

Manual

Valspar Spectrophotometer



Version date:

25 March 2015

valspar®

VALSPAR SPECTROPHOTOMETER MANUAL

Contents

- 1. Objective..... 3**
- 2. Overview of device..... 3**
- 3. Overview of main screen 4**
- 4. To take a reading 6**
 - 4.1. Method for cars..... 6
 - 4.2. Connect to PC 7
 - 4.3. Calibration..... 8
 - 4.4. Search formula 9
 - 4.5. Interpret results 10
 - 4.6. Optimise formula..... 11
- 5. Take reading from the interface 13**
 - 5.1. Connect and calibrate..... 13
 - 5.2. Take reading 13
 - 5.3. Interpret and optimise results..... 14
- 6. Create formula 15**
 - 6.1. Take reading 15
 - Option 1: Take unlinked reading. 15
 - Option 2: Take reading from the interface..... 15
 - 6.2. Enter criteria 16
 - 6.3. Interpret results 17
- 7. Optimise formula 18**
 - 7.1. Select formula 18
 - 7.2. To take a reading 19
 - 7.3. Enter criteria 20
 - 7.4. Overwrite formula 21
- 8. Search colour code..... 22**
- 9. Settings & Wipe 23**

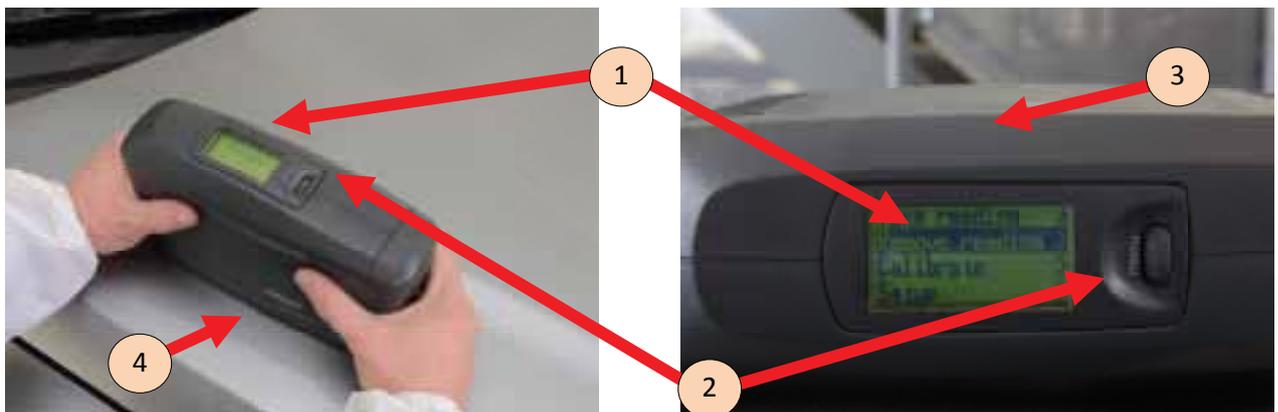
VALSPAR SPECTROPHOTOMETER MANUAL

1. Objective

Using the spectrophotometer, you can quickly and easily determine the colour of the cars to be sprayed. Place the device on the surface to be read and it will do the rest. The basis for the program is ICRIS: a database with formulas for every colour variation, comparable to a digital sample card index box. This user manual shows you how to use the spectrophotometer.

2. Overview of device

First of all, an overview of the most important buttons and parts of the spectrophotometer. For a detailed description of the spectrophotometer's buttons and menu options, see the Byk manual.



Part	Description
1. Screen	There is a screen on the top of the spectrophotometer. Use this to operate the device and read the status.
2. Menu scroll wheel	Next to the screen is a scroll wheel. Use this to scroll through the menu options. Click on the scroll wheel to activate a menu option.
3. Operate button	On the side of the device is the Operate button. Use this to start a reading.
4. Contact pins	On the bottom (not visible on the photo) are 3 contact pins. All three of these should be in contact with the surface to be read to obtain a proper reading.

