callas software
whitepaper

EVERYTHING YOU EVER NEEDED TO KNOW ABOUT PDF PREFLIGHT

(but were afraid to ask)

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EVERYTHING YOU EVER NEEDED TO KNOW ABOUT PDF PREFLIGHT

1. EXECUTIVE SUMMARY

Theoretically, it is easy to assert that automation necessitates standardization, which in turn requires quality control for enforcement. Transforming those assertions into effective workflow practices is where the rubber meets the road. This white paper accomplishes precisely that: it assists you in navigating the discussions surrounding standards, preflight checks, corrections, reports, and much more, providing you with a practical guide for the decisions you need to make every day.

Preflight is necessary, with the very few exceptions of completely closed workflows. However, using standards is unavoidable for success. Luckily, today's software widely supports the available preflight standards, which play nicely together. As a result, you can use Ghent Workgroup standards that are based on PDF/X. Your own company-specific rules can be added on top.

The differentiator often is how the results of preflight are handled. What happens when errors are reported, and who are they reported to? What about warnings, specifically in automated workflows? What can, and should be corrected, and how?

While much of this white paper contains generic information, the callas pdfToolbox application provides concrete implementation solutions wherever possible. This is particularly true for the chapters discussing variable profiles and their capabilities to keep workflows simultaneously flexible and lean. And when talking about specific technologies such as process plans, that allow for sophisticated PDF handling that goes far beyond mere preflight.

If you haven't worked with callas pdfToolbox yet, refer to the end of this paper for information on how to get started and on finding partners for training or implementation help. Proper PDF tools are essential, and though some of the functionality may have a steeper learning curve, getting started to improve your workflow is really straightforward, and totally worth it!

2. PREFLIGHTING THE CORRECT WAY

Preflight is the process of conducting quality control on documents before they enter a workflow. Its aim is to ensure that the documents are suitable for their intended purpose. Software for preflighting PDF documents has been around nearly as long as the PDF file format itself. This paper utilizes callas pdfToolbox to explore preflight, how to implement it, and what you can and cannot do. There is some terminology you should know to follow along with the discussion:

- A preflight check examines a PDF document, its pages, or the objects on its pages and identifies potential problems. For example, it checks whether all black text in the document has been appropriately set to overprint.

- A preflight fixup is the term used in pdfToolbox for a correction. Corrections check for potential problems and address them if possible. For example, they can embed missing fonts into the PDF document. Keep in mind that resolving issues may involve risks; using preflight fixups is never a trivial decision, especially in automated workflows where no human reviews the documents before printing them.

- A preflight profile is a collection of preflight checks and fixups. Such a profile represents the rules a PDF document should obey and the collection of fixups you are willing to perform to fix potential problems. pdfToolbox always applies all fixups in the profile and then validates the PDF document using the preflight checks.

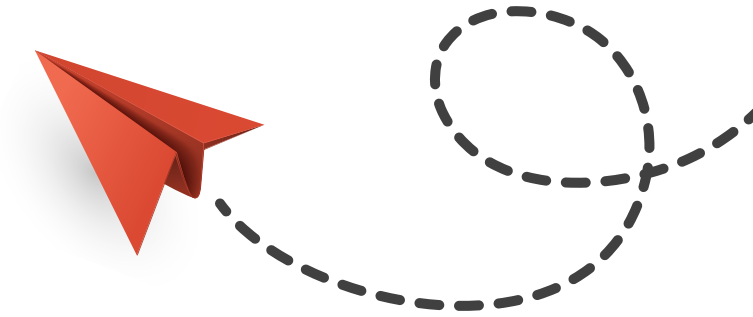
- A preflight report includes the results of quality control based on a preflight profile. These reports can be appropriate for further automation (they may be XML or JSON files that are easily parsed automatically) or suitable for human consumption (typically generated as PDF files).

- A process plan is a more advanced way of running preflight checks and fixups, together with many other actions, on a PDF document. Process plans allow controlling the exact execution order of fixups, provide conditional processing, can output different versions of a PDF document, and more.

- A library is a collection of preflight profiles or process plans, and everything they need inside callas pdfToolbox. Libraries make it easy to group your profiles, but also to exchange them with others. You could make different libraries for different project, or a separated development and production library.

This terminology is specific to callas pdfToolbox, but other preflight tools use similar terms. Understanding the preflight terminology of pdfToolbox will help you to understand preflight technology in general.

Why do you need to preflight?



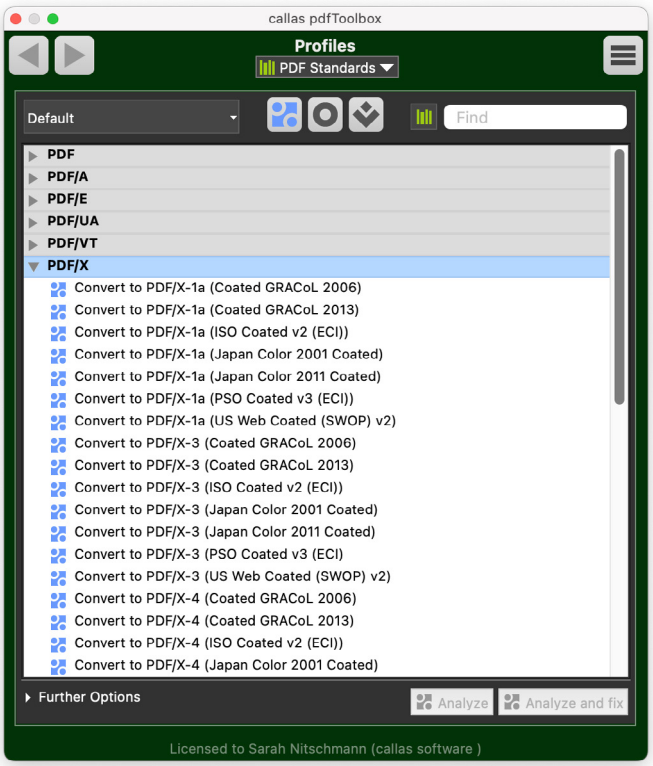
In short, it is vital to detect problems with PDF documents before they become costly. The sooner file issues are identified, the easier they are to resolve and the less damage they cause. You have to preflight any new PDF files entering your workflow unless you completely control how they were generated (PDF files generated from a template you created, without the possibility of introducing incorrect content, will always be correct).

What preflight profile (remember, a preflight profile is a collection of checks and fixups) should you use in your workflow? Generally, the best idea is to use a standard preflight profile or use a standard profile as your base. Several standards exist and they are all available in pdfToolbox.

