pressSIGN 3.0

...intelligent printing

manual



Installation

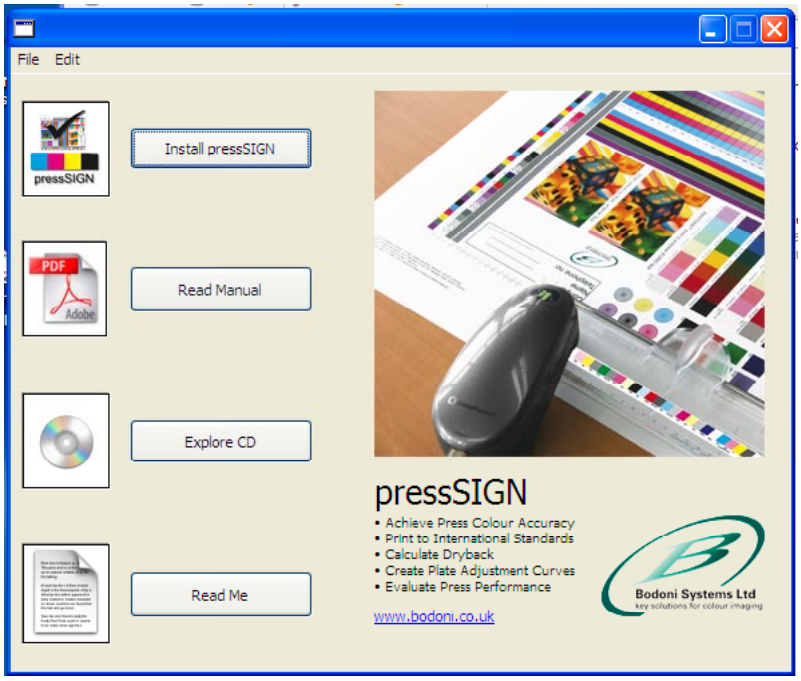
Mac

Copy the pressSIGN 2 folder into your Applications Folder



Windows

On inserting the CD, the installer should launch automatically. If not, then please double click ‘Setup.exe’

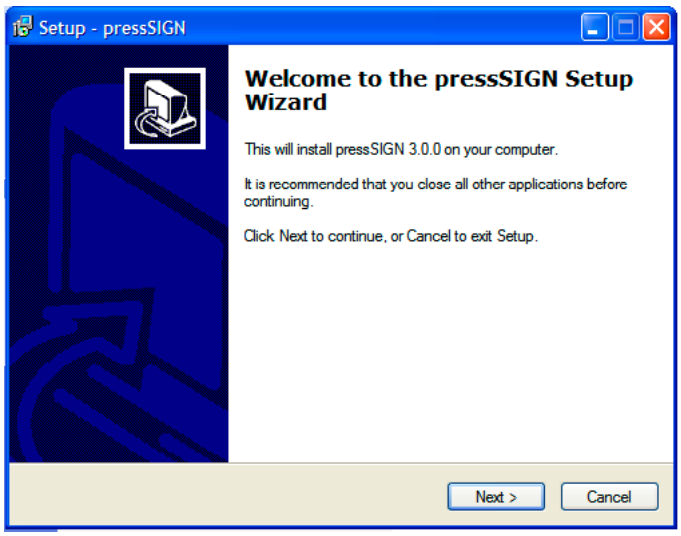


pressSIGN Launcher

From this launcher you can install pressSIGN, view the PDF manual (requires adobe reader), install the driver for the Eye-One, explore the contents of the CD and read the latest readme notes.

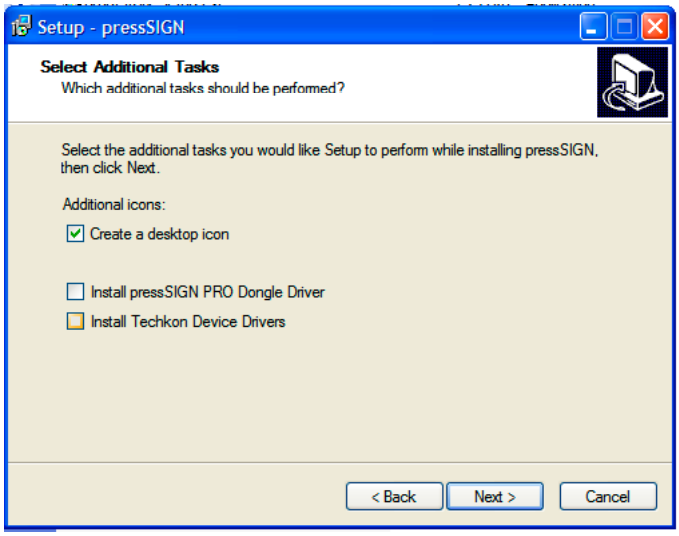
Installing pressSIGN on Windows

From the launcher click on ‘Install pressSIGN’



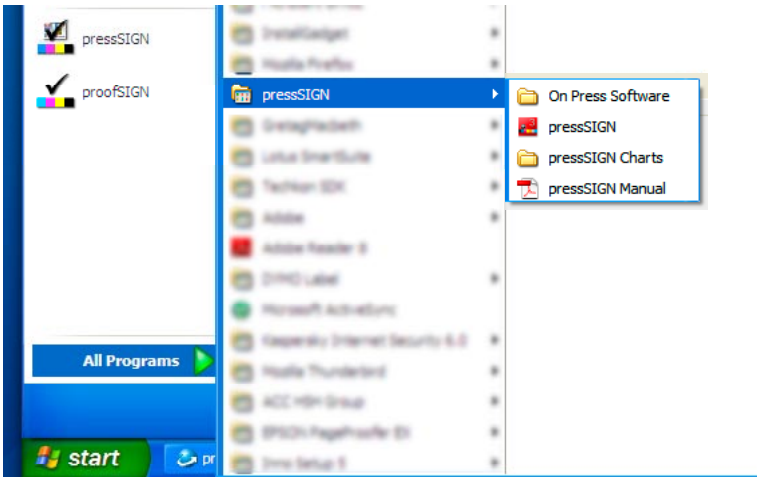
pressSIGN installer

During installation the destination folder can be specified and the latest readme can be viewed.



Optionally install the Techkon Spectrodrive driver and the pressSIGN PRO HASP Dongle driver

Install the Techkon Spectrodrive driver and service for measuring using the Techkon device with pressSIGN PRO. The dongle driver is required



pressSIGN installed

From the Start menu you can launch the program, view the pressSIGN colour bars, and read the PDF manual.

Activating pressSIGN

pressSIGN and pressSIGN Print Buyers Licenses

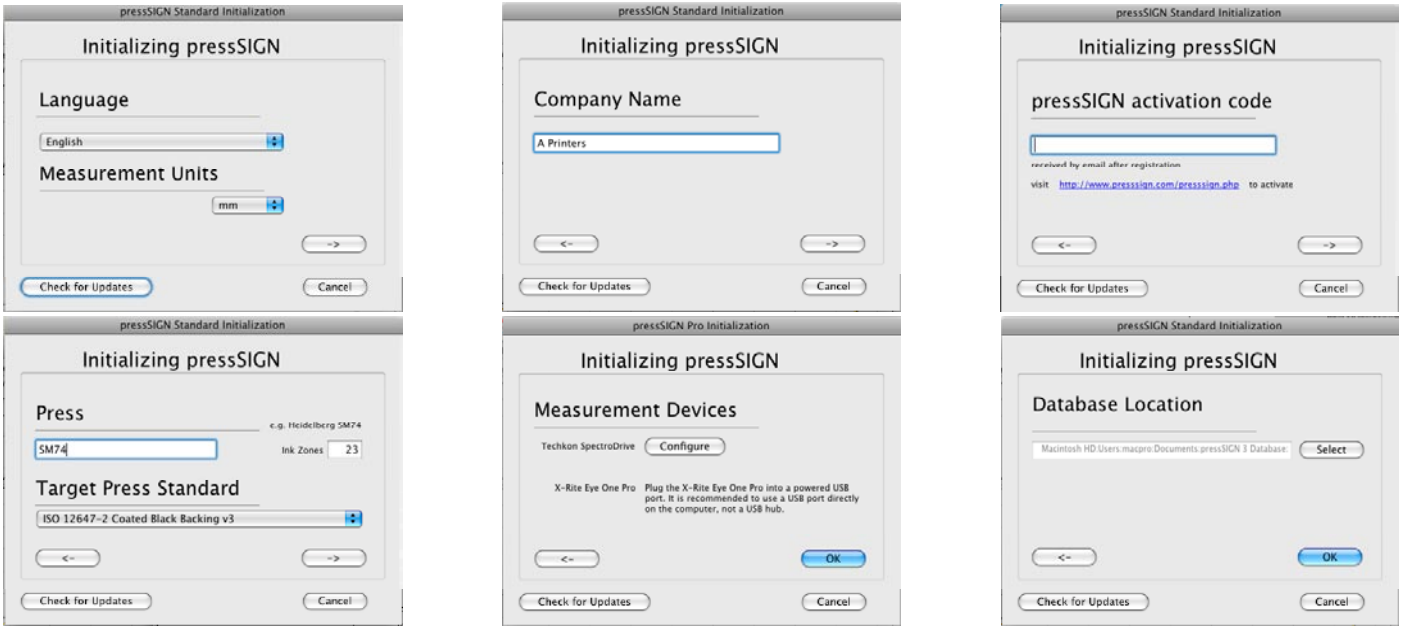
The activation code enables pressSIGN to be used on any computer, and installed in many locations, but is associated with a particular Eye-One Pro. Please make sure that the Eye-One Pro serial number is correct when activating. The number used is the 6 digit number written on the calibration plate.

pressSIGN PRO License

pressSIGN PRO is licensed to a USB dongle. The activation code is generated from the Dongle ID, which is written on the side of the Dongle. You can load the pressSIGN software on any compatible computer. Please maker sure the dongle is installed on the computer before launching the software.

Running pressSIGN for the first time

The first time you launch pressSIGN are asked to fill in some default settings such as language, company name and default target.



pressSIGN Defaults

The pressSIGN activation code is generated online by visiting http://www.presssign.com/presssign.php. If the computer you are installing pressSIGN on is connected to the internet, then you can click on the URL link just below the area which asks for the activation code. The code that needs to be typed in here IS NOT the code that is within the CD Case.

If you do not have an internet connection, then fax a form containing the pressSIGN serial number, the Eye-One Serial number, name and return fax number to +44(0)1923 225654. We will fax back the activation code normally within 1 working day.

Fill in the name of the press you are using. This could just be the type of press, or some other form of identification. The ink zone number is used when scanning a full strip in pressSIGN PRO for ink zone numbering.

Fill in your company name. This is printed on every label and PDF report. The company name can be changed later in the preferences.

The Database location is by default saved in the user Documents Folder. When running in demo mode the demo database is used and the location cannot be changed.

Logging into pressSIGN



Login screen in pressSIGN

Each time you log into pressSIGN you will be asked to log in. By logging in as different users (operators) jobs can be allocated to different people. Operators can be added and passwords edited from the preferences window.

Default Login Details

The default login details are in t he screenshot above. Username ‘presssign’ with no password.

Configuring Measurement Devices

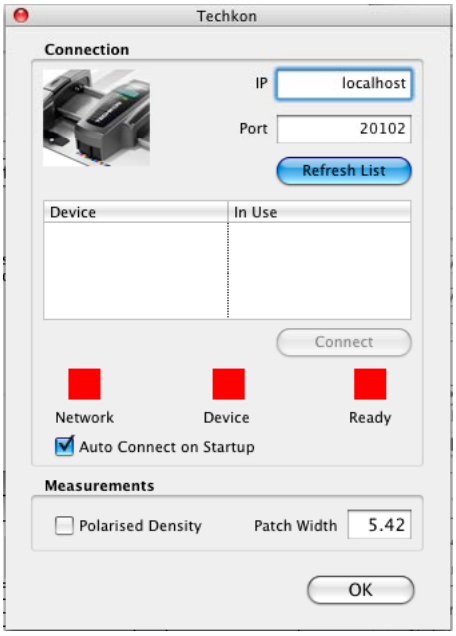
X-Rite Eye One Pro

Plug in the Eye One Pro into any full powered USB port on the computer that is running pressSIGN. It is recommended not to use USB hubs because even powered USB hubs don’t always provide enough power.

Techkon Spectrodrive

Connection to a Techkon Spectrodrive is available in pressSIGN PRO only. The Spectrodrive hardware runs on a Windows PC. Mac and PC versions of pressSIGN can communicate with the Spectrodrive hardware via a TCP/IP network.

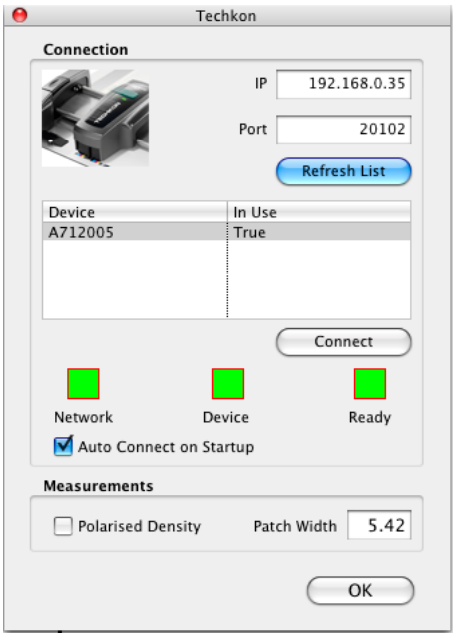
Make sure the Techkon Spectrodrive is seated on the track before launching pressSIGN.



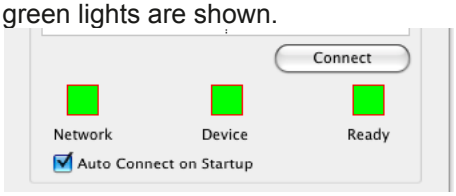
Techkon Configuration

If the Techkon Spectrodrive is connected to the same computer as pressSIGN then the default network configuration will work as shown in the screenshot above.

If the Techkon Spectrodrive is connected to a different computer then fill in the IP address of that computer. The port number should be set to 20102. After entering the IP address click ‘Refresh List’



Highlight the serial number of the Techkon Spectrodrive you want pressSIGN to connect to and click ‘Connect’
If the connection was successful then 3 green lights are shown.



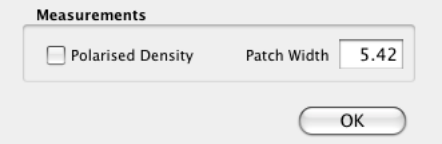
The ‘Network’ light shows green when pressSIGN can connect to the Techkon device service at the specified IP address and port.

The ‘Device’ light shows green when pressSIGN has received a reply from the Techkon Spectrodrive itself.

The ‘Ready’ light shows green then pressSIGN has received a ‘Ready’ message from the Techkon Spectrodrive.

The time it takes to receive the network green light is dependent on the speed of your network. Typically on a normal wired network the reply is under 1 second. The time it takes to connect to the device is more variable. It can take up to about 10 seconds for all the lights to become green when connecting successfully.

Click ‘Autoconnect on startup’ will set pressSIGN PRO to connect to the Configured Techkon Spectrodrive whenever the pressSIGN PRO is launched.



Techkon Spectrodrive Measurement configuration

Set the patch width to the size of patches that will be used on the colour bar. The default value of 5.42mm is derived from an ink zone of 32.5mm containing 6 patches (32.5 / 6 = 5.42). If you generate you own colour bar then the patch width is shown in the colour bar generator window. Make sure that the value matches the correct width of the patches in the colour bar. Errors and mis-measurements are likely to happen with the wrong value.

Tick the polarisation for the Techkon to return polarised Density values. pressSIGN does not allow polarised Lab values to be returned.

Measuring with a Techkon Spectrodrive

Full strip measurements can be done by either clicking ‘Scan’ in the Measure window, or by clicking the green button located on the top of the Techkon Spectrodrive when the machine is in the ‘Home’ position.

Spot measurements can be done by removing the Techkon Spectrodrive from the track, aligning the measurement head to the spot to measure and clicking on the green button on top of the Techkon Spectrodrive.

Procedure for setting up a new press

1. Make sure the plate is linear.

When starting out it is better to make sure you have a linear plate, so that any dot gain measured on press is to do with the press, and not to do with an incorrectly exposed / calibrated plate. You should be able to measure a 2%, and 98% dot on the plate easily. A photographic based plate densitometer is far superior than a paper densitometer for measuring a metal / polyester plate.

If you are calibrating several papers or updating an existing curve, then you don't need to run a linear place, and just use the pressSIGN adjustment curves to update existing ones. We would still recommend that each new press be run for the first time with a linear plate, so that press problems can be determined, before any plate adjustments are done.

2. Determining the correct ink density

This is most easily done by setting up the ink ducts across the press to be too high at one side, and too low at the other. We can then use the single measurement mode in pressSIGN to determine the closest ΔE value achievable on that press / paper / ink combination. Once the best density has been determined we can make a note of the densities. This would then be the target densities for that ink & paper.

3. Measure the dot gain on press

Only once the solid ink density has been achieved should the dot gain be measured on press. This is because the solid ink density has a massive affect on the dot gain. Press problems will show up here as uneven curves / dot loss / very high dot gains. You will also be able to see the difference in gains for each unit on press and determine if a single unit is not performing correctly.

4. Generate plate adjustment curves and image new plates

Export, or use the PDF plate adjustment data to adjust the TVI (Tonal Value Increase) on the press. How this is done is dependent on the workflow / platesetter RIP.

5. Reprint the job using the same ink densities as determined by step 2

Now the plate has been adjusted, you should have the correct TVI values on the press sheet. This should give a much better match to other presses / standards and as the press changes over time, you will be able to update the curves to keep the colour consistent.

The pressSIGN colour bars.

Included with pressSIGN are several files which can be used as the control strips, or you can create your own using the pressSIGN colour bar generator.

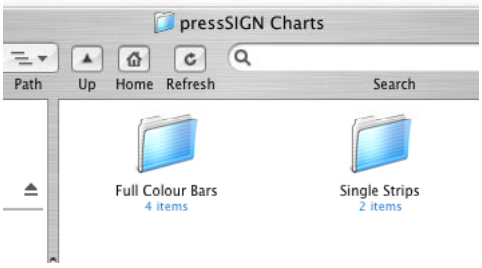
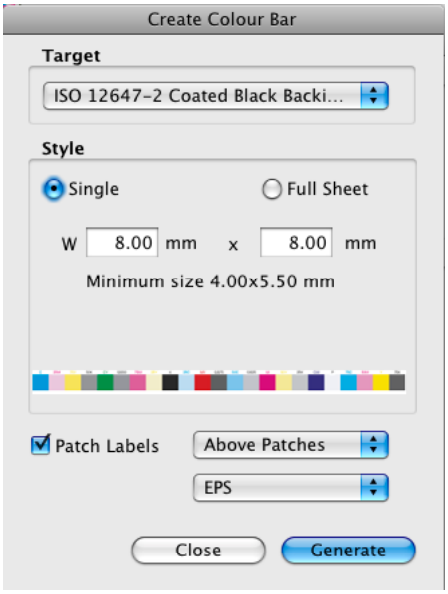


Chart folder

Using the pressSIGN Colour Bar Generator

Open the colour bar generator by pressing Command-B on a Mac, Ctrl-B on a PC, or File->Export->pressSIGN Colour Bar.



Generating a single colour bar

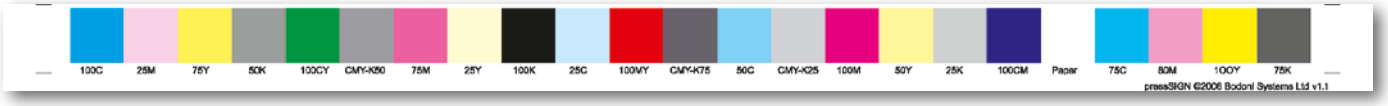
Firstly, select the standard from, which the colour bar will be made from. This makes sure the tints and grey balance patches match those used in the target. To change the tints, or the grey balance values see the section called ‘Adding Target Press Standards’

Single Strips

Single colour bars are designed to be placed in gaps or margins on a press sheet. The smallest patch size for a single bar is 4mm wide x 5.5mm high. The default size is 8mm x 8mm as this provides an easy patch size to measure with a hand held device.

Dot not place the strip at the side of the press sheet, because the ink will be very hard to control using ink duct adjustments, or next to areas with very little ink coverage.

Included is a set of single colour bars compatible with the default standards included with pressSIGN. These strips are available as a TIF, PDF and EPS and are 6mm square, with and without labels.



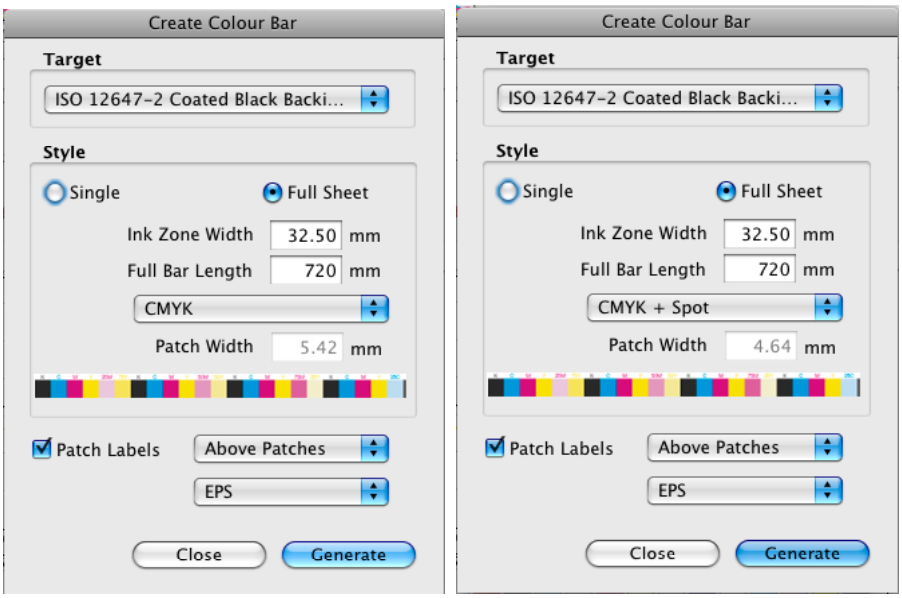
pressSIGN Chart_v21.EPS



pressSIGN_Narrow_v21.EPS

Full press sheet strips

The full press sheet colour bars are designed to be able to measure across a full press sheet and be used to set ink duct adjustments. All versions of pressSIGN can measure a full strip, but the full press sheet view is only available in pressSIGN PRO.



Generating a full 4 or 5 colour press sheet bar

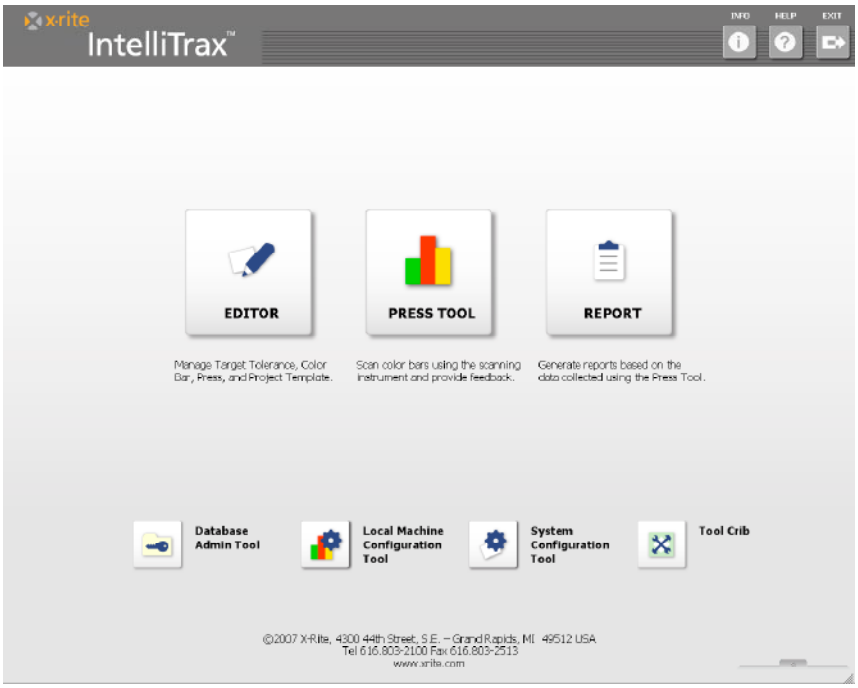
Set the ink zone width and full colour bar length. pressSIGN generates a colour bar that is 6mm high and sets the width of the patches so that there are 6 patches in each ink zone: CMYK solids and 2 extra patches which are used for tints / grey balance patches etc. The ink zone size is dependant on the press, so refer to the press manufacturer for the size. It is very important that there is a solid CMYK patch in each ink zone. Set the full bar length to be slightly shorter than the width of paper so that there will be blank paper at each end of the colour bar.

The generated colour bar should generally be placed at the back edge of the press sheet at least 10mm from the edge. This might change for perfecting presses where the paper is tumbled and the back edge through the first set of units becomes the front edge of the back. Position the colour bar so that it would not interfere with the grippers.

When generating a 4 colour bar, the files can be saved as either a PDF, or EPS. A 5 colour bar can only be saved as an EPS. The spot colour in a 5 colour bar is called ‘S1’.

Setting up pressSIGN PRO with Intellitrax / PDCS-II systems

To enable Intellitrax to recognise a pressSIGN PRO Colour bar, it is necessary to import the colour bar definition. You can find all the files needed to import into the intellitrax software within the ‘Intellitrax’ folder of the ‘ On Press’ folder.

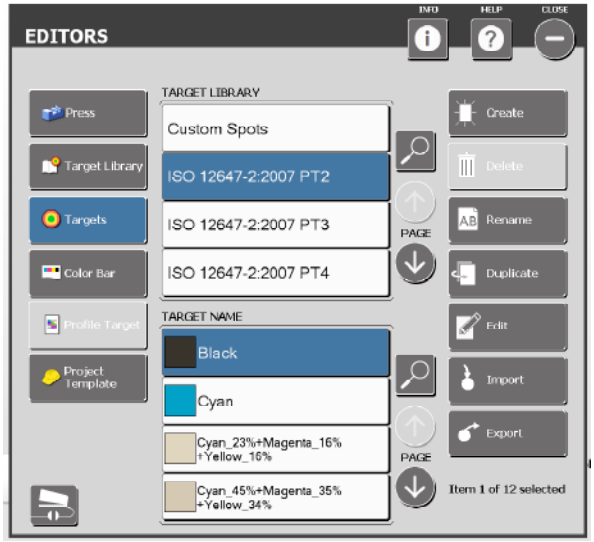


Intellitrax / PDCS-II Launcher

From the Launcher window you can import and set up colour bars using ‘Editor’, read press sheets using ‘Press Tool’ and configure where Intellitrax automatically saves measurement data.

Importing Ink Colour Targets into Intellitrax

From the Launcher, click on ‘Editor’ From the window that opens, you can import Ink Targets, Colour bars and create Press layouts.



Intellitrax Editor

To import a set of ink targets highlight the ‘Targets’, then click “Import’. Browse to the ink target file included with press-SIGN PRO, or define your own. Due to version changes and compatibility, the ‘.tt’ files included with pressSIGN may not be able to imported into the Intellitrax software. In this case the targets have to be entered manually.

Importing Colour bars into Intellitrax

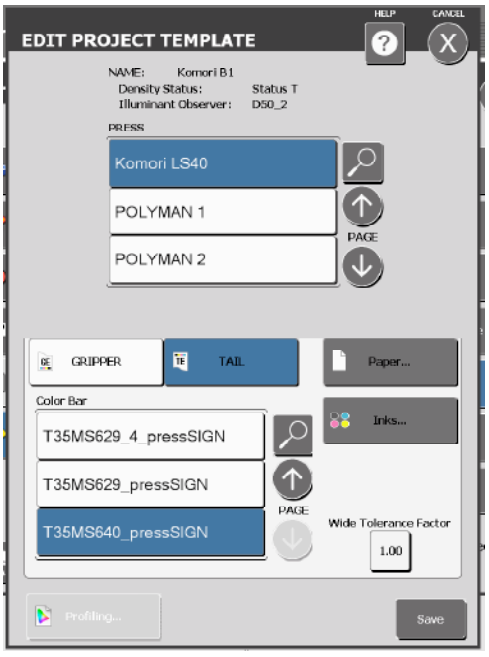
Highlight ‘Color Bars’ an click ‘Import’. Browse to the colour bar ‘.cbl’ file. The Intellitrax system must know the location of each patch in the colour bar to be able to measure and export the measurements after each pass.



Importing Colour Bars

pressSIGN PRO can read any colour bar so long as it has at least 1 of every patch that is required. The order and spacing of the patches is only relevant to the Intellitrax itself for patch recognition. Changing the supplied colour bar requires changing the colour bar definition.

Creating a project template for Intellitrax

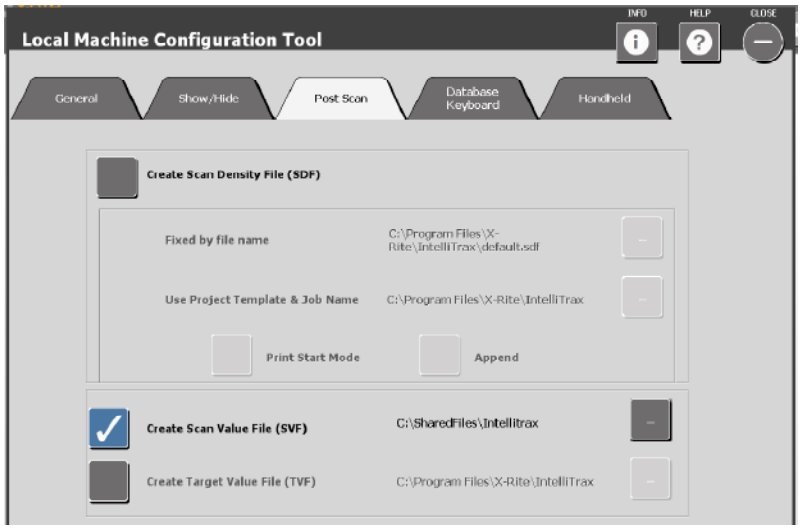


Project Templates

Project templates are a quick way of specifying the colour bar, ink, paper, press and colour bar position. Adjust these settings to match your environment.