VALSPAR SPECTROPHOTOMETER MANUAL

3. Overview of main screen

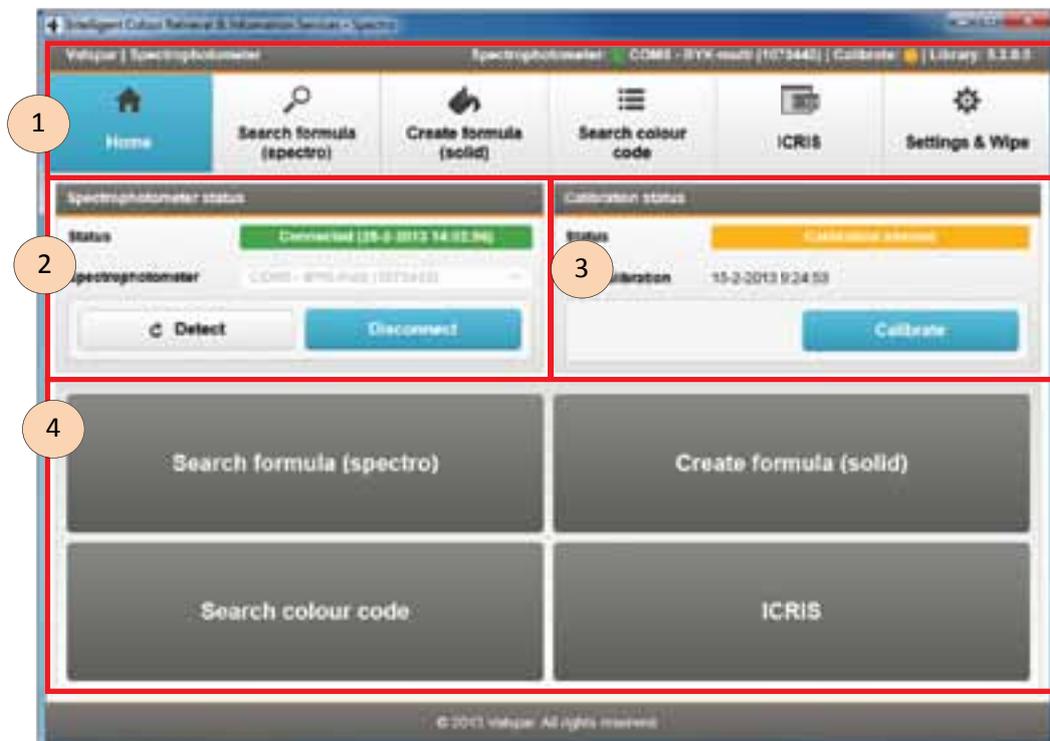
You operate the spectrophotometer from ICRIS. Once the device switches on (automatically), the ICRIS main screen appears.

By clicking the icon on the top left, you open the spectrophotometer interface.

If you have set the spectrophotometer interface as your default, this will open automatically. This is done by clicking on Spectrophotometer and selecting default.



This screen comprises of 4 parts:



VALSPAR SPECTROPHOTOMETER MANUAL

Part	Description	More
1. Button bar	<p>The button bar gives you the following options:</p> <ol style="list-style-type: none"> 1. Home: home screen 2. Search formula (spectro): search for colours in the database, effects and solid colours 3. Create formula (solid): generate formula, only possible for solid colours 4. Search colour code: manual search using colour code 5. ICRIS: back to ICRIS main screen 6. Settings & Wipe: change standard settings, remove readings 	<p>subsection 4.4</p> <p>section 6</p> <p>section 8</p> <p>section 9</p>
2. Spectrophotometer status	<p>You can check the status of the spectrophotometer here.</p> <ol style="list-style-type: none"> 1. Status: reading whether the spectrophotometer is connected and the duration of the connection 2. Spectrophotometer: ID of the connected spectrophotometer 3. Detect: find the spectrophotometer in question to make a connection 4. Connect/disconnect: manually connect/break connection with the spectrophotometer 	subsection 4.2
3. Calibration status	<p>To retain its precision, the spectrophotometer should be calibrated regularly.</p> <ol style="list-style-type: none"> 1. Status: reading whether calibration is required. You can also tell the status from the colour: <ul style="list-style-type: none"> • green: calibration not required (the status is green for 7 days) • yellow: calibration advised (status turns yellow after 7 days) • red: calibration mandatory (device is blocked, occurs automatically if the device has not been calibrated for 90 days) 2. Last calibration: last calibration date of the device 3. Calibrate: button to start calibration 	subsection 4.3
4. Options	<p>Various options, see button bar. It doesn't matter whether you click here or on the button bar.</p>	

VALSPAR SPECTROPHOTOMETER MANUAL

4. To take a reading

There are two types of readings: an unlinked one or a linked one (via the spectrophotometer interface). This section explains how you can take an unlinked reading. Section 5 outlines how you can take a linked reading.