PDF/X revealed

The **"PDF Standards"** library in pdfToolbox groups all PDF-based ISO (International Standards Organization) standards. The most important group for print workflows is the **"PDF/X"** group. PDF/X is a **"blind exchange"** standard for the graphic arts industry. This means that PDF/X files have additional restrictions and obligations to make them more reliable in print workflows. As an example, PDF/X files are not allowed to include sounds and movies, because it is unclear how this type of content could be printed.

pdfToolbox provides two types of PDF/X profiles: verification profiles and correction profiles. The preflight profiles that begin with **"Verify compliance with ..."** function as verification profiles. They perform quality control without modifying the PDF documents in any way. In contrast, the profiles that start with **"Convert to ..."** include fixups designed to ensure that PDF files comply with PDF/X standards.



What PDF/X version to use?

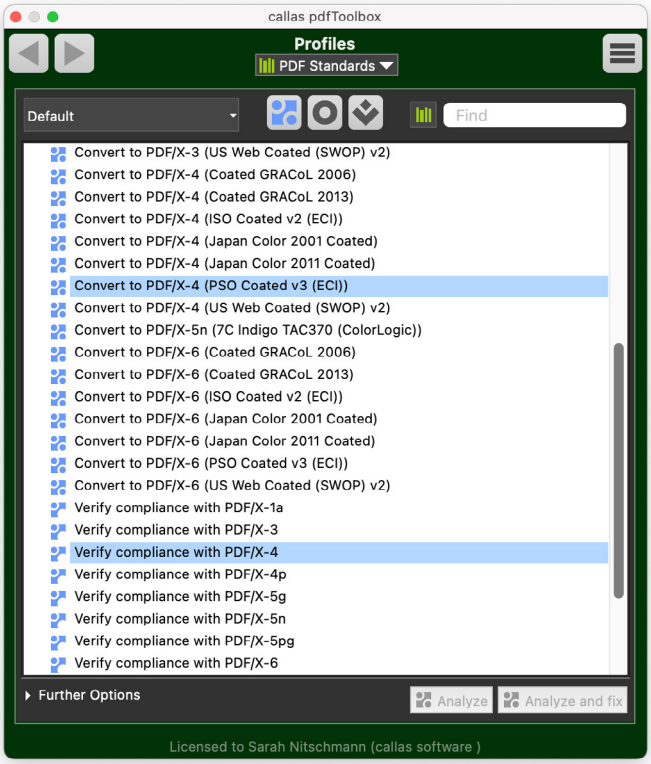
In pdfToolbox, you can use various PDF/X versions, starting with PDF/X-1a and extending up to PDF/X-6. Are higher numbers better? Not in this case. Unless you have a compelling reason not to, you should use the PDF/X-4 standard.

Why is that? The short explanation is that the PDF/X-4 standard is newer and allows for more modern PDF functionalities compared to the PDF/X-1a or PDF/X-3 standards. It is also well-supported by software and hardware in print workflows. PDF/X-4 supports the use of live transparency, meaning that objects on the page can be transparent. In contrast, earlier standards do not allow for this and require transparency flattening, which is a complex and potentially error-prone technique.

And why not PDF/X-6? PDF/X-6 is based on the PDF 2.0 standard, which represents a significant upgrade to the PDF file format. However, PDF 2.0 and PDF/X-6 are still relatively uncommon and not well supported by current software and hardware. Unless you have a compatible workflow and need some of the new features of PDF 2.0, the PDF/X-6 standard is simply too new to utilize now.

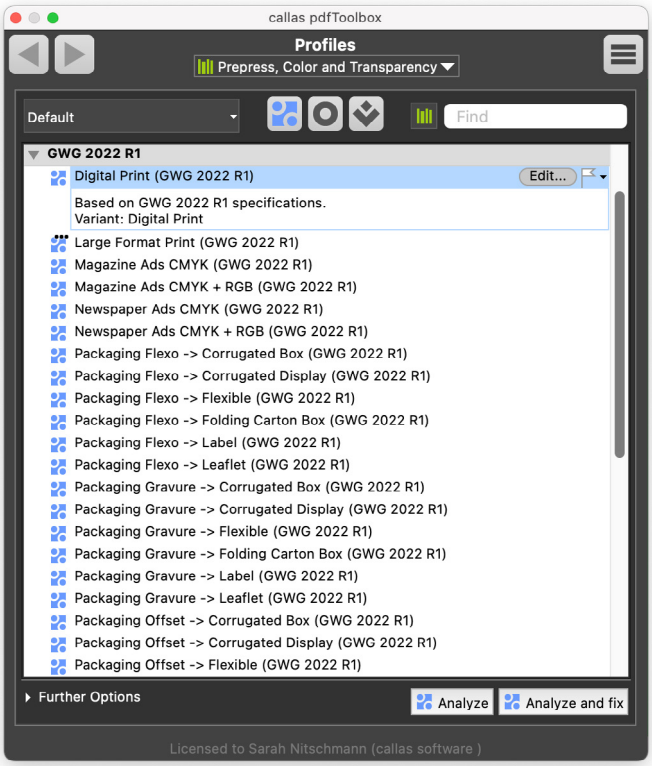
"But I think my version of PDF/X is better than the PDF/X-4 version you promote here!," says someone always. Granted, there are specific cases where you are stuck with something like PDF/X-1a, or could already use PDF/X-6. Even so, the majority of printers should today use PDF/X-4. And that likely includes you.

If you're going to use PDF/X, this means that in pdfToolbox, you should select the **"Verify compliance with PDF/X-4"** preflight profile if you're only performing verification and don't want to correct incoming PDF files. You can also choose a **"Convert to PDF/X-4"** preflight profile if corrections are acceptable in your workflow. You'll find several profiles like this in the **"PDF Standards"** library; select the one that matches your output condition. For instance, if you're printing according to the PSO Coated v3 color standard, use the **"Convert to PDF/X-4 (PSO Coated v3 (ECI))"** preflight profile.



What's missing from PDF/X?

PDF/X is an excellent **"general purpose"** PDF standard, but you can do better. Including very specific rules in a standard designed for all print products is impossible. After all, the requirements for billboards next to a highway aren't the same as those for a business card or an ad in a newspaper. So, on some topics, PDF/X has to remain purposefully vague.



For example, you won't find any rules for image resolution in PDF/X, which is often one of the more common issues with incoming PDF files. PDF/X does not define rules for ink coverage or numerous other product-specific requirements. Therefore, while PDF/X serves as a strong general standard, if you have a deeper understanding of the workflow—such as what the PDF files will be used for and the technology they will be printed with—you're better off opting for a more specific standard. This brings us to the GWG (Ghent Workgroup) standards also supported by pdfToolbox.

The GWG is an international standardization organization that has existed for over twenty years. Its standards are based on PDF/X but have variants for different market segments, allowing each variant to include more specific requirements. The GWG preflight profiles do include rules for image resolution, ink coverage, the use of spot colors, and more.

> PDF/X isn't a bad standard; it's simply very generic for the entire industry. If you can use a GWG profile that is more tailored to your print products, that's always better than using plain PDF/X. Remember that this GWG profile complies with PDF/X, so it's not an either-or situation.

