PRODUCT BULLETIN

Configuring RolandVersaWorks to print on your HEXIS media

CONTENTS

HEXIS®

www.**hexis-graphics**.com

Assistance contact: assistance@hexis.fr
Printing Division contact: profils@hexis.fr

On www.hexis-graphics.com/en, HEXIS provide you with free-download profiles for your printing media and your «machine» configurations (printer-ink-colours and RIP).

A *media profile* contains:

- **Certain printer parameters adapted to the media, like heating temperature, suction, etc.**

- **A calibration of ink quantities applied to the printing media** which allows optimal use of the ink consumption while maintaining the largest possible reproducible range of colours.

- **An ICC profile** which characterises **the colorimetric response of the printing system.**

What to expect from this media profile?

- A support profile **optimises the printing quality** on a media to **accurately print colours** and **to control the quantity of inks used**.

- Caution! A media profile is only valid for a **given printing configuration RIP - Printer - Ink - Printing mode**.

- Certain media-related printer settings cannot be included in the media profile. It is **imperative to realise them to obtain a nice printing quality** (feed calibration, bidirectional adjustment). See Product Bulletin No.2.

- The profiles downloadable from our website are called «**generic**» because they were not realised directly on your printer. Even for an identical model, there are **differences** from one printer to another. For greater colorimetric accuracy, the profile must be realised **directly on your printer**, or at least be **relinearised**.

Product Bulletins being already available:

- **FPT.IMN.001**: **How to carry out quality prints on your HEXIS digital printing media**

- **FPT.IMN.002**: **Setting up your printers according to your HEXIS media**

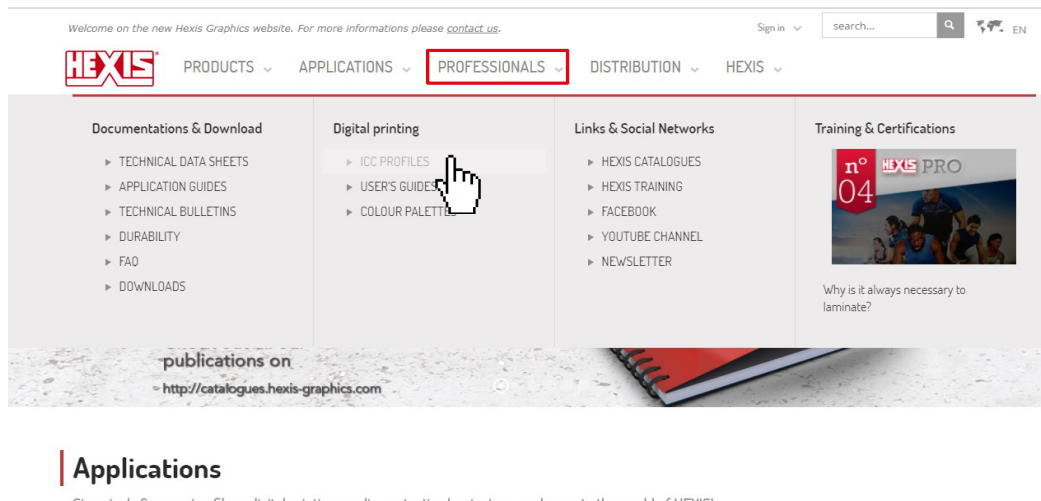- **FPT.IMN.003**: **Introduction to colour management**

1. Installing a media profile suitable for your HEXIS printing media in RolandVersaWorks

1.1. Downloading the media profile

1. Log in to our HEXIS website: http://www.hexis-graphics.com/en

2. Under the «**Professionals**» tab, select «**ICC profiles**».
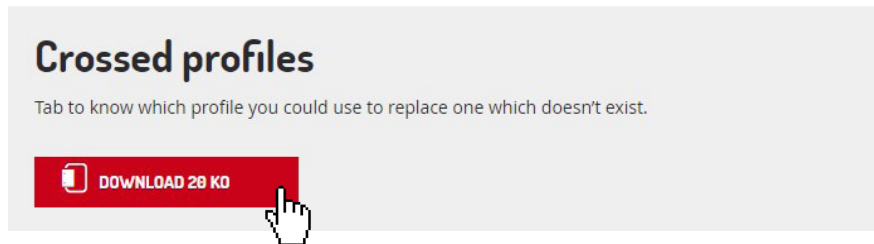
3. Fill in **the configuration of the printing system used** and then click SEARCH.
   (The fields «Models», « Inks », « Colour code» and «RIP» are mandatory.)

If your machine configuration is not listed, contact the Printing Division department at the following address:
http://www.hexis-graphics.com/fr/supports/impression-numerique/contact-support-technique/

4. **Identify the media group** (200 series, 3000 series, etc.) for which you want an ICC profile or directly select the desired media from the drop-down list.
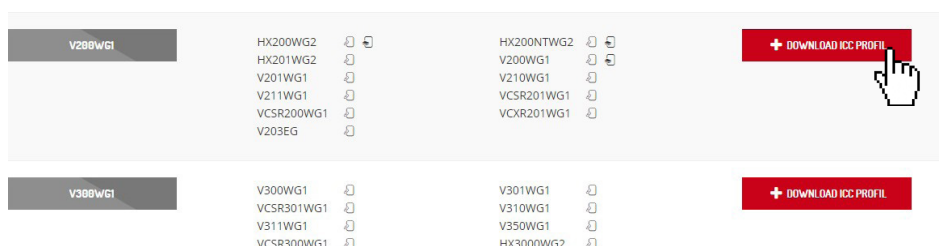
If the profile for your media is not listed, see the **Crossed profiles** tab to find a replacement profile.

Crossed profiles

Tab to know which profile you could use to replace one which doesn't exist.

[icon] **DOWNLOAD 28 KO**
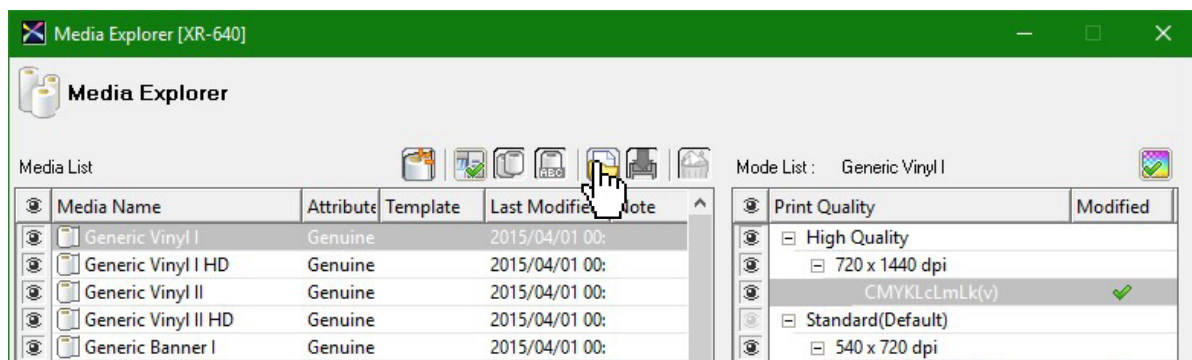
5. Click the «**Download**» button.

If you have any problems when downloading a HEXIS profile, please feel free to contact the assistance department by e-mail at the following address : assistance@hexis.fr

