GMG ProofControl
Quick Start Guide (EN)

Imprint

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This documentation refers to the GMG software version No. 2.5.

1. Getting Started

1.1 Welcome to GMG ProofControl

GMG ProofControl is an easy-to-use tool for proof verifications based on spectrophotometrical measurements.

Without a standardized control strip which can be measured by the producer and the customer, any print can just be considered no more than a pretty picture—it may or may not relate to the press output.

Only if a proof is verified against an official print standard, you can be sure it will be possible to reproduce the colors on the press.

- Customer service: You might want to provide certified standard proofs to your customers.
- Internal production/quality control: You might want to assess the quality you produce. This might also help to avoid warranty claims and support issues.

So, how can you verify that your proofs are color accurate and meet the requirements of your standards?

With GMG ProofControl, you can easily guarantee an accurate and reliable **quality control** based on international industry standards such as ISO Offset, SWOP, 3DAP, or GRACoL. You only need an X-Rite i1 measuring device or a printer with an integrated measuring device that is supported in GMG ColorProof.

The program offers the following features:

- Measure control strips with an X-Rite i1 or integrated measuring device
- Print a verification label on an external label printer
- Review measurement data, also measured from GMG ColorProof
- Print a detailed report
- Edit print standards and adjust the tolerances to suit your needs

Basically, all you have to do is: **Print** out the standard-specific control strip and **measure** it with a spectrophotometer.

The software automatically compares the measured values with the defined target values, **evaluating** possible Delta E and Delta H deviations.

The result can then optionally be stored as a detailed printable **report** or printed as a **label** with production-relevant data and measured values.

Fig. 1 Control Strip and Label verifying that the measured values are within the tolerances defined in the standard.

1.2 Program Installation

1.2.1 Before You Install

To ensure a safe installation, please check the following list before starting the process.

- → Check the **system requirements** for the software you want to install.
- → Make sure a valid **license** required for the software version you want to install is available on the target computer.
- → Make sure you are logged on as a user with **full administrator rights**.

1.2.2 System Requirements

Our recommendations and minimum system requirements are meant to provide general guidelines for running GMG ProofControl. We recommend systems that meet or exceed the following requirements.

Operating system:

GMG ProofControl supports all versions of Windows Pro / Enterprise / Server officially supported and distributed by Microsoft. Windows Home is not supported.

Processor: Intel® Core ™ i7

Memory: 8 GB RAM, 512 GB SSD hard disk drive

Hardware components:

- Required for the GMG GamutViewer feature: Video card with enabled Direct 3D acceleration and OpenGL 3.2 or higher, updated driver (**not** Windows default driver)
- Minimum resolution 1280 x 1024 pixels
- USB port: 1 for dongle, 1 per measuring device

Supported spectrophotometers:

- X-Rite i1Pro3, X-Rite i1iO Generation 3 Table, X-Rite i1Pro2 or integrated measuring devices of Epson, HP or Canon iPF printers

Measuring devices: GMG ProofControl does not support any measuring device taken out of production by the device manufacturer.

Supported label printers:

- Zebra TLP 2824
- Zebra TLP 2824 Plus
- Dymo LabelWriter 400
- Dymo LabelWriter 450

1.2.3 Installing GMG ProofControl

How to install the new GMG ProofControl version

1. You can install the program directly from the purchased DVD.
2. If you downloaded the program from our website, copy it to a local directory on the computer you want to install the program on.
3. Extract all compressed files and double-click the ***.exe** file to start the installation.
4. Follow the instructions of the installation wizard.
5. The installation wizard will inform you when the installation is complete. Click the **Finish** button to exit the wizard.
6. After installation, restart the computer if prompted.

1.2.4 Installing and Configuring Label Printers

GMG ProofControl provides you with all drivers and label settings required to print our labels correctly, supporting the following label printers:

- Zebra TLP 2824
- Zebra TLP 2824 Plus
- Dymo LabelWriter 400
- Dymo LabelWriter 450

Note Please unplug all label printers and uninstall any old printer drivers before installing the new ones.

