—

Evolving Emerson Provox
to ABB Ability™ System 800xA

Focus your vision

In most process industries, the quality of information available to decision-makers makes a big difference to plant performance. For these reasons, managers, engineers and operators in plants around the world are turning to ABB's new product for evolution of Provox to System 800xA.

This product blazes a pathway for Provox operator functionality to easily transition to System 800xA, ABB's advanced operator workplace noted for its extensive functionality and wide range of integration possibilities.

ABB has vast experience in evolving DCS, our own and third party, to System 800xA. Our experts ensures high quality and low risk.
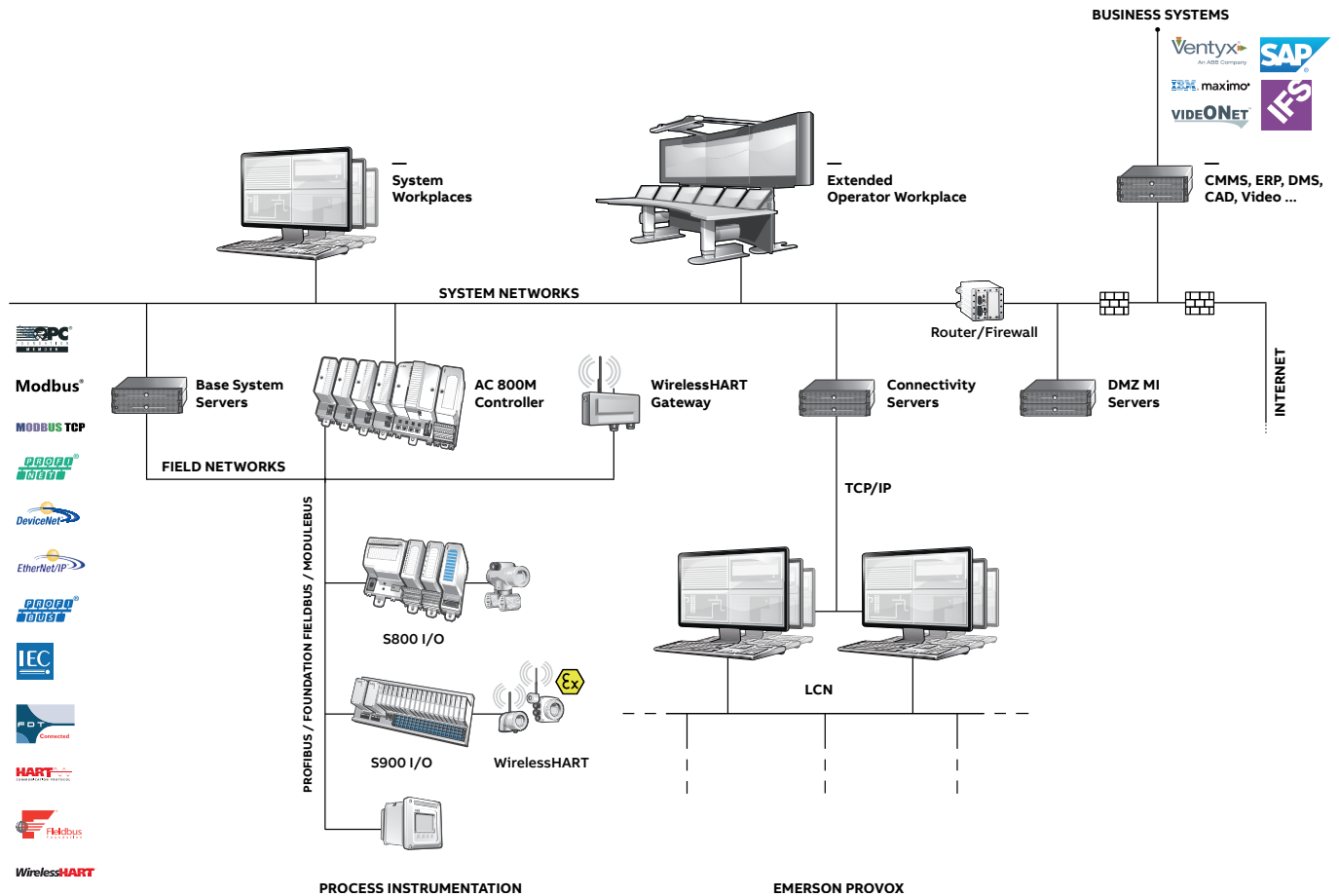
By placing System 800xA on top of the vintage Provox, you instantly acquire a world-class man-machine interface that makes all mission-critical data available in a highly advanced workstation environment. What's more, this interface is specific to each user's requirements – a major factor in helping boost your plant's productivity.

Adding System 800xA on top of your existing system can also significantly extend the overall lifetime of your present Provox. You can then decide if and when you invest in replacing your controllers and I/Os at any time in the future.

And don't forget that ABB is the world leader in evolving DCSs to System 800xA. We've done it just as successfully with third-party systems as with our own.

Benefit from an advanced single-operator environment

—
System 800xA automation platform creates a flexible and collaborative control world. Full integration of systems, applications and devices makes actionable information instantly available to plant operators.