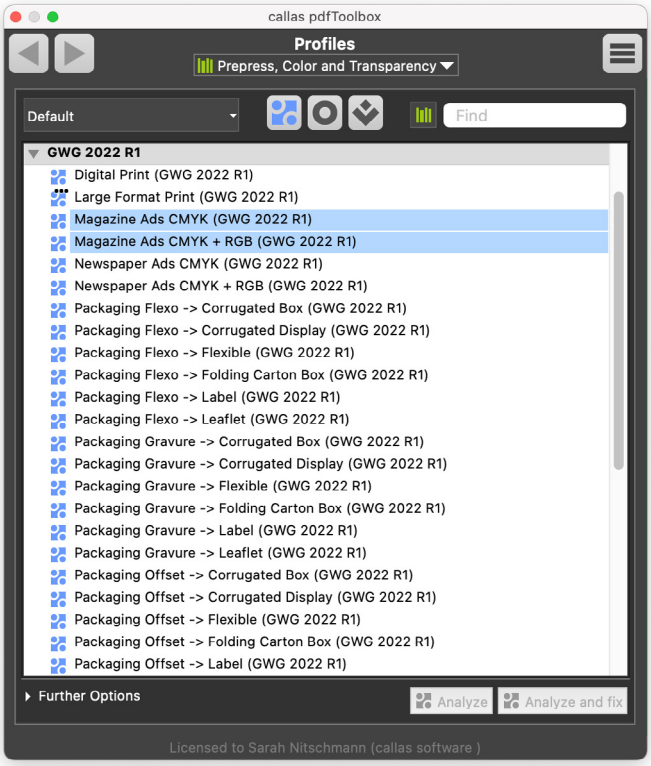
In pdfToolbox, the GWG preflight profiles are included in the standard **"Prepress, Color, and Transparency"** library. The most recent GWG version is called "GWG 2022 R1." All preflight profiles for the different variants are included in a group with that name. Because all these profiles comply with the ISO PDF/X-4 standard, you get the best of both worlds.

Which profile should I use?

Are you preflighting PDF files for digital printing, packaging, or large format print? If you're clear about the PDF files you're using, choose the appropriate GWG preflight profile for that market segment. The GWG offers specialized preflight profiles for most market segments and different print processes, such as digital, offset, or flexo printing in some segments.

In certain market segments, you need to address one more question: do you allow images in the PDF file to use RGB, or must the images also be CMYK? You'll often find two preflight profiles: one labeled **"CMYK"** and another labeled **"CMYK + RGB."** The latter permits image content to be in RGB (as long as it's appropriately color-managed with an attached ICC profile).

Sometimes, you unfortunately don't have much information. What do you do if you're asked to provide **"just a PDF file"**, or **"a PDF/X file"**? What is the best choice of preflight profile to use in such scenarios?

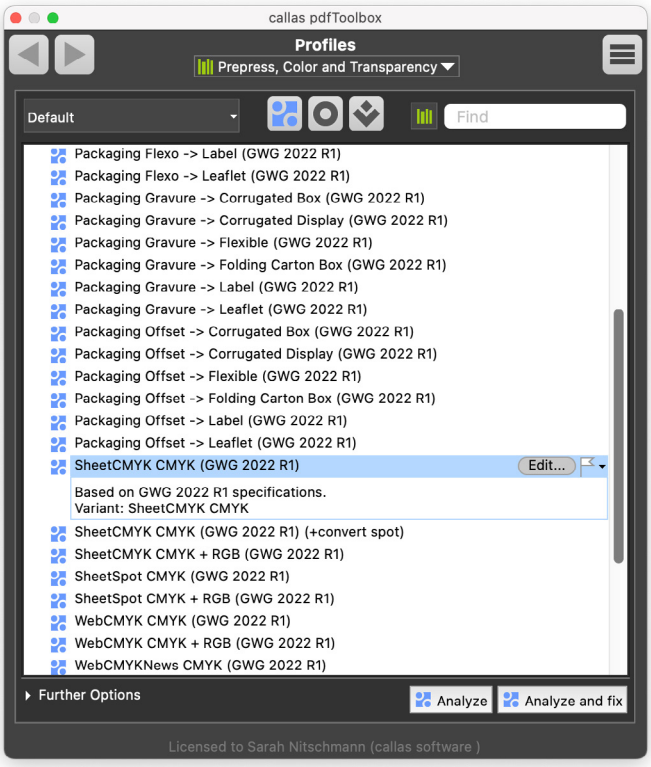


> If you are a printer, publisher… in short, a "receiver" of PDF files, please don't just ask for "a PDF" or "a PDF/X" file. Provide your customers with clear guidelines concerning the type of PDF you require. If possible, include links to industry associates or standard organizations, or create an easy-to-understand page with links to resources.

In that case, it's still wise to use a GWG profile but to take the most generic one: **"SheetCMYK CMYK (GWG 2022 R1)"**. Why? Well, this preflight profile:

- Is compliant with the GWG specifications,
- Is compliant with PDF/X-4,
- Is generic without any really specific preflight checks,
- Requires all content (including images) to be CMYK.

In other words, this is a very generic, low-risk, maximum-compatibility preflight profile.



Do your own thing

Preflight profiles that comply with standards are a great start, but they should preferably be enhanced with your own rules. To do so, it is advisable to make a copy of the standard profile you're interested in and then modify that copy. In pdfToolbox, it is wise to first create your own library, and then copy the standard profile into that empty library for further optimization. Here are some do and don'ts when modifying standard profiles…

Do change the name of the profile you just copied. If your profile has different rules than the standard profile, it shouldn't have the same name to avoid confusion. The name of the preflight profile is typically visible in the preflight report, and you don't want to make it seem like you used a standard preflight profile when, in fact, you've modified it.

Do not remove preflight checks from the standard profile. Doing so will almost certainly break compliance with the underlying standard. Also, be very careful when modifying preflight checks in such a profile. You can do this only if your modifications make the preflight check stricter; you cannot relax the rules. Removing preflight fixups is always permitted; it may result in more PDF files failing your profile, but it won't break compliance with the standard. In pdfToolbox, PDF/X compliancy checks are baked in, and cannot be modified, the GWG preflight checks as well as your own additional checks, could be modified.

Do add your own preflight checks and fixups if needed. Adding checks makes the preflight profile stricter and hence doesn't influence compliance with the standard. Adding fixups may help allow more PDF files to pass the preflight verification. Keep in mind that fixups may modify processed PDF files and that they often imply some additional risk.

What preflight checks should be added in this way? Given that the GWG standard covers "suitability for print in a specific market segment", the preflight checks to add will mostly be product-specific.

