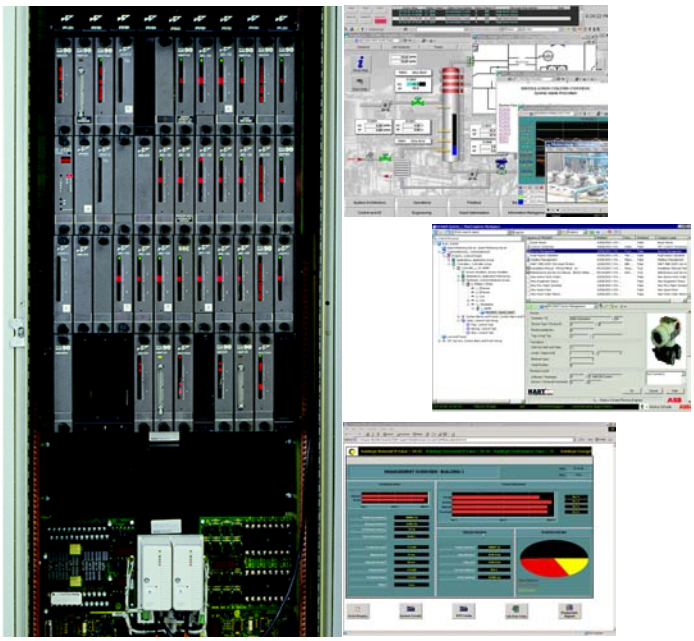
# Industrial$^{IT}$ System 800xA
## Symphony Harmony

Overview

## Features and Benefits

- **Extending the Return-on-Investment of Harmony Systems.** New hardware and software product releases increase operating efficiency and extend the life of installed systems. New products and programs make the decision to evolve existing systems straightforward and easy.
- **System 800xA Extends Harmony System Functionality to Achieve Greater Productivity Gains.** System 800xA extends the reach of traditional automation systems. When integrated with Harmony systems, productivity gains necessary to succeed in today's business world are achieved. System extensions include:
  - –**I/O Capability.** Significantly reduce field wiring costs with S800 I/O. Modular design allows I/O installation in close proximity to sensors, actuators, and field devices.
  - –**Asset Optimization.** Optimize plant asset availability and performance. Significantly increase process uptime and reduce maintenance costs through optimized remediation work processes and early detection of asset performance problems.
  - –**Information Management.** Improving visibility of integrated information results in effective decision making. Information Management provides pertinent information required to perform efficient planning, analysis, and actions.
  - –**Personalized User Workplaces.** Reduced time to decision and action is achieved with Process Portal personalized workplaces. Information and workplace layouts are optimized to maintenance, engineering, management, and operating personnel preferences and needs.

Industrial$^{IT}$ enabled™



Being competitive in the market in today's business environment requires continuous productivity improvements. Traditional process control systems achieved high process availability, reliability, and process quality. Today, more is needed to be competitive. ABB has combined the Symphony™ Harmony system with Industrial$^{IT}$™ Extended Automation System 800xA best-in-class productivity enhancement software. System 800xA Asset Optimization, Information Management, and Process Portal personalized workplaces optimize productivity at substantial cost savings. The Harmony system provides the flexibility to implement these functions in an incremental fashion. Others promote rip-and-replace migration strategies, while ABB delivers true system evolution allowing Harmony users to build on their strong DCS foundation.

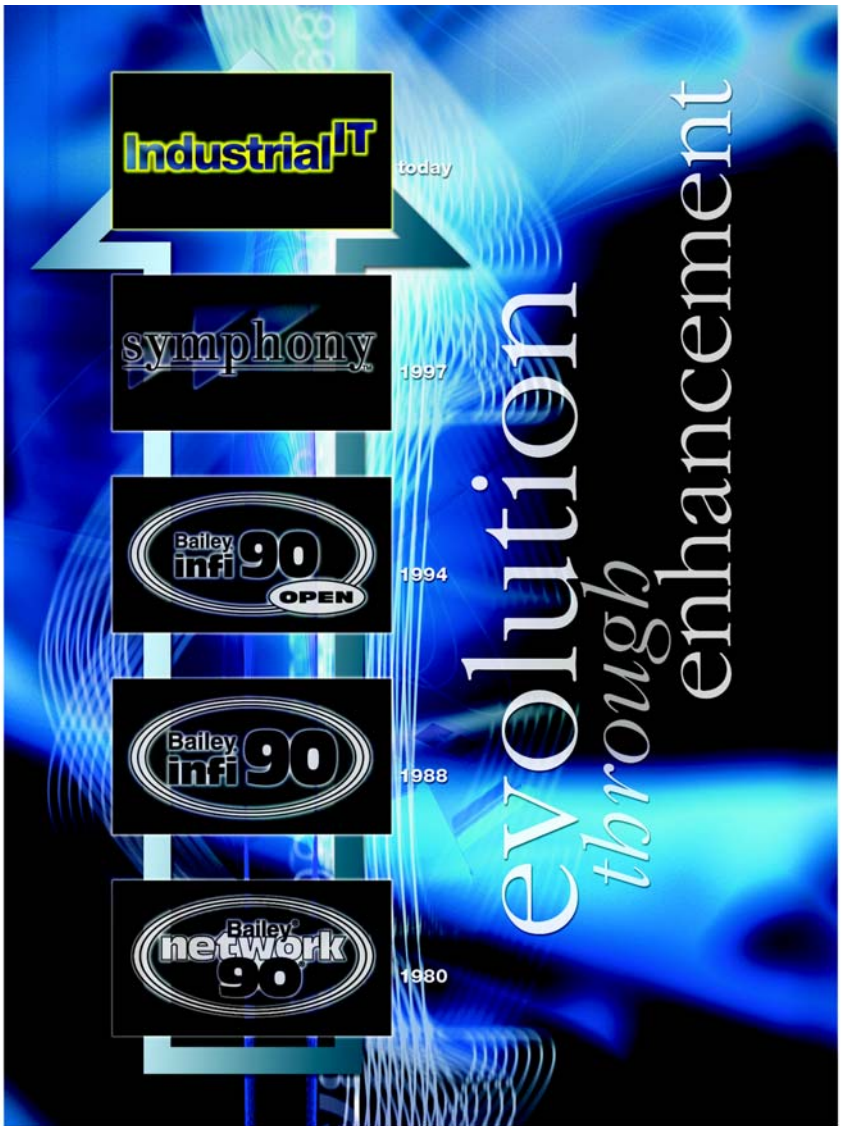
Symphony Harmony is a proven process control system for demanding applications in various industries. The wide range of Harmony references include the power generation, chemical, pharmaceutical, pulp and paper, water and wastewater, petrochemical, metal and mining, food and beverage, cement, and sugar industries. The addition of System 800xA functionality provides Harmony users with the technology and solutions needed to achieve a sustainable competitive advantage in their industries.