Once implemented, System 800xA provides an advanced single-operator environment, regardless of whether the underlying DCS is an Emerson or ABB system. Whether operators have just sat down at their console or are many hours into their shift, System 800xA ensures that they have full control of their process and can instantly collaborate with colleagues anywhere in the rest of the plant. This promotes a more flexible use of operator resources. And since operators can now handle more control tasks, it also allows control room consolidation.

Moreover, implementing the ABB concept is a model of cost effectiveness. You can replace the existing workstation environment while hardly touching the existing application code, controllers, I/O and field cabling. The migration is simple, requires no downtime and involves low risk.

System 800xA is also an open-ended platform: as you demand more information and control over your plant, its new generation of process control systems lets you integrate a wide range of more advanced features.

If your vision is to harness all the potential resources in your plant, you can integrate more sweeping plant-wide or distributed systems, e.g. asset management or enterprise resource planning (ERP), into System 800xA to generate additional productivity gains.

Widen your horizons

—
01 System 800xA from ABB gives you a state-of-the-art control room.
—
02 While retaining original functionality, the operator process screens can be optimized when evolving to System 800xA
—
03 Production Management is a system extension to System 800xA.

Faster, more accurate time to decision. Optimized plant availability. Seamless evolution. Protection of present and past investments. Flexible and scalable. Higher productivity. And prepared for the future. These are only some of the benefits you will enjoy when you make the transition from Provox to System 800xA.

Tailored to every user's needs
Today's plants are teeming with information from a wide variety of sources. How to process this data in the right form, at the right time, in the right context and make it available to the right people, without overloading them with information, is a major challenge in today's fast-moving process environments.

Whether you are a maintenance technician, process engineer, production manager or plant operator, ABB's familiar desktop environment will present you with relevant information gathered from multiple sources in an outstanding interactive workplace environment.

Each user's login with System 800xA Process Portal defines the type and class of information accessible for timely and informed decision making.

Much more than a comprehensive operator console, Process Portal's advanced graphic functionalities provide users with an easy-to-read process picture, enabling them to make the right decisions quickly and accurately.

ABB is a market leader in offering complete solutions for ergonomically and technically superior control rooms that enable the quality of decision-making that leads plants to higher productivity.

The advantage of seamless integration
Another advantage of the console upgrade is the opportunity to use one common operator environment, regardless of whether you have ABB DCS systems and/or DCS/PLC systems from other vendors. This not only enables you to consolidate your control room, but also provides you with a more flexible handling of operator resources.

Seamless integration offers other advantages. Whether the controllers are ABB's AC 800M or Provox, the operator won't notice the difference: System 800xA will handle the information in exactly the same way. Utilizing a single, intuitive operator interface also makes it easier and less costly to train your staff.
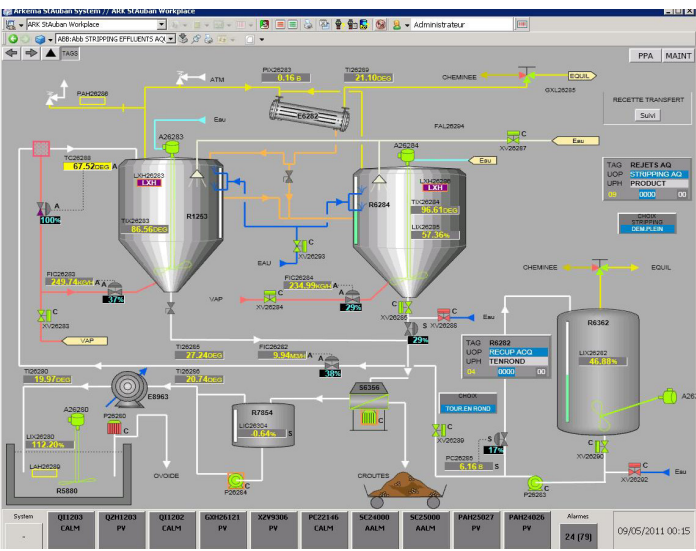
—

Whether you choose to evolve just your consoles to System 800xA or your entire control system, ABB's solutions will help maximize your performance and grow your profitability.

System 800xA – The Power of Integration
By removing the barriers of traditional distributed control systems, System 800xA delivers the integrated environment needed to increase productivity while at the same time reducing the risk and total cost of ownership. System 800xA dramatically improves plant-wide productivity by providing powerful, integrated core functions such as:
- Advanced asset management that also for the Provox controlled equipment, enables predictive maintenance work procedures
- ABB's 800xA advanced alarm management that is fully integrated with the Provox system
- 800xAs integrated process history that can store, visualize and report on all data sources seamlessly including all Provox data

In addition, System 800xA's excellent multi-integration capabilities and standard interfaces offer connectivity for a wide variety of third-party systems (e.g. SAP and Maximo) as well as other databases and live video feeds.

—
02

—
03

How to implement System 800xA
on top of Provox

The choice is yours: you can perform a step-by-step evolution in a controlled, invest-as-you-grow process, or implement a complete evolution that completely replaces your existing system.