Setting Intellitrax to export data after every scan

From the Launcher click on the ‘Local Machine Configuration’, then the ‘Post Scan’ tab.

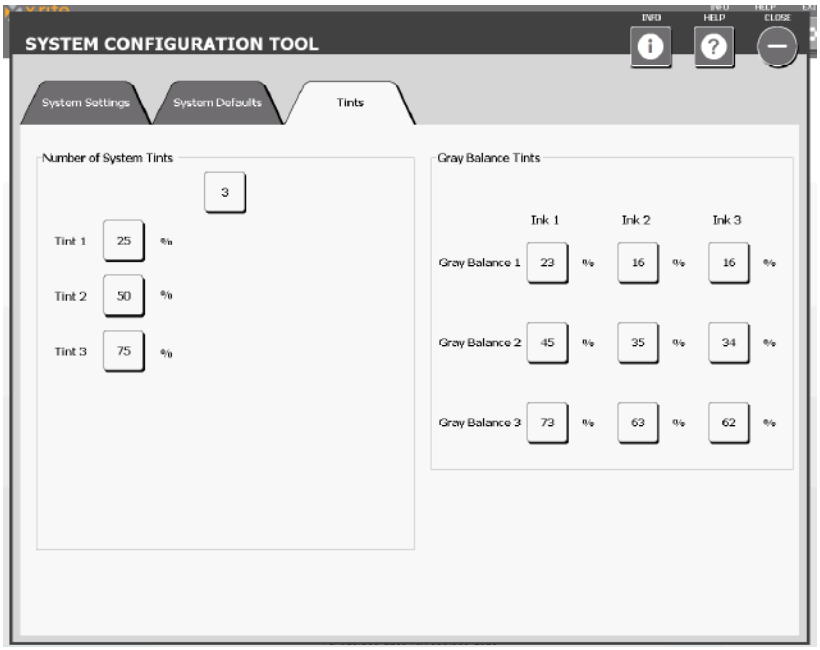


Intellitrax scan file configuration

Click on the ‘...’ icon next to the ‘Create Scan Value File’ and browse to where you want the measurement files saved.

System Configuration Tool

This tool is used to configure the tints and grey balance patches used. This has to match the values used in pressSIGN for the auto recognition to work. From the Editor tool, click on the ‘System Configuration Tool’ tab.



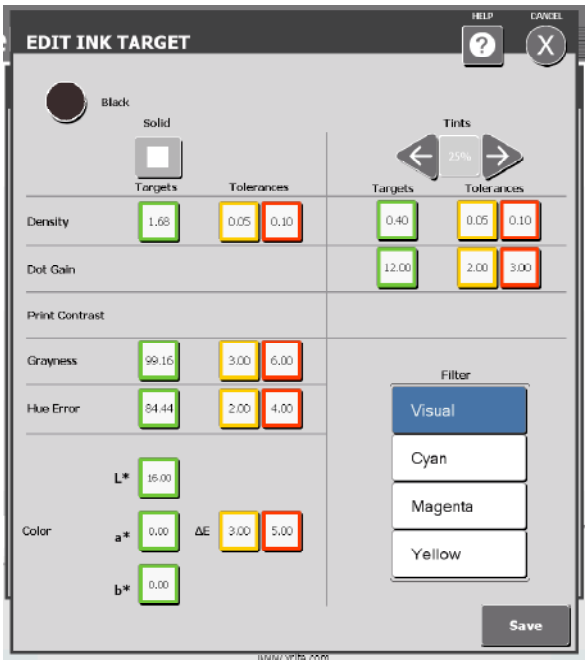
System configuration tool

Set the values as shown above. The grey balance patches shown here are the defaults used in the colour bars supplied with pressSIGN. These values need to be changed, if the colour bar has been altered.

Editing target density values.

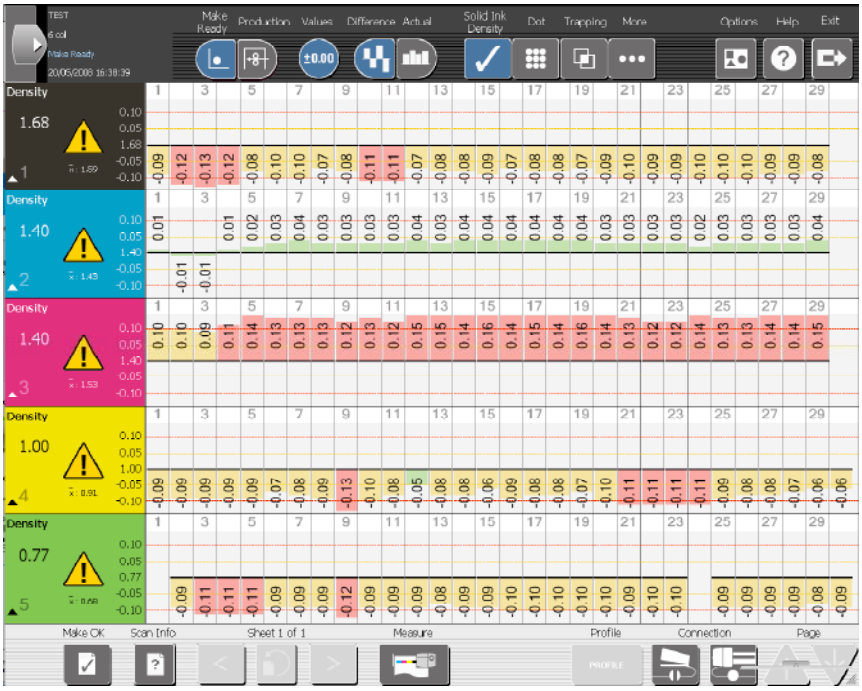
Once you have determined the target densities using pressSIGN, these targets need to be entered into the Intellitrax software.

From the editor, click the ‘Targets’ button. Highlight the colour you wish to change, and click ‘Edit’.



Edit Target Name

Click on the density value and enter the values given to you as the target density. Any new jobs created will now have these new values.



Measurement of the pressSIGN PRO Colour bar in the Intellitrax Software

Adding colour bars and minispots into Heidelberg Image Control

Included within the pressSIGN 'On Press' folder is an 'Image Control' folder. Within that folder are several files with a '.fms' extension. These are the files which have to be copied onto the Image Control system.

Copy each of the '.fms' files into \\Hde24000000801\Drive_D\cpc24\Ini\Db\FMS

The name of your Image control computer may be different.

After copying you need to restart the Image Control computer. Make sure that is not being used when you restart the computer.

After the Image Control station has restarted it can be added by clicking on the 'Configuration' icon, followed by 'Color Control Strips'

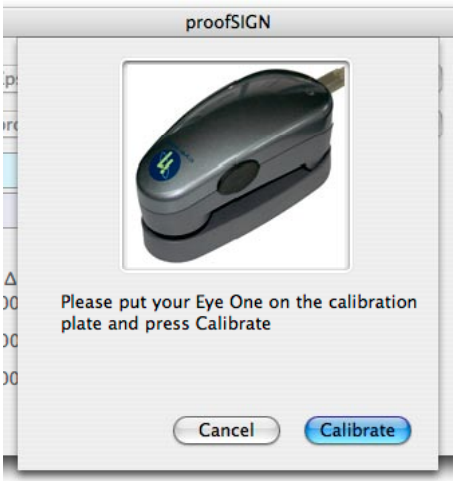
The new pressSIGN PRO colour bars will be listed in the 'Unused' section. Add each one you want to be able to read.

This only needs to be done once per Image control installation, and the strips will now be available for every job.

When using a pressSIGN colour bar that lies across the whole press sheet you just need to click roughly the middle of the colour bar for Image Control to recognise it. To get Image Control to recognise the minispot you have to click on the top left and bottom right of the colour bar. Minispots can be positions horizontally or vertically, and are the same as the strip used by the Eye-One.

Calibrating an Eye-One

When you launch pressSIGN, or if pressSIGN is running and you then plug in the Eye-One the calibrate window automatically opens.



Calibrate window

You can also calibrate the Eye-One at any time by clicking on the 'Window' menu and selecting the 'Calibrate' option.

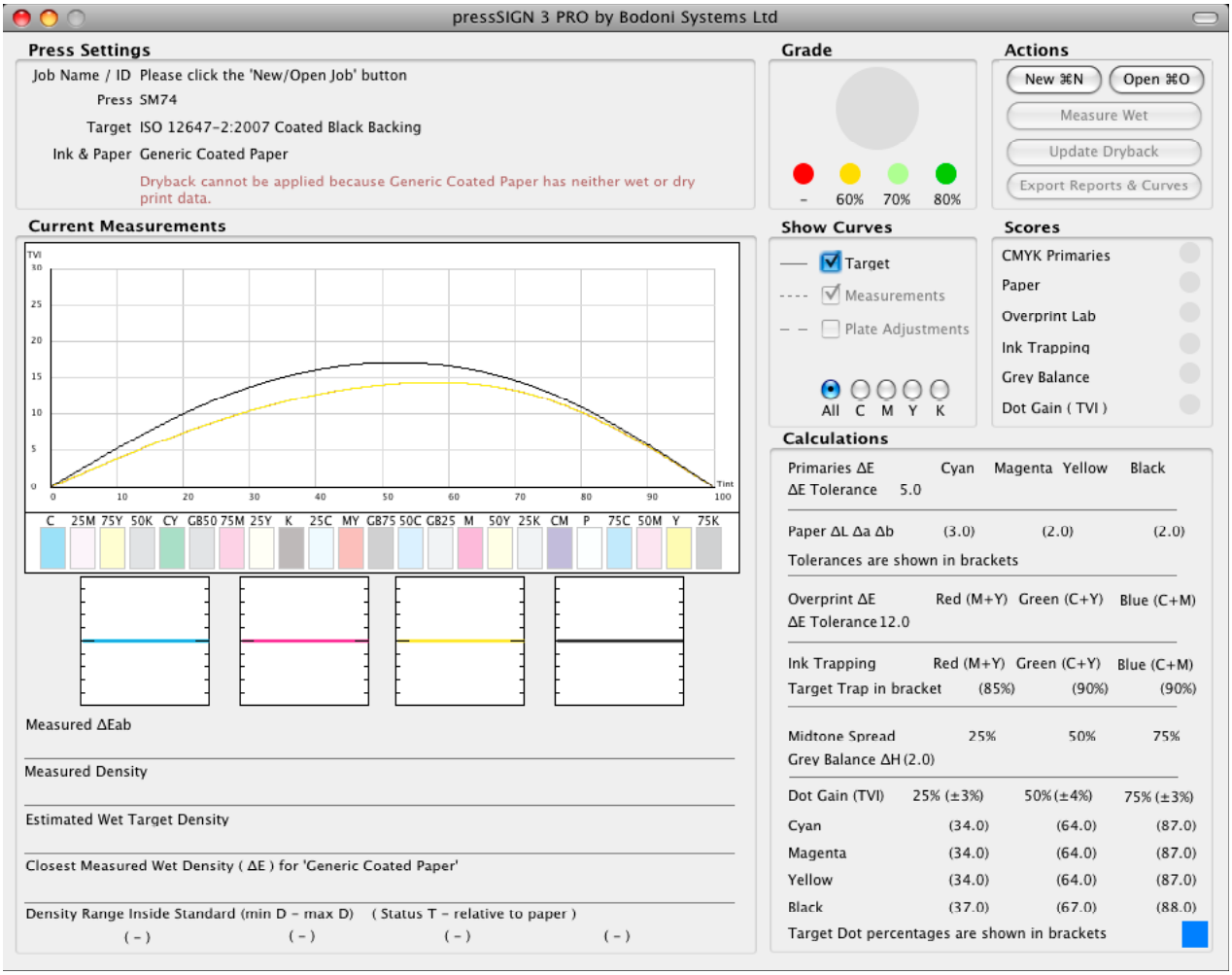
If the calibration wasn't successful, then make sure the Eye-One is sitting neatly on the calibration plate and try again. If you get erratic measurements, then it is a good idea to re-calibrate the Eye-One.

pressSIGN PRO does not require an Eye-One plugged in to take any measurements.

Calibrating a Techkon Spectrodrive

Calibration is performed automatically when connecting to the device. There should be no need to perform a new calibration. If you want to re-calibrate, then open the Techkon window and click the 'Connect' button.

User Guide

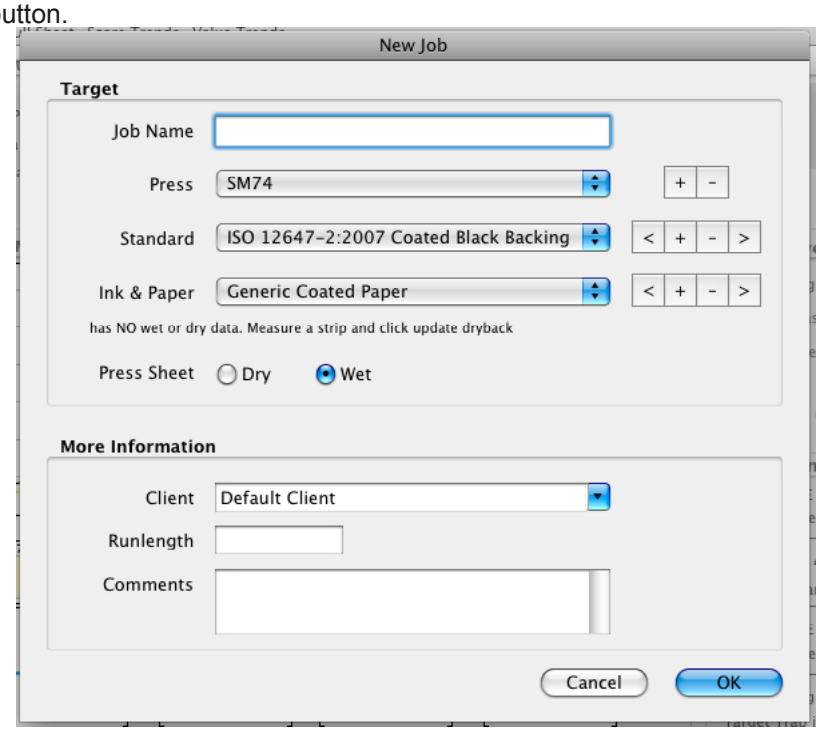


pressSIGN 3 user interface

Creating a new Job

Before you can create a new job, pressSIGN PRO or pressSIGN Trends users must have the USB dongle plugged in. pressSIGN and pressSIGN Print Buyers must have the Eye-One Pro plugged in.

Click on the ‘New Job’ button.



New Job Window - pressSIGN 3

In a change from pressSIGN 2.x, there is no hot folder selection in the New Job Window. Setting the hot folder is now done from the job window where the automatic import is started and paused.

pressSIGN Print Buyers does not allow a wet sheet to be selected.

With the in-built target standards there are options for measuring black backing, or white backing. This describes what will be put underneath the press sheet you are measuring. White backing is more of the same blank printed paper. Useful if your paper is quite thick (175gsm+) or you are not printing on both sides. If you are printing on both sides then black backing is more useful as it gives a more consistent readings because on different parts of the colour bar other colours will be showing through. This can affect the colour measurements considerably. Do not just put one press sheet on top of another.

Select the target standard you are working to, and whether you are measuring a wet or dry press sheet.

Enter the client name either from the popup menu or type in a new client.

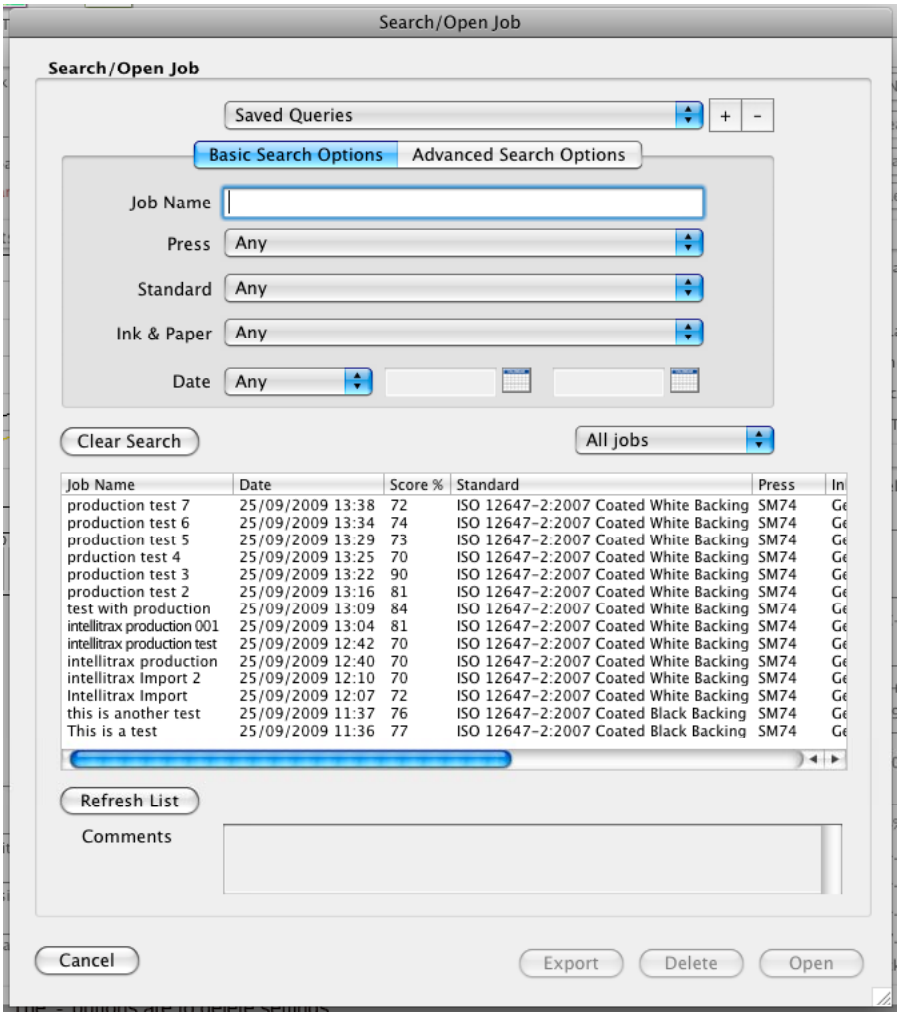
Enter run length of the print run.

Enter any comments regarding the job.

Once the job parameters are set, click ‘OK’.

Opening or Searching for an existing Job

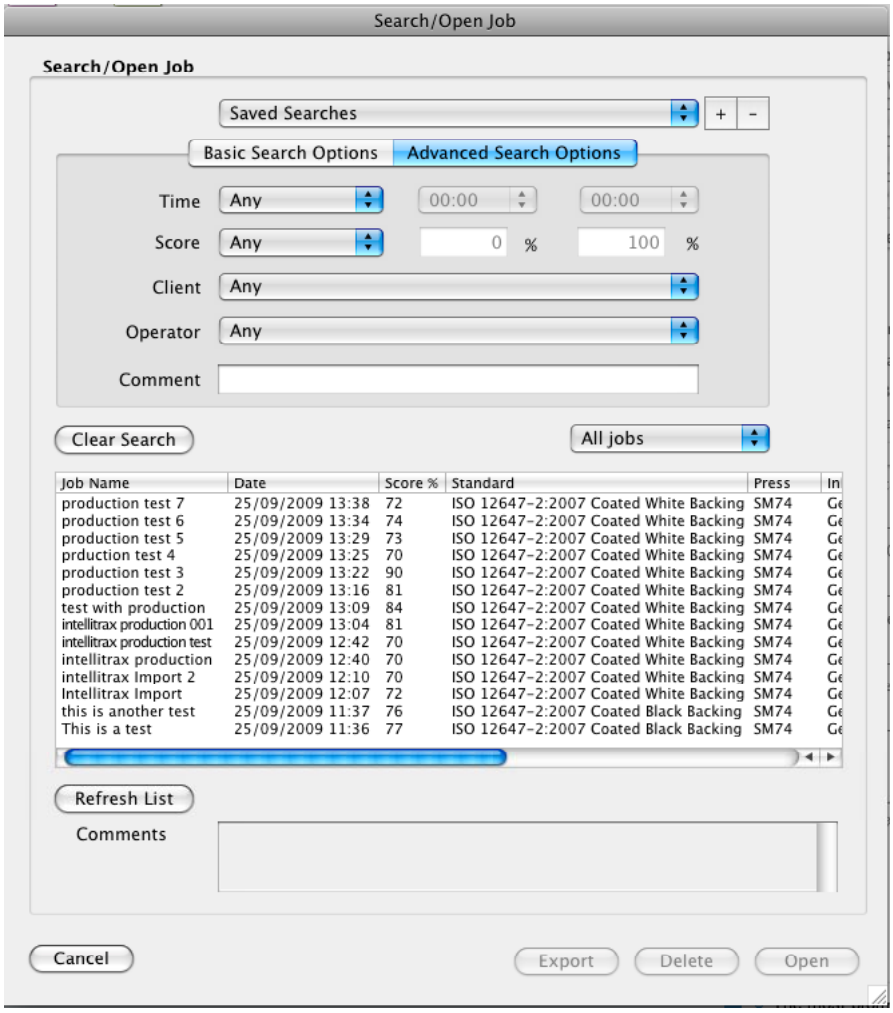
Click the ‘Open Job’ button on the main window



Opening or Searching for an existing job

As the search criteria are changed the job list is automatically updated. By default the job list is sorted with the newest jobs at the top. Click on the different columns to change how the job list is sorted.

The Basic Search Options allow searches on job name, press name, target standard, ink & paper and jobs which were done at certain dates.

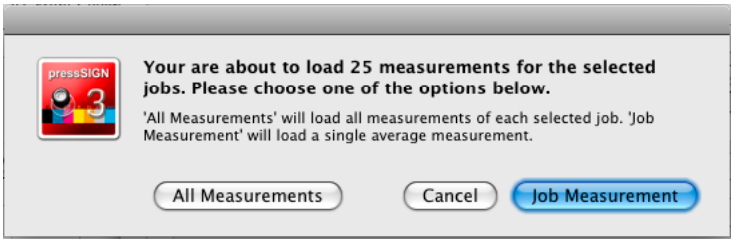


Advanced Search Options

Advanced options allow searches on Time of Job, Minimum and maximum scores, specific clients, operators and comments.

Searches can be saved and reused by clicking on the '+' icon next to the 'Saved Searches' popup menu.

Highlighting more that one job can be done in pressSIGN PRO and pressSIGN Trends only.



Opening several jobs at one time

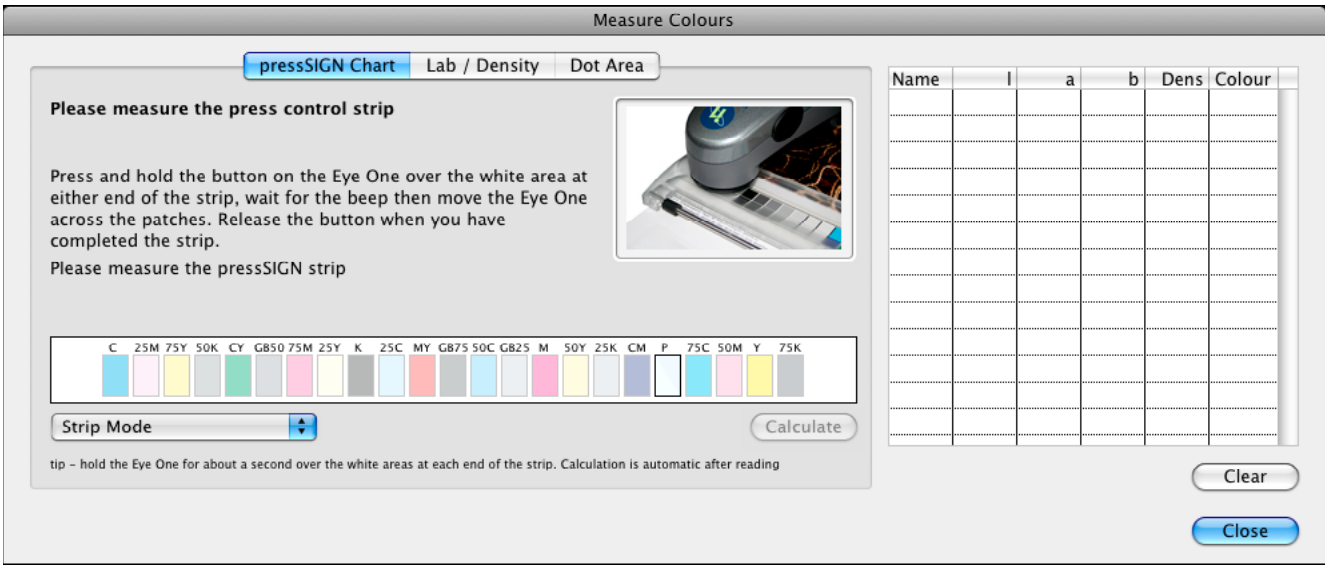
Selecting 'All Measurements' opens up all the measurements from each job. This would be used to average several presses and want to pick measurements from more than one job. Opening up several jobs, each with a large number of measurements can take some time. This depends on the speed of the computer and the access time to the database.

Selecting 'Job Measurements' opens up the average measurement for each job. Use this for tracking performance of

operators, presses over time. For instance you could list all the jobs for a certain client over the last year.

Measuring a press sheet manually

Once a job has been created, you can start measuring my clicking and holding the Eye-One button down and measuring the strip, or Click on ‘Measure Wet’ to open the measurement window. If the job parameters are set for a dry sheet, then the button will show ‘Measure Dry’. When using a Techkon Spectrodrive, click on the green button on the device to start a scan.

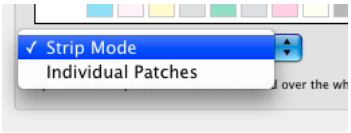


Measure Window before any measurements

The measure window is divided into 3 panels:

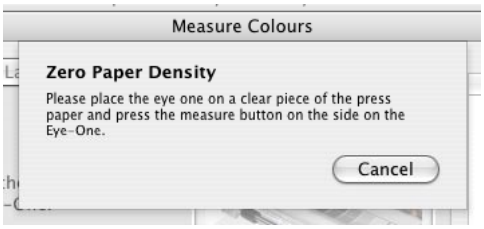
pressSIGN Chart

This area is used for measuring the control strip, or adding other measurements made when in the other panels. The strip can be measured individually, or in full strip mode.



Selecting to measure the strip invidually, or as a whole strip

If you select to measure the chart individually then you will need to measure the paper colour first. If the ink / paper type you have chosen already has paper measurements in it, then this will be used.

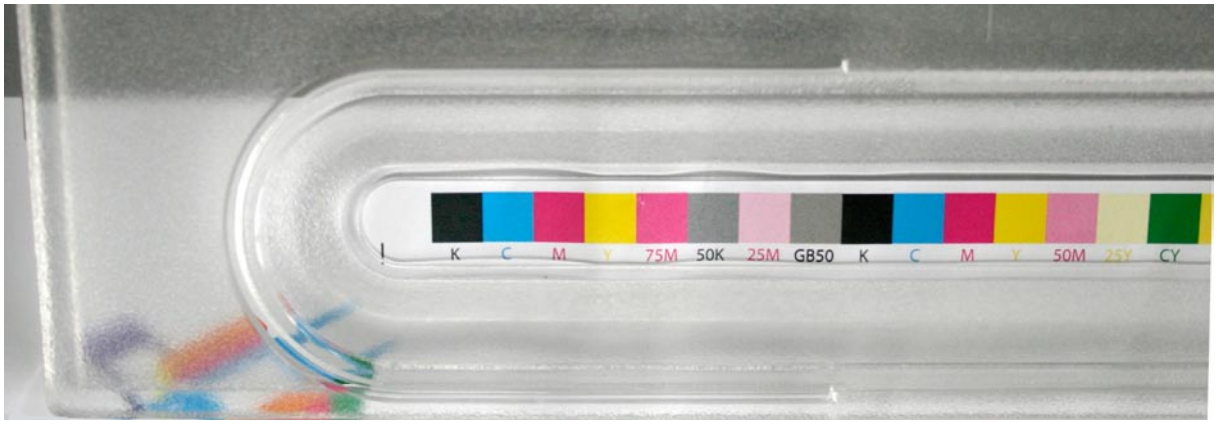


Zero paper density

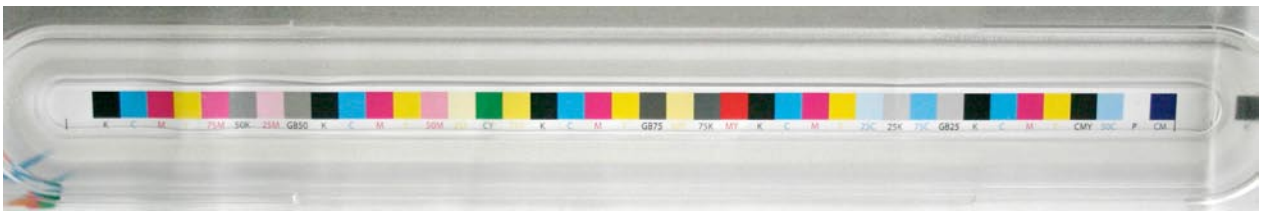
When measuring in strip mode, pressSIGN auto-detects the style of strip - there is no need to tell pressSIGN whether you are measuring the full colour bar, or the single strip.

