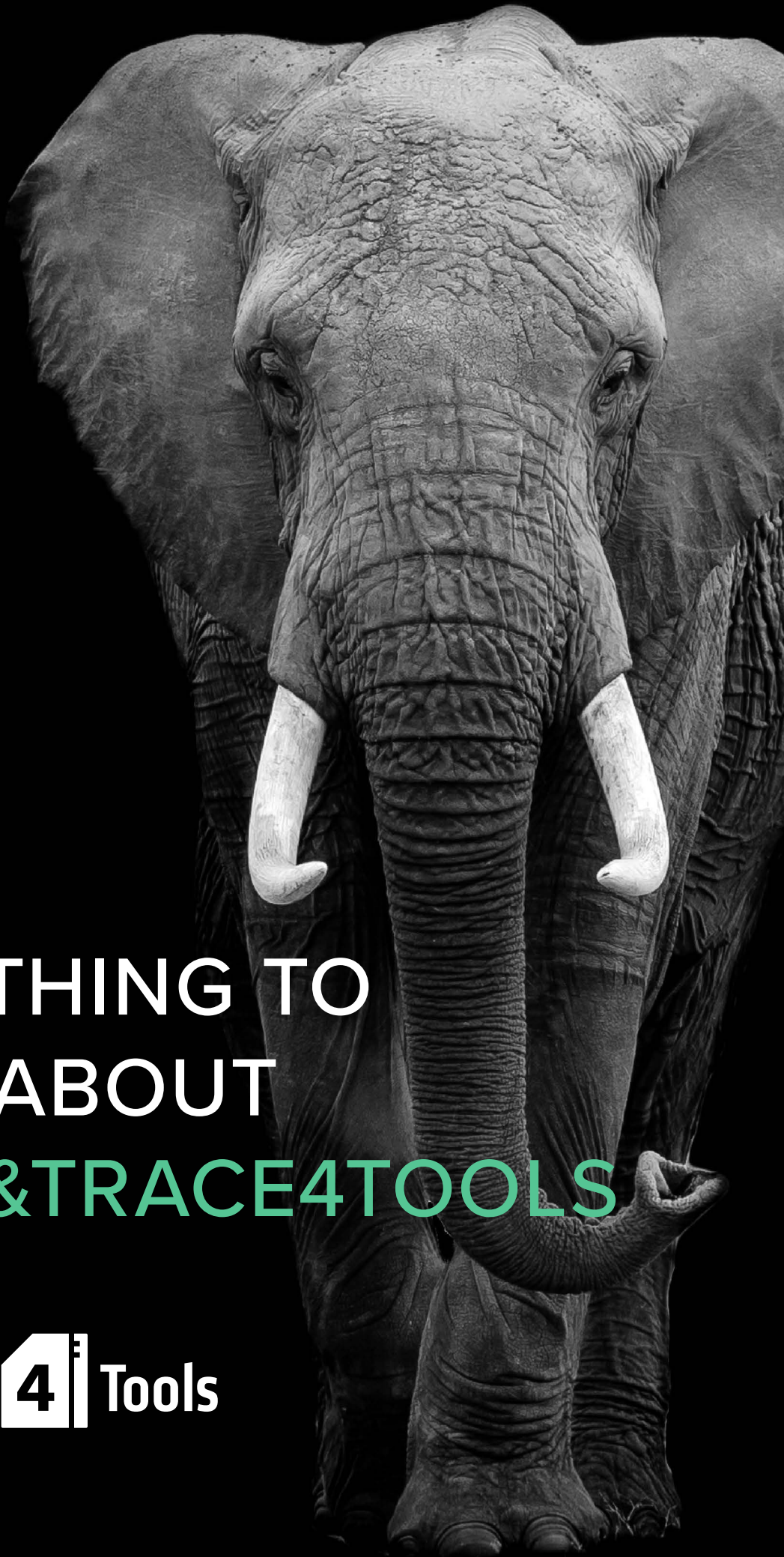




THE GREY ELEPHANT



EVERYTHING TO
KNOW ABOUT
TRACK&TRACE4TOOLS

Track & Trace **4** Tools

Background and overview

Packaging and Label print companies are facing more challenges in their plate rooms. Let's say a company prints food packaging. The final package comes in 2 different sizes and each package has 3 unique configurations depending on the target market. The text is printed in 3 different languages, one for each country where it's sold. That means that we already have 18 different variations of artworks – along with accompanying (common) printing plates.

Using today's manual processes, plate room departments must retrieve the correct printing tool (offset/flexo plates, screens, gravure cylinders, dies, etc.) from a tool archive that often numbers as high as 40,000 to 80,000 plates.

It's a challenging task and can result in many costly errors.