4.1. Method for cars

1. **Clean** and **polish** the surface to be read. To be able to determine the exact colour of the car, it is important that the surface you are going to read is clean. Dirt, dust and surface hazing can affect the accuracy of the result.
2. **Place** the spectrophotometer on the surface to be read. Make sure that all three of the contact pins are touching the surface, otherwise the spectrophotometer will not work.
3. **Press the** Operate button on the side of the device.



VALSPAR SPECTROPHOTOMETER MANUAL

4. **Take** the reading two more times so you have three readings. For better colour accuracy it is advisable to move the spectrophotometer to a slightly different position with each reading. The spectrophotometer always takes three readings for unlinked readings, also with solid colours.

Click the button on the side to store the reading and the following message appears on the screen: "Storing sample xxx", xxx being the code linked to the sample. This means that the reading is being saved in the spectrophotometer.

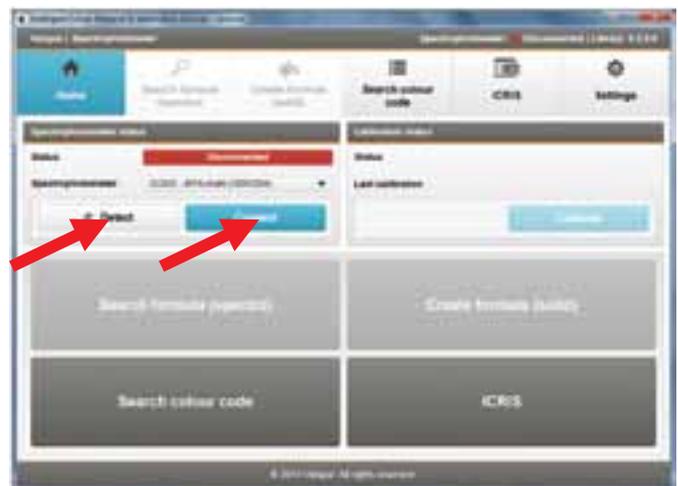


4.2. Connect to PC

1. **Use** a USB cable to connect the spectrophotometer to the PC and start up ICRIS. NB: this can take a few minutes.

Before you can review the readings you have just collected, you have to ensure that the spectrophotometer is connected.

2. **Click** on the Detect button.
3. **Select** the right spectrophotometer using the unique code.
Multiple spectrophotometers can be found.
4. **Click** on the blue Connect button to connect.



VALSPAR SPECTROPHOTOMETER MANUAL

Under spectrophotometer status you will see a green bar with the ID of the connected spectrophotometer. The blue Connect button has changed into a blue Disconnect button.



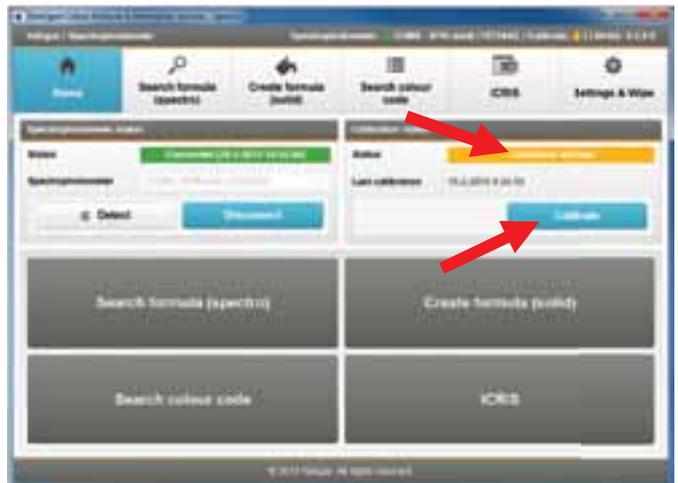
NB:

If you want to disconnect the spectrophotometer, first click the Disconnect button, otherwise you run the risk of an error.

4.3. Calibration

Calibrate the spectrophotometer as and when required. You do this as follows:

1. Go to the main screen and **check** whether calibration is required. This is the case if the status says: "Calibration advised" (yellow) or "Calibration mandatory" (red). You can, however, also calibrate the device if the status is green. If calibration is not required, proceed to subsection 4.4.
2. **Click** on the Calibrate button to start calibrating.