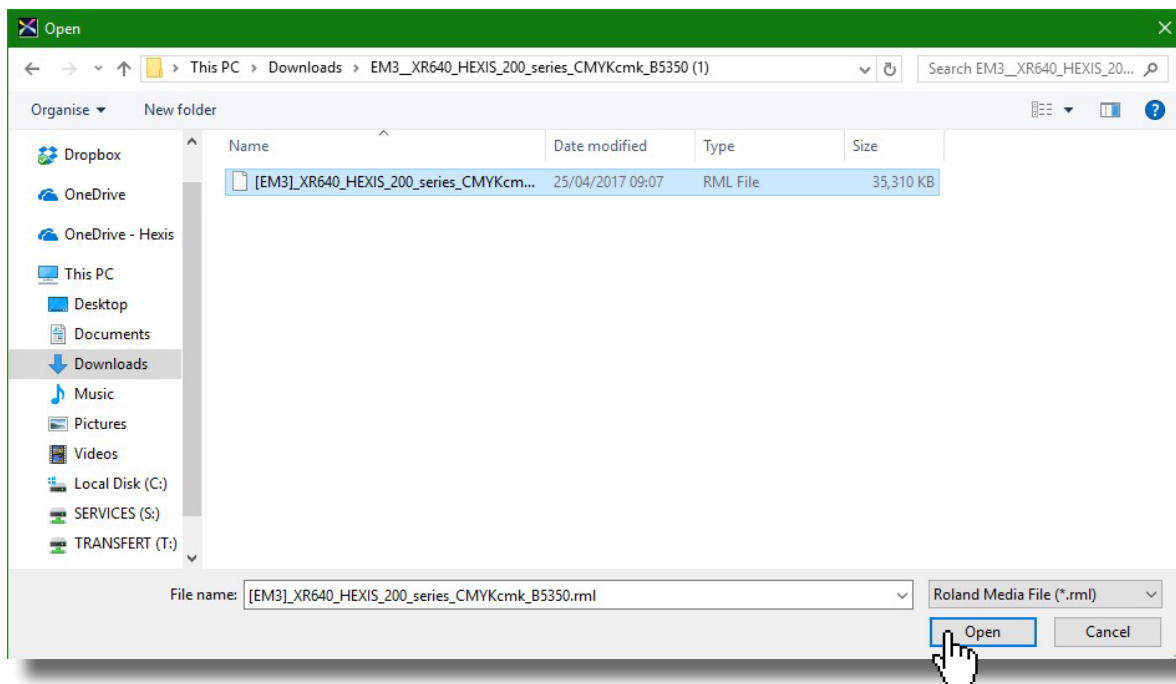## 1.2. Importing the media profile into RolandVersaWorks
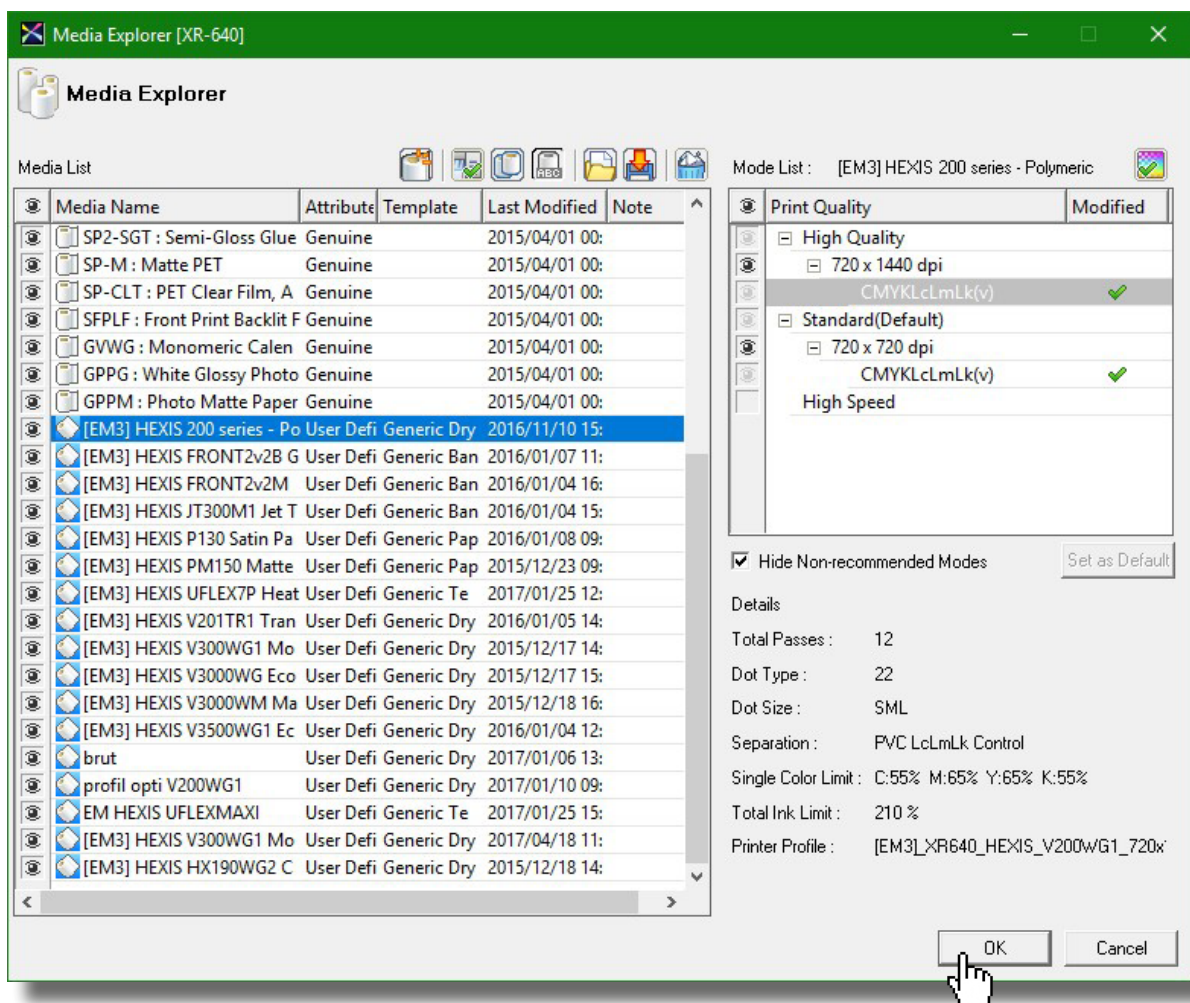
1. Go to **Media**, then to **Media Explorer**.
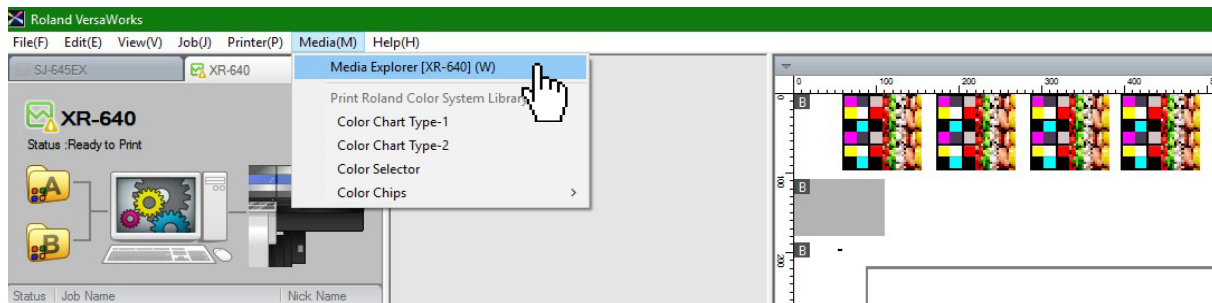
2. Click the «**Load from File**» icon.

3. **Select the file obtained** from the HEXIS site (profile format: .rml). In order to facilitate its download, it is possible that the downloaded item is in compressed form. In this case, **decompress** it.
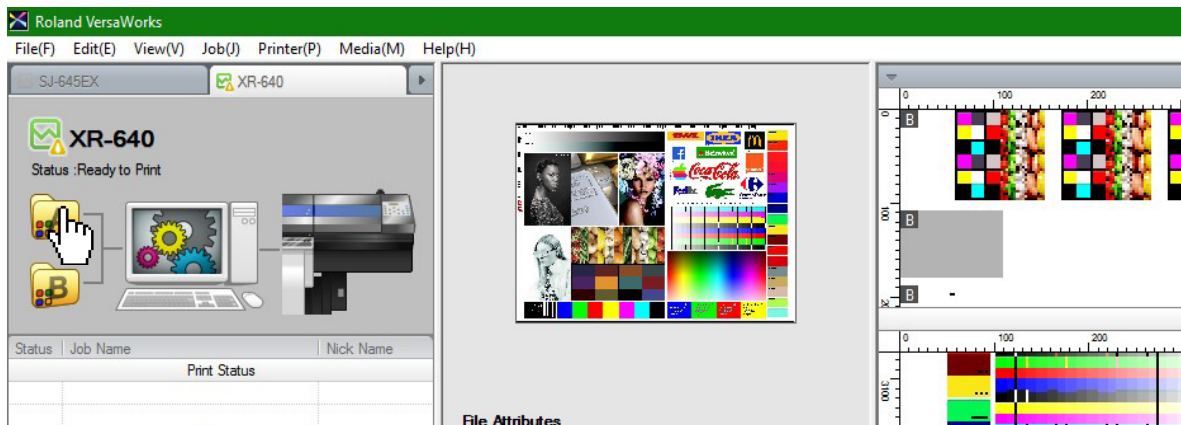

4. Click the **Open** button.

5. Check if the media has been **imported**.

In the case of **importing problems**, please refer to the **Digital Printing F.A.Q**, available on the HEXIS website at the following address: http://www.hexis-graphics.com/en/supports/
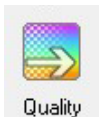
2. Default setting of queue A

Double-click the icon.
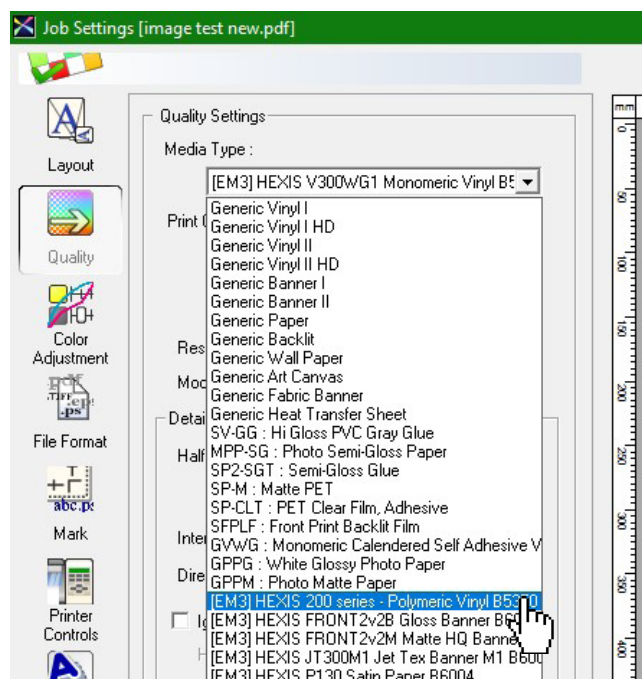

2.1.Colour management setting

Click the [icon] icon.