Note When prompted to connect your label printer, we always recommend to use a connection via USB.

How to install the Zebra TLP 2824 and Zebra TLP 2824 Plus

1. In the main program folder, under **LabelPrinter** > **ZebraTLP2824**, double-click the *.exe file.
   The **Zebra Setup Utilities** are installed.
2. Follow the instructions of the installation wizard.
3. After the installation of the **Zebra Setup Utilities**, you will be asked to connect the printer.
   After connecting the printer, the printer driver is automatically installed.
4. Click **Finish** to complete the setup.

How to configure the Zebra TLP 2824 and Zebra TLP 2824 Plus

1. From the Windows **Start** menu, select **Control Panel** and then double-click **Printers**.
2. Right-click your label printer and select **Printing Preferences** from the context menu.
3. On the **Import/Export settings** tab, click **Import** and open the appropriate label settings file (*.drs) included in the main program folder under **LabelPrinter** > **Zebra TLP2824**.
4. On the **Options** tab, under **Stocks**, select **GMG Label** from the drop-down list.
5. Under **Paper Format**, select **landscape**.
6. Change to the **Advanced Setup** tab and select **Thermal Transfer** as **Media Type**.
7. Only Zebra TLP 2824 Plus: Under **Operation Mode**, select **Tear off**.
8. Only Zebra TLP 2824: Under **Tracking Mode**, select **Mark Sensing**.
9. Click **OK** to confirm your changes.

Note In case a label should not print correctly, use the **Calibrate** button to calibrate your printer (**Printing Preferences** > **Advanced Setup**).

How to install the Dymo LabelWriter 400/450

1. In the main program folder, under **LabelPrinter > Dymo LabelWriter 400**, double-click the ***.exe** file.
   The **Dymo Label Software** is installed.
2. Follow the instructions of the installation wizard.
3. After the installation of the **Dymo Label Software**, you will be asked to connect the printer.
   After connecting the printer, the printer driver is automatically installed.
4. Click **Finish** to complete the setup.

How to configure the Dymo LabelWriter 400/450

1. From the Windows **Start** menu, select **Control Panel** and then double-click **Printers**.
2. Right-click your label printer and select **Printing Preferences** from the context menu.
3. On the **Layout** tab, select **Landscape** as **Orientation**.
4. Click the **Advanced** button in the right corner of the dialog.
5. Under **Paper Size**, select **99012 Large Address**.
6. Click **OK** to confirm your changes.