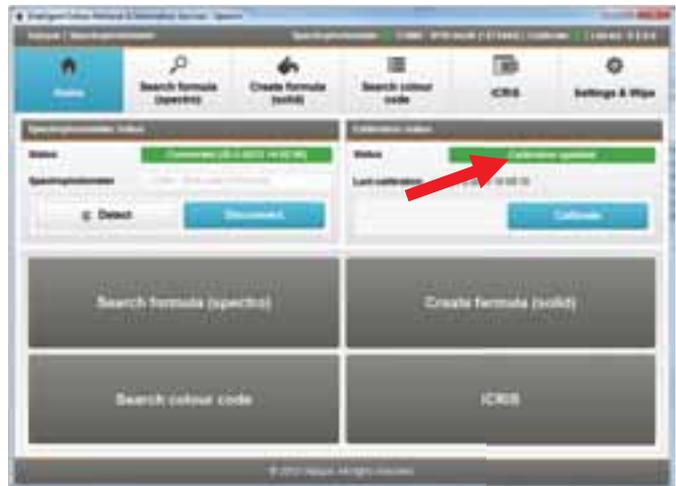


3. **Follow** the instructions on the screen. During calibration, you place the spectrophotometer on the black box and then on the white tile. The white tile has been designed specifically for this spectrophotometer; using a different white tile will prompt an error message.



VALSPAR SPECTROPHOTOMETER MANUAL

- Once the device has been successfully calibrated, the message "Calibration updated" will appear. The status on the main screen has changed to "Calibration updated". The status colour is now green.



NB:

You can also calibrate via the spectrophotometer instead of via the interface. In that case, follow the steps on the spectrophotometer screen.

4.4. Search formula

You are now going to look up the reading carried out.

- Click on "Search formula" in the main screen.



VALSPAR SPECTROPHOTOMETER MANUAL

The process bar will show you what step you are at, in this case step "1. Select an import option".

You can now select what results you want to see: only the last reading (1), only today's readings (2) or all readings (3).

2. **Click** on the required option.

The screen for step 2 "Read in reading" appears.



This screen can be used to enter the criteria that the matches have to meet (filter).

3. Effect or Solid colour is automatically selected. It is possible to change this. The interface may advise that you check whether the colour is an effect or a solid colour.
4. **Select** the required quality.
5. **Select** the brand and type of car.
6. **Click** on "Next".

The screen for step 3 "Show result" appears.



4.5. Interpret results

This screen shows you all the matches found, often multiple matches. The best possible match is at the top. If you place the cursor over the i symbol, this will show a rating number, the lower the number the better the match.

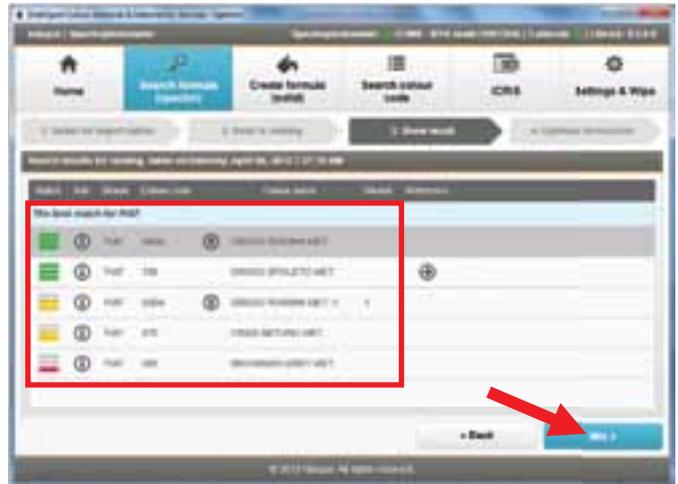
For every match, there is a symbol with three bars:

- 3 green bars: Good blendable colour match, you can use this to respray the area without problems.
- 2 yellow bars: Spray out and check colour advised.
- 1 red bar: Over all respray advised

		FIAT	690A		GRIGIO ROSSINI MET.
		FIAT	729		GRIGIO SPOLETO MET.
		FIAT	690A		GRIGIO ROSSINI MET.-I
		FIAT	670		CINZA NETUNO MET.
		FIAT	685		BROWNISH GREY MET.

VALSPAR SPECTROPHOTOMETER MANUAL

7. **Click** on the match you want to use.
8. **Click** on "Mix".
The formula is opened in ICRIS.



