SpencerMETRICS iDPA – CONCEPT TO REALITY

A manufacturer came to us with a problem that couldn't be solved with existing software

Perhaps you've heard of *spencerLAB* – since 1989, we've been providing leadership in benchmark analysis, research and evaluation to companies with mission-critical printing needs.

A few years ago, a manufacturer contacted us with concerns about the validity of digital press productivity measurement. Applying our experience, we developed an independent, technology-agnostic methodology for productivity measurement; in short, we studied all the activities that a press may experience over time and grouped them into appropriate categories (see Figure 1). Eliminating those that were outside of press operational control, we focused on the objective of output that is commercially *sellable*. As a single benchmark of productivity, we chose the metric of *Availability*, the percentage/ratio of the potential production time spent generating sellable output.

Figure 1. Press Activity Categories

The methodology fundamentally differs from the existing metrics in that it measures the print shop use of the press – not just whether the press is operational, but that it is operating productively. For perhaps the first time, a system measures the availability of sellable output.
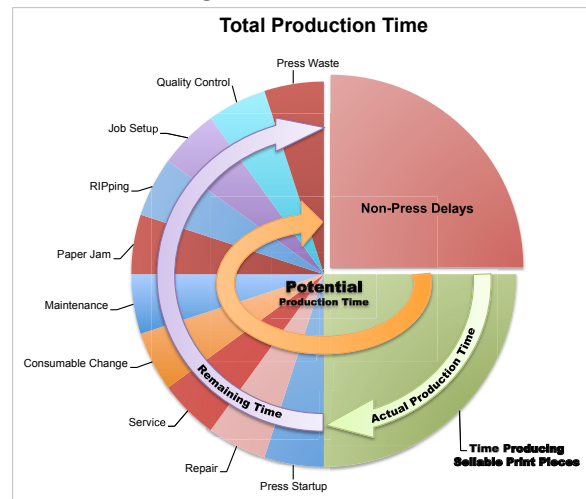
Having developed a methodology for capturing all the data, we measured the availability of seven different cut-sheet digital press models. Each measurement was averaged over a month to reduce the impact of fluctuations. Although these results were not statistically significant, we noted similarities within models of a brand. (As more presses are measured, statistical significance increases and the system database becomes increasingly valuable.) Our client (Xerox) asked us to publish those results.

Then came the realization – *in the process of measuring the availability of sellable output, we had also measured the tasks that took longer than they should – bottlenecks to higher productivity*. Bottlenecks ranged from high job setup time to excessive service with inadequate preventative maintenance, poor color management policy, etc. Higher availability means more sellable output with the same time and resources; in other words, higher productivity, Revenue and Profit. Sharing the collected real data and analyses with a few test sites, each learned of their potential bottlenecks to higher productivity. Their feedback reconfirmed *the value of our productivity solution – a methodology that highlights potential obstacles with actionable data*.

This tool measures real productivity. A press that is ready, but not printing, is not being productive; a press that is printing unusable output is not being productive. Automated systems may not know about prints with visible artifacts, inadequate prepress color management, incorrect media, or that printing is part of a maintenance or repair task and not sellable, etc. – additional knowledge is required.

The strength and value of the system lies in gaining knowledge uniquely available from the operating personnel – data not known by the machine or automated software, data not previously available for analysis. Data on sellable prints and productivity bottlenecks is not being acquired, and capturing it requires interaction with the operating staff on the shop floor (see Figure 2). Print management benefits from the identification of various obstacles that may be systematically addressed, and from a better understanding of their press's true productivity potential.
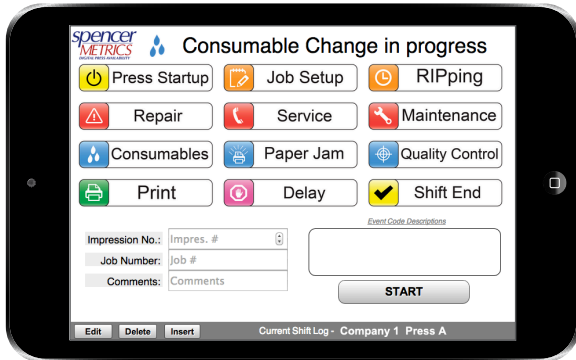

Figure 2. Data Entry Panel

Realizing the likely value of this tool to commercial press owners, in-plants, as well as to the manufacturers themselves, we decided to bring *SpencerMETRICS* iDPA to the industry. The implementation challenge to *spencerLAB* was scalability – if this analysis of productivity was to be deployed on a continuing basis on thousands of digital presses, it should employ state-of-the-art technology – a cloud-based system with on-demand real-time analysis of the stored data (see Figure 3). Using mobile web programs to gather, request and display the analyses, the results could be available anytime, anywhere – on a laptop, a tablet, or even a smartphone.

SpencerMETRICS iDPA – **i**ncrease **D**igital **P**ress **A**vailability – was introduced in February 2013 and is currently shipping. Continuing system enhancements – press comparisons, additional metrics, event rates, mean durations, etc. – are in development; iDPA PLUS is scheduled for Print'13 introduction.
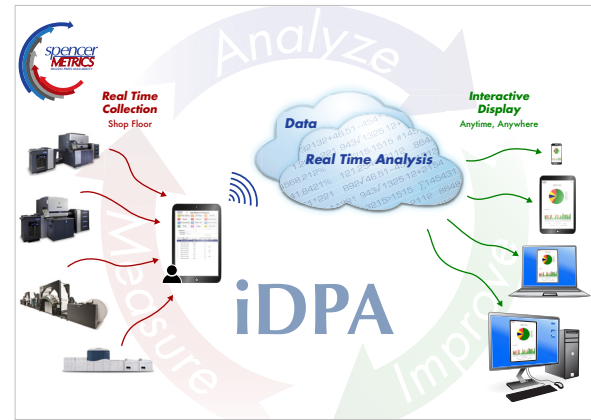

Figure 3. *SpencerMETRICS* iDPA System Architecture

For additional information go to www.spencerlab.com/testing/productivity/ or email spencermetrics@spencer.com