Serendipity Blackmagic

User Manual – Version 5.1

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Serendipity Blackmagic User Manual

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Product Overview

Serendipity Blackmagic is used to proof post-RIP data to either an output device, such as an Inkjet printer or to one of several file formats.

Serendipity Blackmagic runs in a Server and Client configuration. The Server runs on a network computer and is protected by a USB dongle. The dongle licenses the level of software and the input filters and output drivers purchased.

The Client is used as the configuration tool and monitoring application for the Server. It can be run on the same machine, or on another locally (LAN) or remotely (WAN) networked computer. The Client connects to the Server via standard TCP/IP network protocol and is not licensed, so it can be run multiple times on the network.

Serendipity Blackmagic has an input filter for most of the major manufacturers proprietary RIPs. The input filters read the native RIP format and understand how jobs are assembled, the plates associated with a job and the directory structure. RIPs that include databases and impositions are also read and understood. Jobs are proofed using the same post-RIP data that goes to the press, thus maintaining data integrity and accuracy of the proofs.

Files are ripped once by the proprietary RIP and output as many times as desired. The jobs reside on the RIP, are monitored by the Serendipity Blackmagic Server and are displayed by the Client in the RIPMonitor, with all associated plates stitched together. The files can be selected and submitted for processing by the Server as desired, or can be configured to process automatically. At the processing point, jobs are copied (spooled) over from the RIP to the Server, leaving the original untouched. Once the whole job is spooled, the Server begins to work on the files.

Imaging is the first process to take place. Imaging interprets the file format, completes any imposition assembling required (for supported imposition RIPs) or any merging of CT/LW files, preserves any screening on the files and samples the jobs resolution to change it to that of the output format configured. An intermediate file format is created at this point, called the Imaged File. The Imaged File can be viewed using the SoftProof utility. The file format maintains all the plates associated with the job and is viewed at the full output resolution. The Imaged File can also be re-submitted at any time for processing to the same or a different output. There is no need to spool and interpret the job again.*

After the imaging process has completed, the job is passed to the rendering engine. This takes the Imaged File and creates the file ready for output. The process includes applying any output characteristics such as orientation, cropping, colour management (ICC Profiles) and creation of the configured format, whether for an Inkjet printer or a file format, such as PDF.

The Imaged File can be rendered as many times as desired. Each time, any of the output characteristics can be changed prior to rendering.

Once the job is rendered, it is submitted for printing to the output device or file format. Multiple output queues can be created and multiple devices can be printed to simultaneously. Most of the output devices supported use a direct printer driver allowing the Server more control of options, such as the selection of specific media and print directions.

The Client monitors the whole process from start to finish, showing a jobs progress in a QueueManager and QueueStatus window. Jobs can be managed separately by placing a job on hold, releasing a job, cancelling or promoting as desired. The processes (queues) can be paused at any time, holding all jobs from spooling, imaging, rendering or printing. If a job fails, the error can be examined, rectified and the job retried. There are logs reporting all Server and Client functionality and job information from first detection on the RIP to final output. The logs can be searched, filtered or saved to a file.

The system creates a database of all configurations, calibration curves and other settings. This database can be backed-up on demand or automatically, so a working copy is always available. It can be copied to any other Serendipity Blackmagic as a whole database or as individual items.

*This applies to any output characteristics. If any changes are required for the Imaged File, e.g., changing plates, resolution etc, the file will need to be re-submitted from the RIPMonitor.

Installation

The installation section describes the process for each platform in turn.

The software is supplied on one DVD for Macintosh, Linux and Windows versions. All versions come with a dongle and require a dongle driver be installed. Existing installations of the software are given the opportunity to upgrade, preserving any existing configurations.

What's on the DVD?

The DVD contains all elements required to run Serendipity Blackmagic and associated programs. They are divided into directories, detailed below:

- **Agent** – Contains the Agent software for all supported platforms. Choose the subdirectory that matches the required operating system.
- **Docs** – Contains all documentation.
- **Dongle** – Contains the dongle drivers for Linux, MacOSX and Windows.
- **Drivers** – Contains the Megarip PPDs for all supported platforms.
- **HTML** – Contains the information required for the web browser install. This automatically launches the default browser for installation to begin.
- **Linux** – Contains the Serendipity Blackmagic and AppleTalk installation packages for Linux.
- **MacOSX** – Contains the Serendipity Blackmagic installation package for MacOSX.
- **Serendipity Client** – Contains the Serendipity Client for all supported platforms.
- **Testprn** – Contains Serendipity internal test prints.
- **Windows** – Contains the Serendipity Blackmagic installation package for Windows.

Windows Installation

If you are upgrading from version 3 to version 5, see "Windows – Upgrade from V3 to V5".

Installing the Dongle Driver – Windows

The first step is to install the dongle driver.

To install:

1. Remove all USB SuperPro dongles.
2. On the DVD, navigate to the dongle/windows directory.
3. Double click the ***Sentinel Protection Installer 7.6.1.exe*** file to launch the installer.
4. Follow the onscreen instructions to complete the installation.
5. Restart the computer when finished.

Installing Serendipity Blackmagic

The next step once the dongle driver is installed is to install Serendipity Blackmagic.

To install:

1. Either select and run the Blackmagic installer by clicking the link on the browser page (if it pops up as an Autoplay when the disk is inserted), or go to the DVD and navigate to the Windows directory to run the file ***blackmagic.msi***
2. Select Next to continue.
3. Read the License Agreement and click Yes to continue. Click No if you do not agree with the License Agreement to terminate the installation.
4. Click Next to choose the default installation location. If you wish to change the location, select Browse, choose the location and click OK followed by Next to continue.

Note: You can type your own path and the installation program will make the folder for you, provided your chosen location has valid permissions. Use back slashes (\) to separate directories.

5. Click Install to start the installation.
6. Click Finish once the installation has completed.

Installation of the Serendipity Agent

If you are polling a RIP that runs on a Windows based machine, the most efficient method is to use the Serendipity Remote Agent. This runs as a service on the Windows machine where the RIP is and the Serendipity Blackmagic communicates with the Agent to poll and transfer jobs.

To install:

1. Either select and run the Blackmagic installer by clicking the link on the browser page (if it pops up as an Autoplay when the disk is inserted), or go to the DVD and navigate to the agent/windows folder to run the ***agent.msi*** file to launch the installer.
2. Click Next to continue.
3. Read the License Agreement and select Yes to continue. Click No if you do not agree with the License Agreement to terminate the installation.
4. Select the installation directory. Choose Browse if you want to install the agent somewhere other than the default location. If the folder does not exist, the installation will create it for you, providing your chosen location has valid permissions.
5. Select Install to continue.
6. Click Finish when the installation has completed.

Windows – Upgrade from V3 to V5

The Blackmagic Version 5 installer automatically upgrades the V3 database to the updated V5 format. As a precaution however, when upgrading from version 3 it is strongly recommended that the database and ICC profiles are backed-up prior to the install (See the "Backing-up V3" section).

Installing the Dongle Driver Update

Version 5 dongles (new or upgraded) require an up-to-date Safenet dongle driver in order to function.

To upgrade:

1. Make sure the Blackmagic Server and Client are not running and remove any Blackmagic (or any other SuperPro USB) dongles from the computer.
2. On the Blackmagic installation DVD, navigate to the dongle/windows directory and run the ***Sentinel Protection Installer 7.6.1.exe*** file. Alternatively, download and run the latest driver installed from the Safenet website.
3. Run the Sentintel installer.
4. Select Upgrade and Next.
5. Follow the on-screen instructions to complete the upgrade.
6. Restart the computer.

Installing the Software Upgrade

1. On the DVD, navigate to the windows directory and run the ***blackmagic.msi*** file.
2. Click Next to continue.
3. Read the License Agreement and click Yes to continue. Click No if you do not agree with the License Agreement to exit the install.
4. Select the directory where Version 3 is installed and click Next.
5. Select Install to start the upgrade installation.
6. Click Finish when the installation has completed.

Macintosh Installation

Administrator rights are required for the installation of the Macintosh version of Blackmagic. If you are upgrading from V3 to V5, see the "Mac OS X – Upgrade from V3 to V5" section.

Note: From Blackmagic version 3.2.01 onwards there is no separate dongle driver to install. The driver is installed as part of the general installation package.

Installing Serendipity Blackmagic

1. Go to the MacOSX directory on the Blackmagic installation DVD and double click the file ***Serendipity Blackmagic.pkg*** to launch the installation.
2. Select Continue.
3. Read the License Agreement and click Continue.
4. Select Agree.
5. Choose the location to install the Software and click Continue. If you want to install to a folder that does not exist, you need to create it through the Finder.
6. Click Install to begin the installation.
7. Click Close once the installation has completed.

Creating Dock Start Icons

To make it easy to start the Server and Client, it is recommended you create a Dock shortcut. To do this:

1. Run the Blackmagic Server and Client applications from the installation location, usually the Applications/Serendipity Blackmagic directory.
2. Once the Server and Client icons appear in the dock, right click (or CTRL+click) the mouse and select Keep in Dock from the menu.
3. Alternatively, drag the Server and Client icons directly onto the Dock before they have been launched.
4. To remove the Dock icons, drag them off the Dock onto the desktop and release.

Mac OS X – Upgrade from V3 to V5

The Blackmagic Version 5 installer automatically upgrades the V3 database to the updated V5 format. However, as a precaution, when upgrading from version 3 it is strongly recommended that the database and ICC profiles are backed-up prior to the install (See the "Backing-up V3" section).

To upgrade:

1. On the DVD, navigate to the directory MacOSX and run the file ***Serendipity Blackmagic.pkg***
2. Click Continue.
3. Read the License Agreement and click Continue.
4. Select Agree.
5. Select the drive and location to install the software. Choose the folder Serendipity where V3 Blackmagic is currently installed.
6. Select Upgrade to begin the installation.
7. Click Close when the installation has completed.

Backing up V3

Before upgrading to Version 5, it is strongly recommended that you backup your current version of software. There are a number of methods you can use to do this, which have been detailed below.

Using the Archiver

The Archiver application in Blackmagic can be used to create a backup of your configurations. To make a backup of your entire database:

1. Select Application Menu > Archiver from the Client window.
2. Once the Archiver has opened, select Edit Menu > Add to Archive (All) to add all items to the archive file. Alternatively, you can right click and select this option from the contextual (right click) menu.
3. Select Save Archive and choose an appropriate location to store the file.

If you need to import all or part of the database after the V5 upgrade install:

1. Open the Archiver application.
2. Select Open Archive > Add to Database and choose the items to add or add the whole archive.

For further information, see the main "Archiver" section within this user manual.

Saving the V3 Database and ICC Profiles

Another recommended method is to backup the Database and ICC profiles by copying them to another location before upgrading.

The Database items are held in a folder called ***defaultss.dbd*** in the following locations:

Macintosh:	/Applications/Serendipity Blackmagic/lib/defaultss.dbd
Windows:	C:\Serendipity\Serendipity Blackmagic\lib\defaultss.dbd
Linux/Sun/SGI:	~bmagic\lib\defaultss.dbd

ICC Profiles can be found in the following locations:

Macintosh:	/Applications/Serendipity Blackmagic/lib/ICC
Windows:	C:\Serendipity\Serendipity Blackmagic\lib\ICC
Linux/Sun/SGI:	~bmagic\lib\ICC

If you make a backup of these files you can restore them if the upgrade has any problems.

Using the Database from V3

The third method for upgrading and preserving the existing configurations is to make a fresh install in a new location, leaving the previous version untouched.

Before starting the Server for the first time, copy the ***defaultss.dbd*** file and ICC profiles into the new installation. See above for locations of V3 items.

As Version 5 starts for the first time, the Database will be converted to the new structure automatically.

Important Note: Pagesetup archives imported from Version 3 to Version 5 will automatically be split into Media and Pagesetup data types for the relevant configuration settings. Version 5 archives cannot be opened or loaded into previous versions of the software.

Linux Installation

Before installing on a Linux x64 operating system please ensure the following i686 (32-bit) libraries are installed:

- libstdc++.i686 GNU Standard C++ Library
- mesa-libGLU.i686 Mesa libGLU runtime library
- zlib.i686 The zlib compression and decompression library
- freetype.i686 A free and portable font rendering engine
- libXrender.i686 X.Org X11 libXrender runtime library
- fontconfig.i686 Font configuration and customisation library
- glib2.i686 A library of handy utility functions
- libpng.i686 A library of functions for manipulating PNG image format files
- libSM.i686 X.Org X11 Sm runtime library

If the Package Installer can not locate the libraries, open a terminal window, go to the /root directory and install each library using the following command:

yum install *name of library*

Installing the Dongle Driver

The first step is to install the dongle driver.

- Remove all USB SuperPro dongles.
- Navigate to the dongle/linux directory on the installation DVD.
- Double-click the *SUD-USBDaemon-5.50-0.i386.rpm* file to install the driver.

Installing the Client

- Navigate to the **linux** directory on the installation DVD.
- Double-click the *Install.sh* file and select Run in Terminal.
- A terminal window will pop-up and the installer will display the default installation directory: /home/<current user>/Serendipity Blackmagic/
- Press Enter to install to the default directory or type an alternative path then press Enter.

Note: If using an alternate install path, ensure the folder exists and that the current user has read/write/execute permissions for the folder.

When the installation is complete the terminal window will close.

Running the Software

Once the software has been installed, launch the Server and Client to begin the configuration. The Server should be started first and allowed to complete its initialisation process before the Client is launched. If the Client is started first, it will attempt to connect to an active Server. If none are present, a Connect to Server window will open, waiting for an active Server to appear on the network.

Starting the Server

1. Plug the dongle into a USB port.
2. Launch the Server by double clicking the Serendipity Blackmagic file in the install directory, or the shortcut desktop/dock icon.

The Server window will appear showing information about the Server software and the initialisation process will commence.

Note: The Server will not initialise if a recognised dongle is not present on the computer from which it is run. If the dongle is removed at any point while the Server is running, all job processing will cease and the Server will stop shortly afterwards. Once the dongle is reconnected, close and restart the Server.

Starting the Client

Once the Server has completed initialisation the Client application can be opened.

1. Launch the Client by double clicking the Serendipity Client file in the install directory, or the shortcut desktop/dock icon.

The Client will connect to the active Server and display the factory default Monitor window in the centre of the screen. From this point, configuration of the system or loading a pre-configured setup can be done.

On first setup, you will be required to select the default Display and Match ICC Profiles. Once this has been done, the Monitor window will open and the Client will be ready for further configuration.

2. Choose Application Menu > System Settings
3. Select Server tab > Colour Management tab.
4. Click on Change System Specials and select Reference-Lab (or your own specials) and click OK.
5. Select the Client tab > General tab and choose your language under Internationalisation. English is the default.
6. Click OK to dismiss the System Settings window and apply the changes. A restart of the Client Application is required if the language settings are changed.

Configuring Manually

This section will explain how to setup a basic configuration to print a file to a printer and monitor the job throughout the process. For more detailed information on specific modules, see the relevant sections of this user manual.

The factory default Monitor currently only has system queues. Specific queues will need to be configured for the abovementioned process.

There are four (4) sections that need configuring in order to process jobs from the RIP to the printer.

These are:

- A **RIP** where the jobs are polled;
- A **Pagesetup** and **Media** where jobs are processed; and
- An **Output** where the print job is sent.

Note: Before a Pagesetup can be created first create a Media and an Output, as each Pagesetup must be linked to a valid one of each.

Output Configuration

1. In the Serendipity Client, select Application > Workbench
2. Select the Output from the Data Types list and create a new output.
3. The name "*Untitled"* should be highlighted. If not, select it, type a new name and press Enter. This Output will appear in the Pagesetup.

Now configure the output to your requirements:

4. Select the appropriate driver for your printer from the pull down list of licensed modules in the Queue section.
5. Choose a destination driver from the Destination section and enter the appropriate information, for e.g., the IP address of the printer.
6. Configure any Collating or Nesting requirements as needed.
7. OPTIONAL – Once created, the Media can be assigned to the Output using the Change Media button. This will only allow jobs submitted using the assigned Media to print. Refer to the "Media" section of this manual for more information.
8. Save the setup.

Media Configuration

1. In the Serendipity Client, select Application > Workbench
2. Select the Media from the Data Types list and create a new output.
3. The name "*Untitled"* should be highlighted. If not, select it, type a new name and press Enter. This name will appear in the Output and Pagesetup.

Now configure the Media to your requirements:

4. Select the appropriate driver for your printer from the pull down list of licensed modules in the Output Driver section.
5. Configure your Resolution, Colourspace and any custom settings required.
6. Choose your ICC profiles and method of Output Screening to be applied. Colour Correction LUT's may also be assigned here.
7. Save the setup.

Pagesetup Configuration

Once an Output and a Media are configured and saved:

1. Choose Pagesetup from the Data Types list and create a new Pagesetup. This will automatically select the Output created above.
2. The name "*Untitled"* should be highlighted. If not, select it, type a new name and press Enter.

Initially, the most important parts to configure are the Output and Media linked to the Pagesetup.

3. Assign the Output to the Pagesetup using the Change Output button.
4. Assign the Media to the Pagesetup using the Change Media button. This is the default Media for the Pagesetup. Jobs will be printed using this Media unless another is chosen when the job is submitted.
5. Apply any Colour Correction Curves if required.
6. Go to the ICC Profiles section. Select files for RGB ICC & Press ICC profiles respectively.
7. Configure the other panels of the Pagesetup to suit your requirements.
8. Choose File > Save

Further details on how to configure a calibrated Media and Pagesetup are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

RIP Configuration

Now the output and processing parameters have been configured, setup a RIP (if you are taking post-RIP data) in order for files to be displayed and submitted for processing.

1. Select RIP from the Data Types list in the Workbench.
2. Choose File > New to create a new RIP.
3. A warning message will appear advising there is no RIP driver selected. Press OK to dismiss this message.
4. The name "*Untitled*" should be highlighted. If not, select it, type a new name for the RIP Polling queue and press Enter.
5. Select the appropriate RIP driver to match your RIP. Configure any custom settings via the Edit button for the RIP driver if required.
6. Click on Enable Polling and enter a polling time, e.g., 2 minutes.
7. Choose the connection method from the dropdown menu, e.g., Localhost.
8. Go to the Paths panel and click New > Browse
9. Navigate to the jobs directory and click OK.
10. Select Testing. Save & Test when prompted. Check for a Polling OK result on the screen.

Monitor Configuration

Once base configuration is complete, the Monitor needs to be configured so jobs can be managed throughout the system.

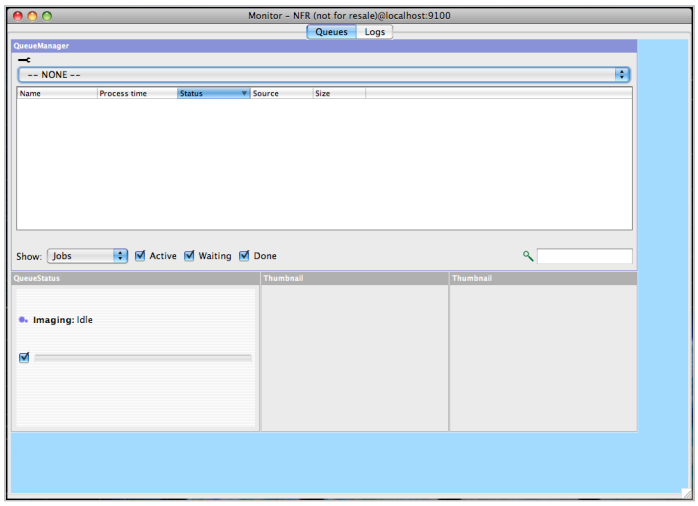
1. From Menu, select Window > Monitor (if the Monitor is not running select Application > Monitor). Make sure the Queues tab is selected in the Monitor window (top of screen).

The basic factory setup has a QueueManager, QueueStatus, Thumbnails and Logs that are set to look at default queues. These are configured across two tabs.

The QueueManager (top half) needs to be configured to look at the Spool, Auto Detect, Image, Render and new Printer (Output) queues to monitor and manage jobs through the system.

To configure:

2. Right click in the QueueManager section and select Configure > Queue Order
3. Select all the queues on the left and drag them across to the right list at the bottom.
4. Click OK.



Now configure the QueueStatus window in the bottom left corner. These monitor the jobs progress in a particular queue.

5. Right click in the QueueStatus window (bottom right) and select Queue Order.
6. Select Image, Render, Spool and new Printer and drag them over to the right side. No need to monitor Auto Detect here.
7. Select Spool in the right list and drag it to the top of the list. The order should be Spool, Image, Render, Printer.
8. Click OK when done.

The Monitor now has a basic setup. Test it out by printing an internal test print.

9. Choose Application Menu > Test Prints
10. Select your Pagesetup and Media, then tick the Quickcal checkbox and click Submit.

You should see the test print move through the various queues and be sent to the printer.

RIPMonitor Configuration

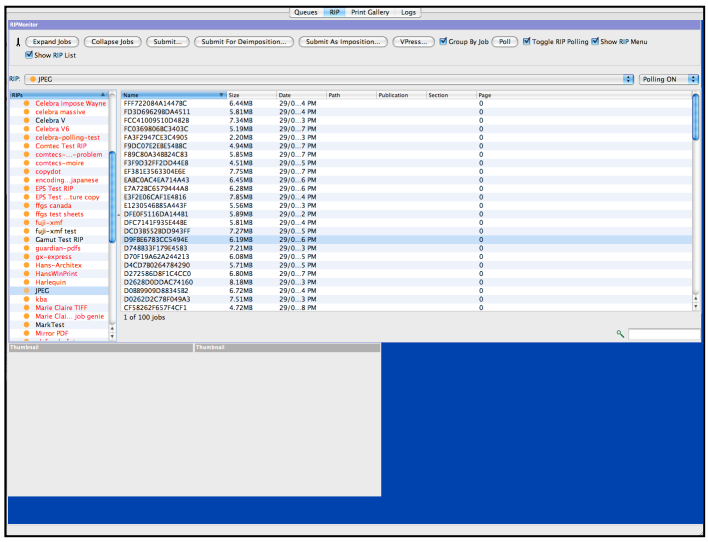
If you are proofing RIPped data, a RIPMonitor needs to be configured. This will be done in a new tab in the Monitor application window.

1. Right click beside the existing tabs and choose New Tab.
2. Enter the name "*RIP Queues*" and press OK.

This creates a new blank tab and selects it.

3. Select Layout and choose Add RIPMonitor from the list of modules.

This creates a new RIPMonitor and places it in the top left corner.



To make the window bigger, follow the steps below:

4. Choose Layout > Edit
5. Select the bottom right corner and drag it to fill the tab.
6. Choose Layout > Use
7. Click on the spanner icon to show the toolbar.
8. If you do not see any jobs, click on the poll button three (3) times.
9. Adjust the headers by dragging them to resize to fit the column contents.

The RIPMonitor displays the jobs from the configured RIP queue. Double-clicking a job expands it to show the plates.

Tabs can be moved around into your preferred order by selecting one and dragging it to a new location on the tab bar. Create new tabs as required, adding various modules to customise your look.

The Serendipity Blackmagic Server

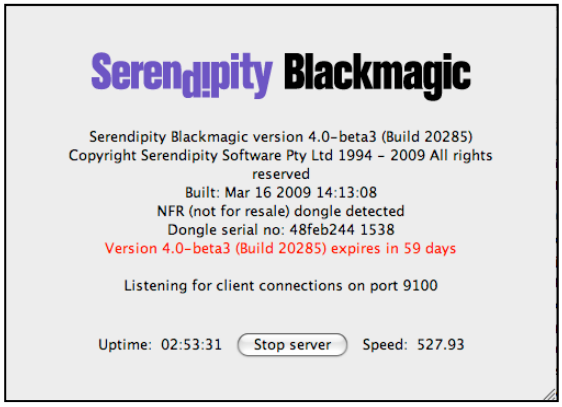
The Blackmagic Server runs on the machine where the dongle is installed. The Server handles the processing of all jobs through the system and must be started before the Client is launched.

As the Server starts, it checks to ensure a valid dongle is installed on the machine and which modules are enabled (licensed). The Server calculates the speed of the machine it is running on and checks the integrity of the database before loading it.

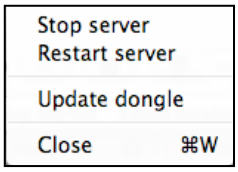
Once the Server is up and running, a clock keeps track of the duration the Server is operational.

Server Options

The window below displays the Server information and various options once it is running.

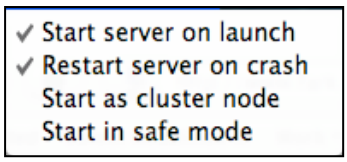


File Menu Options



- Stop Server – Stops the Server from running without quitting Serendipity Blackmagic.
- Start Server – Starts the Server if it is in a Stopped state.
- Restart Server – Restarts the Server.
- Update Dongle – Allows users/administrators to update the dongle with activation strings to enable various input and output licenses.
- Close – Closes the window. If the Server is running you are warned and asked to confirm Server shutdown.
- About – Shows information about the Server. Clicking More/Less info shows or hides valid dongle options, including the versions of the current drivers.

