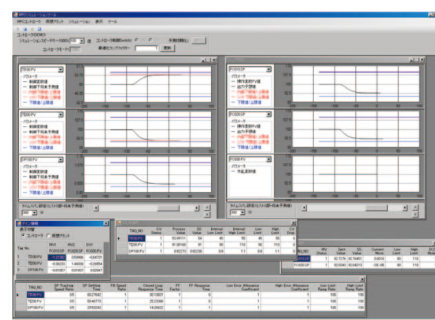


SORTiA™ series is a suite of control enhancement solutions developed by Azbil Corporation based on expertise in process control cultivated on work sites, research on process control, and our own proprietary technology. The advanced control technology of the SORTiA series, with multivariable model predictive controller at its core, stabilizes and optimizes the operation of continual process devices to improve their profitability.

Application purposes

- ◆ Consistent product quality
- ◆ Improving energy and raw material consumption rates
- ◆ Reducing environmental burden
- ◆ Increasing production
- ◆ Maximizing yield of high-value-added products

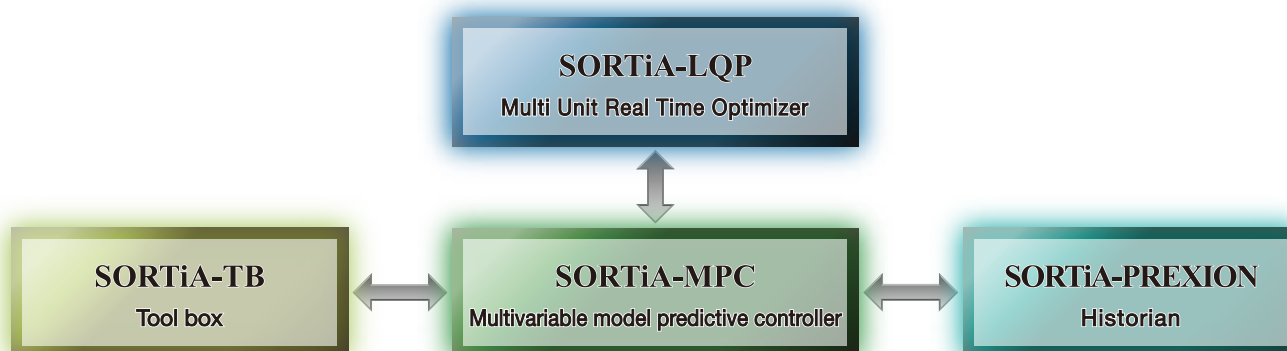


▲ SORTiA display example

Features

- ◆ Thanks to an open system configuration that does not depend on any particular distributed control system (DCS), SORTiA series can be used by customers who use a DCS other than Azbil Corporation's.
- ◆ Either Japanese or English can be selected for displays and messages.

SORTiA series configuration



SORTiA-LQP (Multi Unit Real Time Optimizer)

Multi Unit RTO technology, which is a higher concept of MPC, aims to realize plant-wide performance and profitability improvement. It supervises and coordinates MPC systems figuring interference between operation units.

SORTiA-MPC (Multiple Model Predictive Controller)

Multivariable model predictive controller. This product was developed with a focus on user-friendliness. Thanks to its three degrees of freedom (optimization, feedback, and feed-forward), optimization speed is adjustable for each control variable. A model identification tool is provided with the controller.

SORTiA-TB (Tool Box)

Provides tools like soft sensors, laboratory feedback, and analyzer feedback, which are used for advanced control. A series of new tools will be available in the future.

SORTiA-PREXION

Conceived for advanced control applications, this product extends the existing functions of PREXION™



Features

The most significant feature of SORTiA-MPC is its three-degree-of-freedom multivariable model predictive controller, which can adjust optimization speed, feedback strength, and feed-forward strength completely independently.

By taking advantage of this feature, even if model error is large, users can achieve equipment-appropriate adjustment, securing robustness, maintaining appropriate optimization speed and strong feed-forward control against measurement disturbances.

