User Guide
ADVANCED PLAN

COLORCHECK

INDEX

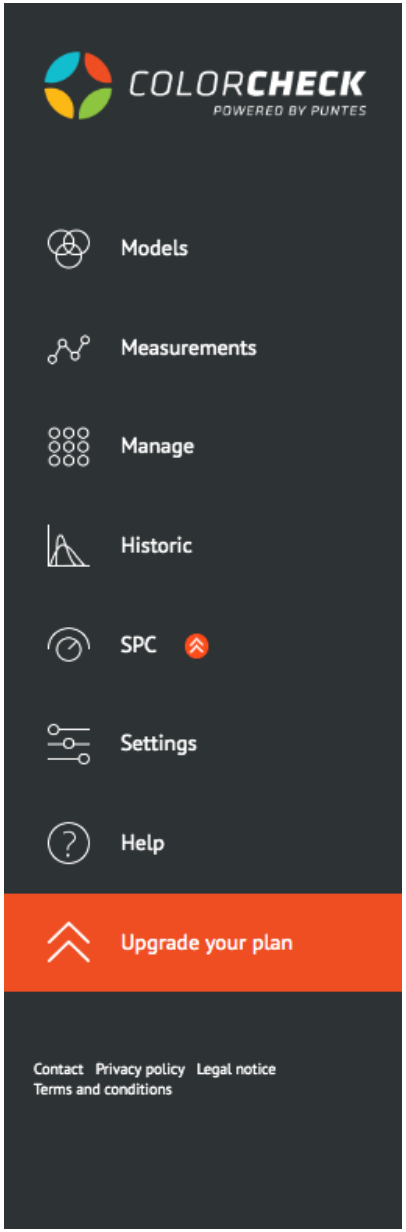
ADVANCED PLAN

Track your measurements much more efficiently thanks to the historical data record.

You can manage your account in the way that best suits you, being able to add or modify your own aniloxes, supports, machines, inks, patches strips…

(The SPC option is available in the premium plan)

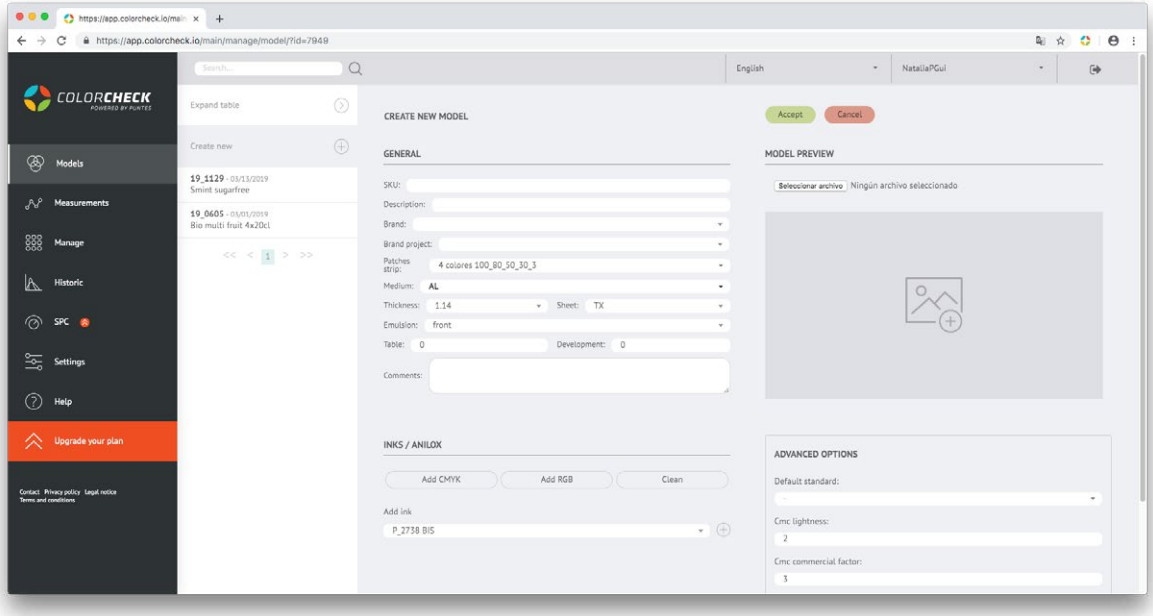
In this user guide, we will explain how to create models, perform measurements and manage your account in the way that best fits with your needs.



MODELS

The creation of a new model is done to make one or several measurements linked to it.
In it, we will specify all parameters that will subsequently influence the measurement: patches strip, number of inks...

We click on ‘Models’ ‘Create new’ and fill in.



BASIC INFORMATION OF THE MODEL:

SKU: numeric code that is usually used in storage management. A numerical reference (or not) with which the model can be easily identified unequivocally.

Description: Name or keywords to identify the model easily in a search

Brand: Brand of the model

(only in combination with a brand account)

Brand project: (only in combination with a brand account)

Patch strip: We choose the strip that we are going to measure. (if desired, the measurement can be changed)

Support: type of material in which it has been printed.

Thickness: of the plate used

Plates: material used

Emulsion: if printed on the surface or on reverse

Table: Print width

Development: Development (high) of printing

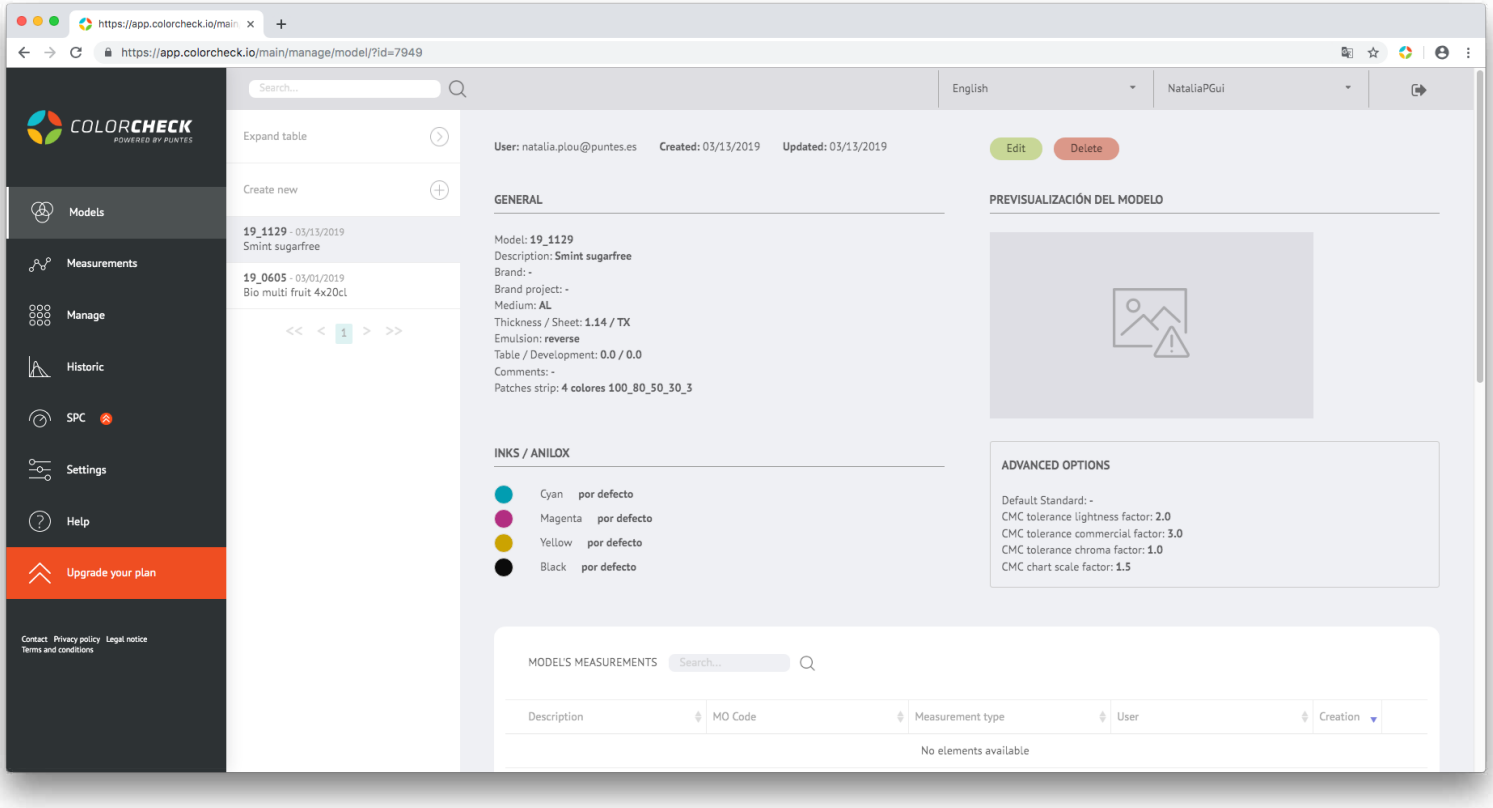
Comments: if you want to add any additional note about the model, some printing defect to take into account, any special condition that has been used in that model ...

In advanced options you can edit the color tolerances for the direct inks of the model. We use the CMC system.

This system creates ellipsoids that are based on the human eye's color discrimination threshold, which is why it is often used for high accuracy in evaluations and quality control inspections.

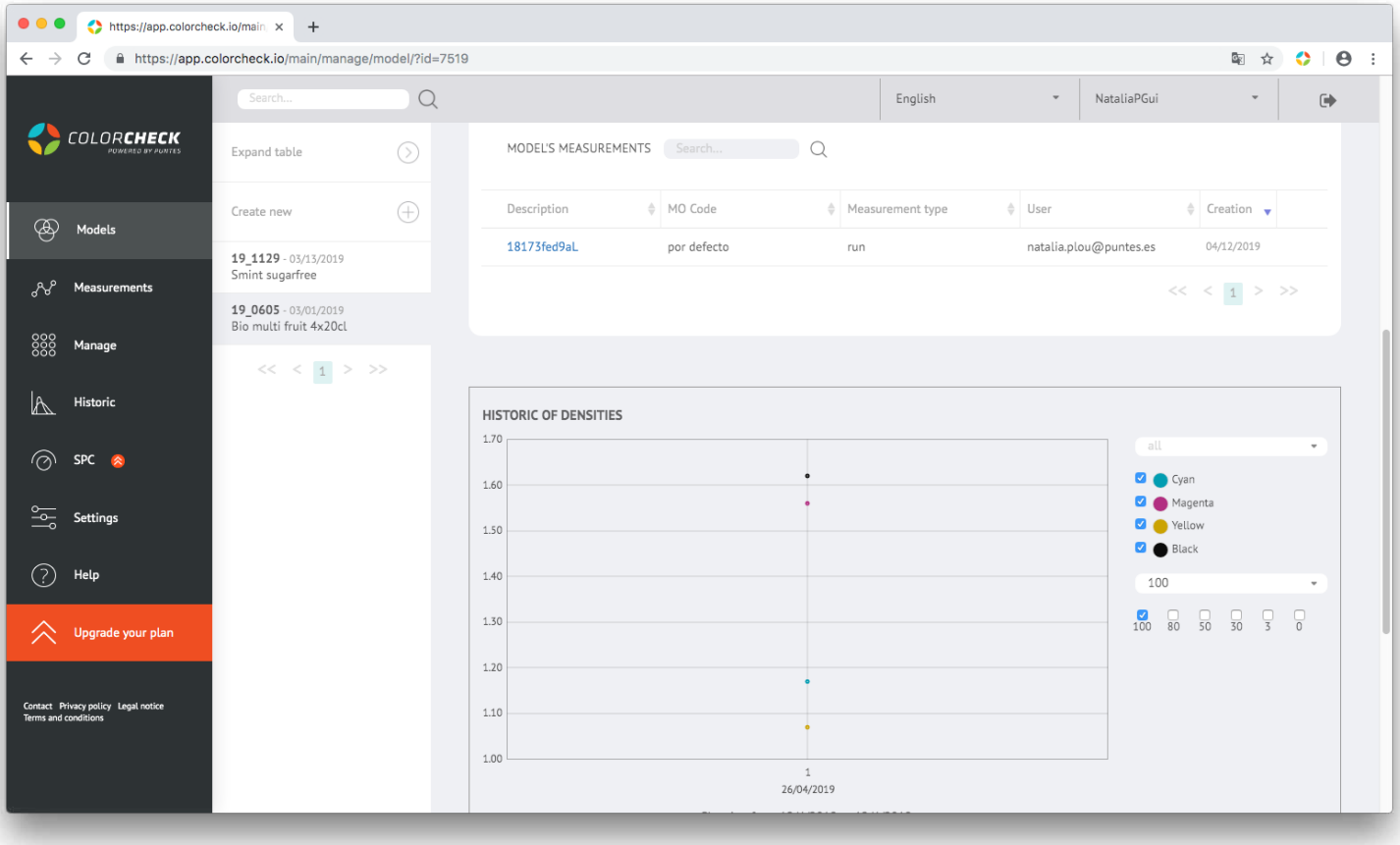
For more information about this type of color tolerance you can see it in this page:
http://www.mcolorcontrol.com/archivos/L10-281_LeadGenPoster_es.pdf

All this information can also be completed by adding an image of the model for its preview.



When a measurement linked to this model has been performed, it will appear below, in order to access to the data of that measurement with a single click.

The information of the model also gives us a density history with the data of all the measurements perform with this model (in the case of the example it doesn't appear graphic because we only have a measurement linked to this model).



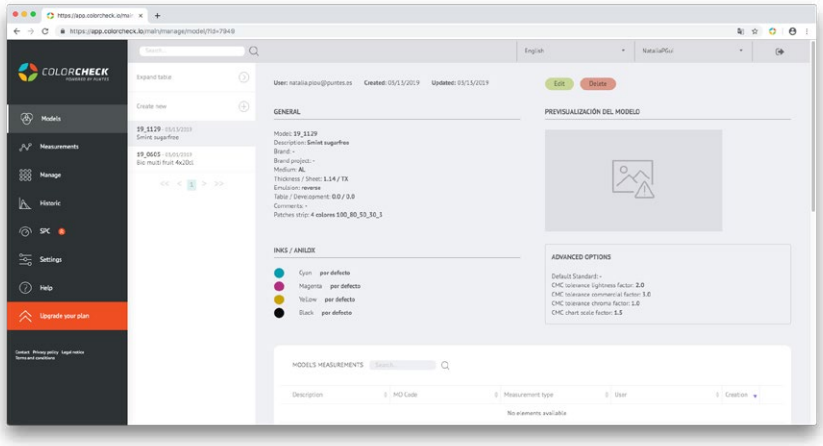
The new models added appear in the column on the left, next to the menu according to creation order, with the newest ones appearing first on the list.

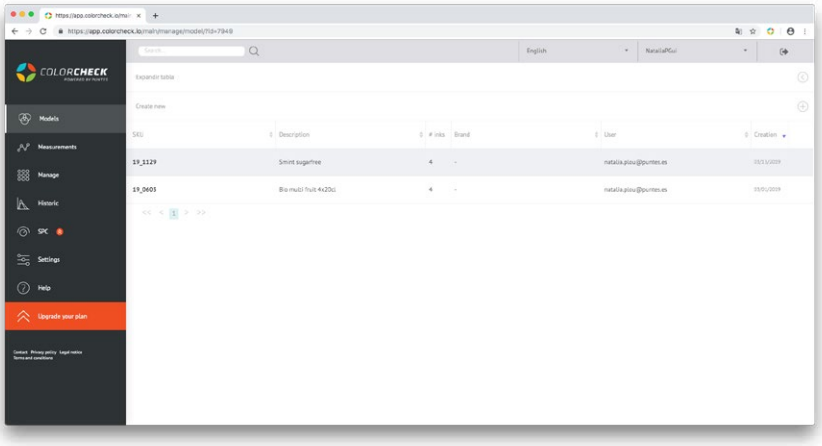
In this column will be visible the ‘SKU’, the date and the description of the model with the naked eye, but the first model of the column is always selected, therefore from that model you can see all the information that we used to create it, until selected another one.

The option of previewing our models with the expanded table is also available.

In this way the ‘SKU’, the description, the number of inks, the brand, the user and the date of creation are visible.

The advantage is that you can reorder the models using the arrows, for example to sort them by creation date, the most recent first or vice versa.