Startup Options



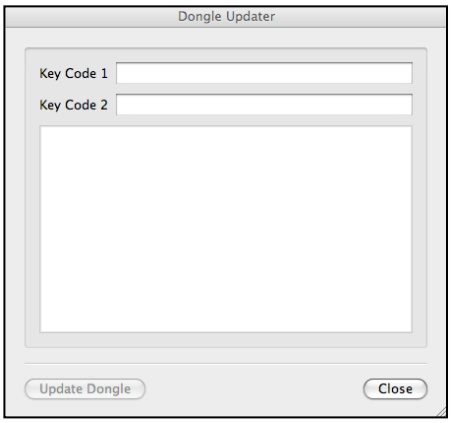
- Start Server on Launch – The Server will start once the application is launched.
- Restart Server On Crash – Restarts the Server automatically after a crash.
- Start as Cluster Node – Allows the Server to run as a slave or node device. See the ClusterManager section for further information on Clustering.
- Start in Safe Mode – This will start the Server but will not process any jobs or poll any RIPs. This is a maintenance mode that allows configuration management if they become corrupt or incorrectly configured. Once maintenance is complete the Server must be restarted in normal mode.

Blackmagic Dongle Updater

The Serendipity Blackmagic dongle licenses the level of software and enables the use of any input filters and output drivers that have been purchased. If any additional licenses (available for a fee) are activated, the relevant dongle will require updating with the new strings in order to use the filters and/or drivers.

The Dongle Updater is now a built-in feature, accessed via the Server File Menu > Update Dongle option.
To avoid any abuse of the software, the dongle activation strings can only be used once. Any updating should be completed by your relevant Server administrator.

Updating the Dongle



Before updating the dongle, you must have received a shipment email with the new strings included. This will either come from Serendipity Software directly, or via your Dealer contact.

Version 5 requires two (2) activation strings for entry in order to update the dongle. The strings are separated in the email by a space.

To update a V5 dongle:

1. Plug the current V5 USB dongle into your computer.
2. Run the V5 Blackmagic Server.
3. Go to File Menu > Update Dongle
4. A screen will appear asking to Enter Key Code 1 and Key Code. Refer to the shipment email for the details. The first string in the "Dongle reprogram string" field is Key Code 1. The second string in the field is Key Code 2. The codes are separated by a space.
5. Copy and paste both strings into their relevant fields.
6. Click on Update Dongle.
7. A confirmation message will appear when the dongle is successfully updated. You will be asked to restart the Server.
8. Quit the Server application and restart.

To update a V3 dongle to V5:
It is assumed the Version 5 software has been installed before updating the dongle.

1. Plug the current V3 dongle into your computer.
2. Run the Blackmagic Server.
3. An error message will appear as the Server will fail to recognise the dongle as valid.
4. Click OK to discard the error message. **Do not remove the dongle**.
5. Go to File Menu > Update Dongle
6. A screen will appear asking to Enter Key Code 1 and Key Code 2. Refer to the shipment email for the details. The first string in the "Dongle reprogram string" field is Key Code 1. The second string in the field is Key Code 2. The codes are separated by a space.
7. Copy and paste both strings into their relevant fields.
8. Click on Update Dongle.
9. A confirmation message will appear when the dongle is successfully updated. You will be asked to restart the Server.
10. Quit the Server application. **Only restart once the below steps have been completed**.

Before Restarting the Server (When updating from V3 to V5)

1. Go to the installation directory for your Serendipity Blackmagic on the computer (for e.g. C:\Serendipity\Serendipity\Serendipity Blackmagic\)
2. Open the "lib" folder.
3. Open the "printers" folder.
4. Sort the files by date.
5. Delete all old files ending in *v.so
6. Once the files have been deleted, the Blackmagic Server can be restarted.

Failure to remove the old files from the printers directory will noticeably slow down the Server when it is restarting.

The Serendipity Blackmagic Client

The Serendipity Client is a graphic user interface (GUI) used for configuration, maintenance and monitoring of the Serendipity Blackmagic Server.

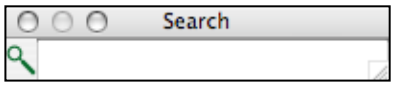
The Client can be installed and run locally on the same machine, or from any supported computer on the network using TCP/IP protocol. There is no limit to the number of Clients that can be connected to the Server, and each Client will have its own settings, specific to the user.

Once installed, the Client connects to a Serendipity Blackmagic Server and loads the settings from the Server into the Client interface. Any Client can access the job management information and view the current status. The configuration can be open to all users or protected via Secure Mode, which allocates specific access for created users and user groups. For more information on how to setup access see the Secure Mode section of the manual.

Look and Feel

There is a common theme and functionality to the Client. There are many ways to complete the same task, such as configuring a Pagesetup from the QueueManager. Various options are available using the right mouse click to bring up other contextual menus. This will vary depending upon the section of the Client interface being used.

Anywhere there is a chooser to select an item from the database, a search field will be indicated by a magnifying glass. Entering text in the search fields filters the list, showing only the matching items. The search can be inverted with CMD+SHIFT+I (Mac) or CTRL+SHIFT+I (Win) to hide the matching items. The search box will turn black to indicate inverse searching. Pressing Esc will dismiss the search.



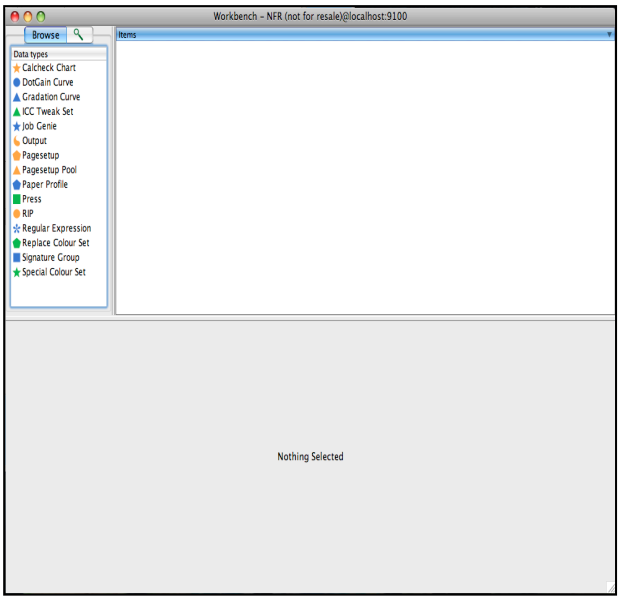
There are three (3) main sections to the Client – The **Workbench**, the **Monitor** and the **Applications**.

- The **Workbench** is used to configure the various parts of the Server. This is used to create queues, setup input paths and various calibration functions.
- The **Monitor** (an application) is used for managing and viewing jobs as they pass through the system.
- The **Applications** add functionality and provide tools for managing the Server and the jobs passing through it.

There are also various menu options containing system utilities and preferences.

Workbench

The Workbench is where the main software configuration takes place. RIPs, Medias, Pagesetups, Output paths, Colour Sets and Colour Correction Curves can all be setup here.

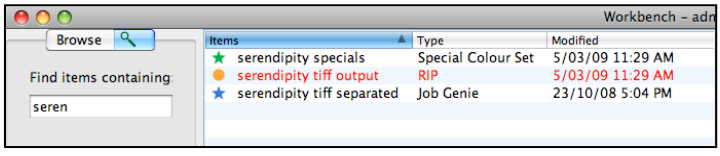


When items are created or changed in the Workbench they are saved to a database read by the Server each time at startup. The database can be backed-up and copied to other (Version 5) Servers.

The Workbench has a split window. The left side shows Data Types (database groups) and allows you to select items from the database. The right side shows the item information, allowing you to make any changes.

The Data Types section has two (2) views – **Browse** & **Search**.

Browse allows the user to view and select any of the database items for display. The tab containing the magnifying glass flips to a Search window, which acts like a filter, showing any items containing the search text.



Menu Options

File

- New – Create a new item in the database.
- Save – Save changes to the database.
- Duplicate – Make a copy of the currently selected item.
- Revert – Reload the last saved version of the currently selected item.
- Delete – Delete the currently selected item.
- Print – Print the details of the currently selected item.
- Get Info – Displays a popup window with two panels – General & Ownership. General displays the type, created and modified dates for the selected item. Ownership displays the User and User Group permissions for the item.
- Show Orphans – Shows any item currently in the database not being used by a Pagesetup or RIP.
- Add to Archive – Add the selected items into a new Archive window. See the Archiver section for further information.
- Export as C5 Pack – Allows users to export Media files from the Workbench to a specified location for use with the C5 application.

Edit

- Undo – Undo the last change. There are multiple undo options and this is configured via the System Settings section.
- Redo – Redo the last undone change. There are multiple redo options, depending on the undo status and configuration in the System Settings.
- Find – Opens a text box at the bottom of the Workbench panel to locate the search text on the screen.

View

- Split Vertical/Horizontal – Changes the view to either Vertical or Horizontal split on the screen.
- Show Type Column – Used in conjunction with Show Usage to display the type of data listed.
- Show Modified Time Column – Displays the last modified time for the items listed.
- Show Usage – Displays the items within the database the currently selected item uses, e.g., a selected Pagesetup would show the Media and Output it currently uses.
- Reverse Usage – Reverses the usage shown above. (Was called Show Referrers previously).

Modules

- Access all available Modules via this menu. A floating window will open for each separate module opened.

Window

- Bring All to Front – Shows any open window of the Client and can be selected to bring it to the front.

Help

- Server Info – Provides information about the Server, including version, platform, speed, processors, hostname, IP, product and vendor.
- What's This – Select this and click on any part of the interface to display a short help description.

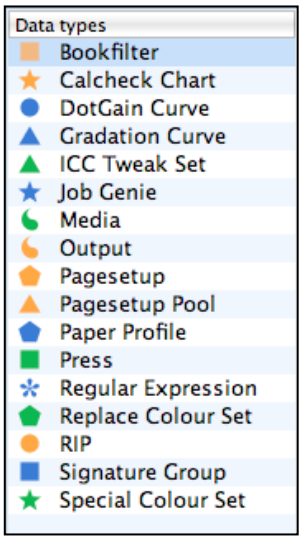
Contextual Menu (Right Click)

- Add to Archive – Add the selected items into a new Archive window. See the Archiver section for further information.
- New Folder – Folders are a great way to organise the configurations if there are a lot of items. The folders are based on a Client's use, which means each user can have their own folder setup if they desire.
- New Folder with Selection – Places any selected items into a new folder.
- Export as C5 Pack – Allows users to export Media files from the Workbench to a specified location for use with the C5 application.

Note: The folders are stored internally, inside the database and are not real, physical folders. Users can only create, remove and manage items from within the Serendipity Client.

Workbench Data Types

There are seventeen (17) data types (databases) within the Workbench that can be used and configured to accurately process jobs. Each will be explained in detail. The data types are:

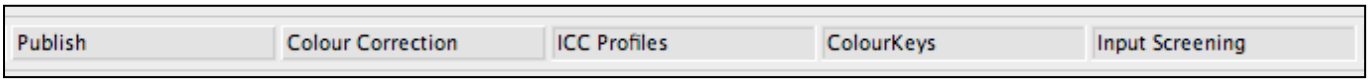


- **Bookfilter** – Allows for the polling and mapping of planning files for softproofing large multi-section or multi-edition jobs. This is a standard feature for Veripress and available as a Softproofing Add-on for Blackmagic.
- **Calcheck Chart** – Used to provide a validation check for a hardcopy proof or a monitor.
- **DotGain Curve** – Used to compensate for or represent dot gain on the final output.
- **Gradation Curve** – Used to adjust colour in a job by applying a curve to the individual process colours.
- **ICC Tweak Set** – Allows you to build up a library of colours that need "tweaking" for accurate output.
- **Job Genie** – A programmable file search filter used by some RIP input filters for polling and stitching together jobs and publications.
- **Media** – Used to control configuration settings for Output, Colour Correction, ICC profiles, Screen Printing & Output Screening.
- **Output** – Handles processed jobs and determines where the file is going and what format is created.
- **Pagesetup** – Consists of modules to be configured to process and manipulate jobs for the desired output.
- **Pagesetup Pool** – Allows you to print to one or more Pagesetups.
- **Paper Profile** – Used to define the paper and ink characteristics of the Media being used by the output driver/device.
- **Press** – Contains the colour and dotgain attributes of a press. Used by the SoftProof application to show the effects of printing a job on a particular press.
- **Regular Expression** – Used in conjunction with the RIPs for autoproofing jobs based on matching particular rule sets.
- **Replace Colour Set** – Used to match and replace certain colours as they pass through the system.
- **RIP** – Allows you to configure how to get RIPped jobs from the RIP into Blackmagic.
- **Signature Group** – Allows you to build groups of Signatures used for de-imposition.
- **Special Colour Set** – Used to identify and match colours when jobs are polled and processed.

Data Types - User Interface and Context Menu

The Bookfilter, Media, Output, Pagesetup, Pagesetup Pools, Press, RIP and Signature Data Types have multiple configuration panels or sections governing the different functions they control.

These data types have a row of buttons or tiles across the top of their configuration panels allowing the user to instantly jump to the section named. If any of the panels are not required, they can be hidden by using the "X" in the top right corner of each. To show any hidden panels, click on the panel name in the row and it will appear. Shift+click will hide them again.

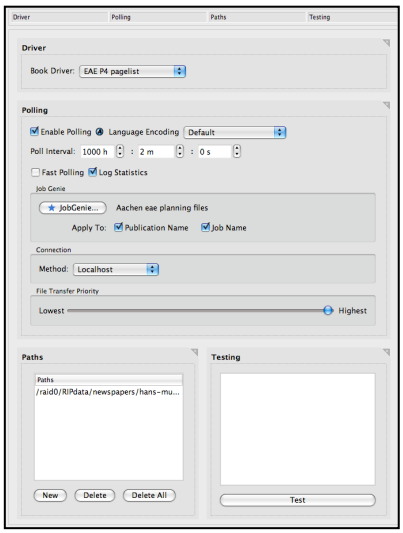


A (right-click) contextual menu is accessible in any of these individual sections, allowing the user to access the Find function, Jump to another section, or change the background colour of the panel for easy identification.

Throughout this document, the blue swan icon (shown here) represents any Veripress/Blackmagic Softproofing Add-On modules, applications or features.

Bookfilter

The Bookfilter allows you to setup an appropriate driver to read planning files used to put finished publications together, greatly improving the speed, efficiency and automation of softproofing in publishing press environments.



Bookfilter works similarly to a Job Genie based RIP queue in Blackmagic, but rather than polling for RIP jobs, it polls for publication planning files. Publications in the planning files are then displayed in the BookMonitor and may be selected for softproofing.

Publications displayed in the BookMonitor can be expanded to show a list of pages and filenames associated with each page as defined by the planning file. The Bookfilter maps the page filenames to processed jobs in the QueueManager.

When the publication is selected for softproofing, the Bookfilter searches the QueueManager for matching jobnames and collects them into a single publication. Any missing pages will appear as red in the page navigator.

Configuration Options

Driver

- Book Driver – Select the appropriate driver for the planning file format used.

Polling

- Enable polling – Enable or disable the polling of planning files.
- Language Encoding – Set the encoding to match your system to display filenames correctly.
- Poll Interval – Configure how frequently you should poll the files. The Poll Interval should be set according to your specific requirements. Setting the Poll Interval too short can flood the network with polling requests (packets) causing it to slow down. Setting it too long can take a long time to show stable files ready for submission.
- Fast Polling - This will automatically poll two (2) more times as soon as one (1) automatic poll has completed. It will not wait for the next scheduled Poll Interval before it polls again.
- Log Statistics - Log the polling statistics in the Server log. The log message reports “Started automatic poll on <date>” when polling starts and “Completed automatic poll on <date>” when finished.
- Job Genie – Select a Job Genie to apply if required. A Job Genie may be used optionally to remap the Publication and/or Jobnames in the polled planning file.
- Connection – Specify the method used for polling. The options are:
    - Agent – The Serendipity Agent is installed on the RIP where the files are located. This is used for polling and submission of the files into Blackmagic.
    - Hostname/IP – Enter the hostname or IP address of the computer where the files are located and where the Agent is running.
    - Localhost – This is used when the files appear locally to Blackmagic. This can be on its own disk or via a mounted volume through NFS or mapped drive with NetBIOS.
    - FTP – Uses File Transfer Protocol (FTP) to poll and transfer the files to Blackmagic
    - Secure FTP (SFTP) – Uses Secure File Transfer Protocol to poll and transfer the files to Blackmagic.
- File Transfer Priority – Specify the priority to be used for transferring files to Blackmagic. You can adjust from Lowest to Highest or anywhere in between.

Paths

This section allows you to specify the paths to the files residing on your RIP. The options available are:

- New – Adds a new path to the Paths field. Selecting this displays another window to type the path or browse to locate the folder containing the jobs. Browse will only work if the connection method has been specified and is valid.
- Delete – Deletes the selected paths.
- Delete All – Deletes all paths from the list.

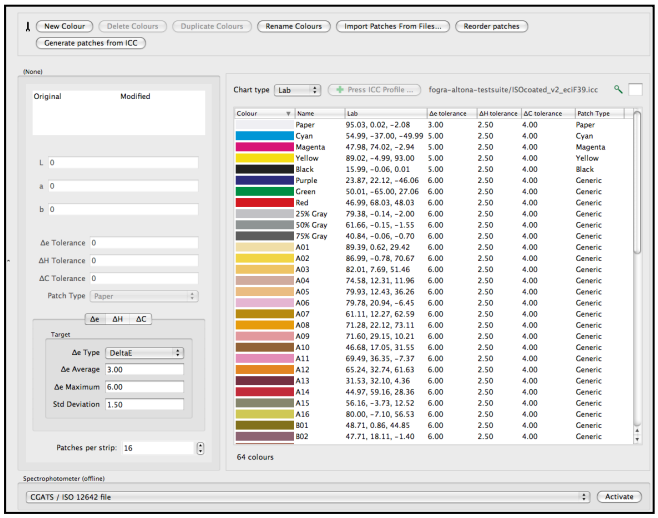
Testing

Once the configuration is complete, you can test the parameters are correct. The configuration must be saved before a test can be done. If it is not saved, you will be prompted to save and test. A test poll checks the connection, path validity and job presence. Messages appear in the window to alert you to any problems or give you confirmation of a valid configuration.

Further details on how to configure a calibrated Media and Pagesetup are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

Calcheck Chart

The Calcheck Chart data type allows you to setup the chart used for the validation check. The patches that will be used are created, along with the target standards and tolerances. These items are saved to the database and can be used and/or adjusted at any time. The Calcheck Chart is then used in conjunction with the Calcheck application to provide a validation check for a hardcopy proof or a monitor.



Once the chart is setup, it normally never needs to be changed; the standards that you want to use are saved with the chart. When you come to read the chart with the Calcheck application, simply load it and measure. If you wanted to use a different standard, this is done in the chart and not the Calcheck.

The chart can be attached to the job as it passes through the Pagesetup or printed from the Calcheck.

The window shows a list of the patches on the right and colour information on the left. For each patch selected you can adjust its Lab values, delta tolerance and patch type. The overall target preferences are specified in the lower half of the left panel.

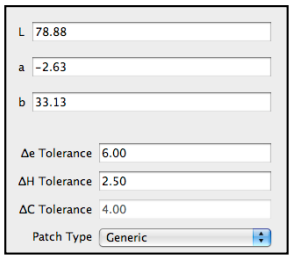
Toolbar Options

- New Colour – Create a new colour in the list with default* values. Values and colour names can be adjusted as desired.
- Delete Colours – Deletes the selected colours from the list.
- Duplicate Colours – Makes copies of the selected colours. Use shift or control keys for multi-selection.
- Rename Colours – Pops up a renaming window, allowing you to change the name on one or more colours simultaneously.
- Import Patches from Files* - Allows you to import a patch set from a colour data file, such as those of colour standards or ICC profile makers. A file chooser will display allowing you to navigate to the file location.
- Reorder Patches – Allows you to reorder the patches. Selecting this will display another window where you can select one or more colours and drag them into a new order. You can also use the up and down arrow keys and shift or control to multi-select.
- Generate Patches from ICC – Allows you to select an ICC profile from which to create a set of patches. Selecting this option displays a file chooser for you to select an ICC profile. You are then prompted for the number of patches to generate. The minimum number is 16 and maximum is 512.

Note:** When creating or importing new colours, they are stored with the default tolerance settings. This is user configurable and should be set ***before the patch set is created.

Patch Definition

On the left are a series of controls allowing you to define each patch. Selecting a patch from the list will load the colour into the colour match box at the top and load the Lab/CMYK values into the respective fields. To change the value, simply type the new number into the relevant field.



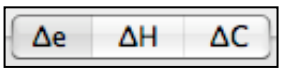
- Lab (or CMYK) – The Lab (or CMYK) value for the selected colour.
- △e tolerance – Set the maximum △e value for the selected colour.
- △H tolerance – Set the maximum △H value for the selected colour.
- △C tolerance – Set the maximum △C value for the selected colour.
- Patch Type – This allows you to identify important patch types from the set. The options are:
    - Paper – Select the patch that represents the paper being checked.

- Cyan/Magenta/Yellow/Black – Identify a patch for each colour from your set.
- Gray – Used to identify gray patches in the chart.
- Generic – Most patches are generic and are classified as generic if they don't fall into one of the above types.

Note: When generating patches from an ICC profile, the patches are automatically assigned the correct type.

Target Standards

There are three (3) standards that can be used to compare against your proof.



These are △e, △H and △C.

The first standard △e is always enabled. The other two standards must be enabled for the results to appear on the Calcheck. To enable, select the tab and tick the checkbox.

For each standard you specify the limits used for a pass and fail status. For △e you also choose which of the △e standards are to be used – deltaE, CIE94 or CIE2000.

Important Note: The correct standard to be tested must be selected and saved with the chart. Only that standard will be tested for a pass or fail. If you want to check another standard, you need to change it here and save it again. For example, if you are checking deltaE and you want CIE2000, you need to change it, save and re-measure.

The limits are:

- Average – For all the patches in the chart that will be measured by Calcheck, the average must be below this value for a pass.
- Maximum – This is the default value used when creating or importing patches. This value is only used for assigning maximum tolerance for the import. When the target is measured, the tolerance set per patch is the one used to determine a pass or fail status.
- Standard (Std) Deviation – The standard deviation across all the patches must not exceed this value. This is only available in the △e standard.

The Calcheck will only report a pass if all targets are achieved in the patch set (and therefore the proof or monitor).

Patches Per Strip – Specify how many patches are printed per line, allowing the use of existing target standards such as the Fogra Media Wedge.

Spectrophotometer

The Spectrophotometer gives you the ability to use one of the supported online instruments to measure colours directly into the Calcheck Chart.

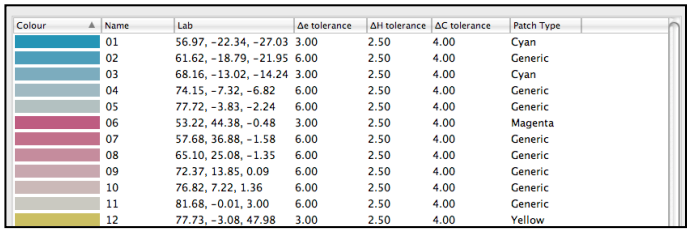
To measure colours:

1. Select your instrument from the dropdown menu and click on Activate. The device must be connected and turned on.
2. Follow the on-screen instructions, as some devices require calibration before measuring.
3. When complete, click the Turn Off button.
4. If you chose the Lab text you will be prompted to choose a file to import. The format must be Lab values, space or tab delimited and no header information.

Note: If you are importing characterisation data from one of the ICC profile packages or colour standards, you need to use the Import Patches From Files option.

Patches

This section of the Calcheck Chart window displays the patches in the set. Each patch shows its respective colour, name and Lab values. There is also a patch type and the tolerances for each standard. The tolerances are assigned when the patches are created or imported and are based on the settings on the left.



Colour	Name	Lab	Δe tolerance	ΔH tolerance	ΔC tolerance	Patch Type
	01	56.97, -22.34, -27.03	3.00	2.50	4.00	Cyan
	02	61.62, -18.79, -21.95	6.00	2.50	4.00	Generic
	03	68.16, -13.02, -14.24	3.00	2.50	4.00	Cyan
	04	74.15, -7.32, -6.82	6.00	2.50	4.00	Generic
	05	77.72, -3.83, -2.24	6.00	2.50	4.00	Generic
	06	53.22, 44.38, -0.48	3.00	2.50	4.00	Magenta
	07	57.68, 36.88, -1.58	6.00	2.50	4.00	Generic
	08	65.10, 25.08, -1.35	6.00	2.50	4.00	Generic
	09	72.37, 13.85, 0.09	6.00	2.50	4.00	Generic
	10	76.82, 7.22, 1.36	6.00	2.50	4.00	Generic
	11	81.68, -0.01, 3.00	6.00	2.50	4.00	Generic
	12	77.73, -3.08, 47.98	3.00	2.50	4.00	Yellow

A tolerance setting can be altered by selecting the colour and entering a new value in the relevant box.

The Chart type can be altered via the dropdown menu above the patches and a Press ICC Profile will appear if allocated. The Press ICC Profile button only becomes available for CMYK chart types.

Search

Above the patches list is a search box. This allows you to enter a string to filter out any patches not required and locate those that are. All fields within the panel are searched. The search can be inverted using CMD+SHIFT+I (Mac) or CTRL+SHIFT+I (Win). The box will appear black when the inverted search is enabled.

