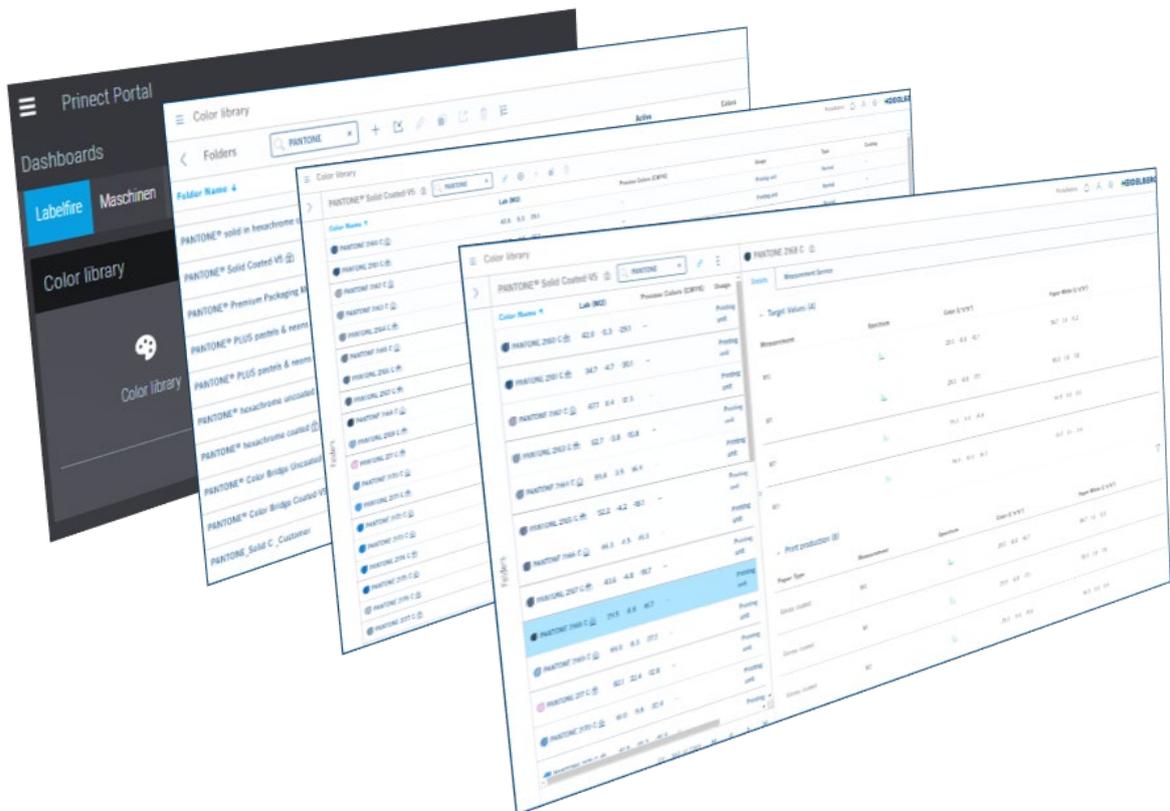


# Product Information Prinect Color Library



# Summary

**Prinect Color Library** is a centralized tool for managing all color target values across prepress, pressroom, and measurement devices. It replaces Prinect legacy systems with a unified database, improving color consistency and enabling further process automation. In this product information we will also focus on:

## Customer Benefits:

- **One source of truth** for color targets – reduces errors and manual steps.
- **Automated color assignment** at the press (from Press Center S21A).
- **Simplified color workflows** for all customer segments.
- **CxF file support** for seamless exchange with ink kitchens and MIS.
- **Pantone® v5 and HKS color books** included.

## Implementation:

Suggestion for a project-based approach ensuring a smooth rollout.

- Step one: Activation via feature flag and guided migration to the Flat folder structure replacing subfolders.
- Step two: the optional automation of the color target assignment.

Color Library is an **enabler for workflow automation** supporting **standardization, automation, and scalability** – key elements for customers aiming to optimize their color management processes.

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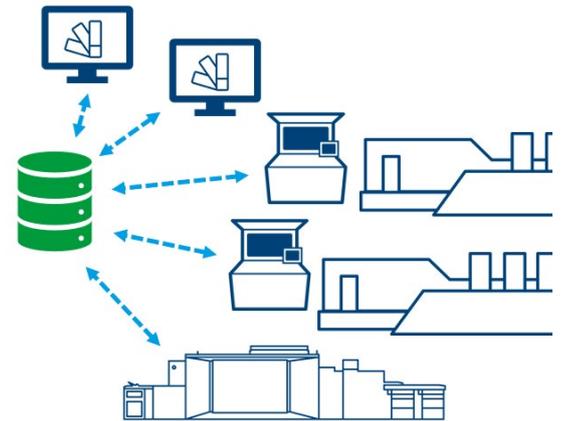
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# Introduction

## 1 The vision behind Prinect Color Library

The end goal of the ‘Color Library’ is to provide color data from a single source for all printing presses and color measurement systems within a printing company. Regardless of the fact that these machines/measuring devices are on one production site or spread over multiple sites across a wider region. To achieve this goal, the cornerstones for the ‘Color Library’ were already implemented a few years ago.

The need and resulting requirements for a centralized ‘Color Library’ is mainly coming from packaging and label printers. For these printers, standardization of color targets is necessary to meet their customer expectations and to be successful. As HEIDELBERG we want to provide a solution for these challenges our customers face. A solution for the digital exchange of color data across printing presses, measuring devices and production sites.



Picture 1: Central source for color information.

This product information covers current state of the ‘Color Library’ and the elements that should be considered, both in the prepress as well as in the press room. It is important to understand that settings in Prinect Production by the prepress operator can impact the way of working in the press room and the other way around. You as reader should be aware of this and be able to transfer this to the user. It is more than just pressing the update button. It is important that the processes in the print shop are in line with the vision behind the ‘Color Library’.

## 2 History, current state and our next steps

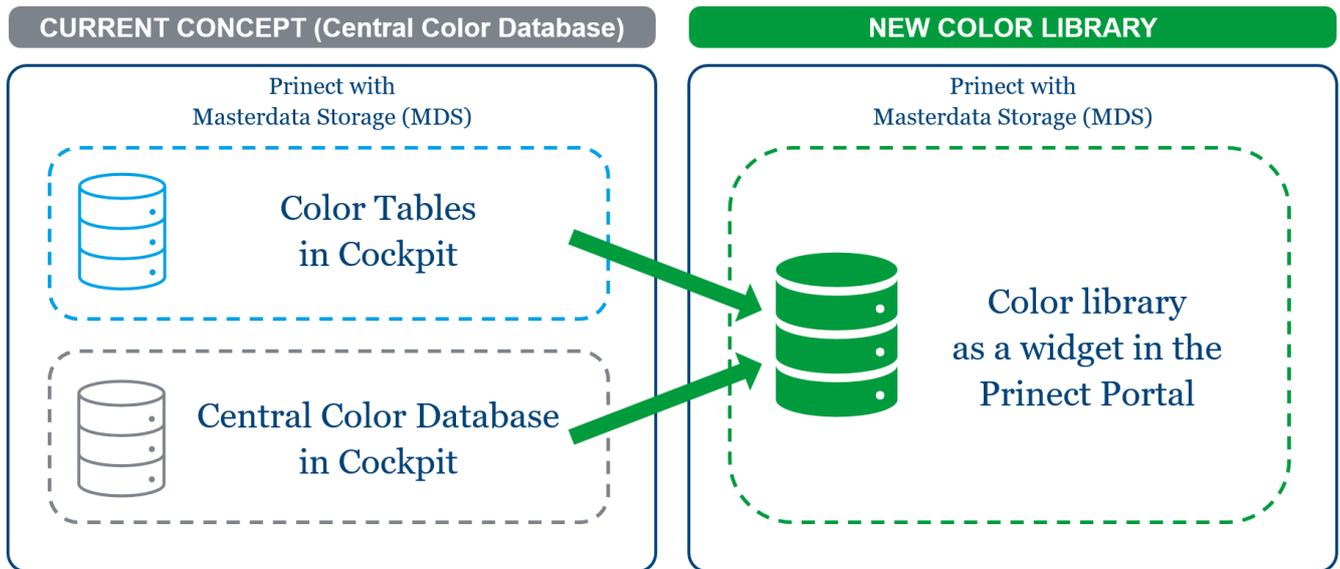
The introduction of the ‘Color Library’ is not the first step towards central storage of color information. A first step was already taken when the Central Color Database was implemented in Prinect Production Manager 2018 or Prinect Pressroom Manager 2018. Here the primary goal was the exchange of target values between the different color measurement systems available. The color information used by Prinect Production Manager for the prepress workflow was still stored in a separate database. Currently we still assure the stability of the existing solution with the Central Color Database through bug fixing where needed. But future developments of new functionalities will only be implemented in the new ‘Color Library’.

In parallel to the progress in Prinect Production there were also further developments in the Speedmaster presses and the measurement systems. For the printing presses with the Prinect Press Center S19B until S20A an operator can manage his color target values either local on his press, or through the Central Color Database in Prinect Production. As of the Prinect Press Center version S20A there is no local color archive anymore and as a result it is mandatory to use the ‘Central Color Database’ in Prinect Production.

Within Prinect CR we allow our customers to take the next big step forward. We fully support the roll out of the ‘Color Library’ by merging the two separate color databases (the prepress ‘Color Tables’ and the ‘Central Color Database’) into one central database. This is resulting in the ‘Color Library’ as illustrated in Picture 2. This is a new widget in Prinect

Portal replacing the color database as a Prinect Cockpit functionality. It is important to note that this might also impact the way of working within Prinect Production and all the connected printing presses and measuring devices in the pressroom.

Today the 'Color Library' is still bound to the on premise Prinect Production installation. In the future we will bring the 'Color Library' into the cloud. This would then further reduce the hurdles to centrally manage color data across multiple print production sites. As mentioned, this is our future goal and will therefore not be available in the foreseeable future.



Picture 2: Schematic overview database structure before and after the migration to the 'Color Library'.