MEASUREMENTS

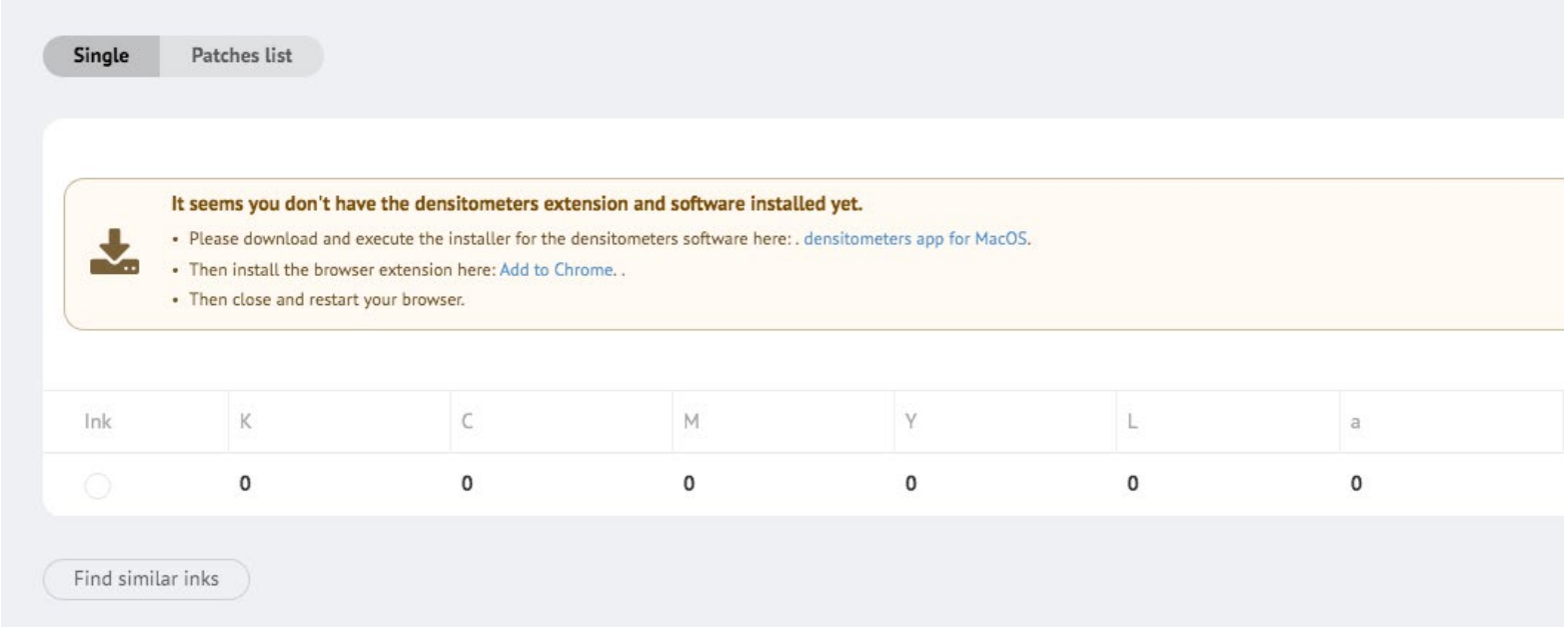
In this plan we have two options

The first option is to make a **QUICK MEASUREMENT**

Inside this option we have two possibilities:

The first one, make a **SINGLE MEASUREMENT**

This type is used in order that, when measuring a color, Colorcheck gives you a list of the Pantones that most match with this color according to ΔE.

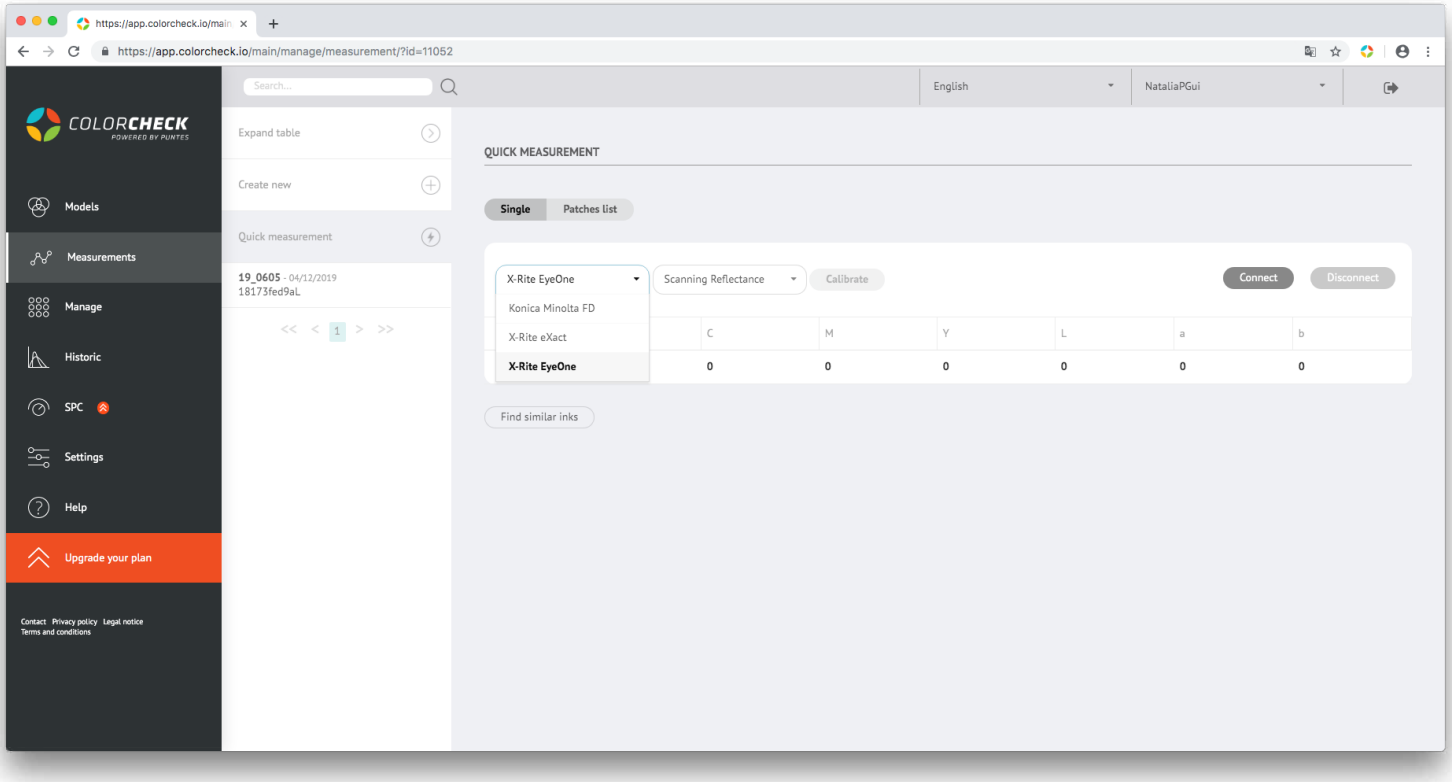


NOTE:

If it's the first time in Colorcheck, it asks you to install the densitometers extension and software.
You only need to follow the instructions that appear in the cream-colored window.

Once the densitometers extension and software are installed, we will connect the measuring device.

1º We select the measuring device that we are going to use



2º We select the measurement method:

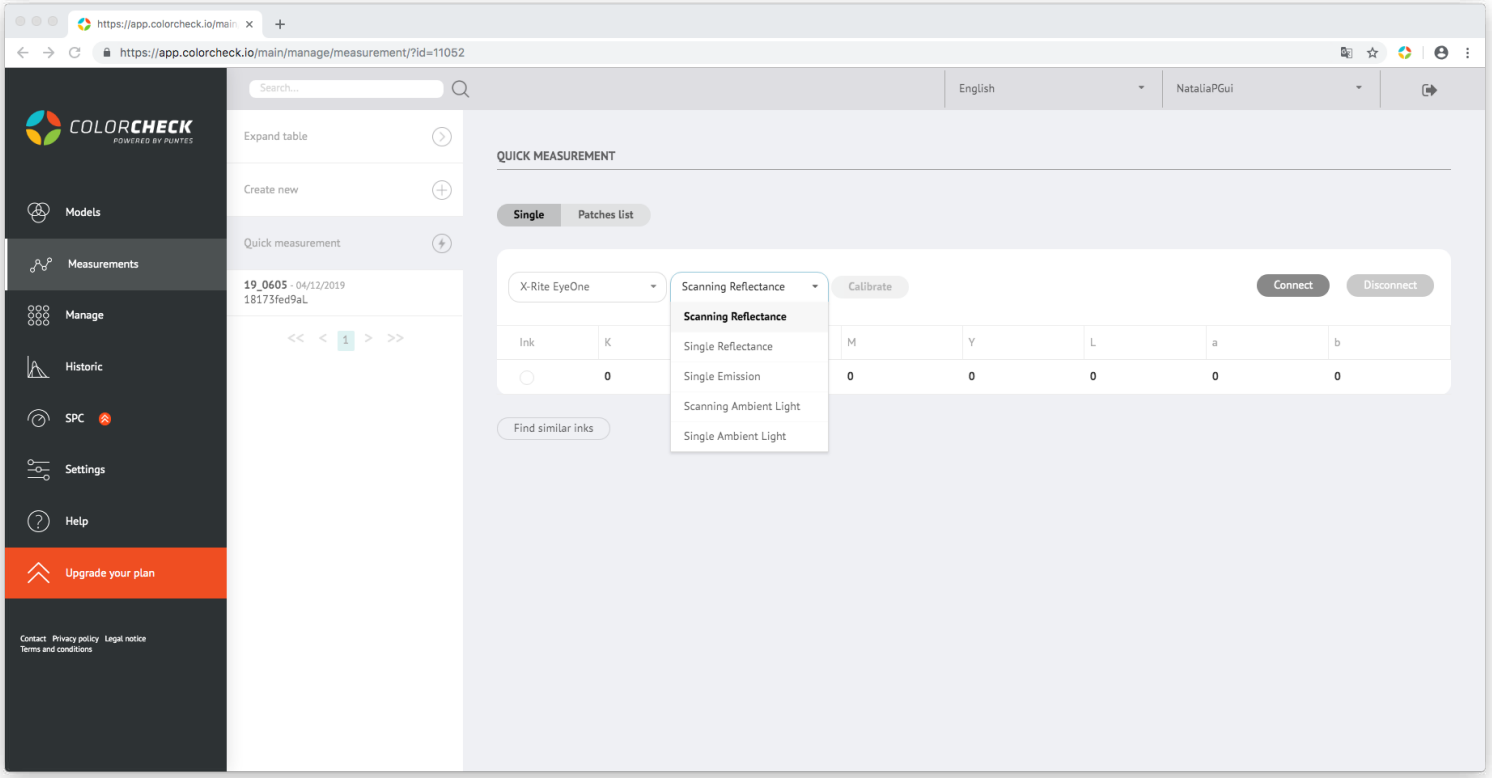
- Scanning Reflectance (scanning mode)
- Single Reflectance (patch by patch)

(These two options are for measuring prints)

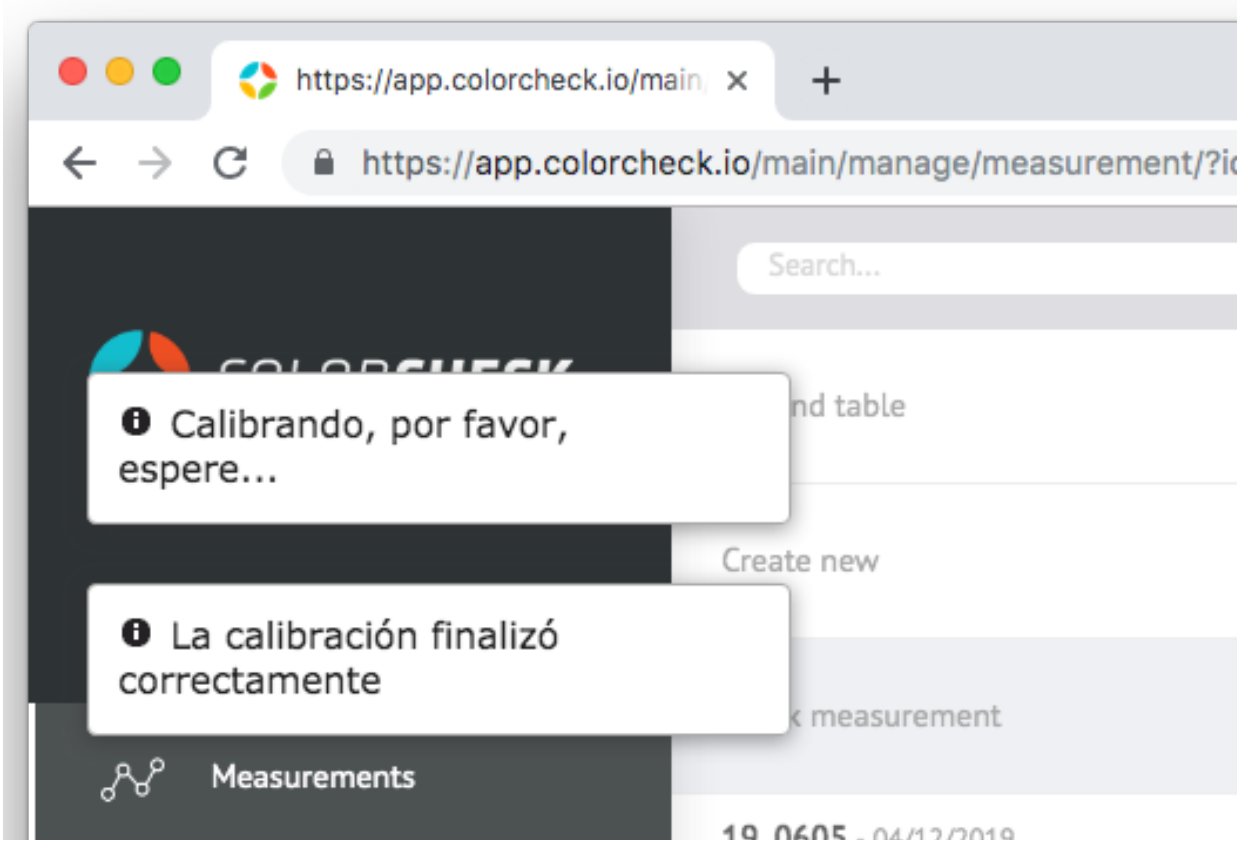
- Single Emission
- Scanning Ambient Light
- Single Ambient Light

for now they aren't available

In this case we should select '**SINGLE REFLECTANCE**'



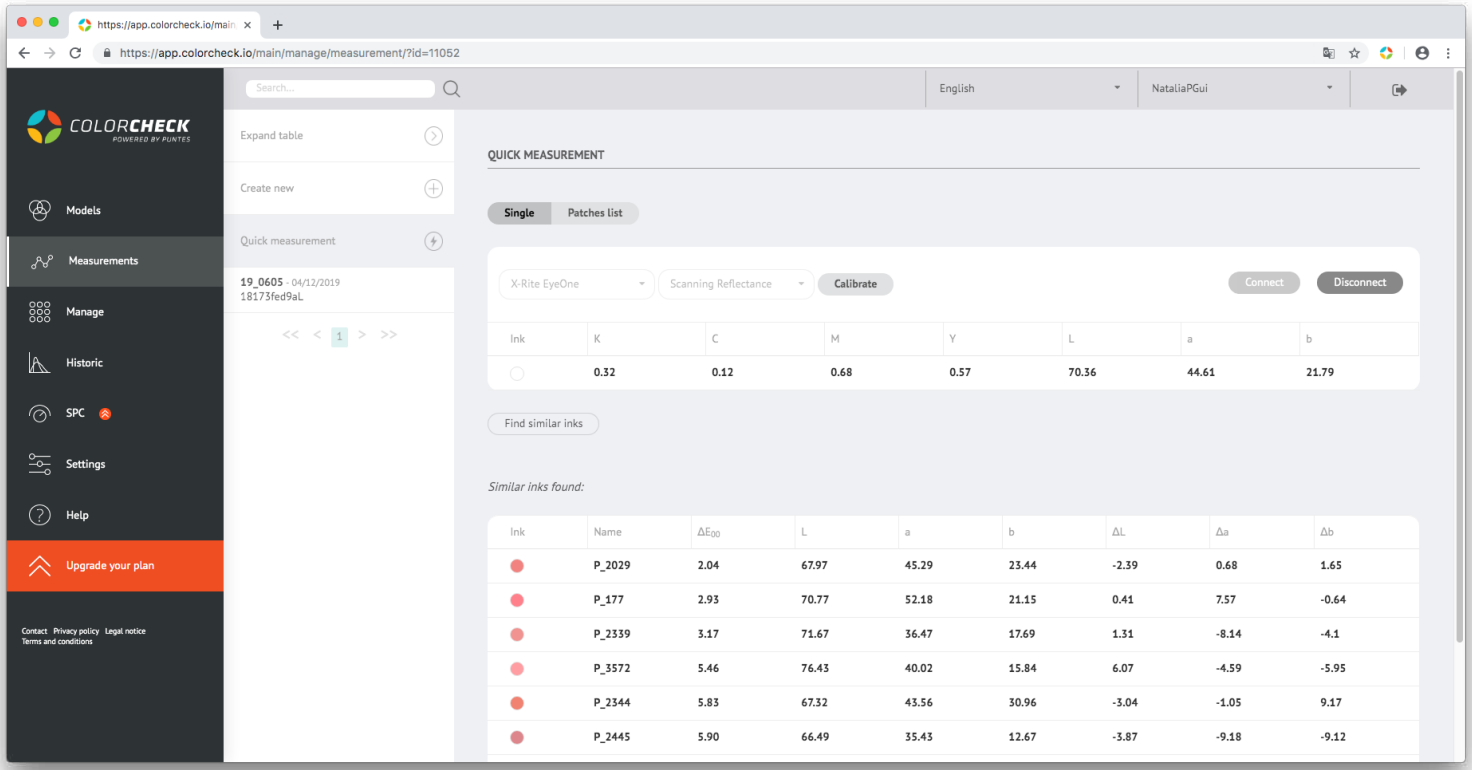
3º Once selected the device and the measurement mode, ‘CONNECT’ and ‘CALIBRATE