Some examples:

- When printing double-sided business cards, requiring a 2-page PDF file makes sense. In general, if you know how many pages a particular product is going to have, add specific preflight checks for that.
- When printing labels, it makes sense to check for a dieline (often also called cut contour). These can be included in the PDF file using the Processing Steps ISO standard or using spot colors with a specific name.
- For most print jobs, checking the size of the trim box to make sure that the PDF corresponds to the size of the final, printed product, is a good addition.

There are many more product-specific preflight checks available. Only include those that truly make sense (for instance, checks necessary to avoid incorrectly printed or finished products). Your preflight profiles should be as restrictive as necessary, but no more.

3. WHEN PREFLIGHT SAYS: “NO!”

Sometimes preflight says “no” for all of the wrong reasons. It makes sense to briefly discuss why that happens, and what can be done to avoid it before moving on to discuss real problems. Whatever the preflight profile used in a workflow, two types of false hits will show up:

False positives	False negatives
PDF files that are detected by preflight, yet don’t really cause an issue for print.	PDF files that are not detected, yet once they hit the RIP, cause an issue.

Of these two, false negatives are the most damaging. These PDF files go undetected, causing the RIP to misbehave or—often even worse—being printed incorrectly. This is why preflight profiles are loaded with preflight checks for problems that occur only sporadically.

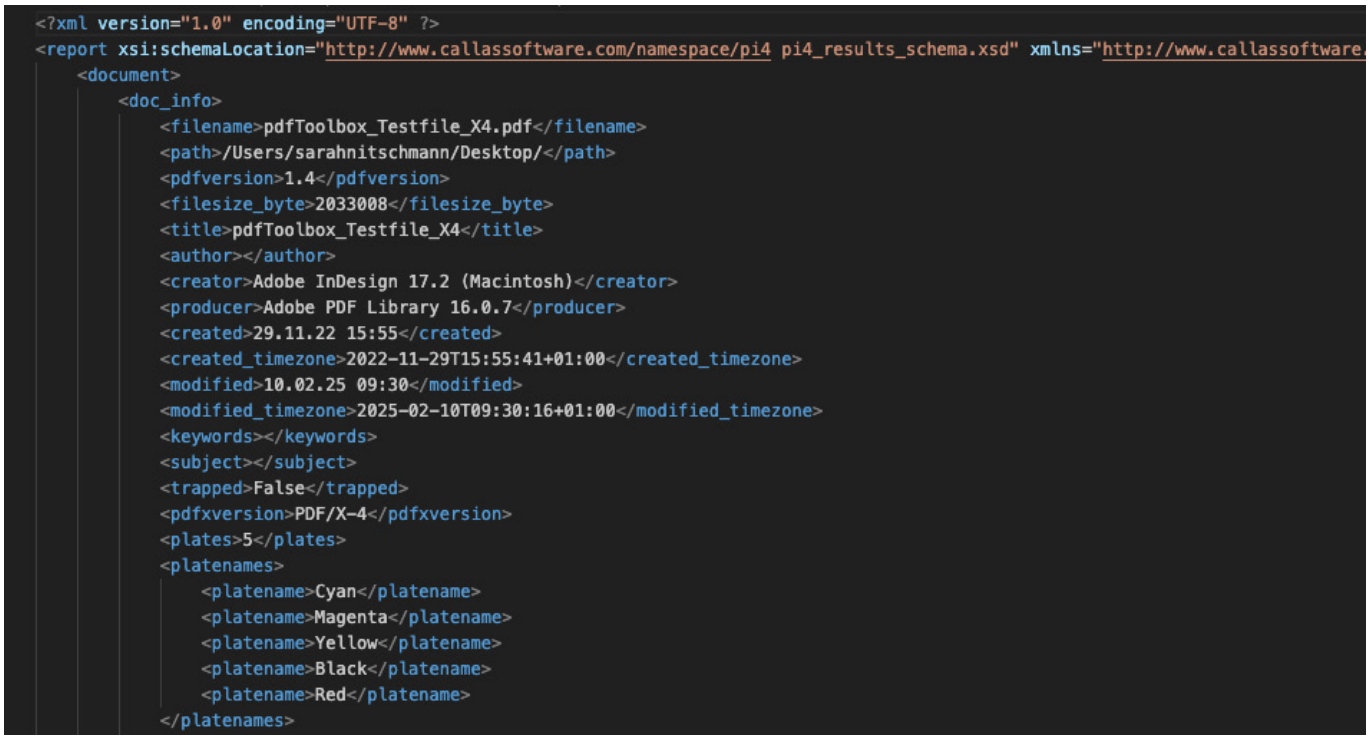
A common remark is that problems X or Y are not very likely to happen, so why add preflight checks for them that complicate the preflight profile? They probably won’t find problems anyway. Remember, preflight exists for the 0.001% of the time when a broken PDF file appears, which could be very costly if printed. Preflight is a process implemented specifically because of rare issues. While additional checks may complicate your preflight profile, if they target only problematic PDF files, they won’t slow down your workflow or annoy your customers.

The downside is that false positives tend to become more frequent. pdfToolbox includes technology such as sifter (or “context-aware object detection”) that helps avoid some of the most common false positives. The latest GWG profiles fully utilize this functionality, yet another reason to ensure you use those latest standards.

Regardless, some PDF files need to be stopped. What happens then?

Reporting problems

pdfToolbox provides a comprehensive selection of preflight reports. These reports typically include details about the PDF file itself (such as the number of pages, page sizes, resources like fonts, color spaces, and images used, as well as file metadata) and the results of the preflight checks (including a list of the corrections made to the PDF file and the remaining issues).



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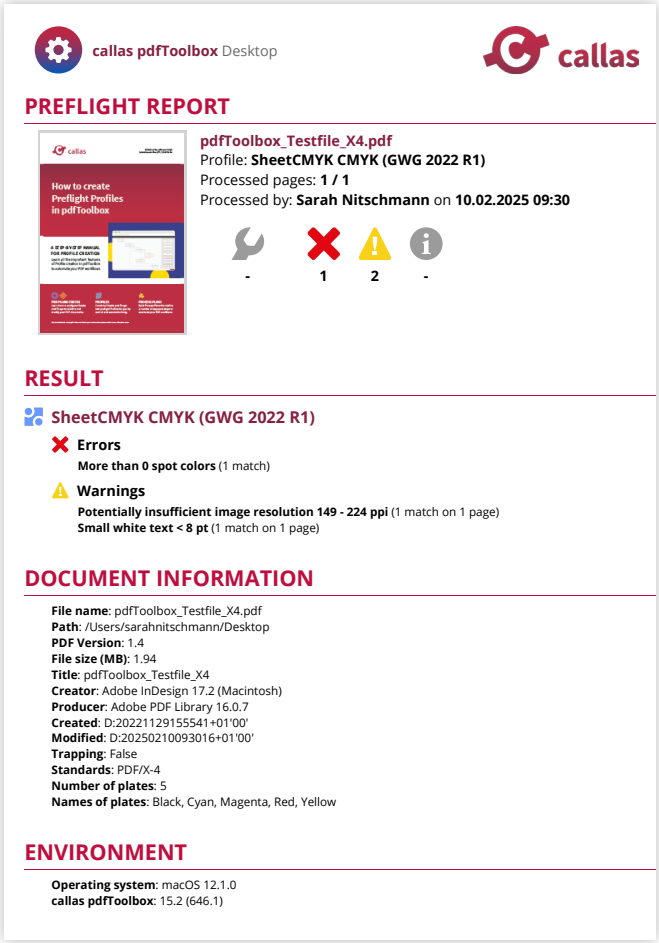
pdfToolbox provides report types optimized for automated processing. These reports, provided in XML and JSON formats, can easily be interpreted by subsequent automated processes. PDF files that fail quality control can thus easily be filtered out using a fully automated workflow and either be reported back to prepress people or clients.