Currently there are two ways of using the 'Color Library'. Today the desired amount of automation in the color workflow is what defines how the 'Color Library' is used and configured at the printer. After activation of the 'Color Library' the two steps available bring following features:

**Step 1 – general implementation of the new 'Color Library'**

- Prepress and pressroom work with the same unified color information (single source for color data)
  - Using the color definitions from the job information.
- At the printing press or measuring device the color target values are assigned manual or in an automated way by using the alias list. (same process as today)
- Simplified exchange of CxF files for digital communication of color data with other color databases.

**Step 2 –automatic assigning color target values**

- The color target values are automatically assigned at the printing press and the measurement devices.
- Using the color targets stored in the 'Color Library'.

**Remark:** The 'Color Library' serves as a base for our customers to continue developing their color management through further projects, including their latest printing and measurement equipment (>=S22A). The central management of the color information allows the automatic assignment of this color information in combination with a unique and uniform definition throughout the whole printing company (MIS, prepress, press room or ink kitchen). As a result, the operators have always the correct color reference data available for their color measuring devices.

### 3 Benefits of the new 'Color Library'

The improvements coming with the 'Color Library' are mainly addressing pain points reported by packaging and label printers. None the less also commercial printers can use the benefits of a standardized color workflow with the 'Color Library' for example when using both UV- and conventional ink series.

All target values are saved within the 'Color Library' as integral part of a Prinect Production system. From this central point the color information can be managed and synchronized throughout the entire print shop. Eliminating the decentralized data storage in the Prinect Production Prepress system and the color measuring devices. Providing the main benefit is a reduction of errors caused by wrong communication as all printing presses and measuring devices use the same color information.

Thanks to the compatibility with the CxF file format, the users can simply import and export target values to and from the 'Color Library'. In this way we simplify communication with other color databases from other vendors. The CxF file format is standardized and commonly used in the industry to communicate color information including the measurement conditions.

Overview of the most important features:

#### **Step 1** – implementation of the new 'Color Library'

- Central management of color information for prepress and print production.
- Both printing presses and measuring devices receive the same correct color information from a single source.
- Each color gets a unique color ID.
- More color information is available than today (color name, spectral-, LAB- and process values)
- Simplified digital exchange color data with other software.

#### **Step 2** – automated color target assignment:

- Automatic assigning colors and target values at the press. (Press Center >=S21A)

#### **The benefits in everyday use**

##### **Step 1** – implementation of the new 'Color Library'

- The new Prinect Portal Widget 'Color Library' allows the definition and administration for all color data.
- Inside the 'Color Library' the new colors can be measured by using of handheld measuring devices.
- You can import CxF files from the ink kitchen or from other production sites. (a CxF export is also possible)
  - The different measurement conditions are considered. (M0, M1, M2 and M3)
  - The color targets for production refer to the according paper classes (as defined in ISO 12674-2)
- Containing the Pantone® v5 color books with the corresponding target values.

##### **Step 2** – automated color assignment:

- Reducing touch points as there by eliminating the manual assignment of colors at the press. (as of Press Center S21A)
  - More efficient color measurement for production values, especially for machines or color measurement systems. (as of Press Center S19B.07)

# Features

As previously mentioned, there are two potential steps that can be implemented.

1. The implementation of the 'Color Library'
2. Enabling the automatic color target assignment.

The two steps are listed in the order you should implement them at the customer. As a result, it is required to complete step one before the automatic color target assignment can be done. When a customer sees no need or benefit for the automatic assignment of color targets, then there is no need to take the second step and activate the automation.

In the following chapters we will describe:

- The general functionalities of the 'Color Library'.
- What should you consider for step one, the activation of the 'Color Library'.
- What should be considered for the second step, the use of the automatic assigning of color targets.

## 4 Portal Widget 'Color Library'

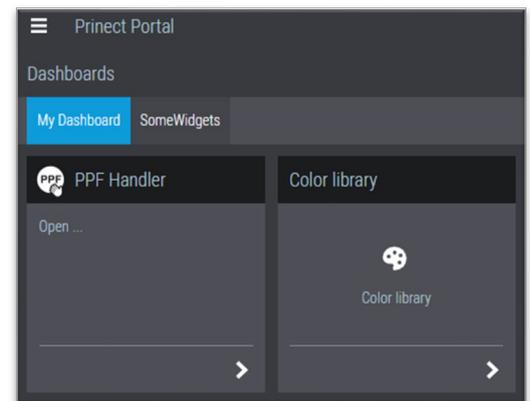
It is possible to activate the 'Color Library' as of Prinect 2021.10.17. Ideally you will do the activation when the latest Prinect CR version is installed. Once activated the Widget is available in Prinect Portal. This is illustrated by Picture 3.

To be able to work with the 'Color Library' the customer needs to have the according license for the Prinect portal. This license is standardly included in a Prinect Production license. The number of Portal Licenses for the Integration Manager – e.g. Labelfire or Versafire DFE – has been increased to 3 Portal Licenses. Further details on this topic can be found in the chapter "Sales" in this product information.

The Portal Widget 'Color Library' is intended for the recording, display and administration of color target values. Within a print shop following departments or roles should have access to the widget:

- prepress
- color kitchen
- pressroom managers

Write permissions require a user right – "Prepress Admin" or "Press Admin". Both rights offer the same range of rights and functions within the 'Color Library'.



Picture 3: Widget in Prinect Portal.

The user interface of the ‘Color Library’ exists out of 3 main areas as the screenshot below illustrates:

Left side = color folders ①

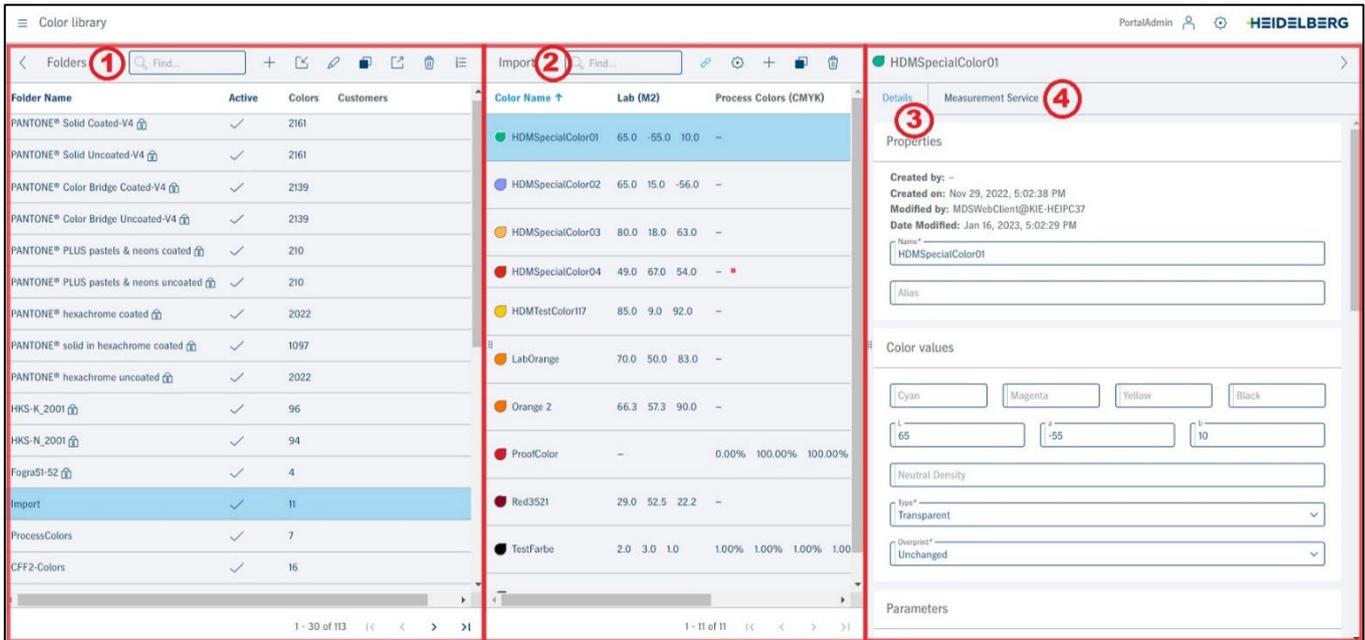
The latest HKS and Pantone® databases are included, which are locked with all their contents by a lock symbol and cannot be changed by the user. Of course, users can also create and manage their own color folders. These folders can also be locked to avoid further modifications.

Middle Column = Colors ②

The contents of a color folder, i.e. the individual colors, are listed here with their L\*a\*b\* and process values as well as their type and use. Locking color folders also locks the colors that are in them.

Right Column = Color details ③ and measurement service ④

This includes the color reference values of the prepress (job definition and proofing) as well as the stored values from the production of the connected color measuring devices (Easy Control, Axis Control, Inpress Control and Image Control) under the respective measurement conditions and considering the paper class.



Picture 4: User interface of the ‘Color Library’

The creation of color folders, colors and the storage of color reference values is also possible directly on the printing presses or color measuring devices as covered later in this product information. However, the function is integrated directly into the machine operation, i.e. the printer does not have to change the control station for this purpose. The behavior on the printing press or the measuring device for the creation of a new color did not change. Since the use of subfolders is no longer possible in the ‘Color Library’, the creation of subfolders has been prevented from Prinect Press Center S24A onwards. If machine operators create subfolders on older machine versions, then the behavior is described in detail in the chapter [6.2 Migration and result](#).

**Remark:** If older machine versions work with the new ‘Color Library’, it is advised to keep the folder structure flat as this is required for the new ‘Color Library’. The selected folder structure should therefore be clearly communicated in the print shop so that the administration of the colors can be handled and applied in the same way by all parties involved.

### 4.1 Functions in the area for color folders

Using the function keys at the top you can do the following actions with the color folders:



Picture 5: Function keys for the color folders.

1. Search function to search folder names as well as colors inside the folders.
2. Create a new folder
3. Import CxF file, e.g. from a color kitchen or another production site.
4. Edit allows to change folder names, add customer names and setting permissions for deleting and editing the color folder. The permissions help to prevent accidental modification or deletion of a color folder.
5. Duplicate a folder
6. Export of a CxF file e.g. to transfer the reference values to another production site.
7. Delete a folder
8. Modify the search order of the folders and the colors they contain for Prinect Production.