In addition, press run times are decreasing, but the number of jobs is increasing. Without automation to trace, track and quickly retrieve these tools and other assets, this job becomes harder and harder to manage.

Who it helps

- Every label and packaging printer
- Printers with prepress/graphics system department
- Printers without prepress/graphics system department
- Printers with prepress/graphics and ERP systems integration
- Printers without a prepress/graphics and ERP system integration
- Printers without an ERP!

Benefits

Save money and protect our environment:

- Maximize the use of existing print tools
- Avoid unnecessary and costly duplications of print tools
- Reduce costly errors
- Streamline the plate management process
- Cut unnecessary costs and optimize plate usage
- Reduce waste
- Save money

How Track&Trace 4Tools work

Each printing 'tool' (i.e., flexo plate, offset plate, screen, gravure cylinder, dies in different versions, etc.) and indeed any version of that tool, has affixed to it a unique identifier number and a barcode.

This unique barcode, generated quickly and easily read by a handheld scanner, connects to the Track&Trace4Tools database.

One click, and all the needed information about a printing tool is at the fingertips of production staff - helpful for scheduling jobs to maintain an overview of the entire process, and to introduce traceability.

24 ways Track&Trace4Tools can help with production-floor workflow issues

1. As a plateroom manager I would like to know:

- For how many press runs can I use my flexo plates (and other tools)?
- Whats the maximum milage I can get out of my flexo plates (and other tools) for?

Background:

Today each converter has a different idea on how usable their tools are. Since there are no tool management systems available, no KPIs can be created to understand the real impact of tool age, times used or the tool's milage.

2. As a plateroom manager I would like my employees to focus on accurately manufacturing, collecting, mounting, and archiving of tools. But I also want them to minimise waste.

Background:

Today all departments are working based on single press run orders. The plate room manufactures plates based on jobs and looses so the oversight on how to minimise waste during merging since it only looks a bit ahead.

3. As a plateroom manager I need to minimise my raw material waste, but my LEN files do not have a due date.

Background:

Flexo plates are produced ca 24 hours before press time to allow last minute changes (artwork, adaptations, move press run order to a different press, create a gang sheet together with a newly incoming order).

Without a due date connected to the LEN/LENX file the FlexoEngine cannot really calculate the best layout.

4. As a plateroom operator I need to know if my archived tools are still usable for an upcoming press run? Do they have still enough milage left to perform the press run? How long have they been archived?

Background:

To re-use a plate, it's not only the milage or the times used that decide usage, but the time the tool has been in storage as well. The longer a plate is stored without using it, the higher the chance it fails during press operation.

5. **As a plateroom operator, I need to find my tools for an upcoming press run within my other 50.000 plates.**

Background:

Depending on the number of presses, converters may have from 30,000 plates up to 80,000 plates.

6. **As a plateroom operator I would like to save time during the Check in actions. Today after the washing process I must collect and sort all plates belonging to a job before I can archive them.**

Background:

Most converters store the plates of a job within one plate bag.

This means that the archive operator needs to collect and sort all plates coming from the washer (and they do not arrive in a logical order but as a mix of plates) and stores them away.

Reading plate identification is very hard since its mostly very small on the plate.

This process becomes even more complicated with common tools - where to store them since they are not single-job based?

7. **As a plateroom operator I would like a way to store milage and times used per plate.**

Background:

Today's ways are very different to store that information. Its either written manually on the plate bag, or on a paper within the plate bag. Or its been entered into a excel list.

And common plates are even more difficult to handle since they are not job based.

8. **As a plateroom operator I would like to know which tools have not been used for the last 6,12,24 months so that I can destroy them to free up more space.**

Background:

If a purge is needed, the plate room operator needs to ask the CSR for which articles did not run for some time. Based on that list, the plate room operator starts the destruction process.

Common plates are a huge challenge. For example, job 1 might not be produced for some time. However, job 2, which shares some common plates, is getting printed now. What do I do?

- 9. As a plateroom manager I would like to keep using my current tool identification?**

Background:

Sometimes the ERP already assigns tool numbers for hard and soft tools.

And the process works with the current numbering. Changing the process of identifying plates might cause more disruptions.

- 10. As a plateroom manager I would like to remove the need for the operator's manual selection of the LEN/LENX/TIFF files?**

Background:

Whenever a file needs to be merged or submitted to a HotFolder, the plate room operator needs to search for it on file level

Some converters do not keep the LEN/LENX file and therefore it requires a re-rip – which means the press room operator needs to look for the job, select the S&R file, start the RIP ticket, and needs to de-select all those non-needed separations.

Some converters keep the LEN/LENX files which means that the press room operator needs ,only' to look for a single file within many others and submits it to the imagining queue.