Even if you choose only to upgrade your workstation, it's a winning proposition. You will enjoy all the benefits associated with a world-leading operator workplace. And you can delay investments or parcel them out in a way that meets your budgetary requirements.

As easy as 1, 2, 3
Installation takes three simple steps: software installation, object uploading and display building. Installing the software in the Provox and System 800xA connectivity server bridges the two systems. In the second step, all legacy objects are uploaded to the control structure, including object names (motors, switches, values etc.) and descriptions. All objects include a faceplate, trend aspect and alarm list.

The System 800xA connect for Provox systems includes an extensive object type library of Provox primitives. This allows ABB's uploading step to save hundreds of engineering hours in cost. Unlike other solutions that require an engineering team to design all object types, create instances and then connect them, the connect for Provox systems makes an 'intelligent' upload and thereby performs these tasks automatically!

The third step is to build displays designed to help your operators access information down to a level of detail and userfriendliness they have never before experienced.

Your payoff: immediate productivity gains
Consider the benefits of integrating your system with an enterprise resource planning system or plant maintenance system. ABB's open platform will make it easy to connect a wide range of advanced graphical services. Just a right-click away, objects such as live video, sensors, maintenance logs, trend information and instruction manuals are easily viewable from the operator interface – a feature unavailable with your existing workstation. You would also enjoy the overview advantages of asset monitoring, which would, for example, alert operators when a valve

closed a pre-set number of times. If set at the one-thousandth time, the system would automatically initiate a time-saving replacement process. If the part is unavailable, a new order is automatically generated and sent to the supplier. The operator is alerted when the part is received, initiating a replacement procedure.

The result is a fully-integrated process environment that helps users achieve measurable productivity gains, as well as a platform that's ready for the future!

A new world of limitless possibilities
After you have evolved your operation environment with System 800xA on top of Provox, you can then replace I/O modules, controllers and field bus components one-by-one. By using ABB code conversion services, system owners can confidently evolve their control strategies to ABB's AC 800M based control without the project costs or production risks associated with "rip and replace" control upgrade methods.

Furthermore, the enhanced capacity of your system will prepare you for an even wider range of opportunities down the road. If you opt to implement a complete control system evolution strategy, ABB will provide you with a detailed stepby-step procedure following a thorough investigation of your system.

Key benefits for measurable productivity gains, improve decision-making speed and accuracy
By placing System 800xA on top of your vintage Provox, you acquire a world-class man-machine interface that allows each user to access the information they need, enhancing their ability to make the right decisions – quickly and accurately.

Establish a true, single-operator environment
System 800xA provides a true single-operator environment, regardless of whether the underlying DCS is a non-ABB or ABB system. This enables control room consolidation as well as a more flexible handling of operator resources.

Protect your network investments

Replace your existing Provox workstation environment with System 800xA while hardly touching the existing application code, controllers, I/O and field cabling. You can decide when to invest in infrastructure replacement as you grow.

Ready for the future

An open-ended platform, System 800xA new generation process control systems let you integrate a wide range of more advanced features as you demand more information and control over your plant.

With an investment in the most stable and capable system on the market, our customers are ensured that their investment provides the advanced functionality, flexibility and production stability they need now and in the future.

Full product support from the process control experts

Like other key components of a process control system, the System 800xA connect for Provox systems is covered by ABB Life Cycle Management. Life cycle planning means that product support and service follow the different phases of the product to bolster the longevity and efficiency of your process control systems. This creates optimal value by helping sustain the availability and productivity of your plant.

In addition, ABB Centers of Excellence provide unrivalled experience and support for implementing System 800xA. Our dedicated experts are always on hand to help you with preproject studies and other related issues.

"ABB's modernization of the control system of our plant was done without any production losses and prompt in time." Mr. Michel Guichon, Automation and Instrumentation Manager, Arkema, Marseille, France.
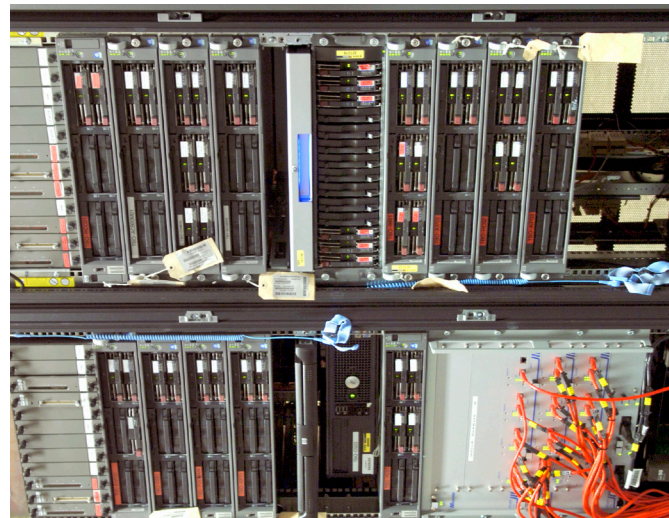
—
01 The System 800xA connect for Provox systems includes an extensive object type library of Provox primitives, allowing ABB's uploading step to save hundreds of engineering hours in cost.

ABB