1.3 Overview GMG ProofControl

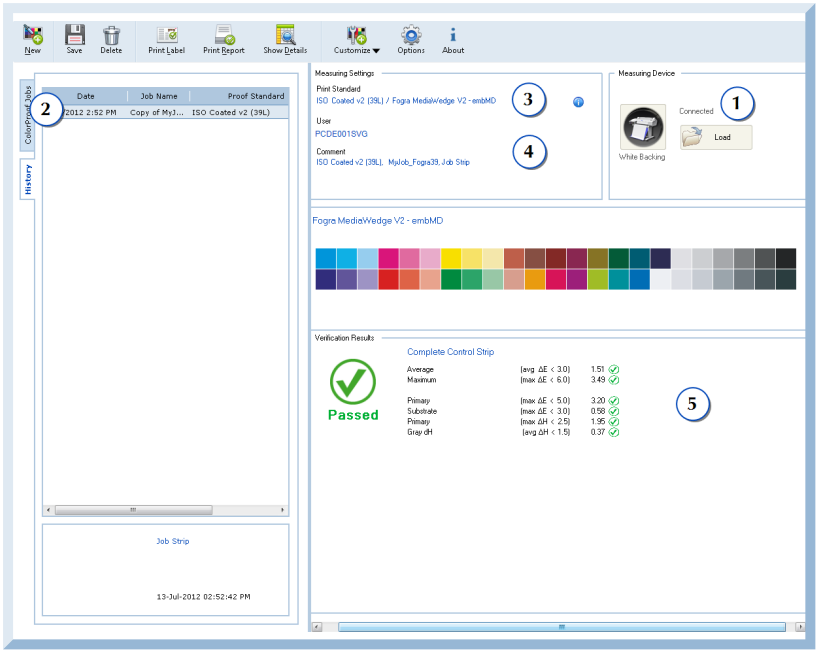

Fig. 2 Program overview.

Connecting a measuring device

Unless you are using a printer with an integrated measuring device, the first thing to do is to connect an external measuring device to the computer you are running GMG ProofControl on. Connect the measuring device before starting GMG ProofControl, so that the measuring device can be detected by the software.

The **status** of the measuring device is visualized in the top right corner of the main window displaying the **Filter** and **Backing** settings (1).

Measuring a control strip

You can define an **automatic** transfer of all GMG ColorProof jobs you want to measure into GMG ProofControl (**ColorProof Connection** > **Use Automated Measurement Import**). You can then measure the control strips by simply selecting the corresponding job in the main view in GMG ProofControl (2). The correct print standard and strip type are automatically selected and you can immediately start measuring.

For **direct** measuring **without** data transfer from GMG ColorProof, just select a **Print Standard** (3), and the software will automatically bring up the correct control strip for the selected standard. You can optionally enter the name of the operator or producer and a **Comment** (4). Both name and comment will be printed to the label.

After a successful measurement, all color patches are visualized and the measured values are displayed in the **Verification Results** area (5).

On the screenshot, you can see a FOGRA control strip, which has been measured and evaluated. The green check mark indicates that the measured values are within the tolerances defined by the standard.

Saving measurement data and printing a label

Click the **Save** button on the toolbar to save the measured values to the database.

Click the **Print Label** button on the toolbar to print a label showing the Delta E deviations, the defined tolerances, the checksum of the standard, date and time of the measurement, and additional data such as user name and comment.

With the **Show Details** button, you can show the measured and target values of all patches. This information can also be printed as a report (> **Print Report**).

2. Measuring Devices

2.1 Supported Measuring Devices

GMG ProofControl supports measuring with integrated and external measuring devices. Most of our included reference files have been primarily dimensioned for the **X-Rite i1** measuring device, using **White Backing**. If you are using a different external measuring device, you will need to create device specific files.

Measurement data of Epson, HP, and Canon printers with an **integrated** measuring device can be automatically accessed via a **hotfolder** (**Options** > **ColorProof Connection**) or can be manually imported from GMG ColorProof via an import folder (**Options** > **Measuring Device** > **Use Manual Import of PMV Files**).

You can use the following measuring devices for the proof verification via GMG ProofControl:

- X-Rite i1
- X-Rite i1Pro2
- X-Rite i1iO
- Epson Integrated Measuring Device
- Canon Integrated Measuring Device
- HP Integrated Measuring Device

2.2 Measuring Device Settings

If you connected an **i1** measuring device to the computer you are running GMG ProofControl on, the **status** and settings of the measuring device are visualized in the top right corner of the main window. When browsing your measurement data in the **History** list in the main window, the status display is **updated**.