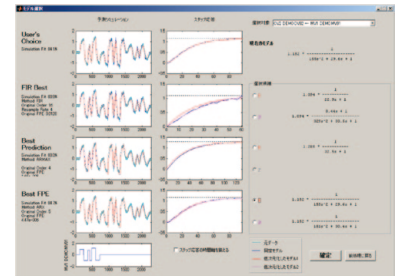
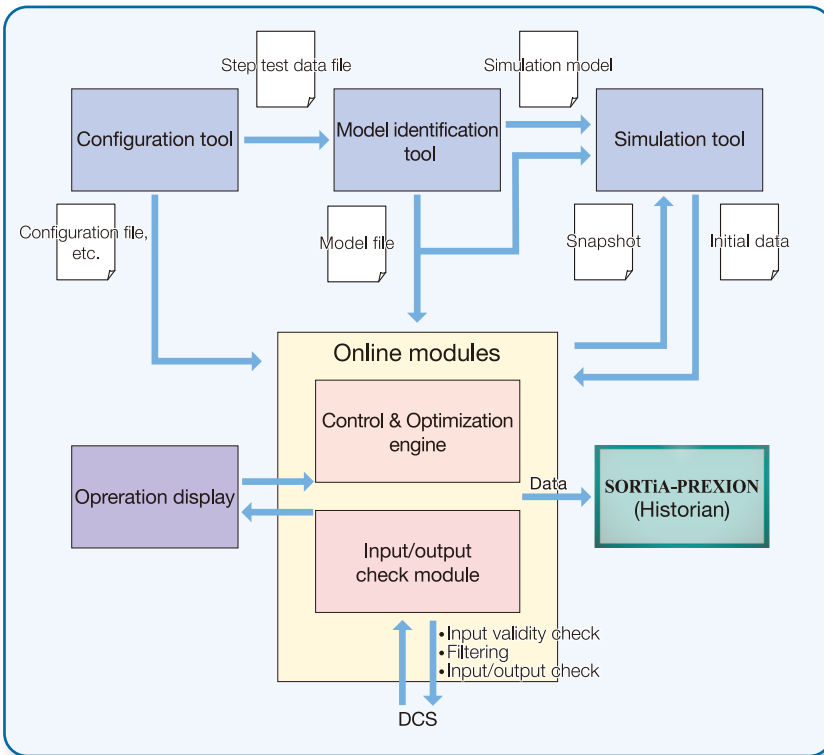
Engineers with long experience in process control participated in the development of SORTiA-MPC and specified the following considerations as important for multivariable control applications.

- Application to processes with very strong interaction
- A mixture of fast and slow responding control variables
- Control for integral system

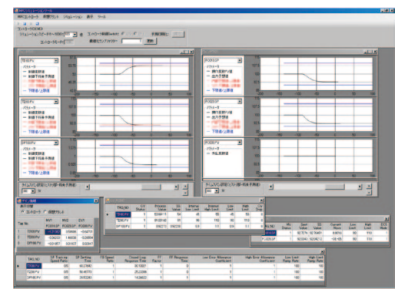
Accordingly, SORTiA-MPC's functions have benefited from experience and knowledge cultivated on actual work sites.

Components

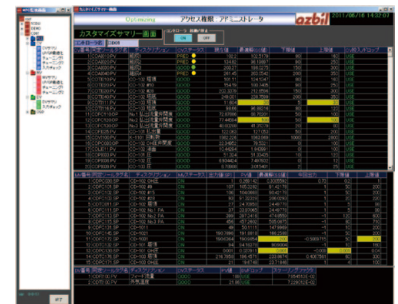
SORTiA-MPC consists of offline design tools, offline modules, and a standard operation display.



▲ Model identification tool



▲ Simulation tool



▲ Operation display

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Azbil Corporation
 Advanced Automation Company

Yamatake Corporation changed its name to Azbil Corporation on April 1, 2012.

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