4.6. Optimise formula

You can also optimise a formula found so that it matches the colour reading better.

1. **Click** on the formula you want to optimise.
You cannot optimise a good match (green bars).
2. **Click** on the Optimise button of the selected formula.
The screen for step 4 "Optimise formula" appears. As per ICRIS update 12.0.0.0, the optimise formula step will now search a large on-line data-base if your computer is connected to the Internet.



If the formula cannot be optimised, the following message appears: "It is not possible to optimise this formula, go to "CreateSolid" for a better result. This only applies to solid colours."



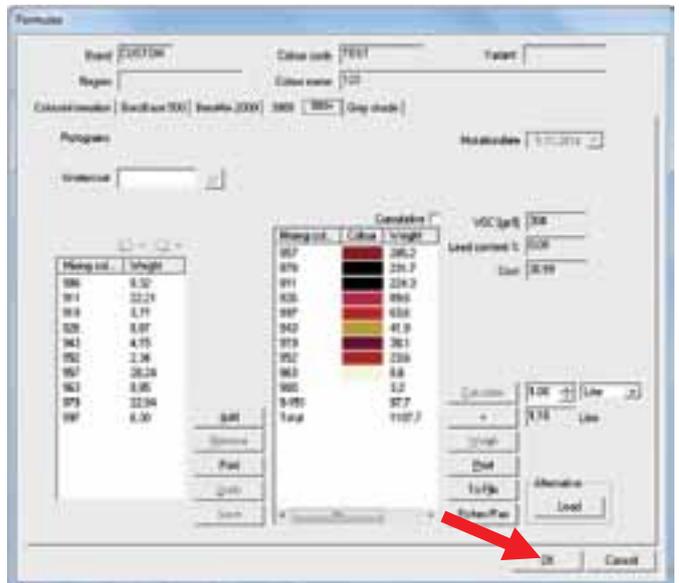
VALSPAR SPECTROPHOTOMETER MANUAL

If the formula can be optimised, the screen for step 4 “Optimise formula” appears.

3. **Give** the improved formula a new code and a new name.
You can select the name and the code yourself.

4. **Click** on “Save”.
The optimised formula is saved in “Custom” in ICRIS as a new colour under a new name and code. This means that the original formula is NOT overwritten.
The ICRIS “Formulas” screen appears.

5. **Check** that you have the right formula and **carry out** the required actions. Click on OK to close the screen.



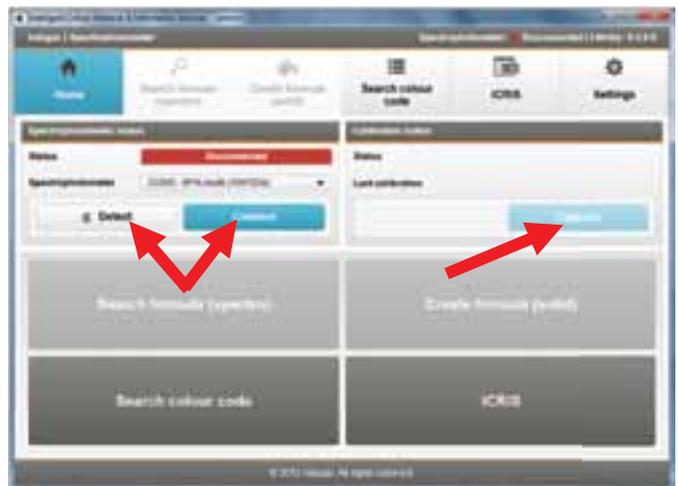
VALSPAR SPECTROPHOTOMETER MANUAL

5. Take reading from the interface

You can also take a reading straight from the interface (linked):

5.1. Connect and calibrate

1. **Connect** the spectrophotometer to the PC as described in subsection 4.2.
2. **Calibrate** the spectrophotometer as described in subsection 4.3, if required.



5.2. Take reading

1. **Click** on "Search formula" in the main screen. The screen for step 1 "Select an import option" appears.
2. **Click** on "Conduct the measurement now". The screen for step 2 "Read in reading" appears.



VALSPAR SPECTROPHOTOMETER MANUAL

3. **Clean** and **polish** the surface to be read and **place** the spectrophotometer as described in steps 1 and 2 of subsection 4.1.
4. **Click** on "Next".
The reading is being taken. Once the reading is finished, the screen for step 3 "Show result" appears.
One reading is taken for solid colours. In the case of an effect colour, three readings are taken automatically.
5. **Enter** the criteria as described in steps 3 to 6 of subsection 4.4.