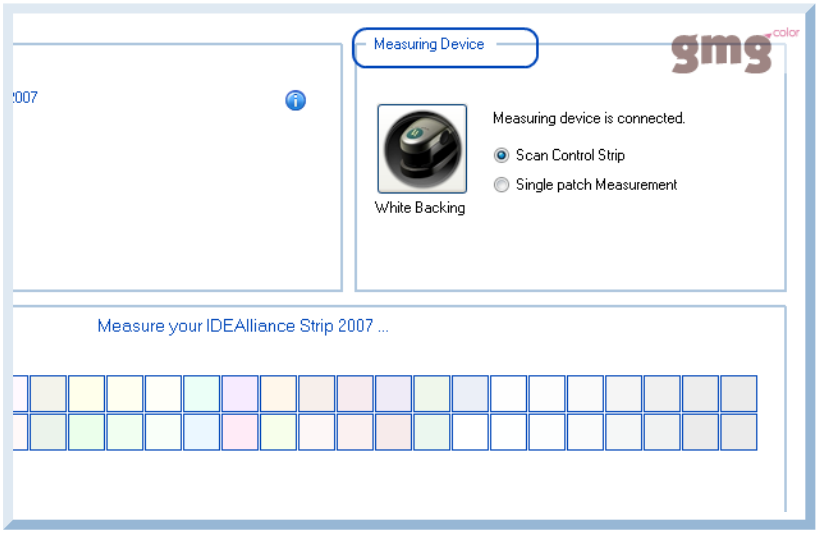

Fig. 3 Status display of an X-Rite i1 measuring device.

→ Use the mouse pointer to display further information on your measuring device.

→ **Calibrate** your i1 by placing it onto the white tile and clicking the display button.

→ Select a measuring mode (scan or patch mode).

Further measuring device settings can be accessed via the **Options** dialog (**Options** > **Measuring Device**).

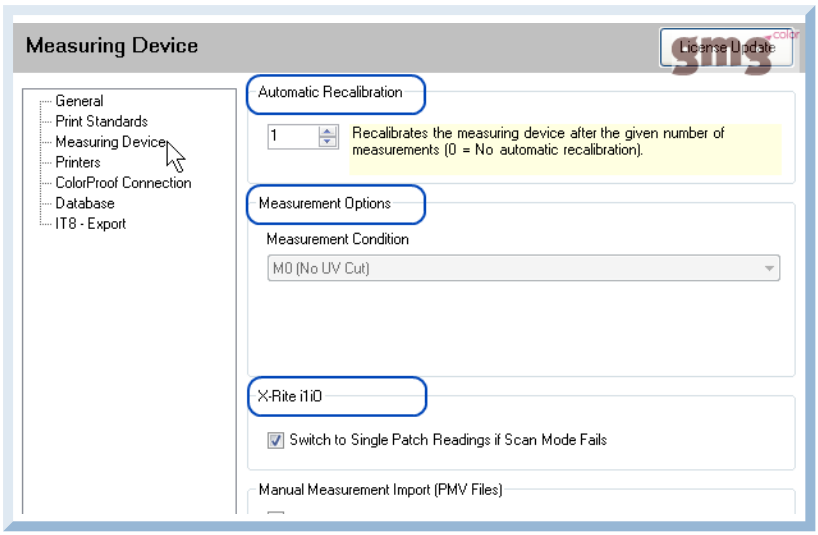

Fig. 4 Advanced measuring device settings.

→ Define an automatic recalibration interval.

→ Define the **Filter** and **Backing** method your measuring device is working with.

→ Activate the option **Switch to Single Patch Reading if Scan Mode fails**, if you are using an **X-Rite i1iO** for automatic switching to single patch measuring in case a strip cannot be read in scan mode.

3. Measuring and Verifying

3.1 Importing Measurement Data into GMG ProofControl

Measurement data from GMG ColorProof can be **automatically** or **manually** imported into GMG ProofControl.

Automatic import of measurement jobs and data

With our automatic import option, every job with a control strip that finished processing in GMG ColorProof is automatically handed over to GMG ProofControl so that the strip can be measured with an i1 or, if already measured with an integrated measuring device, selected in the **History** list to print a label or report for it.