2.1.1. Selecting the media profile

Identify the printing media which matches your **main HEXIS media used** in the «**Media Type**» drop-down list in the «**Quality Settings**» section.

2.1.2. Selecting the printing mode

Select **the resolution, printing direction** and **number of runs** according to your printing constraints, as well as **productivity and quality needs**.

Resolution	Advantages	Disadvantages
Low	• High printing speed • Low ink consumption	• Limited colour range • Poor quality of flat tints • Low detail accuracy • Poor printing stability
High	• Maximum colour range • High quality of flat tints • Detail accuracy • High printing stability	• High ink consumption • Low printing speed

Printing in 540x720

Printing in 720x1440

| Number of runs	Advantages	Disadvantages
Few	• Higher printing speed	• Poor quality of flat tints • Limited colour range
Many	• High quality of flat tints • Accuracy of the colorimetric rendering • Drying time more adapted	• Lower printing speed

Printing in six runs

Printing in twelve runs

| Printing direction	Advantages	Disadvantages
Unidirectional	• Detail accuracy (text, etc.) • High quality of flat tints • Drying time more adapted	• Printing speed approximately divided by 2
Bidirectional	• High printing speed	• Require a precise bidirectional alignment of the heads Sensitivity to media buckling • Quality almost always lower than that of the unidirectional one

Unidirectional printing
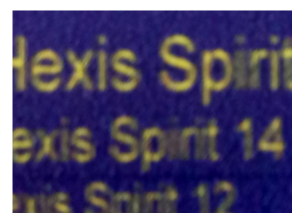
Bidirectional printing

A **low-quality fast printing** will further promote **the appearance and perception of defects related to the state and setting of the machine** (clogged nozzles, bad print heads' alignment, etc.) than a **high-quality slow printing**.

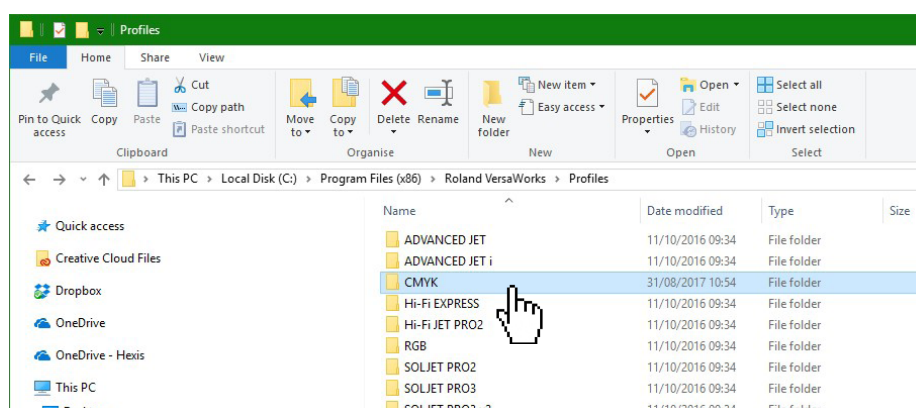### *2.1.3. Configuring the input ICC profiles and colorimetric rendering*

Click the «**Properties**» button in the «**Colour Management**» frame to select **the input ICC profiles** and **colorimetric rendering intents** according to your work habits.
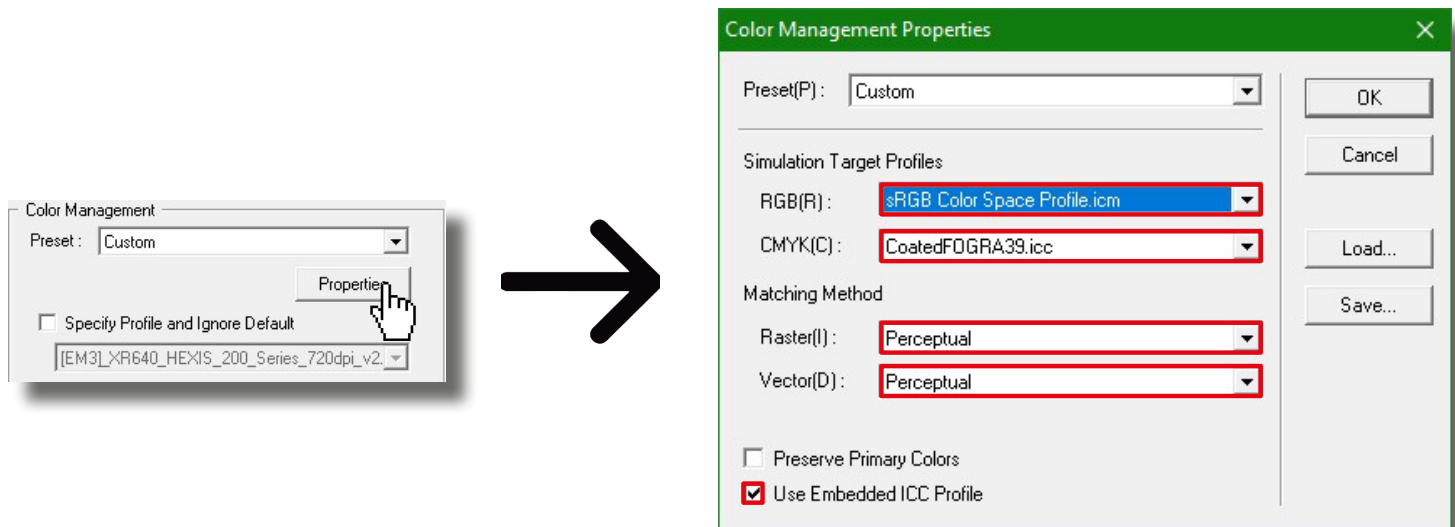
By default, HEXIS recommend to use the **sRGB** in RVB and **CoatedFOGRA39** in CMJN because these are **the most current standard profiles**. In the «**Matching Method**» heading, HEXIS further recommend to print with the **«perceptual» rendering intent**.

As the input ICC profile «**CoatedFOGRA39**» is not available by default in RolandVersaWorks, you can add it by following the indications presented below:

1. Close RolandVersaWorks.
2. Open the HEXIS website: http://www.hexis-graphics.com.
3. Under the «**Professionals**» tab, select «**ICC Profiles**».
4. Click the «**ICC Base Profiles**» tab to download this profile.
5. Open the «**Workstation**» window, then click twice on your «local disk C:».
6. Enter the following file path: C:\Program Files \Roland VersaWorks\Profiles.
7. Insert (copy/paste) the CoatedFOGRA39 file in the «**CMYK**» folder.

8. Restart RolandVersaWorks.

Additional options

When configuring the input ICC profiles, RolandVersaWorks presents two additional options:

Function «Preserve Primary Colours»

When this box is checked, **each pure CMJN colour** in your file is excluded from **the colorimetric ICC conversion**.
Example: A 70 % black will be printed only with black ink, a 30 % yellow only with yellow ink.

This can be particularly useful for **delicate letterings** and **barcodes** when you want to **avoid lags between cyan, magenta, yellow and black**.

Function «Use the integrated ICC profile»

Check the case «**Use the integrated ICC profile**» in order to preserve the input profile contained in the original image to the detriment of the settings carried out in the «Simulation Target Profiles» section. The advantage of this tool is to **preserve the colorimetry of the original image** by avoiding an erroneous interpretation of the numerical values of the file.

For more information on these options, please refer to the Product Bulletin No.3: «Introduction to colour management».

2.2. «Machine» settings

Some printer settings can be **controlled at the RIP level**. You can choose which settings are used: those set on the **printer** or those originated from the **media profile**; otherwise you can directly **customise** them.