Further details on how to configure a Calcheck Chart are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

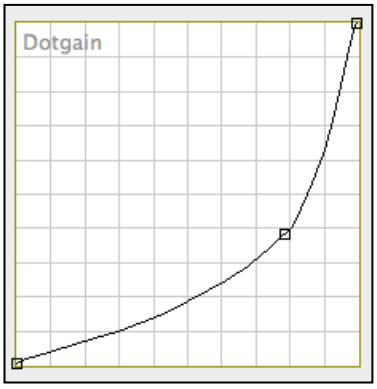
DotGain Curve

A DotGain Curve can be used to compensate for or represent dot gain on the final output. In this section, curves can be created for application to a Pagesetup in order to change the output.

The curve may be applied for two (2) reasons:

- After the initial calibration you may find that the resultant output is either slightly too dark or slightly too light. A DotGain Curve can be applied to the process or specials (or both) to make the print lighter or darker; or
- To represent a press or printing process dot gain on the proof.

The latter is used in flexographic workflows to better represent the final output on the proof.



Toolbar Options

- Trace Saved Curve – A green line appears, showing where the curve was last saved. This allows you to see where the curve has been edited.
- Invert Curve – Allows you to invert the selected curve. An inverted curve can be used to compensate for the colour characterisation or platesetter dotgain curves output by a platesetter RIP, returning jobs to a linear state for proofing.
- Increase / Decrease Margin – Increase or Decrease the margin around the graph area.
- Dotgain Table – Allows you to enter values manually to adjust or create a curve.
- Import from CSV – Allows you to import values from a CSV file. The file must contain exactly 23 values for each colour as defined in the Dotgain table editor.

Note: The Process and Special DotGain curves only apply to CMYK input jobs. RGB jobs will not be affected.

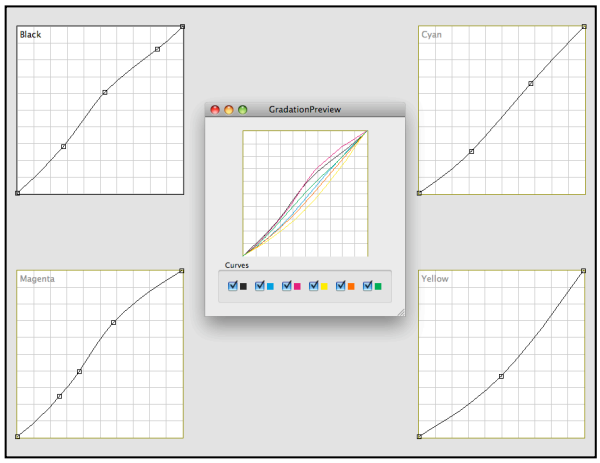
Gradation Curve

A Gradation Curve is used to adjust colour in a job by applying a curve to the individual process colours. There are six (6) process curves available – CMYKOG.

The Gradation Curve can be applied to a Media either as a Linearisation Curve or as a Correction Curve. A Linearisation Curve is normally applied as part of the early calibration stage and this is recommended. A Correction Curve is applied if a small amount of fine-tuning is required after normal calibration procedures.

Toolbar Options

- Trace Saved Curve – A green line appears, showing where the curve was last saved. This allows you to see where the curve has been edited.
- Invert Curve – Inverts the selected curve.
- Bigger/Smaller Curves – Increase or decrease the size of the graphs as they appear on the screen.
- Gradation Table – Allows you to enter values manually to adjust or create a curve.
- Preview Curves – Displays a window with all curves in their respective colours so you can assess them in relation to each other. This is updated dynamically as changes are made.
- Lineariser – Loads a Linearisation Curve directly into the Lineariser application.



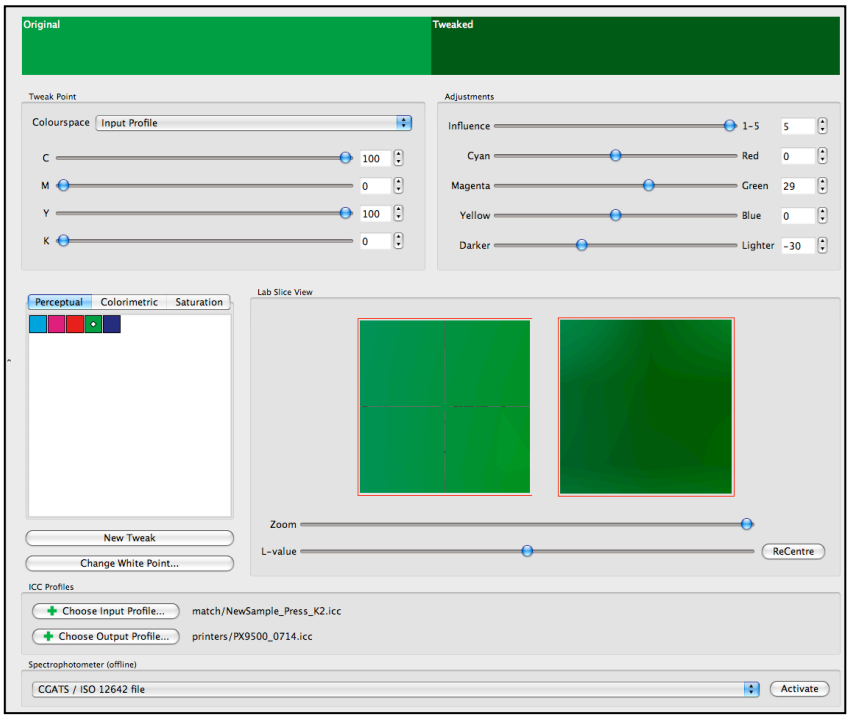
Further details on how to configure a Gradation Curve are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

ICC Tweak Set

The ICC Tweak Set section allows you to build up a library of colours that need "tweaking" (adjusting) for accurate output. A tweak set alters colours during the ICC mapping stage from input to output profile and is selected on a per Media basis.

The ICC profiles are not edited in any way and the tweak set can be selected as desired. Each colour requiring alteration is selected and adjusted by adding to or subtracting process colours from it, or making it lighter or darker. An accurate visual representation is shown on the screen and the point in the colourspace can also be viewed. Colours can be created manually or by entering the CMYK or Lab values, or input automatically using an online Spectrophotometer.

The interface is split into two parts – the left side shows the input values and the right side shows where any adjustments (tweaks) have been made.



Options

- Colourspace – Choose between Input Profile or Lab input. If the profile selected is RGB, the sliders will change to RGB. If CMYK, the sliders will change accordingly.

- Influence – Choose the area around the specified colours to be affected. This is determined as a scale of 1 to 5, with 1 being the least influence and 5 the greatest.
- Tweak Value – Use the CMY sliders to add or subtract from the colour being adjusted.
- Rendering Intent – Choose the rendering intent that the colour is to be altered in from either Perceptual, Colourimetric or Saturation. This must match the rendering intent of the Pagesetup for the mapping to work.
- New Tweak – Create a new tweak in the rendering intent selected.
- Copy – Available via the right click menu. Used to copy the selected tweaks.
- Paste – Available via the right click menu once an item has been copied. Used to paste the copied tweak from the clipboard to the rendering intent selected.
- Change White Point – Allows you to change the white point of the paper. Select the button and enter the X,Y,Z points. If a Spectrophotometer is connected you can measure the white point directly into the system.
- Zoom – Zoom in and out of the Lab colourspace to see the point you are tweaking in relation to the whole space.
- L-value – Move up and down the L-value to see the point you are tweaking in relation to the lightness. Reset the value by clicking the ReCentre button.
- ICC Profiles – Choose the input and output profiles you are using to tweak. These must match the ones selected in the Media, as they are stored with the tweak set and are used during the mapping process.
- Spectrophotometer – Choose an online Spectrophotometer to read values directly into the tweak set. Once selected, press the Activate button to connect and take measurements. If the device is being used by another application (including a Serendipity application), it will fail to connect. Quit or disconnect all others first.

Job Genie

Plate separated, single-bit screen TIFFs have become predominant in print industry workflows. The TIFF Based (Generic) input filter is designed to poll jobs from RIPs that produce 1-bit TIFF files; one file for each process or spot colour plate of a particular job.

While the TIFF Based (Generic) input filter has a limited intelligence and can recognise standard filenames, such as *jobname_plate.tif*, it will not understand or be able to correctly poll a filename like *J371P1S1CCyan.tif*.

The Job Genie utility allows you to configure your TIFF Based RIP input filter to poll and recognise any filename convention, no matter how unique or complex, and stitch the 1-bit files into single jobs. Job Genie can also be used to rename files to have more user-friendly onscreen names, or group files together into a single publication.

The configuration window is split into two (2) sections. The column on the left allows you to enter a Task (see Tasks below). The main panel displays the five (5) tabbed sections requiring consideration when setting up each Task. After it is created, the Job Genie is selected in a RIP queue using an input filter such as TIFF Based RIP (User Configurable) to poll the chosen directories for the defined filenames.

Tasks

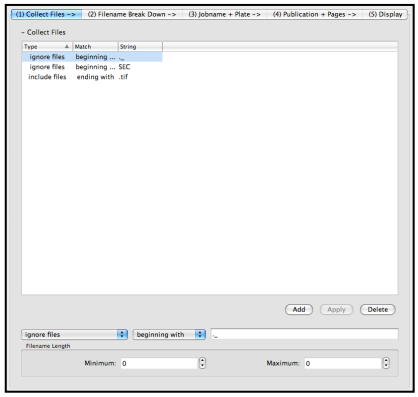
A Job Genie is made up of one or more user-defined tasks. Each task specifies how the job filenames are collected; how they are defined and grouped; how the job names will be displayed in the RIPMonitor; and if the jobs will be proofed as a publication when submitted for processing.

Important Note: More than one task may be required to collect all the files in a given path if the naming varies. Jobs are constructed in the order of the tasks. Once a Jobname is matched by a given task, it is removed from subsequent searches, so the order of the tasks is very important. To change the order of a task, select it with the mouse and drag it to the desired position in the list.

Interface Options

- Log – Enable or disable to display the matching process in the ServerLog for the task selected. This can be useful to debug problems where configurations are not matching files properly. It is best to turn logging off for a Job Genie that is functioning correctly to avoid the ServerLog becoming too large or cluttered.
- Add – Add another task to the list.
- Duplicate – Copy the selected task to a new one.
- Delete – Delete the currently selected task.

Tabs – (1) Collect Files



This tab specifies how the files are sorted and collected by the input filter. One or more search parameters can be entered, with each one comprising of an Action type, a Match criteria and a search String.

It is not necessary to enter anything in this first tab if all the files in the RIP input filter path are valid for collection and proofing.

As with tasks, each collection action is performed in order. Once a file has been excluded by a task, it is not looked at again so the order of the actions is very important.

Action Options

- Ignore Files – Do not include any files matching the definition specified when the input filter collects the ready for sorting.
- Ignore Directories – Do not look in directories matching the definition specified when collecting files ready for sorting.
- Descend Directories – Only look in directories specified by the definition when collecting files ready for sorting.
- Include Files in Directories – Include all files in the definition specified directories when collecting files ready for sorting.
- Include Files – Only collect files as specified by the definition.

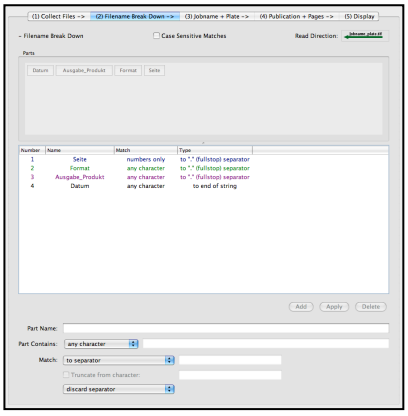
Note: Of the above actions, Include Files in Directories has precedence over all other actions. If this is matched, files and directories at the same level are ignored. Files and directories within the directory matched are then subjected to a search, governed by any other specified action.

Definition Options

- Ending With – Any file or directory as specified in the action with a name ending with <this text>.
- Beginning With – Any file or directory as specified in the action with a name beginning with <this text>.
- Containing Text – Any file or directory as specified in the action where a name contains <this text>.
- Named – Any file or directory as specified in the action explicitly named <this text>.
- Add – Add the action and definition specified to the list of files to collect.
- Apply – Apply any changes to the currently selected action and definition in the list.
- Delete – Delete the currently selected action and definition from the list.
- Filename Length – Specify a minimum and maximum filename length when searching for any files for sorting.

Note: The Add, Apply and Delete buttons are only available if there is a change to an existing entry. If actions are not added or applied to the list before a save, the list is not updated.

Tabs – (2) Filename Break Down



Most job filenaming conventions contain common elements defining the job's name, section, page or publication; and specific file markers or unique elements identifying things such as plate colour.

This tab allows you to specify the construction of a filename. This is done by breaking it down into parts and giving each part a user-defined name. Once all parts of the filename are identified, they can be grouped together to make a complete job.

Options

- Case Sensitive Matches – Used to match case when the criteria for matching contains user specified input. For example, Part contains specific words, Match to separator and the Truncate option. If any of these are used and Case Sensitive Matches is selected, only those characters matching the specific case entered are matched.
- Read Direction – The direction in which the filename is read. Click the arrow to change read directions.
- Parts – This is a block diagram showing the breakdown of the job. Each part is given a name and identifies a section of the filename. Clicking the Read Direction arrow changes the order of the parts to show which part is going to be read first. If you are creating a new Job Genie, you will not see any parts in the diagram until they are created.
- Add – Add parts to the list.

- Apply – Update the selected part with changes.
- Delete – Delete the selected part from the list.
- Part Name – Specify a name for the part you are about to describe. Meaningful names are useful when choosing the groups later.
- Part Contains – Specify from the list what the part will contain. Choose from:
    - Any Character – The part can contain any valid character.
    - Numbers Only – The part may only contain numbers.
    - Hexadecimals Only – The part must only contain hexadecimal characters (0-9, A-F).
    - Specific Words – Specify a word or characters in the text box that the part must contain.
- Match – Choose what point in the filename you are going to match to. This may be a specific separator or end of string, for example, read along the filename until this point, looking for valid part matching specified above. Choose from:
    - To Separator – Enter a character in the text box to specify as a separator, i.e., continue reading the part until you reach this separator.
    - To End of String – Match everything from this point to the end of the filename (string).
    - To Numeric Separator – Match everything from this point until you find a number.
    - To Non-Numeric Separator – Match everything from this point until you find anything that is not a number.
    - To "." (full stop) Separator – Match everything from this point until you find a full stop.
    - To "-" (hyphen) Separator – Match everything from this point until you find a hyphen.
    - To "_" (underscore) Separator – Match everything from this point until you find an underscore.
    - To "$" (dollar) Separator – Match everything from this point until you find a dollar sign symbol.
    - To " " (space) Separator – Match everything from this point until you find a space.
    - Number of Characters – Match the number of characters specified in the text box. A further option is available if this is selected:
        - Truncate from Character – Choose a character to identify in the filename and remove all characters from the point onwards. For example, if you have a large number of 0's in a group, you can choose to remove those 0's from the group so they are not displayed.

Note: The To Separator and Truncate from Character options allow multiple entries separated by commas, where each entry searches for a match, i.e., you can specify "To Separator a, b, c" where if any of the separators a, b or c are matched it is valid.

Separator Options

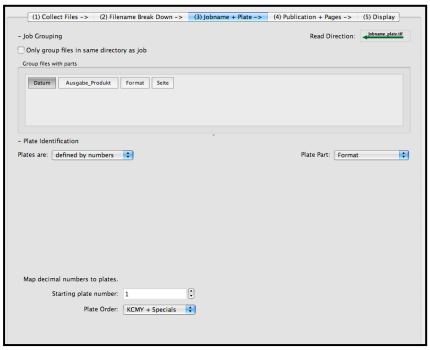
Separators are the characters that determine the end and beginning of a part. For example, with *cyan.tif* the full stop between *cyan* and *tif* is the separator. As this is part of the filename, you still need to decide what to do with this separator. There are three (3) options:

- Discard Separator – Ignores the separator.
- Include Separator with this Part – Includes the separator with the part being described.
- Include Separator with the next Part – Includes the separator with the next part described.

Example: With a filename such as *job.cyan.tif* where we parse the name in the forward direction, we describe the first part as name to separator full stop (.) and the next part as plate to full stop (.)

Discard Separator creates the two parts as *job* and *cyan*.
Include Separator with this part (for name) would produce a part as *job*.
Include Separator with next part (plate) produces a part as *cyan*. This is only used if the separator is a character you want to display in the RIPMonitor, such as a page marker.

The most commonly used option is Discard Separator. In the above example, if the option Include Separator with Next Part was used, we could not identify the colours, as it will be called *.cyan*



Tabs – (3) Jobname + Plate

This tab allows you to configure which parts should be grouped together to complete a job and which part identifies the plates of the job. You can specify how the plates are described and control specific mapping.

Job Grouping

- Only group files in the same directory as job – Check this box to group filenames together in a directory. Files in different directories will not be grouped.

This is used when job directories are created containing all the plates. Sometimes the filenames vary for the name of the job, but because they are all placed in one directory per job, they can be grouped together.

- Group files with parts – This displays the parts created in Tab (2) – Filename Break Down. Select the part or parts that make up the job name by clicking the tiles onscreen.

  In most cases, the file part defined as the plate should not be chosen, as this would group files with the same plate together, rather than combining the different plate files into one job.

Plate Identification

This tab is where you define which part created in Tab (2) – Filename Break Down is the plate part and how it is written in the filename.

- Plate Part – Select the part of the filename that describes the plate colour from the dropdown list. The list contains the part created in Tab (2).

Plates are:

- Defined by words – The plate names are complete names, for example, *cyan, pantone 252*.
- Defined by numbers – The plates are defined by numbers, for example, 0 is cyan, 1 is Magenta etc. If this is selected, two other options are available:
  - Starting Plate Number – Enter the number the plates start at. This is usually 0 or 1.
  - Plate Order – Choose the plate order between KCMY+specials or CMYK+specials.
- Map Letters C, M, Y, K to Process Names – If the plates are named with just letters, for example, cyan is represented as c, selected Defined by words and choose this option.
- Strip leading zeros from colour names – Sometimes colour names have multiple zeros before the plate number. This option can be used to remove these.

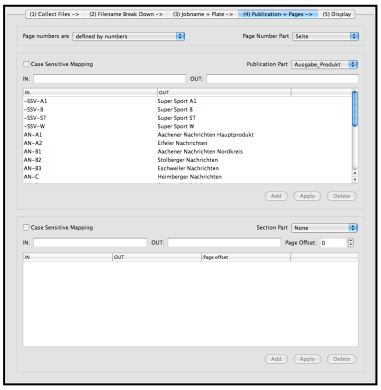
Plate Mapping

You can map plate names so they appear correctly in the RIPMonitor and are able to be matched to colours in the System Specials colour set (see System Settings – Colour Management). A list of plates requiring mapping can be created.

- Case Sensitive Mapping – Select this if the mapping should check for case.
- Add – Add the mapping to the list.
- Apply – Apply changes to the currently selected mapping.
- Delete – Delete the currently selected mapping from the list.
- Prefix number literals with user text – Add a prefix to numbers you are polling. For example, if the colour is called *254*, you can prefix the word *pantone* in front of the number, making the special plate become *pantone 254*.

Tabs – (4) Publication + Pages

This tab is where parts can be identified from the Filename Break Down as a Publication and a Page. This can help with autoproofing, as a job can be automatically filtered and gain all the attributes available to publications, such as grouping in the QueueManager and the Pages pane in SoftProof.



- Page numbers are:
  - Defined by words – Attempts to assign page numbers from letters.
  - Defined by numbers – Attempts to assign page numbers as numbers. Numbers must be greater than 0.
  - Defined by sequence 1A, 1B, 2A, 2B – Attempts to assign page numbers in sequential order.'
- Page number part – Select the part that identifies the Page number from Jobname, Colour, Extensions or None.
- Case Sensitive Mapping – Select this if the mapping should check for case.
- Publication Part – Select the part that identifies the Publication part from the previously defined filename parts.
  When files are submitted for processing via the RIPMonitor, all jobs with a common Publication Part will be submitted to the QueueManager as one publication and will be viewable (and softproofed) as such. *None* means no Publication Part is being used.

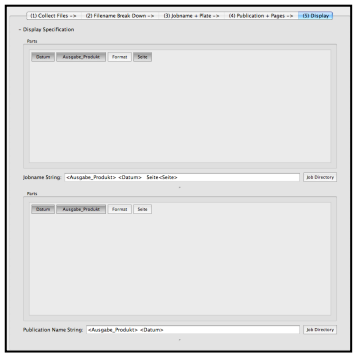
- IN / OUT – Map Publication abbreviations to full names (if required). For example, *smh* IN becomes *Sydney Morning Herald* OUT.

- Section Part – Select the filename part defined as the Section Part from the dropdown menu. The default is None, meaning the Section Part is not being used.
  Many publications, such as newspapers, are made up of a composite of separate sections. The pages of these sections often use a filename convention where the page numbers represent the number within the section – not the page number within the whole publication. The Section Part makes it possible to proof a publication made up of multiple sections and to offset the pages of each section appropriately to allow viewing of the complete publication in the correct page order.
  - IN / OUT – Unlike the Publication Part where remapping is optional, if used, the Section Part requires you to input the section names (although IN and OUT can be the same) and a Page Offset value for each section.

Note: Using Publication and Section Parts with Bookfilter
In the case of a Job Genie being created for a Bookfilter poll, the Publication and Section Parts can be used to re-map publication and section (or edition) filename parts into more coherent or user-friendly names for display in the BookMonitor. The Page Offset function of the Section Part is not used – it is simply for renaming.

Tabs – (5) Display
The Display tab allows you to configure how the Jobnames are displayed in the RIPMonitor.

Click the Parts tiles to add the filename parts to the Jobname and Publication Name strings. Parts can be added in any order.



Any other text to be shown in the RIPMonitor can be entered as part of the string.

For example, clicking a part named Page will show <Page> in the string. This will display the page number only in the RIPMonitor. It may be useful to add "*Page:*" before the <Page> part so the RIPMonitor will display as "*Page:1*".

- Display Specification – Shows the parts created in Tab (2).
- Jobname String – Shows the string that will be displayed in the Name column of the RIPMonitor and QueueManager. You can enter any valid character or use group parts.
- Job Directory – Allows you to enter the job directory into Jobname String field.
- Publication Name String – Shows the string that will be displayed in the Publication column of the RIPMonitor and QueueManager (in Publication view). You can enter any valid character or use group parts.

Media

The Media data type contains all of the settings controlling the output of jobs as they pass through the Blackmagic colour management system (CMS) for proofing. Settings configured here are those directly related to the Output device, Colour Correction, ICC Profiles, Screen Printing and Output Screening.

A Media can be one of several assigned to a Pagesetup, which controls the input screening, resampling, rendering effects and intents of incoming jobs.

All jobs are submitted to a combination of Pagesetup and Media destinations. When submitting, the user selects the Pagesetup to be used, at which point a list of compatible (user-created) output Media types in the database become available for selection.

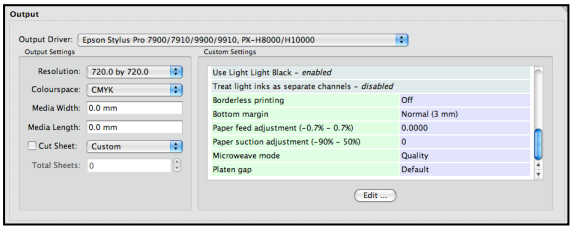
A default Media is assigned to a Pagesetup, so if a job is submitted without a specific chosen Media, the job will output to the default Media settings.

An Output data type can optionally have a Media type assigned to it, in which case only jobs submitted to the Output using the assigned Media will be printed. All other jobs are held in the QueueManager until the assigned Media is removed from the Output, or the held jobs' Media type is assigned to the Output.

Important Note: Version 3 Pagesetups, when opened in version 5, are automatically split into Pagesetup and Media types. Version 5 archives cannot be exported back into version 3.

Output

- Output Driver – Select the desired output driver from the available list. Those available will depend upon the options enabled on the dongle. The selected driver affects the options made available for Resolution and Colourspace.
- Resolution – Select or enter the desired resolution (DPI). If the output is a printer, only the supported resolutions are available. If it is a file format, your own value can be entered.
- Colourspace – Select the output colourspace as desired. The selections will change depending upon the chosen output driver.



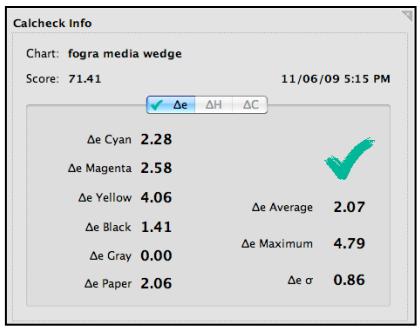
- Media Width/Length – Sets the width and length of the Media. Only jobs submitted with a width and length equal to or less than the assigned values will be printed. Jobs of greater width and length will be held in the QueueManager until an appropriate Media, or new width and length values are assigned.
  Note: Media Width/Length values override the width/length settings in the Nesting section of the Output, meaning jobs will not nest or print until within the width/length settings of the Media to which they were submitted.
- Cut Sheet – Enable this if the Media being printed to is Cut Sheet. The media to be used is selected from the dropdown menu.
  - Total Sheets – Enter the number of cut sheets loaded in the printer. Jobs will stop printing to the Media and be held in the QueueManager when MediaStatus has tracked that the assigned number of sheets have been used. A Total Sheets value of zero (0) assumes an unlimited sheet availability for tracking. Sheet count is reset using the Reset Counter button in the Usage panel.
- Custom Settings – These options will vary, depending on which output driver has been selected. For example, if JPEG is chosen, the customise section allows you to select the quality. If an Epson device is selected, items such as paper types, ink types and cut methods become available.