**Remark:** In the print shops, the folder structure must be very consciously defined and clearly communicated so that the administration of the colors can be handled and applied in the same way by all stakeholders. The decision on how to structure the folders is up to the customer.

### 4.2 Functions in the field for color

You can also choose how the colors are displayed within the color folders. Either "normal" or "compact". This is illustrated by the two screenshots on the right. Depending on the screen the user might prefer one or the other view. The 2 different view modes are shown in Picture 6 and Picture 7

Color Name ↑	Lab (M2)	Process Colors (CMYK)	Usage	Type	Coating
Black	16.0 0.0 0.0	0.00% 0.00% 0.00% 100.00%	Printing unit	Normal	-
Cyan	54.0 -36.0 -49.1	100.00% 0.00% 0.00% 0.00%	Printing unit	Normal	-
Magenta	46.0 71.9 -5.0	0.00% 100.00% 0.00% 0.00%	Printing unit	Normal	-
Yellow	87.0 -6.0 90.0	0.00% 0.00% 100.00% 0.00%	Printing unit	Normal	-

Picture 6: normal display of colors

In the field for color there are also function keys available. These allow searching and changing colors. The functions are:

1. Search for a color in this folder
2. Synchronized searching on or off
3. Setting display mode
4. Create a new color
5. Copy
6. Delete

Color Name ↑	Usage	Type	Coating
<b>Black</b> Lab (M2): 16.0 0.0 0.0 CMYK: 0.00% 0.00% 0.00% 100.00%	Printing unit	Normal	-
<b>Cyan</b> Lab (M2): 54.0 -36.0 -49.1 CMYK: 100.00% 0.00% 0.00% 0.00%	Printing unit	Normal	-
<b>Magenta</b> Lab (M2): 46.0 71.9 -5.0 CMYK: 0.00% 100.00% 0.00% 0.00%	Printing unit	Normal	-
<b>Yellow</b> Lab (M2): 87.0 -6.0 90.0 CMYK: 0.00% 0.00% 100.00% 0.00%	Printing unit	Normal	-

Picture 7: compact display of color

You can search for colors either within the selected folder or across all folders. Meaning that the search function has two modes in which it can be used.

**Synchronized:** When a search query was entered in the search field for the color folders, then this value is additionally used as a search value within the field where the colors are displayed. The two search fields you see (color folders and colors) as a user are synchronized and search for the same value.

**No synchronization:** When typing a value in the search box, you are only searching in the specific color folder of which you are seeing the colors. In other words, the search query for the field colors is not automatically used in the

search field for the color folders. This can be useful in case you searched first for the correct color folder and then want to find the exact color you are looking for within this color folder.

### 4.3 Features in the details section

This is where the properties and parameters of the color targets are defined, and the measured values are stored back and displayed. In the detailed view we can also see a distinction between the areas of "target values" (target) and "production values" (actual measured in print production). In other contexts, or software applications, the "target values" are the dry values and "production values" the wet values. This differentiation is needed as the measurement of a wet conventional offset ink will give a different reading compared to the measurement after the ink had time to properly dry.

The target values are the specifications that are used in prepress, for proofing and digital printing. If there are no measured values from production, the target values can be transferred (filled out) as a starting value for all paper classes in production.

The individually measured production values, which can vary depending on the measuring conditions and paper classes, come from the color measuring devices (Easy Control, Axis Control, Inpress Control and Image Control). Further details on the topic of the transfer of color target values to print production can be found in chapter 8.

Target Values (4)				
Measurement	Spectrum	Color (L*a*b*)	Paper White (L*a*b*)	
M0		87.4 -7.3 86.1	92.9	0.7 -5.2
M1		87.2 -6.5 85.1	93.0	1.0 -7.0
M2		87.3 -6.8 87.2	91.7	0.1 -0.8
M3		86.6 -6.9 89.0	91.6	0.1 -3.3

Print production (12)				
Paper Type	Measurement	Spectrum	Color (L*a*b*)	Paper White (L*a*b*)
Glossy coated	M0		87.4 -7.3 86.1	92.9 0.7 -5.2
Glossy coated	M1		87.2 -6.5 85.1	93.0 1.0 -7.0
Glossy coated	M2		87.3 -6.8 87.2	91.7 0.1 -0.8
Glossy coated	M3		86.6 -6.9 89.0	91.6 0.1 -3.3

The icons show the origin of the displayed value:



Measured value (spectrum)



Calculated value



Transferred value, we recommend storing a new measured color values by using the recommended measuring devices.



Only L\* a\* b\* values available

Picture 8: detailed view of the color target values.

#### 4.4 Functions in the measurement service

As an alternative to manually entering target values, hand-held measuring devices can be connected to the 'Color Library'. In this case the measured values are stored as the target values for the measurement conditions. The target value is what is often also referred to as the "dry measurement value". In case the device used cannot measure all measurement conditions, a value is calculated for these measurement conditions by the 'Color Library'. You can also measure and document the paper white for informative purposes. The measured paper white of the target values is not actively used by the 'Color Library'.

For customers that do color matching with a digital printing press, it is possible to do iterative measurements. This functionality was significantly improved compared to how it was handled in the 'Central Color Database'.

The measurement service currently supports the following color measurement devices:

- X-Rite eXact (1/2) (spot)
- X-Rite i1Pro (2/3) (spot)
- X-Rite i1Pro (2/3) (scan)
- X-Rite iiiiSis (1/2)
- Konica Minolta CM-26d
- Techkon SpectroDens

# Step 1: Activation in practice

## 5 What customer group benefits from Color Library

In general, there are multiple main scenarios that can be found at our customers. In this chapter we will describe the main groups and how they would typically look at the 'Color Library'. Based on their typical needs and expectations you can present the 'Color Library' and its benefits.

### 5.1 New Prinect installations

The ideal scenario in the field is when a new Prinect customer installs Prinect for the first time. The customer has no set way for his color workflow with Prinect yet. In this case it is recommended to introduce and train the 'Color Library' from the start. This way the customer starts with the new way of working and we avoid the need to migrate the customer in the future to the 'Color Library'. Although Prinect Production currently supports both color models: the current known model (with prepress 'Color Tables' and the 'Central Color Database' in Prinect Cockpit) and the new 'Color Library'. The main benefit is the customer starts off with the futureproof solution.

**Remark:** Today the 'Central Color Database' is still activated by default. The new 'Color Library' can be activated with a feature flag.

### 5.2 Print shops only using Prinect Production Prepress

In this case there is very little to consider in the print shop. The customer can switch to the 'Color Library', his color tables are moved. The customer would need a training to work with the new user interface and know-how he can access the color tables now through the Prinect Portal widget. An extra benefit for these customers is that with the switch to the 'Color Library', they also **get access to the Pantone® v5 color books**.

**Remark:** This scenario also applies for print shops where there is no integration of prepress and printing presses.

### 5.3 Digital printing - DFE

For print shops with only digital printing, the current way of working does not change. With the iterative measurement function, we offer a nice addition for these customers. Now they can adjust the target values for spot colors by using the **new measurement service**. This is in addition to the well-known way with the tools available in Prinect Cockpit. In this case the 'Color Library' widget in Prinect Portal is used for the central administration of colors. Therefore, it must be trained accordingly at these customers.

### 5.4 Printers working with CMYK process inks only – commercial

For print shops mainly using process colors, managing **different ink series in separate color folders** within the 'Color Library' is recommended. For example, when using conventional and UV inks. Therefore, it is good to advise the customer on a possible new folder structure after installation or migration. The new widget in Prinect Portal is used for the central administration of colors and must be trained accordingly. On printing presses and measuring devices, the color targets are assigned manually or automatically (as before) by using the alias list.

### 5.5 Printers using a lot of spot colors – packaging and label

The ‘Color Library’ is an important new application for the **central management of all color data** for print shops with a high number of spot colors. No matter whether the data comes from the ink kitchen, prepress or directly from the connected printing presses or measuring devices. At each stage everyone is working with the same set of color information. This means that all stakeholders must agree on a unified way of working. This starts with the folder structure, how to fill these folders and maintaining the color information.

In case the print shop already used automatic color replacement within Prinect Production, then the same search order can be defined in the ‘Color Library’. How to set this search order and the other features of the new widget in Prinect Portal should also be trained accordingly at the customer. For the printing presses and measuring devices, the color targets are assigned manually or automatically (as before) by using the alias list.

### 5.6 General

In all cases it is good to check the existing color workflow and by extension the overall production in the print shop. It is advised to do this before migrating from the ‘Central Color Database’ to the ‘Color Library’. A new solution might require new ways of working in the day-to-day color workflow of a print shop. This way the customer expectations can be managed accordingly and the stakeholders at the customer perceive the switch to the ‘Color Library’ a conscious decision.

The migration to the ‘Color Library’ is only started after the activation of a feature flag. This feature flag can be set by Prinect service technician. The feature flag is not automatically activated as **we do not want to disrupt existing color workflows** in a working print production.

This project-like approach is implemented to prevent stopping production at our customers with an existing Prinect Production. Color is an essential part of the production process at a printing company. With the checklist we want to reduce unexpected surprises because of the used measuring devices (incl. handheld devices) or the installed printing presses. The checklist is available as an online form that can be filled out in your web browser:

➔ <https://forms.office.com/e/JBz8VSjzPX>

Based on the available hardware at the customer, the installed software of the press or measurement and the use case at the customer should be considered. The overviews in chapters 12 and 13 can help you to get a first impression.

The decisions regarding how the color orders are structured and how which way of working is used at the press, must be made by the customer. None the less, consulting and guiding our customers might be required for a smooth introduction of the ‘Color Library’.

## 6 'Color Library' activation and migration

As of Prinect CR, the new 'Color Library' can be activated by a trained HEIDELBERG service team member through a feature flag. After restarting the Prinect systems, the migration of prepress 'Color Tables' and the 'Central Color Database' begins. In other words, the color tables are imported and successively the colors are migrated. Once the migration is done, there is no way back to the old model with 'Color Tables' and the 'Central Color Database'.