5.3. Interpret and optimise results

6. Interpret and optimise the results, as described in subsections 4.5 and 4.6.



NB:

Readings taken from the interface are not automatically saved in the spectrophotometer!

VALSPAR SPECTROPHOTOMETER MANUAL

6. Create formula

You can also add solid colours to the database. You do this as follows:

6.1. Take reading

Decide what kind of reading you want to take: an unlinked one or one from the interface.

Option 1: Take unlinked reading.

1. **Take** a reading as described in subsections 4.1 through 4.3.
2. **Click** on "Create formula".
3. **Select** the formula that you want to add to the database
 - last readings (1)
 - today's readings (2) or
 - all readings (3)
4. **Proceed** to subsection 6.2.



Option 2: Take reading from the interface

1. **Connect** the spectrophotometer to the PC as described in subsections 4.2 and 4.3.
2. **Click** on "Create formula".
3. **Click** on "Conduct the measurement now".



VALSPAR SPECTROPHOTOMETER MANUAL

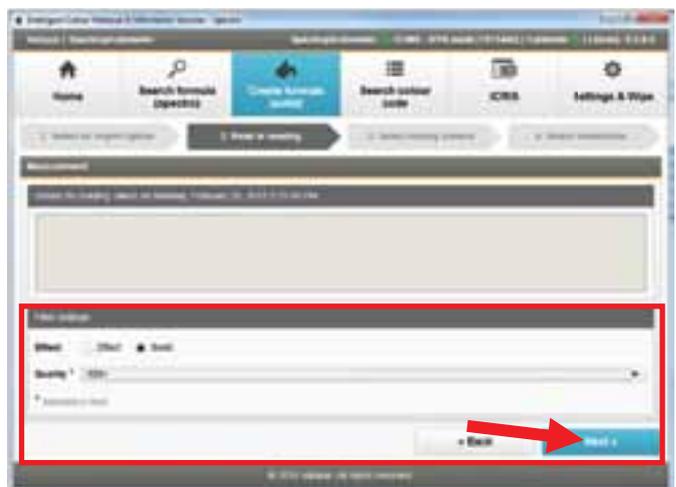
4. **Clean** and **polish** the surface to be read and **place** the spectrophotometer on the surface to be read, as described in steps 1 and 2 of subsection 4.1.
5. **Click** on "Next".
The reading is being taken. Once the reading is finished, the screen for step 3 "Show result" appears.
One reading is taken for solid colours. In the case of an effect colour, 3 readings are taken automatically.
6. **Proceed** to subsection 6.2.



6.2. Enter criteria

This screen can be used to enter the criteria that the matches have to meet (filter).

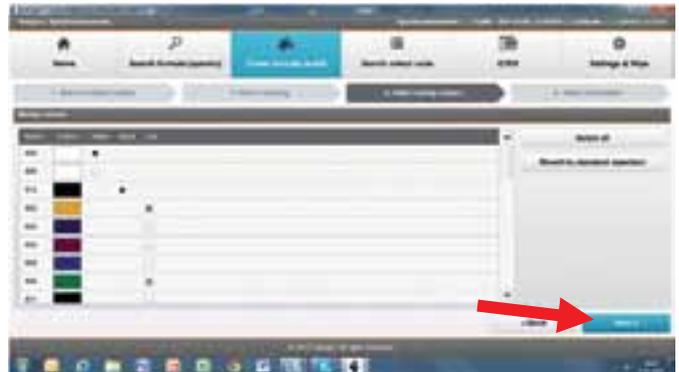
1. "Solid" is automatically selected.
You can only create a formula for solid colours.
2. **Select** the required quality.
3. **Click** on "Next".
The screen for step 3 "Select mixing colours" appears.



VALSPAR SPECTROPHOTOMETER MANUAL

A preselection of the most suitable colour palettes is made. Normally, you do not have to change anything here.

4. **Click** on "Next" to view the results.
The screen for step 4 "Select mixing colours" appears.
5. Now you have the option to choose a better covering colour.