Calcheck Info

A Media can have its calibration status checked using the Check Media option within the Calcheck application (see Applications – Calcheck for more information).

This panel displays the current Calcheck calibration status of the Media, with the following information displayed:

- Chart – The Calcheck Chart used for verification.
- Date – The date and time of the Calcheck.
- Score – An internal calcheck rating from 1 to 100.

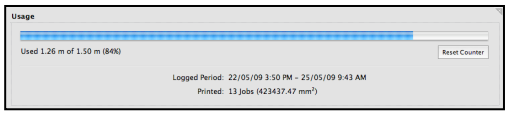


△E, △H and △C tabs show the following data for each of the standards (if measured):

- △Cyan, △Magenta, △Yellow, △Black, △Paper
- Pass or Fail – As designated by a green tick or red cross.
- △Average, △Maximum, △Standard Deviation

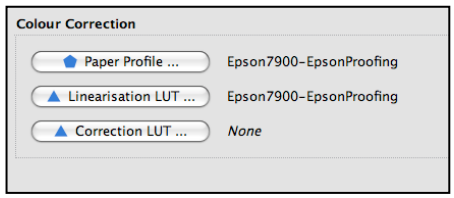
Usage

The Usage panel shows the amount of media used based on the values entered for Media Length (above).



- Usage Meter – Bar showing the amount of media used. Text under the bar shows the exact amount as "Used X Units of Total Units" (percentage %).
- Logged Period – Time period (date and time, from and to) the Media has been tracked since the last reset.
- Printed – Number of jobs and total printed area of jobs tracked since the last reset.
- Reset Counter – Reset the usage count for the Media.

Colour Correction
There are three (3) options for use to manipulate or fine-tune the colour to achieve the desired results:



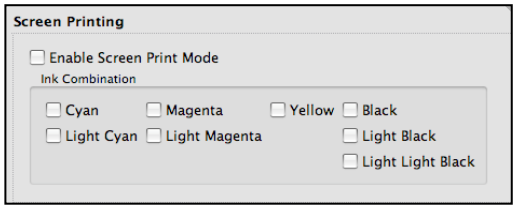
- Correction LUT – Select a Correction LUT to be applied in the form of a Gradation Curve. You can preview the curves, edit them or create new curves.
- Linearisation LUT – Select a Linearisation LUT to be applied in the form of a Gradation Curve. This is normally done as part of the standard calibration process with the use of the Lineariser. You can preview the curves, edit them or create new curves.
- Paper Profile – Select a Paper Profile to be applied. If the output is to a printer, this is also part of the standard calibration process.

ICC Profiles
ICC Profiles are used to match colours from one device to another, for example, a Press to an Inkjet. It does this by mapping an input to an output colour.

- Output ICC Profile – Select an output profile. This is the printer or other output profile and is used to convert the Lab data into the output colourspace. This output could be RGB, CMYK or CMYKOG, depending on the output device chosen and the detected colourspace.
- Output ICC Tweak Set – Select a Tweak Set from the available list. Lists can be previewed, edited or new ones created.
- Device Link Profile – Select a device link profile. If the job passing through does not match the colourspace of the Device Link Profile, the standard input and output profiles selected will be applied.

Upload ICC – This option is available on all of the ICC choosers. If the ICC profile is located somewhere other than the default ICC folders, use this function to upload it to the Server ICC folders in order for it to be used. As this is a Client-side option, this function can be used to move ICC profiles from the machine they were created on to the Server. This can be either on the LAN or WAN as a remote machine.

Screen Printing
The Screen Printing mode separates a job into single plates and prints them as black. This is designed to print with a halftone dot onto a clear film media. To increase the density of the output, choose a combination of inks. This option can be used to produce films for use in the Screen Printing industry.



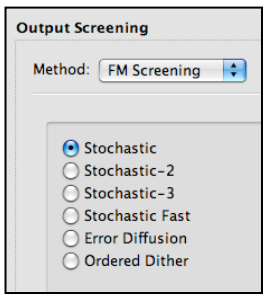
- Enable Screen Print Mode – Turns the Screen Print mode on or off.
- Ink Combination – Select the inks to be combined for a single separation output.

In Screen Printing mode, all jobs are separated and you ***must*** have a Paper Profile where only one dot for each colour is turned on.

Output Screening
You can apply screening to the output file if desired. This is only available if the output driver selected supports screening.

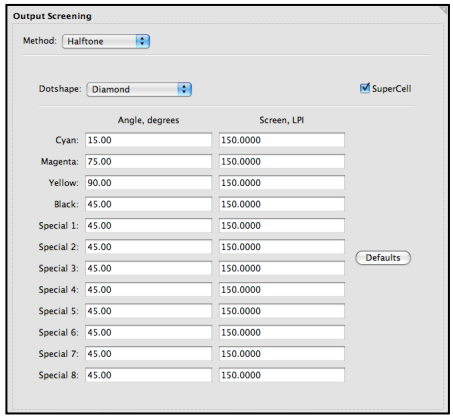
There are two (2) methods available – FM Screening or Halftone.

FM Screening Variations



- Stochastic – Standard Stochastic Screening.
- Stochastic-2 and 3 – Stochastic Screening with progressively increasing amounts of noise mixed in. This is done to overcome some artifacts caused by Inkjet printers.
- Stochastic Fast – A fast version of the Stochastic Screening mode. Slightly lower quality than Stochastic.
- Error Diffusion – Error Diffusion Screening. May enhance edges within images.
- Ordered Dither – Ordered Dithering Screening. Applies a threshold map on the pixels displayed, causing some of the pixels to be rendered at a different colour.

Halftone Options (Traditional Rosette Dot)



- Dotshape – Choose the dot shape to suit your requirements from Round, Inverted Round, Elliptical, Inverted Elliptical, Diamond, Euclidean or Line.
- SuperCell – Select this to choose SuperCell screening instead of standard halftone. Produces a much better quality output than standard halftone.
- Angle,Degrees – Enter the desired angle for each plate.
- Screen,LPI – Enter the desired screen ruling for each plate.
- Defaults – Use this to select the default values based on the output resolution.

Further details on how to configure a calibrated Media and Pagesetup are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

Output

The Output data type determines the output format of processed jobs and where they are sent to for printing (or file output). The Queue panel sets the output driver used and allows auto-cleaning of job Output queues. The printer connection or file destination is configured in the Destination panel. The Collating section has options for Nesting and Duplexing. Maintenance allows for automatic printer maintenance functions to be configured.

Queue

- Output Driver – Select the desired output driver from the dropdown list. Those available will depend upon the options enabled on the dongle. The selected driver affects the options in a Pagesetup and Media pointing to it.
- Change Media – Select this to optionally assign a Media to the Output. A chooser window will appear with Media displayed matching the Output driver type. The options as set in the selected Media are displayed for view, can be edited or a new Media can be created.
- Status – Choose whether the Output queue is Active or Inactive. This can also be controlled from the QueueManager.
- AutoClean – Configures Blackmagic to automatically delete printed jobs from the Output queue based on time and or/number. Options include:
    - Job History – Keep Most Recent – When enabled, set a number of jobs. Blackmagic will keep that number of most recent printed jobs in the Output queue, automatically deleting any excess jobs.

Note: If this option is enabled and the number of jobs is set to 0, jobs will be deleted from the queue immediately after printing.

    - Job History – Keep Jobs Newer Than – When enabled, Blackmagic looks at the time signature of printed jobs and deletes any jobs in the queue older than the specified (days/hours/min) time.
- AutoPause – Select a time duration the queue should pause after processing a job. Used for double-sided plotters so there is a pause in sending the next job, giving the plotter time to turn a sheet ready for the back side to be printed, or time to load another sheet.

Note: The Change Media option is used as both a safeguard against paper wastage and a workflow control method. If a Media type is assigned to the Output, only jobs submitted to the Output using the same Media will be printed. All other jobs are held in the QueueManager until the Media they were submitted to is assigned to the Output. If no Media is assigned, all jobs sent to the Output are printed.

Destination

The Destination determines the method of delivery of the output job to the final destination. Depending on the destination driver selected, there may be some additional options available.

Destination Drivers

- Command/Script – Select a script or command to be run once a job has completed.
- Epson FireWire – Only available on the Mac OSX version. Windows users should use the Local Print Queue option and print to an installed printer, configured to use FireWire.

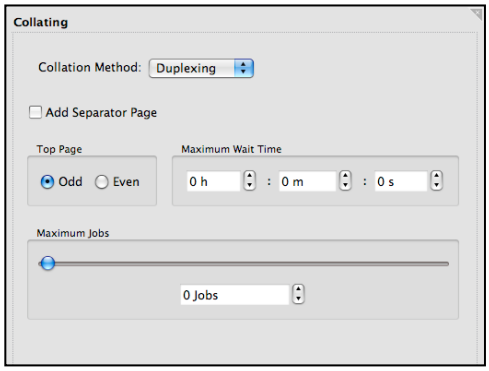
- Epson XIO – Print to an Epson connected via FireWire using Epson XIO interface on the Mac OSX. This requires the Epson driver to be installed on the Mac first. This option is only available for Mac and required on later model Epson printers and newer versions of OSX. Use XIO if the FireWire driver does not work.
- FTP – Send your completed job to remote machine using FTP.
- Local Device – If you have a printer connected as a serial or parallel printer, send your file directly to the device with this option.
- Local Folder – Choose a local folder to send the output file to. Enter the path or select Choose to browse and select a folder. The folder must exist and have write permissions.
- Local Print Queue – Print to a local print queue. Use this to print to a Windows printer on another machine. In the path location enter \\machine\printer where <machine> is the name of the Windows machine with the printer attached and <printer> is the exact name of the printer. The printer must be shared.
- LPR Port – Use LPR to print jobs to printers accepting it. Enter the Hostname/IP address of the printer and the path. Not all devices require a path to be entered. This is a good option for Epson printers with a network card. This method is faster than TCP/IP printing for these devices.
- Nowhere – This is used for internal testing purposes or for softproofing workflows. Files created by the print driver are not sent anywhere; they are left in the default raster location. A print time for simulation can be entered.
- PAP (AppleTalk) – Select a networked AppleTalk device to print to. The Change button displays any valid AppleTalk devices.
- Secure FTP (sftp) – Send the job to a secure server using FTP.
- TCP/IP Port – Print to a networked device over TCP/IP.
- USB Printer – Print to a printer connected via USB.

Collating

Collating is a method of gathering various outputs and grouping them together. There are two (2) methods of collating available, depending on the output driver selected. If an output driver that supports Duplexing is selected, the additional Duplexing collation method becomes available. Otherwise, the only option is Nesting.

Duplexing

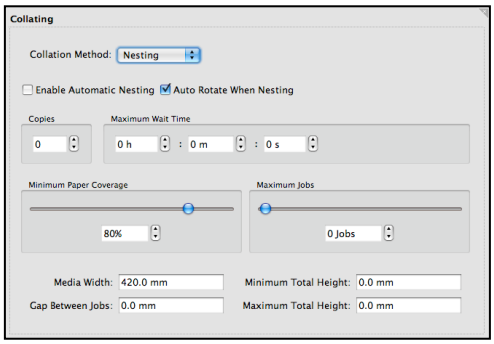
You can duplex jobs with multiple pages to form double-sided printing. This is only available for printers supporting duplexing modes.



- Add Separator Page – Adds a blank page between duplexed sets. This is useful when de-imposing and duplexing perfect bound jobs. A blank page is inserted after the Maximum Jobs is reached for duplexing to begin.
- Top Page – Determine if the top page is an odd or even number.
- Maximum Wait Time – Set the time to wait before duplexing begins. If the MWT is reached and the back side of the pages has not yet been processed, the queue will begin to duplex any available pages. This will result in single pages where the back are not yet completed.
- Maximum Jobs – Set the maximum number of jobs for duplexing. If this value is reached, duplexing will begin.

Nesting

You can nest multiple jobs together for a single output to save media and time.



- Enable Automatic Nesting – Set the queue to nest jobs automatically when the configured conditions (such as Maximum Wait Time) are met.
- Auto Rotate When Nesting – Enable auto rotation when nesting occurs. If this is enabled, make sure the option in the Pagesetup is set to None. There is no need to spend processing time rotating a job if it is rotated at nesting time.
- Copies – Specify the number of copies you want to nest. For example, if you have 7 jobs making up a nest and enter 5 in the copies field, you will get 5 copies of the same 7 jobs nested and printed.
- Maximum Wait Time – Specify how long to wait before nesting begins. Once reached, nesting will begin and any job waiting to nest will be nested into a single job. The start time is determined by the first job that appears waiting to nest.

- Minimum Paper Coverage – Specify the minimum paper coverage to be reached by jobs waiting to nest before nesting will begin. Once reached, any waiting jobs will be nested into a single job.
- Maximum Jobs – Specify the maximum number of jobs in a nest. If there are more jobs in the queue than the number specified, that number of jobs will nest and the remaining jobs will stay waiting to nest until the criteria is met again.
- Media Width – Specify the media width. This is required for nesting to work.
- Gap Between Jobs – Enter the size of the gap between jobs in the nest.
- Minimum Total Height – Specify the minimum total height of a nest, i.e., if the combined height of the jobs waiting to nest reaches this value, nesting will begin.
- Maximum Total Height - Specify the maximum total height of a nest, i.e., if the combined height of the jobs waiting to nest reaches this value, nesting will begin.

Note: If a Maximum Height is set, the Nesting algorithm will look at all the jobs waiting to nest and fit the most jobs between the minimum and maximum heights.
If the available jobs can not cover the defined Paper Coverage (if set) of paper without exceeding the maximum height, jobs will not nest.
If no Paper Coverage minimum is set, any job that would make the nest exceed the maximum height will be left in the queue - the other jobs will be nested.
Any single job exceeding the Maximum Height will also not print. If a job is too large, either the nesting parameters and/or the printing media but be changed.
This makes it possible to effectively and efficiently nest using Cut Sheet media.

Maintenance
The Maintenance panel allows Blackmagic to be configured to automatically perform printer maintenance functions. This is not available for all printer drivers.

Maintenance functions can be performed at regular time intervals; after a set number of print jobs; or after printing linearisation charts and ICC targets. Options include:

Options include:

- When – Select Every from the dropdown menu to activate time-based maintenance, with configurable time and day fields.
    - Perform Actions:
        - Clean Print Head – When enabled, the printer will clean the print head.
        - Print Nozzle Pattern – When enabled, the printer will print a nozzle check pattern to verify all print nozzles are clean and functioning.
- Every – Enter a number in the field or use the arrows to set the selected maintenance to be performed after the defined amount of print jobs.
    - Perform Actions:
        - Clean Print Head – When enabled, the printer will clean the print head.
        - Print Nozzle Pattern – When enabled, the printer will print a nozzle check pattern to verify all print nozzles are clean and functioning.
- After printing:
    - Linearisation Chart – When enabled, the printer will print a nozzle check pattern immediately after printing a linearisation chart. If the pattern is incomplete, the print head will need to be cleaned and the chart reprinted.
    - ICC Chart – When enabled, the printer will print a nozzle check pattern immediately after printing an ICC Target Chart. If the pattern is incomplete, the print head will need to be cleaned and the chart reprinted.

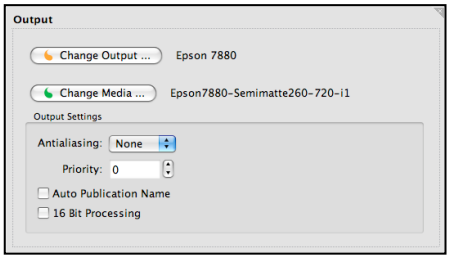
Further details on how to configure an Output are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

Pagesetup

A Pagesetup consists of many configurable modules to manipulate your job for the desired output. This is where the Input Screening and ICC Profiles, Render Effects, Colour Keys and other Colour Management options are setup.

Output

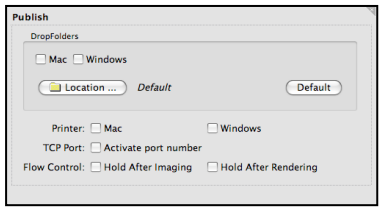
- Change Output – Selects the Output method and assigns its configured properties to the Pagesetup.
- Change Media – Allows you to select the default Media settings and assign its properties to the Pagesetup. If a job is submitted to the Pagesetup without a specific Media, the job will output using these default Media settings.
- Output Settings:
    - Antialiasing – Choose from 2x2, 3x3, 4x4 or None. Antialiasing is designed to smooth jagged edges and is used when the Output does not have sufficient resolution to display edges smoothly. The values increase the amount of pixels used for Antialiasing. The default setting is None.
    - Priority – Assign a priority to a Pagesetup. The higher the number, the higher the priority. Numbers can be negative for a higher priority. The default is 0. Jobs waiting to Image or Render will process through a higher priority Pagesetup over jobs submitted to lower priority queues.
    - Auto Publication Name – Create unique publication names for each job passed through the Pagesetup. Use this feature for duplexing from PDF or PS files. Submitting a multi-page document as one job will allocate all pages with the same publication name.
    - 16 Bit Processing – Enable or disable 16-bit processing for jobs submitted to the Pagesetup.



Note: Blackmagic V5 is able to accept files submitted in a 16-bit format. The files are normally processed and rendered in standard 8-bit colour, which for many workflows is sufficient for proofing. 16-bit processing improves render quality and can be useful for finding artifacts within a job. When enabled, files submitted to the Pagesetup in 8-bit are upscaled to 16-bit for processing. 16-bit mode requires more system memory for imaging/rendering jobs and produces larger output files.

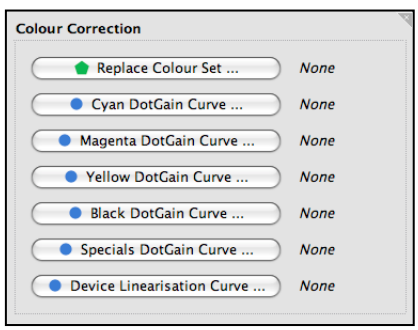
Publish

- DropFolders – Allocate a folder where files can be dropped in for processing. Valid File Types include Postscript, PDF, JPEG, TIFF Image, Serendipity Blackmagic Image, EPS, PNG.
    - Mac or Windows – Choose to publish a folder for Mac or Windows.
- Location – Select a folder as a DropFolder. The folder must exist and have read/write permissions.
- Default – Reset the DropFolder location to the default one (Serendipity Blackmagic installation directory/drop/<"Pagesetup Name">)
- Printers – Choose to publish the Pagesetup as a printer so machines on the network can select it and print to it directly from applications.
    - Mac or Windows – Choose either Mac (AppleTalk) or Windows. The Pagesetup name is used as the printer name.
- TCP Port – Publish the Pagesetup as a TCP Port to allow Unix based computers or other Serendipity Blackmagic's to print to it.
- Activate Port Number – Select this to show a text field, allowing you to enter a port number. The hostname or IP address of the computer is used and each Pagesetup has it's own port number.
- Flow Control – Select whether to hold the submitted file after Imaging or Rendering, allowing you to prioritise jobs or make rendering attribute changes before releasing.



Colour Correction

- Replace Colour Set – Select a Replace Colour Set from the list of available sets. You are able to preview the set, edit it, or create a new one.
- Cyan/Magenta/Yellow/Black DotGain Curves – Select a C, M,Y or K DotGain Curve to be applied. You are able to preview the curves, edit them or create new ones.
- Specials DotGain Curve – Select a DotGain Curve to be applied to the Special Spot Plates only. One curve affects all Special Colours the same way. You can preview the curve, edit it or create a new one.



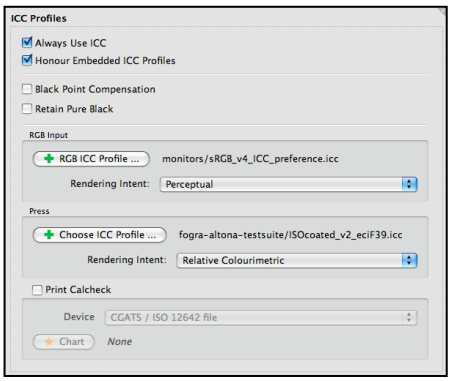
- Device Linearisation Curve – Select a Device (platesetter) Linearisation Curve to be applied. You can preview the curve, edit it or create a new one.

ICC Profiles

- Always Use ICC – Enable this to always use the assigned ICC profiles for jobs submitted to the Pagesetup (and Media). If this is not enabled, the ICC profiles selected are only used in colourspace conversion.
- Honour Embedded ICC Profiles – Enable this to use an ICC profile embedded in a submitted TIFF, JPEG or EPS file as the input match profile. When enabled, embedded file profiles will always take precedence over any Match ICC assigned to the Pagesetup.

Note: The TIFF Image output driver has an option to embed an ICC profile into TIFF files that are output by Blackmagic.

- Black Point Compensation – This setting is designed for use when processing input from large gamut sources such as photographs and RGB images. Black Point Compensation enhances shadow details in these images; assists when viewing shadowed areas in non-ideal or everyday lighting conditions; and prevents flooding in CMY grey areas.
  This setting only functions when using colourimetric intents, and when Always Use ICC is checked.
  Black Point Compensation should not be used for normal CMYK proofing jobs, which are generally well within the gamut of an output device (Inkjet printer).



- Intent – Select the rendering intent to use. Options include:
  - Perceptual – All colours are moved proportionally to each other so the eye perceives the colours to be correct (i.e., colours out of gamut move into gamut, and those in gamut move proportionally to those out of gamut).
  - Relative Colourimetric – Those colours out of gamut are moved into gamut, and those in gamut are left untouched.
  - Absolute Colourimetric – The colours are left alone so those out of gamut cannot be reproduced. Adjusts the white point of the media to match that in the input ICC profile.
  - Saturation – Those colours out of gamut move into gamut, but all colours increase in saturation as a result.
- Retain Pure Black – When ICC profiles are used, all colours, even solids, are made up of a mix of different colours. Selecting Retain Pure Black uses only black for areas containing just black. When enabled, the following options become available:
  - All – Uses black ink only in all areas defined as Black.
  - Text – Uses black ink only in elements defined as Black text. This can improve the clarity and sharpness of the text.

Note: This option is not always suitable for use with printers using light black inks, as many of these inks tend to have a non-black hue.

- RGB ICC Profile – Select an RGB Input profile. This is used to convert input data from RGB to Lab and should be a scanner or digital camera profile.
- Press ICC Profile – Select a Press profile. This is a Match profile and is used to convert input data from CMYK to Lab. This can be a multicolour profile or CMYK. If you select a multicolour profile, an additional option will become available – Press Inks.
  - Press Inks – For multicolour press profiles you must specify the plates used in the ICC and the order of those plates. Selecting this option displays a Special Colour Set chooser, allowing you to select a pre-defined set or create a new one.

Important Note: For multicolour profiles to work, you must create the same colour names used in the ICC and have them in the same order. The order for the ICC is specified during ICC creation. This is independent of the actual press order. Change the order by dragging the colours around the set. The order is specified as the Colour (left column), order descending.

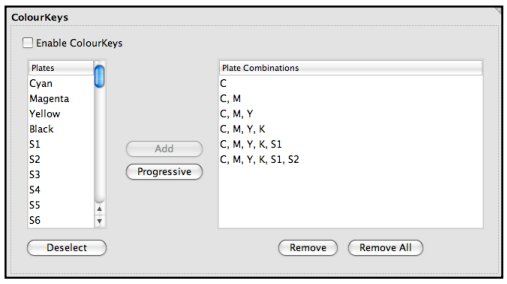
- Upload ICC – This is available on all of the ICC choosers. If the ICC profile is located somewhere other than the default ICC folders, you can use this function to upload it to the Server ICC folders in order for it to be used. As this is a Client-side option, you can use this function for moving ICC profiles from the machine they were created on to the Server. This can be either on the LAN or WAN as a remote machine.
- Print Calcheck – Select this to attach a calibration strip to every job passing through this Pagesetup.

- Device – Choose the device you will use to measure the strip with. This creates the chart for the correct device.
- Chart – Choose the chart for use from the popup window of Calcheck Charts.

Note: The Calcheck Chart is a Data Type in the Workbench. This is where you create the chart. Use the Calcheck application to measure it and produce a report.

ColourKeys

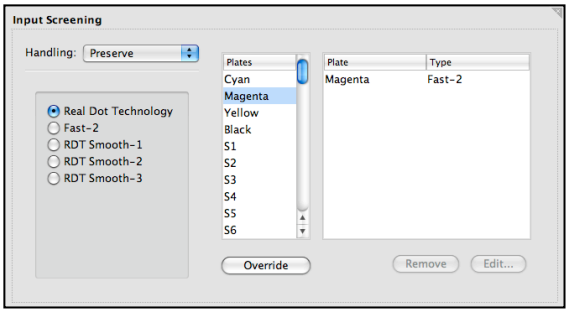
This module allows you to merge some plates and separate others from a single job submission. For example, you can merge the CMYK plates together and print the 3 specials as separate jobs, or you can create progressive proofs with C, CM, CMY, CMYK, CMYKS1, etc.