### 6.1 Preparations

In case of a migration from the 'Central Color Database' model to the 'Color Library' it is good to get an overview of the production environment. A few exemplary customer types were described in chapter 5. Depending on the customer you have, there will be a higher complexity, and more planning required to migrate to the 'Color Library'. The questions in the form to request the feature flag are there to get a better insight into the potential complexity.

The following elements should be considered regarding the complexity:

- The number of subfolders in the 'Central Color Database'? The 'Color Library' only allows a flat structure.
- How are colors sorted today? By machines, customers or following another logic.
- The software version(s) of the printing press(es) in the pressroom.
- Measuring devices that are in use? Do these devices already save data in the 'Central Color Database'?
- 3rd party color database solutions that are in use? e.g. in an ink kitchen.

As usual, it is good practice to make a backup of the Prinect system before starting the update and migration. Important to know, there is no way back to the old color model. Furthermore, you want also to align with the customer for the time of the migration. This way you can also introduce them to the new UI and way of working.

### 6.2 Migration and result

The migration process can take up to 2.5 hours. This is the case when there are a lot of spot colors in the existing database. It is possible to keep working with Prinect during the migration. It is important to note that the colors become available one by one during migration. To prevent inconsistencies in the print jobs, it is advised to plan the migration. Ideally directly after a Prinect update or at the end of a production shift.

One of the defining elements of the 'Color Library' is the flat folder structure, meaning there are no subfolders anymore. During the migration to the 'Color Library' the subfolders are moved to the root folder. Important note here, is that this is the case in prepress and at the printing press in the Press Center. This points out the importance that also the press operators are informed about the migration to the 'Color Library'. The table below illustrates the visual changes in the UI for both prepress and press operators.

**Remark:** Customers using the Alias List for to assign color information in the Press Center, can still work this way after the migration. Existing links are also kept as the migration is done in Prinect and not at the press center. This is because the migration follows the logic of a "cut and paste" action of the color into a new folder, keeping the original color id intact.

**Before: Central Color Database**

Folder structure in **Prinect Cockpit** before migration:

Spotcolors	0
Customer-C	194
Customer-B	0
xf-import_02	23
xf-import_01	23
Customer-A	0
CustomerSite_Kiel	194
CustomerSite_Heidelberg	0
<b>Category_1+2</b>	<b>16</b>
ProcessColors	4
Category_4	2

With the colors inside of the folder “Category\_1+2”.

Color	L*	a*	b*
1 P1797	48.13	42.12	17.90
2 P3425	47.69	-25.13	5.04
3 P7454	59.16	-6.48	-23.48
4 Coolgray10C	40.60	0.27	-0.67
5 DarkBlue	17.64	3.00	-32.50
6 P10121	64.18	1.45	48.28
7 P200	42.52	62.53	28.92
8 P300	39.30	-16.23	-57.29
9 P877	62.20	-1.11	-1.47
10 P7601	29.48	27.36	25.61
11 P8965	51.20	24.86	52.86
12 P376	67.09	-35.46	54.99
13 FinestSilver	68.00	-0.30	1.48
14 P1906	40.24	56.52	38.45
15 P871	38.59	-0.75	12.64
16 P462	42.63	2.80	5.67

**After: ‘Color Library’**

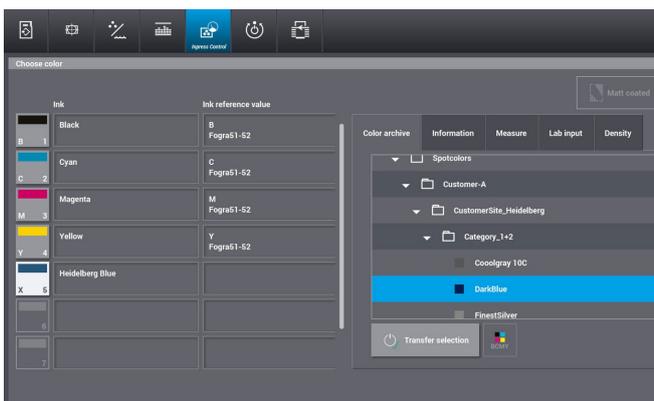
Folder structure in **Prinect Portal** after migration:

Ordnername	Aktiviert	Farben	Farbname	Lab (M2)
Category_1+2_CustomerSite_Heidelberg_Customer_A_Spotcolors	✓	16	Coolgray 10C	40.6 0.3 -0.7
Category_4_CustomerSite_Heidelberg_Customer_A_Spotcolors	✓	2	DarkBlue	17.6 3.0 -32.5
CPF2-Colors#Old_ColorTable0	✓	5	FinestSilver	68.0 -0.3 1.5
Customer-C_Spotcolors	✓	194	P10121	64.2 1.5 48.3
CustomerSite_Kiel_Customer_A_Spotcolors	✓	194	P1797	48.1 42.1 17.9
			P1906	40.2 56.5 38.5

The colors from the folder “Category\_1+2” moved into a new folder during the migration. The path to the former folder is then included in the new folder name.

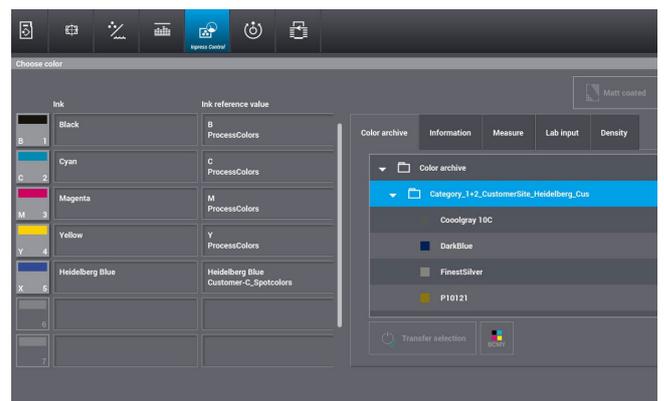
In case the customer does not like the automatic process, he must manually restructure his color database before the migration.

Folder structure at the printing press/measuring device **before** migration:



When working with the Central Color Database, the spot colors are visible in the same folder structure and can be assigned.

Folder structure at the printing press/measuring device **after** migration:



The colors are now in a main folder, with an adjusted name. The former folder structure is comprehensible if the name length is supported by Prinect Press Center (max. 40 characters).

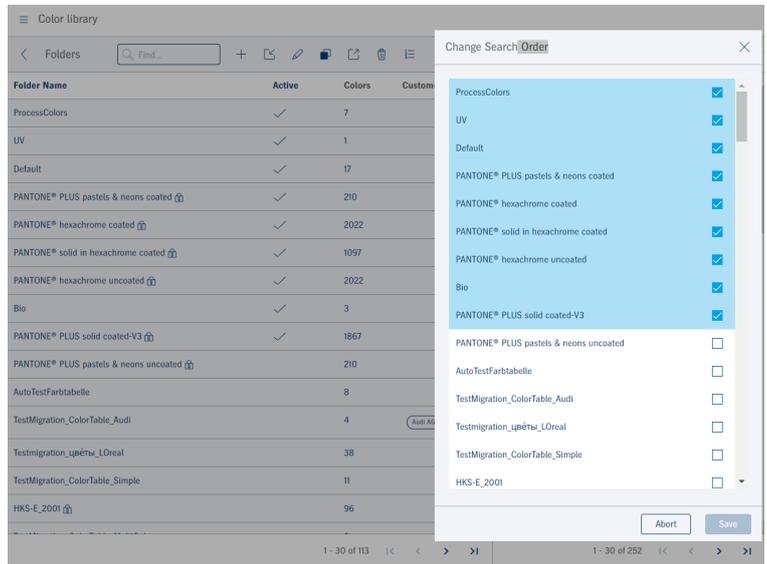
### 6.3 Follow-up after migration

All colors are available after the migration. When there were subfolders in use, then the operators of the printing presses and measuring devices can still work with the Alias Lists the same way they were used to.

Once the migration to the ‘Color Library’ is done, you must redefine:

- the search order
- if a folder is active or inactive

In case these settings were configured in the ‘Central Color Database’ before the migration, then it is good to store this information before starting the migration process. The search order for the color folders defines the priority of the different folders that are searched for the specific color. A review and, adjustments should be done, especially when the automatic color replacement for the prepress jobs was used before the migration.



Picture 9: view of the Change Search Order window.

It is possible that the migration process creates anomalies that should be resolved manually afterwards. An example that was found during tests was that there were target values in the system that were outside of the physically achievable color space. Therefore, these values should be adjusted or deleted.

In case there are conflicting values in the data of the prepress ‘Color Tables’ and the ‘Central Color Database’, then a manual intervention will be needed.

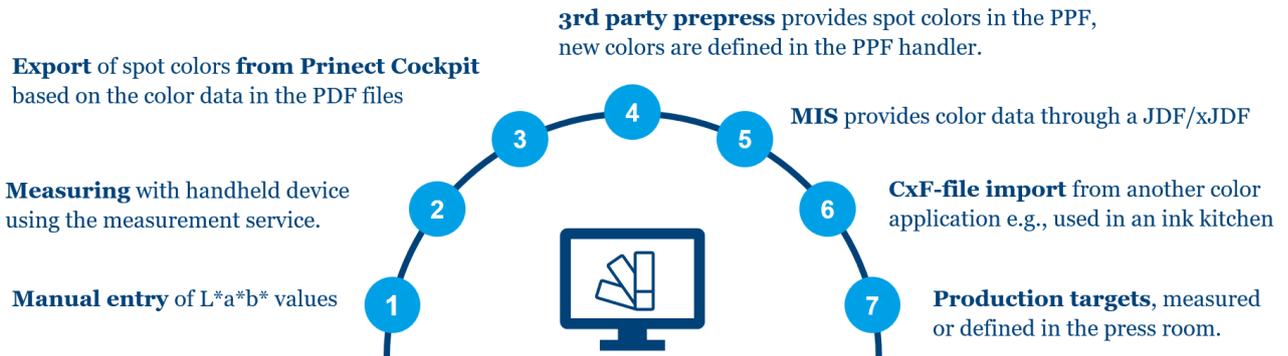
**Remark:** After migration, a press operator can still create subfolders on a Press Center version <S22B. When this happens, this subfolder will be moved to the main folder level following the same logic during the migration process. Therefore, it is important that also in the press room all operators are aware of this behavior. We want to prevent that, a press operator faces disappearing subfolders. On the other hand, in the ‘Color Library’, we would have new color folders appearing in the Prinect Portal Widget.

