ABB in the Chemical and Petrochemical Industries

Serving the chemical industry
Evolution to System 800xA
Securing future competitiveness

Power and productivity
for a better world™

ABB

Upgrade for success.
No more. No less.

- Maximum plant utilization
- Increased productivity
- Shorter lead-times
- Improved quality and consistency
- Maximum uptime

These are just some of the real benefits you achieve when you upgrade your process control and supervisory systems with ABB. ABB's upgrading solutions let you add new capabilities to your existing system at a pace that fits your requirements and your budget.

You don't have to start from scratch. By utilizing what you already have, and extending it with new features, functions and technologies through a simple upgrade, you are making the wisest investment choice you possibly could. You can exploit your existing infrastructure and the money you have already invested to their full capacity with an ABB upgrade.

Your ABB Control System installation is the ideal platform for implementing the full benefits of Industrial IT System 800xA, our scalable process control platform. But you don't need to go all the way. You can choose to move towards it incrementally. With a step-by-step capital investment approach, you can stay in full control of your process costs and secure your profitability.

Our experience will enable you to upgrade your processes in a day. Or use your old workstations in parallel until you switch over to your new workstations without a moment's downtime. Or you can modernize your controllers and engineering tools and integrate your entire plant's control environment in an incredibly smooth manner.

In the following pages, you'll find out more about the benefits you'll gain when you choose ABB's proven and secure evolution roadmap.

Maximize your return on investment

When making an upgrade, you need the assurance that your investment will generate concrete process-related benefits.

Measurable improvements
A control system upgrade will reduce your long-term life-cycle costs in ways that are measurable. The upgrading steps follow our "evolution roadmap," which guides you and protects your investments because you will be able to reuse many parts of your existing software/hardware.
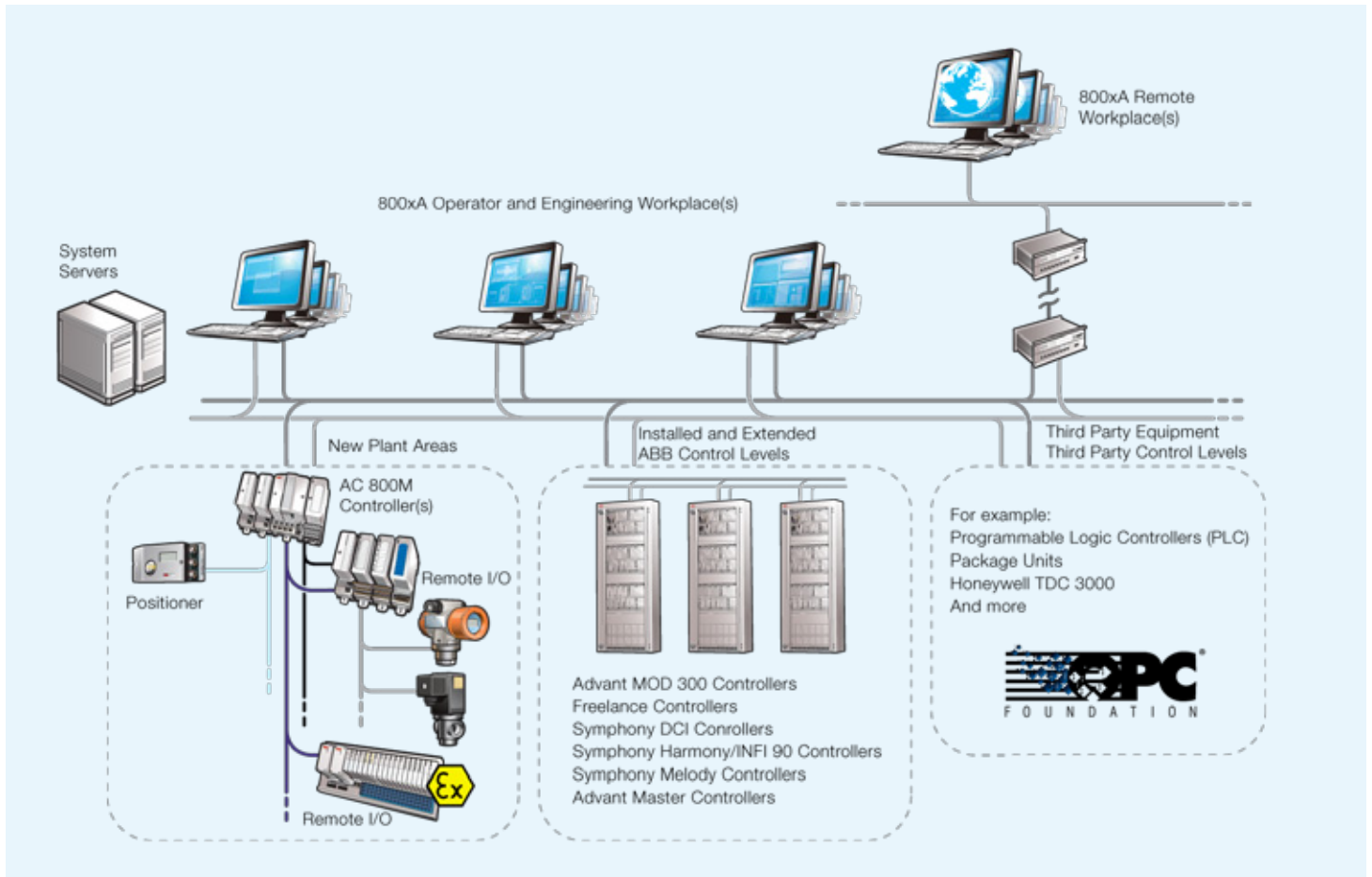
ABB is recognized for delivering products that are compatible with and enhance automation systems you already own. In taking a long-term investment strategy, you can move up the upgrading ladder as you need, or opt for the complete System 800xA solution. The choice is yours.