Eye One Pro

Use the images below to align the ruler and the strip. The text labels should be just aligned with one of the edges of the ruler as shown. Make sure the ruler is parallel to the strip, and centre the strip in the ruler.



closeup of strip showing ruler alignment



centre the strip in the ruler

Measure the strip smoothly and slowly, leaving a slight pause (about a second will do) at either end of the strip over the white area. Once the strip has been read, the measure window updates with the measurement data.

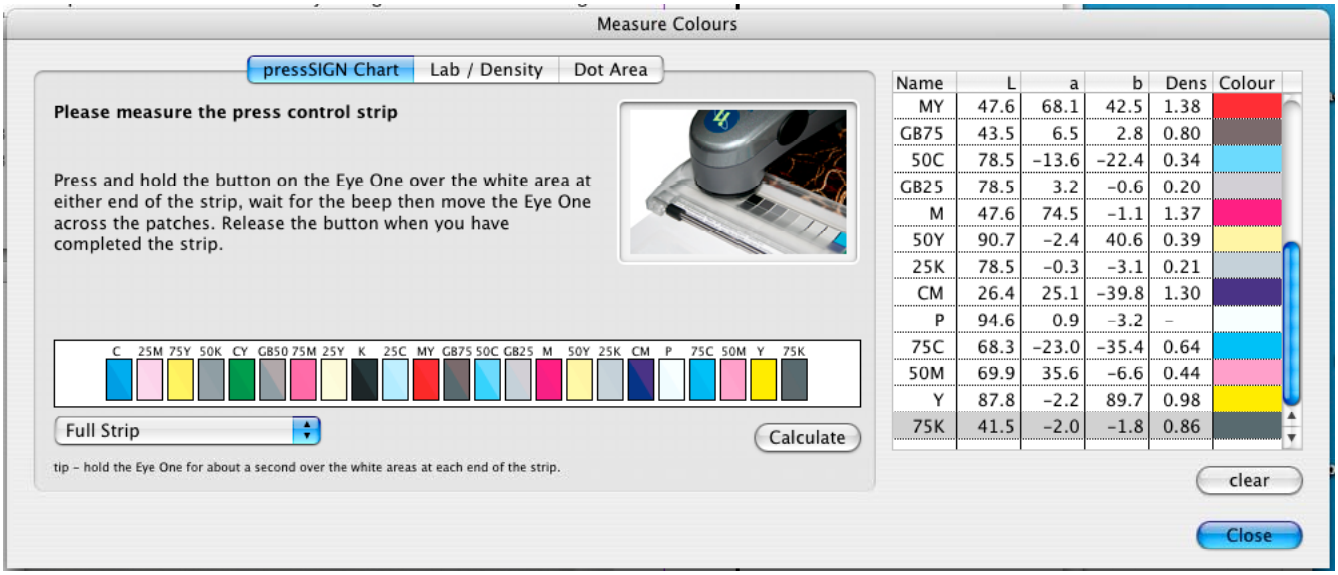
Techkon Spectrodrive

Align the press sheet so that the colour bar is underneath the measurement head of the Techkon Spectrodrive. Push the head manually across the whole colour bar and make sure the head is always over the colour bar.



Techkon Spectrodrive alignment

Press the green button on the top of the Techkon Spectrodrive to start a measurement, or click ‘Scan’ from the measurement window.



Measurement data

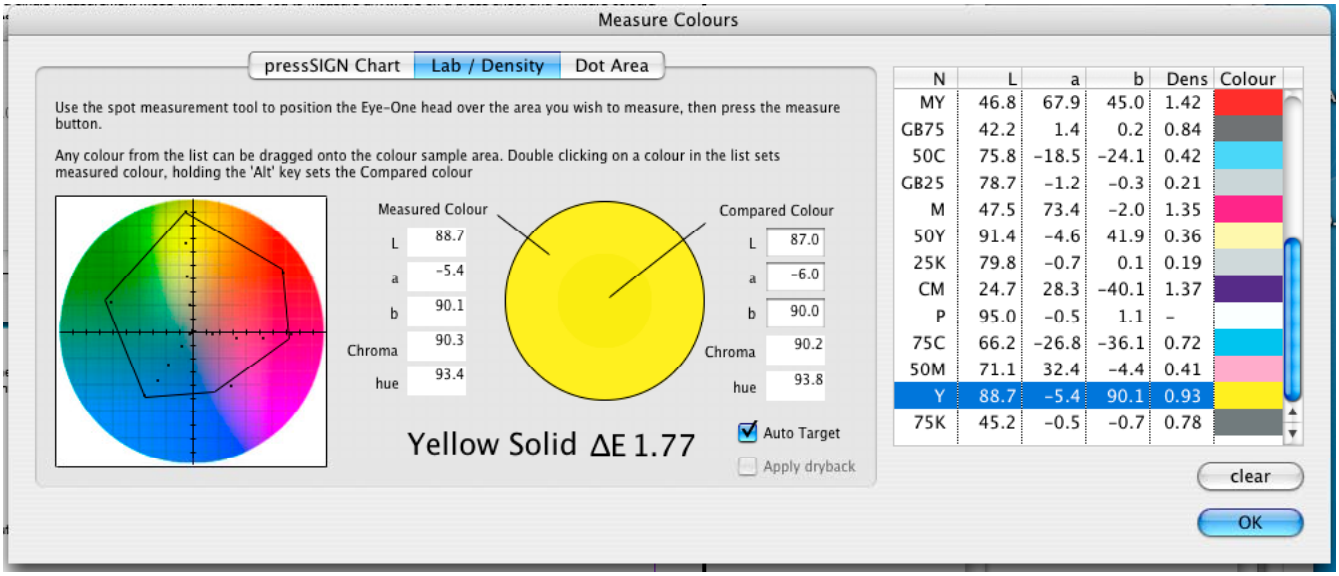
If you are measuring in single mode you can use the arrow keys on your keyboard to change the patch you are measuring.

Any colour measured from the window, either as a strip, or individually can be used in the measurements by dragging the colour from the colour list over the corresponding patch on the bar. If you are in individual measurement mode, you can also double click on a colour in the colour list to set that as the current patch you are measuring.

Each measurement is added into the job window. Once you have finished measuring the press control strips click ‘Close’ in the measurement window

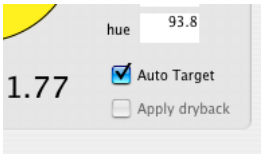
Lab / Density

This is a single measurement mode which enables you to measure anywhere on a press sheet and compare colours and density - either to a standard, or to each other.



Lab / Density panel

Click the measure button on the Eye-One or Techkon Spectrodrive to take a single measurement. Measurements taken here are automatically added into the colour list.



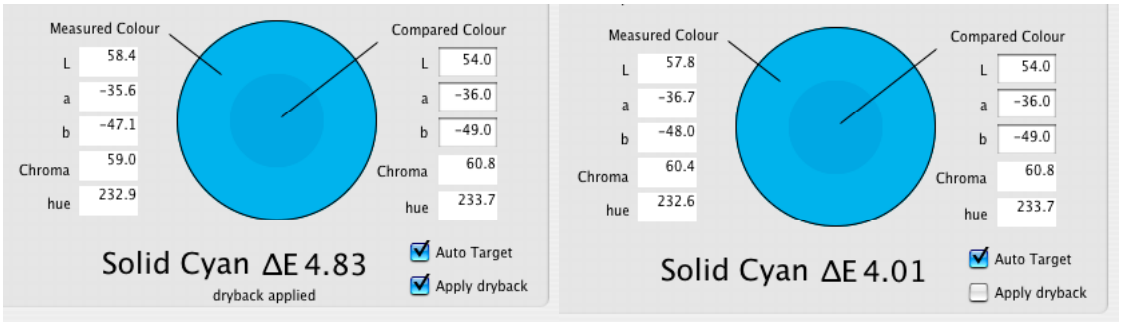
Auto Target On

With auto target ticked, each measurement is compared with the matching ISO target colour. The colour is chosen based on the Name column (N). If you are measuring single colours using the Eye-One or Techkon Spectrodrive, then the colour is picked from the CMYK, or RGB overprints.

You can drag colours from the colour list onto the measured colour area, or double click on any colour previously read in the colour list to set the measured colour.

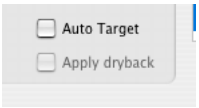
With Auto target on, the 'Best ΔE', and 'Density range in standard' are updated on the main window after every measurement. If you have set the ink ducts up to be too high at one end, and too low at the other, then as you measure across the press sheet, these values are updated giving you the target density to run on press, and the density range you will need to keep within.

If you have dryback information, and you are measuring a wet press sheet, then pressSIGN can calculate the Lab, density and ΔE values based on a dry sheet.



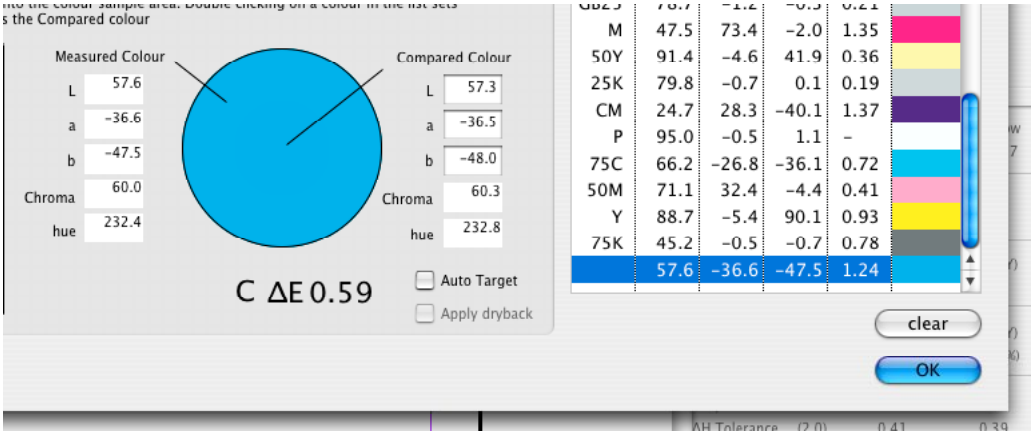
Dryback applied to a singe measurement

You can see in the above figure, that the solid cyan gets lighter and less colourful as it dries.



Auto Target Off

If Auto target is off, each measurement is compared to the colour set as the 'compared colour'. You can set the compared colour by either dragging a colour from the colour list onto the compared colour circle, or by holding the 'Alt' key whilst double clicking on a colour in the colour list. If you set the compared colour manually, then the 'Auto target' box is un-selected automatically. You can use this to compare colours across a press sheet to determine how much colour is changing across a press sheet.



Comparing colours across a press sheet

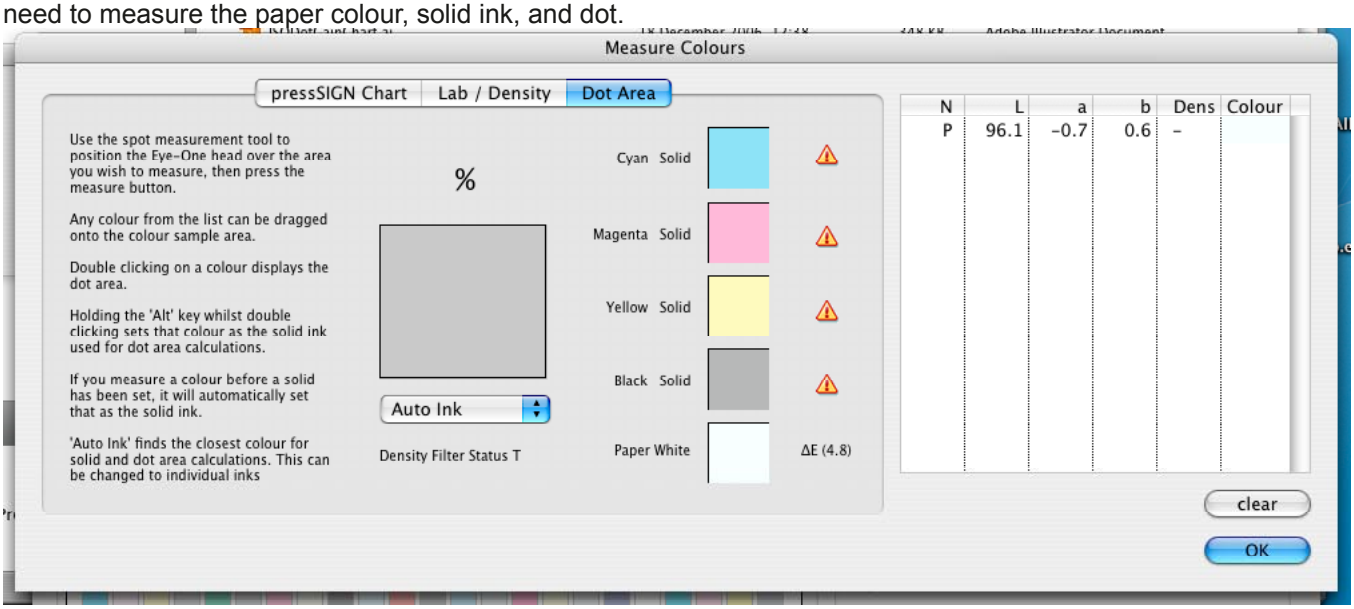
In the figure above, the compared colour was taken from a solid cyan in a strip reading. Then another solid cyan measurement was taken from another part of a press sheet. You should try and keep the ΔE across a press sheet to less than 2 for a good consistent ink density.

You can also type in a Lab value in the 'compare colour'. Double click on the compare colour to add it back into the colour list.

Any colours you measure in this panel can be used in the strip by turning to the 'pressSIGN Chart' panel and dragging the colour from the colour list onto the patch you want to update.

Dot Area

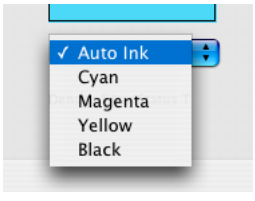
The Dot area panel lets you take single measurements to measure dot area on a press sheet. To measure dot area you need to measure the paper colour, solid ink, and dot.



Dot Area panel

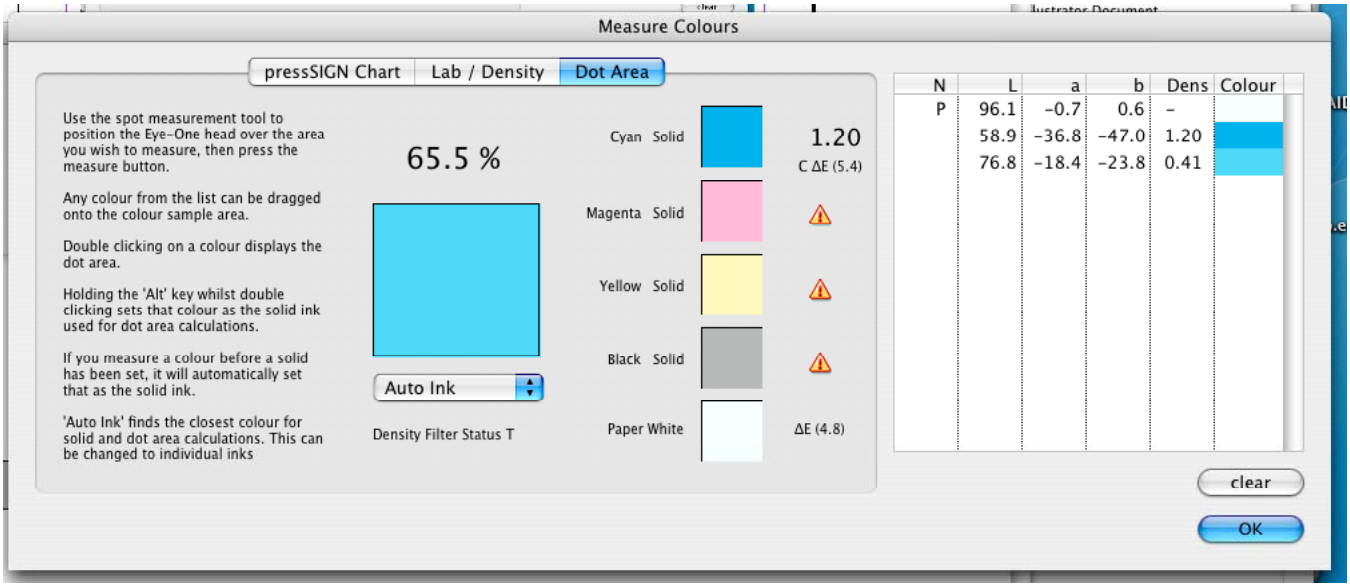
If you have measured a strip, the solids, and paper will have already been filled in. A warning symbol is shown if there is no solid measurement for that colour. If there is no solid ink measurement, then the first measurement taken for each colour will be set as the solid. You can also drag any colour from the colour list onto a solid ink to set that as the solid density for that colour. Clicking on a solid ink square pops a window asking you to measure that ink solid.

Once the solid ink is set, subsequent measurements will be used to calculate the dot area.



Ink colour selection

The ink colour menu forces pressSIGN to use a particular colour filter. Normally, this can be left on ‘Auto Ink’.

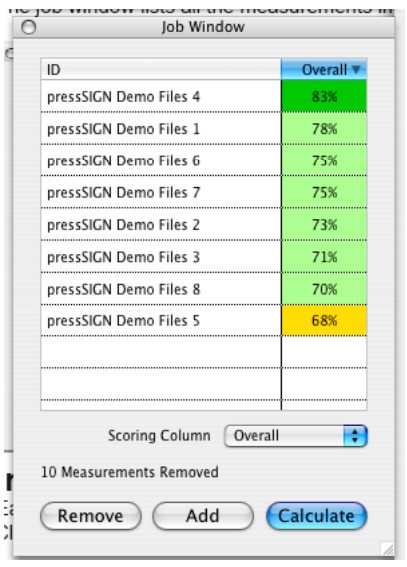


Measuring Dot Area

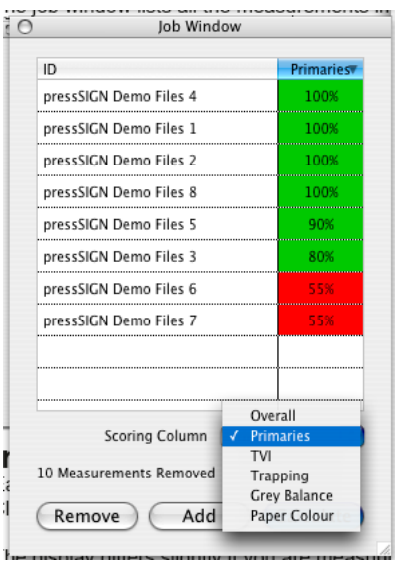
If you want to use any of the measurements made in this panel for calculations, turn back to the ‘pressSIGN Chart’ panel, and drag colours from the colour list onto the strip.

Using the Job Window

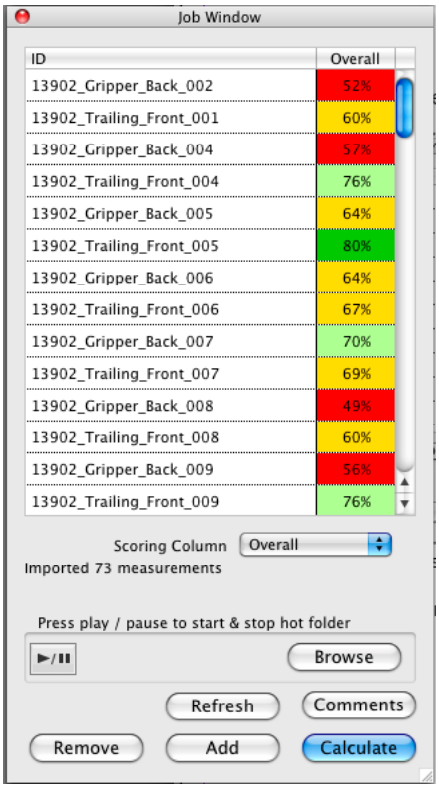
The job window lists all the measurements imported or measured within pressSIGN.



sorted by overall score



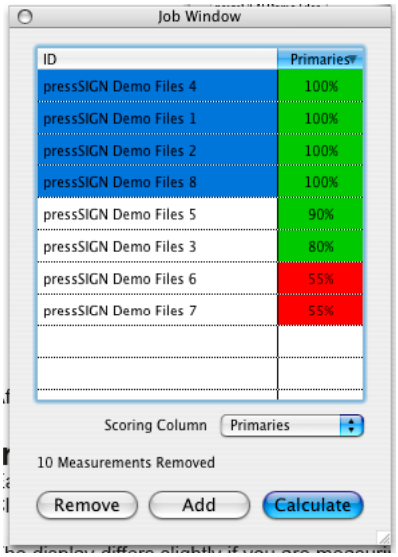
sorted by primaries score



pressSIGN PRO

After adding any measurement, pressSIGN calculates the score and updates the main window with that data.

Averaging measurement data



highlighted measurements

Averaging measurement data makes it much easier to generate curves that represent how a press works. Rather than trying to find a 'perfect' measurement from a particular press, you can measure several press sheets and average the results.

When it comes to how many measurements to take, the more the better is a good idea. If you can, measure several strips on a press sheet, in several places (i.e. front left/right and middle left/right) and then use several press sheets throughout a run.

There's no limit to the number of measurements you can average, but to generate plate adjustment curves we would recommend at least 6-10 measurements that have a primary score of 100%. This is because dot gain is dependent on the solid ink density, so unless the solid ink is the correct colour (and therefore the correct ink film density) the TVI curves will not be accurate. It's worth checking each of the other scores before determining which measurements to average. Check the trapping to make sure the ink is performing correctly. The other scores (TVI / grey balance) need to be fairly consistent.

Combining Several Press Runs / Presses

There are a couple of ways of combining several jobs into a set of measurements. You can either open up several jobs at the same time



Adding extra measurements to a job window.

Once you have some measurements listed in the job window - either by opening an older job, or by measuring a press run, click the 'Add' button. This opens up a folder browse window. From this window select the measurement files you wish to add and click 'Choose'. On the Mac version you can select the measurement folder to add (this adds all the measurements for that job)
Once all the measurements have been added you can then sort them. Make sure that you are averaging measurements from each press run as shown in the figure above. In the above example we will be averaging a 4 colour perfecting press and have selected measurements from both the upper and lower units.

Removing measurements

Highlight the measurements you wish to remove and click the ‘Remove’ button. When removing measurements from the job window you have an option to delete the measurements permanently - this deletes the measurement files from the database. Use this with caution as there is no way of retrieving the measurements once deleted. Removing temporarily only removes the measurement from the list.

Averaging the selected measurements

Once you have enough measurements within the job window click ‘Calculate’. This averages the selected measurements and updates the main window with the results.

Viewing single measurements

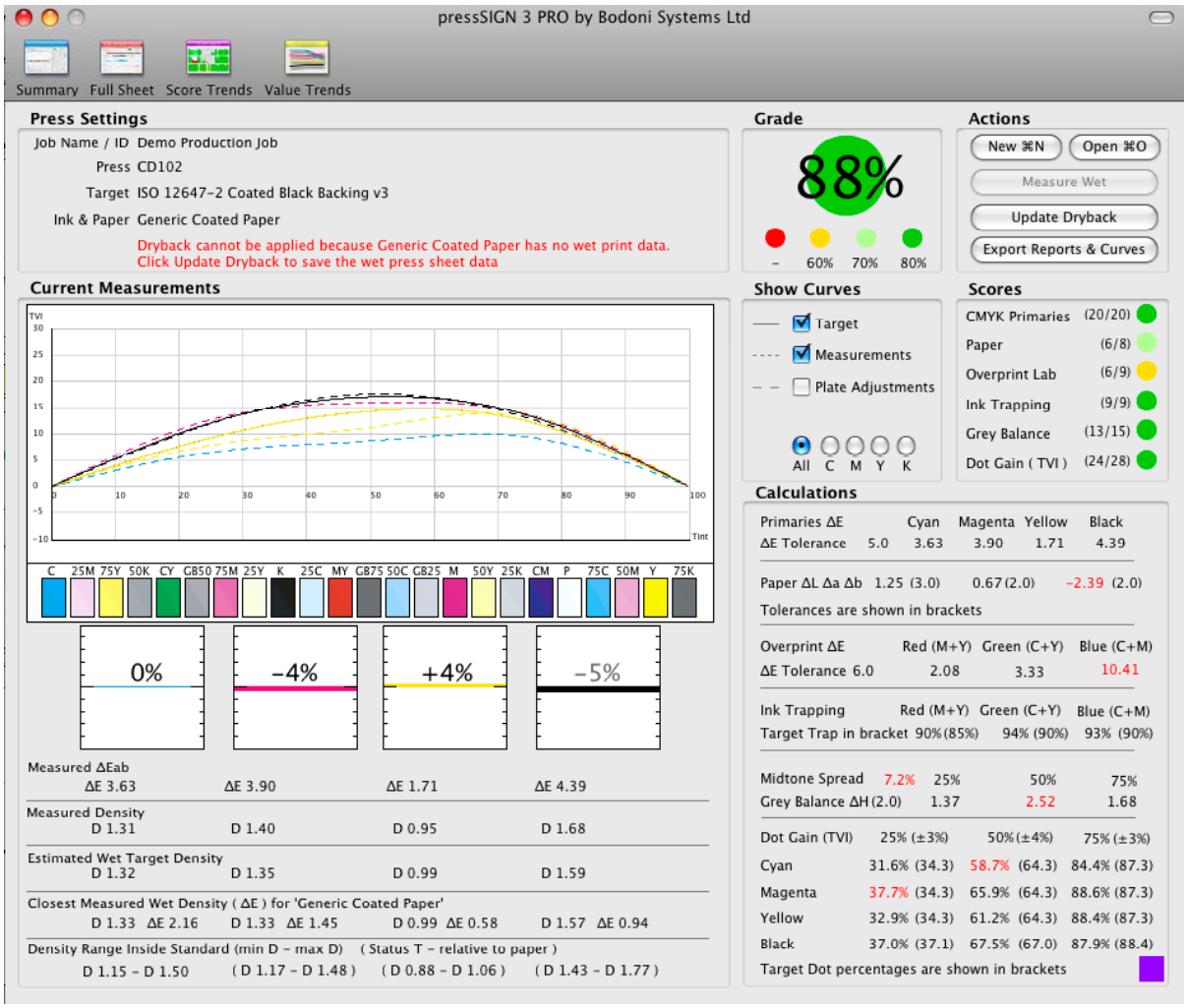
To look at a measurement single, either highlight that measurement only and click ‘Calculate’, or double click on the measurement in the list.

Average of the Scores

The score displayed is the average of the scores, not score of the average. This is a subtle but very import difference. If you had 2 measurements 1 where all the inks were 20% too high, and another where the inks were 20% too low. The average would be very good, but the actual press run would be very poor. The scoring system needs to reflect this and would average each (poor) score, rather than score 100% because the average of the measurements was good.

Interpreting the measurements

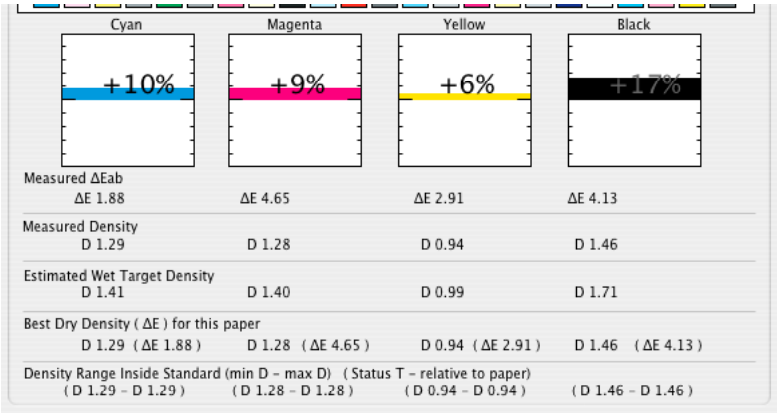
The display differs slightly if you are measuring a wet sheet and have dryback information. If you are measuring a wet press sheet and you have dryback information, then pressSIGN displays the wet density & ΔE, and the dry density, ΔE & TVI.



The main window after the pressSIGN strip has been measured.

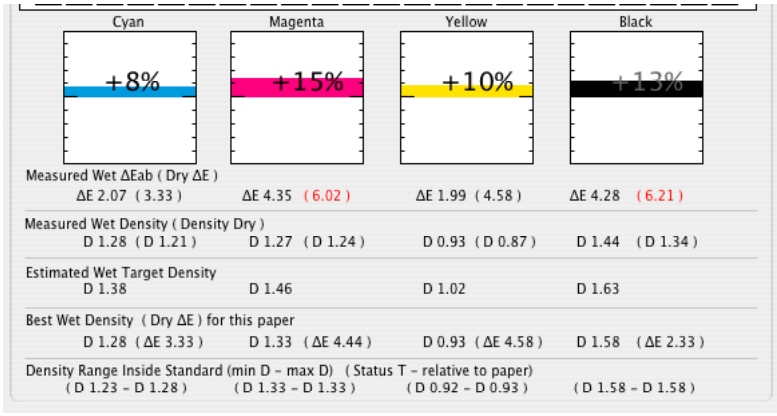
Adjusting the solid ink density

pressSIGN displays the measured density and ΔEab to the target standard. It also indicates whether the density of the ink has to be adjusted higher, or lower and is expressed as a percentage.