- Enable ColourKeys – Select this to turn the module on.
- Plates – Shows a list of available plates.
- Add – Adds the selected plates to the Plate
- Combinations list.
- Progressive – Used to make progressive proofs. After adding the first plate to be used in the proof, click the Progressive button one or more times to cumulatively add plates to the Plate Combinations list. The progression will start with the first plate on the Plates list by default if a first plate is not selected.
- Deselect – Deselects any plates currently selected in the Plates list.
- Remove – Removes the selected Plate Combination from the list.
- Remove All – Clears the Plate Combination List.

Input Screening

Input Screening determines how the screening on the input data is handled. There are two (2) choices – Preserve and Descreen.



- Preserve – Preserves the dots from the incoming data so the same dots on the final job are shown on the proof. Further choices are:
  - Real Dot Technology – Used to preserve the dot structure.
  - Fast-2 – Similar to RDT but a faster method.
  - RDT Smooth 1, 2 and 3 – This is RDT with progressive levels of smoothing.

Note: Fast-2 should be used where the dot structure is not very important. It will preserve the dot but is a quick, low quality method. The sharpest dot structure will be achieved using RDT, however you will sometimes get introduced moire, caused by the head weaving of the printer, the resolution and the screen ruling of the original file.

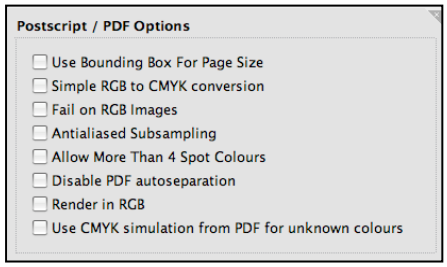
- Descreen – Descreens the incoming data with either:
  - D-Dot – Removes the dots; or
  - Fast – Quick descreening algorithm

Note: D-Dot is used where the output job is being sent to a photocopier or similar device, with a front-end RIP that applies a screen of its own. If you did not remove the dot, the job would be double screened, producing poor output. Use Fast for all other methods when the incoming screening is not to be preserved.

- Plates and Plate/Type – Allows you to override the descreening mode selected with other modes for the plates. This is needed so that, for example, if RDT is used for all plates except Black (which uses RDT Smooth-2) you will avoid getting moire.

Postscript / PDF Options

The following options are only used when the incoming data is Postscript:



- Use Bounding Box for Page Size – Some Postscript jobs do not place a page size in the job information. Checking this will use the bounding box as the page size.
- Simple RGB to CMYK Conversion – This is a compatibility mode from older versions of the product. Images are converted from RGB to CMYK quickly using a basic method. The colour is not very accurate

and is not recommended for contract proofs.

- Fail on RGB Images – Causes a job to fail if it contains RGB images. If this is not checked, the jobs will process but RGB images will be ignored and not printed.
- Antialiased Subsampling – Used to assist in the rendering of some fonts.
- Allow More Than 4 Spot Colours – Enable this if PDF or Postscript files are being processed with more than four spot plates. This option will increase processing time when enabled.
- Disable PDF Autoseparation – Turns off autoseparation for PDF files.
- Render in RGB – Allows Postscript file data to be processed in an RGB rendering mode, with a wide gamut suitable for digital photographic proofs/prints.
- Use CMYK simulation from PDF for unknown colours – Allow the CMYK simulations from PDF files to be substituted for unknown spot colours.

Note: An Unknown Specials colour set can now be assigned in the System Settings. This allows unknown special/spot colours included in PDF or Postscript jobs to be automatically added to the set.

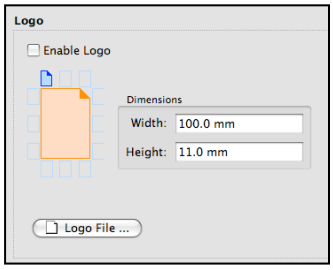
Resampling

Resampling allows you to configure the method for sampling incoming data and changing the resolution from the input to that of the output. The options are:

- Nearest Neighbour – The fastest method but less accurate. Choices are made as the closest pixels from input to output and can result in jagged edges or stepping effects.
- Bilinear – A medium quality sampling method and can take longer than Nearest Neighbour. Bilinear takes the weighted average of 4 pixels from input to output. Best for use with screened data.
- Bicubic – High quality sampling method which takes longer to calculate than Bilinear. Bicubic uses the weighted average of 16 pixels from input to output.
- Filtered – Serendipity's own sampling method, giving the highest quality. It takes longer to process than Bicubic and uses an averaged area from input to output. This setting provides better resampling for contone data, such as Postscript and PDF.

Logo

Position your own company logo, sign-off slugline or colour bar for checking consistency anywhere around the job. The logo passes through the same colour management as the job and can therefore be verified. The file is not rotated during output (except if Auto Rotate When Nesting is enabled). If the logo file is positioned along the left or right sides, the EPS file should be created in the appropriate orientation.

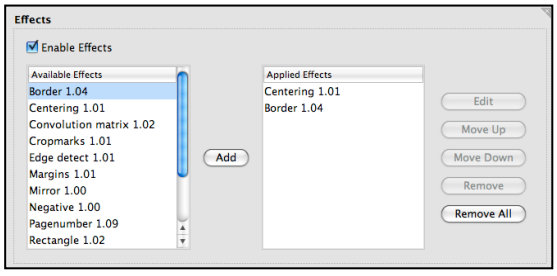


- Enable Logo – Turn the Logo effect on or off.
- Dimensions – Enter the print dimensions of the Logo.
- Logo File – Select this to choose your Logo file.

Effects

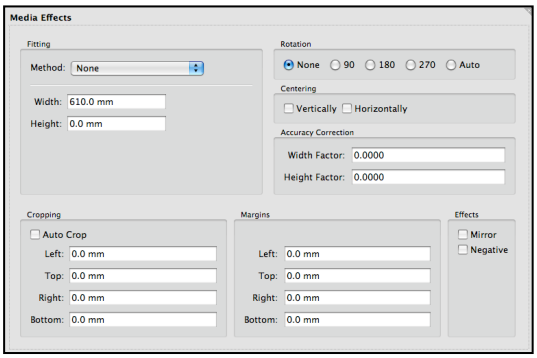
Various effects may be applied to jobs passing through the Pagesetup. Effects are applied in the order they appear here. Some effects have separate attributes for customisation and can be edited once they are in the Applied Effects column.

The Effects are:



- Border – Place a border around the job. Line width and colour can be specified.
- Centering – Centre the job in the specified page area.
- Convolution Matrix – Design your own filter effect according to a pre-defined mathematical operation known as convolution.
- Cropmarks – Place crop marks around a job. Line width, length and clearance can be specified.
- Edge Detect – Remove all content and just leave the edges.
- Margins – Specify margins around the job.
- Mirror – Mirrors the job.
- Negative – Renders the job as a negative.
- Pagenumber – Place the page number in the middle of the page as a watermark. Scale factor and opacity can be configured, and choose between page number of the job or the page number of the signature (when using De-Imposition).

- Rectangle – Draw a rectangle around the job inset at the desired distance, line width and colour.
- Signature Decorations – Place page lines (from the signature) and page numbers on the job. Further options are available. Choosing lines for pages will print a line around the page. Lines for spreads will print a line around paired pages (spreads).
- Slugline – Place job information on the job. There are a number of options available via the Edit button. If you are using a narrow format paper and the full slugline doesn't fit, select Custom Slugline and turn all options on. This will show an item per line. Within Custom, fields selected will only be printed if they are relevant to the job.
- Unsharp Mask – Apply an unsharp mask to the job. The Unsharp Mask affects the edges within an image and can be controlled with the available parameters. The radius tells us how large an area to affect around the edges. The larger the radius, the greater the effect and the longer it takes to process. If the preview resolution is high, a given radius will have less effect than if the resolution is lower. If the detail is quite fine, a smaller radius should be used. Higher radius values can also cause halos at the edges. The threshold gives a level that should be affected where 0 affects more of the image and 255 very little. The amount states the size of the change, where a higher value is a greater change at the edges.
- Watermark – Place a watermark across the job. The scale of the watermark is proportional to the size of the job. 100% represents the same size as the job in the smallest direction. If the stretch option is selected, horizontal and vertical sides are stretched to the scale amount. The watermark will be scaled in an anamorphic manner.



Media Effects

The attributes here allow you to manipulate the job in various ways:

- Fitting Method
  - None – Fitting method is turned off.
  - Fit Width/Fit Height/Fit Width & Height – Shrinks jobs to fit within the set dimensions; proportions are maintained.
  - Scale Factor – Scales jobs by the amount specified.
  - Tiles – Tiles a job that is larger than the width & height specified. If required, an overlap can also be entered. Useful for large posters or billboards.
  - Best Fit Width/Best Fit Height/Best Fit Width & Height – As Fit, but will shrink or enlarge jobs to fit/fill dimensions entered while maintaining proportions.
  - De-Imposition - Can be used to take an imposed file like an 8UP, de-impose it into 2UPs or singles and print it on a smaller printer; or produce a single page PDF file. If this option is selected, a further Signature Group button becomes available for selection.
- Rotation – Choose from None, 90, 180, or 270 degrees. Automatic rotation may also be selected to best fit the job using the media width and height specified.

Note: Auto Rotation is very useful for saving media, but if a job is rotated, it takes longer to process – the larger the job, the longer the process time. Rotation takes place at the beginning of the Rendering phase and will affect cropping, margins and so on. If you are auto-rotating when nesting (See Nesting in the Output section), it is advisable to have Sheet Auto Rotation turned off, otherwise the job rotation will be calculated twice, again increasing the process time. Increasing system memory can also improve processing times.

- Centering – Choose between Vertically or Horizontally.
  Use this if you need to centre a job at any time. In particular, you may need to use it when printing to a double-sided printer to help match the front and back sides.
- Accuracy Correction – Compensate for media stretch or paper feed errors by specifying a correction amount for width and height.
- Cropping – Crop the job in all directions. When specifying cropping, you will need to take into account any rotation that has been applied, as cropping takes place ***after*** rotation.
- Auto Crop – Enables auto-cropping to remove blank area around an image. The crop stops at the first coloured pixel encountered in the file image.
- Margins – Specify a margin around the job. You may have to specify a margin to shift a job over or compensate for a printer's set margin. As with cropping, take rotation into account.
- Effects – Mirror or Negative your job by enabling either option.

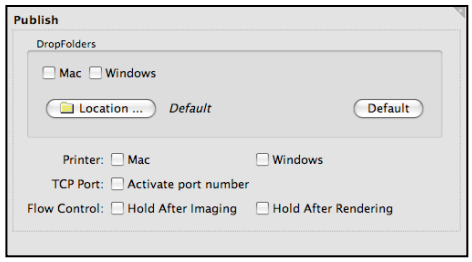
Note: The Mirror and Negative effects in the Sheet panel differ to those in the Effects panel in that they apply the effect at the Imaging stage of processing.

Further details on how to configure a calibrated Pagesetup and Media are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

Pagesetup Pools

The Pagesetup Pools data type allows you to print to one or more Pagesetups. You can choose to load balance between multiple Pagesetups or print to multiple Pagesetups simultaneously. These can be published in the same way as an individual Pagesetup, or you can set the Pool to auto-proof from a RIP configuration.

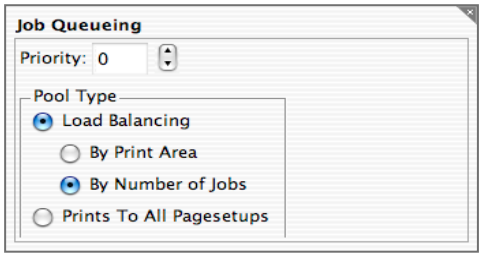
Publish



- DropFolders – Allocate a folder where files can be dropped in for processing. Valid File Types include Postscript, PDF, JPEG, TIFF Image, Serendipity Blackmagic Image, EPS, PNG.
    - Mac or Windows – Choose to publish a folder for Mac or Windows.
- Location – Select a folder as a DropFolder. The folder must exist and have read/write permissions.
- Default – Reset the DropFolder location to the default one (Serendipity Blackmagic installation directory/drop/<"Pagesetup Pool Name">)
- Printers – Choose to publish the Pagesetup Pool as a printer so machines on the network can select it and print to it directly from applications.
    - Mac or Windows – Choose either Mac (AppleTalk) or Windows. The Pagesetup Pool name is used as the printer name.
- TCP Port – Publish the Pagesetup Pool as a TCP Port to allow Unix based computers or other Serendipity Blackmagic's to print to it.
- Activate Port Number – Select this to show a text field, allowing you to enter a port number. The hostname or IP address of the computer is used and each Pagesetup Pool has it's own port number.
- Flow Control – Select whether to hold the submitted file after Imaging or Rendering, allowing you to prioritise jobs or make rendering attribute changes before releasing.

Job Queuing

Job Queuing allows you to control the way the pools work and the importance of the queue.



- Priority – Assign a priority to a Pagesetup Pool. The lower the number, the higher the priority. Numbers can be negative. The default is 0. Jobs waiting to Image or Render will process through a higher priority Pool over jobs submitted to lower priority queues.

- Pool type – Allows you to decide what sort of pool you are going to use. There are two (2) options:

    - **Load Balancing** – Spread the jobs across the Pagesetups selected in the pool.

        - By Print Area – Calculate the area of each job and the queue with the least amount of print area queued is sent the next job.
        - By Number of Jobs – The queue with the least number of jobs is sent the next job.

Load Balancing is ideal for printing to multiple printers of equal quality, using the same media, with the priority being to proof jobs to the next available printer. Each printer is calibrated separately to ensure quality. "By Print Area" is more efficient, as the larger the print area the longer it will take to image, render and print. Queue loading is determined at the time of imaging. If a print queue is paused, jobs will be sent to active queues.

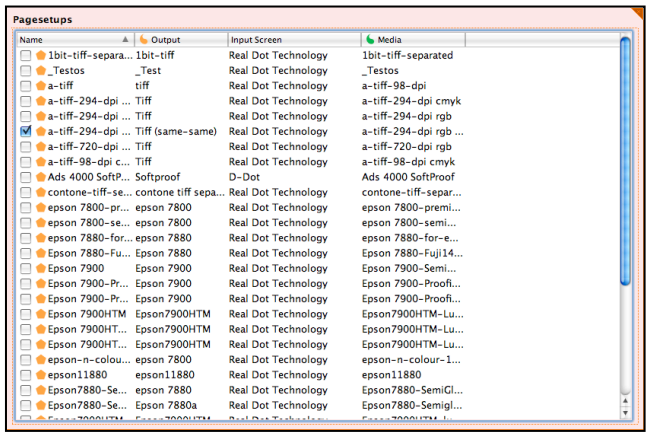
    - **Prints to All Pagesetups** – Choose to print to all Pagesetups selected in the pool.

The option Prints to All Pagesetups is ideal if you want a job to print locally and remotely. One Pagesetup can be configured to drive a local printer and another can create a JPEG image and transmit it to a remote Serendipity Blackmagic. Alternatively, you may want to create a PDF file to send to a customer at the same time as printing a hardcopy.

Pagesetups

This displays all Pagesetups configured in the system. The sort columns show the Output, Input Screening and Media used by each Pagesetup.

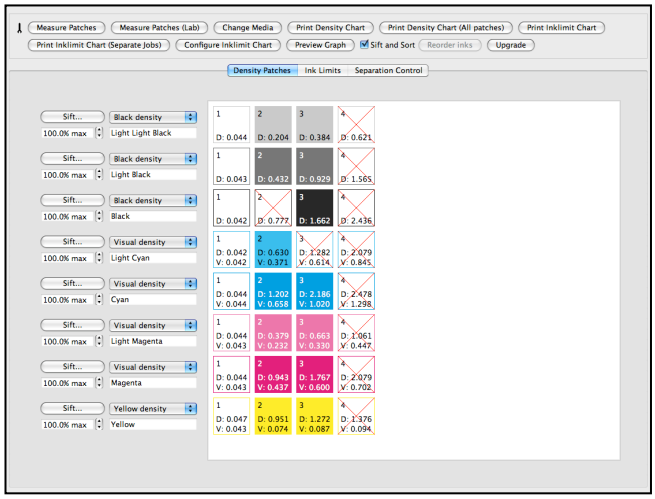
Tickboxes allow you to select which Pagesetup will be included in the Pool. A context menu for each Pagesetup in the list allows the user to edit any or all selections of the highlighted Pagesetup, it's assigned Output or Media.



Paper Profile

Configuring a Paper Profile is a fundamental part of calibrating a printer for optimum colour output. The profile is assigned to a Media and matches paper and ink characteristics to the output driver, resolution, colourspace and custom settings of the Media.

The user interface for Paper Profile comprises of a toolbar containing options and functions to assist in creating the profile; and a tabbed panel where the printer's dot sizes (Density Patches), Ink Limits and if appropriate, ink Separation Control are configured.



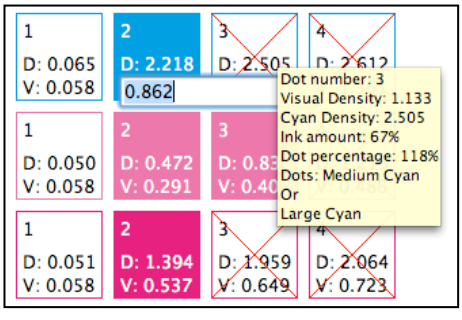
Toolbar Options

- Measure Patches – Use this to measure a printed density chart using a supported instrument. After selecting, choose an online device and desired density standard from the dropdown menus. Consult your instrument manual for supported types. When the device is ready, the measuring window appears. If instructed, calibrate the instrument and begin.
- Measure Patches (Lab) – Use this to measure the Lab values of the printed density patches.
  Note: Patch values may be measured, sorted and saved with either density or Lab. These cannot be mixed within a paper profile.
- Change Media – Allows you to change the Media currently assigned to the Paper Profile.
- Print Density Chart – Prints a density chart containing the patches currently turned on. Where patches are turned off, there will be a space on the output print. Selecting this displays a chooser, allowing you to select a Media and Pagesetup to which the chart is then printed.
- Print Density Chart (All patches) – Prints a density chart containing all patches, irrespective of their on/off state.
- Prink Inklimit Chart – Prints an ink density chart containing all enabled limits as one job to the selected Media and Pagesetup.
- Print Inklimit Chart (Separate Jobs) – Prints an ink density chart for each enabled ink limit colour combination as a separate job, using the Media and Pagesetup selected.
- Configure Inklimit Chart – Configures the combinations of inks to be tested for ink limits. Select which colours will be printed, the start and end ink percentage points and step increments.
  Note: If you have a combination selected but insufficient patches to fill the row, an empty chart will be printed. For example, if you select to print 3 ink limit and have 2 colours selected, only the chart border will be printed.
- Preview Graph – Show a graph of the patches currently turned on. See the Graph section for more information.
- Sift and Sort – Enable or disable to option to Sift and Sort the patches in the Paper Profile.
- Reorder Inks – Change the order of the inks in the paper profile to match the order used in the ICC profile. Often used for N-Colour profiles. A list of ink channels opens for you to highlight and move using the up and down arrows, or drag and drop inks to the required position.
- Upgrade – Upgrades a legacy (pre-version 5) paper profile to the latest version.

Density Patches

This area shows the patches making up the Paper profile. Each patch represents a dot size or combination of dots available to the printer being profiled.

The number of ink channels shown and the number of patches shown for each channel will vary, depending on whether the printer has variable dot capability; if it has light inks; and if the light inks are configured to be treated as separate or combined channels. These options are selected in the Output and Custom Settings of the Media chosen when creating the Paper Profile.



Before densities have been measured, all patches will be turned on and will have default density values. These densities are updated with the data input from the Measure Patches option.

- Patches can be turned on or off by clicking the upper half of the patch.
- Clicking the lower half of the patch allows you to manually enter

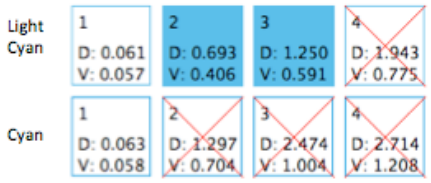
density values for that patch number. For colours that have visual and colour densities, select the letter you wish to enter a value for – D for Density or V for Visual. When entering values manually, ensure the patch sort order is set to Patch Number.
Note: If patches are measured in Lab mode, each will display an L value, rather than density values.

- Pressing Enter or TAB stores the value and moves to the next patch for entry.
- Hovering the mouse over the patch number displays a tooltip, providing information about the patch.
  Note: Hovering the mouse over an Lab measured patch displays a tooltip with patch information, including the Lab value.

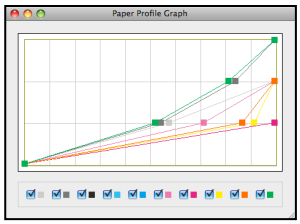
Sift and Sort Options
When enabled, the Sift and Sort options for each active ink channel allow users to set the patch order and sift for the optimal combination of dots for the printer to use for that channel.

- Sift – Uses one of several intelligent algorithms to select a suitable dot combination based on the density readings taken and the output device selected. When used, the popup DotSieve Algorithm Selector presents the available device/ink Sift options. The Sift selected patches can be switched off or changed if alternate patches are more appropriate.
- Maximum Ink – This field sets an ink coverage limit for the ink channel by introducing white space into areas of coverage higher than the set limit. The default setting is 100%, i.e., no limiting. Maximum Ink is a "low level" setting applied during screening.
- Sort Order:
  - Patch Number – Sort the patches in patch numbered order.
  - Colour Density – This is the density of the colour, sometimes called Real Density. It is the colour content of the patch.
  - Visual Density – This describes how dark the colour is, i.e., how much light the colour is absorbing, measured as Black. This sort option is not available for Black, where colour and visual density are the same.

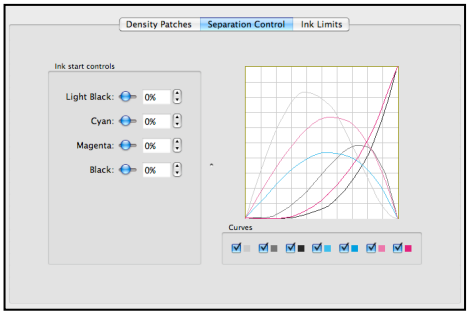
Note: Turning off an Ink Channel
When Treat Light Inks as Separate Channels or N-Colour options are enabled, the user has the option to turn off one or more of the printer ink channels.
Some inks – often Cyan and Magenta – produce patches with a high colour density while not being very dense visually. During the process of calibrating a printer, if you find that even the small dot (patch 2) of an ink has a colour density too high to enable that colour to pass a particular calibration standard, you can turn off that ink channel by de-selecting all the Density patches for that ink. This should only be done where multiple inks of a particular colour are available. For example, if patch 2 of the Cyan is still colour dense, you can switch Cyan off and use only Light Cyan.
Switching off an ink channel will have effects through the calibration process, in particular, when configuring Ink Limits. When configuring the ink limit chart, the number of available inks will need to be reduced and the disabled ink channel should not be used in any of the combinations on the Ink Limit Chart.



Paper Profile Graph
The graph shows the dots selected for each colour. The position on the graph gives a proportional representation showing where the dot starts to turn on or off, and their relative proximity to other dots. You can turn the individual colour graph plots on or off by checking the tick boxes under the graph. Hovering the mouse over a point on the graph displays a tool tip, giving you information about the dot.



If a colour is not shown on the graph but the check box is ticked, the dots selected are most likely a poor choice and may not be valid; or that the ink channel has been turned off by not choosing any of its dots (Separate Ink Channels only).



Separation Control
Separation Control gives you the ability to adjust where a light ink mixes with its respective heavy ink. For example, control where Cyan starts and adjust where light Cyan finishes.

Separation Control is available when the Paper Profile is linked to a Media for a printer that has light inks enabled and the option Treat Light Inks as Separate Channels is activated. This is set in the custom settings of the Media.

The sliders on the left show the inks where control is allowed, i.e., those with light inks as well as heavy inks.

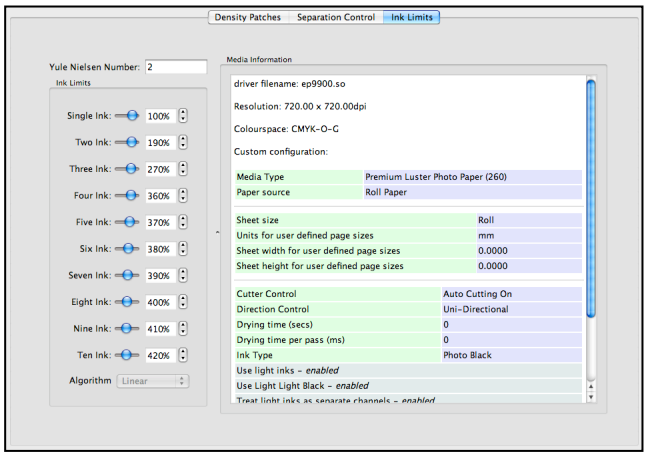
The graph on the right changes as you adjust the sliders, so you can see the effect of different values. To view individual inks on the graph, click the ink colour check boxes at the bottom of the screen.