ABB

# Extending the Return-on-Investment of Harmony Systems

ABB's pledge of *Evolution through Enhancement* (Figure 1) ensures that future advances in system technologies will extend the life cycle and the return-on-investment of the installed Harmony system. Other vendors may talk about investment protection, but ABB's proven programs are truly unique in the industry. All told, from the introduction of Network 90® in 1980, through each of the evolutionary steps of INFI 90®, INFI 90 OPEN, and Symphony Harmony, this family of systems represents the largest contiguous installed base of any process automation system in the world.

ABB continues to add traditional DCS functionality for the Harmony system. This focus has resulted in many new functions and technology updates for Harmony products including Rack I/O modules, Bridge Controllers, communication modules, Composer system configuration tools, and operator consoles. The following sections summarize the most recent enhancements to the Harmony system.




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**Figure 1.** Evolution through Enhancement

## Harmony Control, I/O, and Communications

The Harmony Rack modules (Figure 2) have been redesigned with modern board components and surface mount technology. These redesigned modules are form, fit, and functional equivalents to the Network 90, INFI 90, and INFI 90 OPEN modules providing backward compatibility to ensure a long life cycle for Harmony systems.

The system's flagship controllers, the Harmony Bridge Controller family, have remained state-of-the-art through annual software and hardware enhancement releases. Following ABB's commitment to *Evolution through Enhancement*, the Harmony Bridge Controllers preserve existing system control logic configuration, thereby providing predictable and risk free evolution for the system's control execution environment. The Harmony Bridge Controller family supports all existing function code execution, custom user programs, and foreign device interfaces.

New communication modules have been released (INNPM12/INNIS11) that support both the Plantloop and INFI-NET communication standards. This offering allows system users to incrementally upgrade from Plantloop to INFI-NET one process control unit at a time. Also released, are INFI-NET-to-INFI-NET Remote Gateway modules. All of these communication modules are form, fit, and functional replacements for their earlier versions.




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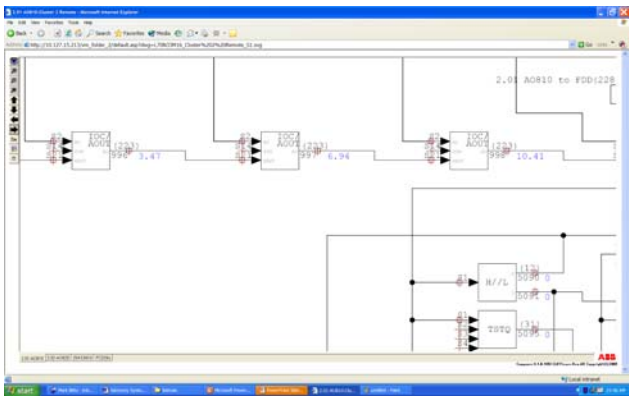
**Figure 2.** Harmony Rack Modules

## Engineering Tools

Composer, the engineering tool of choice for Harmony systems, provides configuration support for all INFI-NET and Plantloop communication options, controller options, graphics, and databases for all of the current operator consoles. Recent Composer feature enhancements include a View and Monitor mode that provides the ability to view control configurations with live data from any web browser application on the network (Figure 3).




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**Figure 3.** Composer View and Monitor Mode

## Operator Consoles

The evolution of Harmony operator consoles dates back to the early 1980s with the first Operator Interface Unit (OIU). Since that time, ABB has continued to provide console enhancements and graceful evolution to newer technology through tag database and graphics compatibility conversion services. Process Control View, Conductor VMS, Conductor NT, and Process Portal products, with annual value-added functional enhancements, represent a large and growing installed base. (Figure 4).



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**Figure 4.** Operator Console