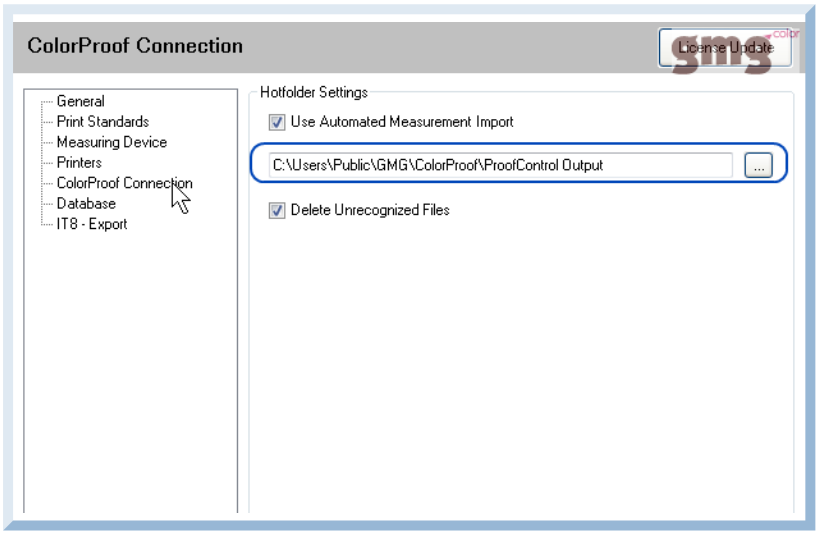

Fig. 5 Automatic measurement import via hotfolder.

How to import measurement jobs from GMG ColorProof via a Hotfolder

1. On the toolbar of the GMG ProofControl main window, click **Options**.
2. In the tree view pane on the left, click **Connectivity Options**.
3. Select the option **Automatic Measurement Import**. Browse your folders and select the folder where the measurement jobs are saved (default path: *Users\Public\GMG\ColorProof\ProofControl Output*).
4. Optional: Enable the cleanup functionality **Delete Unrecognized Files** to delete all unrecognized files.
5. Confirm with **OK**.
   The selected folder is scanned every 10 seconds for new data. All incoming data is automatically listed in the **Jobs** and **History** list in the main program view.

Manual Measurement Import (PMV Files)

If you are using an **integrated** measuring device and want to **manually** import measurement data, you need to activate the manual import option (**Options** > **Measuring Device** > **Use Manual Import of PMV Files**) and define the folder which ColorProof uses for storing the measurement data (default path: *Users\Public\GMG\ColorProof\ProofControl Output*). As soon as you activated the manual import option, a **Load** button is shown on the status display of the measuring device.

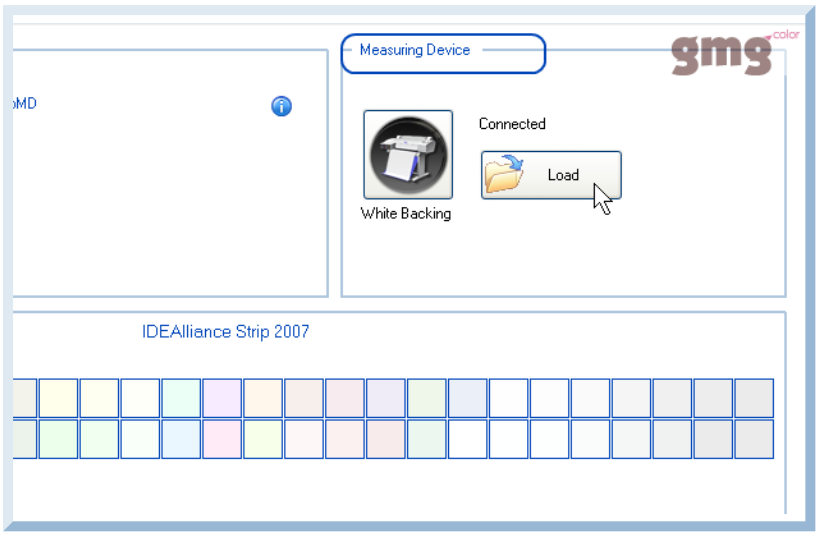

Fig. 6 Manual import of PMV measurement files.

