Snapshot Engineering Search – Switch Status Report.

Snapshot Process Display Access – PID Deviation Search.

"The property Class is used in all Boliden mines to specify the working area of a specific object. A Snapshot search in a specific part of an 800xA structure definitely exposed every configuration mistake regarding this property."

"The alarm property Severity could also easily be presented and evaluated via Snapshot searches that were exported to Excel."

"Another efficient Snapshot search was to find and present all IP addresses of the installed switches in the Aitik36 project. The Snapshot result both made it easy to find configuration mistakes and also to add new switches to the network."

"During the test phase the Snapshot searches made the test work more efficient when forced I/O:s, blocked signals and objects put to manual mode could be detected in an early stage."

"Another, not foreseen, Snapshot feature was to be able to verify our contractors work. In a big project like Aitik36 many contractors are involved to configure and create functions based on the setup requirement specification. The Snapshot search tool helped us to verify that we received quality and functions according to agreed requirements."

Improves process stability and safety

"As mentioned, the Boliden vision is to create operator environments that are easy to use and where valid information is not more than a couple of mouse clicks away. That's why the Snapshot functionality, providing a direct link to the objects found during a search, is so interesting," says Mikael Walter.

"The Snapshot functionality comprehends with our vision of providing our operators and engineers with correct information at any given time in an easy and timely fashion."

Mikael Walter, Manager at the Boliden Process IT Technical Department.

"In the Aitik36 process displays, the operators have direct access to preconfigured Snapshot searches that help them to find objects in abnormal states. The usage of Snapshot searches leads to a more safe operation of the process where our operators have the possibility to find and correct deviations in the system before unnecessary stops or dangerous situations appear," says Mikael Walter.

Supports Aitik's predictive maintenance ambitions

Another group of people that benefit from the Snapshot functionality is the Aitik36 maintenance personnel. A number of preconfigured Snapshot Reports are executed on a regular basis to collect important process and maintenance data.

"The 800xA standard functions and other system extensions like Asset Monitoring can provide general and specific report functionality, the flexibility of Snapshot Reports however gives us the possibility to create system reports based on practically any personnel group request. The creation of new Snapshot Reports is an ongoing process in Aitik36," says P-O Lundqvist.

800xA is an automation platform

When discussing the overall functionality of the Aitik36 system, Mikael Walter, Manager Process IT also wants to raise the integration possibilities and flexibility of the 800xA platform.

"Although the standard and extended functionality provided by ABB covers most of our requirements, a couple of third party integrations and additional functions have made the Aitik36 system the process control system that our operators deserve."

"One frequently used function is the integration towards our document database. Documents related to specific objects or areas, like drawings, operator- and security instructions, are only two mouse clicks away from a graphic representation of an object in the process display. Another function that is used even more frequently is the Stop and Log Book function that keeps track on every major stop in the process and also gives the operators the possibility to create and overview object logs in an efficient way. All together we are very satisfied with the choice of 800xA and the co-operation with the local ABB organization. Our common efforts made the Aitik36 system what is today."

Boliden

– Boliden is a European metal company that conducts operations in the business areas Mines and Smelters.
– The main metals are zinc and copper; other important metals produced are lead, gold and silver.
– The recycling of metals is a different, growing part of operations.
– Boliden has approximately 4,400 employees.

ABB's supply of 800xA

– 20 Operator workplaces
– 3 Enginering workplaces
– Redundant 800xA core system
  – Asset Optimization and integration of maintenance system IBM Maximo
  – Integrated process- and power automation with IEC 61850
  – Integration with HART instruments
  – History by Information management and data integration to third party systems
– 27 AC 800M controllers with S800I/O
  – Integration with ABB drives ACS800, ACS1000 and ACS6000
  – Integration with ABB intelligent switchgear MNSiS
  – Integration with sub system On stream X-ray analysor
– Mobile PDA clients

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