Solid ink adjustments without any dryback

In the figure above, the Cyan density needs to be increased by 10%, the magenta density increased by 9%, the Yellow density needs to be increased by 6%, and the black by 17%. However, all the CMYK primaries are within the ΔE tolerances.



Solid ink adjustments with dryback

When dryback information is available, pressSIGN shows the current wet measurements, and the dry measurements in brackets.
In the figure above, the magenta is within tolerance on the wet press sheet (ΔE 4.35 - density 1.27), but the magenta will dry out of tolerance (ΔE 6.02 - density 1.24). The solid ink adjustment, and the estimated target density are then re-calculated using this information to give you a more accurate dry print.

Estimated density at target indicates the target density that should achieve the closest colour to the standard.
If any of the ΔEab values are greater than the tolerance then they are shown in red. If the ΔEab is shown in black, then the colours are within tolerance. It is very important that the CMYK solids are within tolerance before any TVI measurements are made.

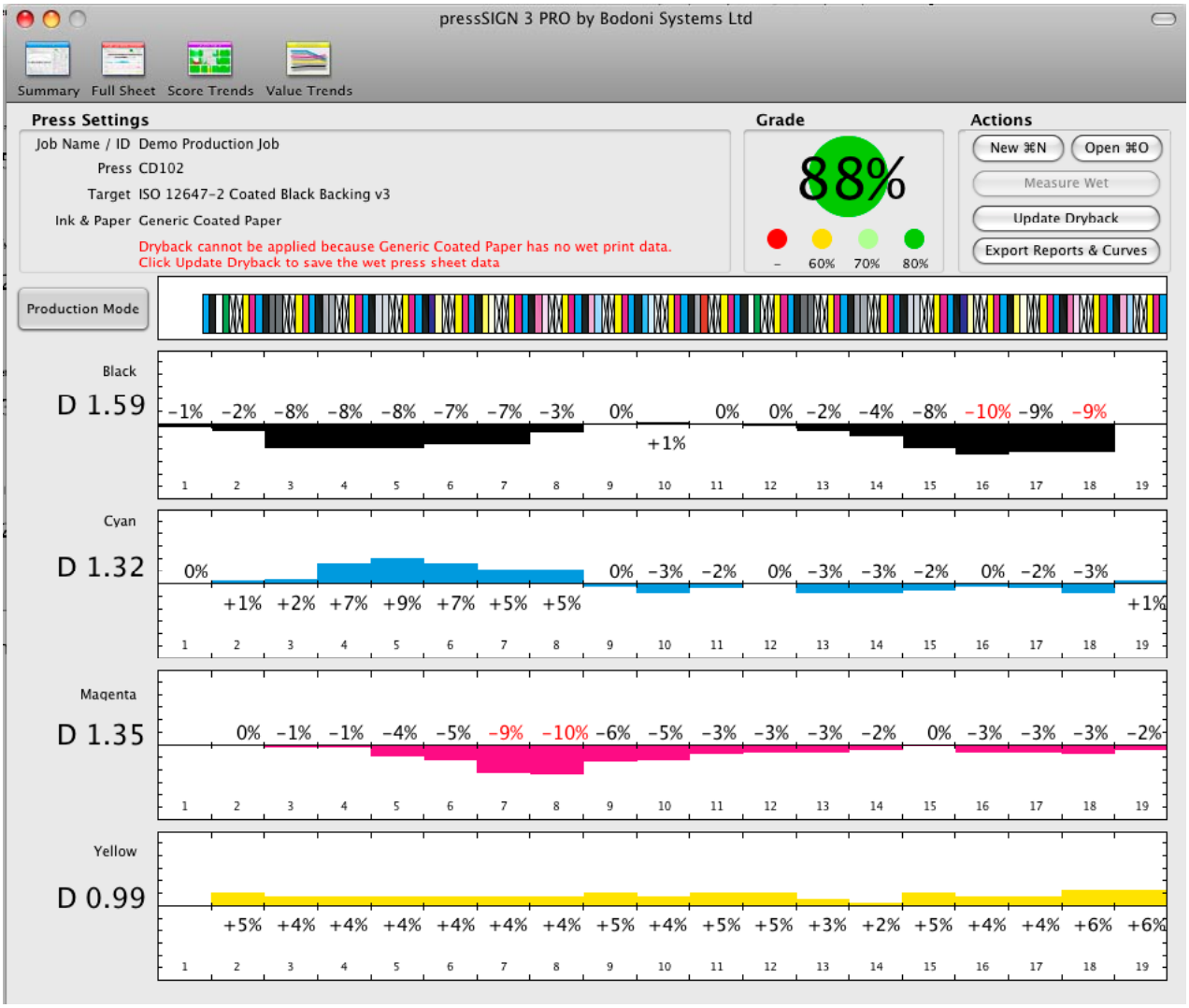
If you cannot achieve the target Lab values for the CMYK solids, then check that you are using the correct target standard and you are measuring the press sheet with the correct backing. Make sure the paper is suitable, and the inks are ISO 2846-1 compliant.
By default, the density values shown are relative to paper, Status T. These options can be changed in the preferences window.

pressSIGN cannot know what the maximum density that is achievable on press, so may indicate that the density has to be raised beyond what is capable for that paper. If pressSIGN indicates an ink adjustment beyond the normal density range for that paper, it is likely you will not be able to achieve the target standard, and will have to look at changing something. Maybe the paper isn't coated enough to run to the coated standard and the uncoated standard is better suited, or the inks themselves are not good enough.

Also displayed is ‘Density Range in Standard’. pressSIGN records all the measurements that are made and tracks the minimum and maximum density that are still within the ΔE tolerance. The wider this range, the easier it will be to keep the print within tolerance.

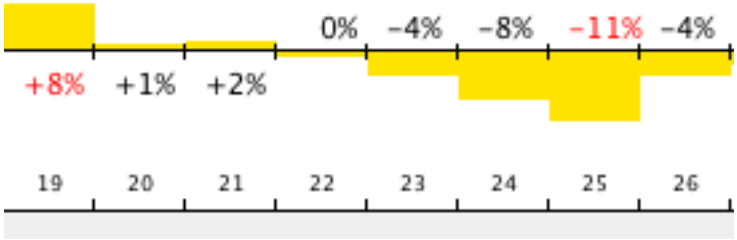
pressSIGN PRO Full press sheet view

If you are measuring full press sheet in pressSIGN PRO, or using a colour bar with more that one ink zone, you can click on the ‘Full Sheet’ icon in the tool bar so see the view of each of the ink zones and their adjustment.



Full Press Sheet View in pressSIGN PRO

The number on the left is the estimated target density for the standard. The adjustments shown are interpreted the same way as for the summary window: a positive number means add more ink, a negative number means reduce the ink in that ink zone.



Ink zone adjustment

A red ink adjustment shows that the ink key ΔE is higher than the solid ink ΔE tolerance. The number below each ink

adjustment is the ink zone number. pressSIGN assumes the colour bar is centred on the press sheet. Having even ink coverage across the press sheet is crucial, so you should always be trying to keep the line flat and near 0%.
When averaging multiple measurements, the full sheet view only averages measurements with the same number of ink zones.

Crosses in the full sheet show either a mis-measurement when measured manually, or if the data is from an automatic device such as an Intellitrax, Image Control, or Techkon Spectrodrive a cross shows a missed patch. In the screenshot on the previous page the crosses indicate that a 6 colour bar was used for a 4 colour job. so the spot colour patches are blank.

Makeready and Production Modes



Makeready and Production Modes

Makeready and production modes in pressSIGN PRO change how pressSIGN creates the overall score for the job. The terms are similar to how a press operator works the press. When ‘making ready’ the press is warming up and settling down, the ink ducks may still be set unevenly and the solid inks on the colour bar are not yet the same colour across the press sheet. Once the press operator is happy that the press has achieved a stable ‘deliverable’ state the mode is changed to Production. This is done by clicking on the ‘Makeready Mode’ button, which toggles the mode between makeready and production.

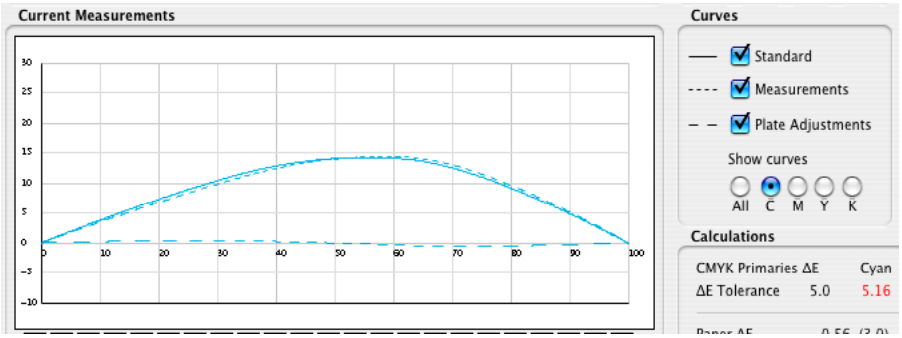
Measurements done in production mode are highlighted in the job window and the pdf with a grey background to the measurement name. The start time of the job, how long the job was left in makeready and the production time are all saved a part of the job and can be searched on.

The job score and average measurement is reset once pressSIGN is in production mode, so the score shown for the job is only taken from the production measurements. If the button is never clicked and pressSIGN is left in makeready mode for the entire job, then the score and measurement for the job is the average of all the measurements.

pressSIGN will automatically go into production mode when importing measurements from files which support the different modes, such as Intellitrax and PDCS-II.

If the operator toggles the mode back to makeready then the job score is reset and the entire job becomes makeready again. This is to make sure that the timings recorded are accurate.

TVI (Dot Gain) Curves



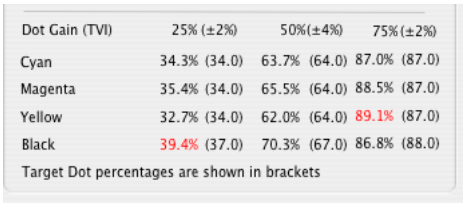
Cyan TVI Curves

pressSIGN can display the target TVI values, the measured TVI values, and the plate adjustments to adjust the press

to the target. Use the check boxes to display which curves you wish to see.

Choose between all the CMYK inks, or individual colours by clicking on the appropriate radio button.

There is also a numerical display of the TVI values shown in the calculations section.



Dot Gain (TVI)	25% (±2%)	50%(±4%)	75%(±2%)
Cyan	34.3% (34.0)	63.7% (64.0)	87.0% (87.0)
Magenta	35.4% (34.0)	65.5% (64.0)	88.5% (87.0)
Yellow	32.7% (34.0)	62.0% (64.0)	89.1% (87.0)
Black	39.4% (37.0)	70.3% (67.0)	86.8% (88.0)

Target Dot percentages are shown in brackets

Measured TVI values.

Values shown in red are outside the specified tolerances. The tolerances and target TVI values can be changed by changing the target standard from within the Preferences window.

Grey Balance



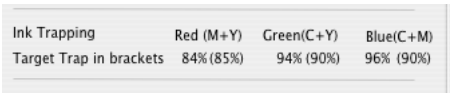
Grey Balance ΔH		25%	50%	75%
ΔH Tolerance	(2.0)	0.05	0.54	0.41

Grey Balance

Grey balance indicates how well the CMY ink mixes match their black ink only counterpart. Grey balance itself is much more sensitive than just using TVI values only. The TVI tolerances are (by default) ±4% at 50% tint, so you could get 46% cyan with a 54% magenta which would be within the that tolerance, but you could have a significant hue change.

If the tolerance is indicated as ‘N/A’, then the grey balance check isn’t part of the pass criteria for the current target standard.

Ink Trapping



Ink Trapping	Red (M+Y)	Green(C+Y)	Blue(C+M)
Target Trap in brackets	84% (85%)	94% (90%)	96% (90%)

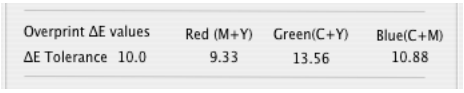
Ink Trapping

The ink trapping calculation is an indication of how well one solid ink lays on top of another. A ink trapping value of 100% indicates that inks are laying on top of each other perfectly. In reality, this can never happen as ink adheres to paper differently than another ink.

pressSIGN uses the Ritz formula for trap calculation.

If the ink trapping is not part of the target pass criteria, then the tolerance is indicated as ‘N/A’.

Overprint ΔE values



Overprint ΔE values	Red (M+Y)	Green(C+Y)	Blue(C+M)
ΔE Tolerance 10.0	9.33	13.56	10.88

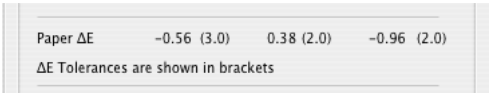
Overprint ΔE

The overprint ΔE value indicates how close the cyan+magenta, cyan+yellow, and magenta+yellow solid ink overprint colours are to the target standard.

Just because the single inks are within standard, it doesn’t automatically follow that the overprints are within standard. Ink rheology and tack affect the overprint colours as well as the paper stock itself.

If the tolerance is indicated as ‘N/A’, then the overprint ΔE check isn’t part of the pass criteria for the current target standard.

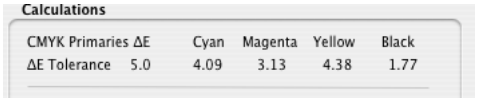
Paper ΔE



Paper ΔE

Indicates how close the paper colour is to the standard. pressSIGN checks each of the ΔL, Δa & Δb values separately.

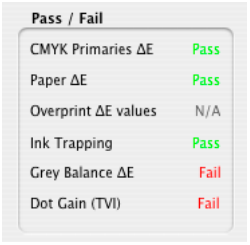
CMYK Primaries ΔE



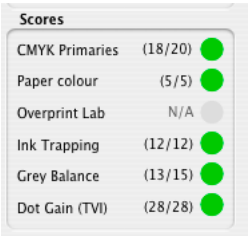
CMYK Primaries

The values shown here are identical to the values shown just below each of the CMYK ink adjustments. Values in red are outside the tolerances specified for the target standard.

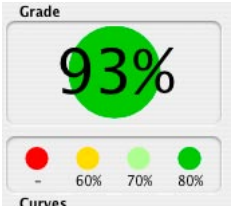
Pass / Fail indication and Scoring



Pass / Fail



Scores



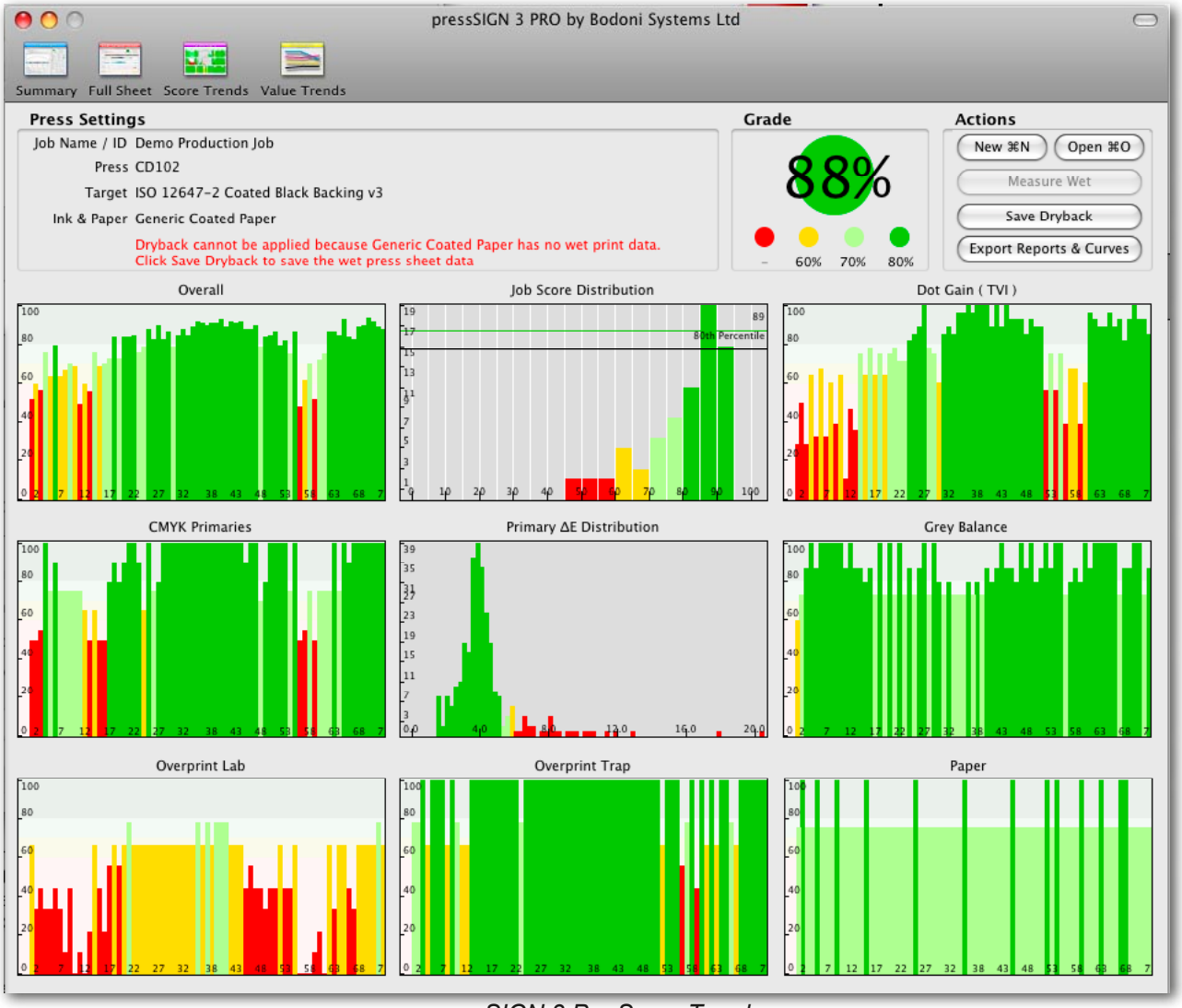
Overall grades

For each of the different criteria that can be set for a standard, pressSIGN gives a pass / fail indication for each one. Passes are shown in green, failures are shown in red. If a scoring system is in use, then the grading system is used to give a colour indication for each test criteria.

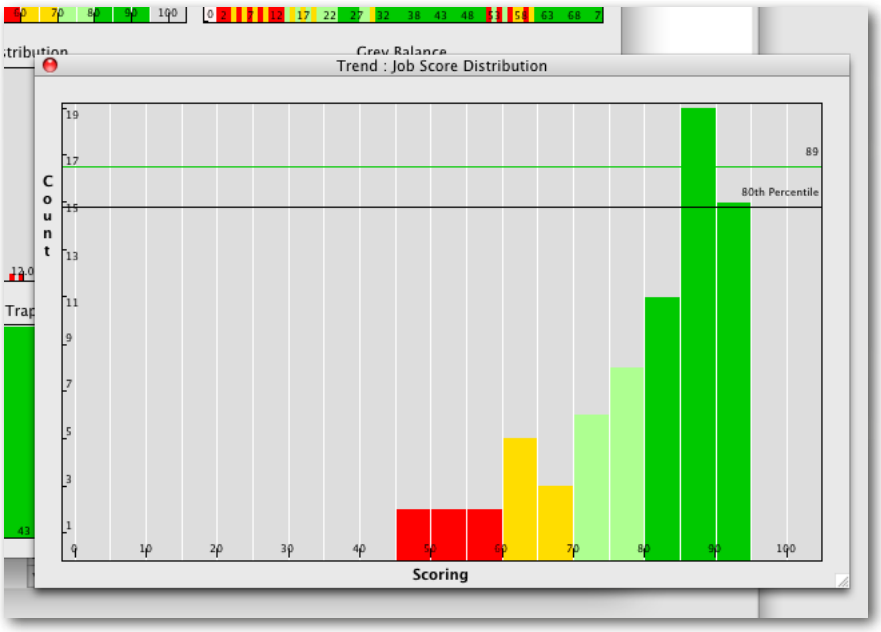
'N/A' means that particular criteria is not part of the chosen standard.

pressSIGN 3 PRO Trend Analysis

pressSIGN 3 Pro has 2 screens which show the trends over time. Either for the current open job, or if multiple jobs are open, the trend if shown for each open job.

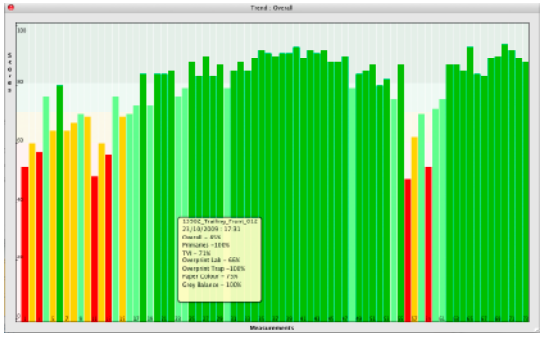


pressSIGN 3 Pro Score Trend



Click on any trend image to get a floating window.

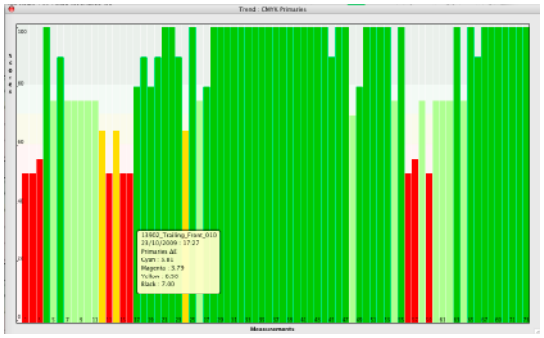
Overall Score Trend Window



Score Trend Window

The colour of the bars changes depending on the score. By default a Score of less that 60% is red. A score greater than 80% is the dark green. Use these views to see the change in quality during a print run. Any trend windows that have a tolerance associated with them have a lighter background showing where the colour would change.
Moving the mouse over measurements shows the score breakdown for that measurement.
The vertical axis is the score, the horizontal axis is the measurement count.

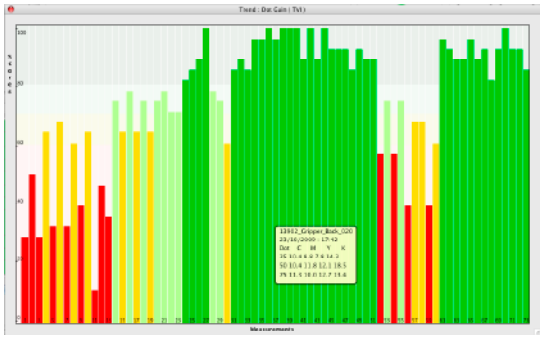
CMYK Primaries Trend Window



CMYK Primaries Trend Window

Shows the score for the CMYK Primaries over time. The colour of the bar is based on the percentage score . When moving the mouse over measurements the breakdown of each of the CMYK ΔEs and density is shown. Watch our for large changes in score during a print run. This would indicate poor inking consistency. You can also see how quickly a job was able to get inside the CMYK Primary ΔE tolerance. To see the ΔE over time for each colour use the Primary ΔE Value trend window.

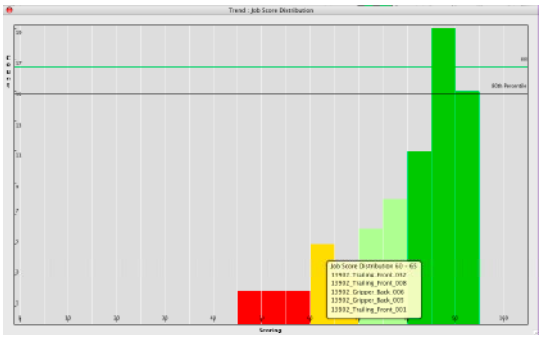
Dot Gain (TVI) Trend Window



Dot Gain (TVI) Trend Window

Shows the TVI score over time. When moving the mouse over measurements the breakdown of the TVI values for each of the CMYK tints is shown. The colour of the bar is based on the percentage TVI score. For a more complete breakdown of TVI over time, use the TVI value trend

Job Score Distribution Trend Window



Job Score Distribution Trend Window

Shows how the overall scores for the job were distributed. The graph shows the number of measurements that fall within a certain scoring bracket. In the screenshot above there are 5 measurements that score between 60 and 65, none that score below 45, and 19 that scored 85-90. When the mouse is moved over the popup shows the list of measurements that match that score bracket. Double clicking on a bar will automatically select those measurements that match. Holding down shift and clicking will add the list to the selected measurements in the job window. The colour of the bars is based on the score. The horizontal axis is the score range going from 0-100. The vertical axis is the count for each score bracket.

80th Percentile

The line in he Job Score Distribution Trend Window labelled 80th Percentile is a quick indication of how well the job has been run. It is calculated by sorting the overall scores for all measurements in descending order and showing the score you get when you look at the score 80% through the sorted list.
Example. If there are 10 measurements in a job with the following scores.

52% 60% 55% 65% 71% 73% 68% 58% 73% 75%

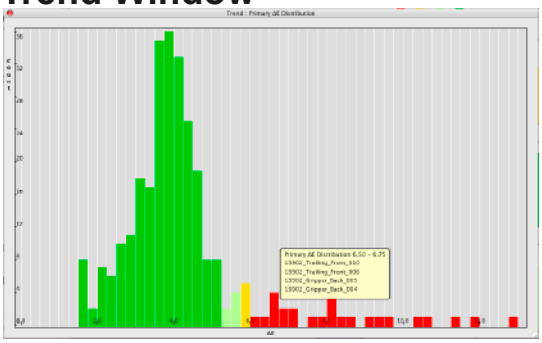
Sorted in descending order

75% 73% 73% 71% 68% 65% 60% 58% 55% 52%

The 80th percentile would be 58% as this is the 8/10 along the sorted list.

The higher the value the better. There is a proposed British standard which says that the 80th Percentile must be more than 80%. The black line across the Job Score Distribution Trend Window is set to 80%, so you are looking at a value higher than that to pass. The colour of the 80th Percentile line shows changes depending on how far you are away from that 80%.

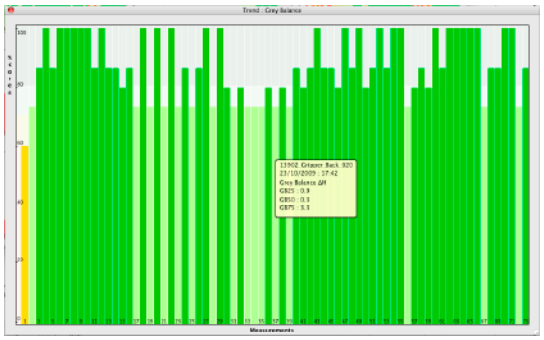
Primary ΔE Distribution Trend Window



Primary ΔE Distribution Trend Window

All the CMYK Primary patches from the summary screen are added into the Primary ΔE Distribution Window. The horizontal axis shows the ΔE. The vertical axis shows the count at that ΔE. Moving the mouse over the window shows the list of measurements that are in that ΔE range. If you wanted to leave the tolerance at 5 ΔE (or whatever primary ΔE the target standard has), but for a setup job you wanted to pick measurements with lower ΔE numbers, you would use the shift key and click on each of the bars below the ΔE you wanted. Double clicking averages those measurements highlighted. In the screenshot there is are a couple of measurements with very high ΔE values. You would move the mouse over that measurement to see the name and double click on it to see why the ΔE was so high.

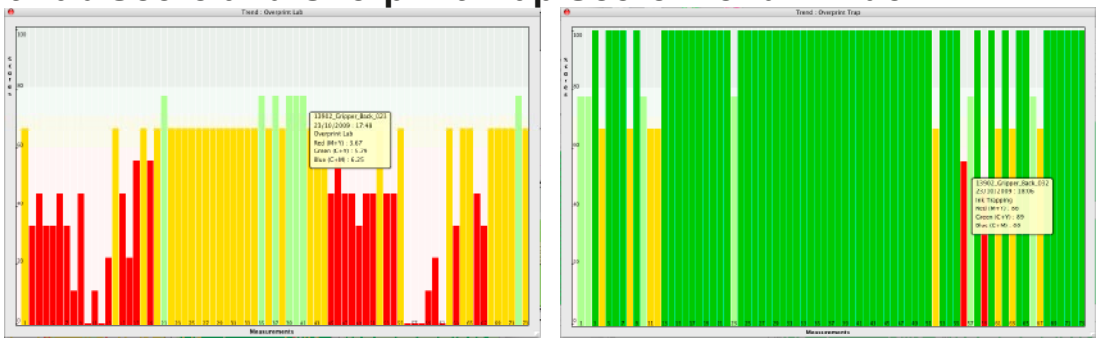
Grey Balance Score Trend Window



Grey Balance Score Trend Window

Shows the grey balance score over time. The vertical axis is the overall grey balance score. The horizontal axis is the measurement count. Moving the mouse over the window shows the individual ΔH values for the grey balance patches. For a more detailed look at grey balance ΔH over the course of the job, use the Grey Balance Value Trend Window.

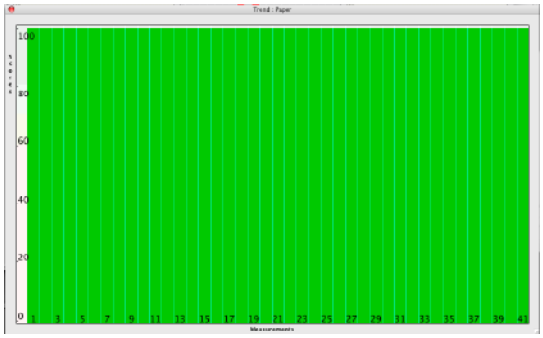
Overprint Lab Score and Overprint Trap Score Trend Window



Overprint Lab Score and Overprint Trap Score Trend Window

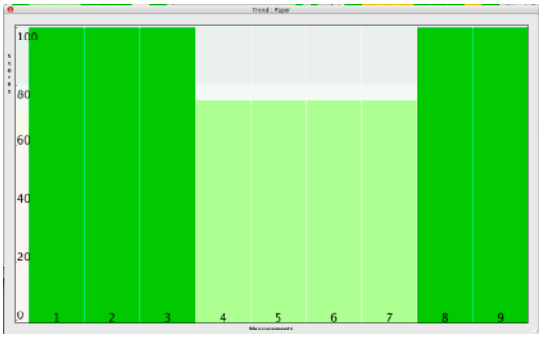
Shows the overprint Lab and Trapping scores. Moving the mouse over the Overprint Lab Trend Window shows the ΔE values for the Red, Green and Blue overprints to the current target standard. Moving the mouse over the Overprint Trap Trend Window shows the Red, Green and Blue trapping value.