Ink Limits

The Ink Limits tab has controls for limiting the ink mix of the channels applied in the Paper Profile. The number of ink channels varies depending on whether the printer has light inks and whether they are being treated as separate or combined channels. The window to the right displays a summary of the driver configuration from the selected Media.

Options

- Yule Nielsen Number – Set the YN number for the paper you are profiling (if you know it). The default is 2.
- Ink Limits – Set the ink limits for the Paper Profile. These are determined after printing a chart and observing the percentage of coverage at which the mixture of inks causes problems. Enter the value for each ink combination.
- Algorithm – Choose the type of ink limiting. There are three (3) options:
    - Standard – Simple ink limiting based on ink percentages.
    - Enhanced – Like Standard, but optimised for variable dot printers. It uses intelligence to calculate the ink limits based on dots used.
    - Linear 3.0 – This setting adds the ink coverage for any area then proportionally limits, according to the ink limit range it falls within. For example, with 3-ink set to 300% and 4-ink set to 400%, if a 6-ink area of an image has a coverage of 320%, it will limit the area according to the 3-4 ink range.



    - Linear 4.0 – This method limits ink based on the number of inks being used for an area. For example, if 5-ink is set to 390%, any time 5 inks are laid down their coverage will be limited to 390%.
    - Linear, favour Black – As more ink is laid down and a colour area approaches Black, this method limits CMY proportionally more than Black, preventing wetness and inversion in shadowed areas.
    - Lowpass – No limiting is imposed until the coverage for combined number of inks reaches the set limit, at which point any higher ink coverage is clipped to the ink limit.
    - Lowpass, favour Black – The same as Lowpass, but favouring Black, limiting it proportionally less than CMY as colours approach Black.
- Media Information – This side of the screen displays information about the driver and Media configuration important to the Paper Profile.

Further details on how to create Paper Profiles are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

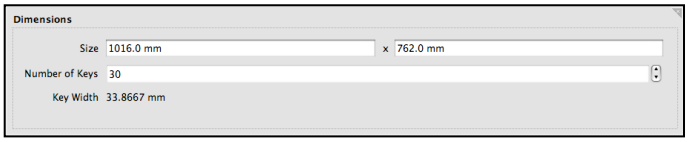
Press

The Press data type is used to emulate the properties of a press for softproofing. Each Press configuration can be assigned a press ICC profile, dotgain curves, press sheet dimensions, the number of ink keys, ink and paper characteristics; all combining to produce accurate onscreen softproofs.

The Press can be switched on-the-fly while softproofing to instantly show how a job will look if printed on a different press or on different stock.

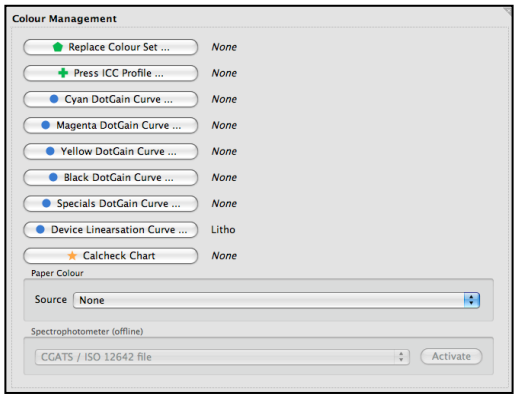
Dimensions

This panel allows you to enter the size of the printable sheet area of the press and its number of Ink Keys. The Key Width is calculated from these values.



Colour Management

This panel is where the Press ICC profile is assigned, along with any process CMYK, spot colour or device (platesetter) dotgain curves required to reproduce the colour performance of the press.



- Replace Colour Set – Select a Replace Colour Set to be applied.
- Press ICC Profile – Select a press ICC. This can be one created on your press or a printing standard ICC which is used as the target or match profile.
- CMYK DotGain Curves – Select individual C, M, Y, or K DotGain Curves to be applied.
- Specials DotGain Curve – Select a DotGain Curve to be applied to any special or spot colours.
- Device Linearisation Curve – Select a device (platesetter) DotGain Curve to be applied.
- Calcheck Chart – Select a chart to verify the SoftProof's calibration status.
- Paper Colour – Three (3) options are available:
    - None – Do not change the paper colour;
    - ICC Profile – Use the white point from the press ICC profile and apply as the paper colour; or
    - Custom – Allows you to enter your own value for the paper colour. You can also use the Spectrophotometer to measure the paper white directly into the configuration.

Ink and Paper

Configure the ink and paper properties of the press to simulate their effects in the SoftProof application. This helps to produce more accurate proofs, allowing you to build up a library of paper and press combinations.

- Maximum Ink Weight – Enter a value for the maximum ink weight. This value is used by the InkKeyViewer to show excess ink.
- Stretch Factor – Allows you to enter a compensation factor to allow for stretch. It can be used for distortion simulation or anamorphic scaling, where one direction will distort more than the other.

Note: The easiest way to calculate stretch is to draw a rectangle 1m x 1m and print it. Measure the rectangle and enter the value. If the size is 98cm, enter 0.98. If the size is 102cm, enter 1.02.

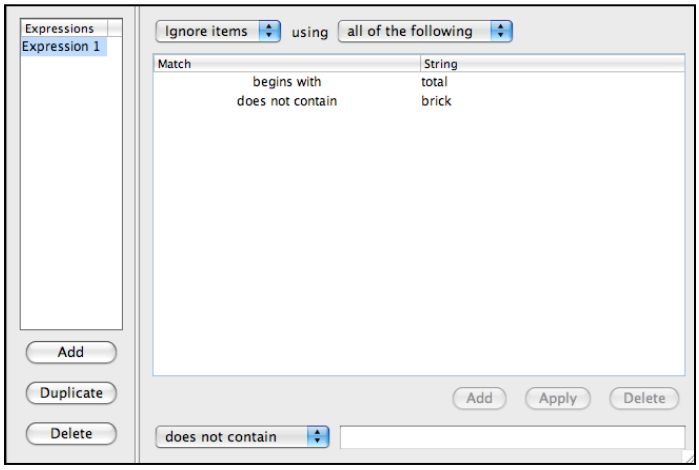
- Back Page Opacity – Enter a value between 0 and 100%. This controls the amount of show through of the back page through the front page when reverse page viewing in SoftProof.
- Back Page DotGain Curve – Select a DotGain Curve to apply to the back page when using the Show Back Page option in SoftProof.
- Top Page – Choose Even or Odd. This is used to determine which page backs onto which, so the correct back page is shown when requested.

Regular Expression

The Regular Expression data type is assigned as a filter to an auto-proofing RIP queue. Here, the user constructs a set of rules whereby only files with a particular naming structure will be submitted for auto-proofing.

Expressions

Similar to the Job Genie, the Expressions (search tasks) are entered and displayed in the left list. Each expression is made up of one or more strings used to match or ignore files.



The Expressions are handled in the order they appear in the list. If the first expression matches a job name and that expression rule is to ignore items, the job is not passed to the next expression for further consideration. Expressions can be reordered by selecting the item and dragging up or down the list as required.

List Options

- Add – Adds a new expression to the list.
- Duplicate – Makes a copy of the currently selected expression.
- Delete – Removes the currently selected expression.

Match

This is where you specify what you want to match and the rules to apply. You can enter one or more strings to match and apply different rules to each.

Match options:

- Match Items – Matches the strings entered. If no other expressions exist, the job is submitted for auto-proofing.
- Ignore Items – Ignores anything that matches the strings entered. If a job name matches, it is ignored and not submitted for proofing or passed to other expressions for further matching.
- Any of the Following – The match is true if any string match conditions are met. If you have two or more match strings in the one expression and either of them match a job name, the Match Items or Ignore Items rule is applied.
- All of the Following – The match is only true if all string match conditions are met.

String

Enter the string to match in the text field at the bottom of the screen. This is a job name or part of a job name. The match depends on one of the following conditions, selected with the string:

- Contains – The job name contains the entered string.
- Begins With – The job name begins with the entered string.
- Ends With – The job name ends with the entered string.
- Is – The job name matches the entered string exactly.
- Does Not Contain – The job name does not contain the entered string.
- Does Not Begin With – The job name does not begin with the entered string.
- Does Not End With – The job name does not end with the entered string.
- Is Not – The job name is not the entered string exactly.

Match String Options

- Add – Adds the match string to the list.
- Apply – Apply changes to the selected match string in the list.
- Delete – Removes the currently selected match string from the list.

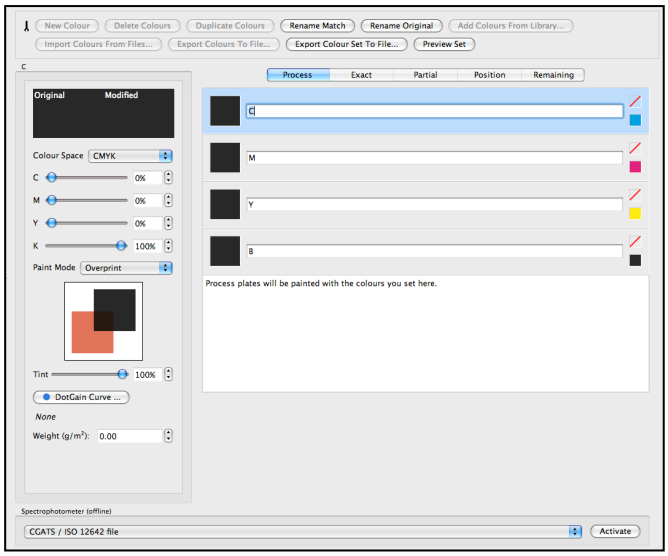
Further details on how to use Regular Expression are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

Replace Colour Set

The Replace Colour Set is used to match and replace certain colours as they pass through the system. You can match and replace process or spot colours and choose to match by name or position. Colours can be created directly or imported from popular desktop applications, or a Special Colour Set.

There are a few uses for the Replace Colour Set. It is used to create a digital blue line, which replaces all colours with varying hues of blue allowing traps to be easily seen. It can also be used for replacing special colours where the name varies, such as Pantone 101C and Pantone 101CVC.

Toolbar Options



- New Colour – Creates a new untitled colour in the list. Click on either the Match Plate or Original name to change it.
- Delete Colours – Deletes the selected colour/s.
- Duplicate Colours – Makes a copy of the selected colour/s.
- Rename Match – Rename one or more Match Plates using a popup Find and Replace tool.
- Rename Original – Rename one or more Original replacement colour names using a popup Find and Replace tool.
- Add Colours From Library – Select one or more colours from a Special Colour Set within Blackmagic to be added to the Replace Colour Set.

  Alternatively, this window may be opened by double-clicking on an empty area of the list panel; or double-click on a selected colour in the list to open the Add Colours window and replace it with the chosen colour.

- Import Colours From Files – Import colours from compatible third-party applications or from previously exported colour sets.
- Export Colours To File – Export the colours to a file. If the chosen colours contain a mix of CMYK and Lab colours, you will be asked whether to export CMYK or Lab, as they cannot be saved in the same file.
- Export Colour Set To File – Export the entire Replace Colour Set to a file. If the set contains a mix of CMYK and Lab colours, you will be asked whether to export CMYK or Lab.
- Preview Set – Opens a popup window listing all the Replace Colours in the set with colour properties and replacement method.

All the Toolbar options can be accessed via the contextual (right-click) menu available in the colour list panel.

Replacement Method Tabs

There are five (5) tabbed panels where colours are created or imported when making a Replace Set. Each tab performs a specific replacement function.

Tab 1 – Process

This tab allows you to specify any of the Process CMYK colours you want to be replaced. Each of the process colours listed in the panel has:

- A swatchbox showing the replacement for the process colour (left). Double-click this box to import a replacement colour;
- An editable naming field for the process colour; and
- A Reset button for the colour of the process plate (lower right) and a Cancel button to switch off replacement for that process colour (upper right).

Process colour replacement is set to Off for all 4 colours by default.

Tab 2 – Exact

When using the Exact replacement method, only incoming colours *precisely* matching the Match Plate name will be replaced with the new colour. Matching is not case sensitive.

Tab 3 – Partial
When using the Partial replacement method, any incoming colours are replaced with the new colour if *any part* of the name matches the Match Plate name. Matching is not case sensitive.

Tab 4 – Position
The Position method replaces any incoming Special colour in a particular plate position with the new colour.

The Exact, Partial and Position panels have a Search box at the top right used for locating colours in the replacement list. The list itself has a series of sort columns detailing properties of each replacement colour.

Colours can be selected and dragged to another position within the list. This is useful in Position replacement where the plate position is important.

The order of the columns can be changed by dragging them to the desired location and the headers are configurable via a context menu. The available columns are:

- Match Plate – Shows the replacement colour swatch. The Exact or Partial name in this field is the one to be matched to the incoming colour being replaced. In the case of Position replacement, the name shows the plate position. Click on the name to change it.
- Values – Shows the colourspace values of the replacement colour.
- Original Name – The original name of the replacement colour in the Match Plate swatch. Click on the name to change it.
- Space – The colourspace of the replacement colour plate.
- Mode – The Paint Mode of the colour: Overprint, Knockout, Primer, Opaque or Transparent.
- Tint – The tint or intensity of the colour.
- DotGain Curve – The name of the DotGain Curve applied to the plate (if any).
- Weight (g/m^2) – The Press Ink Weight of the colour in g/m^2 (if assigned).

Tab 5 – Remaining
The Remaining method allows you to allocate one colour to replace Special Plates that are not matched by anything else. This only replaces special colours and not CMYK process colours. This panel has a similar interface to the Process panel.

Colour Adjustment Panel
This panel allows you to view and adjust the colourspace values and plate properties of a selected colour.

The name of the colour selected is shown at the top. A window displays the Original colour and Modified colour as adjustments are being made. A correctly calibrated monitor with an assigned Match ICC profile will display an accurate representation of the colour/s.

Available adjustment options are:

- Colourspace – Choose between Lab or CMYK. The sliders change accordingly, allowing you to make any adjustments to the Lab or CMYK values. These can also be entered directly, or fine-tuned using the up/down arrows.
- Paint Mode – Choose the Paint Mode for the colour. The diagram shows the Paint Mode, Opacity and Tint of the selected colour. Choices are:
    - Overprint
    - Knockout
    - Primer
    - Opaque (adds an opacity % slider)
    - Transparent
- Tint – Adjust the intensity of the colour by adjusting the slider, entering a tint value or using the up/down arrows.
- DotGain Curve – Choose a DotGain Curve to apply to the colour.

Note: A DotGain Curve applied to a replacement colour takes precedence over global Process or Specials DotGain Curves assigned to a Pagesetup. The Pagesetup curves are ignored for the colour.

- Weight – Optionally assign an Ink Weight (in g/m^2) to the selected colour. This weight is used in the InkKeyViewer (SoftProof) and in Calculate Ink Weights (QueueManager).
- Spectrophotometer – Choose a supported Spectrophotometer to read colour values directly into the Special Colour Set.

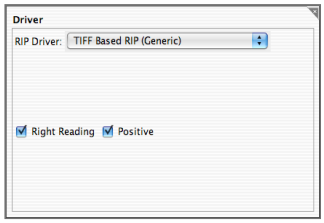
Further details on how to create Replace Colour Sets are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

RIP

Different RIPs store their files in different formats and in different locations. The RIP data type allows you to configure how and where Blackmagic polls for these RIPped jobs.

Driver

This panel is where the driver used to poll and interpret the incoming file format is selected. The driver must match the type of RIPped file to be polled. Options available in other sections of the RIP configuration may change depending on the RIP input filter selected.

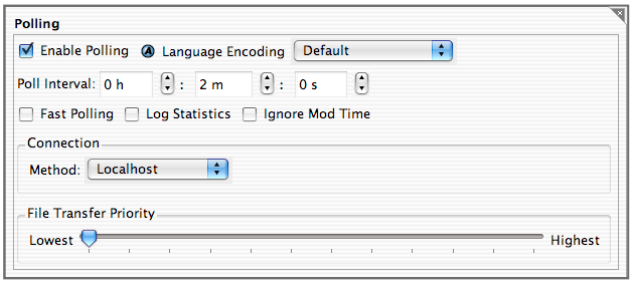


- RIP Driver – Choose the RIP driver (input filter) from the list of supported RIPs. The list of available drivers will depend upon the bits enabled on the dongle.

Custom Settings – Depending on the driver selected, there may be specific parameters requiring setup for a valid configuration. Use the Edit button to set up these parameters.

Polling

Polling is the method used to look for files. The configuration for polling the RIPped files is set up in this section. When you poll, Blackmagic looks in the specified location (defined under Paths) for files matching the RIP driver selected. A list is compiled and sent back to Blackmagic for display in the RIPMonitor. It takes three (3) successful polls before a file is shown in the RIPMonitor and the files must be stable (not changed since the last poll). The available options are:



- Enable Polling – Turn polling on or off.
- Poll Interval – Configure how frequently to poll for files. The Poll Interval should be set according to your specific requirements. Setting the Poll Interval too short can flood the network with polling requests (packets) causing it to slow down. Setting it too long can take a long time to show stable files ready for submission.
- Fast Polling – This will automatically poll two (2) more times as soon as one (1) automatic poll has completed. It will not wait for the next scheduled Poll Interval before it polls again. Files may appear incomplete in the RIPMonitor if there has not been sufficient time between polls for a job's complete set of plates to finish the RIP process.
- Log Statistics – Log the polling statistics in the Server log. The log message reports "Started automatic poll on <date>" when polling starts and "Completed automatic poll on <date>" when finished.
- Ignore Mod Time – Ignore the modification time on the file. Useful for Harlequin RIPs that update the modification time on the file when moving the job between the Held and Active queues.
- Job Genie – Assign a selected Job Genie to the RIP. This options becomes available when using a TIFF Based RIP (User Configurable), PDF or Postscript input filter. If used, only files defined as valid by the Job Genie will appear for submission in the RIPMonitor (see the *Job Genie* section for further details).

Connection
The connection specifies the method used for polling. The options are:

- Agent – The Serendipity Agent is installed on the RIP where the files are located. This is used for polling and submission of the RIPped files into Blackmagic.
- Localhost – Polls a directory path on the computer where the Blackmagic Server is installed.
- FTP – Uses File Transfer Protocol (FTP) to poll and transfer the files from the RIP to Blackmagic.
- Secure FTP (SFTP) – Uses Secure File Transfer Protocol to poll and transfer the files from the RIP to Blackmagic.

File Transfer Priority
This specifies the priority to be used for transferring files from the RIP to Blackmagic. You can adjust from Lowest to Highest or anywhere in between.

Sometimes a high priority can affect the RIP performance, especially on older RIPs. This can cause problems, such as RIPs pausing. If this happens, reduce the priority level.

Paths
This section allows you to specify the paths to the RIPped files residing on your RIP. This may be a single path or multiple paths and can be made up of striped paths. The path structure is dependent upon the RIP driver selected. The options available are detailed below.

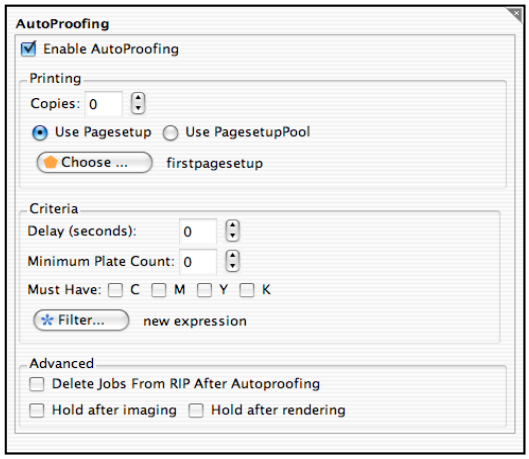
- New – Adds a new path or stripe path to the Paths field. Selecting this displays another window to type the path or browse to locate the folder containing the jobs. Browse will only work if the connection method has been specified and is valid.
- Delete – Deletes the selected paths.
- Delete All – Deletes all paths from the list.

Most RIP drivers use recursive polling, i.e., they will poll down the directory structure into sub directories from the top-level directory specified in the path. The more sub directories to be searched, the longer it takes. Specify the path as close as possible to your files for quicker results.

Stripe Paths
Some RIPs place jobs on different drives, but in the same location. They can add more drives to a RIP, giving it a new mount point, for e.g., E:/RIPJobs, F:/RIPJobs and G:/RIPJobs. These all have a common path of RIPJobs, but are "striped" across 3 drives, therefore you would specify the drives (E:, F: and G:) in the Stripe Paths and the path (/RIPJobs) in Paths.

Note: This is important for RIPs sharing plates from single jobs across multiple drives, for e.g., Cyan & Magenta on E drive and Yellow & Black of the same job on F drive. If this is not setup as a stripe, the plates will not be stitched together.

AutoProofing
Jobs can be submitted manually from the RIPMonitor as desired. Alternatively, you can configure the RIP to have jobs submitted automatically via the AutoProof facility. This way any new job that appears, if stable and meets the specified criteria, will be submitted for processing. The options available are listed below.



- Enable AutoProofing – Turns AutoProofing on or off.
- Printing – Specifies how the jobs are to be printed. Options are:
    - Copies – Specify the number of copies to be printed. Default is 0.
    - Use Pagesetup – Print to the selected Pagesetup.
    - Use Pagesetup Pool – Print to the selected Pagesetup Pool.
    - Choose – Select an existing Pagesetup or Pagesetup Pool. The chooser allows you to create a new one if necessary.

Criteria
You can select certain conditions that must exist before a job is automatically submitted. The options are:

- Delay (seconds) – The length of time to wait to see if a job changes prior to submitting. A job may change as other plates are RIPped and added to the job. A suitable amount of time needs to be specified in order to ensure a complete job is submitted.
- Minimum Plate Count – Specify a certain number of plates that must exist before a job is submitted for AutoProofing.
- Must Have – Select which process plates must exist in the job before AutoProofing.
- Filter – Select a filter to use for AutoProofing. See the *Regular Expression* section for further information on Filters.
- Delete Jobs From RIP After AutoProofing – Delete jobs after a successful AutoProof. This is only available when jobs are locally hosted (Localhost polling). This may be used when a temporary file is created, for example, when adding halftone dots to unscreened data.
- Hold After Imaging – Places the job on hold in the Rendering queue after imaging has successfully completed.
- Hold After Rendering – Places the job in a held state in the Output queue after rendering has successfully completed.

Job Filtering
This is only available when the RIP driver is set to poll imposition RIPs. You can specify if AutoProofing should be carried out on All Jobs or just Imposed Jobs.

Testing
Once the configuration is complete, you can test the parameters are correct. The configuration must be saved before a test can be done. If it is not saved, you will be prompted to save and test.

A test poll checks RIP connection, Path validity and job presence. Messages appear in the window to alert you to any problems or give you confirmation of a valid configuration.

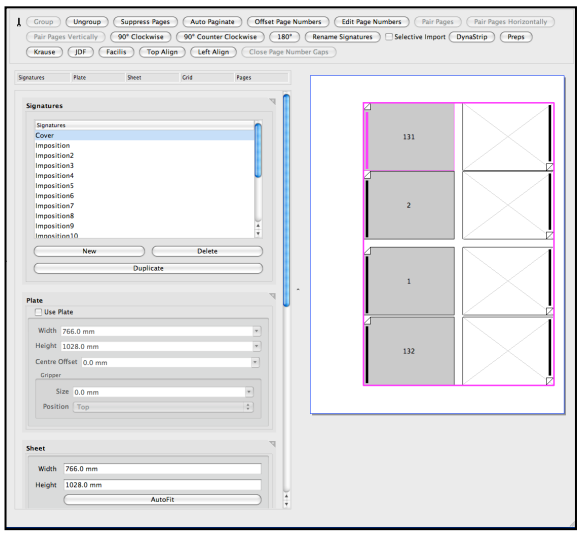
Signature Group

The Signature Group gives you the ability to import or create groups of Signatures, defining the page, sheet and size parameters of press impositions.

The imposed files can then be submitted for de-imposition from the RIPMonitor and separated during processing into smaller groups or individual pages to fit the printer, or to view a publication in its intended form.

The interface has a toolbar with various options and a series of five (5) panels used to configure the Signatures. A display panel shows the layout of the selected signature(s) to the right.

Toolbar Options



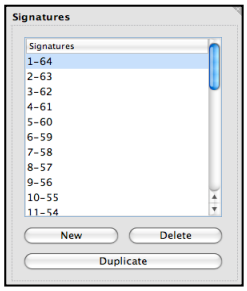
- Group – Groups two or more pages together. Pages must be the same size and alignment. The Group button is only available when valid pages are selected.
- Ungroup – Ungroup a group of pages. Only available when a group is selected.
- Suppress Pages – Suppress the selected page or pages (marks it as not for print).
- Auto Paginate – Automatically allocates page numbers to the signature. This will include any page currently suppressed.
- Offset Page Numbers – Offsets the selected page numbers by the desired amount. A popup window allows you to enter the offset value to be added to or subtracted from the page numbers.
- Edit Page Numbers – Edits the page number of those selected. Tab moves to the next selected page. The page numbers can also be edited by clicking on the page.
- Pair Pages – Automatically pairs the pages along the long sides. The pages must match, the headers must be in the same position and they must be joined (no gaps). If there

is a gap, the manual pair option must be used. After pairing you may need to use the Close Page Number Gaps option. See below for further information.