**Remark:** By default, the standard color books from Pantone® and HKS are delivered as an integral part of the “Color Library”. These folders are locked and cannot be edited as these values should stay unchanged. Consequently, it is also not possible to save back “Print production” values for these colors. To be able to also save values for the “Print production” data fields, you must copy the color folder and allow users to also edit and delete color target values from this folder. Then it is recommended to place the copied and editable folder above the initial color folder in the search order and to deactivate the initial locked color folder.

## 7 How do color reference values get into the ‘Color Library’?

There are several ways to create color references (target values):

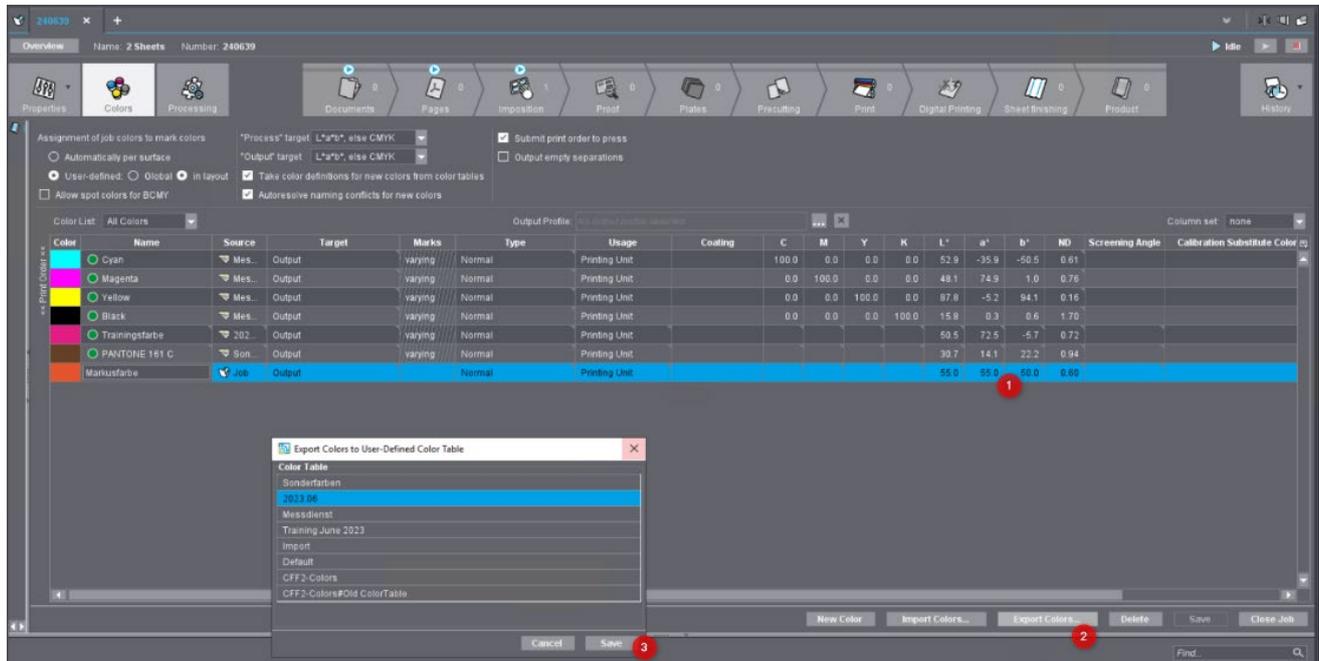
1. Manual entry by typing in the L\*a\*b\* values, when creating a new color in the ‘Color Library’.
2. Measurement with a compatible hand-held measuring device using the measurement service in the ‘Color Library’ (see compatible devices in chapter 4.4).
3. When entering a new production job in Prinect Production, spot colors in Prinect Cockpit can be exported to the ‘Color Library’. The operator selects the desired color folder before saving the new color reference.
4. Unknown spot colors coming in through the PPF input, end up in the PPF handler. In the PPF handler the color properties can be defined. The operator selects the desired color folder before saving the new color in the ‘Color Library’.
5. Prinect Production receives the color information from an MIS through a JDF/xJDF. If the JDF/xJDF already contains the L\*a\*b\* values for the colors, new colors can be transferred directly to a preset color folder in the ‘Color Library’.
6. Importing a CxF file coming from a 3rd application. For example, a print shop mixing its own ink formulations in the ink kitchen, most likely already uses an application (e.g., X-Rite InkFormulation) to manage colors and target values. Most likely the target values can be exported by as a CxF file to import the data into the ‘Color Library’.
7. New colors can also be created at the Press Center and containing measured production values. This is not the recommended way of working to fill the ‘Color Library’ with new target values.



Picture 10: Potential ways to add color information to the "Color Library".

### 7.1 Prepress in general

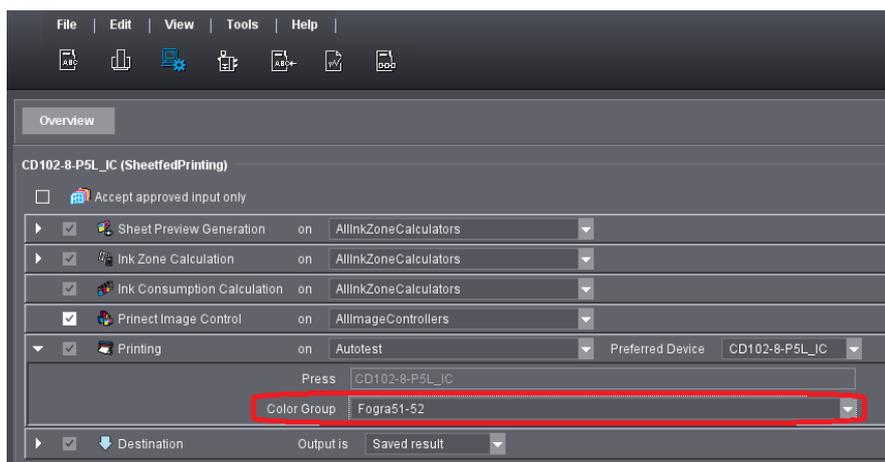
A PDF can contain color information like L\*a\*b\* values for spot colors. This color information can be transferred from the job in Prinect Cockpit into the ‘Color Library’. As a result, the color is available for future jobs with the same spot color.



Picture 11: Exporting a color from Prinect Cockpit to a color folder in Color Library.

### 7.2 Handling process colors in prepress

Customers working with CMYK process inks sometimes use different ink series or alternating conventional and UV inks. In this case, the correct ink series must be set in the sheetfed printing sequence (see picture 11) so that the printing press or measuring device receives the unique reference from the ‘Color Library’.



Picture 12: Setting the ink series in the sequence.

### 7.3 Customers with 3<sup>rd</sup> party prepress (PPF)

In this scenario, the 3<sup>rd</sup> party prepress workflow provides the correct color names through the PPF connection. Based on the provided unique color names in the PPF, the 'Color Library' can match the correct target values. In case new colors are present in the PPF-file, then the PPF Handler has a stop function built in. This allows us to define or assign the correct target values in the 'Color Library'.

It is also possible to include L\*a\*b\* values for the unique color name in a PPF file. In this case the L\*a\*b\* values can be used to create a new spot color with a target value in the PPF Handler and transfer into the 'Color Library'. All stakeholders should be aware that these new target values are then also available at all connected printing presses and measuring devices.

With the second step activated, the printer has the advantage that the color target values for the specific paper classes are automatically assigned in production. On the other hand, we want to prevent that unclear color information ends up in production. In case a PPF does not contain the information regarding the paper class, then a machine operator needs to assign the correct paper class. The correct target values from the 'Color Library' are then provided accordingly.

**Remark:** Before doing the migration to the 'Color Library', it is recommended to check together with the customer which color information is included in the PPF files.

### 7.4 Customers with a MIS connection

A JDF/xJDF file very often contains color information in relation to a color system (e.g. Pantone®). This is similar like the scenario for the PPF connection. Based on the unique color name in the JDF/xJDF file, the 'Color Library' can match the correct target values. Also, in this case Prinect will stop further processing and require manual interaction in case not all required information is available.

**Remark:** Before doing the migration to the 'Color Library', it is recommended to check together with the customer which color information is included in the JDF/xJDF files.

### 7.5 Customers with a MIS (JDF/xJDF) and PPF connection

In this case, it is key to understand how the customer works today. It is important to know which system supplies what information. The information coming from the MIS and the 3<sup>rd</sup> party prepress are merged, therefore it is good to check with the customer his configuration. According to which system provides the unique color names the customer knows which system should have the exact color names as defined in the 'Color Library'. It might be needed to also clean up existing color tables in all systems to prevent mismatches.

**Remark:** Before doing the migration to the 'Color Library', it is recommended to check together with the customer which color information is included in the JDF/xJDF files and PPF files.

### 7.6 Customers using CxF from the ink kitchen

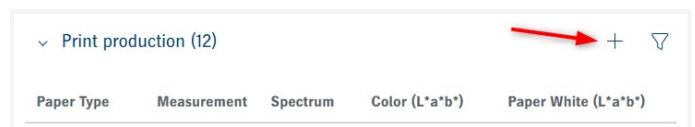
Customers printing high numbers of spot colors will typically mix these in their own ink kitchen. The ink kitchen will create a color recipe for the specific color. There is specific software that can be used in ink kitchens (e.g. InkFormulation from X-rite®) to create, match and manage color references. To communicate color between different applications, the CxF file format is an industry wide standard. The 'Color Library' is also able to import and export CxF files to allow the digital communication of color information including the measured spectrum and measurement conditions.