Click the button.
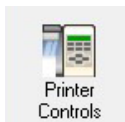
The printer setting values on this window (feed, suction, heating temperature, etc.) can be changed, by checking the «**Use Custom Settings**» command.
When printing, **the entered data will be taken into account for the benefit of those originated directly from the machine**.

2.2.1. Feed Calibration Control

Since the feed value is different at the beginning and at the end of the roll, HEXIS recommend to calibrate this setting directly on your machine, and to select the «**Use Printer Setting**» function.

2.2.2. Heater Control

When downloading the media profile on the HEXIS website, **the temperatures corresponding to the media are entered**.

HEXIS recommend using the heating temperatures of the profile, by selecting the «**Use Default Media Settings**» command. However, these temperatures can be modified by the user depending on the surrounding temperature and humidity conditions.
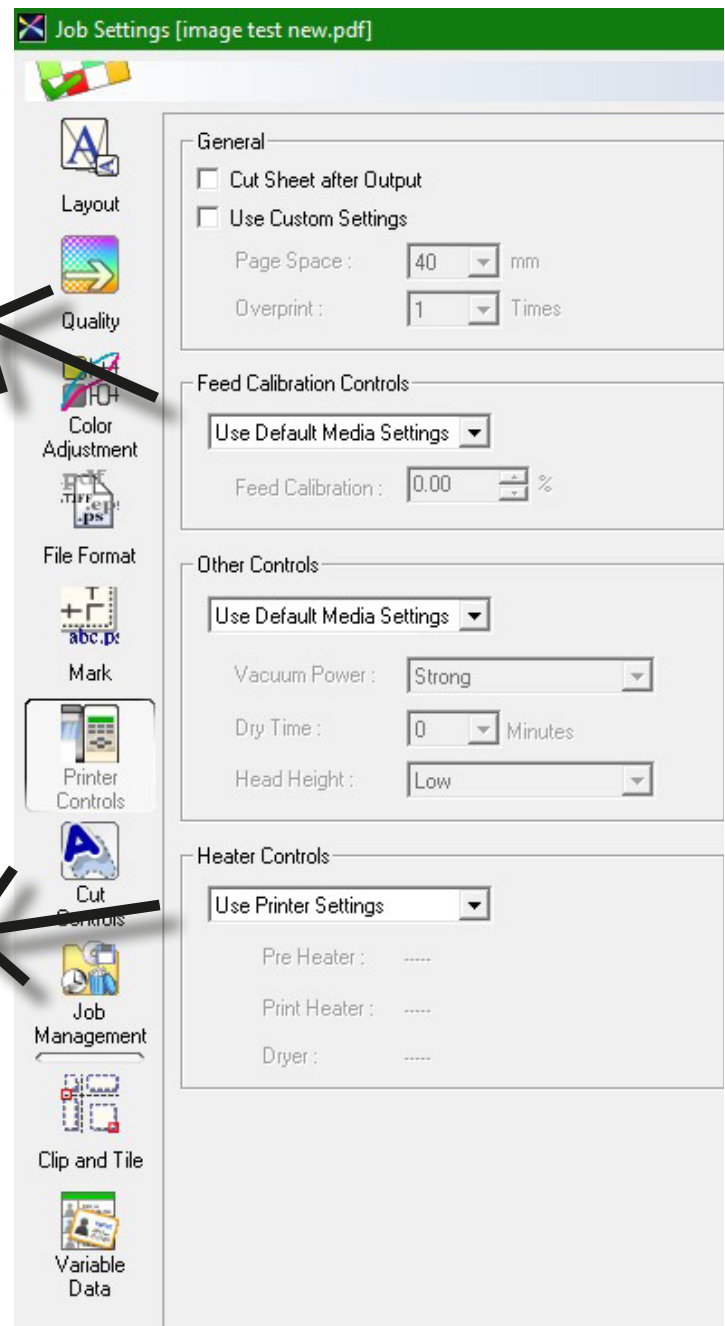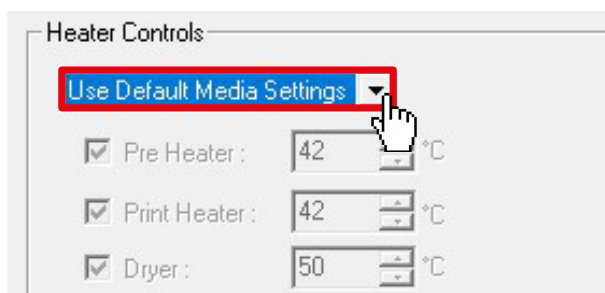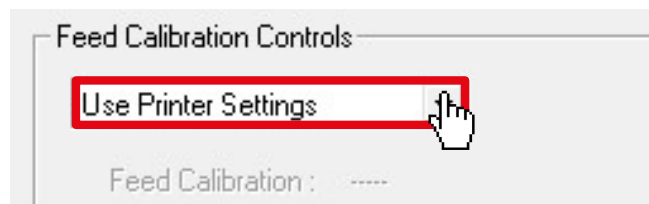
For more information on the printer calibration, please refer to the technical data sheet no.2: «Setting up your printers according to your HEXIS media».

## 2.3. Using spot colours

Click the button.

Spot colours are used to print **the colours of an image related to libraries** (Pantone, Ral, etc.) **colorimetrically as close as possible**.

To **activate this option and the printing of the referenced colours** on your image in spot colours, check the case «**Convert Spot Colour**» under the «**File Format**» tab and select the **«absolute» matching method**.

For more information, please refer to the Product Bulletin No.3: «Introduction to colour management».

The setting carried out above will be applied by default to any image inserted in the queue. When using another HEXIS printing media for example, you can easily change the media profile in the Quality section, and adapt the resolution, number of runs and printing direction according to your printing purposes.
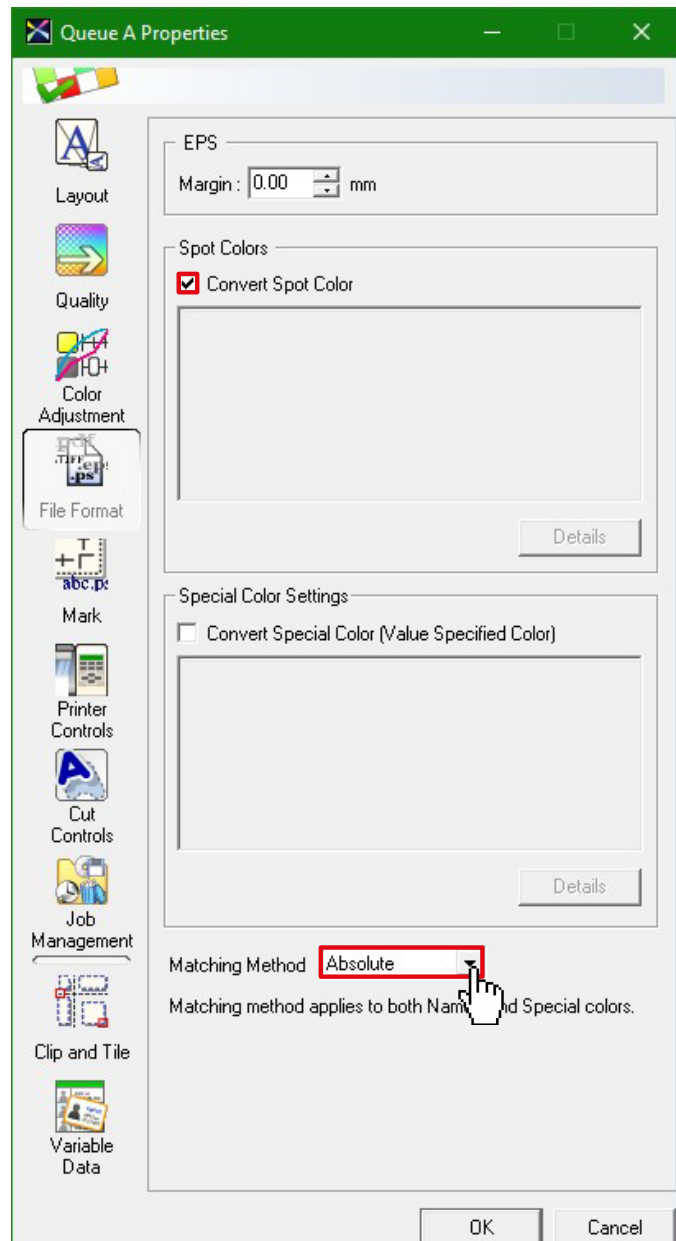
3. How to print Pantone, Ral or HEXIS colours.

Some libraries are already embedded in RolandVersaWorks, but other ones can be added.

