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# QualityScan

## The Time to Start Planning for Obsolescence is Now

**S**o, your shiny new, state-of-the-art metrology system is up and running. What's next on the agenda? Well, after you relax for a minute and admire your handiwork, starting some serious, in-depth planning for its replacement is probably not a bad idea.

No, there is nothing wrong with today's hardware and software, and your shiny new system will probably last for many years. But, it absolutely won't last forever and when the time comes to repair or replace it you may be in for an unpleasant surprise.

Metrology, like all technologies, is evolving rapidly and continuously. That's why your new system is a lot more capable than anything you could buy a few years ago. Your tolerances are tighter, you need more flexibility, you can't find skilled operators so you need more capabilities in the software and a simplified interface—all of these evolving requirements are reflected in the components of your system.

Your needs will be different in a few years, and so will the systems available to meet them. The parts you need to keep the old one running, however, may not be available. In fact, some basic building blocks of today's widely-used systems, like Intel 486 processors, component-mount transistors and some specialized chips are already in short supply. Other things, like gas-plasma displays are now listed as environmental hazards that can't be used at all, even in a like-for-like replacement.

And, even if a manufacturer can find legacy components, in many places it's already illegal to use them in commercial products. They often contain lead and other heavy metals for which voluntary reduction or elimination is being replaced with strict bans in many places and the list is growing rapidly.

There is no question that the time is rapidly approaching when manufacturers simply will not be allowed to produce many of the components and apparatus you are using today. Don't wait for a crisis; you need to start planning now to avoid unpleasant surprises tomorrow.

A good place to start is with an inventory of everything that's on your floor now. Talk to your suppliers about the status of key components, with particular attention to the electronic items that have the highest incidence of obsolescence. Let your suppliers know that you expect to get ample advance warning about anything that is going to be unavailable. That way

you can make decisions about whether to repair or replace components or systems now, or to stock up on key parts that may not be available when needed in the future.

Barring crashes or catastrophic damage, any piece of metrology gear from a reputable supplier ought to deliver 10–15 years of service with routine maintenance. That's a reasonable number to use as a base for prioritizing your spare-part requirements and replacement schedule.

It's obvious, but nonetheless worth mentioning, that the older a system or component is, the less likely parts or direct replacements are to be available. In other words, prioritize your plan to deal with your oldest components first because that's where failure is both most likely to happen, and most likely to cause the greatest disruption.

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And, if you do decide to replace an old system, don't throw it away. You can often cannibalize it for parts to keep some other system running while you're waiting for an upgrade or replacement. It's not a perfect answer, but it's a lot better than losing production or making bad parts because the metrology system is down.

Beyond keeping you informed about products that are reaching the end of their life, your suppliers should be doing what they can to help ease the transition from old to new. For example, about 92% of the electronic products produced by Marposs are pin-for-pin compatible with their legacy predecessors. We also endeavor to provide logical upgrade paths. For example, the current P3UP and P7UP amplifiers are pin-for-pin compatible with the older machine interfaces they replace.

The same thing is true of many of the mechanical features such as mounting arrangements and hole spacing on our mechanical components. The Marposs Web site even has a section devoted to upgrades to help smooth the process.

Obsolescence is a fact of life. You need to plan for it now, and so do your suppliers. Don't wait for a crisis to find out why you should have. **ME**