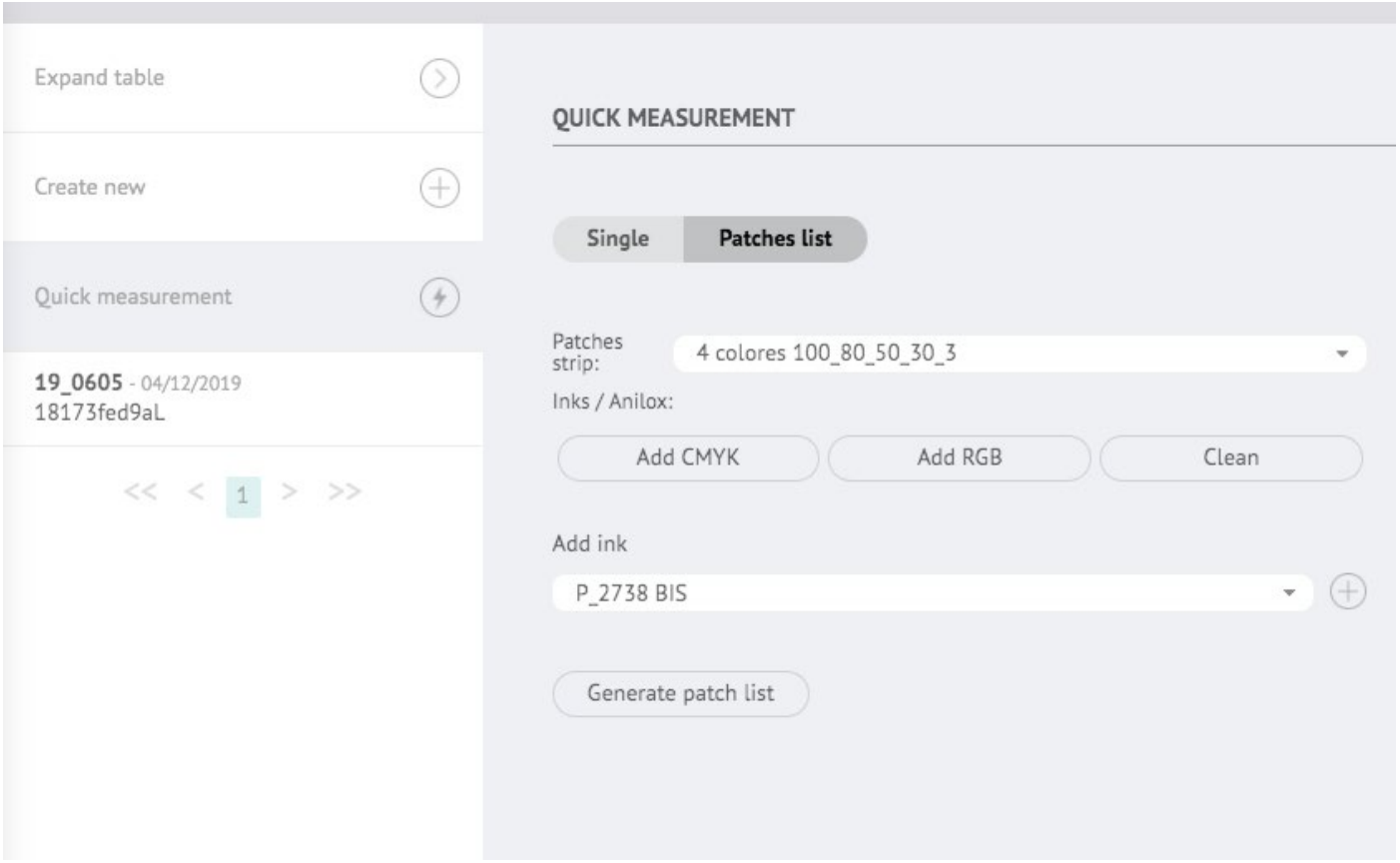
When ‘The calibration finished correctly’ appears in the upper left part of the screen, you can take the measurement.

This is what appears once the measurement is made.

The composition of the color that has been measured in CMYK and LAB, and a list of the most similar Pantones to the color that has been measured, ordered from lower to higher Delta E_{00} and their respective LAB compositions.

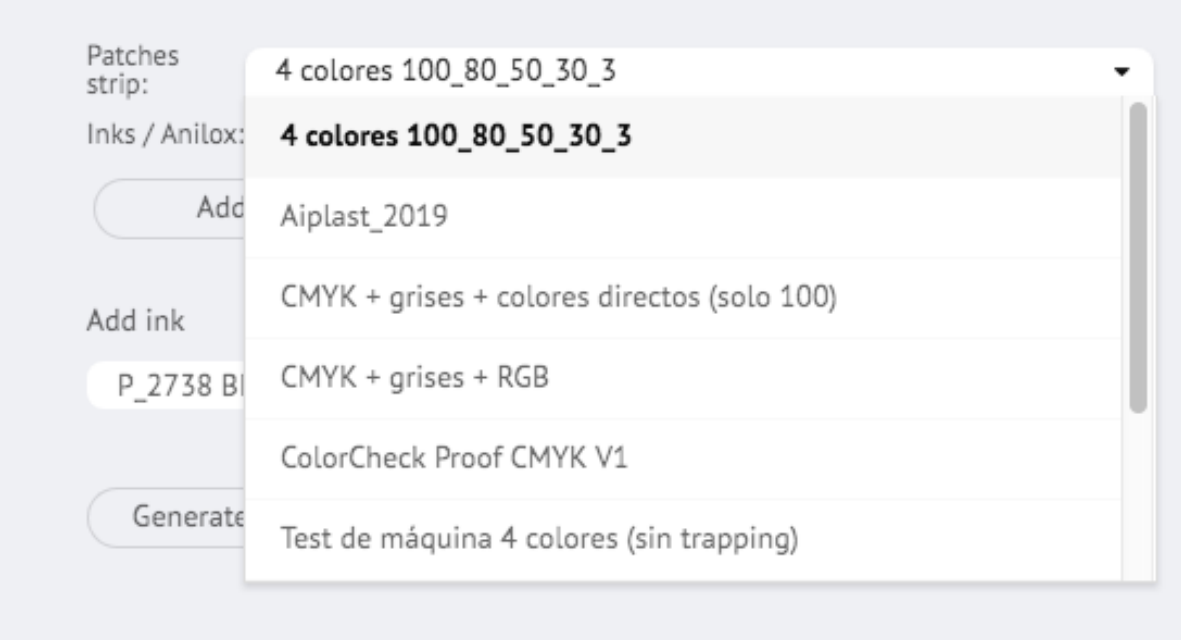


The second alternative in the quick measurement is to measure a **PATCHES LIST**



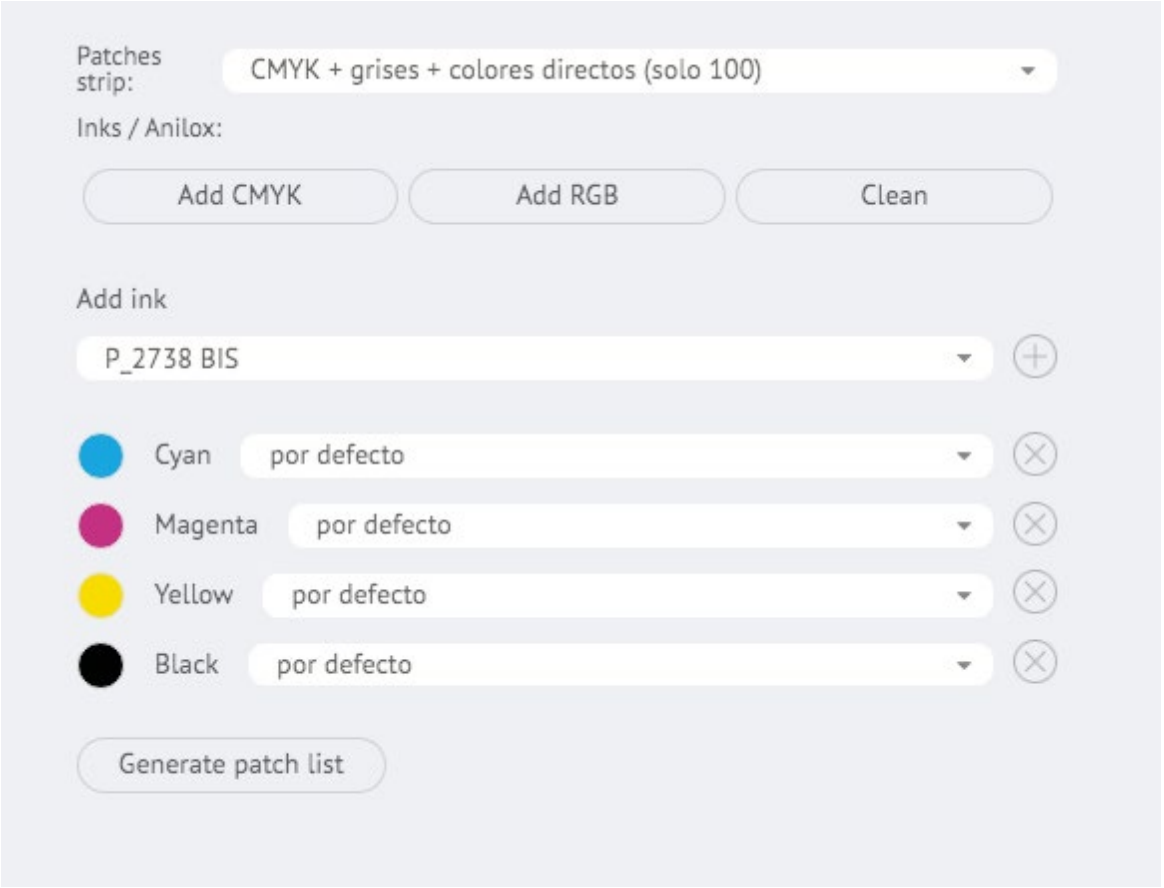
The first thing we must do if we want to use this type of measurement is to choose the options that fit the print we want to measure.

1º Choose the patches strip you need according to what you are going to measure.



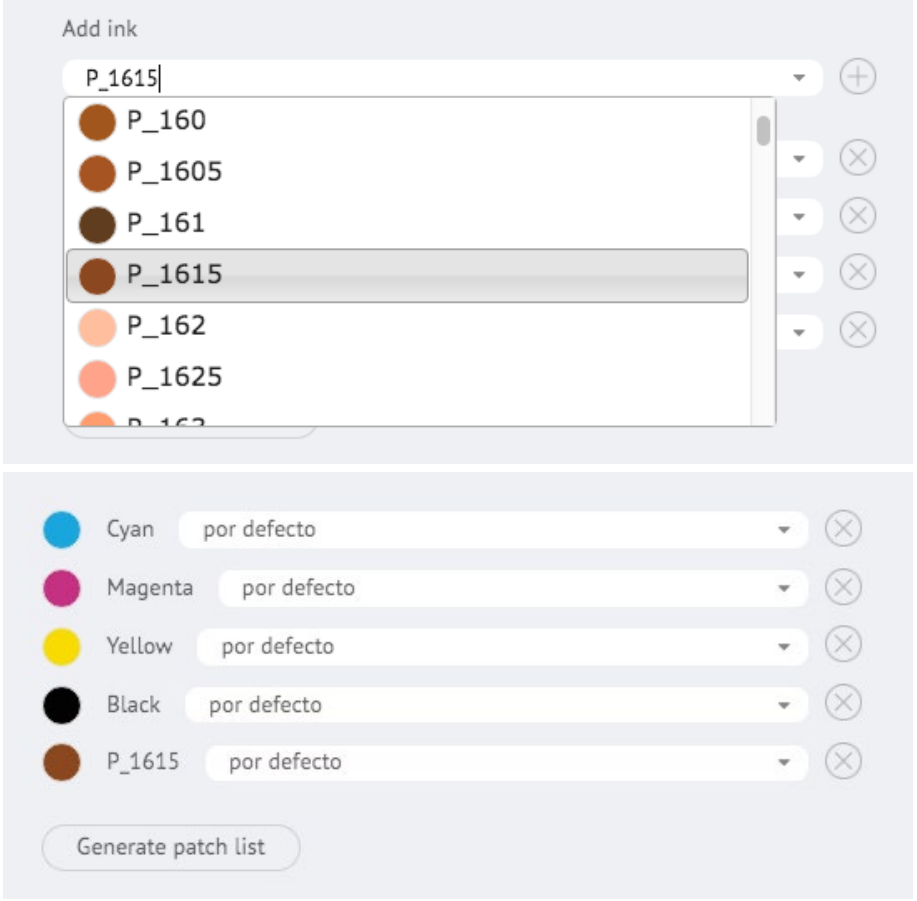
* If there are doubts about which patch strip may be the one that match with the print to be measured, you can see the patches that make up each strip in ‘Manage’ ‘Patches’ (see page 32).

2º Press ‘ADD CMYK’ if it’s a four-color printting process. If you´ve got a seven-color printting process, also press ‘ADD RGB’. And ‘CLEAN’ if you would like to remove everything you’ve chosen.

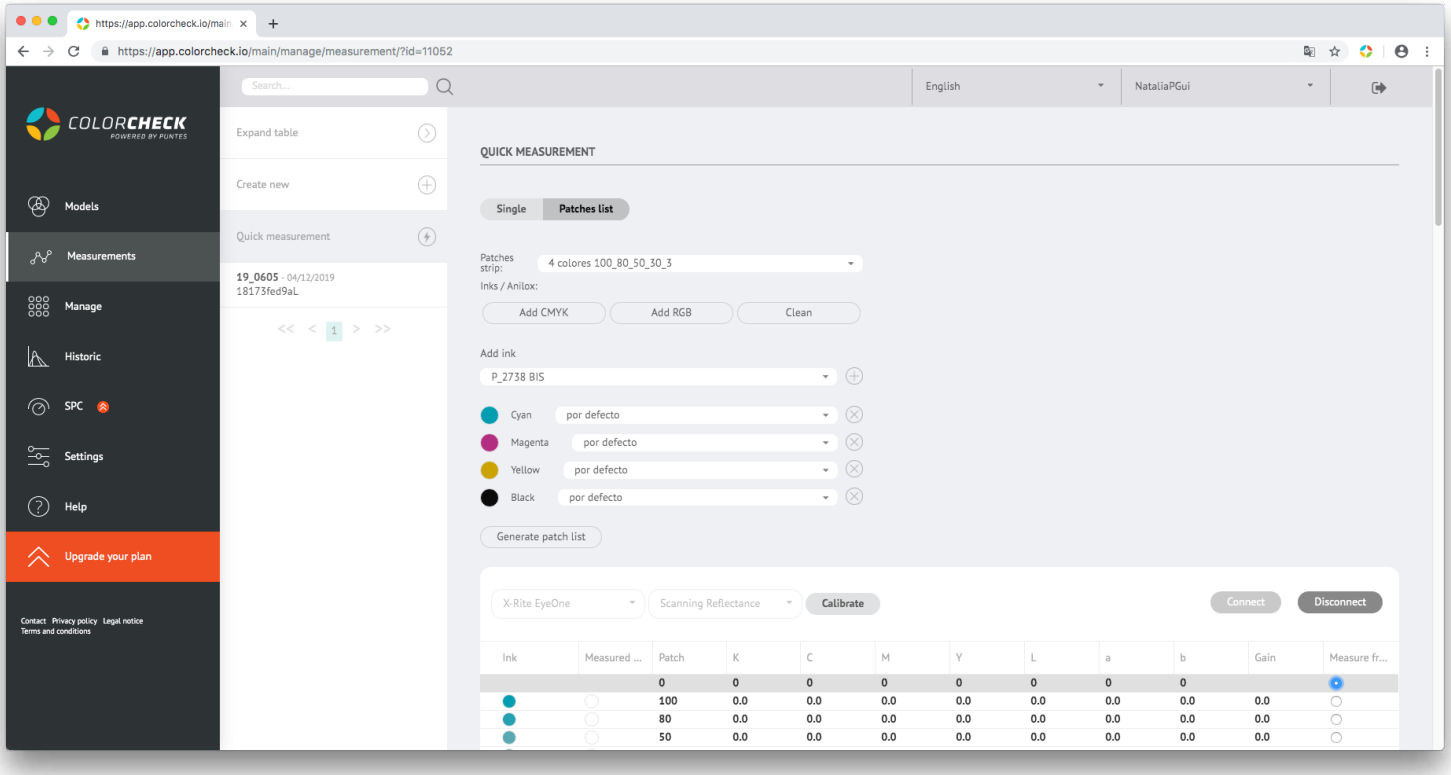


Into all the options we have when we choose inks to generate the patch strip, we have the possibility of adding other inks from the library, for example to complete the strip cmyk+gray+direct colors.

Select the ink you need from the drop-down and press the '+'
(to remove one of the inks you just need to clik on the 'X' of this ink, also for CMYKRGB, for example for a three-color printting process, only CMY, the black is removed)



3º Once you choose the strip, and the inks you need, press ‘GENERATE PATCH STRIP’ and each patch to measure on the strip will appear.



4º Connect the cable of the measuring device to the computer.