3.3.1.   Importing the HEXIS colour library into RolandVersaWorks

1. Go to the HEXIS website: http://www.hexis-graphics.com.
2. Under the «**Professionals**» tab, select «**Colour Palettes**».
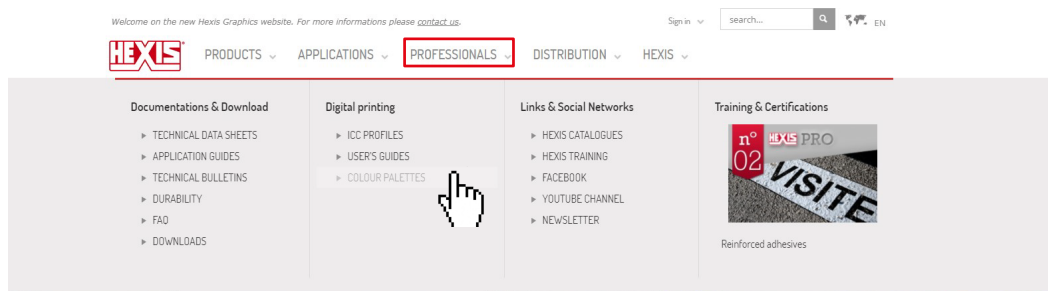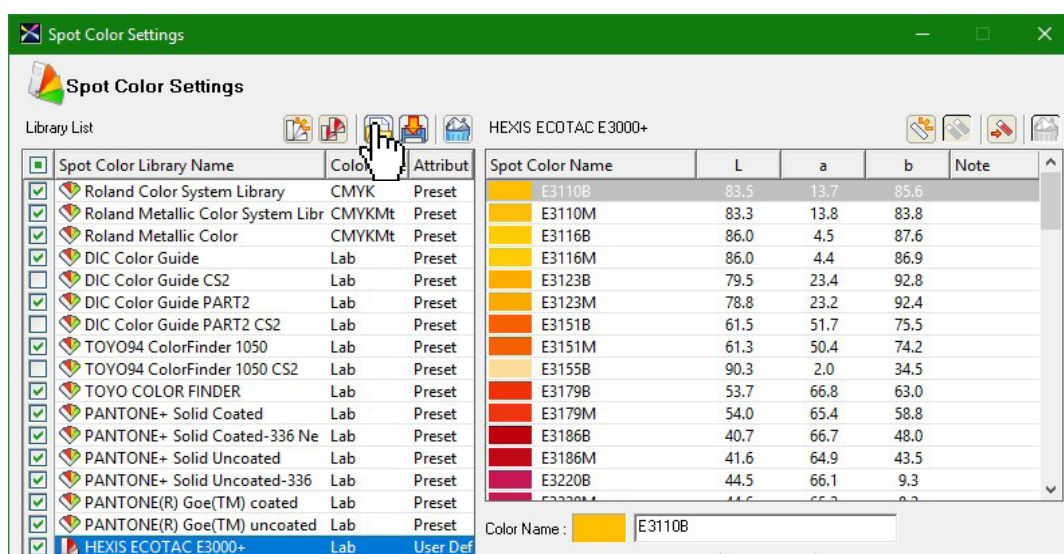
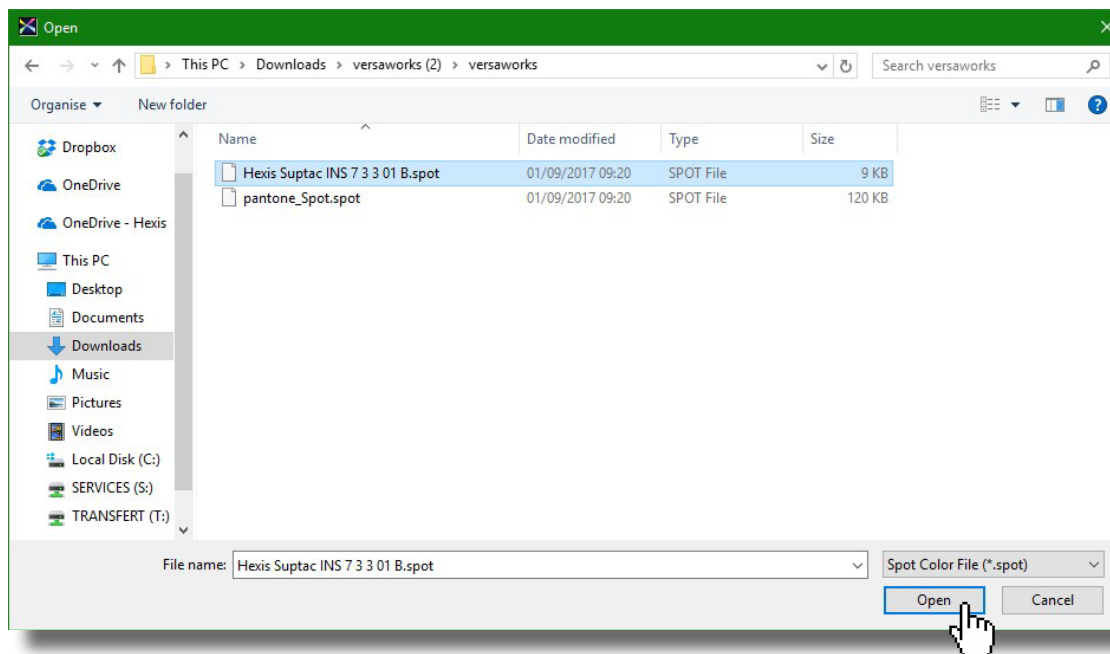3. Download **the HEXIS library** for RolandVersaWorks.
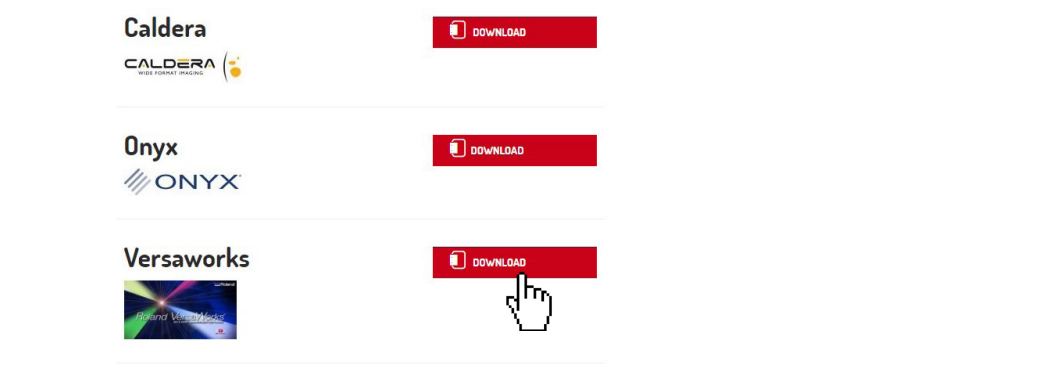
4. Launch RolandVersaWorks.
5. Click the **Edition** tab.
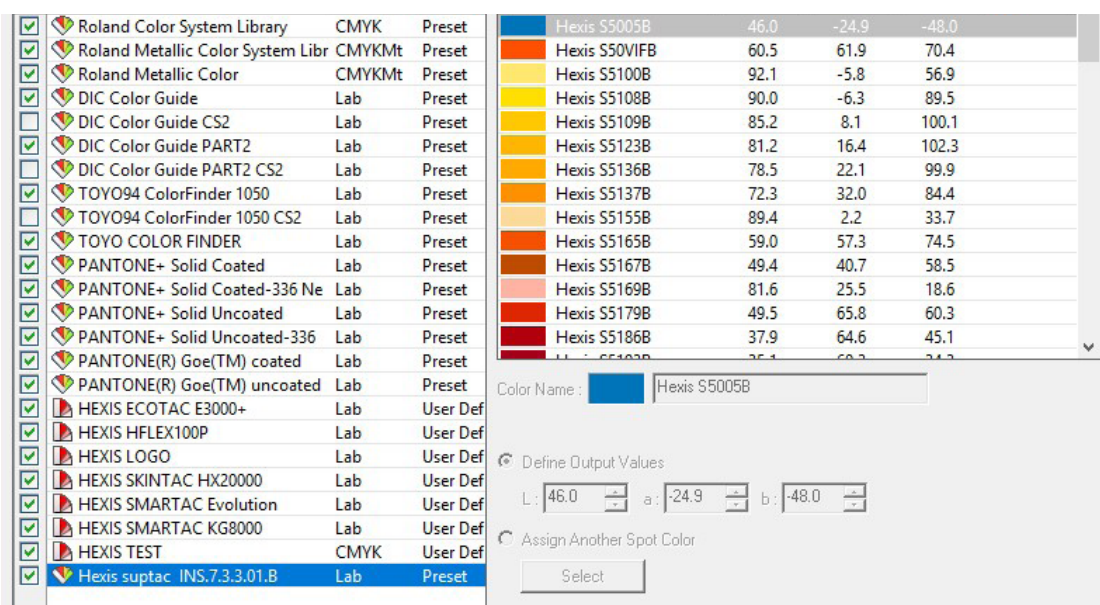6. Select «**Spot Colour Settings**».
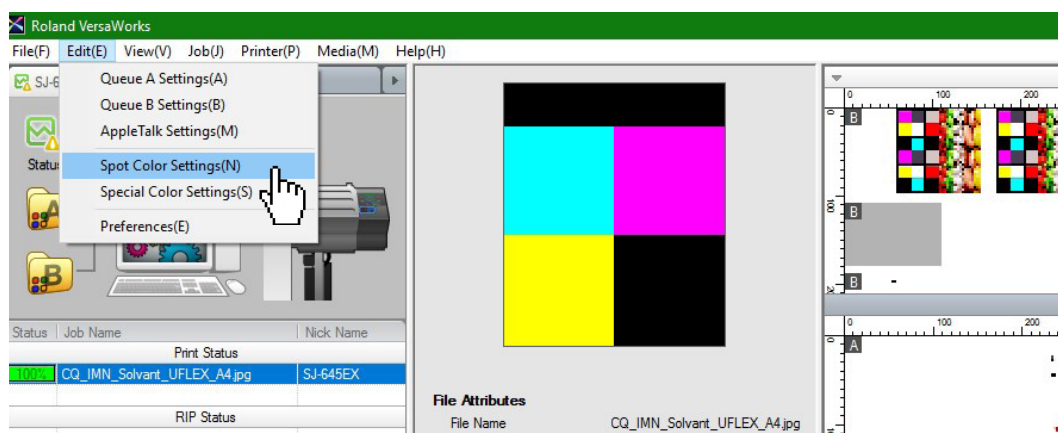
7. Click the «**Load from File**» icon.

