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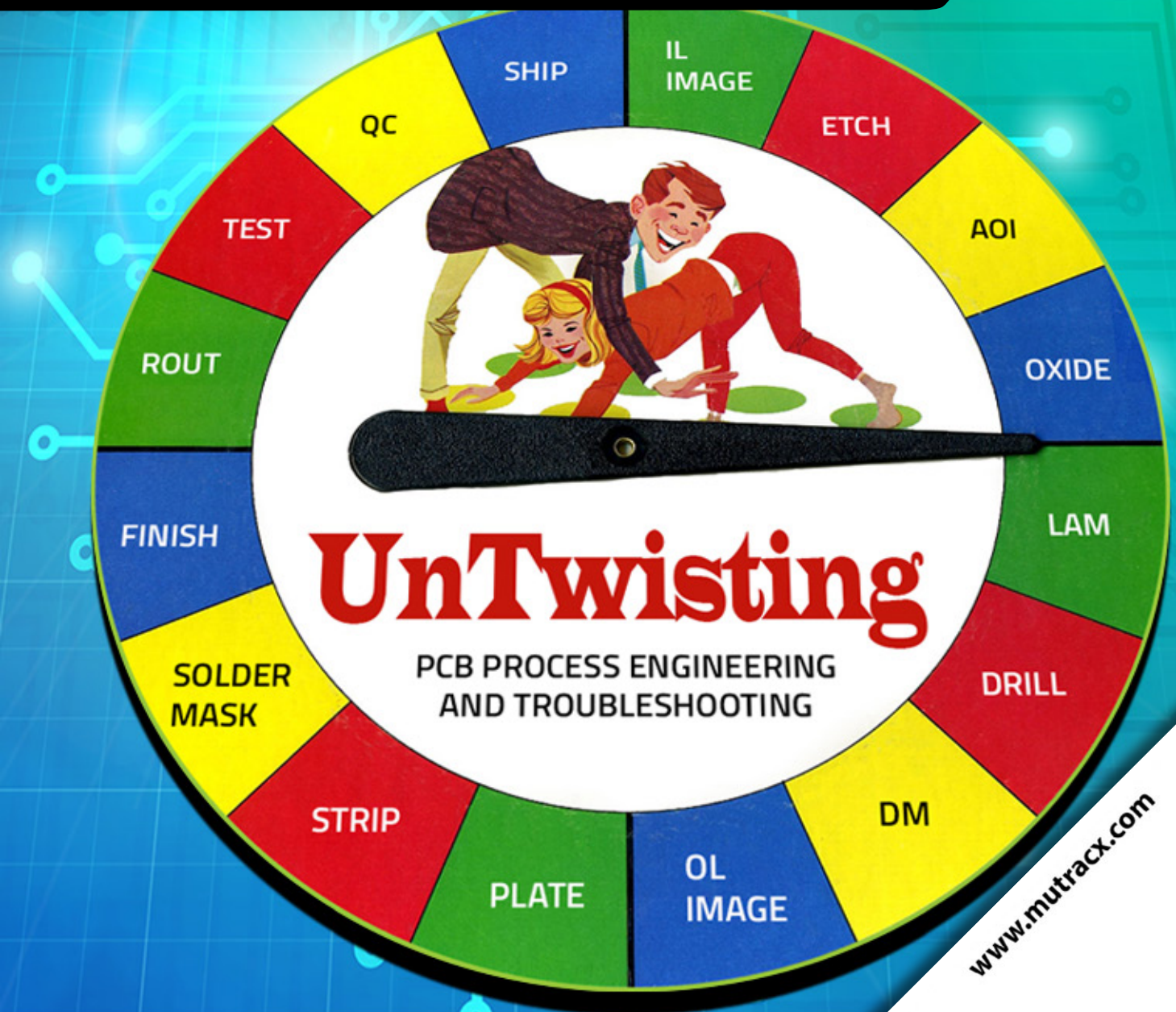
April 2016

the pcb magazine



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Process Management: Doing It Right

by Todd Kolmodin
GARDIEN SERVICES USA

The term "process management" is widely used in today's economic theatre, but what is it really? Simply put, it is the idea of figuring out how to do something, documenting it and then monitoring the effectiveness of the steps you created for the end result. Simple, right?