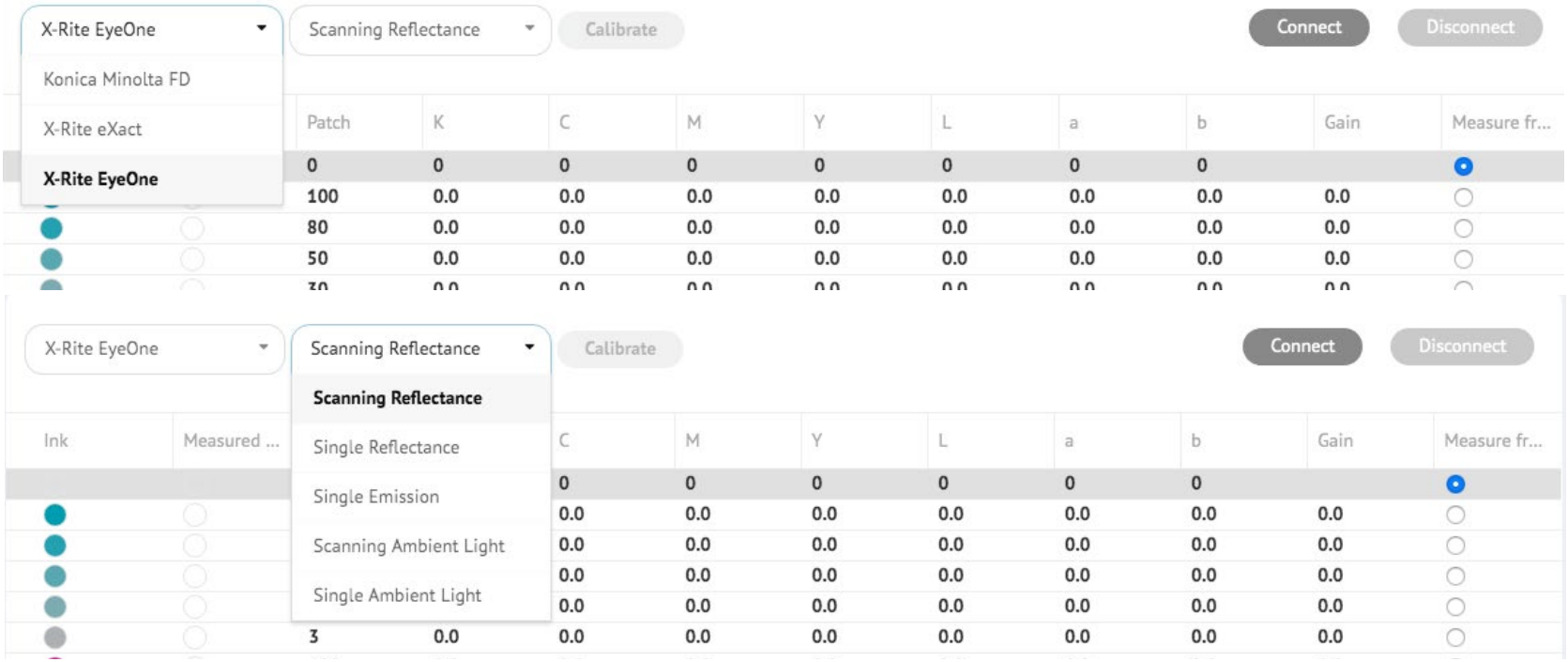
5º Select the measuring device you're going to use and then measurement method.

- Scanning Reflectance (scanning mode)
- Single Reflectance (patch by patch)

(These two options are for measuring prints)

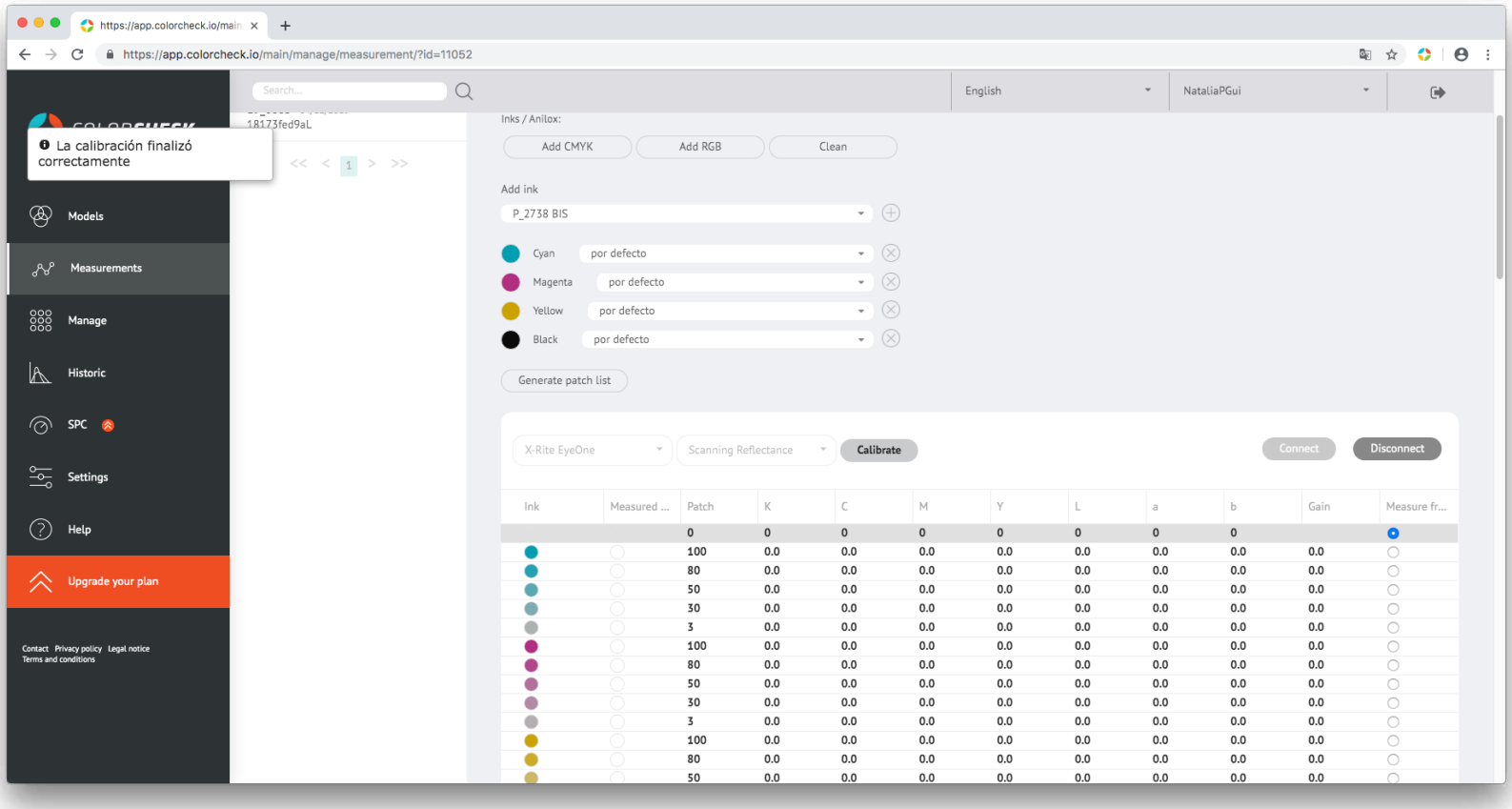
- Single Emission
- Scanning Ambient Light
- Single Ambient Light

for now they aren't available



Note:
To change the measurement mode once the device is connected, first disconnect it, change the mode and reconnect.

6º Finally Click on ‘CONNECT’ and once connected, click on ‘CALIBRATE’.

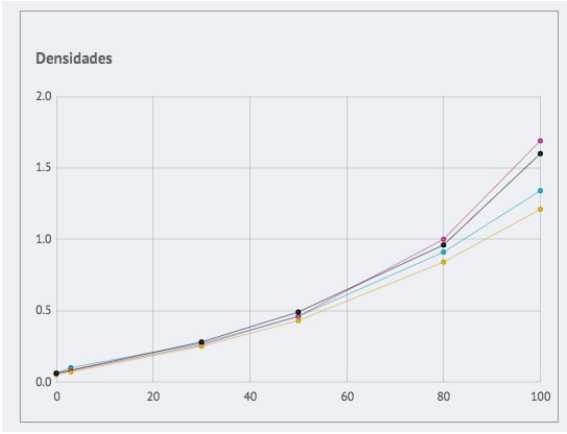


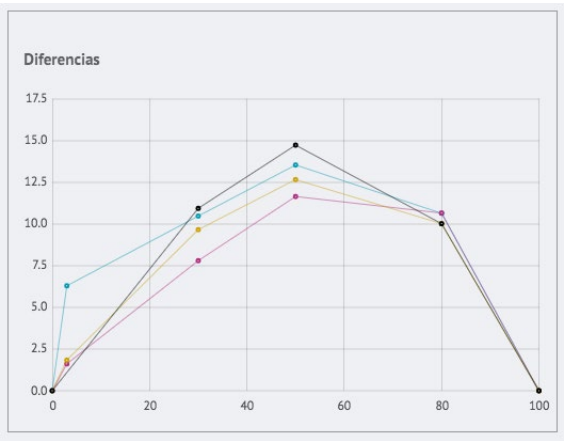
When ‘The calibration finished correctly’ appears in the upper left part of the screen, you are ready to measure your strip.

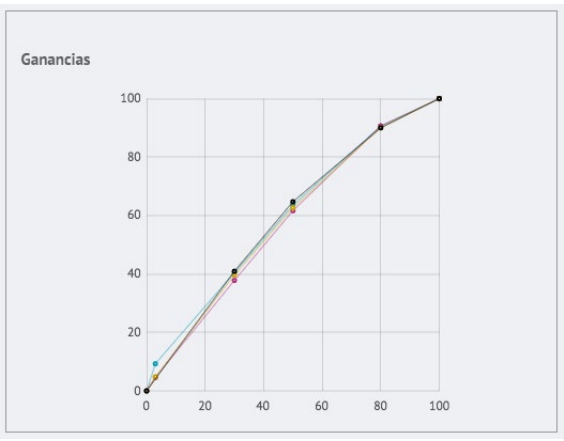
This would be an example of strip measurement performed correctly, both in a quick measurement (patch strip) and in a normal one:

X-Rite EyeOne | Scanning Reflectance | Calibrar | Conectar | Desconectar

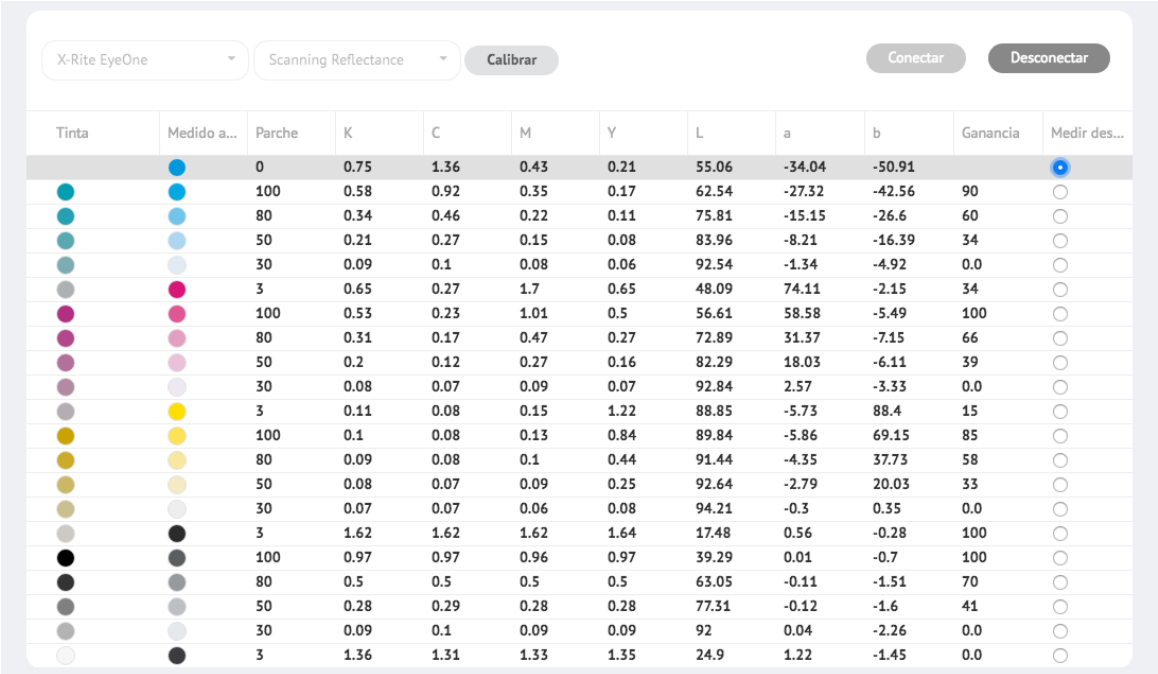
Tinta	Medido a...	Parche	K	C	M	Y	L	a	b	Ganancia	Medir des...
		0	0.06	0.06	0.06	0.05	94.93	-0.04	-2.71		
		100	0.74	1.34	0.42	0.2	55.58	-34.34	-50.97	100	
		80	0.58	0.91	0.34	0.16	63.04	-27.47	-42.68	91	
		50	0.33	0.46	0.21	0.11	76.23	-15.56	-26.9	64	
		30	0.21	0.27	0.14	0.08	84.48	-8.44	-16.54	40	
		3	0.08	0.1	0.07	0.05	93.21	-1.58	-4.91	9	
		100	0.64	0.26	1.69	0.64	48.46	74.48	-2.29	100	
		80	0.52	0.23	1	0.5	56.93	58.76	-5.54	91	
		50	0.31	0.16	0.46	0.26	73.31	31.38	-7.19	62	
		30	0.19	0.11	0.26	0.16	82.73	18.01	-6.15	38	
		3	0.08	0.07	0.08	0.06	93.4	2.42	-3.43	5	
		100	0.11	0.08	0.14	1.21	89.46	-6.07	88.83	100	
		80	0.1	0.08	0.12	0.84	90.41	-6.19	69.71	90	
		50	0.08	0.07	0.1	0.43	92.02	-4.57	38.16	63	
		30	0.07	0.07	0.08	0.25	93.24	-3.06	20.27	40	
		3	0.06	0.06	0.06	0.07	94.82	-0.54	0.36	5	
		100	1.6	1.6	1.59	1.61	18.06	0.61	-0.59	100	
		80	0.96	0.96	0.95	0.96	39.59	-0.02	-0.9	90	
		50	0.49	0.5	0.49	0.49	63.46	-0.26	-1.48	65	
		30	0.28	0.28	0.27	0.28	77.71	-0.37	-1.56	41	
		3	0.09	0.09	0.08	0.08	92.68	-0.21	-2.29	0.0	



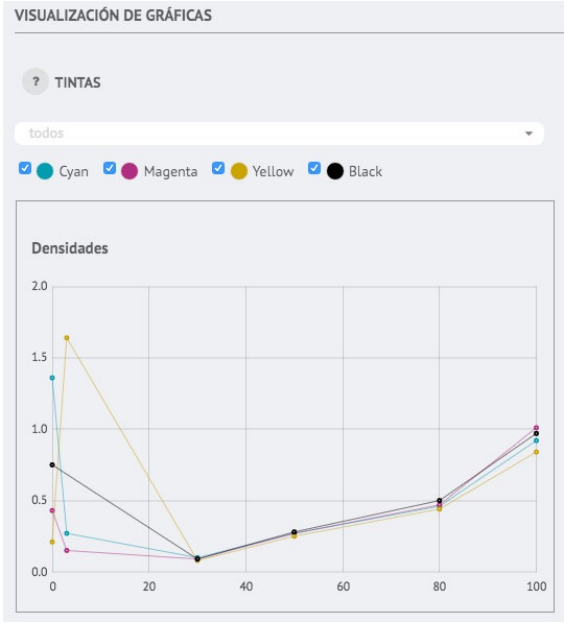




This would be a clear example of wrong strip measurement:



Tinta	Medido a...	Parche	K	C	M	Y	L	a	b	Ganancia	Medir des...
		0	0.75	1.36	0.43	0.21	55.06	-34.04	-50.91		
		100	0.58	0.92	0.35	0.17	62.54	-27.32	-42.56	90	
		80	0.34	0.46	0.22	0.11	75.81	-15.15	-26.6	60	
		50	0.21	0.27	0.15	0.08	83.96	-8.21	-16.39	34	
		30	0.09	0.1	0.08	0.06	92.54	-1.34	-4.92	0.0	
		3	0.65	0.27	1.7	0.65	48.09	74.11	-2.15	34	
		100	0.53	0.23	1.01	0.5	56.61	58.58	-5.49	100	
		80	0.31	0.17	0.47	0.27	72.89	31.37	-7.15	66	
		50	0.2	0.12	0.27	0.16	82.29	18.03	-6.11	39	
		30	0.08	0.07	0.09	0.07	92.84	2.57	-3.33	0.0	
		3	0.11	0.08	0.15	1.22	88.85	-5.73	88.4	15	
		100	0.1	0.08	0.13	0.84	89.84	-5.86	69.15	85	
		80	0.09	0.08	0.1	0.44	91.44	-4.35	37.73	58	
		50	0.08	0.07	0.09	0.25	92.64	-2.79	20.03	33	
		30	0.07	0.07	0.06	0.08	94.21	-0.3	0.35	0.0	
		3	1.62	1.62	1.62	1.64	17.48	0.56	-0.28	100	
		100	0.97	0.97	0.96	0.97	39.29	0.01	-0.7	100	
		80	0.5	0.5	0.5	0.5	63.05	-0.11	-1.51	70	
		50	0.28	0.29	0.28	0.28	77.31	-0.12	-1.6	41	
		30	0.09	0.1	0.09	0.09	92	0.04	-2.26	0.0	
		3	1.36	1.31	1.33	1.35	24.9	1.22	-1.45	0.0	



It's easy to know when a measurement hasn't been performed correctly.