However, these file formats aren't particularly user-friendly for humans, so pdfToolbox additionally offers PDF preflight reports. These reports are nicely formatted by default and can be customized further to display only relevant information for their audience.

The preflight engine in pdfToolbox operates in a manner that enables the creation of multiple preflight reports from a single preflight operation. This configuration allows a workflow to generate, for instance:

- A preflight report formatted in JSON for further automated filtering or reporting.
- A detailed PDF preflightw report containing complete information for prepress operators,
- A streamlined PDF preflight report with minimal details for clients.

In addition to various types of preflight reports, pdfToolbox also enables the creation of reports in multiple languages. If you have clients who speak both English and Spanish, preflight reports can be generated in both languages to ensure that all clients can access information in their preferred language. Furthermore, if the language you require is not available by default, pdfToolbox supports translation files, allowing you to add that missing language.



callas pdfToolbox Desktop

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PREFLIGHT REPORT

pdfToolbox_Testfile_X4.pdf
Profile: **SheetCMYK CMYK (GWG 2022 R1)**
Processed pages: **1 / 1**
Processed by: **Sarah Nitschmann** on **10.02.2025 09:30**

- 1 2 -

RESULT

SheetCMYK CMYK (GWG 2022 R1)

Errors
More than 0 spot colors (1 match)

Warnings
Potentially insufficient image resolution 149 - 224 ppi (1 match on 1 page)
Small white text < 8 pt (1 match on 1 page)

DOCUMENT INFORMATION

File name: pdfToolbox_Testfile_X4.pdf
Path: /Users/sarahnitschmann/Desktop
PDF Version: 1.4
File size (MB): 1.94
Title: pdfToolbox_Testfile_X4
Creator: Adobe InDesign 17.2 (Macintosh)
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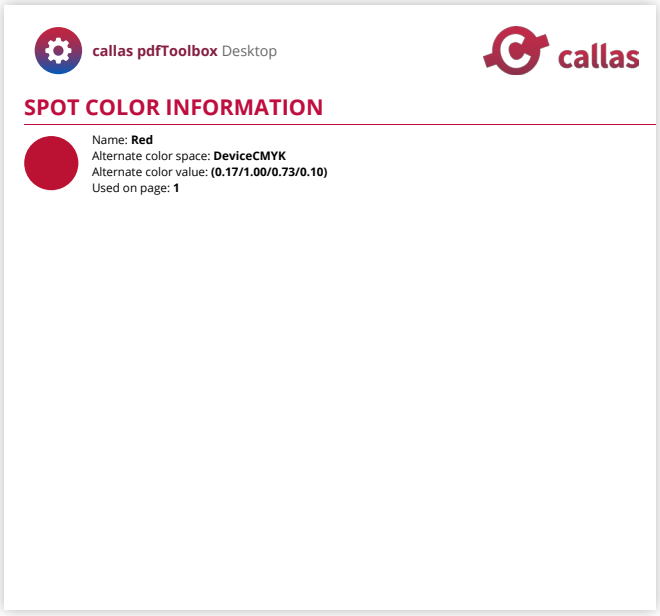
ENVIRONMENT

Operating system: macOS 12.1.0
callas pdfToolbox: 15.2 (646.1)



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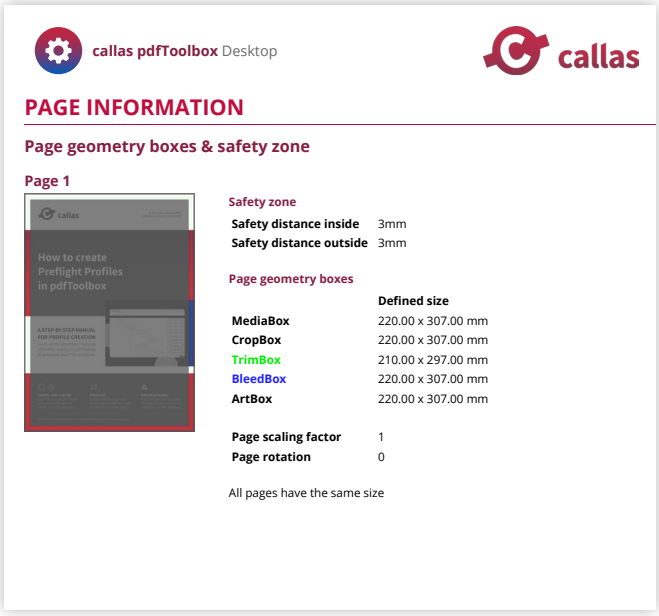
Used on page: **1**



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PAGE INFORMATION

Page geometry boxes & safety zone

Page 1

Safety zone

Safety distance inside	3mm
Safety distance outside	3mm

Page geometry boxes

	Defined size
MediaBox	220.00 x 307.00 mm
CropBox	220.00 x 307.00 mm
TrimBox	210.00 x 297.00 mm
BleedBox	220.00 x 307.00 mm
ArtBox	220.00 x 307.00 mm

Page scaling factor	1
Page rotation	0

All pages have the same size

Severity levels – errors versus warnings

The first tool in your toolbelt is the severity level of a preflight error. Each preflight check that is included in a profile can be set to three severity levels, that each have a traditional meaning in workflows:

Information

Informational preflight checks report information that is, or can be, interesting for people or tools in the workflow. But they do not constitute a real problem.
Example: the PDF contains at least one spot color.

Warning

Preflight checks set to “Warning” report information that could be problematic, and is a nice to know for prepress people.
Example: the PDF contains images that are between 100 and 150 ppi.

Error

The “Error” severity level is reserved for preflight checks that report issues that are almost certainly going to go cause problems if they are not corrected before the PDF goes to print.
Example: the PDF contains fonts that are not completely embedded.

