

## Why Do I Have to Upgrade My Machine?

Weren't the controls you *just* installed the latest and greatest? They were, but that was also 10 years ago. We should be happy that industrial controls aren't made obsolete as quickly as our laptops and phones. But eventually Intel, AMD, TI, NVIDIA, or some company is going to stop making the chip needed to make your ancient PLC, I/O, HMI, drive, or some other crucial component work. It's a sad fact of life. Often your old control system works very well. The operators know how to use it; the bugs from the initial commissioning are now cherished features. The maintenance folks are unconsciously competent at fixing it. Production knows what the machine can make, how much, and how well. Now you are going to have to upgrade it, and all of that tribal knowledge is gone just because you can't buy some little pieces of sand for one seemingly unimportant piece of hardware. I feel your pain. It makes me sad to replace a perfectly good control system. We may have even installed and commissioned that control system back in the day. I remember the blood, sweat, and tears that went into making that work. Well, I'm not that sad, we do a lot of upgrades and it keeps us in business, but I'm a little sad.

We've done a lot of upgrades over the years (*i.e.*, I'm old), and it doesn't have to be filled with drama. Drama like...Will my machine ever return to production? How can I get my maintenance guys to understand our new controls? Can the operators figure out how to run this thing? Some upgrades go well, and some do not. I thought I'd lay out what I've found useful over the years. This won't be the *end all, be all* of how to upgrade a machine, but I hope it will give you ideas and things to look out for to avoid the worst of the drama.

Here is a rough outline of what I'll cover (I reserve the right to make modifications if something else seems interesting):

- Common Misconceptions: The Good, the Bad, and the Ugly
- What to Expect When You're Expecting an Upgrade
- DC to AC Drive Conversions
- Sometimes Older is Better
- Planning Safety into an Upgrade
- Sensible Planning for Installation and Commissioning

And because I watched too much Letterman back in the day, we'll do a few Top Ten lists as well.

I plan to post a new installment every 4-6 weeks, so keep an eye out for more to come. If you have topic suggestions or questions, please put them in the comment section of the LinkedIn post. I would like this will be informative for all of us. See you in a few weeks!

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