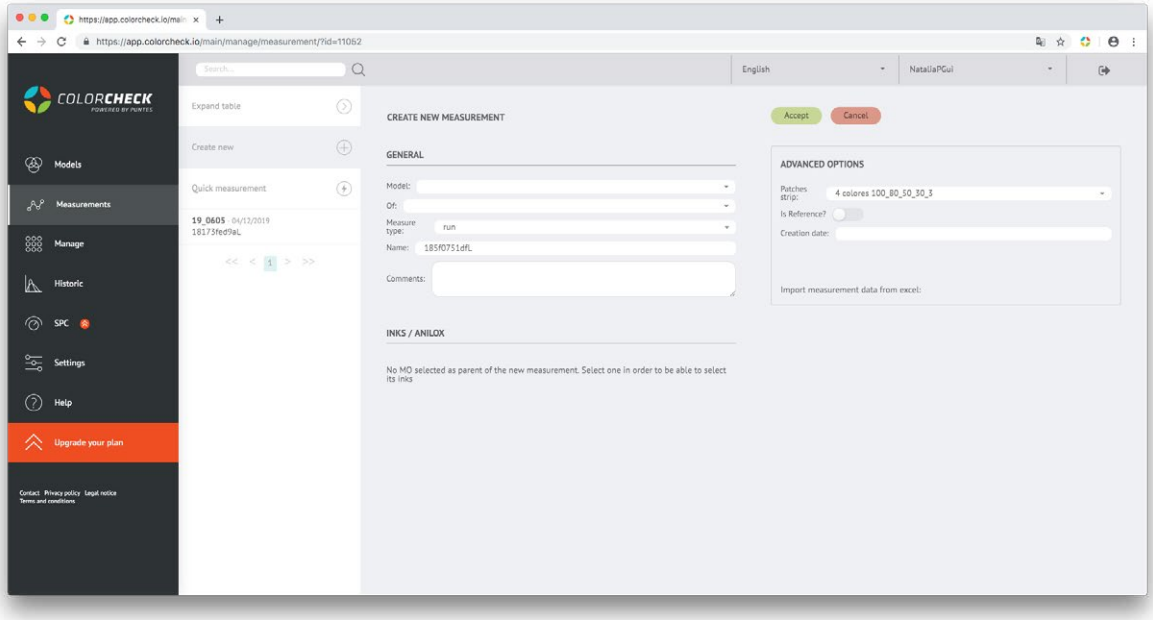
As we can see in the example, the preview of the patches doesn't match because the support has not been measured, so this measurement has to be repeated.

It can also be the case that any loose patch is not measured correctly and we see that in the preview doesn't show the color it should.

In all these cases, an unusual or out of place rise would be observed in the graphs, as can be seen in the screen shot example.

CREATE NEW MEASUREMENT

This type of measurement is saved and recorded in the historical of colorcheck measurements.
Before creating a new model must be registered (see page 5) that corresponds to the measurement to be performed.



BASIC MEASUREMENT INFORMATION

Model: SKU that has been used to register the model.

Manufacturing order: You can create it by ‘Default’ or create your own.

Measurement type: there are three predetermined options

Run: printing validation
Colorproof: for color tests
Setup: printing evaluation

Or the option to create other types of measurement according to the needs of the user.

Name: we usually put the description used in the model or a keyword that helps us to identify the measurement in a search.

Comment: Annexe if you want to highlight some printing error, special condition...

ADVANCED OPTIONS

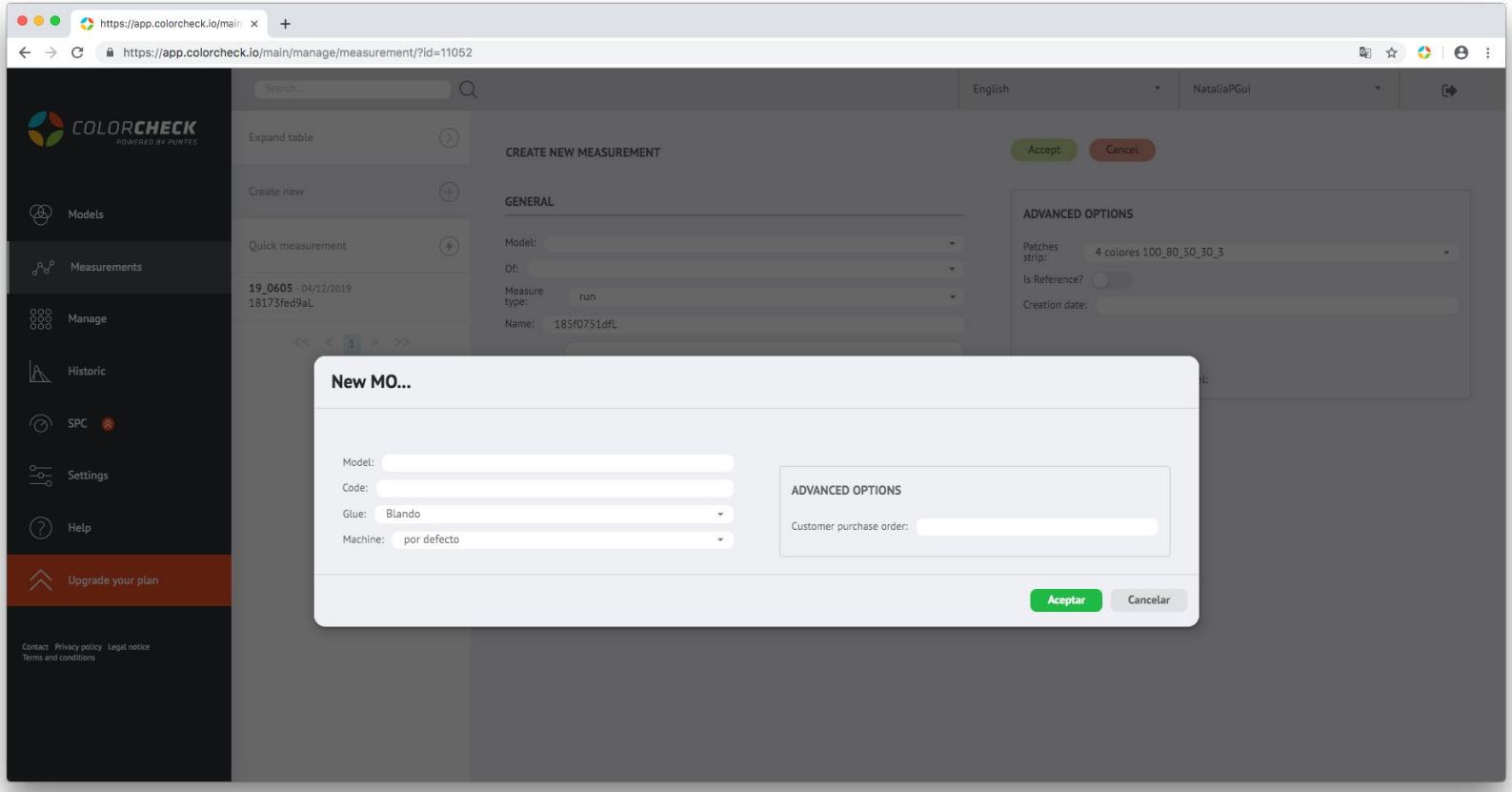
Patch Strip: it is given by the option chosen in the model, but it can be changed from here without having to go back.

It is a standard sample? If this option is activated, colorcheck uses this reference measurement (comparison) for the following measurements that are made.

Creation date: Date of measurement

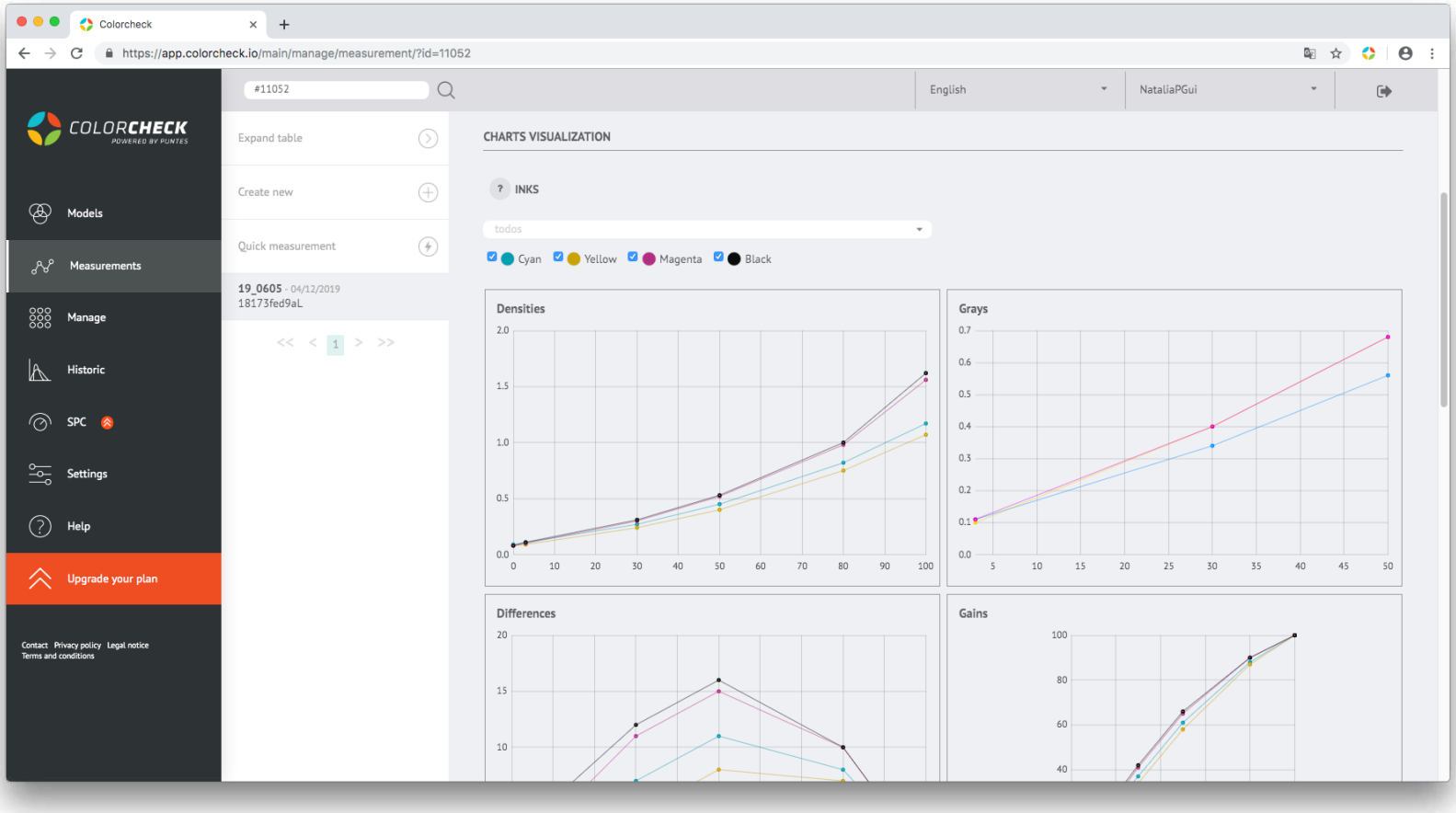
Inside the information that must be filled when a new measurement is created, there is an option to make a new manufacturing order.

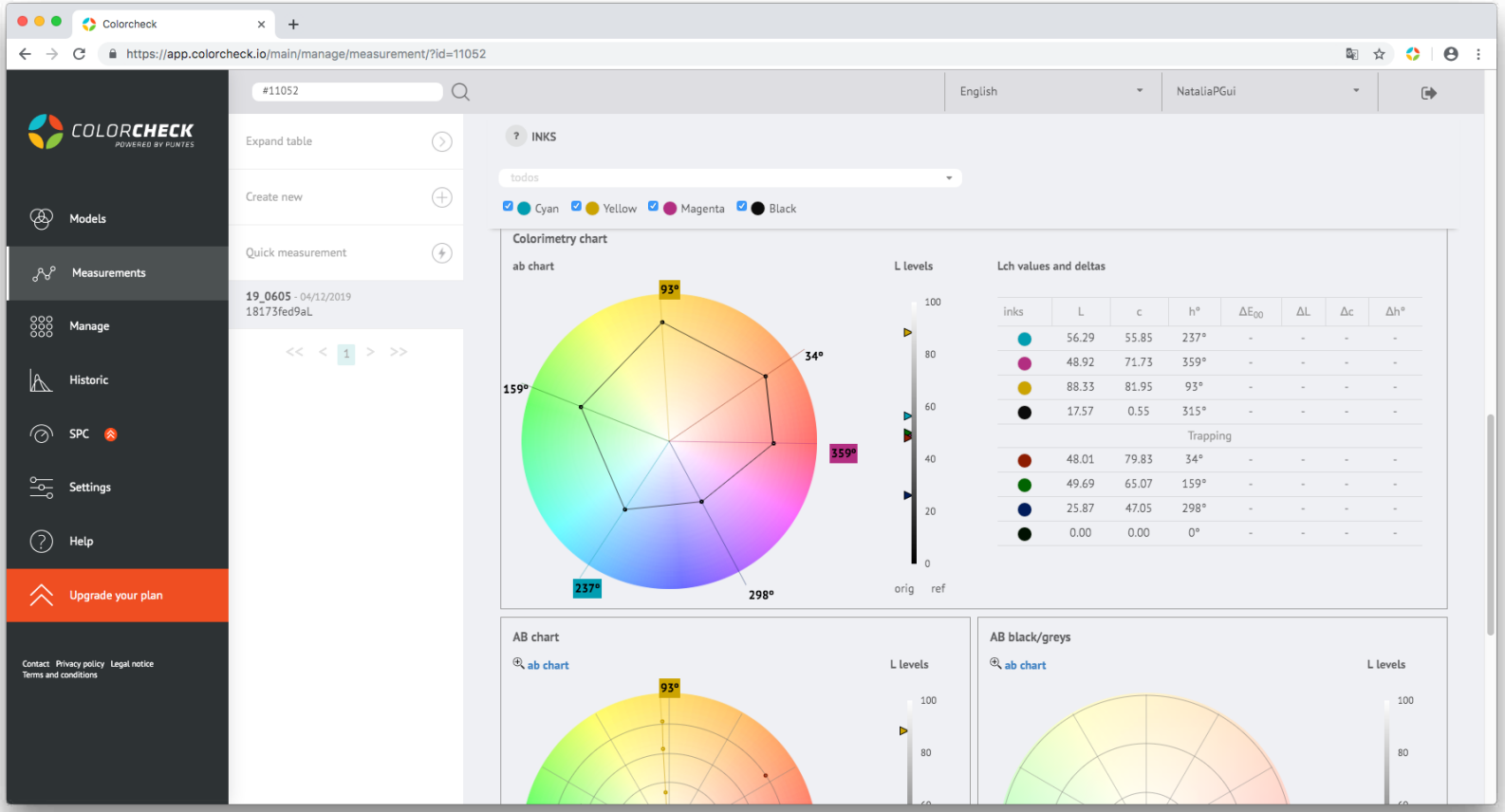
* It can also be created in the ‘Manage’ tab in ‘Manufacturing order’ (page 30)



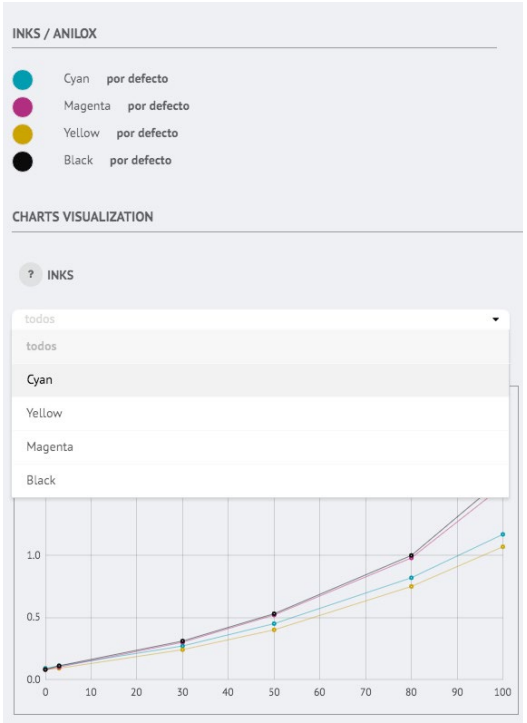
We plug in the measuring device.
We connect and calibrate the measurement device and it's ready to measure (pages 20 and 21)

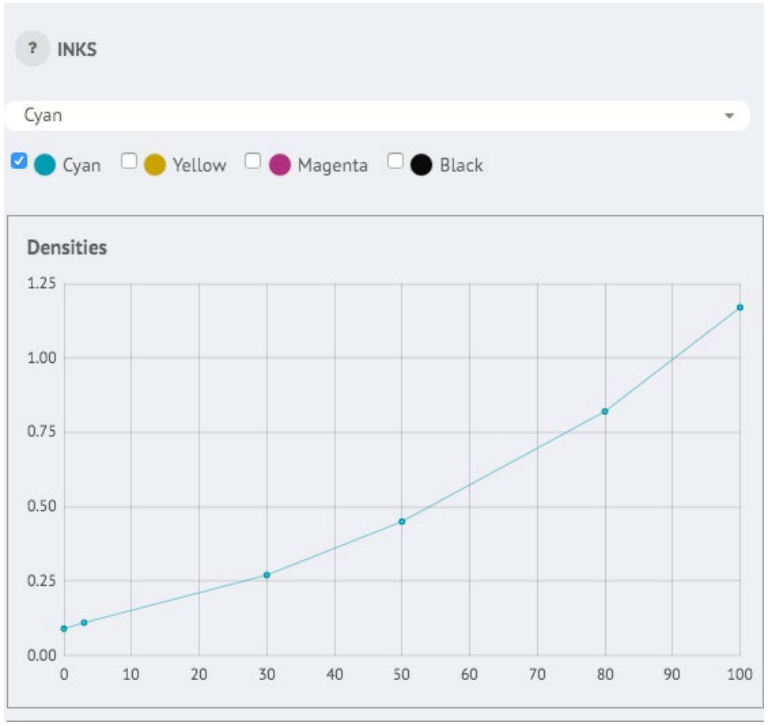
We launch the measurement.
Once the measurement is made all the graphs, densities, gain, grays, colorimetry appear below.