Unfortunately, many who take on this endeavor fall short due to missing some key attributes to creating and maintaining a robust process. It doesn't matter whether we are building a box or building a battleship, the theories are the same. Many consider writing work instruction the process but it is only one of the key attributes. Remembering this will no doubt keep you from the pitfalls of process failure. We all remember what the customer wanted, right?

A process that is unclear when created will undoubtedly result in something like the picture in Figure 1. So let's build a process correct-

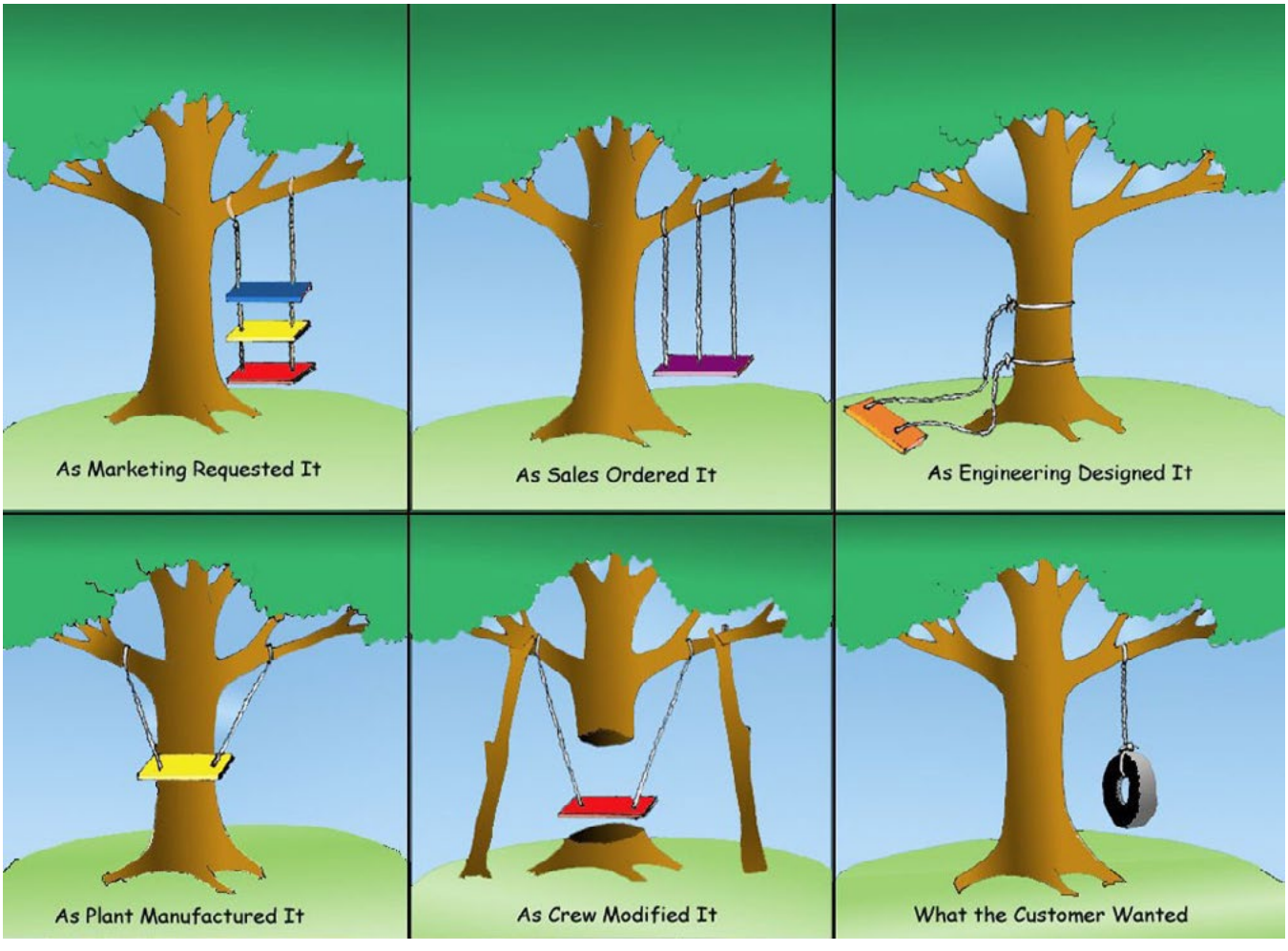

Figure 1: How not to communicate.

ly. There are eight steps in building and maintaining a robust process:

1. Identify the process. What are we trying to do? This may sound a bit general, but it is critical. Write it down.

2. Determine the resources needed for the process. If we are building a box we will need materials such as wood, nails, screws, a hammer, etc. Determine what tools will be needed to create what we defined in Step 1.

3. Decide who is doing it. This is a critical step that many overlook. Who is going to be doing this process? In many cases, the mistake is that the process is written so overly technical that only a Ph.D. or rocket scientist could possibly understand. This leads to breakdown and ultimately, process failure. Now if the process requires a Ph.D. or rocket scientist to perform the steps then by all means write it and include the attributes required for that audience.

4. Create a flowchart/diagram. Now it's time to document your actual steps. This may include more than one document if more than one department or entity is involved. This is your work instruction phase. This is best documented while the actual steps are being performed. It is much more difficult to look at the finished product in a conference room and reverse-engineer by memory. Do it hands-on. It will save edits and missed steps in your process. This is a time to again consider your audience. While in this phase, reflect on what is critically needed for the process and what may be left out if some common knowledge is already indicated.

5. Expand. Now that you have your steps, review each one and expand if necessary to include specifics about a given step. Perhaps a special tool is required in one step or a certain color of paint. This is the time to provide examples. What should the product or activity look like at a certain step? Visual examples work very well to gauge whether the process is developing the desired result. Be careful during this step as to not write yourself into a corner. Consider the future and other integrated processes