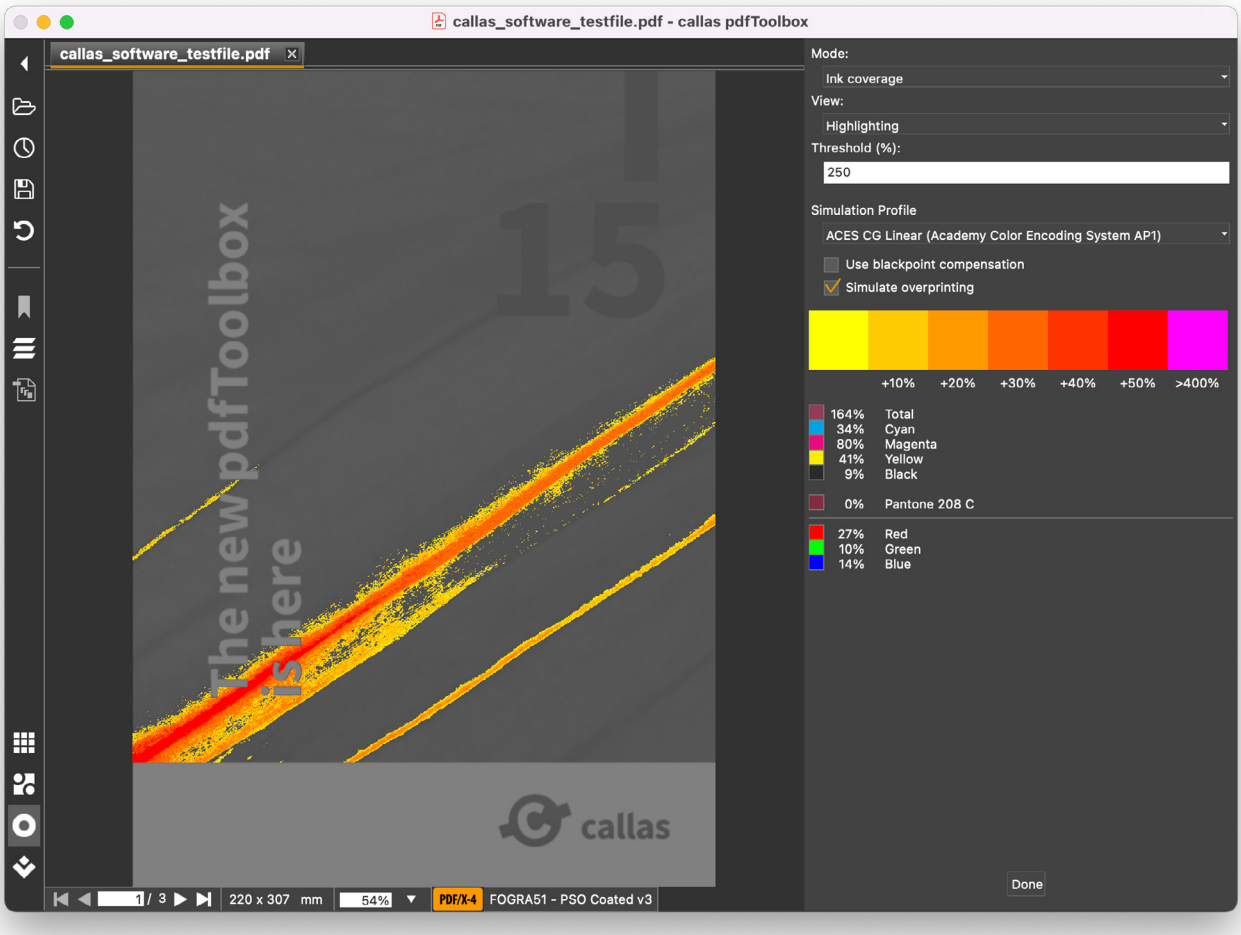
While pdfToolbox provides these three severity levels, the way they are handled in workflows isn’t set in stone, and you can certainly interpret them as you wish. The previous descriptions explain how these severity levels are considered in most workflows.

The issue with fully automated workflows is that “warning” items are often overlooked. Automated workflows tend to be binary: PDF files are classified as either good or bad. There is nothing wrong with creating a workflow like this; however, you should consider that preflight checks marked as warnings will likely be ignored, and you may want to think about disabling or removing them from your preflight profile. After all, every check in your preflight profile takes time to execute.

Dealing with problem files

Identifying and reporting problematic PDF files is an important first step. Just as important is determining how to deal with them. Whether you want to decide what to do with a problematic file or improve your preflight profile, pdfToolbox Desktop has several tools available to help.

The visualizer technology integrated into pdfToolbox Desktop enables a closer inspection of common problems. For example, if the automated preflight checks on ink coverage, report that excessive ink is being used in a PDF file, the visualizer can provide a heat map indicating where and how much ink is used throughout the document. This allows a prepress operator to determine whether an automatically detected issue is actually a print problem.



In general, pdfToolbox Desktop allows for the manual inspection of problematic PDF files and enables the execution of one or more fixups to prepare these files for production. In some cases, you might want to double-check the results of a fixup, such as when you substitute a non-embedded font that you do not have access to with a different, similar font. In these situations, pdfToolbox Desktop provides a secure environment for utilizing them under the supervision of a prepress expert.

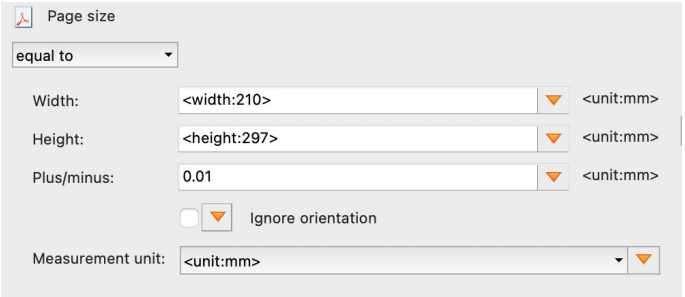
4. MAKING FLEXIBLE WORKFLOWS

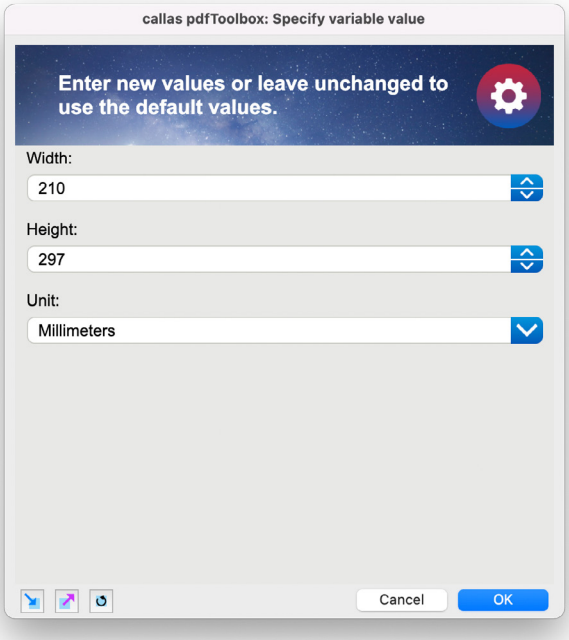
Selecting the correct preflight profile is essential; however, many workflows require more flexibility than a single static profile. This need becomes especially apparent when job-specific preflight checks, such as checks on the number of pages and page size, are used. Typically, it is impractical to create a separate preflight profile for each supported product type. pdfToolbox has several strategies for dealing with this workflow challenge.