8. Select «**Suptac library**» for example, then click **OK**.
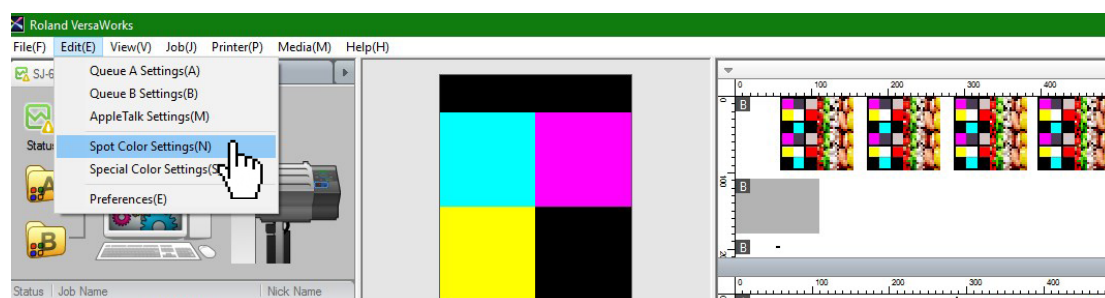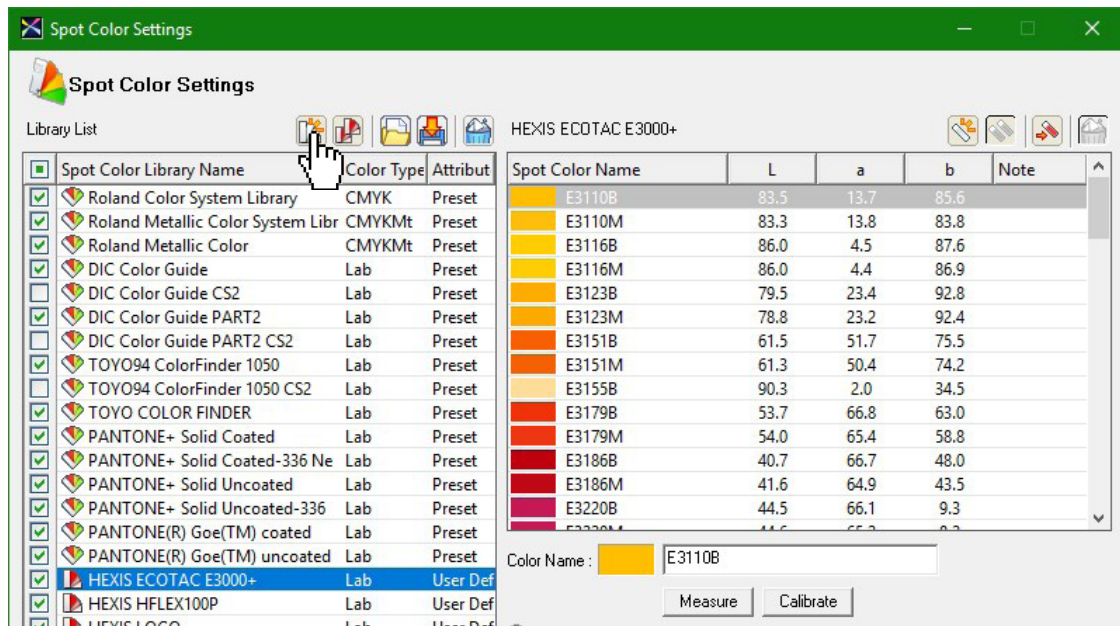

9. Check if the Suptac library is taken into account.

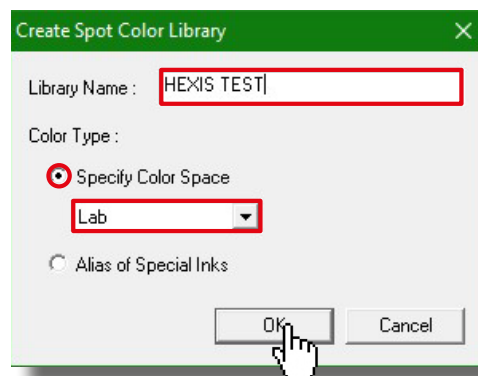### 3.3.2. Creating a colour library in RolandVersaWorks