6.3. Interpret results

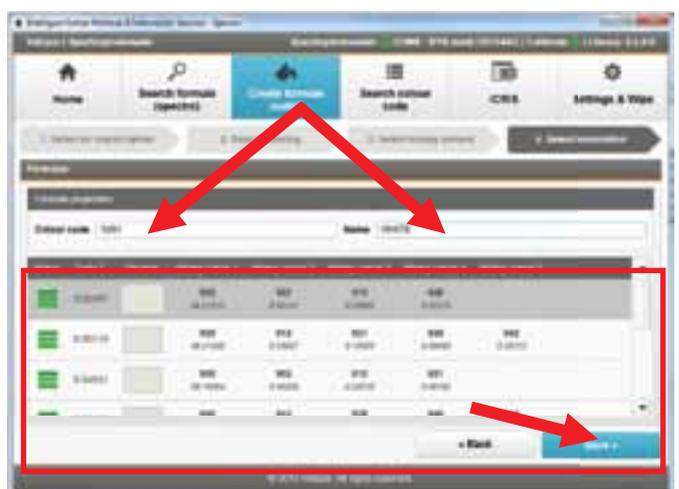
All the matches found appear in this screen. The best possible match is at the top.

For every match, there is a symbol with three small bars:

- 3 green bars: the formula matches the colour reading.
- 2 yellow bars: the formula is slightly different from the colour reading.
- 1 red bar: the formula is different from the colour reading.



1. **Enter** a colour code and a name for the new formula.
You can enter whatever you like here.
2. **Select** the match you want to use.
3. **Click** on "Save".
The formula selected is saved in Custom in ICRIS.
The ICRIS "Formulas" screen appears.



VALSPAR SPECTROPHOTOMETER MANUAL

4. **Check** the information and **carry out** the required actions. Click on "OK" to close the screen.



7. Optimise formula

In ICRIS, you can optimise an existing solid colour (correction). By doing so, you overwrite the existing formula with a new one. You do this as follows:

7.1. Select formula

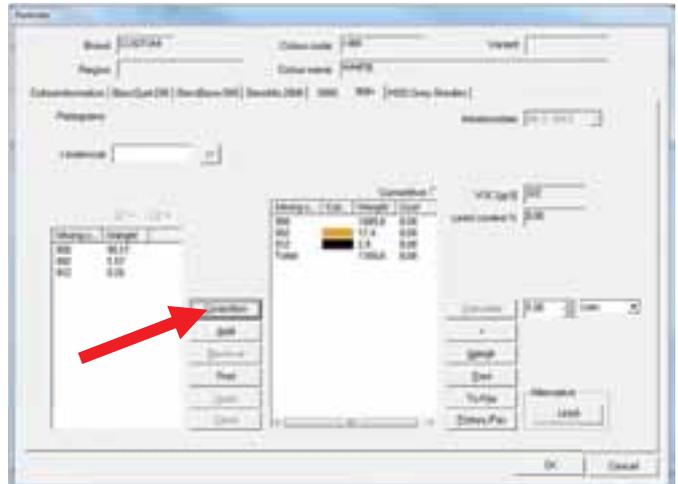
First select the formula that you want to optimise:

1. **Click** on ICRIS in the main screen
2. Via "Custom" in ICRIS, you can select the formula that you want to change.
3. **Enter** the required quality and open the formula. The ICRIS screen "Formulas" appears.



VALSPAR SPECTROPHOTOMETER MANUAL

4. **Click** on "Correction".
The screen "Measurement" appears.



VALSPAR SPECTROPHOTOMETER MANUAL

7.2. To take a reading

You now indicate which reading you want to use to replace the formula selected.

1. You have two options, depending on whether you have read the new colour already or not.
 - a. You have read the new colour already:
 - select** the formula that you want to optimise via
 - last readings (1)
 - today's readings (2) or
 - all readings (3)
 - b. You have yet to read the new colour and want to do this now from the interface:
 - select the option "Conduct the measurement now" and proceed to step 2.



2. **Connect** the spectrophotometer to the PC as described in subsections 4.2 and 4.3.
3. **Clean** and **polish** the surface to be read and place the spectrophotometer, as described in steps 1 and 2 of subsection 4.1.
4. **Click** on "Next".
The reading is being taken. Once the reading is finished, the screen for step 2 "Show result" appears.
5. **Proceed** to subsection 7.3.



VALSPAR SPECTROPHOTOMETER MANUAL

7.3. Enter criteria

1. **Check** that the right colour has been read.

You have already entered the required quality and you cannot change this.

2. **Click** on "Next".
The screen for step 3 "Select mixing colours" appears.