- Pair Pages Horizontally – Pairs pages in the horizontal direction.
- Pair Pages Vertically – Pairs pages in the vertical direction.
- Rotate Selected Signatures – Rotates the selected signatures by the amount chosen. The options are:
  - 90 Degrees Clockwise
  - 90 Degrees Counter Clockwise
  - 180 Degrees
- Rename Signatures – Allows you to rename signatures. Selecting this displays a rename box, allowing you to search for and replace names. Options are:
  - Find – Enter the characters to find in the list.
  - Replace With – Enter the text to insert in place of the characters found. You can use any valid characters, including spaces. If nothing is entered, the characters found are deleted if one of the rename options is selected.
  - Ignore Case – Choose whether your match is case sensitive.
  - Wrap Around – Continue from the top of the list when the bottom is reached.
  - Rename All – Rename all items that are found.
  - Rename Selected – Rename the selected signatures if the characters are found.
  - Rename Current – Rename the currently selected signature if the characters are found. If more than one signature is selected, the first one in the list is checked for a match and renamed if true.
  - Find Previous – Searches backwards.
  - Find Next – Searches forwards.
  - Prefix With/Append – Two options allowing you to add characters before or after the names.
- Import Signatures – Import a signature made by another application. The available types are:
  - DynaStrip – Files are usually named with a sheet number and a .dsf extension.
  - Preps – Files are Prep Templates.
  - Krause – Files usually end in a number, such as *jobname.001*.
  - JDF – Files usually have a .jdf extension.
  - Facilis – Files are usually named with a .dai extension.
- Selective Import – Enable this to choose or alter any/all Signatures from the source file prior to import. The following options are available:
  - Group Pages – Group the pages together as they are imported. The pages must be the same size and align for grouping. The diagram shows a pink line around individual pages when they are not grouped or around all pages when they are grouped. Pages must group for pairing to work.
  - Inclusive – This option attempts to group pages with parameters/alignments differing by very small amounts.
  - Rotation – Choose to rotate the signatures during import.
  - Offset Page Numbers – Offset the page numbers of those signatures imported by a number. Imported JDF files generally need to have the Offset Page Numbers set to 1, otherwise the first page will begin at 0. This can be changed after import if necessary.
- Top Align / Left Align – Optional ways of viewing the interface, depending on your display and preferred layout.
- Close Page Number Gaps – Use this to close the page numbers after pairing. When pairing a large publication, the lowest page number of the pair is used as the resultant paired page number. This usually produces gaps in the page numbers. Close Page Number Gaps closes the gaps so pages are sequential.
- Import Language Encoding – Allows you to select the appropriate language encoding for the signatures so the names can be displayed correctly in the native language. This is set from the contextual menu (right click).

Signatures

This panel lists all of the Signatures in the group. The Plate, Sheet, Grid and Page options for the selected Signature are shown in the configuration panels on the screen.

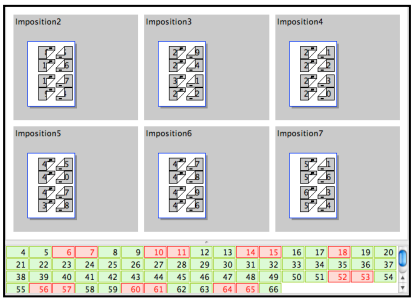


Signature Options:

- New – Creates a new untitled signature.
- Delete – Removes the selected signatures from the list.
- Duplicate – Makes a copy of the selected signatures.

Signatures can be multi-selected or dragged and dropped to another position in the list (for de-imposition purposes). When multiple Signatures are selected, all will be shown in the display panel. The Plate (if in use), Sheet and Pages settings can be edited to make mass changes to all selected Signatures.

Display Panel



Signatures selected from the list are displayed in this panel, with all Plate, Sheet and layout properties as defined in the configuration panels visually represented. If multiple signatures (or pages) are selected, differing parameter values will be shown by bold, underlined field titles in the configuration panels.

The display panel is interactive and is used to:

- Select one or more individual "pages" within a signature for editing in the Pages panel;
- Select pages for grouping or ungrouping, pairing, or page offset;
- Show where pages of multi-selected signatures fit within a publication in a bottom Page Navigator panel. Pages belonging to the signatures are shown in green; pages from non-selected signatures are shown in red; doubled-up pages are shown in purple. Selecting all signatures makes it simple to check the integrity of the Signature Group.
- Select a page from the Page Navigator to highlight which signature it belongs to.

When viewing multiple signatures, the thumbnail sizes can be increased or decreased with the cmd+/- keys (Mac) or ctrl+/- (Win).

Plate

Turn the Plate options on or off by selecting the Use Plate tick box.

The Plate settings are:

- Width
- Height
- Centre Offset – The value to offset the centre by. This is dependent upon the gripper position.
- Gripper Size
- Gripper Position

The plate width and height will alter the press Sheet size if the plate size is larger. If the plate size is smaller, the press Sheet size is not affected.

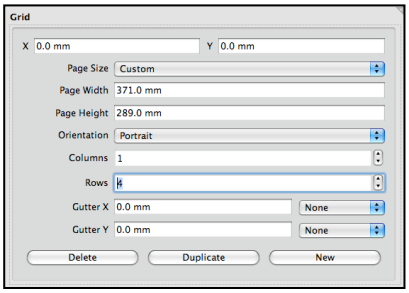
Sheet

Enter the dimensions of the press sheet in this panel. The options are:

- Width
- Height
- AutoFit – Changes the press sheet size so the pages fit.

Grid

This panel is where the grid of pages that make up the imposition signature is defined or edited. The options are:



- X and Y Position – This sets the top left position of the selected group or page in respect to the top left of the press sheet.
- Page Size – Select the size of the single page selected from one of the pre-set page sizes or choose Custom.
- Page Width – Enter the width of the single page selected. The pre-set page sizes automatically complete this field.
- Page Height – Enter the height of the single page selected. The pre-set page sizes automatically complete this field.
- Orientation – Select the orientation of the selected page between Portrait or Landscape.
- Columns – Enter the number of columns for the signature.
- Rows – Enter the number of rows for the signature.
- Gutter X and Y – Enter the size of the gutter for the signature. If you select a gap first, the value is applied to the selected gutter only. If you wish to apply a value to All, Even or Odd, you need to select it from the pulldown menu first and then enter the value. Press Enter to apply the value.
- Delete – Deletes the selected pages or groups.
- Duplicate – Duplicates the selected page or group. This is positioned at top left (X=0, Y=0).

- New/Place – Creates a new page or group. Selecting this changes the button to Place. Enter the page attributes as desired and click Place to position the page or group. If you change your mind, press Esc to cancel.

Pages

- Number – Enter the page number of the selected pages.
- Top Bleed – Enter the amount of top bleed to apply to the selected pages.
- Bottom Bleed – Enter the amount of bottom bleed to apply to the selected pages.
- Left Bleed – Enter the amount of left bleed to apply to the selected pages.
- Right Bleed – Enter the amount of right bleed to apply to the selected pages.
- Page Head – Select the position for the head of the currently selected pages. As you choose, the diagram shows the change. The page head is indicated by a line and folded corner. Choose between:
    - Page Head Up
    - Page Head Down
    - Page Head Left
    - Page Head Right

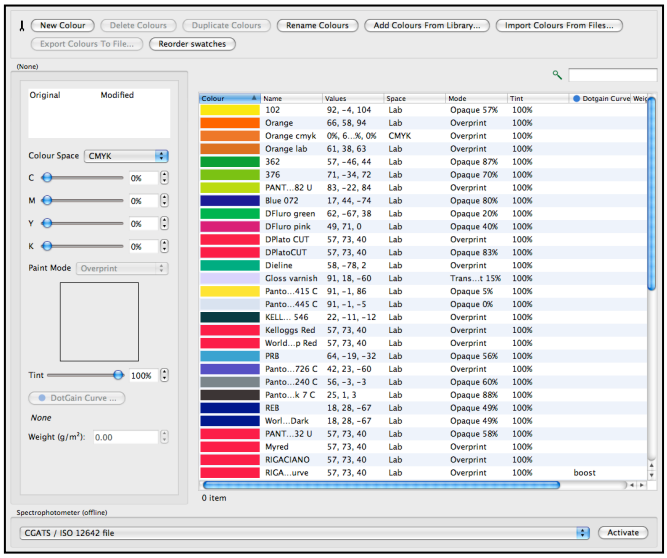
Further details on how to create and import Signatures are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

Special Colour Set

Blackmagic uses special colour sets to identify and match colour plates when jobs are polled and processed. Special colours can be created manually, or imported from one of several popular applications. A library of sets can be built up for use in different proofing situations.

Colours can be created in CMYK or Lab colourspace, read directly into the system using an online Spectrophotometer, or imported from a CGATS file. Each colour can have its ink Paint Mode or Press Ink Weight set and have an individual DotGain Curve assigned to it.

The interface includes a Toolbar with general creation and import options; a panel showing the list of colours in the Special Set; and another to adjust the properties of a selected colour.



Toolbar Options

- New Colour – Creates a new untitled colour in the list. Click on the name to change it.
- Delete Colours – Deletes the selected colours.
- Duplicate Colours – Makes a copy of the selected colours.
- Rename Colours – Rename one or more colours using a popup Find and Replace tool.
- Add Colours From Library – Select one or more colours from any other Special Colour Set created within Blackmagic.
- Import Colours From Files – Import colours from compatible third-party applications or from previously exported colour sets.
- Export Colours To File – Export the colours to a file. If the set contains a mix of CMYK and Lab colours, you will be prompted to choose either CMYK or Lab colours to export, as they cannot be saved in the same file.
- Reorder swatches – Allows you to change the order of the colour swatches as they appear in the list.
  Note: Swatch order can be important as a Pantone plate being matched from a number will be assigned the first colour when matching the number in the set list.

All Toolbar options can be accessed via the contextual (right-click) menu available in the colour list panel, as well as:

- Print – Prints the colour list of the Special Colour Set, with colour swatches and details for each colour (see below).

Colour List Panel

This panel has a Search box at the top right for locating colours in the set list. The list has a series of sort columns, detailing properties of each special colour.

The order of the columns can be changed by dragging them to the desired location and the headers are configurable via a context (right click) menu. The available columns are:

- Colour – Gives a visual representation of the colour.
- Name – The colour plate name (used to match the colours). Click on the colour name to change it.
- Space – The colourspace of the plate.
- Values – Shows the colourspace values of the colour.
- Mode – The Paint Mode of the colour (Overprint, Knockout, Primer, Opaque or Transparent).
- Tint – The tint or intensity of the colour.
- DotGain Curve – The name of the DotGain Curve applied to the plate (if any).
- Weight (g/m^2) – The press Ink Weight of the colour in g/m^2 (if assigned).

Double-clicking on an empty area of the list panel will open an Add Colours To Library window, allowing you to add colours to the set.

Double-clicking on a selected colour in the list will open an Add Colours From Library window, allowing you to replace it with a chosen colour.

Colour Adjustment
This panel allows you to view and adjust the colourspace values and plate properties of a selected colour.

The name of the colour selected is shown at the top. A window displays the Original colour and the Modified colour as adjustments are made. A correctly calibrated monitor with an assigned Match ICC profile will display an accurate representation of the colours.

Available adjustment options are:

- ColourSpace – Choose between Lab or CMYK. The sliders change accordingly, allowing you to make any adjustments to the Lab or CMYK values. The values can also be entered directly or fine-tuned using the up/down arrows.
- Paint Mode – Choose the Paint mode for the colour. The choices are:
    - Overprint
    - Knockout
    - Primer
    - Opaque (Adds an Opacity % slider)
    - Transparent
- Tint – Adjust the intensity of the colour by adjusting the slider, entering a tint value, or using the up/down arrows.
- DotGain Curve – Choose a DotGain Curve to apply to the colour.
  Note: A DotGain Curve applied to a special colour has precedence over global Process or Special DotGain Curves assigned to a Pagesetup. The Pagesetup curves are ignored for the colour.
- Weight – Optionally assign an Ink Weight (in g/m^2) to the selected colour. This weight is used in the InkKeyViewer (SoftProof) and in Calculate Ink Weights (QueueManager).
- Spectrophotometer – Choose a supported Spectrophotometer to read colour values directly into the Special Colour Set.

Screen Printing

The Screen Printing functionality within the Media data type is designed for printing film separations on an Inkjet printer.

Files submitted for processing are separated into individual plates. Each plate is printed as a black separation with a halftone dot applied at the colour's respective screen angle.

Printing to film generally requires the output density to be higher than that for normal proofing. Higher densities are achieved by increasing the print resolution, or by assigning one or more inks to be laid over the black dots.

Configuration

The configuration is very similar to a standard setup to print to a device. The Output configuration is the same and the appropriate Media and Pagesetup's are created to control the page parameters. A very basic Paper Profile and Linearisation are also created to complete the setup.

Output Configuration

The Output for the printer is set up normally.

An Output Driver is assigned; Destination Driver selected; and Collating options are enabled (if required). Once the Output is created, the Media configured for screenprinting (see below) should be assigned so only screen print separations will print to the film.

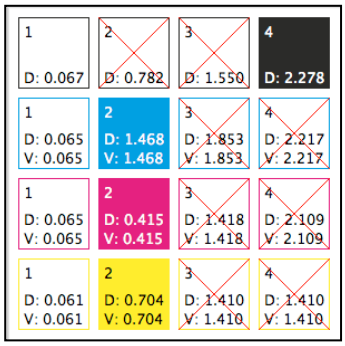
Media Configuration

- Output Driver – Select the driver as set up in the Output created for the screen printing configuration.
- Resolution – Choose an appropriate resolution.
  A higher density can be achieved with a higher resolution, however, it is slower to process and print. A lower density may produce sufficient density, depending on the printer and media used.
- Colourspace – Select CMYK
  If using the Black Ink Combination only, choose Gray as the Colourspace, as this may result in slightly faster processing. However, in this mode inks cannot be mixed to produce a denser output. Selecting CMYK and configuring a Paper Profile will allow the choice to use Black only of a mix of colours at a later stage, without having to recreate a Paper Profile.
- Custom Settings – Select the appropriate media, choose Uni-directional or Bi-directional and turn the Use Light Inks option off.
  Bi-directional is faster but may produce slight banding or may not be as dense as printing Uni-directionally. Using Light Inks will affect the patches in the Paper Profile. In Screen Printing mode, only one patch can be on per colour.
- Screen Printing – Enable Screen Print Mode and select Black for the Ink Combination (and any others required).
  Once this option is selected, jobs submitted to this Media will always be separated and printed using the selected colours. One or more inks must be selected from the available choices. If Gray is selected as the Colourspace, only Black will be shown as a choice.
- Output Screening – Select Halftone and tick the SuperCell option. Choose the preferred dot shape and enter the screen angles and rulings.
  SuperCell gives a better-shaped dot and the round dot tends to be more commonly used. The default angles of 15, 45, 75 and 90 are shown by clicking the Defaults button, however, these can sometimes produce undesirable effects, mostly caused by the Yellow plate. To counteract this, offset all angles by 7.5 degrees to make them the following:
  - Cyan – 22.5 degrees
  - Magenta – 82.5 degrees
  - Yellow – 97.5 degrees
  - Black – 52.5 degrees
  - Special – 52.5 degrees

Paper Profile Configuration
In Screen Printing mode only one patch can be turned on per colour. Therefore, the value for the patch does not matter – which one chosen does.

For a variable dot printer, when the Use Light Inks option is turned off, there will be four (4) patches for each colour. The first patch represents the media and the other three the dot sizes (small, medium and large). A dot size for each colour must be chosen. If the Colourspace is Gray, Black will be the only available ink.

The image here shows an example using the patch 4 of Black and patch 2 of each Cyan, Magenta and Yellow. There is no need to measure the value for the patches, the default values are sufficient. Comparative densities are not relevant when only using one dot (patch).



In testing it was found that a combination of large Black (patch 4) and small Magenta (patch 2) produced good results. If too much is used, for example – large Black, large Cyan and large Magenta – the result is wet output and the dots tend to "fill in" the shadow area. Large dots of a colour like Cyan will produce film looking blue instead of black. Black should always be the dominant colour.

Ink Limiting
There is no need to enter any Ink Limiting as the plates are separated, so there is no mixing of 2, 3 and 4 inks. This is different to ink combinations in the Screen Printing mode.

Linearisation
As Screen Printing mode prints only Black separations, the creation of a simple Linearisation (Gradation) Curve to be applied to the Media is all that is required.

Follow the steps below to make a simple Linearisation Curve:

1. Open the Lineariser application.
2. Select the Media used for screen printing and print a chart for your Densitometer to read. Only the Black channel patches will be printed and measured.
3. Measure the values using your connected instrument and save the chart.
4. The curve will be automatically allocated to the selected Media. You can check this by viewing the Media in the Workbench to make sure the curve is attached to the configuration.

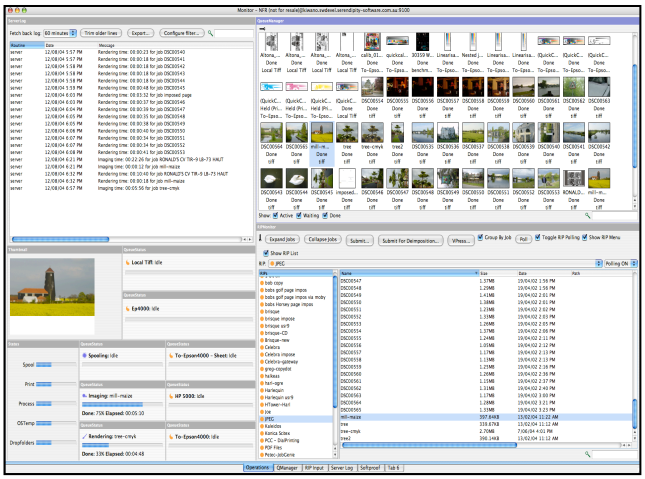
Summary
The above is a guide to configure a setup to print film separations for use in the Screen Printing industry.

Run some test jobs to choose the most suitable patches, ink combination and resolution for the device and media being used. If a different resolution or colourspace is selected or the light inks are used, a new Paper Profile will need to be created. Trying different dot sizes will mean adjustment of the Paper Profile – changing which patch is turned on in each channel.

During the testing period many combinations of ink (colours), dot sizes and resolution were tried. Different output devices and media will produce varying results, so a combination of patches and ink mixing may work better. The higher resolution (1440dpi) produced the most dense output at around 4.18D, but takes longer to RIP and print. By running at a lower resolution (720dpi), the jobs processed quicker but the density drops to just under 3 at around 2.8D. This is often acceptable for many applications, but will vary depending on the media and device used. Testing will prove the most suitable setup.

The most commonly used settings were CMYK colourspace, with an ink combination of Black and Magenta. This used the large Black (dot 4) and the small Magenta (dot 2) in the Paper Profile and gave a slight reddish tinge to the Black, which is desirable in the Screen Printing industry.

Monitor



The Monitor application is central to the Blackmagic Client interface. It displays jobs before, during and after processing and allows users to manage jobs through the system to plot their progress. The Monitor provides feedback from the Server and Client via logs. Modules can be added and configured to suit specific requirements.

The Monitor consists of one or more user-defined tabs. Modules are added, positioned and sized according to individual preferences. Settings are saved at the Client level, enabling Serendipity Clients on different systems or in different departments to display information appropriate to their location.

The Monitor can be in one of two modes – Edit or Use.

Edit

This mode allows the user to move and resize modules on a tab. The mouse pointer changes to a cross when in Edit mode. Resize a module by grabbing the corners or sides and dragging to the preferred size. Click anywhere in the modules and drag it to the desired position. Modules close together will snap-to each other.

While in Edit mode, all Monitor Modules have a contextual menu available (right-click) with the following options:

- Remove (Module) – Removes the module from the Monitor tab.
- Set Size For (Module) – Allow the user to enter a width and height (in pixels) for the selected module via a resize popup.
- Duplicate (Module) – Duplicates the selected module. The duplicate has all the size, layout and configuration options of the original.
- Use Layout – Switches the Monitor to Use Mode.

Use

This is the normal user mode. It locks the module sizes and position and allows you to configure the modules preferences and manage jobs. Select this after Editing to use the configured layout.

Menu Options

Layout

- Edit – Switches the Monitor to Edit Mode (see above explanation).
- Use – Switches the Monitor to Use Mode (see above explanation).
- Dynamic Update – Enables or disables updates to the modules while in Edit mode.
- Show Titlebars – Shows or hides module titlebars.
- Add Modules – See the "Monitor Modules" section for further information on each module.
- Load – Loads a previously saved Monitor configuration.
- Save As – Saves the current Monitor configuration.
- Search UI (User Interface) – Activates a search bar for finding buttons and functions in the current Monitor tab. **Note:** Module Toolbar functions can only be searched if the toolbar is open.

Tabs

- New Tab – Creates a new tab.
- Rename Tab – Renames the currently selected tab.
- Duplicate Tab – Duplicates the currently selected tab and all modules within it.
- Choose Tab Colour – Allows the user to select a colour for the currently selected tab.
- Choose Tab Image – Allows the user to select an image for the currently selected tab background. Valid types are PNG and JPEG. It is recommended a large image not be used, as it will take up memory.
- Clear Tab Colour/Image – Reverts to the default background colour.
- Remove Tab – Deletes the currently selected tab.
- Remove All Tabs – Deletes all tabs.
- Next/Previous Tab – Switches to the next or previous Monitor tab (right or left).

Reordering Tabs

Tabs can be moved to a new position by clicking on and dragging the tab to the desired place in the order. A red pointer appears, showing the drop point between two tabs.

Monitor Modules

Modules are used for managing jobs as they pass through the system and to monitor Server and Client activity. The modules can be added to a tab as part of a Monitor layout, or selected as a Floating module, where the window is stand-alone. Modules are added to a Monitor through the Layout menu; floating modules are available from the Modules menu.

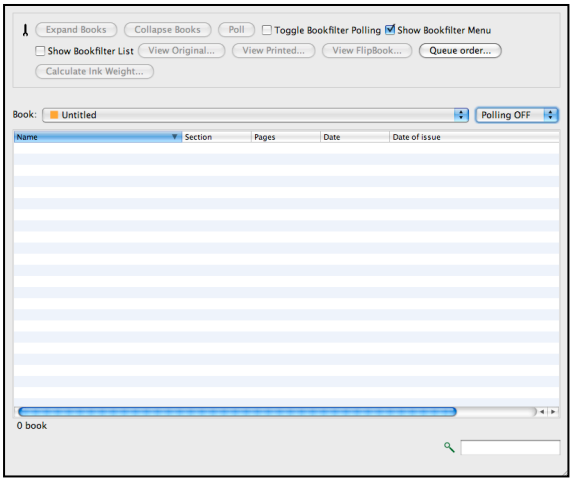
There are twelve (12) modules to choose from:

- **BookMonitor** – Similar to the RIPMonitor, this module displays a list of Books compiled via the Bookfilter. This module is only available in Veripress and the Blackmagic Softproofing Add-on.
- **ClientLog** – Displays a log of Client messages that may be generated during normal Client operations.
- **ClusterStatus** – Monitors the progress of Imaging and Rendering tasks on the Server and any active Cluster Nodes.
- **DropZone** – A place to drag and drop files for processing.
- **MediaStatus** – A window showing the current calibration status of a Media data type and a progress bar showing the amount of media (e.g. Paper) used.
- **QueueManager** – View and manage jobs after they have been submitted for processing.
- **QueueStatus** – A progress meter showing the current status of active jobs on the selected queue.
- **RIPMonitor** – Displays the files polled using RIPs configured under the RIP data type within the Workbench.
- **ServerLog** – Displays any system, error and polling messages from the Server.
- **Status** – Shows the disk status (usage) of the Server processing areas.
- **Thumbnail** – Displays a thumbnail of jobs as they image or render.
- **VirtualPress** – Available within the RIPMonitor module. Allows for the assignment, alteration and management of plates to polled RIP jobs.

BookMonitor

The BookMonitor module displays the publications polled from planning files using the BookFilter data type. The publications can be expanded to show a list of pages and filenames associated with each page.

The module allows for quick viewing of large multi-section or multi-edition publications, such as newspapers. When View Original, Rendered or FlipBook are selected for a publication in the BookMonitor, it searches the chosen queues in the QueueManager for filenames matching those in the page list and assembles them on-the-fly for proofing in the SoftProof or FlipBook applications. The Page Navigator in both applications (SoftProof & FlipBook) will show any pages missing from the publication (those that have not yet arrived from the RIP).



Toolbar Options

- Expand/Collapse Jobs – Expand or Collapse the selected publications to list individual pages. Double-clicking a publication in the display panel will also expand/collapse the page list.
- Poll – Poll the selected BookFilter for any planning files. Once polled, a list of the available planning file publications will be displayed.
- Toggle Bookfilter Polling – Enable / Disable
- Show BookFilter Menu – Enable / Disable a dropdown menu.
- Show Bookfilter List – Enable / Disable
- View Original – Opens the Imaged Preview of the selected publication in SoftProof.
- View Printed – Opens the Rendered Preview of the selected publication in SoftProof.
- View FlipBook – Opens the selected publication in FlipBook.
- Queue Order – Select this to choose the Output queue in the QueueManager the Bookfilter will search for matching Imaged or Rendered job pages.
- Calculate Ink Weight – Open the Ink Weights calculator window for the selected publication.