→ Click the **Load** button to import single *.pmv measurement files.

Tip The data shown in the **Import Measured Values** dialog is filtered by the selected **Filter** and **Backing** options (**Options** > **Measuring Device** > **Manual Measurement Import**).

3.2 Verifying Control Strips in GMG ProofControl

The following shows you how to select a control strip in GMG ColorProof, measure the strip in GMG ProofControl with an i1 measuring device and print a verification label.

How to verify a GMG ColorProof proof job with an X-Rite i1

1. Create a job in GMG ColorProof.
2. **Job** > **Label/Strips** > **Job Control Strips / Image Control Strips**: Select a **Control Strip**.
3. From the **Measuring Device** list, select **i1**.
4. Under **Control Strip Type**, select the control strip you want to use.
5. Under **Position**, determine where to place the strip.
6. Print the job.
   GMG ColorProof prints the job with the control strip. The job is automatically exported to the defined GMG ProofControl **hotfolder** and displayed in the main view in the **Jobs** list (see "Importing Measurement Data into GMG ProofControl" on page 11).
7. Switch to GMG ProofControl and select the measurement job in the **Jobs** list.
8. **Measure** the patches of the printed control strip with the connected measuring device.
   After a successful measurement, all color patches are visualized and the measured values are displayed in the **Verification Results** area.
9. Click the **Save** button on the toolbar to save the measured values to the database.
   (All measurement data can be loaded again by clicking on the corresponding job in the **History** list.)
10. Click on the **Print Label** button on the toolbar to print a label with the verification results (see "Printing Labels and Reports" on page 14).

3.2.1 Verifying Spot Color Control Strips

If you want to know how well spot colors printed in an image match the reference values, you can add a **dynamically** created spot color control strip to the image in GMG ColorProof (> **Image Control Strips**). The control strip is unique for each image and can comprise up to 10 patches.

With an **integrated** measuring device and a GMG ProofControl Inline license, all patches are automatically measured and a verification label is printed on the proof. For measuring the strip with an **external** measuring device, you can use GMG ProofControl.

How to verify spot colors with an external measuring device

Note Verification of spot color control strips in GMG ProofControl is supported only for the X-Rite i1 measuring device.

1. Create a job in GMG ColorProof using an image with spot colors.
2. **Job** > **Label/Strips** > **Image Control Strip**: Select the option **Control Strip 1** (or 2).
3. From the **Measuring Device** list, select **i1**.
4. Under **Control Strip Type**, select **GMG Spot Color Control Strip - Full Tone** and determine where to place the strip.
5. Print the job.
   GMG ColorProof prints the job with the control strip. The job is automatically exported to the defined GMG ProofControl **hotfolder** and displayed in the main view in the **Jobs** list (see "Importing Measurement Data into GMG ProofControl" on page 11).
6. Switch to GMG ProofControl and select the measurement job in the **Jobs** list.
7. Measure the strip with an i1.
8. Click on the **Print Label** button on the toolbar to print a label with the verification results.

4. Labels and Reports

4.1 Printing Labels and Reports

To print GMG labels and reports, you first have to select the printers you are using in the software.

How to print a label

1. In the right corner of the GMG ProofControl main window, click **Options**.
2. In the tree view pane, click **Printers** and select your label printer from the drop-down list.
3. Under **Printer Logo**, select **GMG** or **Custom**, if you want to use a custom logo.
4. To automate your label printing, you can use the option **Automatic Label Printing (If Passed)**.
   Selecting this option means that whenever the measured values fall within the defined tolerances (=**passed**), a label is printed, documenting the quality of your proof.
5. To **manually** print a label, select a measurement and click the **Print Label** button in the main program window.
   The label is printed.