### 7.7 Customers defining new colors at the press

It is also possible to create a new color in the Press Center software. A color will then only contain the production values. At this point in time there is no automatic transfer of the 'Print production' values to the 'Target values' Therefore this would not be the recommended way of working to fill the 'Color Library' with new color target data.

## 8 Transfer of color target values to print production

On one hand it is nice to have the target values, but we also want to be able to use these target values at the printing press. When having for example a new ink that was mixed and defined by the ink kitchen, then the "Target value" is measured. Now we still need to make this value available for production, so the printer at the press can also see color target values. By transferring the "Target value" to "Print production" you also include the necessary information needed for the measurement conditions and the paper classes. The transfer of the values can be done by clicking on the plus icon as illustrated in Picture 13.



Picture 13: Transferring "Target value" to "Print production"

The icons used in the 'Color Library' show the origin of the displayed values:



Measured value, a measured color spectrum is stored in the 'Color Library'



Calculated value, this is a value that was calculated by the 'Color Library'. The calculated value does not take into account the measured paperwhite. This is by default the value for a standard paper (gloss coated) as described in the Fogra 51 standard as used in Prinect Production.



Transferred value, we recommend storing new measured color values by using the recommended measuring devices.



Only L\* a\* b\* values available.

## 9 Color target values for the printing press

### 9.1 New colors from the prepress workflow

New colors can come from various input channels into the 'Color Library' as described in chapter 7. The color target values are filled out in the "Target values" area and transferred to "Print production". The production values are marked "copied from dry" within the 'Color Library' for all paper classes and measurement conditions, these markers are not visible at the Press Center or on the measuring devices at the point of release of this product information. Therefore, it is of the utmost importance that the communication for new colors is clearly defined between prepress and the pressroom.

The "Production values" for a color are updated when a color is measured in production in relation to a paper class. The values of this measurement are then available as a target for this paper class under the available measurement conditions. The values for the measurement conditions that are not measured are then calculated based on the available spectral data. Thanks to the structure in the 'Color Library', there is no need to manually assign the measurement data to the correct measurement conditions or paper class.

## 9.2 New color from production

The 'Color Library' also supports the scenario where customers create and calibrate new colors in their print production at the press. The printing presses and measuring devices in production can define, calibrate and store colors for a paper class in the 'Color Library'. These measured values are then stored correctly under the print production values. In case the measuring device cannot measure all conditions, only the measurement conditions where an actual measurement value was measured are filled out.

**Remark:** In case the first measurement is done at the press, then only the print production values are stored in the 'Color Library'. The target values are not automatically calculated. Currently the production values are overwritten when you measure the new target value using the measurement service. The current workaround is by manually entering the respective L\*a\*b\* values for the Target Values, preventing the values stored in Print Production from being overwritten.

# Step 2: Automatic assigning color target values

## 10 Benefits of automatic assigning color target values

A print shop unlocks the full potential and the future of its color workflows when implementing step 2 of the ‘Color Library’. The target values in the ‘Color Library’ become the “Master” target values used at the different output devices, in the press room and the measuring devices. This eliminates the need to assign new spot colors for a production job. Eliminating the 8 touchpoints that were needed before and chance for human error.

Switching the workflow to automatic assigning color target results in:

- The use of unified color data stored in the ‘Color Library’.
- Automatic assignment of the color target values at the printing press or measuring device.

These two elements unlock a lot of improvement potential in print production.

## 11 Impact of workflow changes

When implementing the second step, it is important to take the current way of working in print production into account. The migration to the ‘Color Library’ results in the fact that the complete print shop is working with the same color data. Different data sources can now be the input for new target values in the ‘Color Library’ (as listed in chapter 7). This also means that these target values are available as a reference for printing presses and measuring devices.

A clear process should be established between prepress, the print production in the pressroom and when available the ink kitchen. This process requires a clear definition of which stakeholders are creating color target values and how they should be handled by everybody involved.

**Remark:** Before switching to the automatic assignment of color target values, the following responsibilities should be clearly defined to avoid confusion:

- the definition of colors
- the folder structures
- the search order

## 12 ‘Color Library’ in combination with printing presses

An **important factor to consider** for the migration to the ‘Color Library’ and step 2 are **the connected printing presses**. When only one press is installed at the customer, then the transition might be straight forward. It is no surprise that more printing presses and different software versions on these machines increase the complexity. Therefore, we recommend also having a look in the press room before starting the migration process. In this chapter we will describe what you should consider when you come across specific Press Center software versions in the press room.

### 12.1 Press Center version S15B

Standard this master version uses the local 'Color Archive' on the press. In this case there is no change for the printer at the press. The printer can keep using the Alias List to assign the locally on the press stored production target values.

You might also come across an installation that is connected to the 'Central Color Database' (old model). This is not the standard setup of the machine software. In case the Press Center is connected with the 'Central Color Database', then the migration to the 'Color Library' will have an impact for the printer. There is no continuous connection with the 'Color Library' possible. Therefore, a copy of the color information into the local Color Archive is required.

### 12.2 Press Center version <=S19A

In case the printer at the press works with color data is stored in the local Color Archive. For these press operators the way of working does not change. The reason is that the machine does not use the color target values that are stored in Prinect. The printer can keep using the Alias List to assign the locally on the press stored print production target values.

At the Press Center it is still possible to have multiple levels of subfolders. In case there are newer printing presses that require a flat color folder structure.

**Remark:** In case the print shop wants the 'Color Library' with the automatic assignment of target values in the Press Center. Then a Press Center upgrade is required. This upgrade comes very often together with hardware upgrades and therefore the costs should be cleared upfront. For support and costs for Press Center upgrades get in touch with [hei.hardwareupgrades@heidelberg.com](mailto:hei.hardwareupgrades@heidelberg.com)

### 12.3 Press Center version = S19B

Standard the Press Center S19B master version is configured to work with the local 'Color Archive'. In case they keep working with the 'Color Archive', there is no change in the way of working. The printer can keep using the Alias List to assign the locally on the press stored production target values.

As of version S19B.07 it is also possible to have the 'Central Color Database' activated. It is important to check if the print shop is already working with the 'Central Color Database'. In those cases, the migration to the 'Color Library' does impact the way of working as the color tables are combined and the flat structure for the color folders must be respected. Either the print shop cleans up their existing 'Central Color Database' or use the automated flattening during the migration process will do this.

The current way of working, by using an alias list to assign the saved production values, remains the same after migration.

**Remark:** In the S19B it is still possible to create multiple subfolder levels. When this is done, this subfolder will be moved to the main folder level following the same logic during the migration process. Therefore, it is important that also in the press room all operators are aware of this behavior. We want to prevent a press operator facing disappearing subfolders. If a machine with a S24A or higher is installed, then the press operator cannot view subfolders. This further highlights the need to clearly inform about the changes at the press.

**Remark:** In case the print shop wants to use more functionalities from the 'Color Library' then a Press Center upgrade is required. For support and costs for Press Center upgrades get in touch with [hei.hardwareupgrades@heidelberg.com](mailto:hei.hardwareupgrades@heidelberg.com)

### 12.4 Press Center version = S20A – S20B

As of Press Center version S20A is the 'Central Color Database' by default activated. This is still the old color model where the color tables for prepress and print production are separated. When migrating to the 'Color Library' it is important that the existing color folders are cleaned up by the print shop. There is also the automatic flattening of the subfolder levels during the migration process.

The current way of working, by using an alias list to assign the saved production values, remains the same after migration.

**Remark:** In these Press Center software versions, it is still possible to create multiple subfolder levels. When this is done, this subfolder will be moved to the main folder level following the same logic during the migration process. Therefore, it is important that also in the press room all operators are aware of this behavior. We want to prevent a press operator facing disappearing subfolders. If a machine with a S24A or higher is installed, then the press operator cannot view subfolders. This further highlights the need to clearly inform about the changes at the press.

**Remark:** In case the print shop wants to use more functionalities from the 'Color Library' then a Press Center upgrade is required. For support and costs for Press Center upgrades get in touch with [hei.hardwareupgrades@heidelberg.com](mailto:hei.hardwareupgrades@heidelberg.com)

### 12.5 Press Center version >= S21A

As of Press Center version S21A it is possible to activate the automatic assignment of the color targets at the press. By default, these presses are connected to the Central Color Database. The old color model where the color tables for prepress and print production are separated. When migrating to the 'Color Library' it is important that the existing color folders are cleaned up by the print shop. There is also the automatic flattening of the subfolder levels during the migration process.

After the activation and migration to the 'Color Library' you can also activate the automatic assignment of the color target values. This means that when the color data is sent to the press, also the print production target values stored in the 'Color Library' are available at the machine. When measuring a color at the press, the measured values are stored back to the 'Color Library'. All the measured measurement conditions (M0, M1, M2 and M3) are stored for the measured paper class. There is no need for a manual assignment of the measured values, leading to a further reduction of touchpoints.

**Remark:** In these Press Center software versions, it is still possible to create multiple subfolder levels. When this is done, this subfolder will be moved to the main folder level following the same logic during the migration process. Therefore, it is important that also in the press room all operators are aware of this behavior. We want to prevent a press operator facing disappearing subfolders. If a machine with a S24A or higher is installed, then the press operator cannot view subfolders. This further highlights the need to clearly inform about the changes at the press.

### 12.6 Press Center version >= S22B

As of Press Center version S22B it is not possible anymore to create subfolders at the press. It is still possible to see subfolders that were created at other machines. This comes in addition to all the advantages available as of Press Center version S21A.

### 12.7 Press Center version >= S24A

As of Press Center version S24A it is not possible anymore to see subfolders at the press. The creation of subfolders was already deactivated as of version S22B. This comes in addition to all the advantages available as of Press Center version S21A.

### 12.8 Digital printing using a DFE

For digital printing only the color information stored in the target values is used. The DFE receives the M1 value and takes over from there. So, color information stored as production value does not have an impact on the color information sent to the digital printing press.

## 13 Compatible color measurement systems with the ‘Color Library’?

Depending on the Press Center version, the online and inline color measurement systems could interact with the ‘Central Color Database’ (previous solution). This is also the case with the new ‘Color Library’. In both cases the measurement systems can receive target values and write back production values of the color.