1. Click the **Edit** tab.
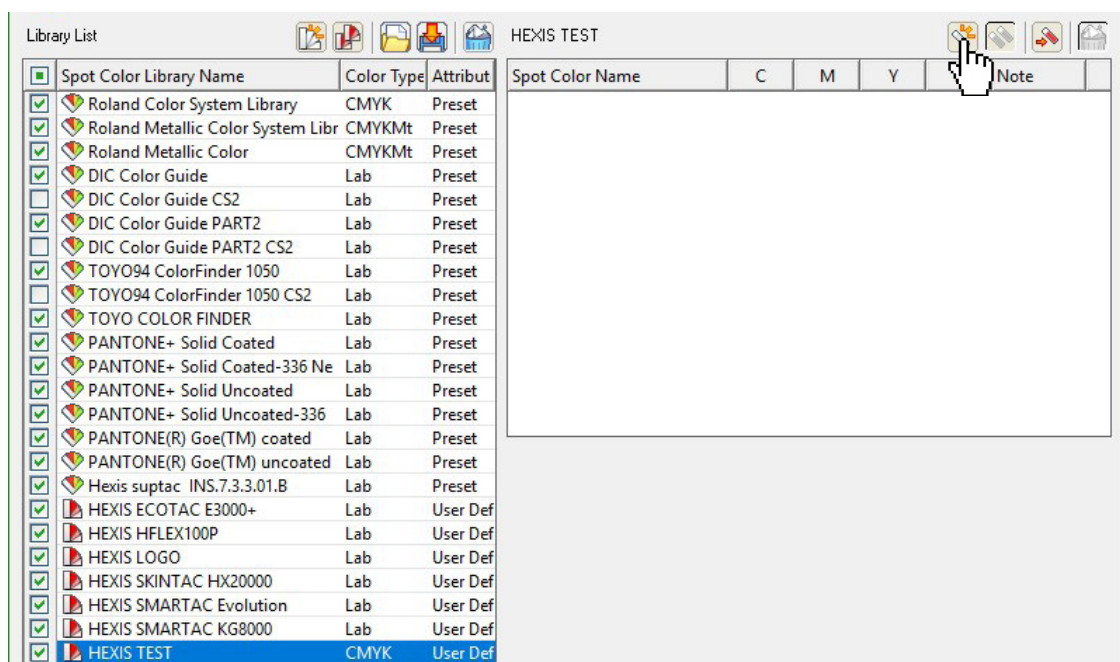2. Select «**Spot Colour Setting**».
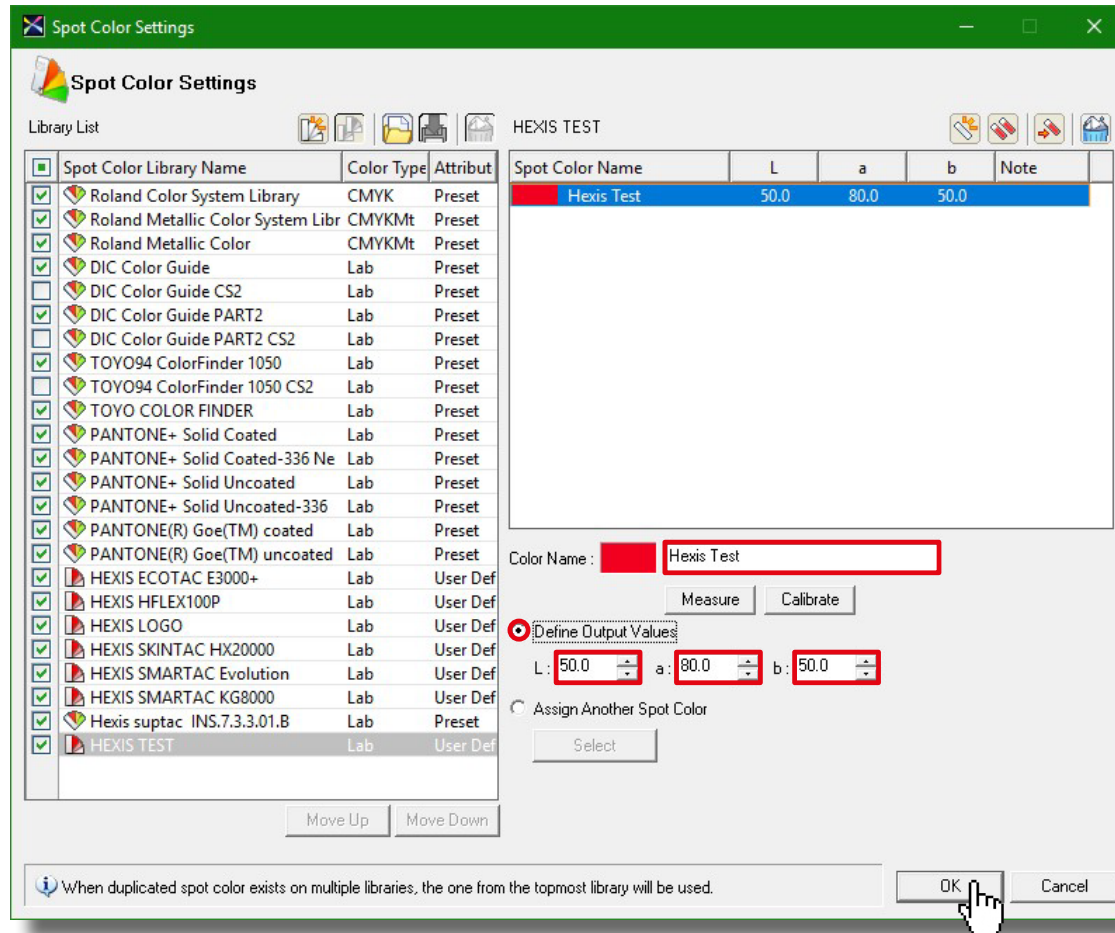
3. Click «**Create New Library**».

4. Name the library, and select the **Lab** setting. Press OK.

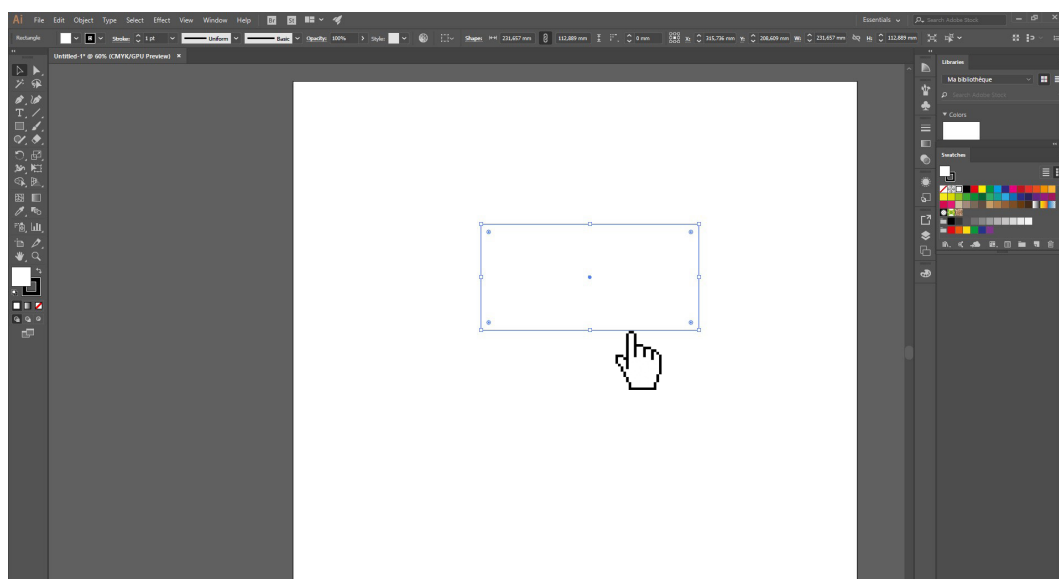
5. Click «**Create New Spot Colour**».

6. Enter the Lab values of your colour. Measure the reference colour to be reproduced using a spectrophotometer.
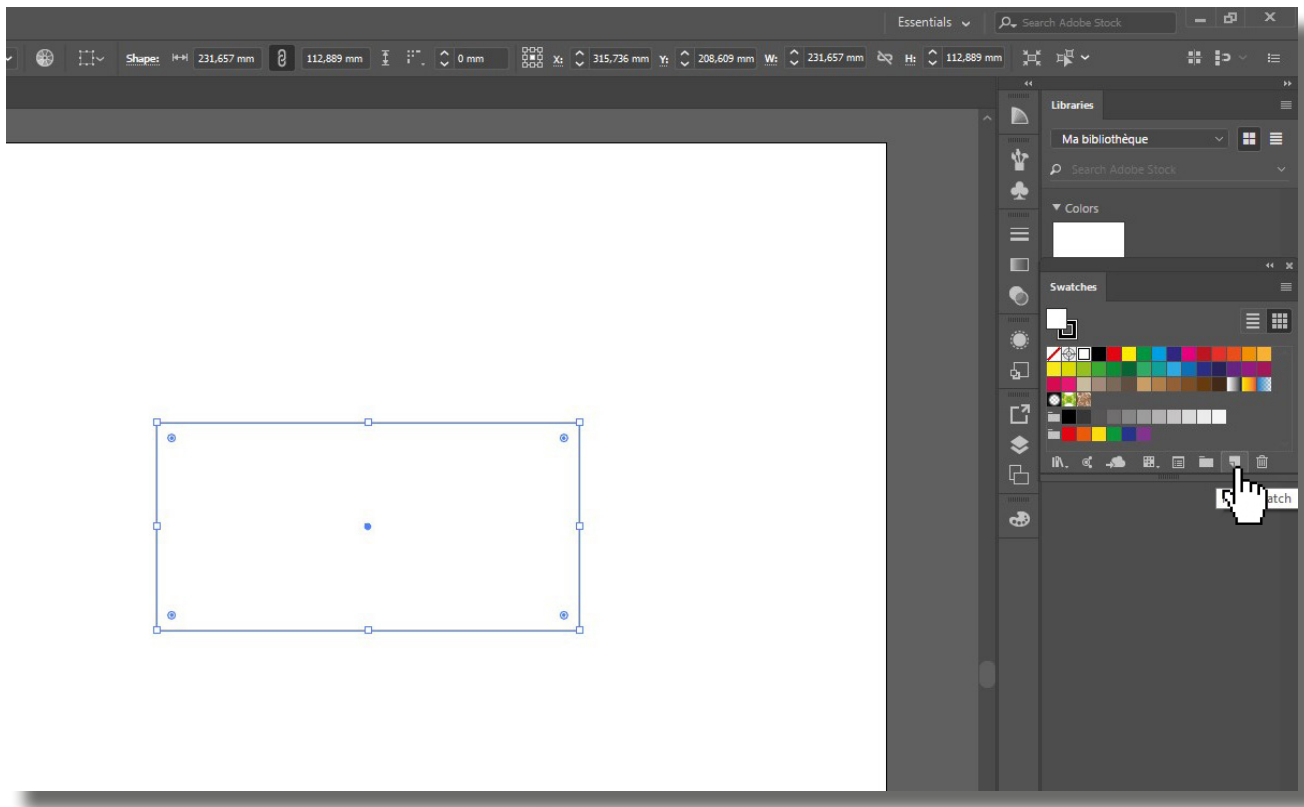