- 11. As a plateroom manager I would like to see each tool's metadata in order to control the re-rip process and/or to merge similar plates.**

Background:

Currently those informations are only kept in the file and rip ticket. But this information is very difficult to get for the plateroom manager.

- 12. As a press operator I would like to see quickly which mounted cylinder goes into which press unit.**

Background:

It is very hard for press operators to read the identification mark on a mounted cylinder. This mark is very small, and mostly contains the article number and the color.

Once the press operator has identified the plate, the operator needs to validate it with the production papers.

Such actions pro-long the downtime of the press.

- 13. As a press operator I have many issues if common tools are used. I have a hard time to identify them and to make sure I use them correctly.**

Background:

Since a common tool carries the mark of the previous article it becomes very difficult to transport this information across the entire process.

- 14. As a press manager I need to re-order a plate since it broke. How do I communicate that the plate production department has the correct plate?**

Background:

Today this information is passed as an order for the operator. The operator needs to manually find that LEN/LENX file and submit it again for production.

- 15. As a press manager I needed to re-order a plate for a press run. How can I see the ordered plates progress so that I can plan my press run accordingly?**

- 16. As a press manager I need to produce multiple flexo plates/screens with the same design for long press runs. But how I do manage them if they have the same name?**

Background:

If converters are using rotative screens, they are creating 2 screens at forehand so they can have a backup.

If the backup is not getting used, the original screen and the backup screen are sharing the same name - so how do you identify a used tool vs a non-used tool.

- 17. As a press manager I may need to move some press runs to an earlier date. How can I see the status of my tools?**

- 18. As a flexo plate mounter I need write down the tape I have used for the first mounting of a flexo plate, so I can use the same tape for any upcoming repeat order.**

- 19. As a flexo plate mounter I need to know which tape was used during the previous press run.**

- 20. As a flexo plate mounter I would like to quickly know which cylinder circumference I have to use?**

Background:

Today the operator always has to work based on press run order papers. This means that not only those papers have to go around, but it's always additional work to collect the plate and to check its size on the order papers.

- 21. As a flexo plate washer I would like to know if the plate can be destroyed before I start cleaning/archiving it.**

Background:

If a tool has passed its lifecycle, it can be destroyed before it gets cleaned and archived.

The amount of archive actions is rather high, so reducing them to only a minimum would help the converter.

- 22. As a general manager I need to deal with less qualified and less skilled employees. So I need a SOP and software supporting this process in order to tell my employees on what to do.**

- 23. As a general manager I would like to know which plate has been produced with which raw material batch number so I can check all other plates made with the same batch in case there is a plate issue.**

- 24. As a general manager I would like to know which physical tool has been used in which production run to introduce traceability throughout my plate room and press room.**

Background:

The plate room is still using Excel lists to manage press run orders vs tools.

Problems and solutions

1. **Problem: I have thousands of printing tools!!**

1. How do I find them when I need them without spending hours searching?
2. Once I find them how do I know if they are even usable?
3. How do I re-use the tools I have without having to create new ones?
4. The more tools I make the less profitable I am, because we charge a flat fee for plate making
5. Space is at a premium so storing, and more importantly organizing these tools, is expensive and difficult to do
6. I want to reduce materials not increase them

Solution:

1. We manage volumes of information by automating your print tools process i.e. building a digitized archive of information that can be easily searched
2. Barcoding each plate with its history saves you from using a plate that is at the end of its life cycle and can't complete the job without degrading the quality

2. **Problem: I need a more standardized approach to printing tools so I can monitor, identify, and archive my print tools easily and quickly!!**

Solution:

1. The best way to standardize your printing tools process is by automating it
2. It's a new way to become more profitable
3. It reduces labor costs by eliminating all unnecessary manual processes i.e. your employees do the job they are paid for and not the repetitive error prone tasks that can be automated

3. **Problem: Mistakes happen!!**

1. Occasionally the wrong label might land on the wrong package or bottle and I need to trace back the job and correct the error
2. When faults occur on the press I need to find out where the fault occurred i.e. I need a document so I can see which tool was used on which printing project, and who made what decision when and how (good for regulatory purposes too)

Solution:

1. Tracing a job back is easy
2. In the advent of an error, you simply use the log files to trace back the work where you can find out what label was used, on which package and where it was shipped i.e. which tool was used for which job
3. All this info can be found by simply scanning the barcode on the printing tool, it is a unique identifier

Integration into 3rd party systems

Track&Trace4Tools can run as stand alone and it can be easily integrated with an ERP/MIS and/or graphics

Onsite implemen- tation time

To get Track&Trace4Tools to run we would need around 5 till 10 days, depending on how many system we need to talk to