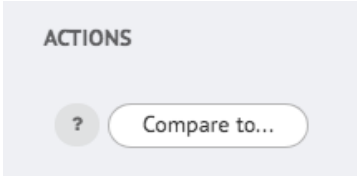



Colorcheck
https://app.colorcheck.io/main/manage/measurement/?id=11052
#11052
English
NataliaPGui
COLORCHECK
POWERED BY PUNTES
Expand table
Create new
Quick measurement
19_0605 · 04/12/2019
18173fed9aL
Models
Measurements
Manage
Historic
SPC
Settings
Help
Upgrade your plan
Contact Privacy policy Legal notice
Terms and conditions
INKS
todos
Cyan Yellow Magenta Black
Colorimetry chart
ab chart
L levels
Lch values and deltas
93°
34°
159°
359°
237°
298°
100
80
60
40
20
0
orig ref
inks L c h° ΔE00 ΔL Δc Δh°
56.29 55.85 237°
48.92 71.73 359°
88.33 81.95 93°
17.57 0.55 315°
Trapping
48.01 79.83 34°
49.69 65.07 159°
25.87 47.05 298°
0.00 0.00 0°
AB chart
ab chart
L levels
AB black/greys
ab chart
L levels

It’s possible to see in the graphs a single color of the measurements selected in the drop-down.

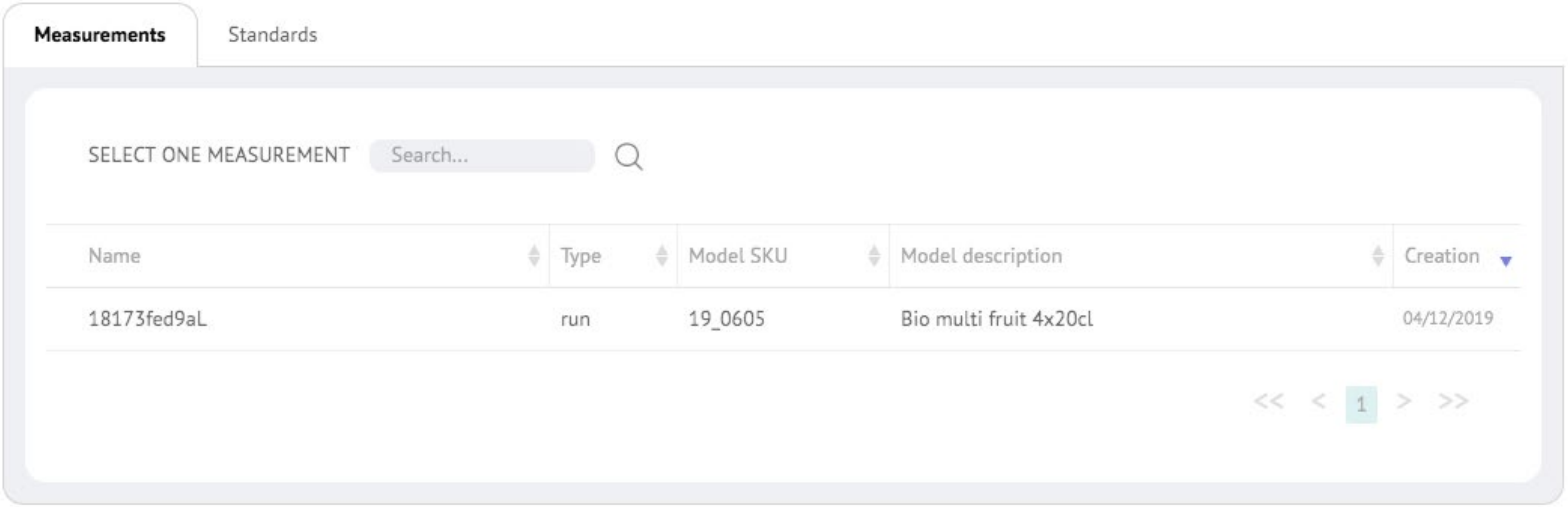




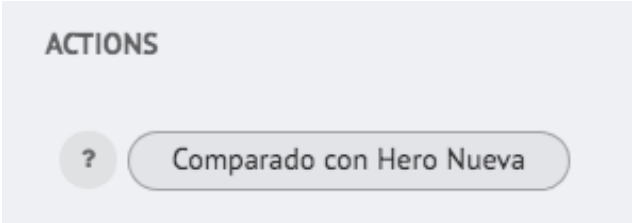


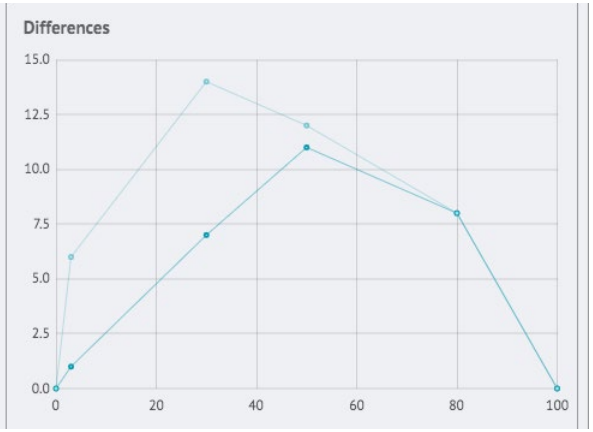
There is the option to compare the measurement that has been made with any other.

Click on ‘Compare with ...’ and a window will appear with all the measurements saved in the workspace.



Once you have chosen the measurement you want to compare with, you will see the name of the measurement where appeared before ‘Compare with...’ and on the graphs you will see that each color appears twice as represented, the clearest line will be the one used as reference, in this case ‘Bio multi’.

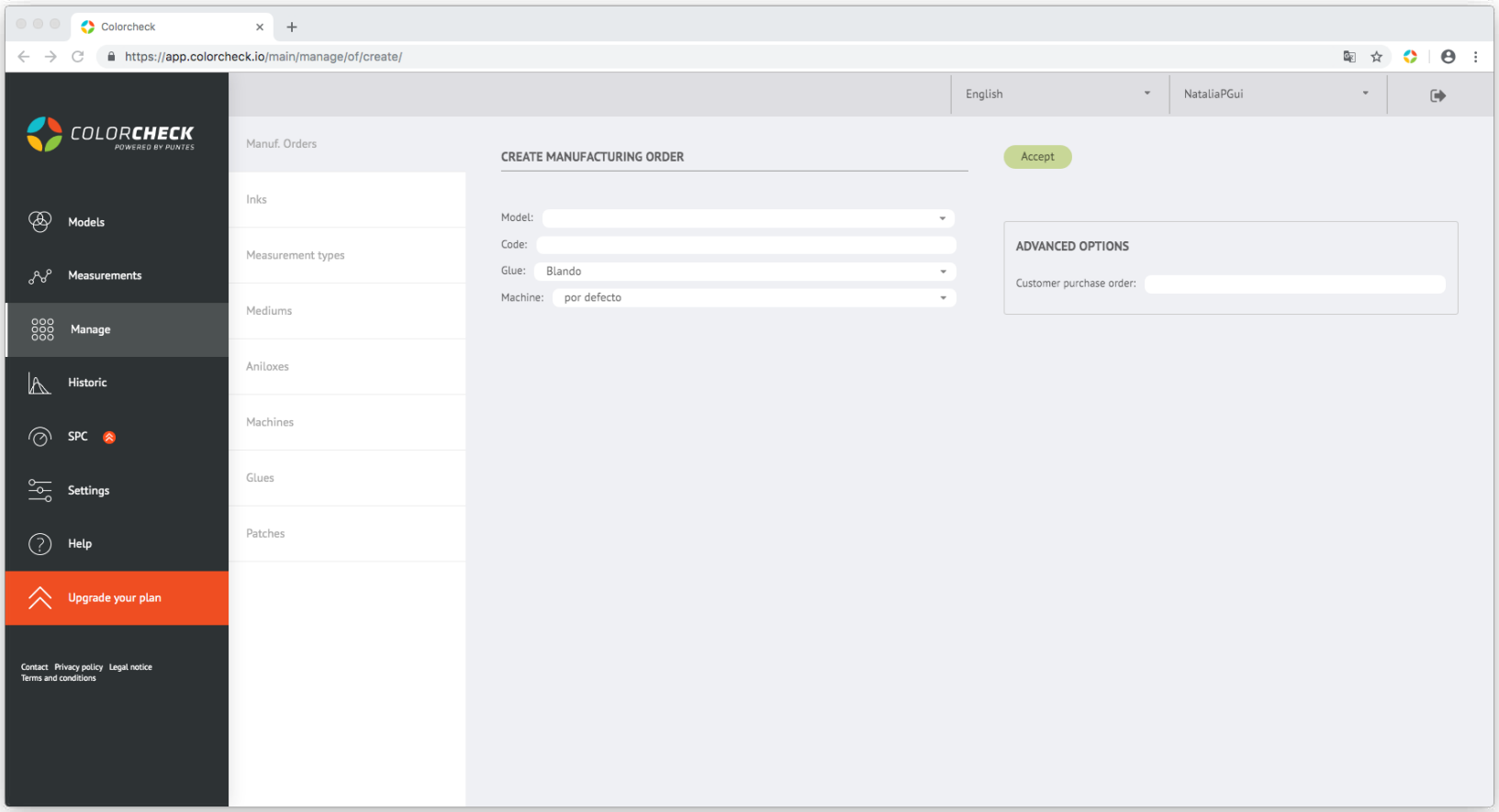




MANAGE

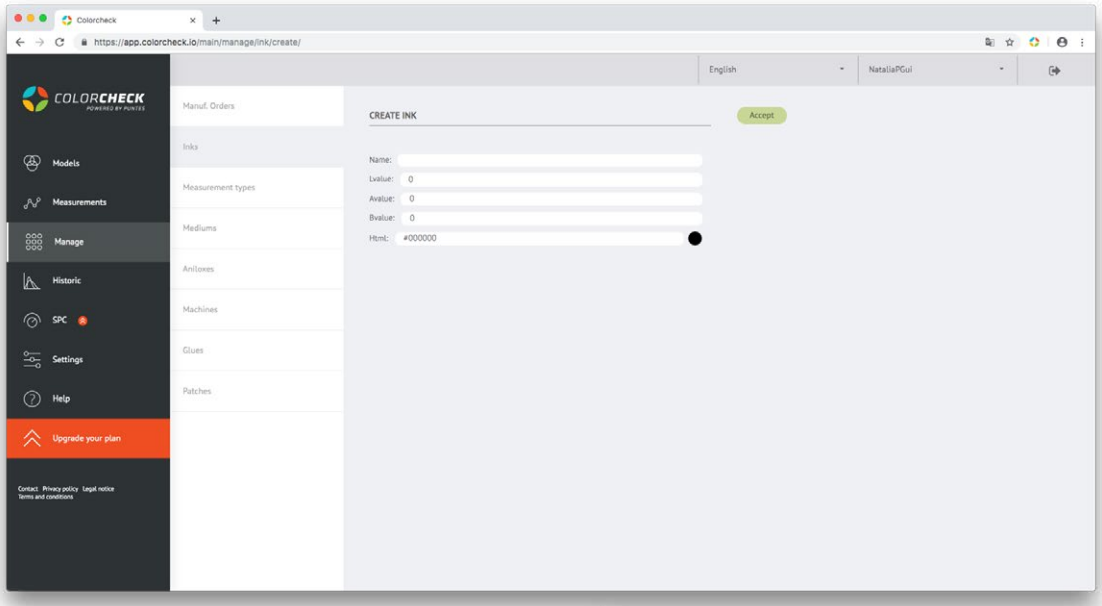
In this tab of the main menu we find another submenu where it gives us access to the base of manufacturing orders, inks, types of measurements, supports, aniloxes, machines, adhesives and predetermined colorcheck patches.

In this plan we have an option to create or delete items from these lists.



In the tab ‘Manufacturing Order’ there is nothing until it is created by the user. He just needs to put which model corresponds, code of that order, adhesive (soft, hard, medium or other) and the machine used.

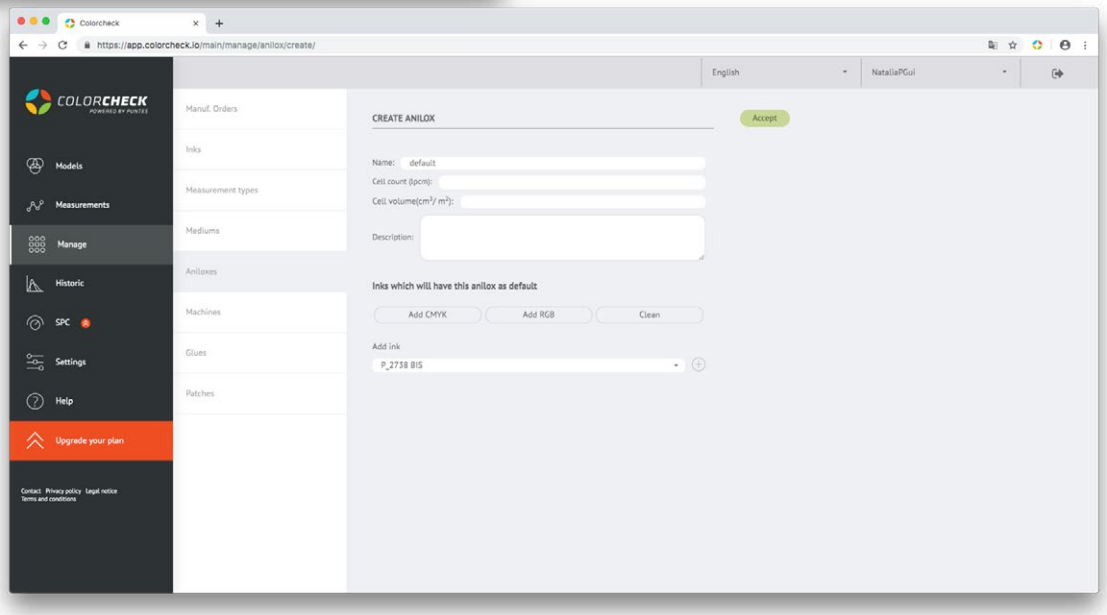
It also has advanced options where you can specify the ‘purchase order of the client’.



CREATE INK

In the ‘Manage’ tab, ‘inks’, besides editing or deleting the inks that exists, you can create new ones.

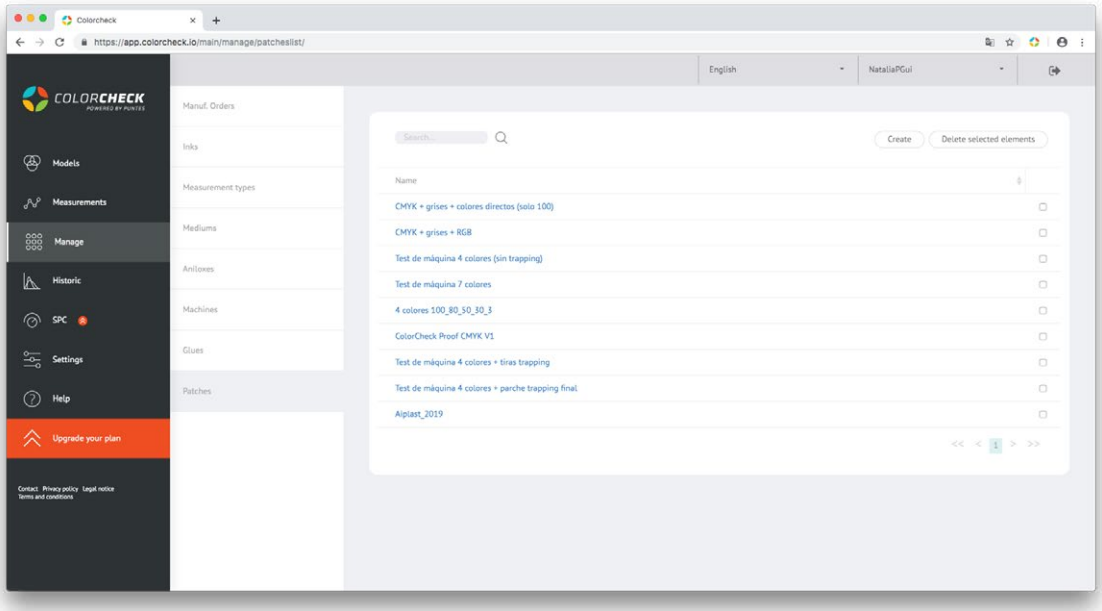
You just have to click on ‘create’ and enter the necessary information, the name and LAB data or the html code.