Variable profiles

pdfToolbox supports two types of variables to make profiles dynamic: simple variables and script variables. These two can be combined for the ultimate in workflow flexibility.

Simple variables allow for adjustments to preflight checks and fixups based on external input. An ideal use case for these variables is retrieving the expected trim size for a job from a web-to-print or MIS system and passing the correct width and height as simple variables to the pdfToolbox preflight profile. This ensures that each job is preflighted according to the specified width and height. A single variable profile is used for all jobs but preflights each job based on its unique requirements. Simple variables are straightforward to incorporate into preflight checks and fixups and can be applied to any property of those checks and fixups. They can also dynamically enable or disable checks and fixups for increased control.





Script variables don't accept external input but give pdfToolbox the capability to execute JavaScripts inside of preflight profiles. A simple example of their use is adding a QR code to a PDF document with a preflight fixup. A JavaScript variable can isolate part of the PDF document name and set that as the value of the added QR code. Script variables can cooperate with simple variables and do calculations based on the data received from the outside through those simple variables.

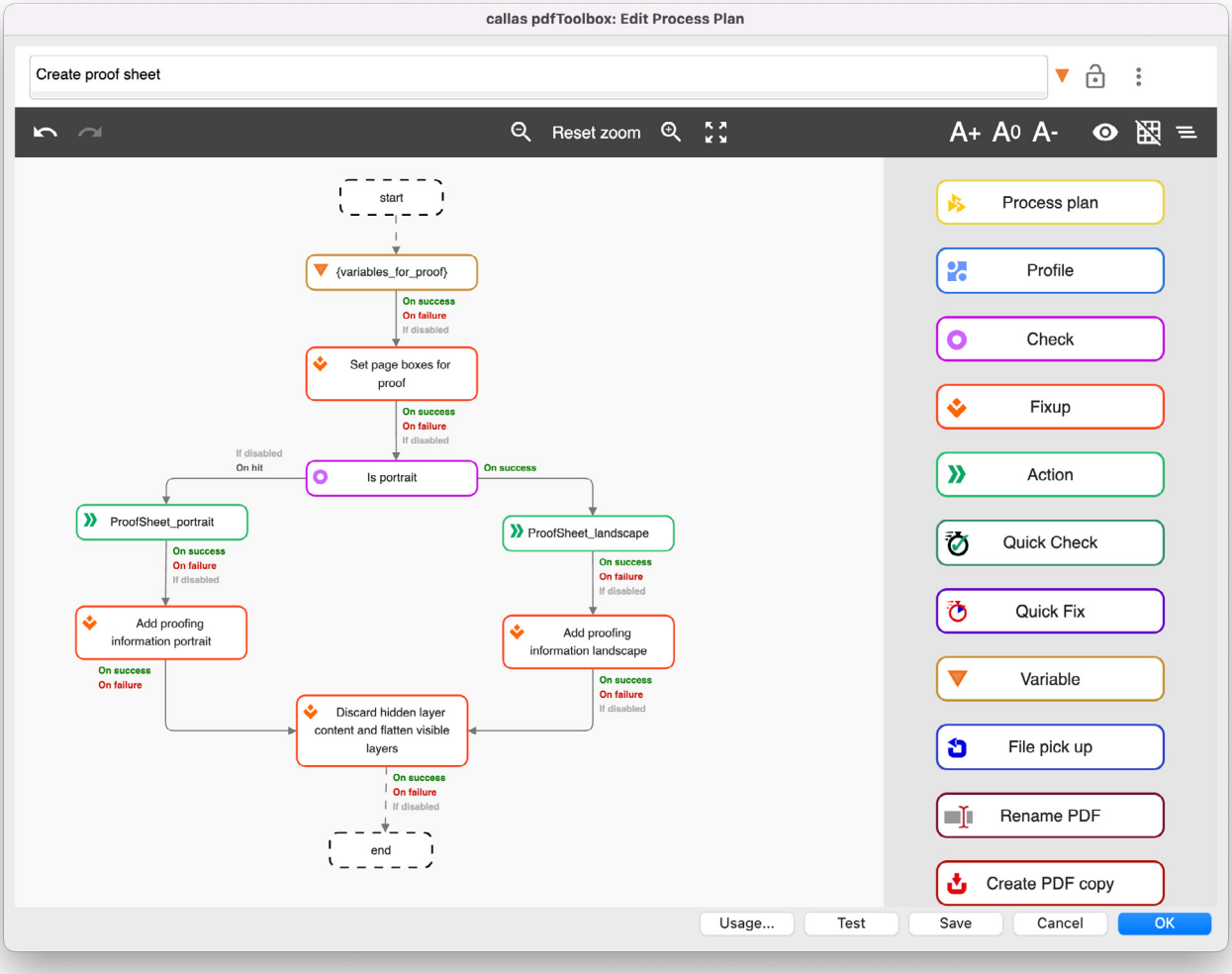
Beyond preflight profiles: process plans

Even with variables, preflight profiles remain a set of preflight checks and fixups to perform on a PDF document. Occasionally, workflows require more precise control over what is done to a PDF document. For this purpose, pdfToolbox offers process plans.

A process plan consists of different steps performed on a PDF document. Contrary to a preflight profile, process plans:

- Enable detailed control over the order in which different checks and fixups are executed. In a preflight profile, fixups are always performed first, followed by the checks, and pdfToolbox completely manages the processing order.
- Enable conditional processing. The result of performing a preflight check or fixup can influence which processing branch is taken in the process plan.
- Allow for additional types of steps beyond preflight checks and fixups. This enables incorporating functionalities such as exporting images, performing imposition, inserting extra PDF files, and much more.

Although preflight profiles and process plans, and the methods for creating and editing them appear entirely different, process plans can be executed by pdfToolbox wherever regular preflight profiles are supported.



How and where can pdfToolbox be integrated in a workflow?

pdfToolbox can be used just about anywhere. Yes, that's a bold statement, but it's also true! Take a look at the different pdfToolbox flavors for starters:

- pdfToolbox Desktop is the manual version of pdfToolbox. It can be used as a plug-in for Adobe Acrobat or as a standalone application. With pdfToolbox Desktop, you can prepare everything needed for automation. Additionally, when preflight identifies problematic PDF files, you can use the desktop version to diagnose and resolve those issues.