How to print a report

1. In the right corner of the GMG ProofControl main window, click **Options**.
2. In the tree view pane, click **Printers** and select a printer that supports A4/US Letter printing from the drop-down list.
3. Under **Printer Logo**, select **GMG** or **Custom**, if you want to use a custom logo.
4. Optional: On the main program window, click the **Show Details** button to have .
   a spreadsheet with all measured and target values and all color deviations displayed in a separate dialog.
5. Optional: Click the **Preview** button to view the report as it will be printed.
6. Click the **Print Report button** on the toolbar to print the report.
   The report is printed, showing the used print standard and control strip, the measurement conditions, the verification results, and the measurement values for all color patches.

5. Defining Custom GMG ProofControl Standards and Strips

How can I verify proofs printed with my own in-house print standards or printed with customized official print standards?

You can verify such proofs by creating **custom** GMG ProofControl print standards and control strips.

- GMG ProofControl **control strips** deliver the layout and the CMYK output values for the patches
- GMG ProofControl **print standards** bring in the Lab target values for the patches and the verification rules (Delta E tolerances)

Note Patches in the strip and in the standard need to be identical, also with regard to the sequence of the patches.

How do I use custom GMG ProofControl standards and strips in connection with GMG ColorProof?

Both strips and standards need to be added to the GMG ColorProof database.

- The control strip XML you create in GMG ProofControl needs to be imported in the **New Control Strip** dialog of GMG ColorProof (**Database** view > **Control Strips** tab > **New Control Strip**).
- The print standard XML you create in GMG ProofControl needs to be imported in a proof standard of GMG ColorProof or can be calculated from a profile based on the corresponding control strip (**Database** view > **Proof Standards** tab > **New Proof Standard**).

Tip For more information, please refer to the GMG ColorProof documentation.

5.1 Creating a Custom Print Standard

GMG ProofControl print standards can be created in three different ways:

- GMG ColorProof users: **Import** target values from an MX proof profile. Values required for the corresponding control strip, but not included in the proof profile, are interpolated. (This is the recommended method of choice as you make sure that the same target values are used for printing and measuring.)
- **Measure** a printed control strip. (It is recommended to use a "typical" print from a calibrated printer to prevent that target values are based on one unusual print.)
- Use an existing GMG ProofControl print standard as a template and **enter** new target values.

How to create a custom print standard

1. On the toolbar of the GMG ProofControl main window, click **Customize** > **Custom Print Standard**.
   The **New Print Standard** dialog is opened.
2. Under **Control Strip** (1), select a control strip **template** for the **layout** and the **CMYK** output values (2) of the patches.
   The patches of the selected strip are visualized (3).
3. Click **Name** to enter a suitable name for the new print standard.
4. Click the **From MX Profile** button to import target values from an MX proof profile
   —**OR**—
   Measure a printed control strip
   —**OR**—
   Click the **Open** button on the toolbar to load an existing print standard XML as a template and enter new target values (default path: *<installation path>\ProofControl\Standards*).
5. Optional: You can adjust target values by clicking on a color patch and entering the desired Lab values (4) in the **Evaluation** area.
6. Optional: You can define up to four **Custom Rules** (5) for all patches or a set of patches. You can multi-select multiple patches and then click on one of the **Custom Rules**, e.g. **Primary**, to define a common value.
7. Click on the **Save** button on the toolbar to save the print standard as an XML file to the default path (default path: *<installation path>\ProofControl\Standards*).
   The resulting print standard is now ready to use.