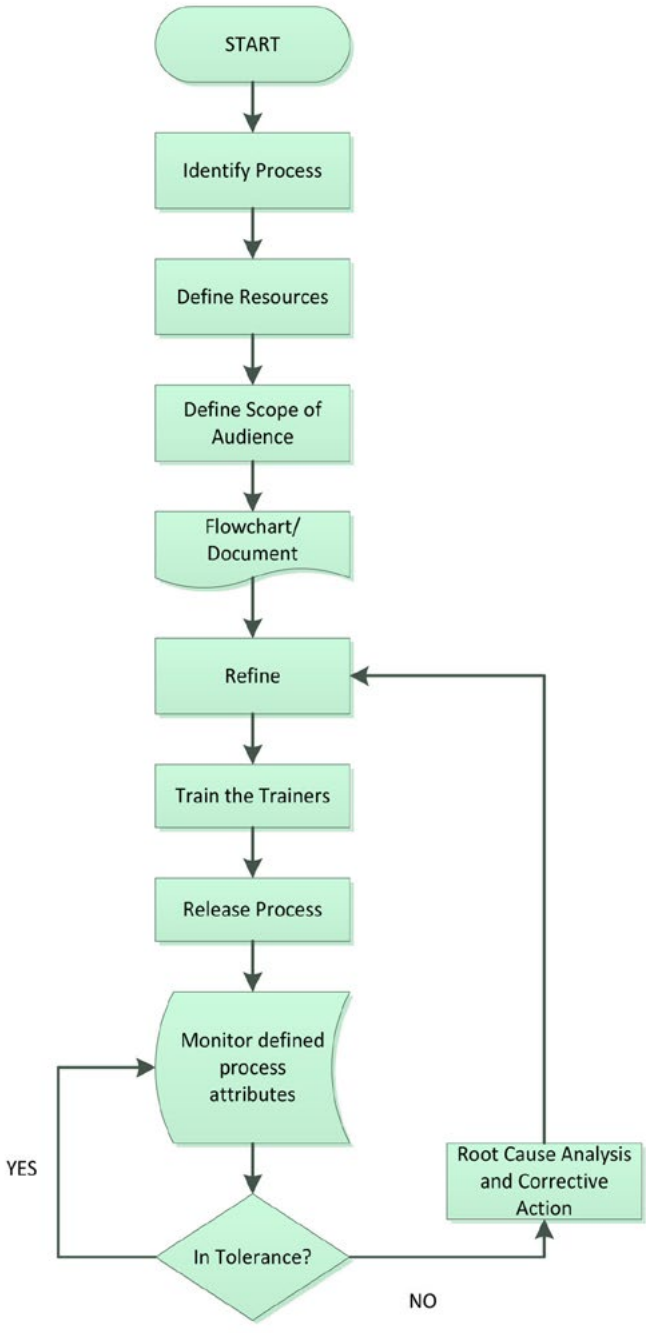

Figure 2: Process-building steps flowchart.

that may work with yours. If your process is too tight, you may have issues with amendments or changes in the future, or have issues modifying your process to accommodate a sister process related to your own.

6. Test the process document. If you wrote it, I don't mean you. Find a volunteer to read

through the document and perform the steps within. Here you will find where something may have been accidentally omitted. Make your correction(s) and do it again using a different volunteer. When you are satisfied with the results it's time to move to the next step.

7. Train the trainers. I can't emphasize this enough. Here is one of the biggest failure mechanisms in process management. You just created a great document and released it to production and you can't figure out why it's not working! Whether your organization is large, with training staff, managers and operators or just a small shop, the focus must be the same. You must train who will be performing the process. Whether it is a workshop-type training session or a one-on-one meeting, you must go through the steps, listen to questions and document who, what, where and why. This is part of your process management: accountability. If there are many sub-processes involved in your final desired outcome (box or battleship) this must be done for each individual sub-process. Don't skip or cheat this step or you will have undesirable results and difficulty finding the root cause of any failure.

8. Monitor. Of all the steps, this final step is the most important. How do you know if the process you created six months ago is still as strong today as it was the day you created it? You need to have your finger on the pulse of that process. How do you do that? Define inspection steps or key objectives to be monitored during the process. Define limits to those attributes and instructions when a control is violated. Doing this can provide immediate attention to the faulting occurrence whether it be equipment, human or unknown at the time. Utilizing '5 Why' root cause analysis can ultimately isolate the out-of-control root cause and you can then correct it but that's for another day.

To conclude, when building and maintaining a process, don't be overwhelmed by the overall scope of the final required result. While some processes may be very large with many integral steps we can break each of these down using the eight steps. These building blocks can then be unified to capture the entire desired result while also monitoring each phase for any out of control conditions that may affect the final result. Use the process building step flowchart to guide you to successful process building. **PCB**

Todd Kolmodin is the vice president of quality for Gardien Services USA, and an expert in electrical test and reliability issues. To read past columns, or to contact Kolmodin, click here.

Couldn't make it to the March Show(s)? Catch Up with Real*Time with*...Coverage!

March was *huuuuuge* for important industry events this year, with IPC APEX EXPO 2016 in Las Vegas, Nevada, and CPCA 2016 in China the very same week. I-Connect007's Real*Time with*... video crews were at both locations, on opposite sides of the world. The result is more than 100 excellent videos that put you right on the show floors where you can learn about the newest equipment, the latest in processing, industry trends, market analyses, and so much more. Watch the videos from IPC APEX EXPO here, and see the CPCA videos here.

In addition, our roving reporters talked with speakers, exhibitors, attendees, and movers and shakers in the industry. These transcribed audio interviews are publishing NOW in our I-Connect007 Daily Newsletter and in our weekly newsletters. Subscribe today to receive these straight to your inbox.