

YOUR BEST-PRACTICE  
GUIDE TO BUILDING  
BETTER MACHINES.

**FASTER.**



*Allen-Bradley • Rockwell Software*

**Rockwell  
Automation**

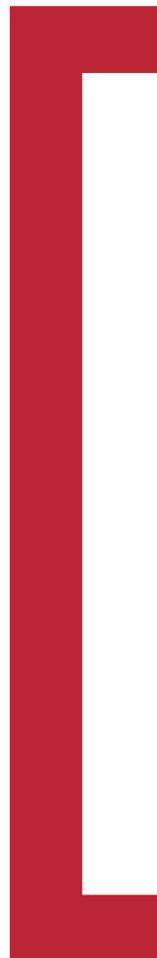
# INTRODUCTION

How would you feel about spending less time on labour-intensive, repetitive tasks, and more on solving your customers' business challenges?

If this sounds good to you, we can help. We are constantly exploring faster, simpler ways to help you build more efficient, cost-effective machines and equipment. One resultant solution is our new Midrange system portfolio, based on a simplified, compact control platform.

This short guide looks at five aspects of machine-building we've identified as being unnecessarily complex. Covering global standards, machine control, networks, programming and wiring, we outline how we've simplified and improved processes, helping you to save time, money and effort.

What's more, because we work with end users ourselves, we know what they look for from a machine builder. Taking note of these best practice guidelines won't do you any harm at all in terms of prospective business.



## BEST PRACTICE PRINCIPLE 1

# BUILD FOR THE GLOBAL MARKET.

Imagine. A machine builder is in the fortunate position of being able to sell a machine in ten different countries. It can be built in ten different ways from the ground up to meet the needs and standards of each market, or it can be built as one machine which adheres to global standards and adapted from there. Which would you rather?

Our Allen-Bradley® Midrange platform helps you to build machines and equipment that incorporate global legislative standards. It covers different voltages, operates on the common, globally-recognised Logix platform, and is infinitely scalable and flexible.

By using one single platform, you can consolidate your spares inventory. Our support services are more focused and efficient, reducing downtime and maintaining productivity.

At Rockwell Automation, our size and scale means that we have commercial agreements with many key manufacturers worldwide. They trust our people, use our technology, and often engage our business partners, machine and equipment builders such as you.

We'll support you and your customers whenever and wherever you need it, whether at your site or during installation at your customers'.

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- Functional safety systems conforming to global standards
  - Machines can be built around universal safety measures
  - Solutions used and trusted by some of the world's largest manufacturers, helping you in the quest for new business

## BEST PRACTICE PRINCIPLE 2

# USE ONE CONTROLLER FOR EVERY APPLICATION.

Traditionally, because machines and equipment come in different shapes and sizes, so have the controllers. The more controllers, the more hardware and software needed to support them, the more product-specific installation and maintenance manuals, the more training, the higher the incremental costs and possible complications.

'Traditionally' seems to come with 'complicatedly' built-in, so we've made tradition truly a thing of the past.

Ours is a simple solution. One controller. And that equals one hardware and software package, one user manual, one tool for all applications, regardless of size and complexity of machine and equipment. It makes for a much easier way of getting things done.

We call it CompactLogix™. It gives you straightforward logic control...process control...motion...and safety. You can use the hardware that's right-sized for the machine and the task, using the same programming environment. Better still, using the same hardware and software, the equipment adapts its way of working to suit the application in hand.

Brilliant. A simple, single, modular solution for today's multi-faceted machine and equipment-building requirements. One that accelerates production processes and drives performance improvement.

- Maximum control integration and faster performance
- Re-usable programmes save time and money
- Complete communications flexibility and consistency
- Reduced set-up, operation and maintenance costs



### BEST PRACTICE 3

## USE ONE NETWORK, WHATEVER THE TASK.

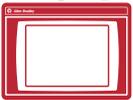
The benefits of networked machines and equipment, lines, factories and business systems are well-known and well-documented. Trouble is, in many cases they're also well-ignored.

The complex nature of machine and equipment-building has led to some highly complex scenarios. You get a network for I/O. Another network for motion. And another for controller-to-controller tasks. For machine-to-machine. For line-to-enterprise. Plus, of course, the added complications of separate adaptors, connectors, media and configuration tools.

**[ Strip out the complexity, and you strip out the headaches. ]**

Which is exactly what we've done by building EtherNet/IP into our new Midrange portfolio. It's the network the world understands and uses. It's open, easy to work with, flexible, all-embracing, the simplest route to a single design environment and network architecture.

- Handles the widest range of applications including discrete, motion, drives, process and safety control
- Connects across applications, through IT infrastructures and down to device level
- One standard network lowers the total cost to design, develop and deliver machines
- Increases your business opportunities with global manufacturers on the same network, many of whom we're already working with



## BEST PRACTICE 4

# TAKE THE PAIN OUT OF PROGRAMMING.

Programming. It's a skilled task where the best use of your time results in the differentiation for which your customers are looking for. But how often do you get distracted by repetitive and avoidable chores?

To support you in concentrating on the 'high-value' work, we've applied a modular programming approach. One programming environment means that you can re-customise and re-use code for different machines and equipment in different ways without the constant need to go back to square one.

Better still, you can use our off-the-shelf, modular programs that come with a basic structure and with diagnostics handling already completed.

Why would you want to spend your time coding and re-coding, when you could be spending more time doing the stuff that makes your business more money?

- Standardise on one control architecture and reap the benefits
- Common programming environment can reduce training and technology costs by 40%
- Spend less time doing the labour-intensive work and more time driving machine innovation

## BEST PRACTICE 5

# A FEW WORDS ON WIRING.

The costs and time involved in wiring are huge. You know the score...design, procure, receive, lay out, wire, check, unwind for shipping, collect, rewire, check...and on and on.

You have to ask yourself, why would you want to do more than you have to, when simpler, more cost-effective and time-saving alternatives are available?

With our Midrange platform, EtherNet/IP is already built in. This can be used straight away to connect to on-machine I/O blocks, in turn plugging straight into sensors. Rather than controlling devices with hard-wiring, it all takes place via the network.

The Kinetix® 5500, for example, has just the one cable for feedback and power. Simple. No wiring to carry out, no wires to cross. And as if that's not enough, every wiring point you remove means a real and quantifiable saving in time and money.

Whether you're building a brand new machine or new equipment, upgrading existing equipment or migrating from an existing system and wanting to use existing wiring, we've got the solution to fit.

- One standard network significantly reduces hard-wiring
- EtherNet adaptors and toolkits convert competitive solutions and migrate older platforms using existing field wiring
- Reducing wiring can mean up to 70% time and cost savings

**For more information or to request an appointment email us at: [oem-emea@ra.rockwell.com](mailto:oem-emea@ra.rockwell.com)**