Paper Score Trend Window



Paper Score Trend Window

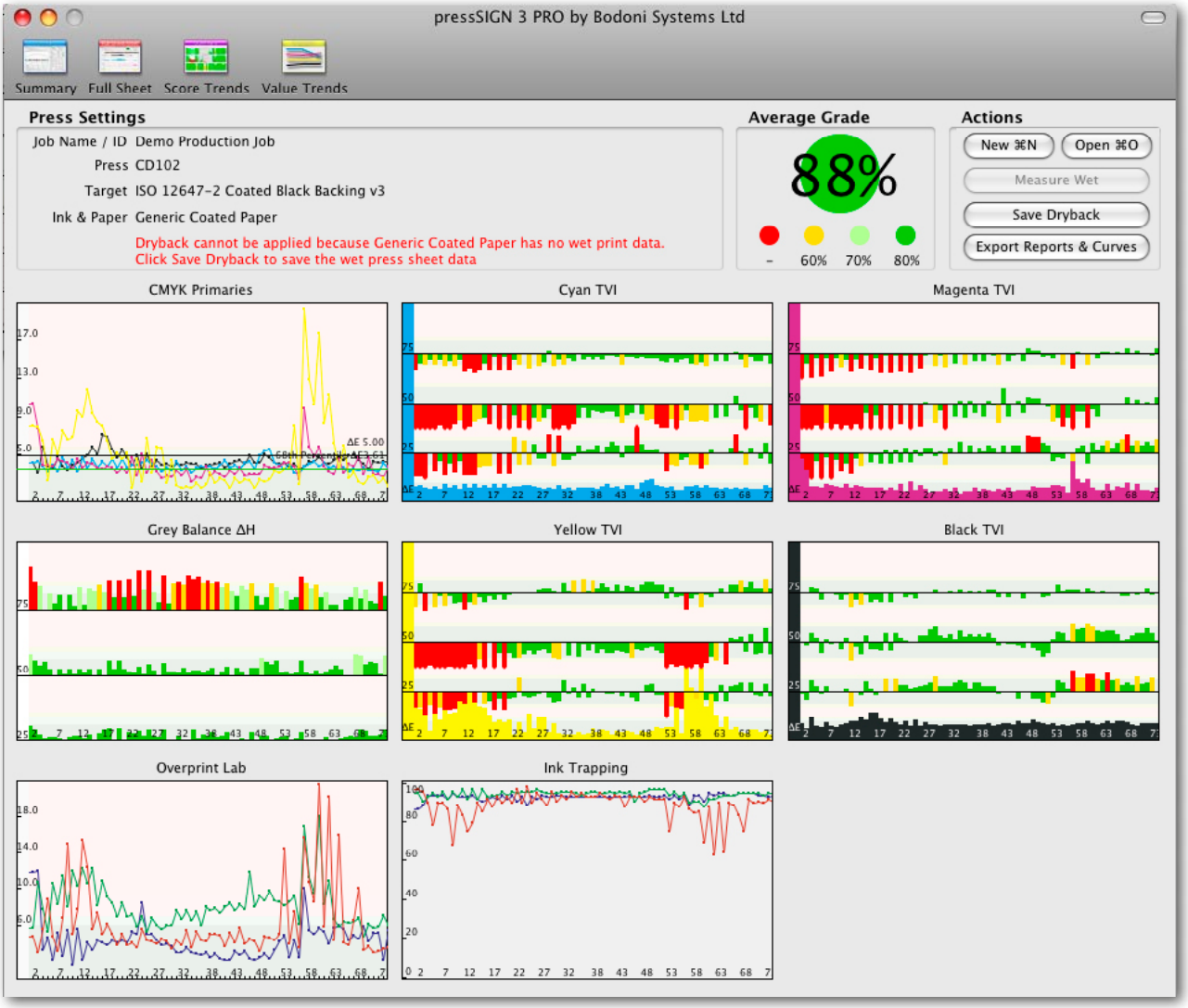
Shows the paper score over time. During a job it is unlikely to change as in the screenshot above. If you were combining paper batches in a single job and the colour was different then it would show.



Several Jobs in pressSIGN PRO

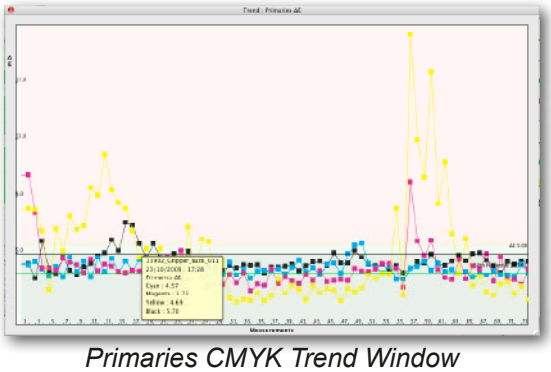
If you open many jobs which were done on the same paper you would see if the paper colour changes over time.

pressSIGN PRO Value Trends Window



pressSIGN PRO Value Trends Window

CMYK Primaries Value Trend Window



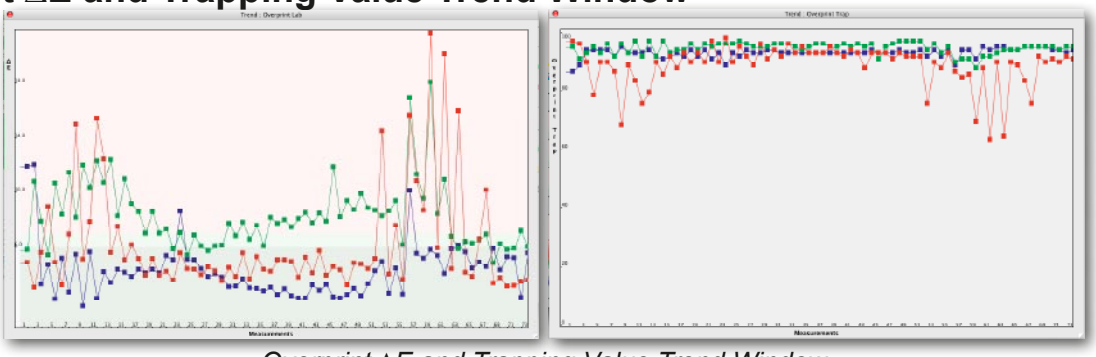
Primaries CMYK Trend Window

This trend window shows a graph tracking the CMYK Primaries ΔE over the course of the job. Each CMYK colour has it's own graph. The horizontal graph shows the measurements, the vertical graph is the ΔE. The background colour is based on the primary tolerances for the target standard. Moving the mouse over a measurement shows the CMYK ΔE for that measurement. Double click to show that measurement in the main interface.

68th Percentile Calculation

A horizontal line is drawn on the CMYK Primaries Value Trend Window which shows the 68th Percentile for the job. In a similar way to the 80th percentile for the job score, the 68th Percentile is based on the best 68% of the primary ΔE values for the entire job. The colour of the line is based on the score percentages and ΔE.

Overprint ΔE and Trapping Value Trend Window



Overprint ΔE and Trapping Value Trend Window

This trend window shows a graph tracking the red, green and blue overprint ΔE and trapping over the course of the job. Normally, the graph is used in conjunction with the CMYK Primaries ΔE Trend Value Window so you could see whether a colour change in an overprint is to do with a CMY ink change or how the inks are trapping together. If the CMY Primaries are still good, but there is a large change in the Overprint, then that would indicate there is a trapping problem, possibly caused by a ink water balance problem.

Grey Balance ΔH Value Trend Window

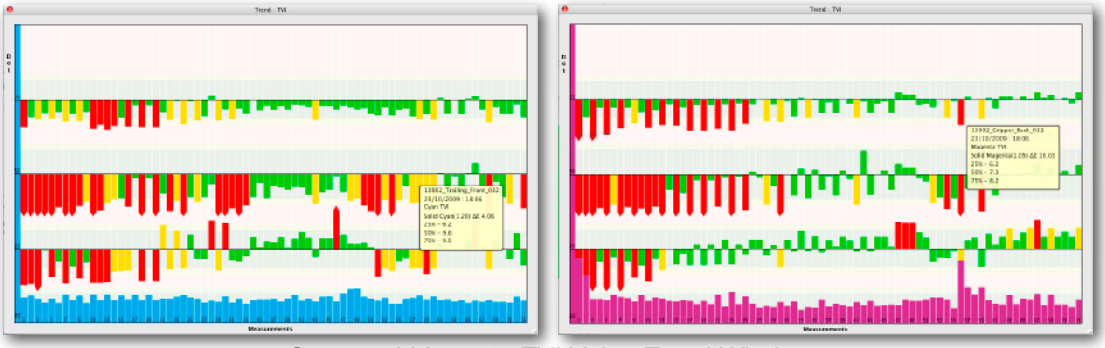


Grey Balance ΔH Value Trend Window

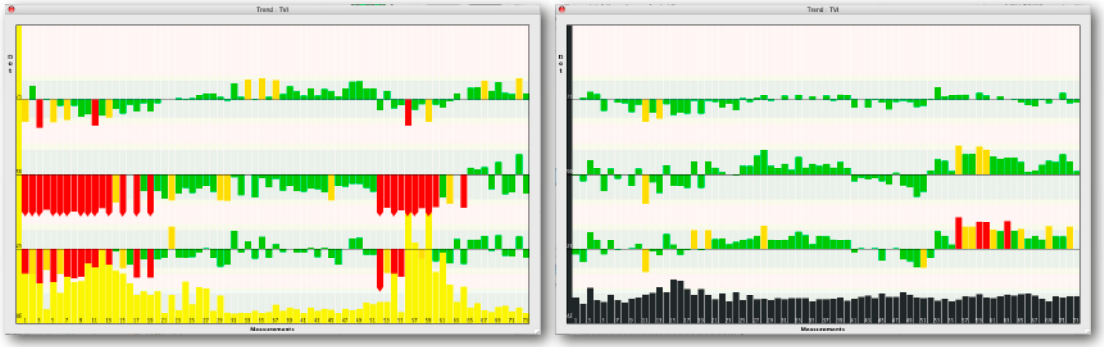
The Grey Balance ΔH Value Trend Window shows the ΔH for each of the grey balance patches throughout the job. The

window above shows 3 graphs with the Black dot area on the left. The top graph shows the grey balance ΔH for the shadow CMY tint (75%K by default). The middle graph shows the grey balance ΔH for the midtone CMY tint (50%K by default). The lower graph shows the grey balance ΔH for the highlight CMY tint (25% K by default). The colour of the bars represent whether the grey balance value is inside the ΔH tolerances. In the figure above the highlight and midtone grey balance is generally good throughout the entire run, but the shadow grey balance fluctuates. A very low ΔH for the grey balance (this is a good thing) would mean the bar is barely visible. As ΔH is only a positive number, the graphs never go below the horizontal dot line.

CMYK TVI Value Trend Windows

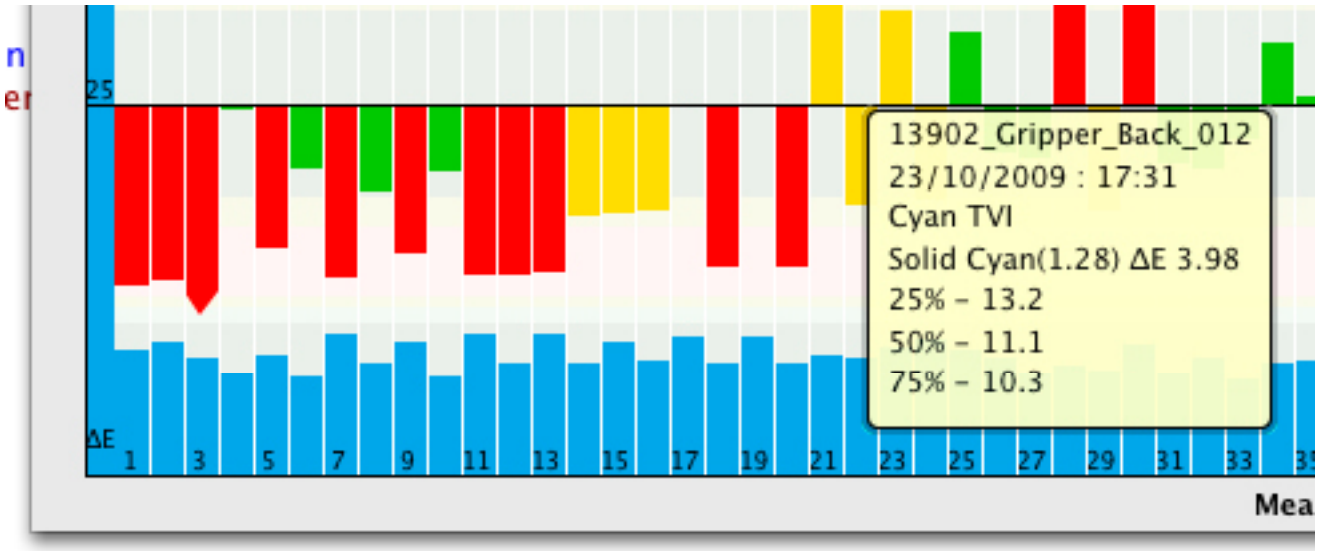


Cyan and Magenta TVI Value Trend Window



Yellow and Black TVI Value Trend Window

The CMYK TVI Value Trend Windows show the Tonal Value Increase the each of the CMYK tints. Each window is made up with 4 graphs. The lower graph, shown in the relevant C, M, Y or K colour, is the solid ΔE value for that colour. The higher the bar, the worse the ΔE. You should be very careful with using TVI values where the solid colour is not correct. The other graphs show the TVI values for the highlight, midtone and shadow tints.

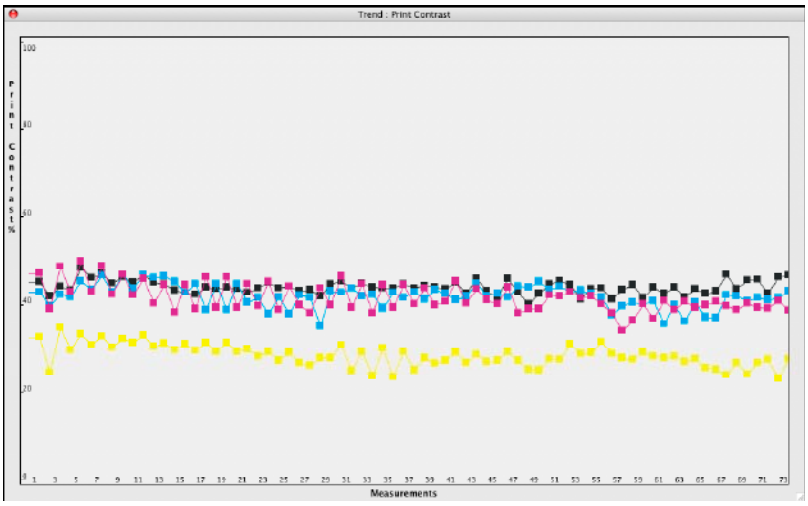


Closeup of a Cyan TVI Value Trend Window

The figure above shows a closeup of a cyan TVI value trend window with a 25% highlight cyan tint. The bars show

whether the TVI is too high (the bar is above the line), or too low (the bar is below the line). The colour of the bar indicates which tolerance level the TVI value is within. Bars with an arrow on the end indicate that the value is outside the scaling used in the graph (that's very bad....). So the TVI value for the 25% cyan is low for measurement 1 and 2. The TVI for measurement 3 is so low it is off the scale. Measurement 4 is almost spot on. Measurement 6 is low, but inside tolerance. Measurement 21 is high. The Cyan Solid ΔE is always inside the tolerance, although it is changing a bit during the print run. The background of the graph shows the tolerances. Moving the mouse over the measurements shows the highlight, midtone and shadow TVI values, with the solid ΔE and density.

Print Contrast Value Trend Window



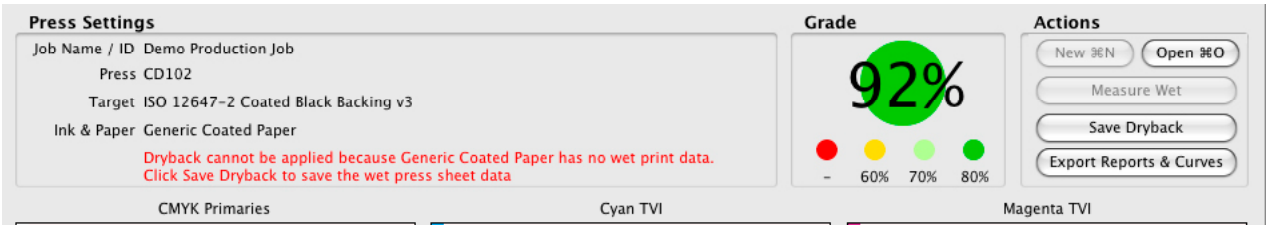
Print Contrast Value Trend Window

This trend window shows a graph tracking the CMYK Print Contrast over the course of the job.

Here are some typical values for offset litho print

	Black	Cyan	Magenta	Yellow
Sheetfed Offset	48	38	38	33
Web Offset	38	45	35	30
Non - Heatset Web	16	13	12	15

Saving Dryback Calculations



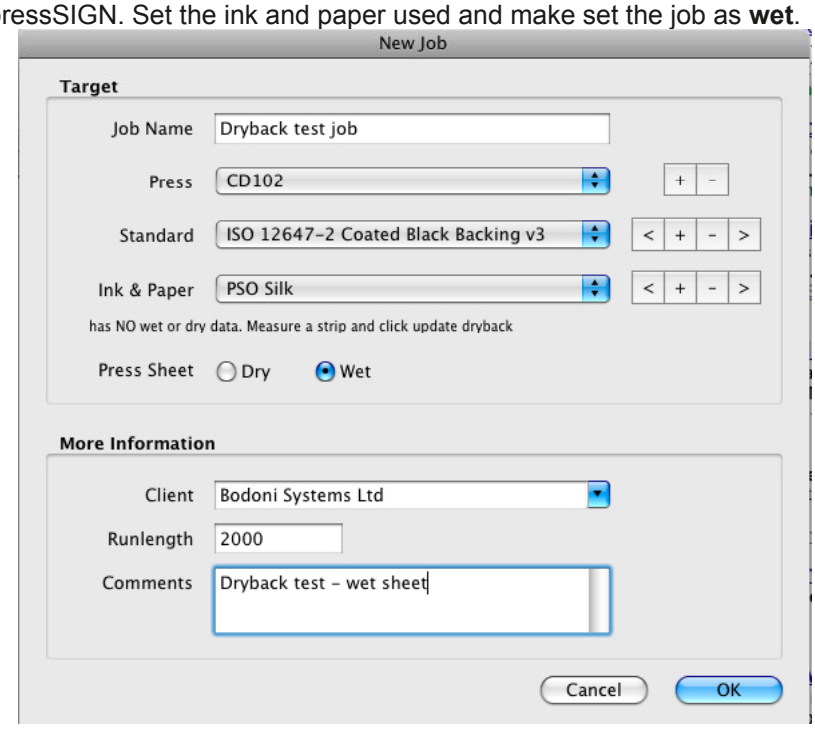
Saving dryback

pressSIGN is able to calculate the how the colour and density measurement vary between a wet and dry press sheet. First measure a wet sheet, then 24hrs later (or sufficient time for the sheet to dry), measure the same sheet (or the same strips that were averaged to get the wet measurements) as a dry sheet. pressSIGN can then calculate how the colour will change and apply the same calculation for subsequent wet press sheet measurements.

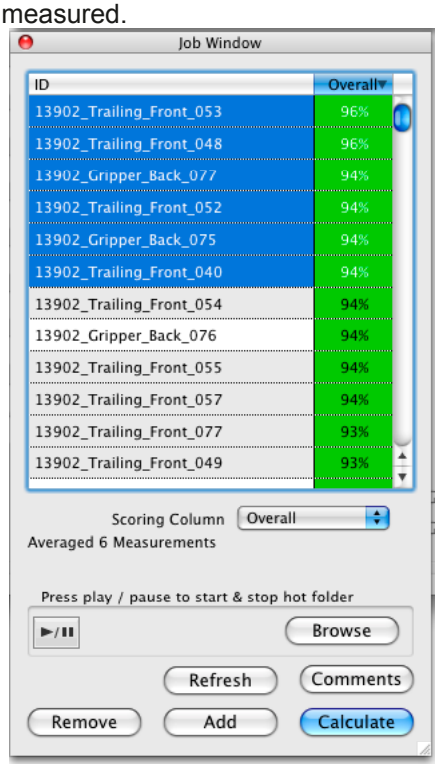
Although pressSIGN uses the terms wet and dry, wet really means 'directly off the press' and dry means 'deliverable to the client'. So the dryback calculations can be used not just to calculate how a press sheet changes colour due to it drying, but also because of lamination or other finishing procedure.

There are a few fundamental rules to follow when creating a new ink and paper combination.

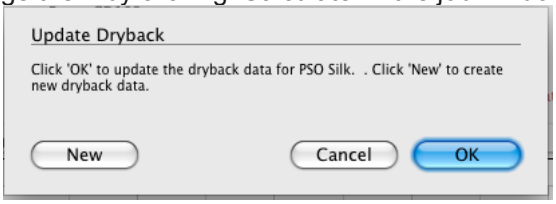
1. Create a **new** job in pressSIGN. Set the ink and paper used and make set the job as **wet**.



2. Take measurements directly of the press run, trying to mimic the timing that will be done of other press runs.
3. Make note of the strips that are being measured.



4. Select the better strips and average them by clicking 'Calculate' in the job window.

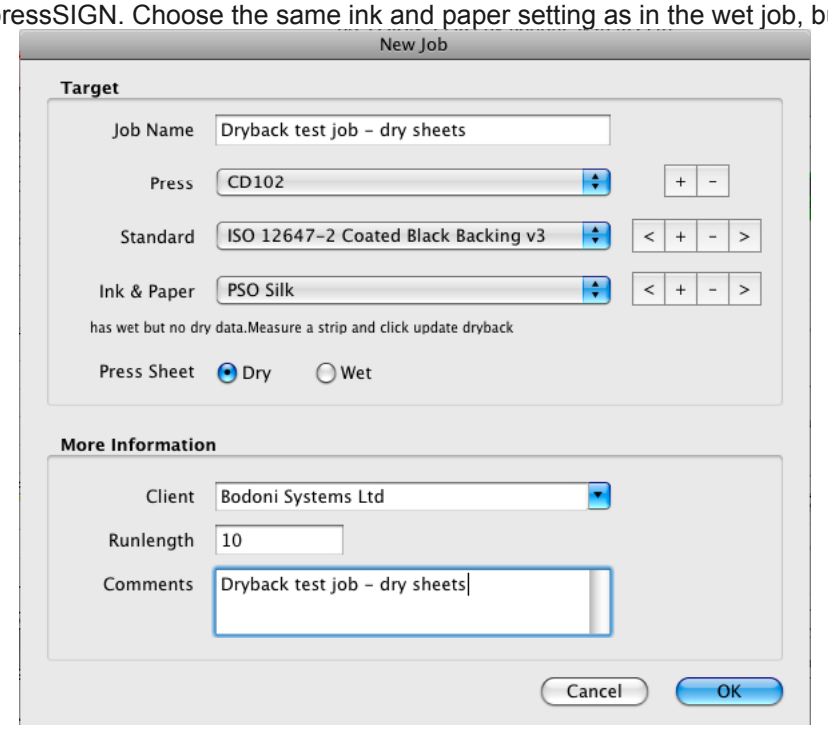


5. Click 'Save Dryback'. This saves the average as the wet data for that ink and paper.

6. Wait for enough time to pass for the press sheet to settle. Normally 24 hours is sufficient.

**** IMPORTANT****

7. Create a **new** job in pressSIGN. Choose the same ink and paper setting as in the wet job, but select **dry**.



Note that underneath the ink and paper option the message shows that 'PSO Silk' only has wet data at this stage

**** CREATING A INK AND PAPER DRYBACK IS 2 DONE IN 2 SEPARATE JOBS ****

8. Measure and average exactly the same strips that were used to when saving the wet data previously.

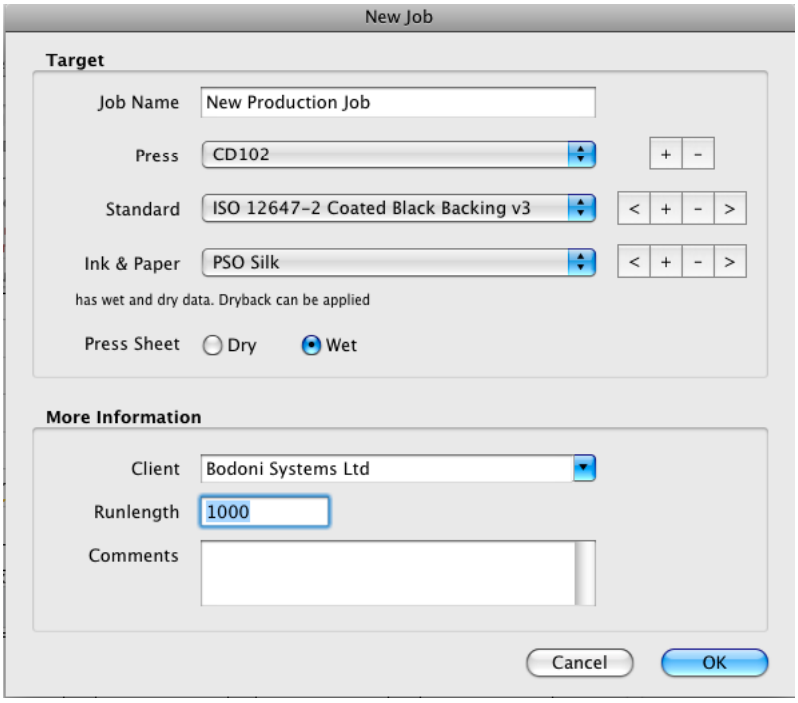


Measure again the same physical strips as before

Note that the scoring is different from the wet job. That is because the press sheet has dried and is not further away from the target.

9. Highlight the measurements and click 'Save Dryback'. This saves the dry data into 'PSO Silk'

10. Now any new wet job with the same ink and paper with have the dryback applied.



A New job using the saved dryback data

Dryback calculations are available in pressSIGN PRO and pressSIGN Standard.

Dryback calculations are only applied to a wet press sheet measurement, where both wet and dry press data exists.

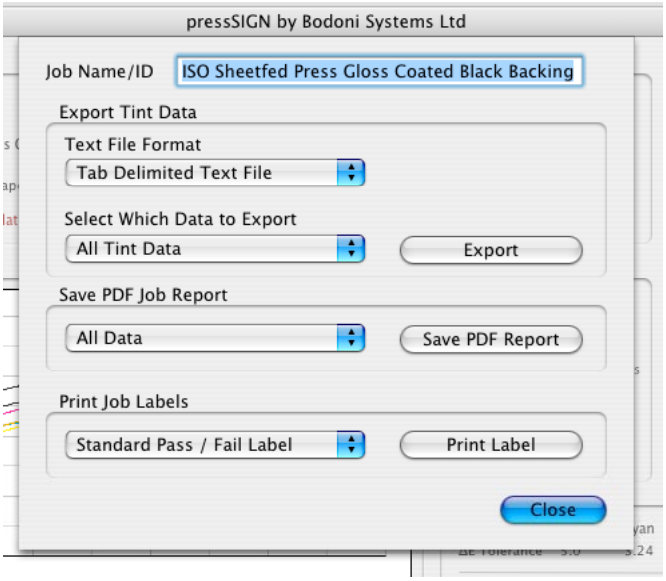
The change in colour between a wet and dry press sheet will change for different ink & papers. Additional ink & papers can be added from within the preferences window or by clicking on the '+' icon next to the Ink and paper popup menu.

It is very important that the correct procedure is followed when updating the dryback calculations, and that the same press sheet is measured wet and dry.

You will get the most accurate dryback calculations when the wet press sheet is as close to the target standard as possible. For any ink / paper combination, you would only need to click on the 'Save Dryback' button once for each of the wet and dry readings.

Both the wet and dry readings are displayed in the info window.

View / Save Reports



Exporting the data from pressSIGN

pressSIGN can generate a PDF report showing how close the press was run to the standard, export tint data in several different formats as detailed below and print a simple pass /fail label.

PDF Report

There are 2 types of PDF report. The measurement report which shows the score, Lab values against the target and plate adjustments and the production report which shows the trend analysis for the job and the scores for each measurement. pressSIGN PRO can generate both types of report. pressSIGN Standard and Print Buyer can only generate a measurement PDF.