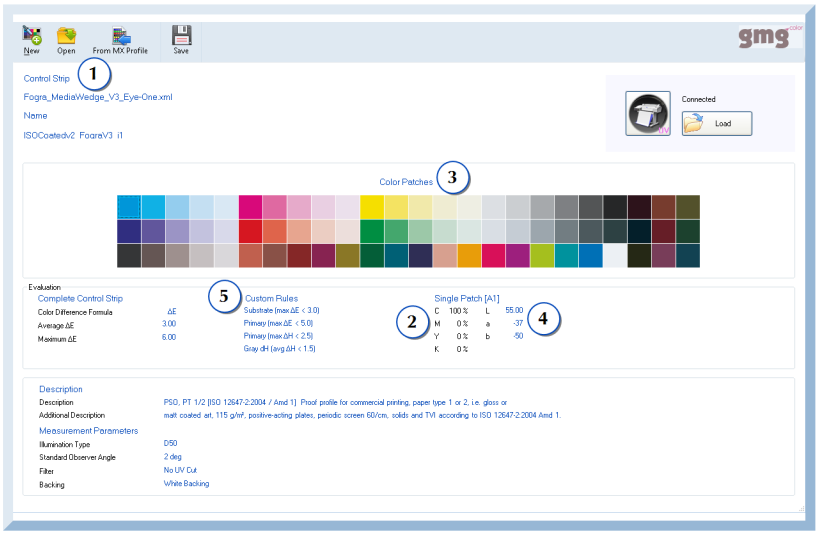

Fig. 7 Creating a custom print standard in GMG ProofControl.

Note GMG ProofControl Standards and control strips can also be downloaded from the **Support** area of the GMG web site www.gmgcolor.com.

Note Standards / control strips need to be saved into the **Standards** / **Wedges** subfolder of the main ProofControl program folder (default paths: *<GMG ProofControl installation path>\Standards*, *<GMG ProofControl installation path>\Wedges*).

5.2 Creating a Custom Control Strip

How to create a custom ProofControl control strip

1. On the toolbar of the GMG ProofControl main window, click **Customize** > **Custom Control Strip**. The New Control Strip dialog is opened.
2. Under **Measuring Device** (1), select the measuring device you are using.
3. Under **Name**, click the text box to enter a suitable name.
4. Under **Control Strip Parameters**, enter how many **Rows** and **Columns** the strip should contain (2).
5. Under **Margins**, define the margins framing the color patch rows.
6. Define the size of the color patches (> **Color Patches**) and the spacing between the patches (> **Spacing**).
7. Click on a patch to specify the **Patch Parameters** such as the **Row Name** and **Column Name** and the **CMYK** values (3).
8. Click on the **Save** button on the toolbar to save the ProofControl control strip as an XML file to the default path (default path: *<installation path>\ProofControl\Wedges*).
   The resulting ProofControl strip is now ready for use.

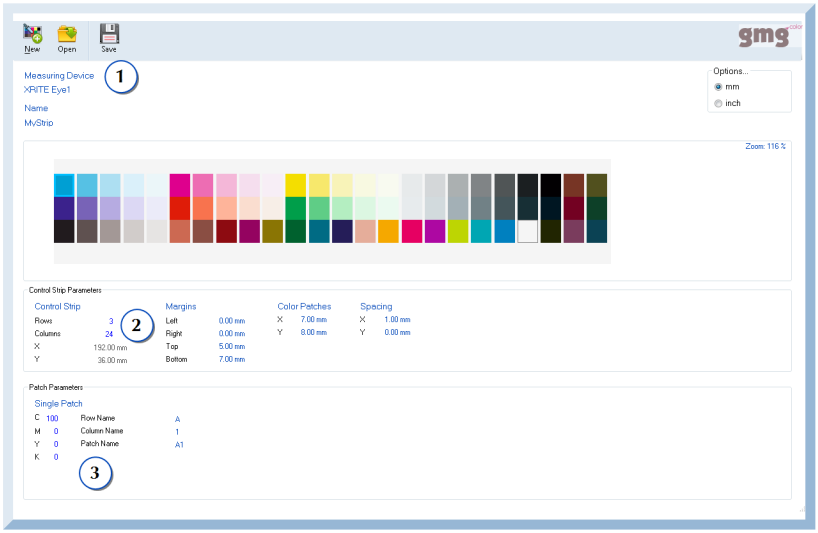

Fig. 8 Creating a custom control strip in GMG ProofControl.