Machine / Color Measurement System	Software	Local Color Archive	‘Color Library’
<b>CP2000 Center or Print Center</b>			
Axis Control Inpress Control	47.9	Yes	Not possible
Image Control 1	5.1	Yes	Not possible
<b>Press Center or Press Center Compact</b>			
Easy Control Axis Control Inpress Control	>=S15B.18	Yes	Yes, by manual copying local colors
Image Control NG	I14A.08	Yes, optional	Yes, optional
<b>Press Center 2 or Press Center XL2</b>			
Easy Control Axis Control Inpress Control	S18A.08 bis S19B.xx	Yes, optional	Yes, optional
Image Control 3	>=S17B.03_IC	Yes, optional	Yes, optional
<b>Press Center 3 or Press Center XL3</b>			
Easy Control Axis Control Inpress Control	>=S20A	Not possible	Yes, required
Image Control 4	>=S22A_IC	Yes, optional	Yes, optional

Table 1: Overview measuring devices compatible with ‘Color Library’.

Not all measuring devices can measure all measurement conditions. An overview is displayed in the table below:

Measuring device	Software	M0	M1	M2	M3
<b>Easy Control 1</b>	S11B and up	☑			
<b>Easy Control 3</b> (new sensor)	S22A and up		☑	☑	☑
<b>Axis Control 2/3</b>				☑	☑
<b>Axis Control 3</b> (new sensor)	S21B and up		☑	☑	☑
<b>Inpress Control 2/3</b>					☑
<b>Image Control 2/3</b> Single sensor				☑	☑
<b>Image Control 2/3</b> Image sensor				☑	
<b>Image Control 4</b> Single sensor (new sensor)	S22A_IC and up		☑	☑	☑
<b>Image Control 4</b> Image sensor	S22A_IC and up			☑	

Table 2: Available measurement conditions per color measurement device.

**Important:** As illustrated by the table, the measuring devices can store the production reference values back to the ‘Color Library’ under the respective measurement conditions they can measure. This can lead to undesired side effects, when different measuring devices from different generations are in use.

Potential cases where you should pay extra attention to these potential side effects are:

- Prinect Inpress Control (only M3) is used in combination with other measuring devices that measure also M1 or M2.
- To prevent conflicting values with an Axis Control with a new measurement sensor, you can configure the system to only measure M2 and M3 values. This is a potential option if M1 values are not required.

**Recommendation 1:** In parallel to the Prinect Inpress Control (only M3 “Polfilter”) are other measuring devices in use that are writing data back into the ‘Color Library’. In this case it is recommended to create a separate color folder in the ‘Color Library’ for the printing presses with an Inpress Control. When this is not done, for now Inpress Control is automatically overwriting the measurement values of the other measuring devices. Therefore, previously saved M1 or M2 values might be lost. Until a solution for this topic is implemented in the ‘Color Library’, you can implement an alternative way of working with separated color folders. An example would be as follows. You have the color folder “Customer XY\_Inpress” for the Inpress Control measurements and folder “Customer XY\_AllOther” for the other measuring devices.

**Recommendation 2:** Prinect Inpress Control and other measuring devices are working with the ‘Color Library’. You could opt to only store the measured production reference values with the handheld measuring device in the ‘Color Library’. With this way of working, it is important that all stakeholders in the print shop are informed.

**Recommendation 3:** To prevent running into conflicts within the ‘Color Library’ you could select the measurement conditions M2/M3 in case you do not explicitly need M1 measurements. This could be helpful with e.g. an Axis Control with a new measurement sensor.

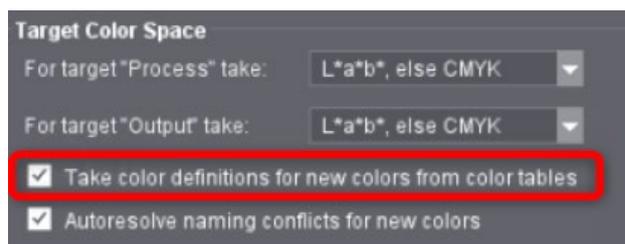
## 14 Activation of the automatic assignment of color target values

When activating the automatic assignment of the color target values at the press, you have the most automated color workflow possible. To activate this second step in combination with the ‘Color Library’ you do not need to activate a feature flag, but additional configuration at the printing press or measurement device are required. Very important this activation is only possible as of Press Center versions S21A or higher.

### Prinect Cockpit

Within Prinect it is of course required that the ‘Color Library’ has been activated. We also recommend that the settings are set as in the screenshot in Picture 14. Always using the L\*a\*b\* values first and only CMYK if these are not available. In addition, you also need to activate that Prinect Cockpit uses the color information of the color tables in the ‘Color Library’. Here all color information is stored with the respective L\*a\*b\* values.

This setting can be done in the Administration of Prinect Cockpit. (Administration -> Preferences -> Target Color Space)

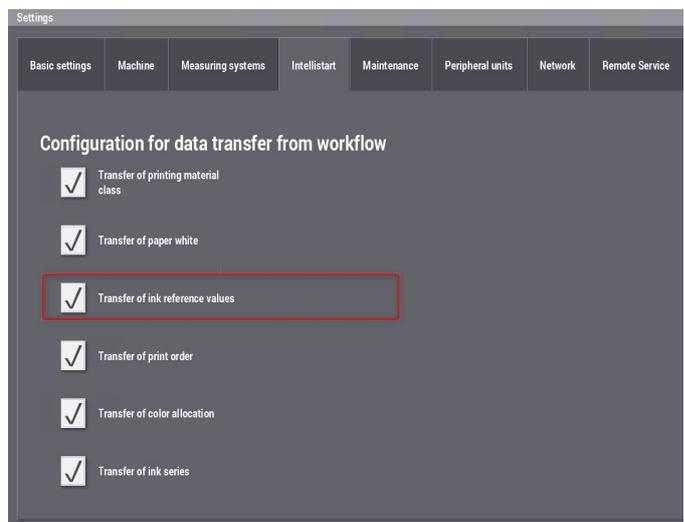


Picture 14: Setting in Prinect Cockpit

### Press Center S21A or higher

In addition, it is required that the setting “Transfer of ink reference values” is checked. This must be done for every device in the settings of the Press Center software. From the moment the checkbox for this setting is checked, the Press Center does not use the Alias Lists anymore and the color targets for the print production are coming from the ‘Color Library’. The checkbox you need to check is highlighted in Picture 15.

**Remark:** When the customer is still working with the old model the ‘Central Color Database’. Then the activation of this setting causes the reverse effect. The target values stored in the ‘Central Color Database’ are not coming to the machine anymore.



Picture 15: Setting in Press Center

**Ticking these two boxes in the configuration has a big impact on how the color workflow functions. Therefore, it is of the highest importance that this is done with the preparation needed.** This is the best way to have a smooth transition in print production with all stakeholders informed and aware of the new way of working.

# Conclusion

Color Library is:

- a **digital Prinect Portal tool** to store color data.
- enabling **centralized management of color target values**
- allowing the **automated transfer of color data** between prepress and press room.

When a customer switches to the 'Color Library', he can centralize and automate the digital color data transfer between prepress and the press room. Not just into the press room, but also back into the 'Color Library', when receiving color information from measurement devices.

To activate this functionality in Prinect a feature flag needs to be activated to trigger the migration process to the 'Color Library'. Once the migration took place, there is no way back to the old model, the Central Color Database. Now that both prepress and press room work with the same color data, it is necessary to inform all the stakeholders at the customer before the migration. Depending on the setup at the printer a certain complexity will arise. This can be based on his product mix, or the range of connected printing presses and color measurement devices in his press room. Therefore, it is good to establish a project approach when migrating customers to the 'Color Library'.

Requesting the activation of the feature flag can be done by filling out the following form:

➔ <https://forms.office.com/e/JBz8VSjzPX>

The questions in the form help you to get the information you need to assess the complexity. Based on the complexity at the customer you will be able to assess before migration how much time, process changes and training will be needed at the customer.

# Good to know

## 15 CxF data and what you need to know about it

CxF stands for **Color Exchange Format**. The creation was initiated by the company Gretag and later transferred to the ISO standard 17972-4 in 2017. It is a manufacturer-independent color description for the exchange of color information. The basis is an XML file that can contain one or more colors. It is common for packaging printers to receive color specifications from their customers in a Color Exchange Format (CxF). Unlike an ICC profile, a CxF can contain print and paper-specific information. E.g.: color name, various measurement conditions, L\*a\*b\* values, a measured color spectrum, paper white, densities, but also manufacturer information for printing inks and paper.

With the 'Color Library' the capabilities to import and export CxF files have significantly improved. When importing a CxF file, the colors inside can be added to an existing color folder, or you can create a new color folder. The 'Color Library' imports the values in the CxF file as the Target values of the color. In case the CxF file does not contain a spectrum for all measurement conditions the L\*a\*b\* values for the missing conditions will be calculated. This is then visualized in the detailed view of the color as described in chapter 4.3.

**Remark:** When exporting a color from the 'Color Library', then you can also use the CxF file format. Important to know we only export the information from the 'Target values'. This means that the **information stored in 'Print production' is not exported in the CxF**. Therefore, the CxF cannot be used to transfer production values from one 'Color Library' to another.

## 16 What are the M-values?

The M-values are the indication of which measurement conditions that apply for the L\*a\*b\* values you see. The different measurement conditions are defined in: ISO 13655-2017: Spectral measurement and colorimetric computation for graphic arts images.

Definition	M0	M1	M2	M3
<b>Mode</b>	„A“	„D50“	„UV-Cut“	„Polfilter“
Light source	gas-filled tungsten bulb (today mostly LED)	mostly LED	mostly LED	mostly LED
<b>Color temperature</b>	ca. 2850 K	5000 K	undefined	undefined
Spectral range	380 nm until min. 700 nm	Excitation 300 nm Measurement: 380 nm until 700 nm	Measurement: 420 nm until min. 700 nm	Measurement: from max.420 nm until min. 700 nm
<b>Light type / Observer</b> (CIE-normed color system 1931)	D50 / 2°	D50 / 2°	D50 / 2°	D50 / 2°
<b>Measurement geometries</b> (45°:0° or 0°:45°)	X	X	X	X
<b>relative / absolute</b>	absolute	absolute	absolute	absolute
<b>Polarized measurement</b>	-	-	-	X
<b>UV-Cut filter</b> (UV content turned off/suppressed)	-	-	X	X

Table 3: overview of the measurement conditions.