7. Click «**OK**».

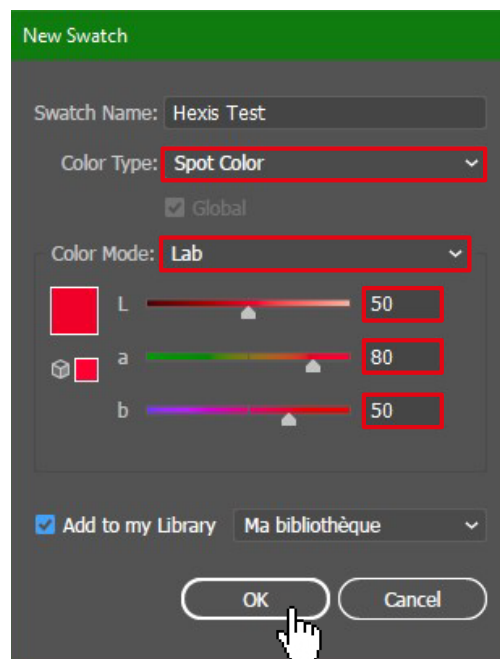### 3.3.3.   Creating a colour that matches a referenced value in RolandVersaWorks under Illustrator
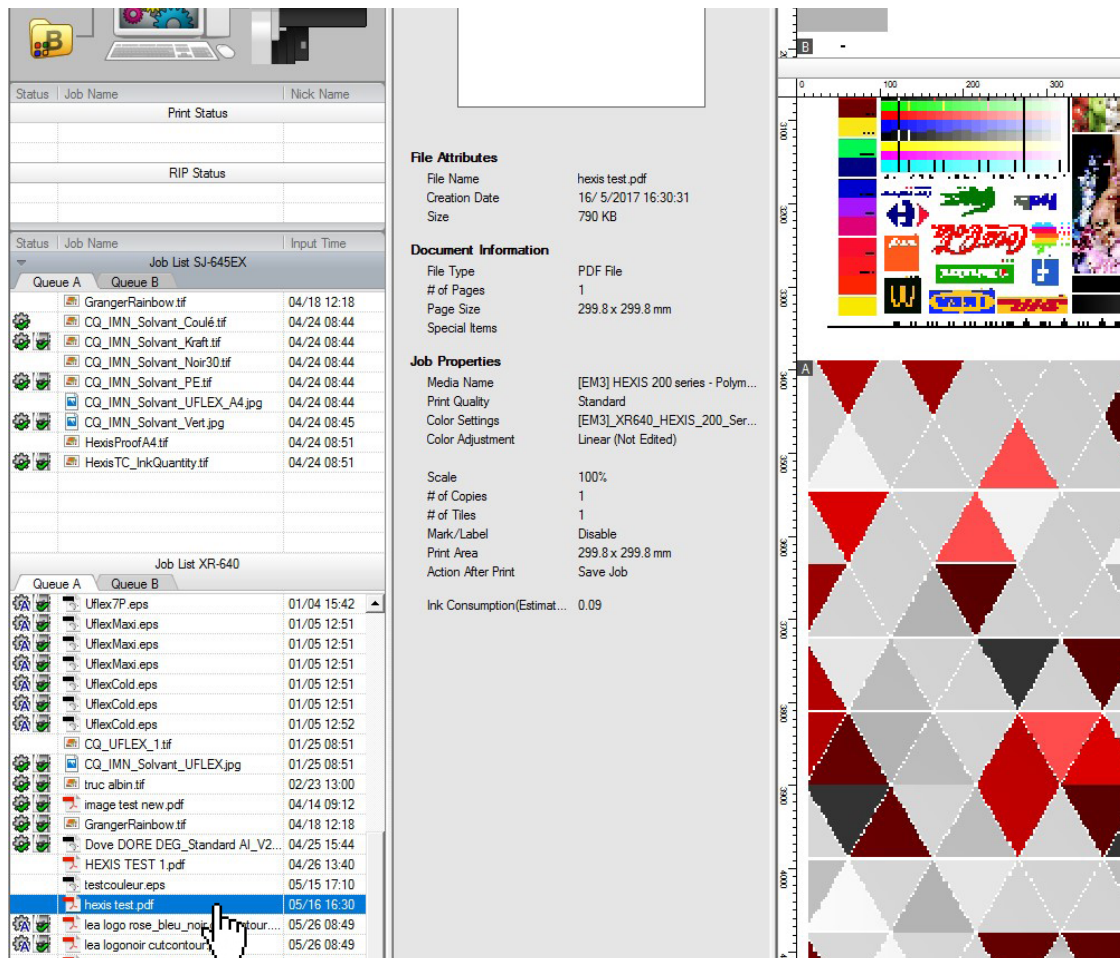
1. Select **the image**.
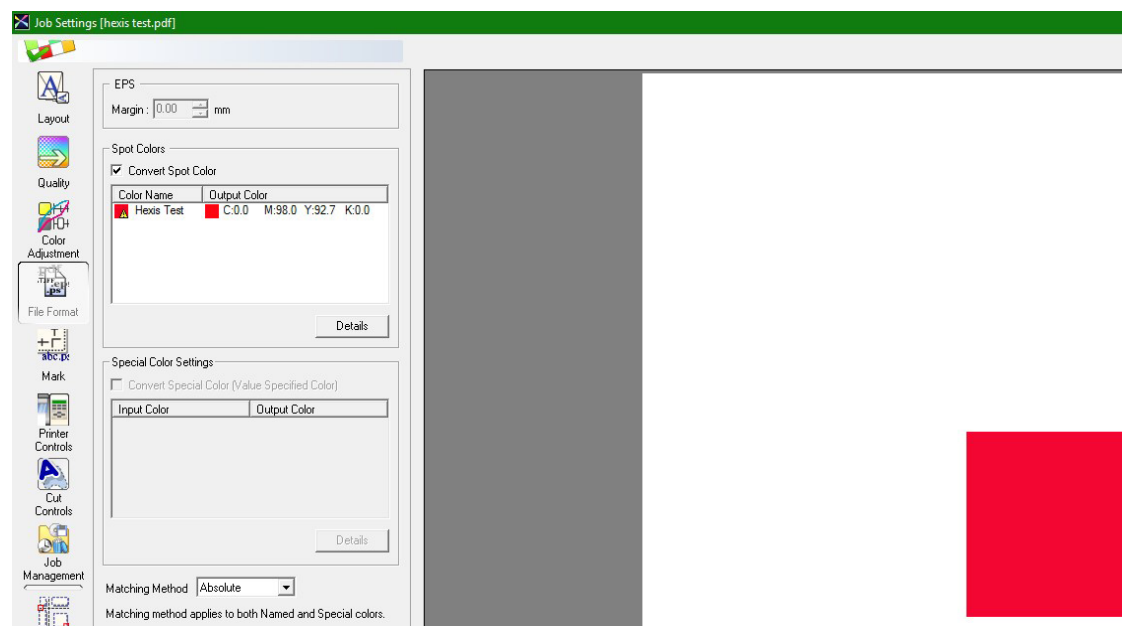
2. Click the «**New Swatch**» button.

3. Enter exactly **the same swatch name** than that in RVW.
4. Select «**Spot Colour**».
5. Reference **the LAB values** matching the desired visualisation colour.
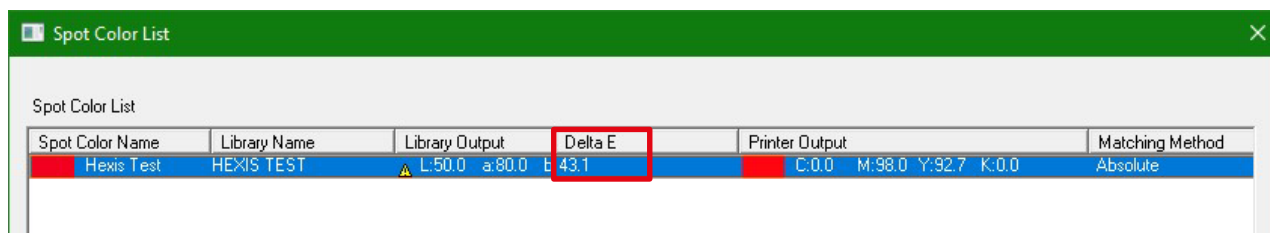6. Click «**OK**».

7. Save the file.
8. Open **the image** in RolandVersaWorks.

9. Double-click **the image**.

10. Open the «**File Format**» tab.
11. Check if the colour is taken into account.

12. Click the «**Details**» button to control the printing accuracy of your spot colours using Delta E.

Delta E is a value which expresses the colour lag perceived between two coloured swatches. The smaller the displayed value, the lower the colour difference perceived between the two swatches.

Delta E Value	Correspondence between two colours
dE<1	**very close**
1<dE<2.5	**acceptable**
dE>2.5	**distanced**

Some spot colours are not printable by your machine (outside the gamut). For example, the Delta E Value shown here is 43.1. This means that the printed colour using the above setting will be different from the referenced colour.