



Tab Zero: Escaping Manufacturing Tab Purgatory

Inbox Zero vs. Tab Zero

Inbox Zero. The concept sounds ideal. In reality, it's eluded most of us and has been replaced with a sentiment that it's not possible. For many, a new pain point is eclipsing it. As we become more and more bogged down by the number of tabs we have open on a daily basis, there's a new struggle – to end the day at what could be referred to as “Tab Zero.”

For business operations and people that are highly dependent on software applications, this pain is real. For manufacturers, it's not only painful but also costly – to an extent they may not yet even know.

Instead of Tab Zero just becoming another enigmatic concept, let's first reexamine the context for Inbox Zero. In the years since the concept was introduced, many have interpreted it to mean zero unread or unaddressed messages or having an empty inbox altogether. But the idea was originally defined by Merlin Mann as follows:

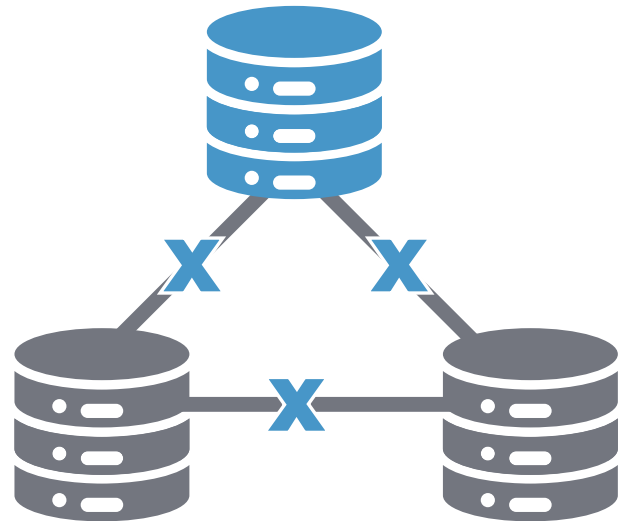
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It's about how to reclaim your email, your attention, and your life. That “zero”? It's not how many messages are in your inbox- it's how much of your own brain is in that inbox. Especially when you don't want it to be. That's it.

- MERLIN MANN

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That methodology, applied to a “Tab Zero” concept, strikes directly at a well-known pain point for manufacturers: the high level of human brain power invested in correlating and interpreting data across different systems and software.

With many of the existing data-gathering and analyzing practices found in factories today, solving any given problem within a factory requires several tabs representing several software tools. Humans toggle between these tabs – and even between multiple machines running different operating systems. All this context-switching is necessary to make the needed connections and get the information to run the factory. Using Mann’s own words, there’s still a heavy investment in human brains to make that software do what it needs to do.

Even best-in-class software requires both human and IT management, and lots of it. Most manufacturers rely on several software tools on several different systems that don’t talk to each other. This creates no small obstacle to achieving manufacturing Tab Zero. An updated approach with a consolidated system that collects and analyzes data and triggers actions, all in one place, is the next obvious step. But first, let’s look closer at the telltale signs that over-reliance on too many systems is at play.

1. Your Data is Siloed

It’s very common to hear manufacturers say something like, “We have the data, what we need is data science to solve our problem.” Digging into it, they have, indeed, collected a lot

of data. The challenge is that it’s stored in many different systems for different purposes.

This is the very definition of a data silo. It sounds like it should be easy to just “put all the data together” and then do the data science, but it’s not. Data integration requires that all data be formatted, filtered, and manipulated to fit a shared purpose. As data provides new insights and advantages, pursuing the next level of information requires accessing more complex data, and on and on.

The real cost of these silos is not that you can’t get the data out of them, or even contextualize the information, it’s that the work required is non-trivial. So, you continue to work with it until an easier path comes along. But the age-old adage holds true here – time is money.

2. Multiple Software Versions, Multiple Vendors, Multiple Steps

Data is siloed for a reason. Software tools are everywhere. Every machine on an SMT manufacturing line, for example, is functionally a computer. Depending on manufacturer, age, and configuration, they are using different languages. Each machine vendor hyper-optimizes their products to maintain compatibility with the complex operating environment, paradoxically further isolating their product. This contributes to the ever-growing need for a single tool that objectively captures the data, observes all that data, and renders it useful.

3. You're Spending Too Much Time (and Money) Tying it Together

This complexity has resulted in incredible human investments to make use of their data. Most factories are still spending untold hours managing the data that's spread across multiple software systems. Producing comprehensive reports requires multiple applications and analyst time exporting and sorting through data that was only organized for a specific application. All that investment only scratches the surface of solving the issues that arise within the manufacturing processes. Even worse, it doesn't even begin to mine for existing problems undetectable to human eyes and analysis – some of which are very expensive.



Expert Data Solutions to Tie it All Together

As manufacturing environments become increasingly efficient, there is an accelerated need for factories to understand data – what they can do with it and how it's relevant to a given job. This requires the consolidation of software data and analysis, and it goes beyond closing all your browser tabs at the end of the day. The solution requires a different approach: expert data.



What is expert data?

Expert data is centralized, normalized, relevant, flexible, and automated. Expert data solutions are built through highly skilled data architects and analysts partnering with domain and industry experts utilizing rich data to strategically target specific problems. Rather than generic data solutions that could solve problems X, Y, or Z if only the consumer had enough data and domain expertise to pull it all together, these solutions gather and contextualize all the rich data produced during the manufacturing processes. This approach is made possible with comprehensive data stored in a highly flexible manner. Expert analysis and insights flow from it, empowering every level of the organization in real time. This approach identifies problems before they become costly and includes the capabilities to automate alerts and recommended actions to resolve factory issues.

Enabling Tab Zero

Expert data solutions eliminate the need for all those tabs– tabs that represent siloed data, heavy investments in human interpretation, tabs that are time- and resource-intensive. With filtered, centralized data and automated insights and analysis, human brain power

doesn't have to toil on Sisyphean or "whack-a-mole" endeavors.

Manufacturers need solutions from teams that know how to analyze data and the environments it represents. These solutions ask the questions, "If you were to solve this problem in your factory today, what would you do?" and then translate that into a standard approach to building software tools that work in a similar way.

By extension, Mann's philosophy around Inbox Zero got something exactly right – an attempt to reduce "how much of your own brain is in that inbox." It's not that Mann is suggesting we don't use our brains, it's a suggestion that we use them elsewhere, and let tools do the jobs our brains don't need to do.

Tab Zero, much like Inbox Zero, isn't literally about zero tabs, it's about allowing expert data solutions to automatically guide data intelligence. It's accomplished by leveraging platforms that consolidate these tools into one—capturing valuable knowledge from the people within the organization and transferring it across the entire organization. It's accomplished when we reduce our reliance on disparate systems to a bare minimum. Ultimately, it's accomplished when we embrace new technologies that roll up many of the already-outdated data solutions into one, allowing our valuable human resources to claim more of its potential, and apply it in the most valuable way.

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