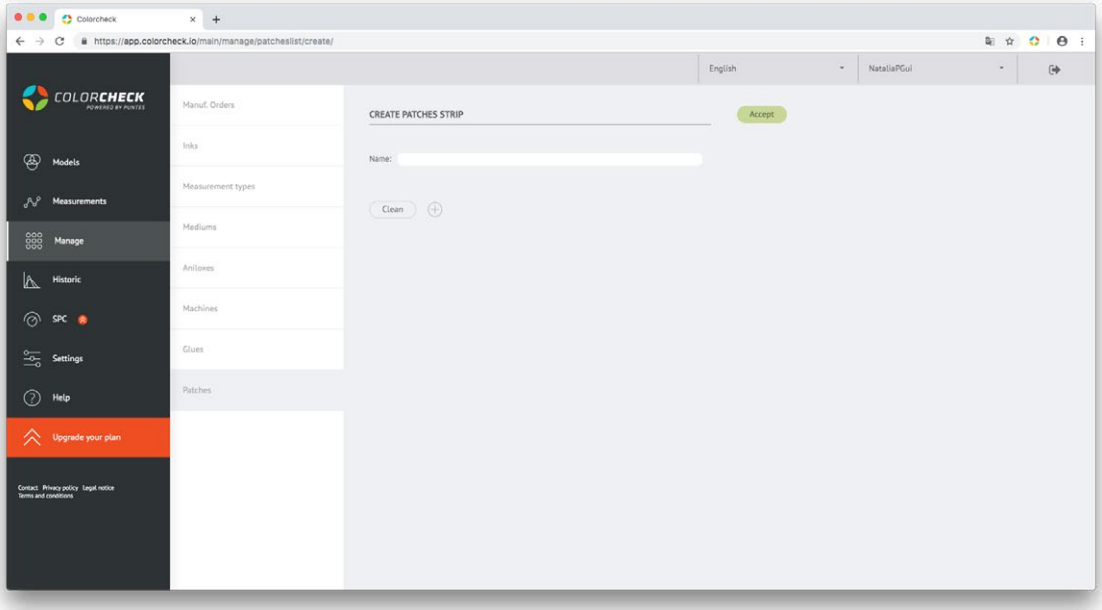


CREATE ANILOXES

Click on the tab, and click on ‘create’.

Enter the necessary information, in this case, name, number of cells, contribution, some additional comment on that particular anilox in ‘description’ and the ink/s that will have got.

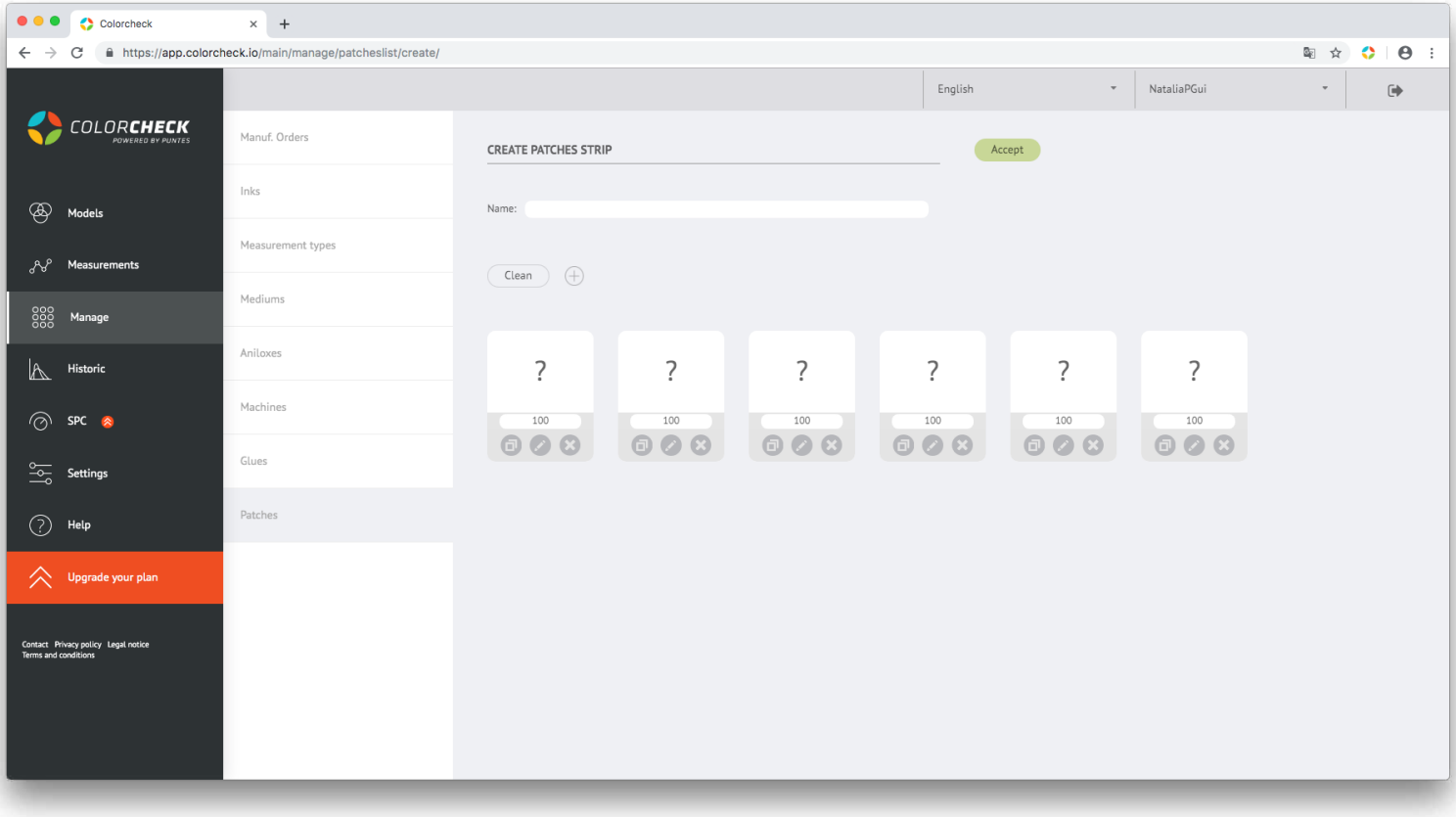




CREATE NEW PATCH STRIP

In the ‘Manage’ tab, ‘Patches’ in addition to editing or deleting the strips that are already created, there is also the option to create a new patch strip different from the ones provided by default colorcheck. In case of any of the print to measure have a strip with different percentages or different inks and none of the predetermined ones adapts totally to the needs of the user.

You just have to click on ‘create’ and it will appear the line to write the name and the options for add patches or remove all of them.



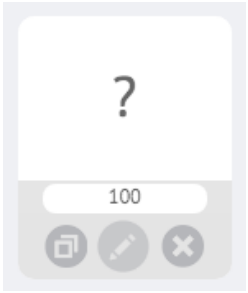
To start creating the strip you have to click on the '+' to add patches, you can add as many as the strip we are going to measure, and the zeros **(0%)** at the end of each color (CMYK) **[IMPORTANT]**

Once you've defined the number of patches that are going to be used, you have to define the color of the patches, or not ... There are several possibilities, KEEP READING

To select the ink that will take that patch to measure, click on the pen that appears below the percentage to define the color.

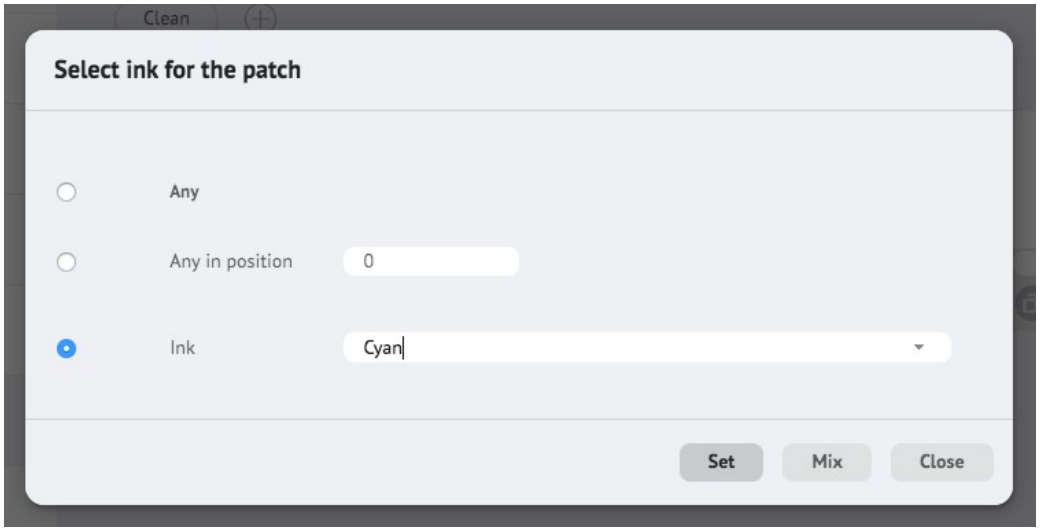
A window with several options will appear.

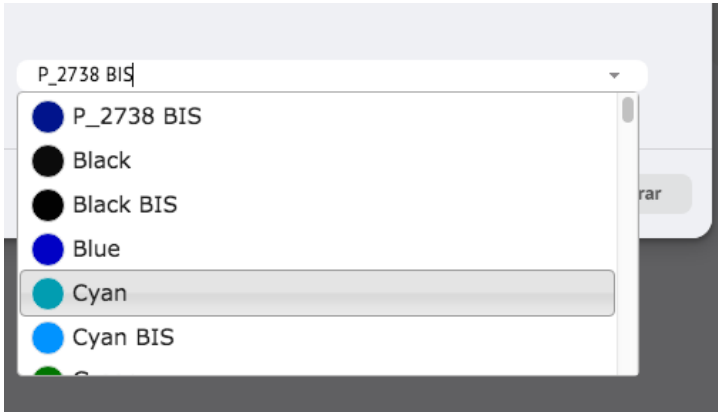
First the most common, define **a single specific ink** for the selected patch.



Besides the option to edit that patch, you can also duplicate (icon on the left) or delete.

1º Select the option '**INK**' and choose the one you want in the drop-down.



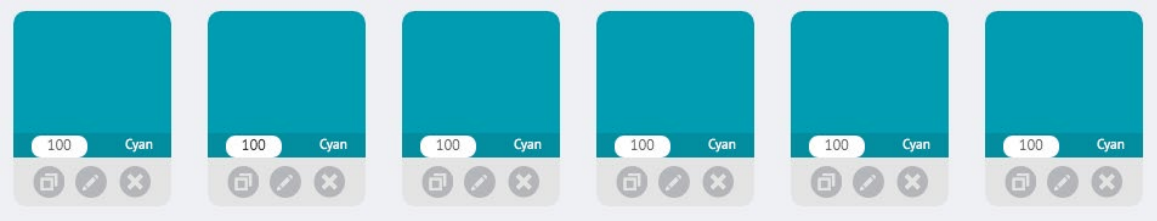


Once chosen the ink click on set.
Do this with the rest of the patches, each one with the appropriate ink.

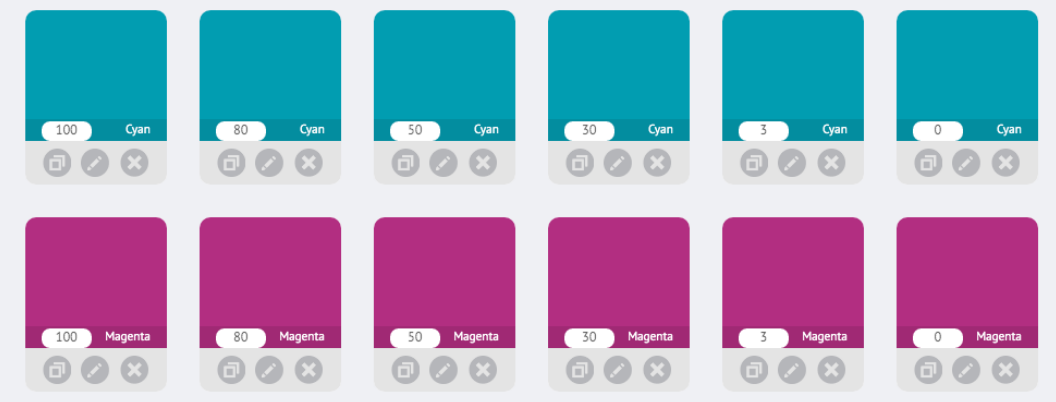
2º The **PERCENTAGES** are defined, because in all it puts a 100%

* It's important to define the percentages before the ink, because once a patch is edited it's get 100% again.

As I mentioned, when defining the patch ink, as we see here 100% appears, so now we have to define the correct percentages.



In the case of the example we've put 100%, 80%, 50%, 30%, 3% and 0% (the 0% will not appear on the strip when we measure it, it's only visible here) but I insist, it is important to don't forget it (Only in the colors of four-color printing process).



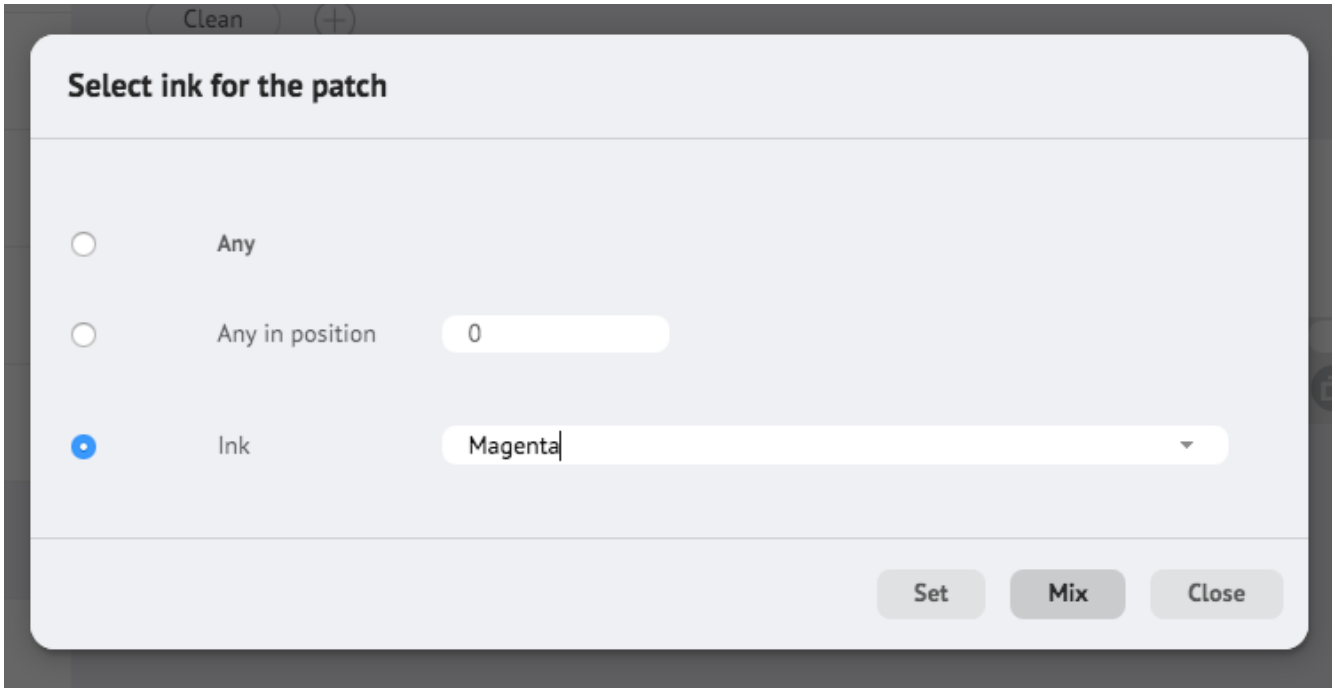
Then, it only consists of doing the same with the rest of the colors that we need (for example CMYK) with the corresponding percentages, and a basic colored strip would already be created.

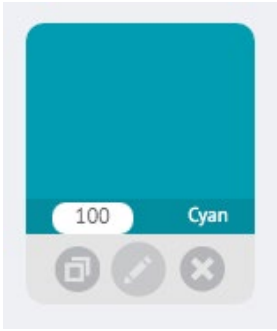
Of course, for this strip you could add pantones, a trapping or grays (a three-color printing process) making a mix of several colors as I explain hereafter.