- pdfToolbox Server allows you to automate pdfToolbox using hot folders. Each hot folder setup includes an input folder where you can place PDF files. These files are automatically processed according to the preflight profile or process plan of your choice and are deposited in a results folder based on whether any errors were detected.

- For integration with other applications, pdfToolbox CLI and SDK are both available. With a comprehensive and flexible command line, pdfToolbox CLI is perfect for use in scriptable environments. In contrast, pdfToolbox SDK offers a library interface tailored for developers.

- Prefer integration via a REST API? For OEM partners, callas offers this directly. For everyone else, several callas partners provide comprehensive REST API solutions built on pdfToolbox that you can begin using quickly.

All these pdfToolbox flavors provide the same basic functionality. pdfToolbox Desktop is limited to macOS and Windows environments, while all other flavors feel equally comfortable at home on Linux systems. Their dependencies are minimal, making them ideal for even the most restricted environments. For example, integrating pdfToolbox CLI directly on a web server is no problem.

CLI vs. SDK vs. API – what is best? All three of these integration methodologies have advantages and disadvantages. Often, the choice has more to do with what you or your developers feel comfortable with and what kind of infrastructure your company has selected. From a functionality point of view, there are few differences between the different implementation methods. If you're in doubt, ask us, or your preferred implementation partner.

Desktop

Server

CLI

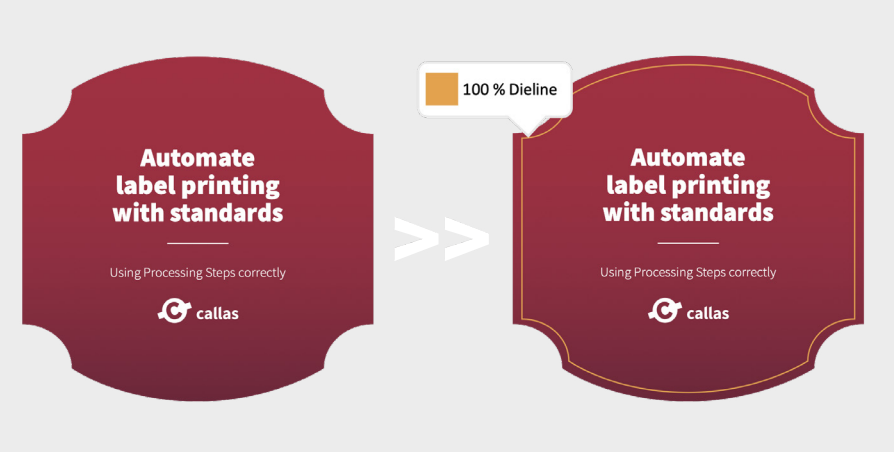
SDK

5. MORE THAN PREFLIGHT

At this point, we have thoroughly discussed the importance of quality control and the ways to utilize pdfToolbox for preflighting incoming PDF files. The same automation that applies to preflighting can also be used for many other PDF production preparation tasks. Below are several use cases where pdfToolbox can prove beneficial.

Creating or Cleaning Up Cut Lines

Accurate cut lines are as crucial as quality print content when PDF files undergo a print-and-cut workflow. pdfToolbox can generate cut lines from scratch, using either a predefined shape or by tracing file content. It can also perform extensive problem detection (such as double cut lines, overly sharp corners, and overly complex cut lines) and retrace a cut line to optimize it.



Creating Secondary PDF Files

In many workflows, secondary PDF files are created. These include digital proof files (often containing job metadata), job jackets, and delivery documents. The place content technology in pdfToolbox, which specializes in enhancing PDF files, is ideally suited for producing such documents. It can combine previews of the production file with job metadata and additional elements like barcodes.

page 1 of 1

Scale 133%

Print File Name:
callas label

Proof:
3

Final Size:
92.000 x 90.000 mm

Material:
Clear polypropylene

Finish:
Matte varnish

Core Size:
50mm

Colours:
CMYK
Dieline

Quantity:
6000

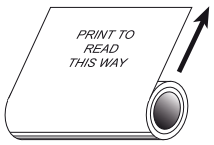
Orientation:
Up

Labels per roll:
1250

Type of Cut:
Straight

Winding: REWIND 1

1



Outside Wound Top Leading

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Creating imposed files

Once a suitable production PDF file is available, it is often advantageous to create a fully imposed sheet. pdfToolbox integrates a complete imposition engine for commercial print, label, and large-format printing. The place content engine allows for the addition of registration and trim marks or even fully dynamic color bars.

These are just a few examples of how pdfToolbox can enhance automated workflows beyond preflight. By utilizing process plans in conjunction with script variables, the possibilities are nearly limitless.

6. CONCLUSION AND NEXT STEPS

Preflight is crucial, particularly for fully automated workflows. Although various standards for print workflows are available, if possible, you should utilize one of the Ghent Workgroup 2022 standard profiles. Ideally, modify a copy of one of those preflight profiles found in callas pdfToolbox and incorporate your own business rules. This ensures compliance with the GWG and ISO PDF/X-4 standards, along with additional rules pertinent to your workflow products.

With the ability to create variable profiles and use process plans alongside preflight profiles, plus the various PDF "engines" incorporated in pdfToolbox, it is the ideal PDF processing tool for your workflow. It is usable not only during quality control but also when making PDF files production-ready and when creating secondary PDF content such as proof files, job bags, or shipping documents.

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All pdfToolbox flavors are available for a free, fully functional 14-day trial. To download the trial version, visit the callassoftware.com website and check the pdfToolbox product pages. Each product page for the different flavors of pdfToolbox includes a download link. During the trial period, there are various resources available to you:

- The documentation site contains a lot of technical documentation about the product. You can find it at: help.callassoftware.com.

- The callas YouTube channel has plenty of beginner and expert movies to introduce you to pdfToolbox and some of the more technical functionalities. Subscribe to the YouTube channel here: youtube.com/@callassoftware.

- Full support is included with the trial; use the contact form on the callas software website (callassoftware.com/en/report-a-problem), or send an email to support@callassoftware.com.

Don't hesitate to contact us during your trial. We will be happy to help you understand how to best use pdfToolbox in your company.

Have a QR code for this introduction video of pdfToolbox on the YouTube channel:

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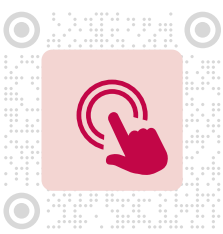

callas software finds simple ways to handle complex PDF challenges

callas software develops PDF technology for publishing, print production, document exchange and document archiving

pdfToolbox

pdfToolbox offers powerful, dynamic and easy-to-integrate PDF processing, from quick visual inspection and fixing to fully unattended processing of thousands of files. Using rock-solid Adobe technology pdfToolbox provides checking and fixing of even very complex problems, color management, impositioning, conversion to and from PDF and more. pdfToolbox technology is used by small companies, large publishers, and print providers as well as OEMs that integrate the technology into their own solutions.

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