Measurement PDF Report

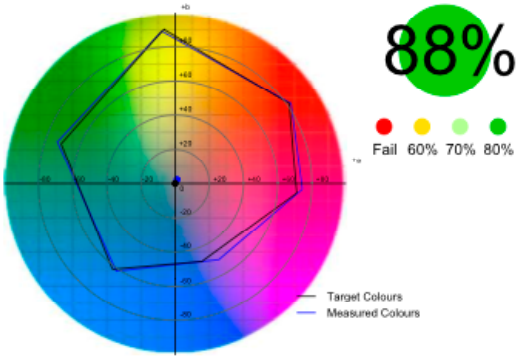
pressSIGN Certification

Measurement Report

Job name : Demo Production Job
Printed by : Bodoni Systems Ltd
Press : CD102
Ink & paper : Generic Coated Paper
Dryback : Wet press sheet. NO dryback applied
Date / Time : Friday, 23 October 2009 18:18

Measurements : 1 measurement
Press Standard : ISO 12647-2 Coated Black Backing v3

	Score	Grade
CMYK Primaries	(20/20)	
Paper	(6/8)	
Overprint Lab	(6/9)	
Overprint Trap	(9/9)	
Grey Balance	(13/15)	
Dot Gain (TVI)	(24/28)	
Gamut Volume	(13061/12583)	103.80%



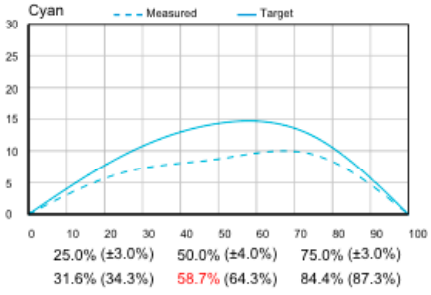
88%

Fail 60% 70% 80%

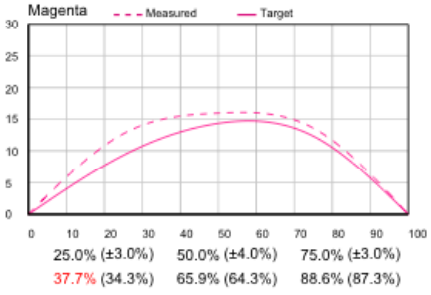
Lab Values & Density - Lab values measured D50, 2 Observer. Density measured Status T relative to paper

Colour	Measured Lab			Target Lab			dE (Tolerance de76*ab)		CMYK Density (Estimated) Overprint Trap (Tolerance)
Cyan	55.72	-33.86	-51.09	54.00	-36.00	-49.00	3.63	(5.00)	1.31 (1.32)
Magenta	47.11	74.63	-2.54	46.00	72.00	-5.00	3.90	(5.00)	1.40 (1.35)
Yellow	87.51	-7.22	89.06	87.00	-6.00	90.00	1.71	(5.00)	0.95 (0.99)
Black	13.89	1.92	2.91	16.00	0.00	0.00	4.39	(5.00)	1.68 (1.59)
Red(M+Y) Overprint	46.99	68.83	47.03	46.00	67.00	47.00	2.08	(6.00)	90% (85%)
Green(C+Y) Overprint	50.38	-68.53	25.48	49.00	-66.00	24.00	3.33	(6.00)	94% (90%)
Blue(C+M) Overprint	23.98	26.29	-44.15	24.00	16.00	-45.00	10.41	(6.00)	93% (90%)
Paper	93.25	0.67	-5.39	92.00	0.00	-3.00	1.25 (3.00)	0.67 (2.00)	-2.39 (2.00)
25% Grey Balance	78.21	2.01	-4.76	77.81	0.46	-4.26	1.37	(2.00)	
50% Grey Balance	62.73	3.29	-3.16	60.09	0.32	-2.96	2.52	(2.00)	
75% Grey Balance	40.95	1.83	-0.42	40.66	0.32	-1.32	1.68	(2.00)	

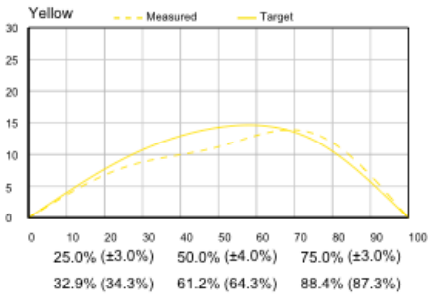
Dot Gain (TVI) Curves



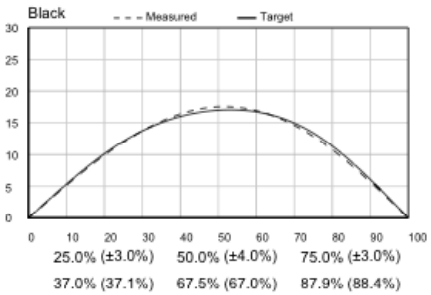
25.0% (±3.0%) 50.0% (±4.0%) 75.0% (±3.0%)
31.6% (34.3%) 58.7% (64.3%) 84.4% (87.3%)



25.0% (±3.0%) 50.0% (±4.0%) 75.0% (±3.0%)
37.7% (34.3%) 65.9% (64.3%) 88.6% (87.3%)



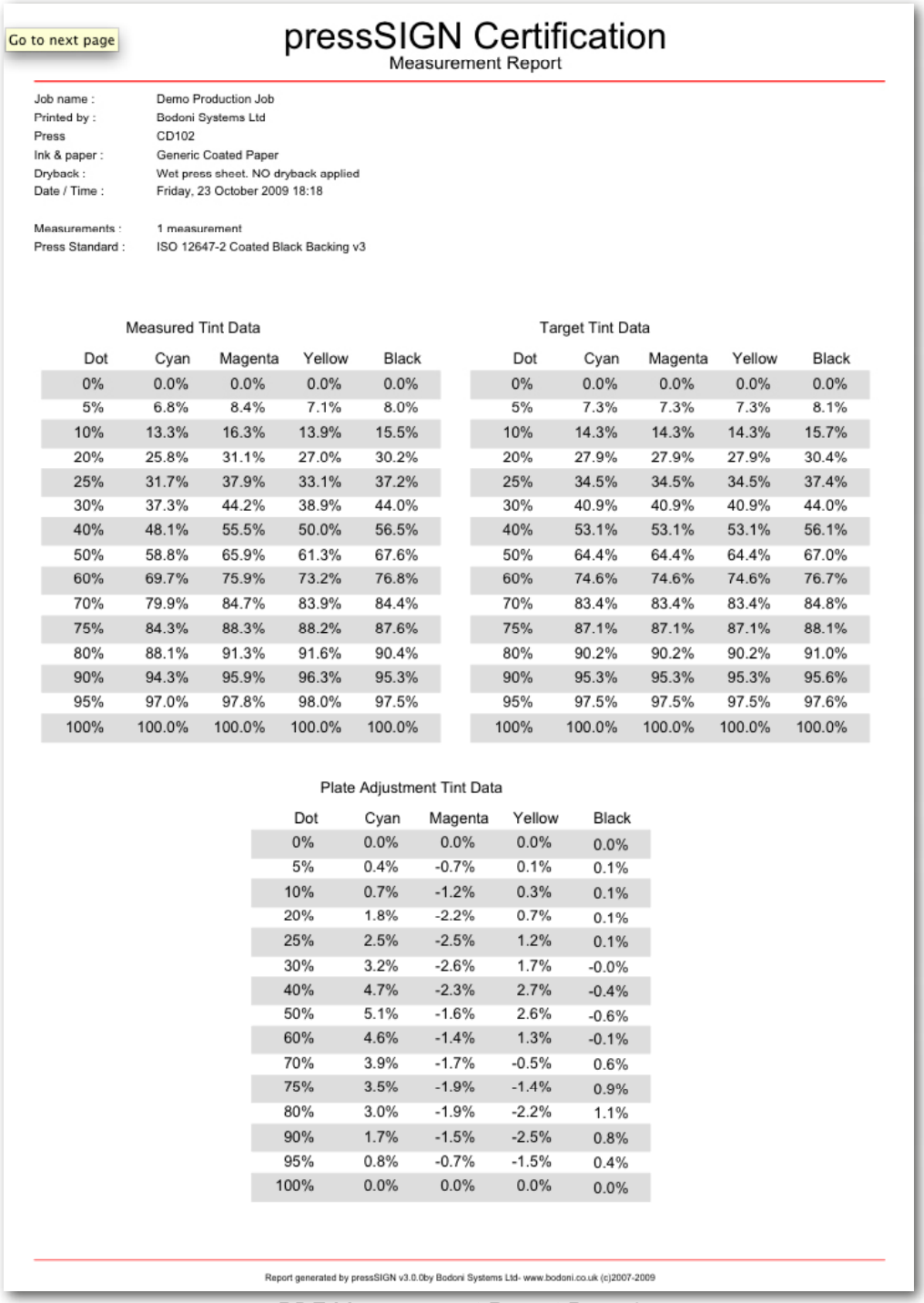
25.0% (±3.0%) 50.0% (±4.0%) 75.0% (±3.0%)
32.9% (34.3%) 61.2% (64.3%) 88.4% (87.3%)



25.0% (±3.0%) 50.0% (±4.0%) 75.0% (±3.0%)
37.0% (37.1%) 67.5% (67.0%) 87.9% (88.4%)

Report generated by pressSIGN v3.0 (by Bodoni Systems Ltd- www.bodoni.co.uk (c)2007-2009

PDF Measurement Report Page 1



Go to next page

pressSIGN Certification

Measurement Report

Job name : Demo Production Job
Printed by : Bodoni Systems Ltd
Press CD102
Ink & paper : Generic Coated Paper
Dryback : Wet press sheet. NO dryback applied
Date / Time : Friday, 23 October 2009 18:18

Measurements : 1 measurement
Press Standard : ISO 12647-2 Coated Black Backing v3

Measured Tint Data

Dot	Cyan	Magenta	Yellow	Black
0%	0.0%	0.0%	0.0%	0.0%
5%	6.8%	8.4%	7.1%	8.0%
10%	13.3%	16.3%	13.9%	15.5%
20%	25.8%	31.1%	27.0%	30.2%
25%	31.7%	37.9%	33.1%	37.2%
30%	37.3%	44.2%	38.9%	44.0%
40%	48.1%	55.5%	50.0%	56.5%
50%	58.8%	65.9%	61.3%	67.6%
60%	69.7%	75.9%	73.2%	76.8%
70%	79.9%	84.7%	83.9%	84.4%
75%	84.3%	88.3%	88.2%	87.6%
80%	88.1%	91.3%	91.6%	90.4%
90%	94.3%	95.9%	96.3%	95.3%
95%	97.0%	97.8%	98.0%	97.5%
100%	100.0%	100.0%	100.0%	100.0%

Target Tint Data

Dot	Cyan	Magenta	Yellow	Black
0%	0.0%	0.0%	0.0%	0.0%
5%	7.3%	7.3%	7.3%	8.1%
10%	14.3%	14.3%	14.3%	15.7%
20%	27.9%	27.9%	27.9%	30.4%
25%	34.5%	34.5%	34.5%	37.4%
30%	40.9%	40.9%	40.9%	44.0%
40%	53.1%	53.1%	53.1%	56.1%
50%	64.4%	64.4%	64.4%	67.0%
60%	74.6%	74.6%	74.6%	76.7%
70%	83.4%	83.4%	83.4%	84.8%
75%	87.1%	87.1%	87.1%	88.1%
80%	90.2%	90.2%	90.2%	91.0%
90%	95.3%	95.3%	95.3%	95.6%
95%	97.5%	97.5%	97.5%	97.6%
100%	100.0%	100.0%	100.0%	100.0%

Plate Adjustment Tint Data

Dot	Cyan	Magenta	Yellow	Black
0%	0.0%	0.0%	0.0%	0.0%
5%	0.4%	-0.7%	0.1%	0.1%
10%	0.7%	-1.2%	0.3%	0.1%
20%	1.8%	-2.2%	0.7%	0.1%
25%	2.5%	-2.5%	1.2%	0.1%
30%	3.2%	-2.6%	1.7%	-0.0%
40%	4.7%	-2.3%	2.7%	-0.4%
50%	5.1%	-1.6%	2.6%	-0.6%
60%	4.6%	-1.4%	1.3%	-0.1%
70%	3.9%	-1.7%	-0.5%	0.6%
75%	3.5%	-1.9%	-1.4%	0.9%
80%	3.0%	-1.9%	-2.2%	1.1%
90%	1.7%	-1.5%	-2.5%	0.8%
95%	0.8%	-0.7%	-1.5%	0.4%
100%	0.0%	0.0%	0.0%	0.0%

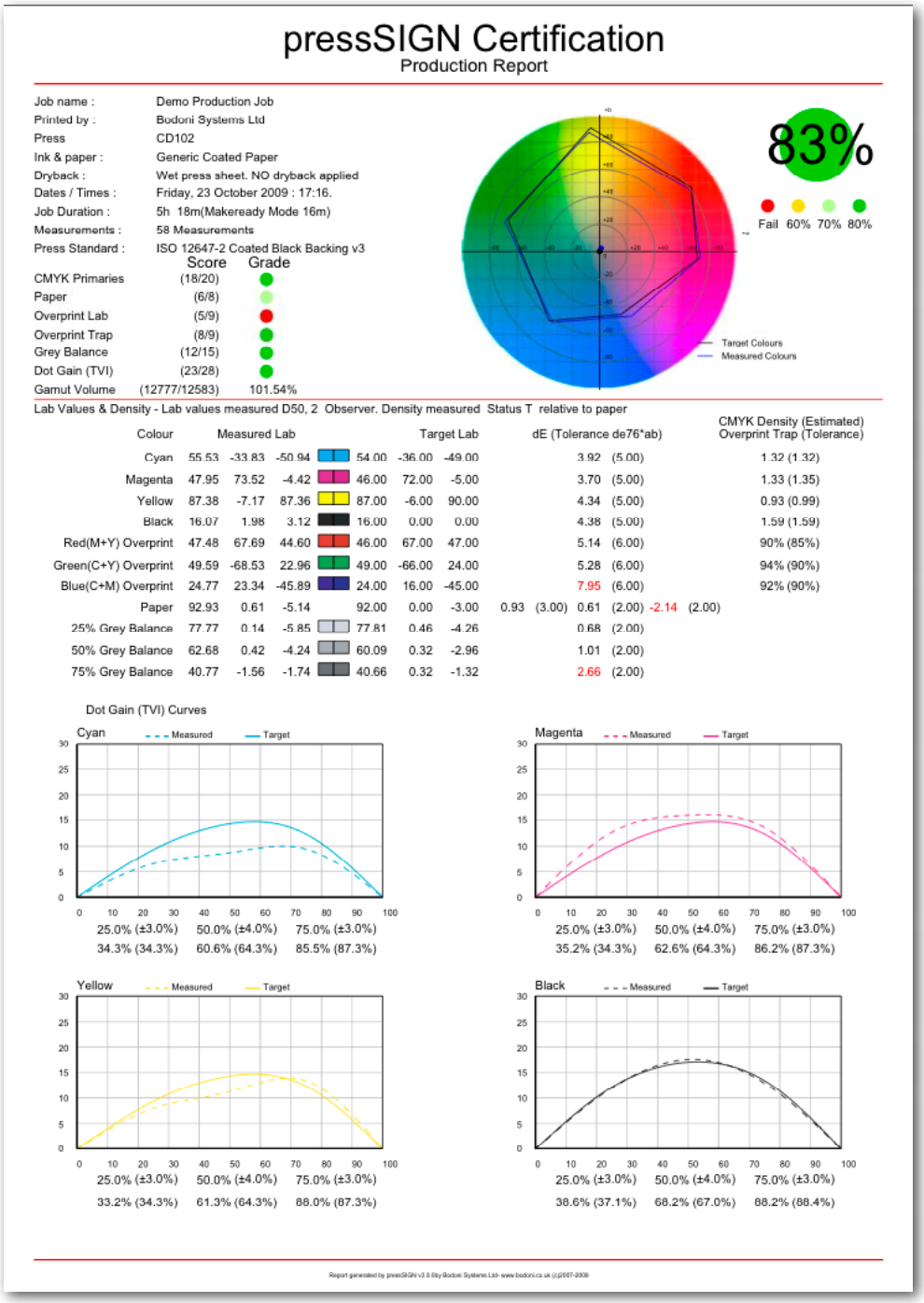
Report generated by pressSIGN v3.0.0by Bodoni Systems Ltd- www.bodoni.co.uk (c)2007-2009

PDF Measurement Report Page 2

The content of the measurement report is taken from the main interface and is used to give information about the measured data. If any averaging of measurements or jobs is done the report will show the result. For instance, when averaging measurements to generate plate curves and all measurements that have a primary score of 100% are selected from the job window and averaged, the measurement report will show the result of that average.

If there is no export function from pressSIGN that is compatible with the plate setting system, then the use the values on page 2 of the measurement report.

Production Report PDF



pressSIGN Certification

Production Report

Job name :	Demo Production Job
Printed by :	Bodoni Systems Ltd
Press	CD102
Ink & paper :	Generic Coated Paper
Dryback :	Wet press sheet. NO dryback applied
Dates / Times :	Friday, 23 October 2009 : 17:16.
Job Duration :	5h 18m(Makeready Mode 16m)
Measurements :	58 Measurements
Press Standard :	ISO 12647-2 Coated Black Backing v3

	Score	Grade
CMYK Primaries	(18/20)	
Paper	(6/8)	
Overprint Lab	(5/9)	
Overprint Trap	(8/9)	
Grey Balance	(12/15)	
Dot Gain (TVI)	(23/28)	
Gamut Volume	(12777/12583)	101.54%

83%

Fail 60% 70% 80%

Target Colours

Measured Colours

Lab Values & Density - Lab values measured D50, 2 Observer. Density measured Status T relative to paper

Colour	Measured Lab			Target Lab			dE (Tolerance de76*ab)		CMYK Density (Estimated) Overprint Trap (Tolerance)
Cyan	55.53	-33.83	-50.94	54.00	-36.00	-49.00	3.92	(5.00)	1.32 (1.32)
Magenta	47.95	73.52	-4.42	46.00	72.00	-5.00	3.70	(5.00)	1.33 (1.35)
Yellow	87.38	-7.17	87.36	87.00	-6.00	90.00	4.34	(5.00)	0.93 (0.99)
Black	16.07	1.98	3.12	16.00	0.00	0.00	4.38	(5.00)	1.59 (1.59)
Red(M+Y) Overprint	47.48	67.69	44.60	46.00	67.00	47.00	5.14	(6.00)	90% (85%)
Green(C+Y) Overprint	49.59	-68.53	22.96	49.00	-66.00	24.00	5.28	(6.00)	94% (90%)
Blue(C+M) Overprint	24.77	23.34	-45.89	24.00	16.00	-45.00	7.95	(6.00)	92% (90%)
Paper	92.93	0.61	-5.14	92.00	0.00	-3.00	0.93 (3.00)	0.61 (2.00)	-2.14 (2.00)
25% Grey Balance	77.77	0.14	-5.85	77.81	0.46	-4.26		0.68 (2.00)	
50% Grey Balance	62.68	0.42	-4.24	60.09	0.32	-2.96		1.01 (2.00)	
75% Grey Balance	40.77	-1.56	-1.74	40.66	0.32	-1.32		2.66 (2.00)	

Dot Gain (TVI) Curves

Cyan — Measured — Target

25.0% (±3.0%) 50.0% (±4.0%) 75.0% (±3.0%)

34.3% (34.3%) 60.6% (64.3%) 85.5% (87.3%)

Magenta — Measured — Target

25.0% (±3.0%) 50.0% (±4.0%) 75.0% (±3.0%)

35.2% (34.3%) 62.6% (64.3%) 86.2% (87.3%)

Yellow — Measured — Target

25.0% (±3.0%) 50.0% (±4.0%) 75.0% (±3.0%)

33.2% (34.3%) 61.3% (64.3%) 88.0% (87.3%)

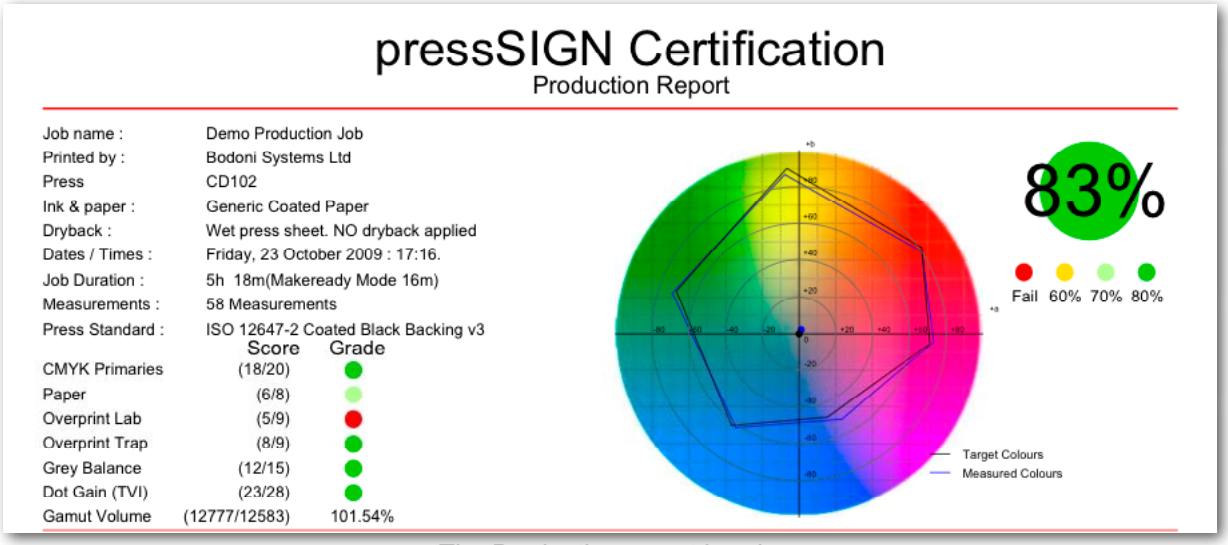
Black — Measured — Target

25.0% (±3.0%) 50.0% (±4.0%) 75.0% (±3.0%)

38.6% (37.1%) 68.2% (67.0%) 88.2% (88.4%)

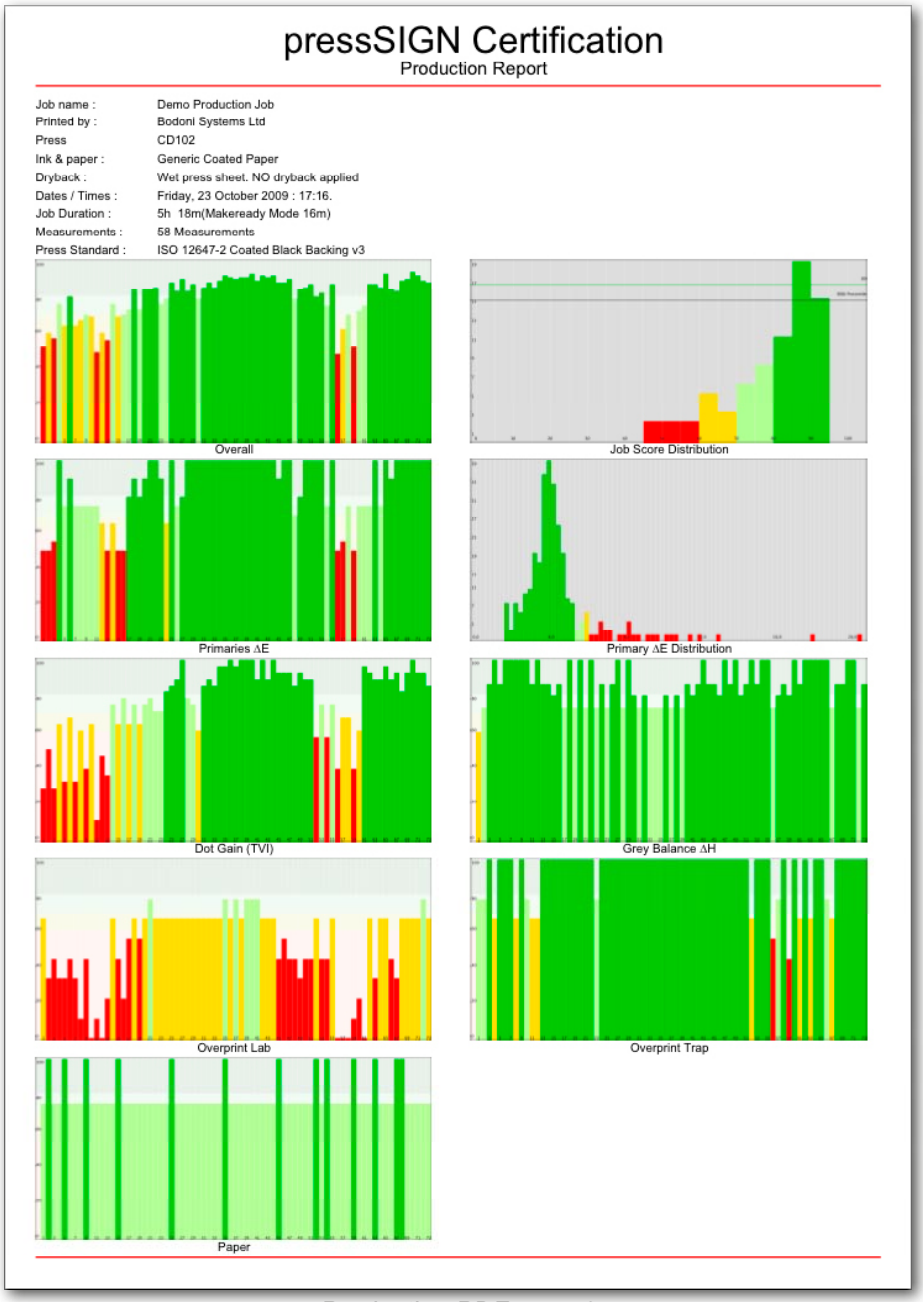
Production PDF page 1 pressSIGN PRO

Page 1 of the PDF is similar in layout to page 1 of the Measurement Report pdf, but there is a significant difference to how the values are calculated. The production report shows everything that will be saved with the complete job and so is affected by whether the job is put into production mode. The content of the production report is taken from the average of all the measurements that were made whilst pressSIGN was in production mode. If production mode was never set, then the production pdf report is taken from all the measurements.



The Production report header

The next 2 pages have the same content as the trend windows.