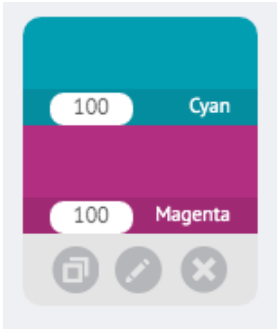
A **pantone** is so simple that instead of selecting a process ink, select a pantone in the same way as the others.

A **trapping** or a **three-color-printing process** is done by mixing several. Establishes the first ink in the patch as has been done in the previous examples. To include a second ink, click on edit that patch again and select the second ink, then instead of clicking on 'set' as in the previous cases, click on 'mix'.

(On the next page there is an example of trapping)

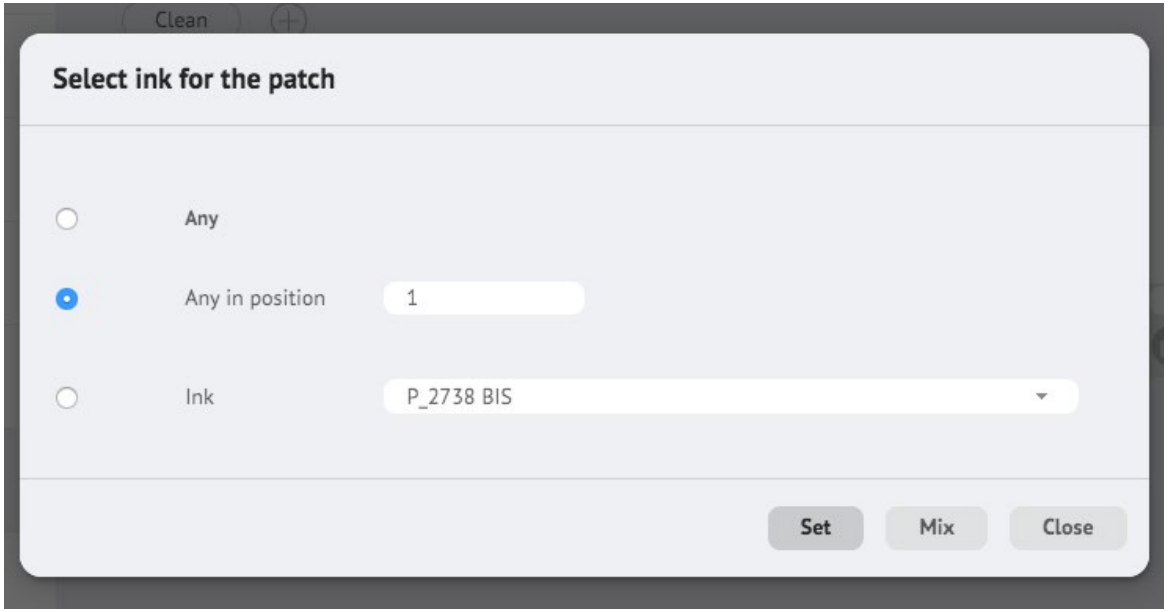






In this case only two mixed colors are seen but it's not limited to two colors, they can be mixed more, as would be the case of the three-color printing process, and they don't necessarily have to be 100%, they can also be in different percentages each ink of the patch.

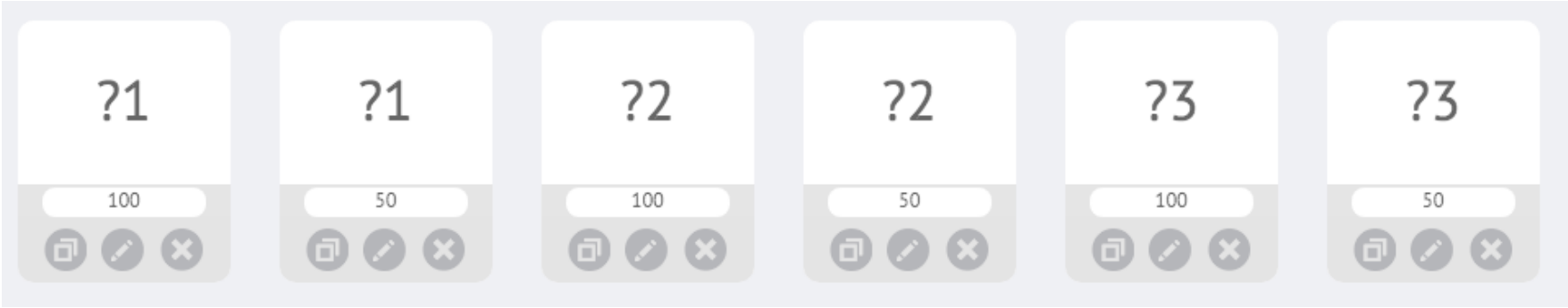
Everything depends on the patches strip to be measured and the needs of each user of Colorcheck.



The other possibility that exists when we create patches, is **not define a specific color.**

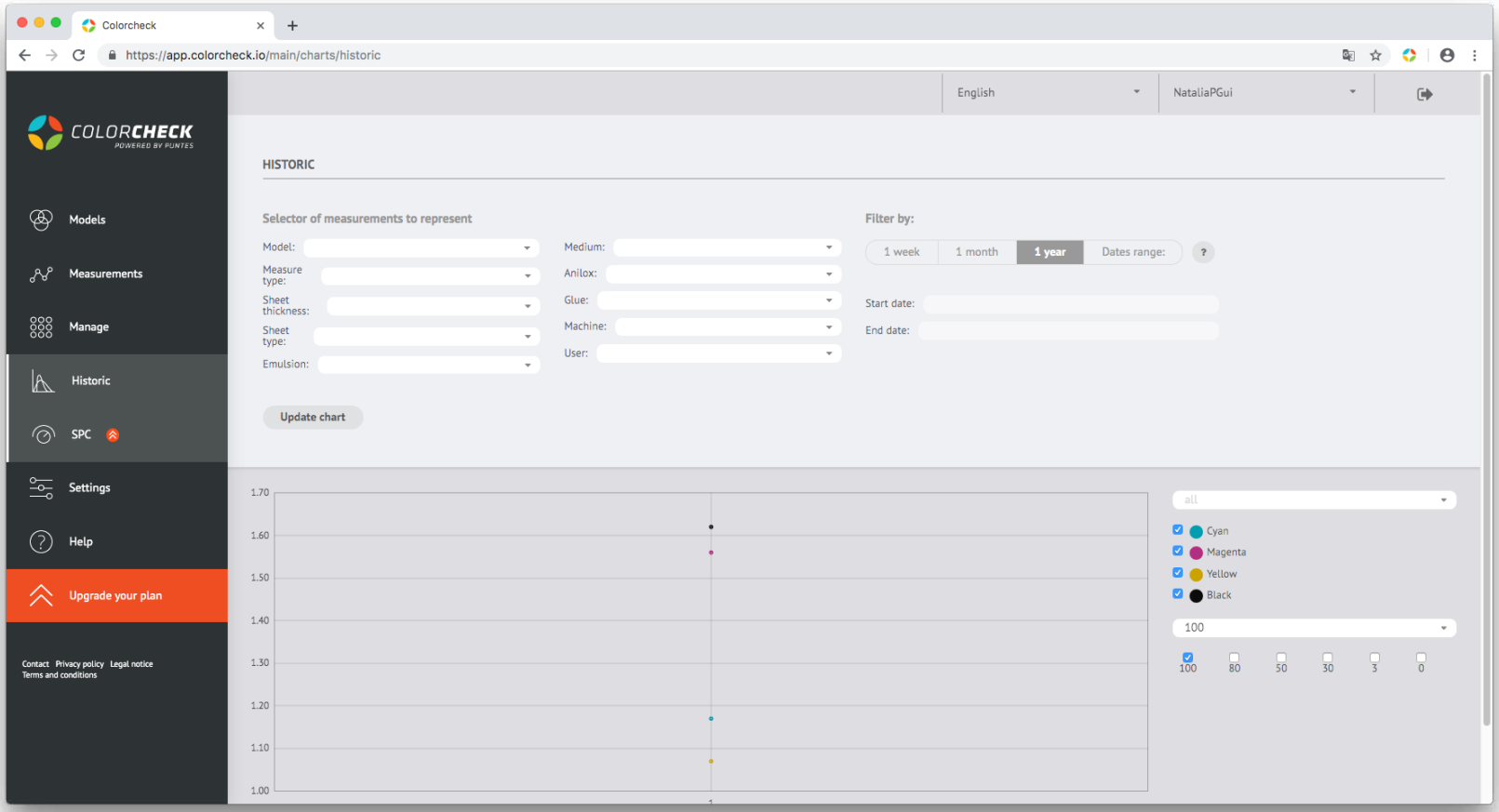
You can select the option ‘Any’, and it will pick the color you measure, or you can select the option ‘Any in position’. This option will give you in position 1 the first direct color you put in the measurement, in the position 2 the second ... and so on.

These options are usually used for measure a work with pantones. To not create a strip for each work just because you change a direct color, you usually complete the strip used normally with these “undefined” patches.



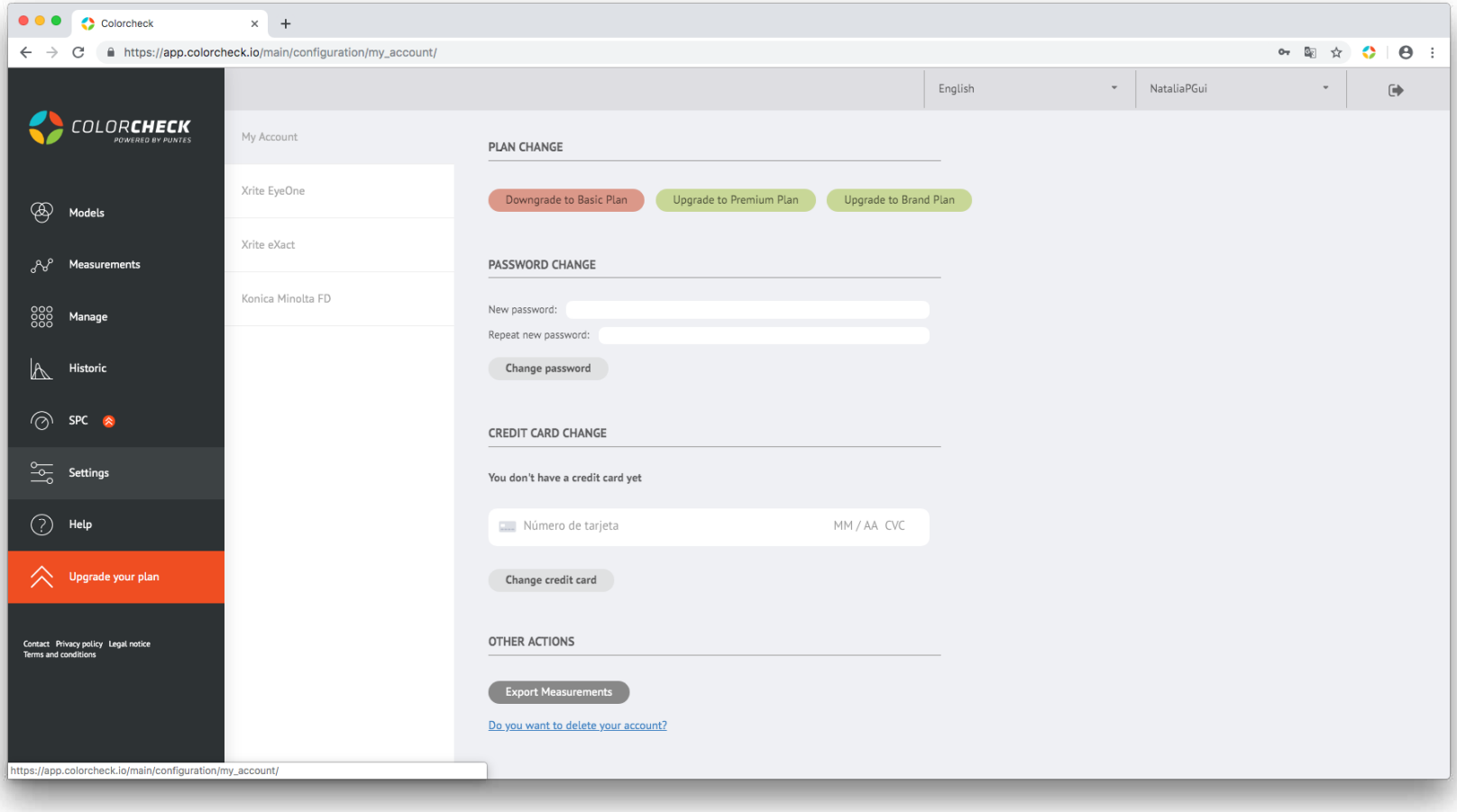
HISTORIC

The historical shows a density chart of the year / month / week or between two specific dates, for a more visual tracking of the measurements taken.



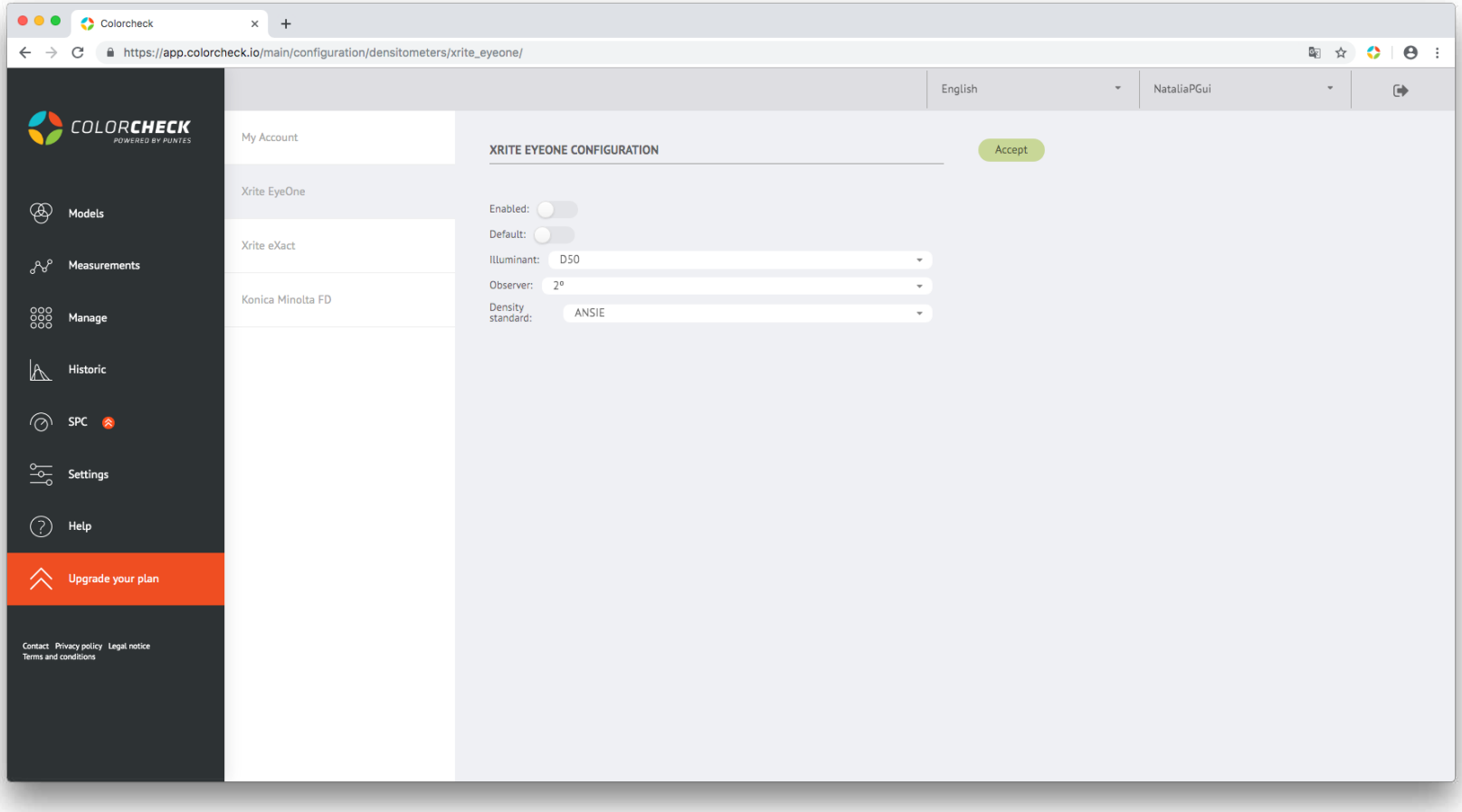
SETTINGS

In this tab of the main menu you will find again a submenu, but in this case it gives us access to the configuration of the account, where you can request another plan, a change of password or credit card, delete the account or export the measurements to an excel file (.csv).



The other tabs are those of the devices that are compatible with colorcheck.

From here you can change both the measurement area and the light (illuminant) of each of these devices.



HELP

Finally we find the ‘HELP’ tab.

By clicking here colorcheck redirects us to its presentation page and sale (where we supposed that in downloads you’ve found this manual or the basic one) inside the section of User Frequently Asked Questions (FAQ) and where you can also find available pdfs of colorcheck patches strip.