In this screen you select the colours you want to use for the revised formula.

1. **Select** the colours you require by ticking the "Use" column.
If you do not know what colours you have to use, do not change anything.
2. **Click** on "Next" to view the results.
The screen for step 4 "Select mixing colours" appears.



VALSPAR SPECTROPHOTOMETER MANUAL

7.4. Overwrite formula

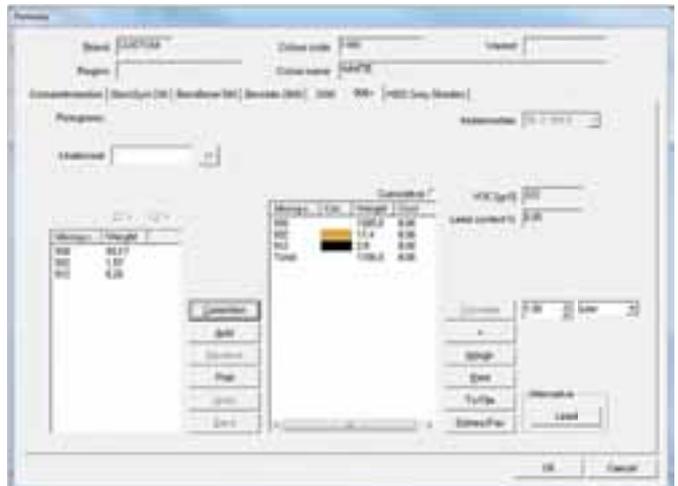
1. **Select** the revised formula.
2. **Click** on "Save".

The existing formula will be overwritten in "Custom" in ICRIS with the revised formula. The ICRIS "Formulas" screen appears.

In this screen you can see that the revised formula has overwritten the existing formula.



3. **Check** the details of the revised formula and **carry out** the required actions. Click on "OK" to close the screen.



VALSPAR SPECTROPHOTOMETER MANUAL

8. Search colour code

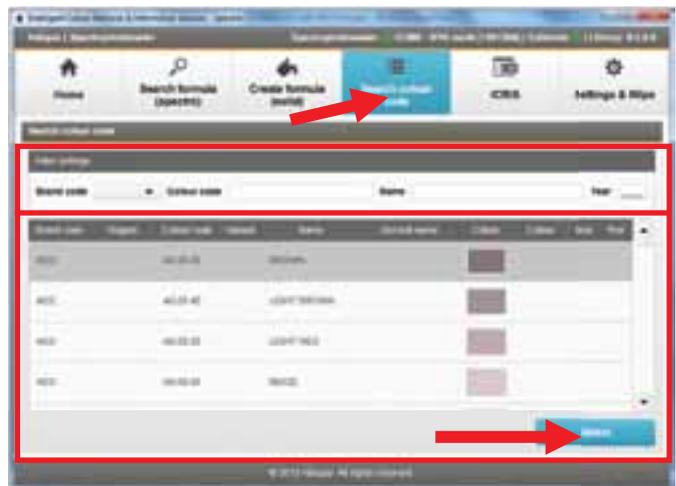
Subsection 4.4 showed you how you can use a reading to look up a colour in ICRIS. You can also use a colour code to look up a colour. You do this as follows:

1. **Click** on “Search colour code” in the main screen.

You can select or enter one or more criteria under “Filter settings”: brand code, colour code, name or year.

2. **Enter** the required criteria.
The formulas that match the entered criteria appear immediately in the search results.
3. **Click** on the formula required.
4. **Click** on “Select”.

The ICRIS screen “Formulas” opens up with all of the information on the formula in question.



VALSPAR SPECTROPHOTOMETER MANUAL

9. Settings & Wipe

You can use Settings & Wipe to change your settings or delete information from the spectrophotometer. You do this as follows:

1. **Click** on “Settings & Wipe” in the main screen. You will see three headings here:

Start up

Here you can indicate whether the program should open by default in the spectrophotometer mode or from the (traditional) ICRIS database.

Search formula

Here you can indicate whether you want to select a particular quality or a particular brand by default. After a reading, this selection will be selected by default, so you will not have to enter that each time. By ticking a box, you can indicate if you want other brands to be shown in the results. Use the “Mandatory field” tick boxes to indicate whether it should be mandatory to select the required quality and/or brand after a reading.

Spectrophotometer reading

Use the button “Wipe all readings” to delete all readings from the spectrophotometer.