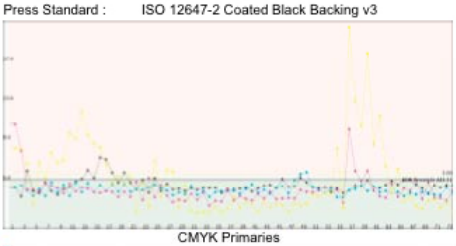


Production PDF page 2

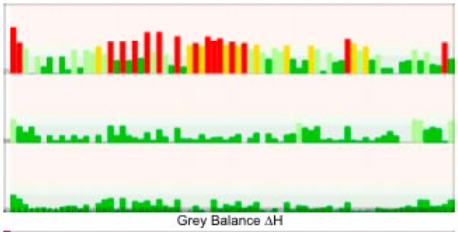
pressSIGN Certification

Production Report

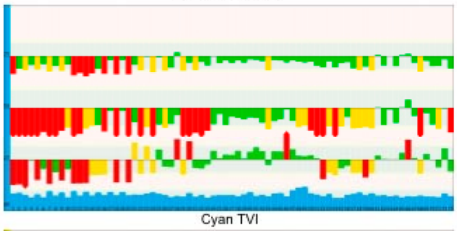
Job name :	Demo Production Job
Printed by :	Bodoni Systems Ltd
Press	CD102
Ink & paper :	Generic Coated Paper
Dryback :	Wet press sheet. NO dryback applied
Dates / Times :	Friday, 23 October 2009 : 17:16.
Job Duration :	5h 18m(Makeready Mode 16m)
Measurements :	58 Measurements
Press Standard :	ISO 12647-2 Coated Black Backing v3



CMYK Primaries



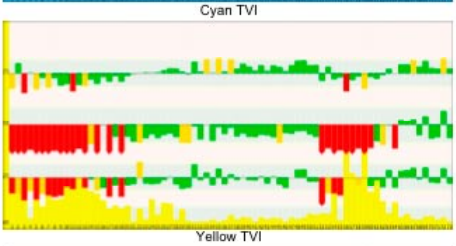
Grey Balance ΔH



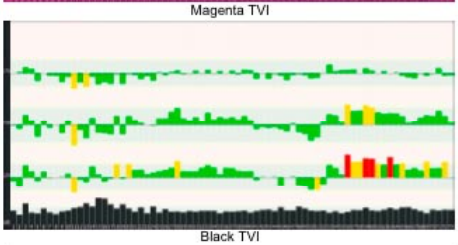
Cyan TVI



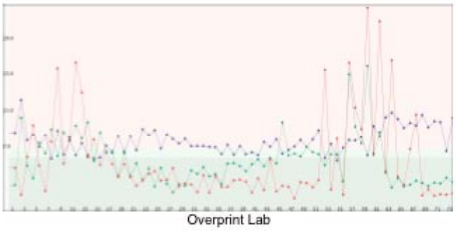
Magenta TVI



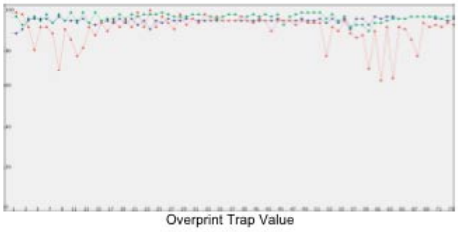
Yellow TVI



Black TVI

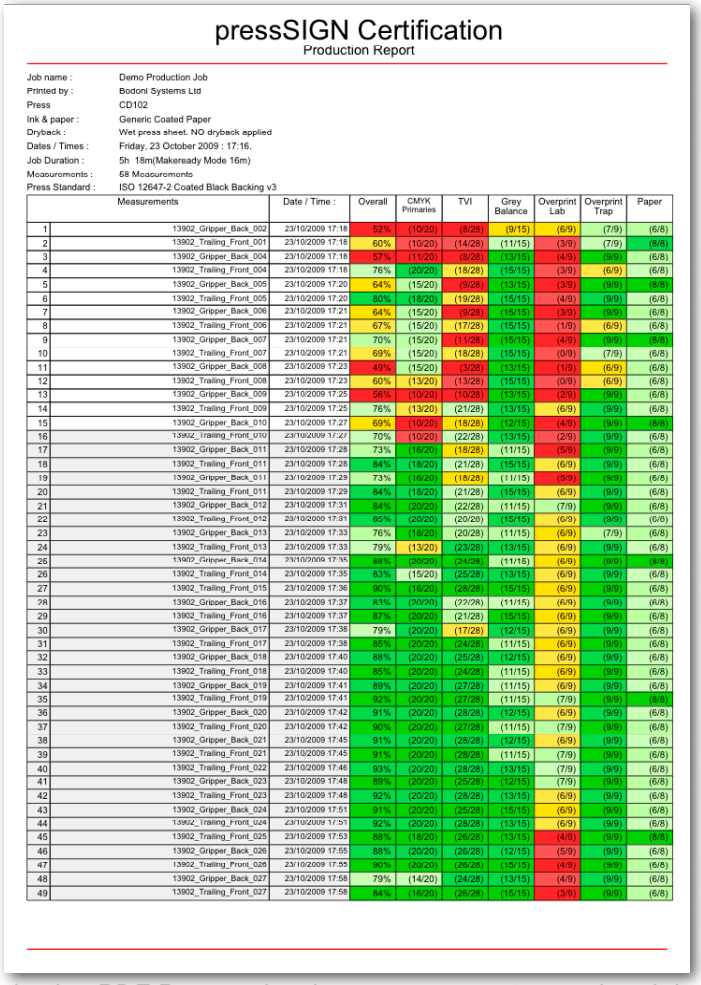


Overprint Lab



Overprint Trap Value

Production PDF Page 3



pressSIGN Certification
Production Report

Job name : Demo Production Job
Printed by : Bodoni Systems Ltd
Press : CD102
Ink & paper : Generic Coated Paper
Dryback : Wet press sheet. NO dryback applied
Dates / Times : Friday, 23 October 2009 : 17:16.
Job Duration : 5h 18m(Makeready Mode 16m)
Measurements : 68 Measurements
Press Standard : ISO 12647-2 Coated Black Backing v3

	Measurements	Date / Time :	Overall	CMYK Primaries	TVI	Grey Balance	Overprint Lab	Overprint Trap	Paper
1	13902_Gripper_Back_002	23/10/2009 17:18	52%	(10/20)	(8/28)	(9/15)	(6/9)	(7/9)	(6/8)
2	13902_Trailing_Front_001	23/10/2009 17:18	60%	(10/20)	(14/28)	(11/15)	(3/9)	(7/9)	(8/8)
3	13902_Gripper_Back_004	23/10/2009 17:18	57%	(11/20)	(8/28)	(13/15)	(4/9)	(9/9)	(6/8)
4	13902_Trailing_Front_004	23/10/2009 17:18	76%	(20/20)	(18/28)	(15/15)	(3/9)	(6/9)	(6/8)
5	13902_Gripper_Back_005	23/10/2009 17:20	64%	(15/20)	(9/28)	(13/15)	(3/9)	(9/9)	(6/8)
6	13902_Trailing_Front_005	23/10/2009 17:20	80%	(18/20)	(19/28)	(15/15)	(4/9)	(9/9)	(6/8)
7	13902_Gripper_Back_006	23/10/2009 17:21	64%	(15/20)	(9/28)	(15/15)	(3/9)	(9/9)	(6/8)
8	13902_Trailing_Front_006	23/10/2009 17:21	67%	(15/20)	(17/28)	(15/15)	(1/9)	(6/9)	(6/8)
9	13902_Gripper_Back_007	23/10/2009 17:21	70%	(15/20)	(11/28)	(15/15)	(4/9)	(9/9)	(8/8)
10	13902_Trailing_Front_007	23/10/2009 17:21	69%	(15/20)	(18/28)	(15/15)	(0/9)	(7/9)	(6/8)
11	13902_Gripper_Back_008	23/10/2009 17:23	49%	(15/20)	(3/28)	(13/15)	(1/9)	(6/9)	(6/8)
12	13902_Trailing_Front_008	23/10/2009 17:23	60%	(13/20)	(13/28)	(15/15)	(0/9)	(6/9)	(6/8)
13	13902_Gripper_Back_009	23/10/2009 17:25	56%	(10/20)	(10/28)	(13/15)	(2/9)	(9/9)	(6/8)
14	13902_Trailing_Front_009	23/10/2009 17:25	76%	(13/20)	(21/28)	(13/15)	(6/9)	(9/9)	(6/8)
15	13902_Gripper_Back_010	23/10/2009 17:27	69%	(10/20)	(18/28)	(12/15)	(4/9)	(9/9)	(8/8)
16	13902_Trailing_Front_010	23/10/2009 17:27	70%	(10/20)	(22/28)	(13/15)	(2/9)	(9/9)	(6/8)
17	13902_Gripper_Back_011	23/10/2009 17:28	73%	(16/20)	(18/28)	(11/15)	(5/9)	(9/9)	(6/8)
18	13902_Trailing_Front_011	23/10/2009 17:28	84%	(18/20)	(21/28)	(15/15)	(6/9)	(9/9)	(6/8)
19	13902_Gripper_Back_011	23/10/2009 17:29	73%	(16/20)	(18/28)	(11/15)	(5/9)	(9/9)	(6/8)
20	13902_Trailing_Front_011	23/10/2009 17:29	84%	(18/20)	(21/28)	(15/15)	(6/9)	(9/9)	(6/8)
21	13902_Gripper_Back_012	23/10/2009 17:31	84%	(20/20)	(22/28)	(11/15)	(7/9)	(9/9)	(6/8)
22	13902_Trailing_Front_012	23/10/2009 17:31	85%	(20/20)	(20/28)	(15/15)	(6/9)	(9/9)	(6/8)
23	13902_Gripper_Back_013	23/10/2009 17:33	76%	(18/20)	(20/28)	(11/15)	(6/9)	(7/9)	(6/8)
24	13902_Trailing_Front_013	23/10/2009 17:33	79%	(13/20)	(23/28)	(13/15)	(6/9)	(9/9)	(6/8)
25	13902_Gripper_Back_014	23/10/2009 17:35	88%	(20/20)	(24/28)	(11/15)	(6/9)	(9/9)	(8/8)
26	13902_Trailing_Front_014	23/10/2009 17:35	83%	(15/20)	(25/28)	(13/15)	(6/9)	(9/9)	(6/8)
27	13902_Trailing_Front_015	23/10/2009 17:36	90%	(16/20)	(28/28)	(15/15)	(6/9)	(9/9)	(6/8)
28	13902_Gripper_Back_016	23/10/2009 17:37	83%	(20/20)	(22/28)	(11/15)	(6/9)	(9/9)	(6/8)
29	13902_Trailing_Front_016	23/10/2009 17:37	87%	(20/20)	(21/28)	(15/15)	(6/9)	(9/9)	(6/8)
30	13902_Gripper_Back_017	23/10/2009 17:38	79%	(20/20)	(17/28)	(12/15)	(6/9)	(9/9)	(6/8)
31	13902_Trailing_Front_017	23/10/2009 17:38	85%	(20/20)	(24/28)	(11/15)	(6/9)	(9/9)	(6/8)
32	13902_Gripper_Back_018	23/10/2009 17:40	88%	(20/20)	(25/28)	(12/15)	(6/9)	(9/9)	(6/8)
33	13902_Trailing_Front_018	23/10/2009 17:40	85%	(20/20)	(24/28)	(11/15)	(6/9)	(9/9)	(6/8)
34	13902_Gripper_Back_019	23/10/2009 17:41	89%	(20/20)	(27/28)	(11/15)	(6/9)	(9/9)	(6/8)
35	13902_Trailing_Front_019	23/10/2009 17:41	92%	(20/20)	(27/28)	(11/15)	(7/9)	(9/9)	(8/8)
36	13902_Gripper_Back_020	23/10/2009 17:42	91%	(20/20)	(28/28)	(12/15)	(6/9)	(9/9)	(6/8)
37	13902_Trailing_Front_020	23/10/2009 17:42	90%	(20/20)	(27/28)	(11/15)	(7/9)	(9/9)	(6/8)
38	13902_Gripper_Back_021	23/10/2009 17:45	91%	(20/20)	(28/28)	(12/15)	(6/9)	(9/9)	(6/8)
39	13902_Trailing_Front_021	23/10/2009 17:45	91%	(20/20)	(28/28)	(11/15)	(7/9)	(9/9)	(6/8)
40	13902_Trailing_Front_022	23/10/2009 17:46	93%	(20/20)	(28/28)	(13/15)	(7/9)	(9/9)	(6/8)
41	13902_Gripper_Back_023	23/10/2009 17:48	89%	(20/20)	(25/28)	(12/15)	(7/9)	(9/9)	(6/8)
42	13902_Trailing_Front_023	23/10/2009 17:48	92%	(20/20)	(28/28)	(13/15)	(6/9)	(9/9)	(6/8)
43	13902_Gripper_Back_024	23/10/2009 17:51	91%	(20/20)	(25/28)	(15/15)	(6/9)	(9/9)	(6/8)
44	13902_Trailing_Front_024	23/10/2009 17:51	92%	(20/20)	(28/28)	(13/15)	(6/9)	(9/9)	(6/8)
45	13902_Trailing_Front_025	23/10/2009 17:53	88%	(18/20)	(26/28)	(13/15)	(4/9)	(9/9)	(8/8)
46	13902_Gripper_Back_026	23/10/2009 17:55	88%	(20/20)	(26/28)	(12/15)	(5/9)	(9/9)	(6/8)
47	13902_Trailing_Front_026	23/10/2009 17:55	90%	(20/20)	(26/28)	(15/15)	(4/9)	(9/9)	(6/8)
48	13902_Gripper_Back_027	23/10/2009 17:58	79%	(14/20)	(24/28)	(13/15)	(4/9)	(9/9)	(6/8)
49	13902_Trailing_Front_027	23/10/2009 17:58	84%	(16/20)	(26/28)	(15/15)	(3/9)	(9/9)	(6/8)

Production PDF Page 4 showing measurement score breakdown.

13	13902_Gripper_Back_009	23/10/2009 17:25	56%	(10/20)	(10/28)	(13/15)	(2/9)	(9/9)	(6/8)
14	13902_Trailing_Front_009	23/10/2009 17:25	76%	(13/20)	(21/28)	(13/15)	(6/9)	(9/9)	(6/8)
15	13902_Gripper_Back_010	23/10/2009 17:27	69%	(10/20)	(18/28)	(12/15)	(4/9)	(9/9)	(8/8)
16	13902_Trailing_Front_010	23/10/2009 17:27	70%	(10/20)	(22/28)	(13/15)	(2/9)	(9/9)	(6/8)
17	13902_Gripper_Back_011	23/10/2009 17:28	73%	(16/20)	(18/28)	(11/15)	(5/9)	(9/9)	(6/8)
18	13902_Trailing_Front_011	23/10/2009 17:28	84%	(18/20)	(21/28)	(15/15)	(6/9)	(9/9)	(6/8)

The list shows the measurement number (this corresponds to the trend window labels), time, overall score and the breakdown of those scores for each measurement. Those measurements with a greyed background were made when pressSIGN was in production mode.

Exporting Plate Data

pressSIGN offers several formats to export plate adjustment data.

Tab Delimited Text File

Select ‘Tab Delimited Text File’ from the ‘Text File Format’ menu. The text file contains all the TVI data for the CMYK inks. Target, measured and plate adjustments are included. Click ‘Export’ to save. Using this file is an easy way to average plate adjustment data.

Harlequin RIP Format

Select ‘Harlequin RIP’ from the ‘Text File Format’ menu.

From the ‘Select Which Data to Export’ menu, you have 3 choices:

exporting that you don't overwrite a previous file.

Within the 'Select which Data to Export' menu when you edit an existing 'Actual Press' calibration and click on 'Edit From Calibrated'. If you are starting from scratch create a new 'Actual Press' calibration and import the measured data, then create a new 'Intended Press' calibration and import the target data.

After saving, copy the 'import' file into the 'SW/caldata' folder within the RIP. You can then enter the calibration setup manager and Click on the 'import' button to import the data into the calibration.

FlowDrive

Select 'FlowDrive' from the 'Text File Format' menu.
You can then choose to export the data as a Proofer, or a Imagesetter dot gain file (.dg).
Launch FlowDrive Queue, and open the 'Dot Gain' window. Click 'import' and select the exported dot gain file.
The dot gain file is the adjustment on your platesetter to achieve the target standard

RAMPage

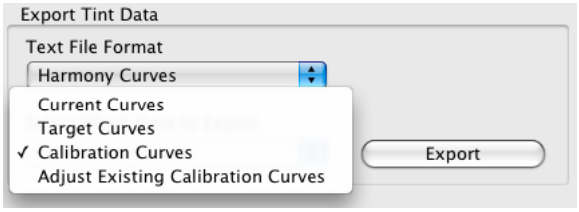
Select 'RAMPage' from the 'Text File Format' menu.
You can export the calibration, target and adjustment data. pressSIGN will output a single file for each colour in the following formats:

[press name] _[Paper Name] - Measured ([colour]).txt
[press name] _[Paper Name] - Desired ([colour]).txt
[press name] _[Paper Name] - Deviation ([colour]).txt

Copy the files into the 'Calibration' folder of the RAMPage RIP for them to be available.

Harmony

Select 'Harmony' from the 'Text File Format' menu.



Export Harmony Curves

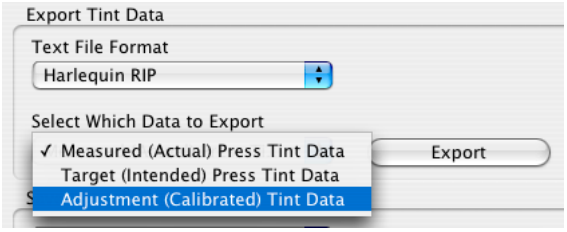
pressSIGN can save the data for the 'Current curve', 'Target curve', 'Calibration Curve' and Adjustment data for each CMYK plate.

It is easier to just deal with calibration curves as only one file needs to be exported and the same method can be used in the future when adjusting existing curves.

'Current Curve' - the actual press TVI measurements.
'Target Curve' - the target press TVI values for the CMYK plates.
'Calibration Curve' - The actual and target TVI curves added together into a single adjustment curve

When exporting pressSIGN generates 4 files, one for each colour in the following formats, depending on which curve type you are exporting

[press name]_[Paper Name] - Current ([colour]).txt
[press name] _[Paper Name] - Target ([colour]).txt
[press name] _[Paper Name] - Calibration ([colour]).txt



Select the type of data to export.

The file name needs to be left as 'import' because that is the name expected by the Harlequin RIP, so be careful when exporting that you don't overwrite a previous file.

Within the 'Select which Data to Export' menu when you edit an existing 'Actual Press' calibration and click on 'Edit From Calibrated'. If you are starting from scratch create a new 'Actual Press' calibration and import the measured data, then create a new 'Intended Press' calibration and import the target data.

After saving, copy the 'import' file into the 'SW/caldata' folder within the RIP. You can then enter the calibration setup manager and Click on the 'import' button to import the data into the calibration.

FlowDrive

Select 'FlowDrive' from the 'Text File Format' menu.
You can then choose to export the data as a Proofer, or a Imagesetter dot gain file (.dg).
Launch FlowDrive Queue, and open the 'Dot Gain' window. Click 'import' and select the exported dot gain file.
The dot gain file is the adjustment on your platesetter to achieve the target standard

RAMPage

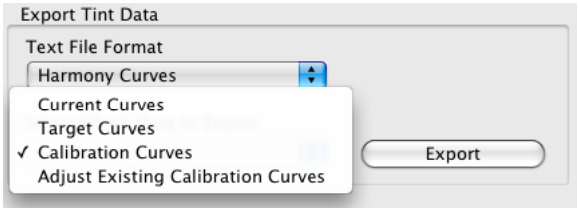
Select 'RAMPage' from the 'Text File Format' menu.
You can export the calibration, target and adjustment data. pressSIGN will output a single file for each colour in the following formats:

[press name] _[Paper Name] - Measured ([colour]).txt
[press name] _[Paper Name] - Desired ([colour]).txt
[press name] _[Paper Name] - Deviation ([colour]).txt

Copy the files into the 'Calibration' folder of the RAMPage RIP for them to be available.

Harmony

Select 'Harmony' from the 'Text File Format' menu.



Export Harmony Curves

pressSIGN can save the data for the 'Current curve', 'Target curve', 'Calibration Curve' and Adjustment data for each CMYK plate.

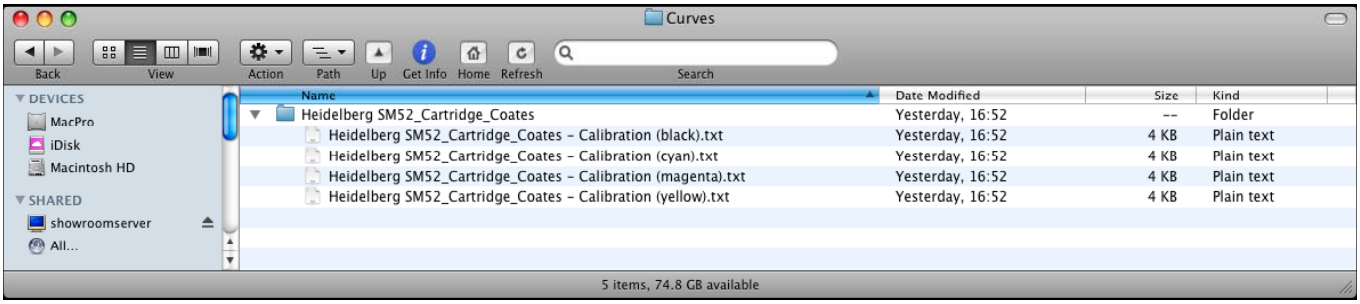
It is easier to just deal with calibration curves as only one file needs to be exported and the same method can be used in the future when adjusting existing curves.

'Current Curve' - the actual press TVI measurements.
'Target Curve' - the target press TVI values for the CMYK plates.
'Calibration Curve' - The actual and target TVI curves added together into a single adjustment curve

When exporting pressSIGN generates 4 files, one for each colour in the following formats, depending on which curve type you are exporting

[press name]_[Paper Name] - Current ([colour]).txt
[press name] _[Paper Name] - Target ([colour]).txt

[press name] _[Paper Name] - Calibration ([colour]).txt



Example file layout for Calibration Curves in Harmony

Adding a Current Curve in Harmony

First export the current data from pressSIGN.
Launch Harmony and click on the 'New Current Curve' icon and set the resolution, dot shape, ruling and screening that the curves will relate to.
It is suggested the 'medium' is set to the paper type you are using - such as 'Coated', or 'UnCoated'
Set the 'Curve Set' as CMYK Curves. This makes sure there will be an individual curve for each colour.
Name the curve and click OK.
Within the window there are 'Edit Black', 'Edit Cyan', 'Edit Magenta', and 'Edit Yellow' radio buttons. This is where you tell Harmony which colour you are importing.

Then open the 'Edit' menu and click 'import curve profile'. Select the current curve file for the colour you are editing. Make sure you are importing the files with 'current' in the file name.

Repeat for each CMYK current curve.

Adding a Target Curve in Harmony

First export the target data from pressSIGN.
Launch Harmony and click on the 'New Target Curve' icon and set the resolution, dot shape, ruling and screening that the curves will relate to.
It is suggested the 'medium' is set to the paper type you are using - such as 'Coated', or 'UnCoated'
Set the 'Curve Set' as CMYK Curves. This makes sure there will be an individual curve for each colour.
Name the curve (e.g. ISO12647-2) and click OK.
Within the window there are 'Edit Black', 'Edit Cyan', 'Edit Magenta', and 'Edit Yellow' radio buttons. This is where you tell Harmony which colour you are importing.

Then open the 'Edit' menu and click 'import curve profile'. Select the Target curve file for the colour you are editing. Make sure you are importing the files with 'target' in the file name.

Repeat for each CMYK target curve.

Adding a Calibration Curve in Harmony

First export the target data from pressSIGN.
Launch Harmony and click on the 'New Tone Curve' icon. By default a tone curve only has a single curve for all CMYK. To turn it into a CMYK curve right click somewhere on the curve and select 'Properties' and set the resolution, dot shape, ruling and screening that the curves will relate to.
It is suggested the 'medium' is set to the paper type you are using - such as 'Coated', or 'UnCoated'
Set the 'Curve Set' as CMYK Curves. This makes sure there will be an individual curve for each colour.
Name the curve (e.g. CD102_Silk_ISO) and click OK.
Within the window there are 'Edit Black', 'Edit Cyan', 'Edit Magenta', and 'Edit Yellow' radio buttons. This is where you tell Harmony which colour you are importing.

Then open the 'Edit' menu and click 'import curve profile'. Select the calibration curve file for the colour you are editing. Make sure you are importing the files with 'calibration' in the file name.

Repeat for each CMYK target curve.

Adjusting an existing Calibration in Harmony

If the original curve to be edited was generated by pressSIGN, then select ‘Adjust Existing Calibration Curve’ and click ‘Export’. Browse and choose the Calibration folder which pressSIGN had generated originally (see previous figure). pressSIGN will update the CMYK.

In Harmony open up the original Calibration curve and import the new CMYK calibration curve files.
Within the window there are ‘Edit Black’, ‘Edit Cyan’, ‘Edit Magenta’, and ‘Edit Yellow’ radio buttons. This is where you tell Harmony which colour you are importing.

Then open the ‘Edit’ menu and click ‘import curve profile’. Select the calibration curve file for the colour you are editing. Make sure you are importing the files with ‘calibration’ in the file name.

Repeat for each CMYK target curve.

Importing Curve data into Prinergy

Launch the Template Editor from within Prinergy and edit the template you wish to use with the plate adjustments.
Go to the ‘Calibration and Screening’ section

Select the Harmony Curve that you’ve just created.

Apogee

Select ‘Apogee’ from the export type menu. Export a ‘Calibration’ curve when generating a new curve from a job printed with a linear plate. Select ‘Existing calibration curve’ up update a curve that was used to print the job. From within Apogee import the CMYK curve data. There are 4 files, one for each of CMYK.

HP Indigo LUT

Firstly, make sure the job with the colour bar has been output with ‘Ignore LUT’ ticked. This makes sure the job has been printed linear

Select ‘HP Indigo’ from the ‘Text File Format’ menu. This generates 4 filed - one for each colour ending in ‘.lut’

Copy onto HP Indigo PC. C:\Unicorn\Import\LUTs
Click ‘Job LUT Library’
Click ‘All separations’
Highlight the correct ‘Group Name’ and click ‘Load’

Do **not** click ‘Smooth’

Make the change permanent by applying the changes to a hot folder.
Click Create/Edit Hot folder
LUTs stored in Ticket Templates
Separations Tab
Separation Mode CMYK
Click ‘Import LUTs’ - Import each CMYK curve
For each CMYK Highlight and click Edit
Select the correct curve for each colour

EFI Colorproof XF

Select ‘EFI Colorproof EF’ from the export type menu. Export a ‘Calibration’ curve when generating a new curve from a job printed with a linear plate.

pressSIGN generates ‘.vcc’ visual correction files which need to be saved inside the EFI Colorproof XF RIP folder.
The location for the vcc files is as follows:

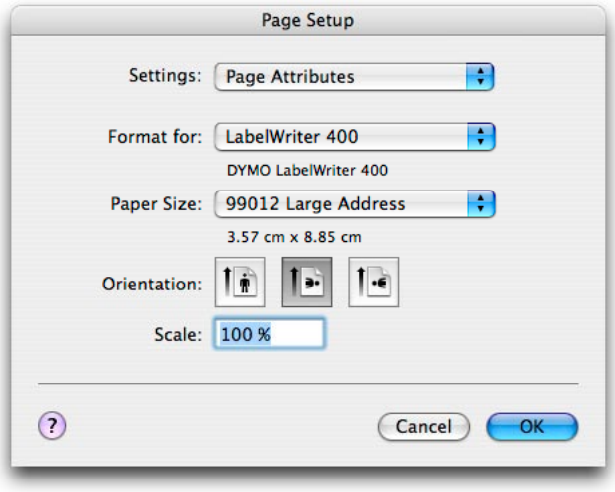
Version 2.5-3.1
EFI RIP/Sever/Profiles/Balance

Version 4.0
Windows 2000/XP \Documents and Settings\All Users\Application Data\EFI\EFI XF\Server\Balance
Windows Vista/2008 \ProgramData\EFI\EFI XF\Server\Balance
Macintosh /Library/Application Support/EFI/EFI XF\Server\Balance

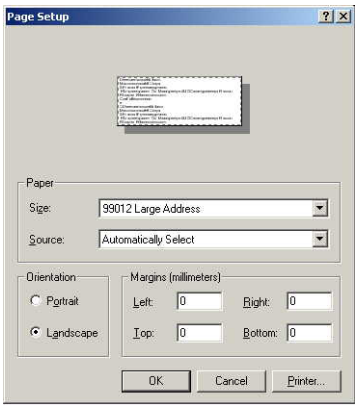
Save the .vcc file into the balance folder choose the curve adjustment from the WorkFlow->Color->Visual Correction menu.

When editing an existing curve click export from pressSIGN and select the original .vcc file. pressSIGN can only update .vcc files generated by itself and it updates the original file. Any new jobs arriving in the workflows with the visual correction applied will use the new curve. Jobs already in the queues will need to be reprocessed for the new curve to be applied.

Printing a Label



Page Setup on a Mac

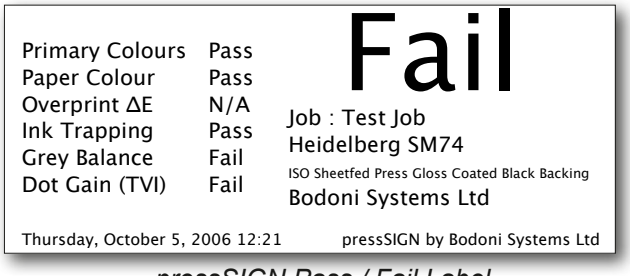


Page Setup on a Windows PC

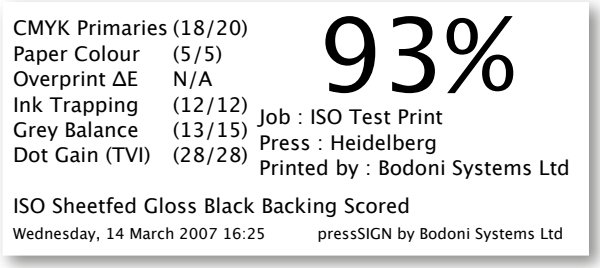
On a Windows PC, from the Page Setup window click 'Printer'. Select the label printer you are using and click 'Properties'. Select Landscape mode, then click on 'Advanced'. Set the label size as 'Large Address 99012' (or whatever you are using) and click 'OK'. Keep Clicking OK to return to the Page Setup window as shown above and set all the margins to zero. If you are using a different label size than recommended, then you may need to set the margins appropriately.

pressSIGN remembers these settings so that the next time you print a label you don't need to go into the Page Setup window again. If you change label printer or label size, then you can set the page settings from the File menu and selecting 'Page Setup'.

With the page settings set correctly, the print dialogue window opens. Make sure the correct printer is selected and click 'Print'



pressSIGN Pass / Fail Label

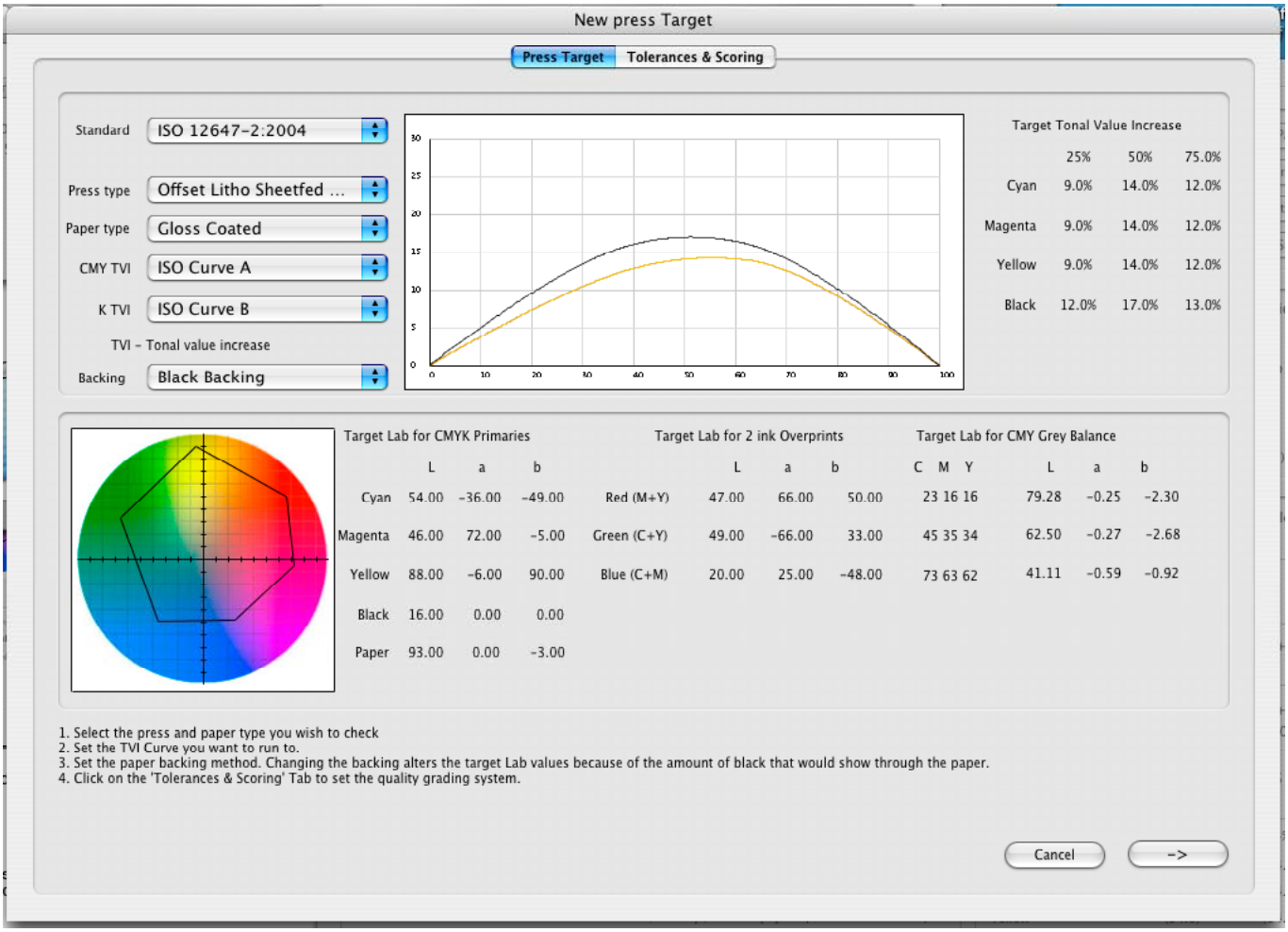


pressSIGN Scored Label

Click 'Print a Label'. The label contains the pass / fail result for each of the target press pass criteria, the job name, press and company name.
The label is designed to fit on a 'Large Address Label' - Dymo label number 99012, 36mm x 89mm. Larger labels can be used with any label writer compatible with your computer and OS.