Remove bottlenecks and raise performance
Typical first evolution steps can ensure that more information is better available to operators and other frontline personnel through improved process integration and information retrieval. You will improve your productivity as well as your decision making process.

Performance is also improved and costs are controlled through more secure management and supervision of your processes. When upgrading to System 800xA Operation you will be able to reuse your existing application programs, I/O, field wiring and displays as well as engineering, operations and maintenance competence.

Keep risks down,
options open

800xA Remote Workplace(s)

800xA Operator and Engineering Workplace(s)

System Servers

New Plant Areas

AC 800M Controller(s)

Positioner

Remote I/O

Remote I/O

Installed and Extended ABB Control Levels

Advant MOD 300 Controllers
Freelance Controllers
Symphony DCI Conrollers
Symphony Harmony/INFI 90 Controllers
Symphony Melody Controllers
Advant Master Controllers

Third Party Equipment
Third Party Control Levels

For example:
Programmable Logic Controllers (PLC)
Package Units
Honeywell TDC 3000
And more

OPC FOUNDATION

The beauty of ABB's evolution strategy is the flexibility you have to upgrade step-by-step. This allows you to spend as you go, depending on your needs, budget and ambitions. Our solutions are designed to be forwards and backwards compatible, protecting your investment.

Smooth evolution is a cornerstone
Old and new ABB products, such as controllers, and applications, can communicate with one another across generations. You never need to worry about whether you've locked yourself into a dead-end position. You can decide when and what products or applications to upgrade, as well as the size and scope of your upgrade in a step-by-step process that matches your needs.

Reduce your risks
Part of our offering includes guaranteed access to support, training and spare parts. You will also receive backup from our highly experienced and competent staff in the upgrading process. Or you can opt for a long-term partnership with ABB, in which all your future upgrading needs will be taken care of. After all, it is our core business. Either way, you never lock yourself in from an evolution point of view.

Improve your plant operations

Everything is one click away, you operate much faster. System 800xA operator workplaces provide the right information, in the correct context, to those who need it for trouble-free operation.

Focus on the process

800xA Operation supplies traditional operator displays, including alarm lists, process graphics, faceplates, and trend displays. A single view to all this information gives operators, production managers, and supervisors the tools to meet the operational and production needs of a chemical facility. In addition to operator displays, other information such as drawings, diagrams, videos and websites are readily available.

Significant reductions in operational errors are achieved when operators are working in a familiar windows environment. With a personalized view to the process, an operator's individual style and preferences are leveraged. Quick, flexible and secure access to relevant displays and information make monitoring and control actions efficient and accurate.

When operational information is presented and analyzed from a maintenance perspective, efficiencies can be gained and additional cost reductions are attained. System reporting and alarming functions are used to schedule preventive maintenance and help eliminate unplanned, costly production shutdowns.

The bottom line is increased plant productivity.

Visions for the future

Questions:
How can we do more with less?

How can we do it better?

How to best keep the plant's automation system and electrical equipment in peak operating condition?

Answer:
By migrating systems to current automation technology, System 800xA enables the user to build on all technical advantages.

Customers are invited to embrace new paths forward.

Ergonomics for the control room
The operator needs rapid and intuitive access to relevant information at all times. A delay in obtaining information or a confusing format for its presentation increases the risk of misjudgment and lost production.

ABB has taken on this challenge, taking control room ergonomics and interactivity to new heights, permitting operators to interact with all displays presented to them. An improved overview of production, an increase in workplace efficiency and better ergonomics are principal features of ABB's complete workplace for control room operators, the System 800xA Extended Operator Workplace.

Integrated electrical system
Additional benefits can be gained when integrating the electrical and process automation systems on a common automation platform. Electrical integration with IEC61850 enables the 800xA system to supervise and control the electrical part of a plant at a level that was not possible before. This means the meeting of two worlds: process and electrical.

Or choose other paths forward. We invite our customers to explore all System 800xA options, services and solutions we can offer to improve productivity.

Maintain your leadership position

As a leading player in your industry, you need to make sure that any evolution step you take offers the lowest possible risk with the highest possible benefit.

Our secure evolution strategy to System 800xA will ensure that ABB delivers exactly that.

Our evolution roadmap will allow you to maintain your leadership position because your process will always stay on the cutting edge of productivity, quality and cost-effectiveness.

When you upgrade to ABB's latest products and applications, you are effectively confirming your reputation as an early adapter, which also has its advantages. You will find it easier to keep and retain top-of-the-line operators and other personnel.

All of which leads to good return on investment and profitability.

Testimonials

"As this project progressed, we came across the powerful tools provided by ABB 800xA for process control. RIL always likes to be part of technology enhancement."

Ranjan Bhattacharya
Vice President
Reliance Industries Limited

"Our evolution to System 800xA is being executed with zero downtime, while providing us with the added functionality we need to be competitive."

Randy Wimberly
Information Systems Manager
Erachem Comilog, Inc.

"The goal was to increase the plant's flexibility...and to increase productivity by 20%...Repsol is achieving...with System 800xA. Its capabilities strengthen our process technology changes."

Daniel Reale
Production Manager of Lubricants
and Paraffins, Repsol YPF

Contact us

ABB Automation GmbH
COE Chemical
Stierstaedter Strasse 5
60488 Frankfurt, Germany

Power and productivity
for a better world™

ABB

www.abb.com/chemical