## 17 Backup & restore

Just like all other data, it is common that print shops create backups in case there is an issue. The color data is stored in the MDS, as a result when the customers make regular backups of their Prinect system, also the color data is backed up. In case they need only are restore of the 'Color Library', then you can reach out to our service:

➔ [WIE.SupportPrinectPressIntegration@heidelberg.com](mailto:WIE.SupportPrinectPressIntegration@heidelberg.com)

Currently there is no backup and restore functionality for single colors or color folders within the 'Color Library'.

## 18 Repeat jobs

All customers who save repeat jobs in Prinect can continue to use them without any problems. If jobs were saved before an upgrade or migration, they contain color reference values. If jobs with repeat data are sent to the machine, even after the workflow has been updated, the color reference values from the old job can be used.

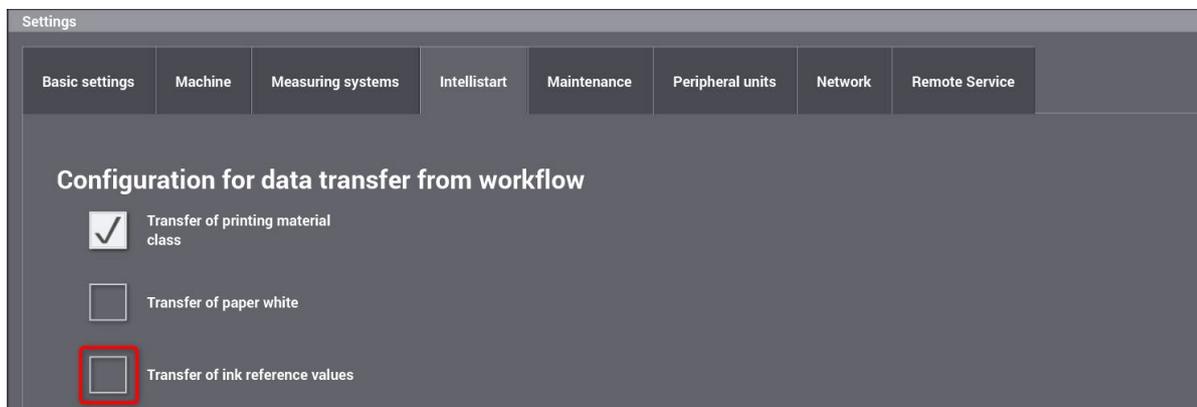
The press operator has the option to store back any changed color reference values to the 'Color Library'. These values will then be used for future print jobs with the same color.

## 19 What is the Alias List?

The alias list is a function in the Press Center software (>=S14B) doing the color target assignment in the background. When a job contains a new unknown color then the color target is assigned once manual by the press operator. When the same color is included in future jobs, then the color target is assigned by the Press Center software.

The Alias List works with the local Color Archive of the printing press, with the 'Central Color Database' and with the new 'Color Library'. The target value that is assigned is then also the correct value in relation to the paper class. In other words, the paper classes specified in the ISO 12674-2: gloss coated, matt coated and uncoated. It is not possible to assign custom substrate or paper classes that are used as an in-house standard. This might be a wish from packaging printers who have a wide range of uncoated board stock.

When you activate step 2 the automatic assignment of the target values from the 'Color Library' at the press, then you also change the settings as off the Press Center version =>S21B. In the case the customer still wants to use the Alias List at the press then you should not check the box for "Transfer of ink reference value", as displayed in Picture 16. When unchecked the old way of working is valid, and the values for the color target stored in the Alias List are used. When the customer wants to work with the centralized data from the 'Color Library' then the box should be checked.



Picture 16: Box unchecked - Ink reference values from the 'Color Library' are not transferred

## 20 Special color books

The 'Color Library' comes by default also with the color books with target values for metallic inks or pastels. It is not recommended to use the default target values that are used in the 'Color Library'. Based on past experiences the values provided by these color books show big deviations compared with actual measurements in print production. Also be aware of the physical limitations of measurement devices. E.g. light scattering when measuring metallic inks.

# Service

## 21 Documentation

- ➔ [Prinect Online help: Help - Color Library \(Prinect CR\)](#)
- ➔ [Introduction videos: Prinect Video Tutorials | HEIDELBERG](#)
- ➔ [Internal Confluence documentation: Color Library - Support Prinect - HDM Prinect Confluence](#)

## 22 Requirements web browser

The 'Color Library' is a widget in Prinect Portal. As a result, it is tested and can be accessed through the commonly used web browsers like: Google Chrome, Firefox and MS Edge Chromium. Further it is important to consider that the operating system of the device is up to date to guarantee a smooth user experience.

## 23 User rights

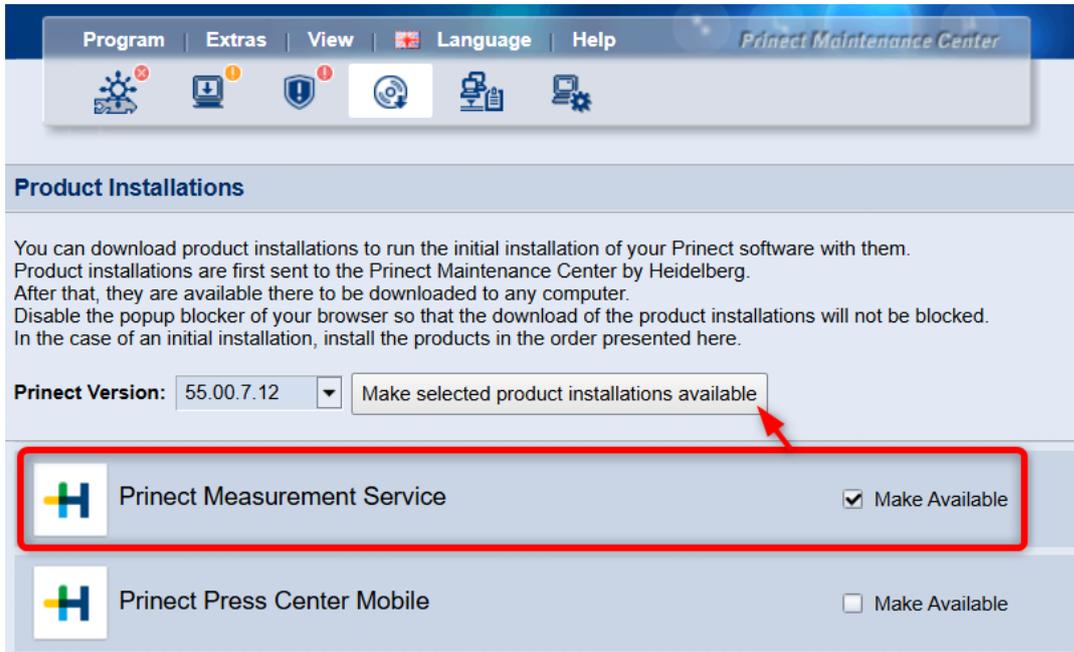
In order to access the 'Color Library' widget in Prinect Portal, the user needs the following user rights: "PortalEmployee" in combination with "PrepressAdministrator" or "PressAdministrator".

## 24 Usage of the measurement service in Prinect Portal

For color measurement we need to install an additional Service at the Windows Client. The Windows installer can be downloaded in Prinect Maintenance Center as showed in Picture 17 below.

During installation you are asked which device driver/measuring device you want to install.

**Remark:** Currently only available for Windows.



Picture 17: Prinect Measurement Service in Prinect Maintenance Center.

## 25 Training

Customer training is considered as part of the project during the roll out and should be done by the local service team. Make sure it is priced into either the project costs or part of the software maintenance.

## 26 Activation feature flag

Fill out the online form to receive the activation code for the feature flag:

➔ <https://forms.office.com/e/JBz8VSjzPX>

## 27 Roll out

The roll out takes place on a project basis. If we would push the migration with an upgrade of Prinect Production, then we risk disrupting existing color workflows at customers. Based on some key indicators we can already assess up to a certain level the complexity you might face. None the less we cannot read the complete process that the customer has implemented from this data. Therefore, we found that a project-like approach is the best way to introduce the 'Color Library' to our customers.

# Sales

## 28 Licensing Prinect Portal

To enable a smooth transition and avoid bottlenecks in the available Prinect Portal licenses, we have adjusted the number of available licenses. For each affected Prinect product, there will be at least 3 x portal users available.

Overview of license adjustments:

- Prinect Production containing concurrent Prinect Portal Users – no changes needed.
- Prinect Production with an integrated DFE (Versafire/Labelfire/Gallus) including Prinect Portal Users – no changes needed.
- Prinect Integration Manager used to be 1 x Prinect Portal User – increased to 3 x Prinect Portal Users.
- Prinect Labelfire DFE used to be 1 x Prinect Portal User – increased to 3 x Prinect Portal Users
- Prinect Versafire DFE used to be 0 x Prinect Portal User – increased to 3 x Prinect Portal Users

The changes apply for both new customers and existing customers with a **Prinect subscription or maintenance contract**. All customers with an active software maintenance contract who use Prinect Integration Manager with Prepress and/or Pressroom Manager or even standalone Prinect Versafire/Labelfire DFE will be, free of charge, increased to a minimum of 3 x portal users.

The software licensing department already sent the extended license keys to the affected customers through the PSC.

## 29 Supporting sales material

Two introduction videos for Color Library in the Prinect Online help:

➔ [Prinect Video Tutorials | HEIDELBERG](#)

### Publishing Information

This product information is valid as of 02/09/2026 until further notice.

Please forward this product information to all responsible departments in your company. Thank you very much.

Best regards,

Heidelberger Druckmaschinen AG

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