The job, press, standard and company name are scaled, if necessary to fit onto the label.

Adding Target Press Standards



Adding a standard

A new press standard can be added by opening the preferences window, and clicking on the '+' icon next to the press standard menu. They also can be added from the 'New / Open Job' window.

Standard

Choose between ISO 12647-2, ISO 12647-3 and GRACol G7, Custom Press Standard and Measured Press Sheet

ISO 12647-2	International standard for sheetfed and web litho printing
ISO 12647-3	International Newspaper standard
ISO 12647-4	International Gravure standard
ISO 12647-6	International Flexographic standard
GRACol G7	GRACol G7 targets for sheetfed and web press (SWOP)
Custom	Set your own Lab and TVI targets
Measured	Generate a new standard based on a current set of measurements.
Import from ICC Profile	Create a standard from any CMYK ICC Profile

Press Type

First, set the press type. Choose 'Offset Litho Sheetfed Press' , or 'Offset Litho Web Press'. ISO 12647-3 only has a newsprint option. What you choose here affects the paper choices you have.

Paper Type

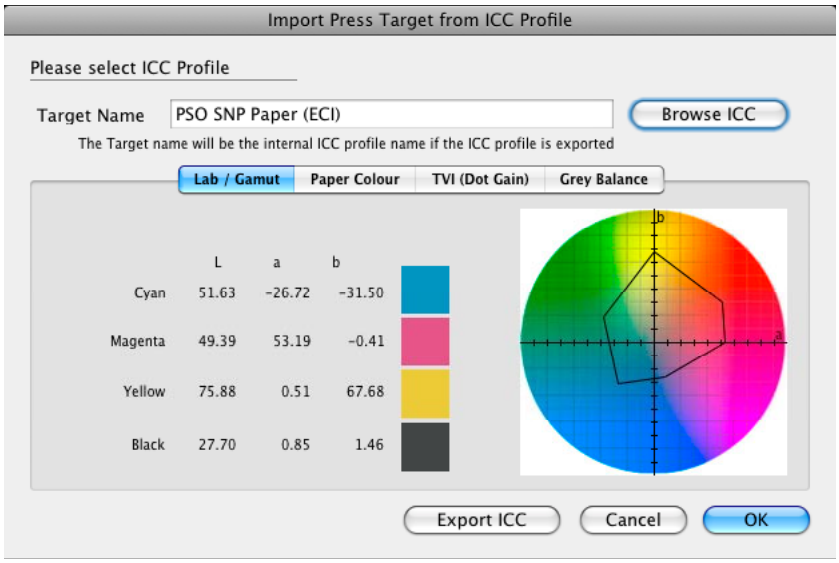
Available paper choices for ISO 12647-2 sheetfed presses are gloss coated, matt coated, uncoated, and uncoated yellowish. These relate to ISO 12647-2 paper types 1,2,4 & 5 respectively. The web press's coated paper relates to ISO 12647-2 paper type 3. ISO 12647-3 only has a single newsprint paper target. GRACol G7 has 4 grades of paper. Grades #1 & #2 are for sheetfed printing. Paper grades #3 & #5 are SWOP targets for printing on a web press.
Changing the paper type updates the Lab diagram, and the target Lab values for the CMYK primaries, overprints and grey balance.

TVI (Dot Gain) Curves.

ISO 12647-2 defines the different TVI curves as Curves A-F. ISO 12647-3 has 2 TVI curve choices, GRACol has 1 for each paper type.
pressSIGN allows you to choose a CMY curve, and a separate K curve. The chosen TVI curves are displayed in the graph.

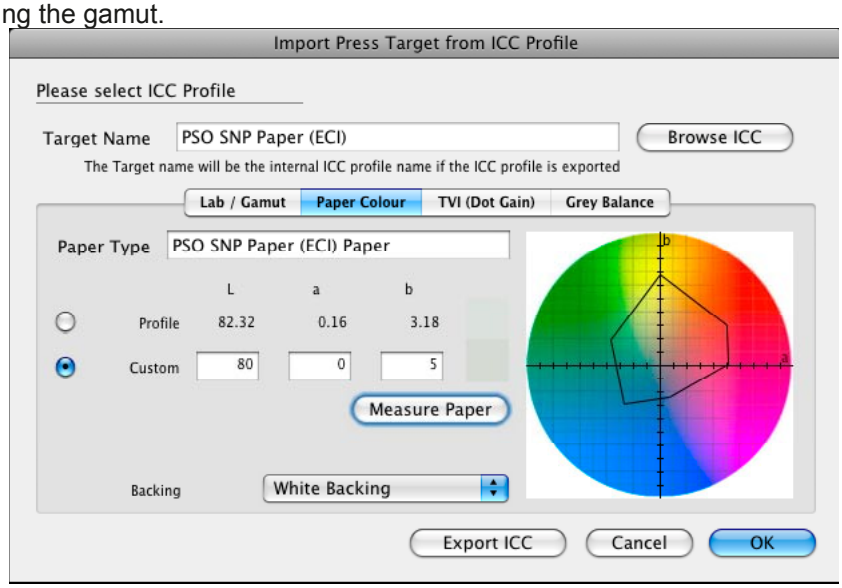
Import from ICC Profile

pressSIGN can generate press standards based on any CMYK ICC Profile. From the 'Standard' menu click 'Import from ICC Profile'. Then click 'Select ICC Profile' and browse to the CMYK press profile on the computer.
Once the profile has been imported, the paper colour can be changed, the profile renamed and exported, change the tints used in the colour bar and generate new grey balance CMY values.



Import from ICC Profile Window

Once a CMYK ICC profile has been imported the Lab values for the CMYK Primaries and paper colour are shown next to a Lab diagram showing the gamut.



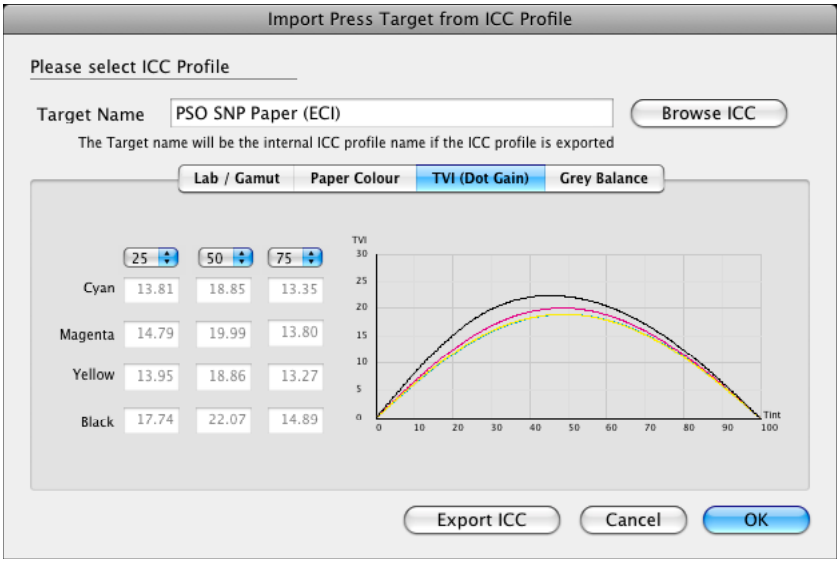
Paper Colour

It is quite common for the paper colour inside a profile to be different to the paper colour that is used on a press run. You can either type in a new lab value, or use the Eye-One Pro to measure the paper white. This can be used for instance to create a standard based on a different paper backing than was used to make the profile.

Only change the paper colour for a similar type of paper that the profile was made from. Do not measure an uncoated paper when a coated profile has been imported.

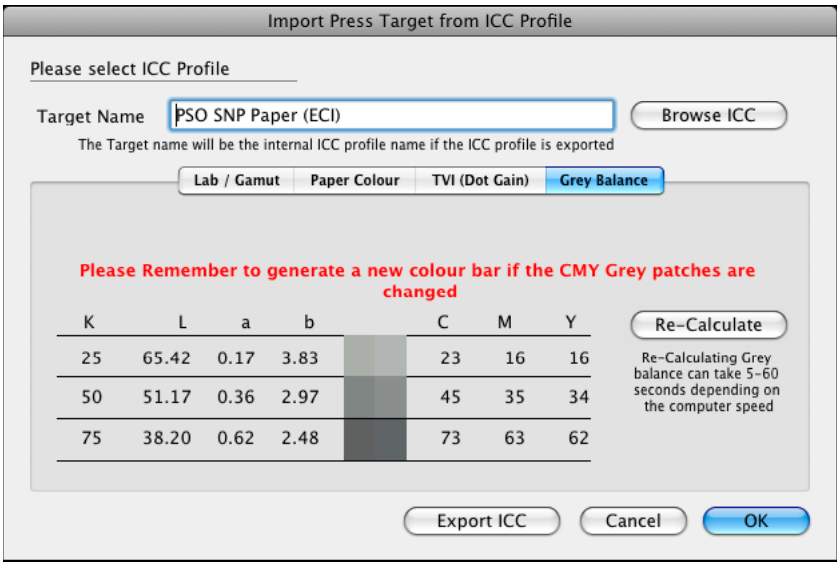
If the paper colour is changed, the profile can be exported for use in proofing and pre-press applications.

The ‘Backing’ menu is only for information. Set this to how the paper colour was measured.



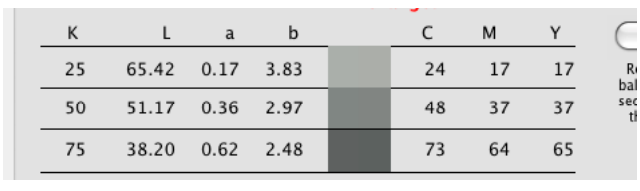
TVI values calculated from the ICC Profile

The TVI (Dot Gain) tab shows the tvi values calculated from the ICC Profile. Change the tint menus to the tints that will be used on the colour bar. If the tints are changed, make sure they are evenly spaced from 0-100%, such as 20,40,80 etc, or 25,50,75. This is to make sure the smoothing algorithm used by pressSIGN draws accurate curves.



Grey Balance Tab

pressSIGN has default values for the grey balance patches used, but different print types may require a different CMY balance to achieve a neutral. When the Grey Balance tab is first clicked it shows the original CMY values and the colour of the K and CMY patches. Click on ‘Re-Calculate’ to let pressSIGN calculate the closest CMY value for each of the black tints. If the tints are changed afterwards, the grey balance would need to be recalculated.



Re-calculated grey balance

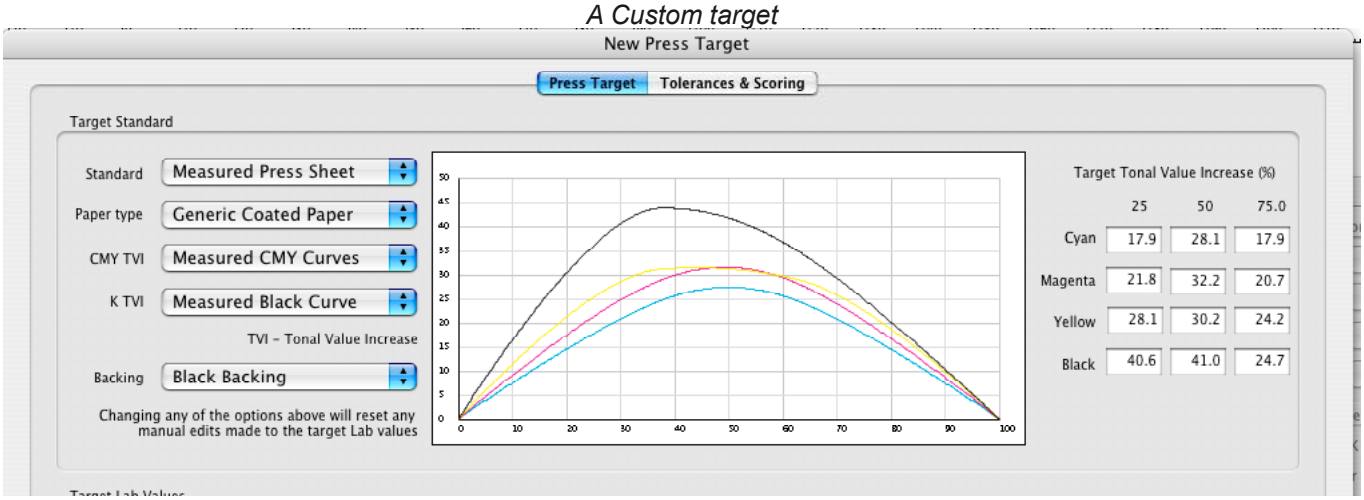
If the grey balance values or tints are changed then a new colour bar must be generated.

Custom / Measured Press Targets

Selecting either ‘Custom’ or ‘Measured’ from the standard list enables the ability to type in custom target TVI curves and Lab values. Use this ability to create your own standards.
Measured is only available to select if you already have some measurements available. If you have averaged a set of measurements, then the ‘Measured’ option would represent that average.

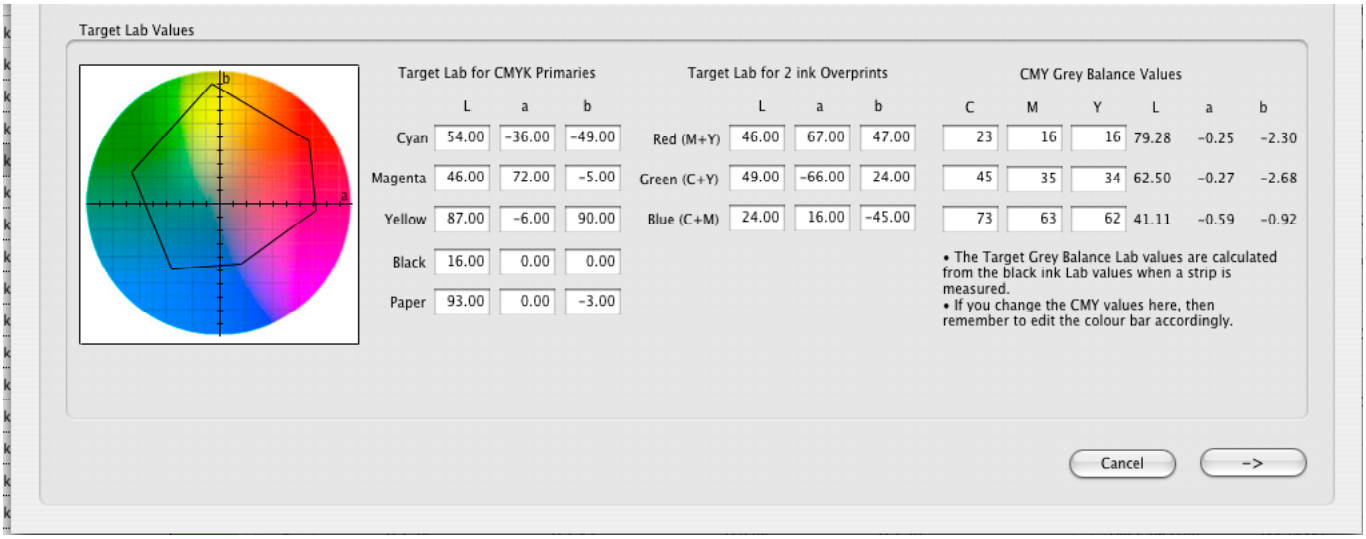


A Custom target



A Measured sheet

Selecting either ‘Measured’ or ‘Custom’ enable the ability to edit the target TVI curves to your own values. We would recommend doing this when creating your own standard from a set of measured data because it is unlikely you will actually want exactly the same TVI targets as measured.
If any changes are made to the TVI curves make sure the displayed curve has smooth transitions.



Selecting ‘Custom’ fills in the target Lab values based on the last press standard chosen. Selecting ‘Measured’ fills in the Lab values based on the current measurements.

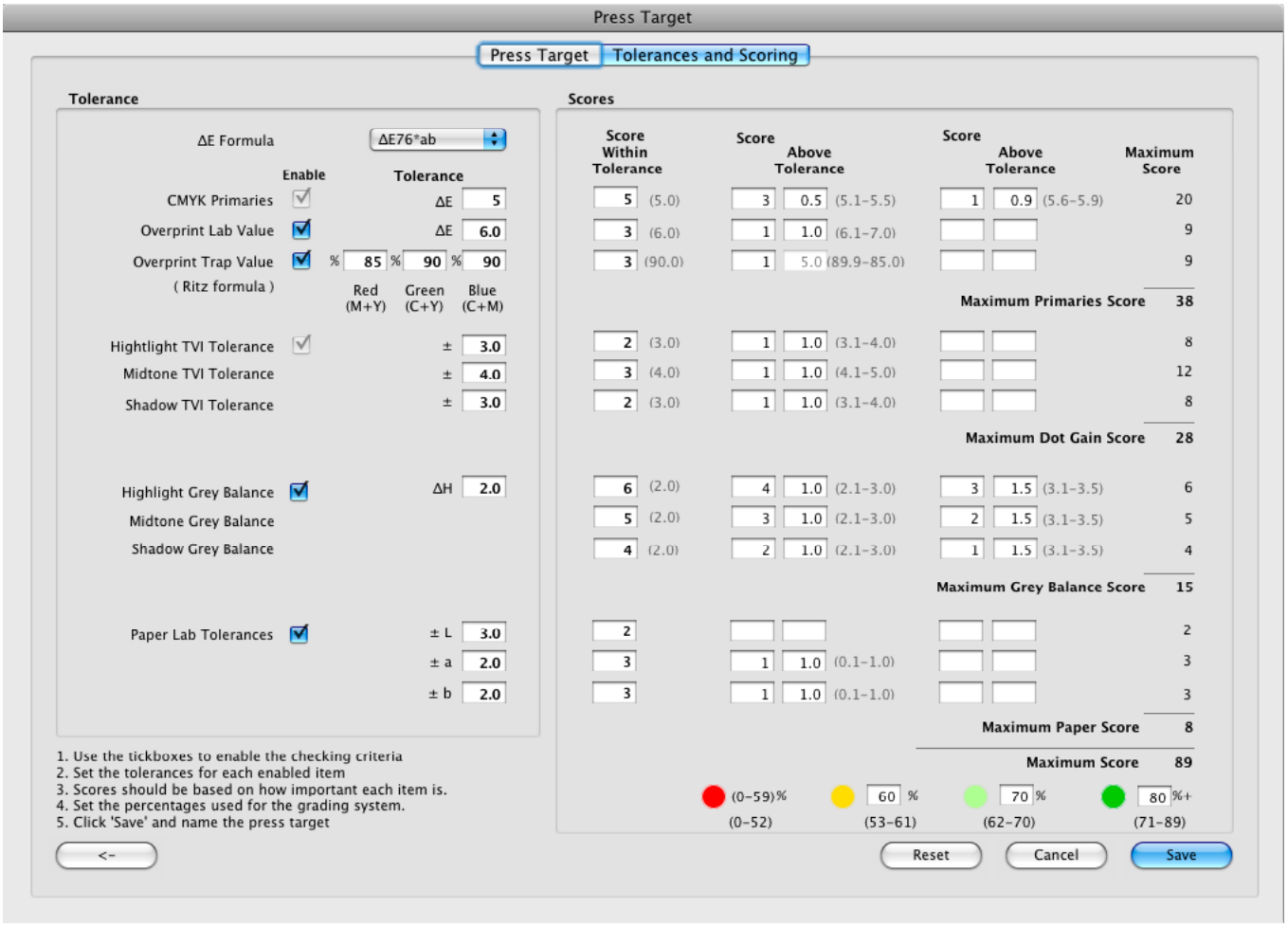
Custom Grey Balance

The grey balance CMY values are editable because when using custom standards, the included CMY balances might not be a neutral colour. This needs to calculated manually to determine the correct CMY to use. You also need to edit the colour bar accordingly so that the colour bar prints with good grey balance.
If you don’t change this when creating custom standards (particularly from measured data) it is very unlikely that you would be able to score 100%

If the grey balance values are changed then a new colour bar must be generated.

Setting the Tolerances & Scoring.

The tolerances and scoring can be set by clicking on the ‘Tolerances & Scoring’ tab, or by clicking on the ‘right arrow’ at the bottom right of the press target window.



The Lab tolerances for the CMYK primaries and TVI tolerances are compulsory, but can be changed to reflect how accurately you are printing to the standard.

The TVI tolerances are expressed as a %dot. So by if the target dot at 50% is 64% (a TVI value of 14%), tolerances for a 50% dot is ±4%, so a 50% cyan tint, for example could read between 60% and 68%. There are also tolerances for 25% and 75%.

ΔE76*ab and ΔE2000

pressSIGN 3 allows 2 different ways of calculating ΔE. ΔE76*ab is the default method as this matches the method currently used in ISO 12647-2. Unfortunately ΔE76*ab doesn't scale very well between grey and saturated colours and the same ΔE76*ab value across different colours can appear different. A ΔE76*ab of 1 is very visible in a grey, but a value of 8 in a yellow may not be. To get around this scaling problem ΔE2000 can be used. Changing to ΔE2000 poses a few problems - not with the formula itself, but with quoting values to others and standards. Firstly there are no published ΔE2000 tolerances. You cannot say you are running to ISO 12647-2 when using ΔE2000. The values you get when using ΔE2000 can be very different than using ΔE76*ab. You **must not** just change the formula and leave the tolerances as they were. A ΔE76*ab value of 5 may be a small different in yellow, a ΔE2000 value of 5 for a yellow is massive. If you change the formula when adding a standard, all the tolerances are reset.

Optional Tolerances

Overprint Lab Tolerance sets the tolerance for the Cyan+Magenta, Cyan+Yellow & Magenta+Yellow overprints. Tick the 'Use Overprint Lab Tolerance' tick box to make this part of the pass criteria. Due to the differences between current 'real world' ink overprint lab values and the ISO standard, it is recommended that this tolerance is not used.

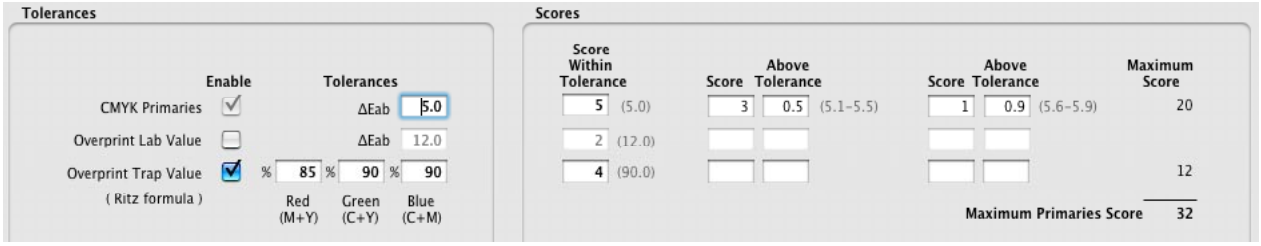
Grey Balance ab tolerance sets the tolerance for how close the a and b values of the grey balance patches are to the standard. Grey balance is very sensitive to changes in TVI and it is likely that they grey balance will fail before the TVI tolerance fails.

Overprint Trapping tolerances set the pass/fail criteria of how well the inks must lay on top of each other.

There are 3 tolerances for paper. L, a and b. Each value has to be within tolerance to get a pass for paper colour.

Setting the Scoring

pressSIGN has the option of either issuing a pass / fail for each press criteria, or use a scoring system to rate a press print.



pressSIGN scoring

In the example above, a press sheet would score 5 points for each CMYK primary colour that is within the tolerance of 5.0, 3 points if the ΔE if between 5.1 and 5.5, and 1 point if it's between 5.6-5.9. This gives a maximum primary score of 20 points - 5 points for each CMYK primary.

The overprint Lab values are not checked

A press sheet scores 4 points for each overprint where the trapping value is equal or higher than the trapping tolerance. This gives a maximum trapping score of 12 points - 4 points for each of the red, green & blue overprints.

If there is an error in the scoring then the error is marked with an warning.



Error indications

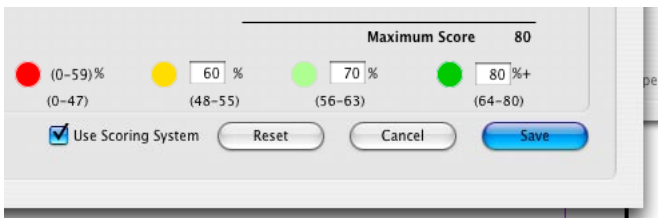
There are 2 errors in the above figure:

The figure shows that a press sheet would score 2 if the TVI of a 25% tint was within 3%, but also score 2 if the TVI of the 25% tint was within 4%. There has to be a sliding scale of scores, the highest score for the best prints, with the score reducing as the print is further out from the tolerances.

The second error is for the same reason, a score of 2 if the 50% TVI is within 4.1%, but also score 2 if the TVI of the print was within 4.2-4.5 of the target.

By adjusting the scoring you can give different weighting to each press print. The more important tolerances can be given a higher score.

Grading



Grading

pressSIGN has 4 grades available, indicated by a red, amber, light green and full green mark. The grades work on a

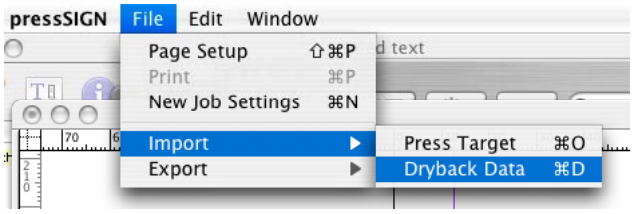
percentage of the maximum score. In the above figure each of the items that are tested will get a full green if the score is 80% or greater.

Clicking ‘Reset’ will set the scoring and tolerances back to a default value. Uncheck the ‘Use Scoring System’ box to revert back to the simple pass / fail system.

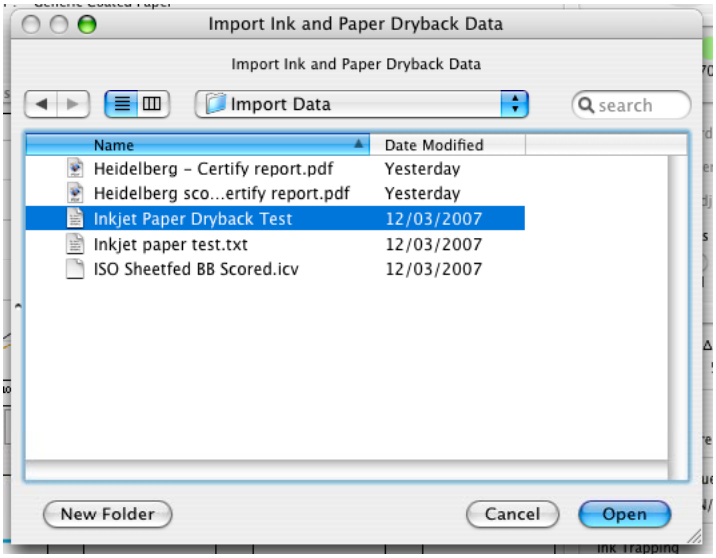
Importing and Exporting Data

pressSIGN can import and export dryback data and press standards. Using the exact same standard for different presses / sites makes sure that pressSIGN is checking and scoring in an identical way between one measurement and another. Moving the dryback information can be used likewise, once a measurement has been done for a particular ink & paper combination, that data can be moved onto another installation.

Importing Dryback Data

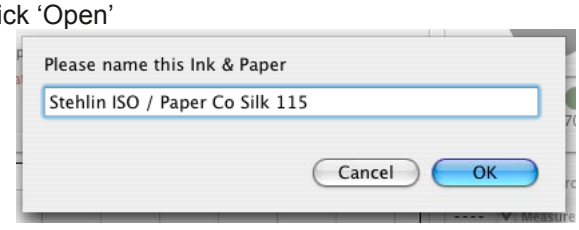


Importing Dryback Data



Select the dryback data file

Select the dryback data file and click ‘Open’



Name the dryback data