View Options

The following sort columns can be selected using the contextual (right click) menu on the sort column header bar in the Display panel:

- Name – The name of the Publication / Page sourced from the planning file.
- Section – Lists the section part of a page as defined in the Bookfilter JobGenie (optional)
- Page – The page number of the page file as defined in the planning file.
- Date – Date / Timestamp of the planning file
- Date of Issue – The publication date of the publication/page as defined in the planning file.

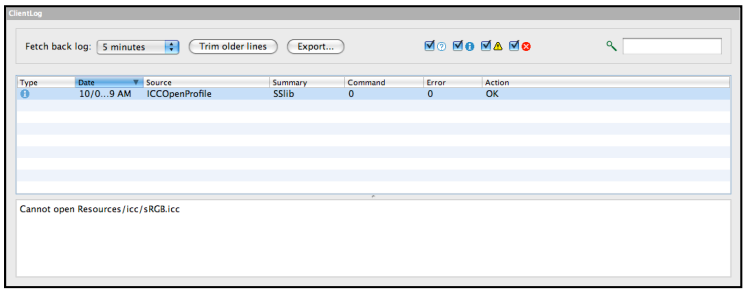
The order of the columns can be changed by clicking and dragging them to the desired position, or by using the Configure Headers option under the contextual (right click) menu.

The contextual menu also has options to Edit BookFilter, change the Colour Scheme of the BookMonitor window, pick Font Options and choose the Language Encoding of the incoming poll data.

ClientLog

The ClientLog displays any messages that pop up during normal Client operation. There are different levels of message, from informative to serious errors. All messages are held for a user-determined length of time.

- Fetch back log – Displays the log for the time specified. For example, it retrieves and displays the last 4 hours of messages. Choose the time from the pull down list.
- Trim older lines – Trims the log based on the time selected in Fetch back log. If this is set to 60 minutes, the log file is trimmed back so only the last 60 minutes remain.
- Export – Allows you to export the log to a file.



Note: When you export the log file you can choose to export everything in view or select entries to export. Use the filtering options and Fetch back log choice to limit the view before exporting. Selecting export displays a chooser, allowing you to enter a name and select the location to save the file. You can choose to save the file as html or as a tab delimited text file.

Filtering Options

You can choose which messages to display in the log and which to hide by ticking checkboxes for one or more of the following filters. All messages are saved to the log, even if filtered.

- Question – Used for messages that ask questions, for e.g., "Job contains unassigned colours. Do you want to add them to VirtualPress."
- Information – Used for messages that tell you something, for e.g., "Job has a duplicate plate."
- Warning – Used where the message has a higher importance and (usually) the Client failed to do something, but operation can continue, for e.g., "Failed to save new password. Old password will continue to be used."
- Critical – Used for serious errors that will most likely affect operation, for e.g., "Failed to load rendering .dll." You will normally be required to take action to rectify these errors before continuing.
- Search – You can search the log for jobs or messages. Enter the text of characters you want to search for and the ClientLog only displays the lines that match the search.

Display Options

The following sort columns can be selected using the contextual (right click) menu on the sort column header bar in the log:

- Type – The level of the message reported. For e.g., Question; Information; Warning or Critical.
- Date – The time the message was reported.
- Source – The module or application that reported the message.
- Summary – A summary of the message that was reported.
- Command – Internal command used to communicate messages to and from the Server by the Client.
- Error – An error code reported by the Server. This is useful for de-bugging problems.
- Action – The action taken by the user relating to the message. For e.g., the button pressed when the message popped up.

The order of the columns can be changed by clicking and dragging them to the desired position, or by using the Configure Headers option under the contextual (right click) menu.

ClusterStatus

The ClusterStatus is a monitor allowing you to see the current Imaging and Rendering status of jobs on any active Master Servers or Cluster Nodes:

- ClusterManager – Open the ClusterManager application to manage the Cluster.
- Refresh – Update the status.
- Increase Inset (+) – Increases the gap between the list items.
- Decrease Inset (-) – Decreases the gap between the list items.
- Font Options – Allows you to change the size of the text.

DropZone

A DropZone is a place where you can drag and drop files for processing. The user selects Pagesetups, Pagesetup Pools or the Studio application Asset queue to add to the DropZone as a DropSpot. These DropSpots accept the same file formats as the DropFolder (Postscript, PDF, JPEG, TIFF Image, Serendipity Blackmagic Image, EPS, PNG).

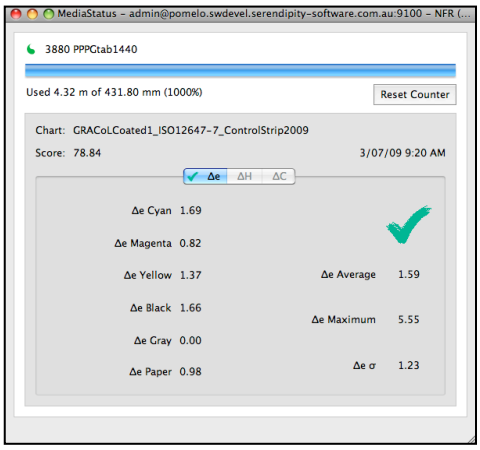
The available contextual menu options are:

- Add DropSpot – Select one or more Pagesetups/Media to add to the DropZone. Selecting this displays a chooser window, showing all available Pagesetups/Media.
- Add Asset DropSpot – Adds a DropSpot for the Asset queue. Assets are then manually laid out, nested and printed using the Studio application (See Applications – Studio for more information).
- Reorder DropSpots – Displays a reorder window. Select one or more DropSpots in the list and drag them to a new location, or use the up and down arrow keys to move the position. Click OK when finished.
- Increase DropSpot Inset (+) – Increases the size of the DropSpot.
- Decrease DropSpot Inset (-) – Decreases the size of the DropSpot.
- Font Options – Allows you to change the size of the text.

Additional contextual menu options are available for individual DropSpots:

- Remove DropSpot – Remove the selected DropSpot.
- Edit Pagesetup – Allows you to edit a section of the selected Pagesetup, all sections or create a new one.
- Edit Media – Allows you to edit a section of the selected Media, all sections or create a new one.
- Change DropSpot – Allows you to change an existing DropSpot.
- Set Copies – Set the number of copies for every job dropped on the zone.
- Set Colour – Select a colour from the list for the currently selected DropSpot.

MediaStatus



The MediaStatus module has two (2) functions:

1. To show the current calibration status of a selected Media data type.
   For the calibration status to be shown or updated for a Media, it must have been Calchecked using the Calcheck Media menu option (see below) or the Check Media option in the Calcheck application.

2. To show how much of the media (e.g. Paper) has been used.
   A meter is displayed graphically, detailing the percentage used. For the Usage meter to function, values for the Media Length or the number of sheets loaded must be entered in the Output section of the Media data type.

Each Media displayed in the MediaStatus window has the following information:

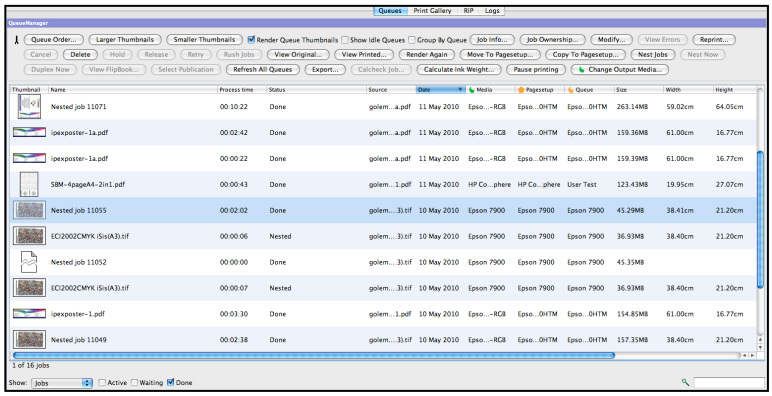
- Media Name

- Calcheck Status – Toggled via the Calcheck Info option (see below). Displayed as one or more Ticks/Crosses to the right of the Media name, showing a Calcheck Pass or Fail against the user-defined △E, △H, or △C. Hover the mouse over each to show a tooltip displaying the △Max and △Avg values.
- Usage Meter – Bar showing the amount of media used. Text under the bar states the exact amount used as a percentage of the total units.
- Reset Counter – Resets the usage count for the Media.
- Logged Period – Time period (date and time, from and to) the Media has been tracked since the last reset. This information is shown/hidden using the Show Extended Info option.
- Printed – Number of jobs and total printed area of jobs tracked since the last reset.
- Calcheck Info – Displays the complete Calcheck summary information for the selected Media resulting from the last Calcheck. Includes the Calcheck Chart used, internal Calcheck score, Date/Time of Calcheck and △values.

A contextual (right click) menu has the following options:

- Change Media – Change the selected Media for display in the status window.
- Edit Media – Edit all or part of the selected Media. Copy it, or create a new one.
- Calcheck Media – Opens the Calcheck application. Once a chart has been printed and measured, the results are saved to the Media and the Calcheck Info for the Media is updated in the MediaStatus window.
- Media Order – Allows you to configure which queues are viewed by the MediaStatus window. Move Media between the Available and Showing columns in the popup chooser.
- Show Extended Info – Show/Hide the Logged Period and Printed information for the selected Media.
- Show Calcheck Info – Show/Hide the full Calcheck Info summary for the selected Media.
- Metric Units – Toggle between Metric or Imperial units for measurements shown in the MediaStatus window. This is enabled by default.
- Increase /Decrease Status Width – Increase or Decrease the width or all Media panels in the window.
- Font Options – Allows you to change the size of the text in the window.

QueueManager



The QueueManager displays information about submitted jobs and the jobs' current status. Queues can be viewed simultaneously, showing job progress through Imaging (where the incoming file is interpreted and its resolution sampled for conversion to the print resolution); Rendering (where colour management, cropping, rotation and effects are applied for printing); and Printing.

The QueueManager also allows jobs to be manipulated in a number of ways, such as holding, promoting, deleting and reprinting.

View Options

There is a lot of information available for viewing about each job as it passes through the system.

The following sort columns can be selected using the contextual (right click) menu on the column header bar in the QueueManager display panel:

- Name – Job name.
- Process Time – Time taken to process the job.
- Status – The jobs current status.
- Source – The source of the submitted job.
- Date – The date and time the job was processed.
- Media – The Media used to process the job.
- Pagesetup – The Pagesetup used to process the job.
- Queue – The output queue the job was sent to for processing.
- Size – The size of the job (disk space used).
- Width – The width of the job
- Height – The height of the job.
- DPI – The imaged resolution of the job.
- Output Colourspace – The colourspace of the output file.

- Copies – When multiple copies of a job are sent for printing, this column counts down the number of jobs left to print.
- Screening – The screening applied to the job.
- Thumbnail – Shows a thumbnail of the job.
- Job ID – The internal Blackmagic ID number for the job.
- Node – The Server or Cluster Node the job was processed on.
- Signature Group – The signature group used to de-impose the job.
- Signature – The signature within the group used to de-impose the job.
- Page – The page number of the job.
- Publication – The publication name.
- Notes – The number of notes saved with the job.
- Section – The section of the publication.

Toolbar Options

- Queue Order – Allows you to configure which queues are viewed by the QueueManager – Available & Showing.
- Render Queue Thumbnails – Enable or disable thumbnails for the Render Queue in the Thumbnails view of the QueueManager.
- Show Idle Queues – Show/Hide entries in the QueueManager for idle processing queues.
- Group by Queue – Enable/Disable the grouping of jobs by Queue before other column sorting is applied.
- Show – Show certain jobs in the QueueManager. Select any or all of the options to filter jobs. Choose from:
    - Jobs – Display all jobs as text line entries.
    - Thumbnails – Display all jobs as thumbnails. This is the same as the Print Gallery mode.
    - Publications – Only display jobs belonging to a publication.

      For any of the above display modes, further filtering is available:
        - Active – Jobs currently processing.
        - Waiting – Jobs with a status of Waiting.
        - Done – Completed jobs.
- Search – Find jobs that are in the queue. All jobs matching the search text will be displayed. All elements of the jobs are searched against, not just the name, so this can be a useful filtering tool. The search can be inverted with cmd+shift+I (Mac) or ctrl+shift+I (Win). The search box will turn black to indicate when the inverse search is selected.

There are a number of actions that can be performed on a job. Options become available when one or more jobs are selected. Only actions valid for the job status are shown. For example, the action to Nest Now is only available if the job has a status of Waiting to Nest.

The following are available in the Toolbar or by selecting job(s) and right clicking to access the context menu:

- Job Info – Shows information about the currently selected job. The Job Info contains all details of how the job was processed and displays a thumbnail preview of the job and its configuration. Right clicking on the window and selecting Print can print the Job Info to a system printer.

Note: Job Info & thumbnail can also be displayed by double clicking on the job. If multiple jobs are selected, double clicking will display info about all in the window. Holding the control key (Win) or command key (Mac) will allow the font size to be adjusted via the mouse wheel for easier viewing.

- Job Ownership – Displays two panels – General and Ownership – showing the type, created and modified dates of the job plus the user and group permissions (See Accounts Admin/Secure Mode for more information).
- Modify – Allows various attributes of the job to be modified. These include:
    - Name – Change the name of the job.
    - Publication Name – Change or add a publication name.
    - Page Number – Change the page number of the job.
    - Copies – Change the number of copies of a job.
    - Change Media – Change or assign a Media associated with the job.
    - De-Imposition – Change or assign a Signature and Signature Group to a job.
- Reprint – Displays a window to reprint a job or jobs.
- Cancel – Cancels the currently processing jobs.
- Delete – Deletes the currently selected jobs.
- Hold – Holds the currently selected job. Only available when the status is “Waiting”.
- Release – Releases a currently selected Held job.
- Retry – Retries a failed job.
- View Errors – Views the errors of the selected job if the status is listed as Failed.
- Rush Jobs – Moves the currently selected jobs to the top of the current queue for processing next. The status must be listed as Waiting. Jobs currently being processed will be completed first.

Note: Rush Jobs will move the job up the current queue only. If the job is in the imaging queue and Rush Jobs is selected, the job moves to the top of the imaging queue. Once complete, it will move to the bottom of the rendering queue. You will need to Rush Jobs again to move it to the top of the rendering queue.

- View Original – Views the Original/Imaged file for selected jobs in the SoftProof application.
- View Printed – Views the Printed/Rendered file for selected jobs in the SoftProof application.
- Render Again – Submits the selected jobs to the rendering queue for processing. Only available when the status is "Done".
- Move to Pagesetup – Moves the selected jobs to another Pagesetup. This will send the jobs to the rendering queue again with the attributes of the selected Pagesetup. View the Pagesetup, edit it, or create a new one prior to submitting the job.
- Copy to Pagesetup – Copies the selected jobs to another Pagesetup. This will send the jobs to the rendering queue again with the attributes of the selected Pagesetup. View the Pagesetup, edit it, or create a new one prior to submitting the job.
- Nest Jobs – Submits the selected jobs to be nested. This sends the job to the rendering queue to re-render for a nest. The Collating section of the Output is used for the nesting parameters.
- Nest Now – This is available when the selected job has a status of Waiting to Nest. Only one job needs to be selected and all jobs with a Waiting to Nest status will be nested.
- Duplex Now – Duplexes any job that has a status of Waiting to Duplex. Only one job needs to be selected and all jobs with a Waiting to Duplex status will be duplexed.
- View FlipBook – Opens the selected job or publication in FlipBook. If the selected job is part of a publication, all pages will be shown.
- Select Publication – Selects all the pages/jobs in the QueueManager belonging to the same Publication as the selected job.
- Refresh All Queues – Updates the queues.
- Export – Allows you to export data from the selected job. The available formats are:
    - CIP3 – Exports job information to a file in CIP3 format at the selected resolution. You can also select the orientation before exporting. Further options are:
        - Version 2.1
        - Version 3.0
        - Rotations
        - Surface – Choose front or back.
        - Compress Preview – Choose if the preview should be compressed. Some presses are unable to handle files in compressed format.
    - PDF – Exports the selected job in PDF at the resolution entered. Further options are:
        - Compressions – JPEG, ZIP or LZW. For JPEG and ZIP you also have control on the level and quality of compression.
    - Postscript (separated) – Exports the current job as a separated PS file.
    - Tiff Multichannel – Exports the current file as a multichannel Tiff.
- Calcheck Job – Launches the Calcheck application to check a job's calibration status. The jobname is stored and the results can be exported or printed. Measurement results from the Calcheck are stored in the Job Info.
- Calculate Ink Weight – Displays the Ink Weights window with the selected job's ink weights and coverage shown.
- Pause/Resume Printing/Processing – Pause or Resume the output queue of the selected job at their current stage of processing or printing (Imaging, Rendering, Nesting or Printing). Incomplete jobs in paused queues will display in red.
- Change Output Media – Change the Media assigned to the output queue for the selected job. Once re-assigned, all jobs held awaiting the new Media will begin processing.

Configuration Options

The following options are available from the right click (contextual) menu within the QueueManager window:

- Queue Colour – Select a colour for the currently selected Queue for easy identification.
- Queue Order – Allows you to organise the queues into your preferred order, or adjust any settings.
- Joblist View – View the queue in Joblist mode. This is the same as selecting Show > Jobs.
- Publication View – View any publications in the queue. This is the same as selecting Show > Publications.
- PrintGallery View – View the jobs as thumbnails. This is the same as selecting Show > Thumbnails.
- Edit Output – Allows you to edit the Output and not the job. For changes to be effective, resubmit the job for printing or rendering, depending on the attribute changed.

- Edit Media – Allows you to edit the Media the job was processed with. For changes to be effective, resubmit the job for imaging or rendering, depending on the attribute changed.
- Edit Pagesetup – Allows you to edit the Pagesetup the job was processed with. For changes to be effective, resubmit the job for imaging or rendering, depending on the attribute changed.
- Edit RIP – Allows you to edit the RIP of the source file (where the job was submitted from if a configured RIP). For changes to be effective, resubmit the job or refresh polling.
- Edit Signature Group – Allows you to edit the Signature Group used for de-imposing of the currently selected job. For changes to be effective, resubmit the job for de-imposition.

Important Note: When editing any of the items from here, you are editing the queue for all future jobs, not just the currently selected job.

QueueStatus

The QueueStatus module is a progress meter that shows the current status of active jobs on the selected queue. The look and feel can be adjusted for the QueueStatus module and the queue it is monitoring. The options are available by right clicking on the window.

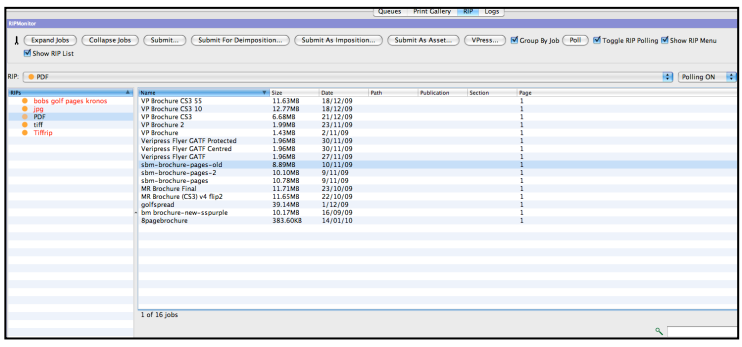
Note: Not all options listed are available on all QueueStatus windows. Some are only available while the job is in progress.

- Cancel Job – Cancels the currently active job and is only available when a job is active.
- Job Info – Displays info about the currently active job.
- Pause Printing/Processing – Pauses the queue so no further jobs will process. Any job currently active in the queue will finish. The text in the window changes to red, showing it to be in a paused state.
- Resume Printing/Processing – Takes a queue out of a paused state so any waiting jobs can be processed.
- Change Queue – Allows you to choose which queue the status window will show.
- Edit Output – Allows you to edit the output or create a new one. You can only edit if the queue is showing an output. If the queue is set to Spooling, Auto Detect, Imaging or Rendering you can only make a new output.
- Thumbnail – Turns on/off a mini thumbnail on the printer queues only, which gives an indication as to how much of the current job has printed.
- Font Options – Allows you to change the size of the text.
- Queue Order – Select which queues you wish to view. Selecting this presents you with a chooser window showing two lists – The Available queues on the left and the Showing queues on the right. To move queues between lists, select one or more and drag from one list to another. Alternatively, double click to move between lists. The order of the queues in the Showing list determines the order of display. Queue Order can be used to show multiple Queues in a single QueueStatus window.
- Increase/Decrease Indent – Increases or decreases the size of the QueueStatus in view.

Double clicking the QueueStatus window displays a floating QueueManager window showing that queue. This has the full functionality of the standard QueueManager.

RIPMonitor

The RIPMonitor displays the RIPs that have been configured under the RIP section of the Workbench. Jobs that have been successfully polled are displayed and can be expanded to show any associated plates. These jobs can then be submitted to a Pagesetup/Media for processing.



The View

- Toolbar – Contains job handling functions and viewing options.
- Jobs – This is the large window to the right and displays all successfully polled jobs from the selected RIP.
- RIP List – A list of all the configured RIPs, allowing the user to select each in turn to display any jobs. This is on the left side of the window and can be shown or hidden as

desired. Active RIP queues are displayed in black; inactive are red.

- RIP Menu – This is a pull down list at the top of the window of RIPs configured and shows the current selection. Hiding the RIP Menu will also hide the Polling On/Off drop down selector.

Note: If you only have one RIP configured it is better to hide the left RIP list and top RIP menu as there is nothing else to display. This will provide more room to view your jobs.

The Toolbar

- Expand/Collapse Jobs – Show/Hide the plates associated with the selected jobs. Double clicking a job will also expand or collapse the plate view for the selected job.
- Submit – Submits the selected jobs for processing. This pops up a chooser to select which Pagesetup/Pagesetup Pool and Medias to send the job to.
- Submit As Asset - Select files to send to the Studio application Asset queue.
- Submit for De-Imposition – Submits the jobs for de-imposition. This pops up a choose to select which Signature Group will be used to de-impose the job and which Pagesetup/Media combination will be used.
- Submit As Imposition (Veripress/Blackmagic Softproofing Add-on Only) – Submits the job in it's original form, but attaches a Signature Group via a popup chooser to allow the job to be deimposed on-the-fly using the De-Imposed Pages button in the Veripress SoftProof Touch Console (See the "Touch Console" section for more information).
- VPress – Adds the selected jobs to the VirtualPress. For further information see the "VirtualPress" section.

Note: The text in the Submit, Submit for De-Imposition, Submit as Imposition and VPress buttons will show in italics if the job selected has unrecognised or unassigned plates. The plates will need to be assigned using VirtualPress.

- Group By Job – Keeps the plates in their respective job group when they are copied into the VirtualPress (see below note).

Important Note: If you have multiple jobs selected for copying into VirtualPress, when this option is ticked they are kept as their respective jobs. If this is un-ticked, all the jobs and plates selected are copied in as one job. This is useful if you are polling a RIP and the plates are shown as separate jobs, with one plate each.

- Poll – Initiates a manual poll of the selected RIP.
- Toggle RIP Polling – Turns the polling on or off for the selected RIP. When the RIP is in the off state, the name in the RIP list turns red.

Note: The RIP jobs list is cached and may require clearing. To do this, turn the RIP off and on again and click on the Poll button three (3) times consecutively.

- Show RIP Menu – Shows or hides the RIP pull down list at the top of the window.
- Show RIP List – Shows or hides the RIP list on the left.

Context Menu Options

The following are available via the contextual menu (right click) from within the job Display panel:

- Edit RIP – This enables the user to edit the RIP selected. Choose to edit a single section or all sections of the configuration. Alternatively, you can create a new RIP.
- Colour Scheme – Choose a colour for the module.
- Font Options – Choose the preferred font size.
- Language Encoding – Choose the language encoding for the operating system. This allows jobs to display correctly in the RIPMonitor in the native language.

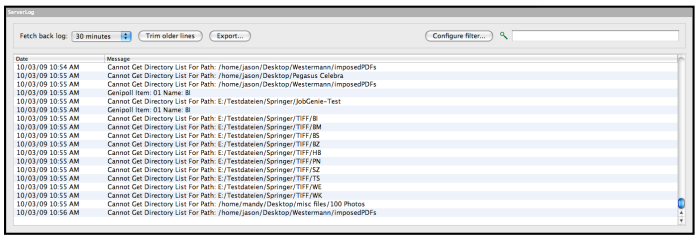
Display Panel View Options

The display panel columns can be configured to show specific information by right-clicking on the header titlebar. The following are available for display:

- Name – Job Name (and plate names if expanded).
- Size – The size of the job (disk space used).
- Date – The data and time the newest plate belonging to the job was RIPped.
- Path – The directory path to the RIPped file for an assigned job plate. This information is visible when the polled job is expanded.
- Publication – The publication name.
- Section – The section of the publication.
- Page – The page number of the job.

ServerLog

The ServerLog shows messages from the Server.



- Fetch back log – Displays the log for the time specified. For e.g., it retrieves and displays the last 4 hours of messages. Choose the time from the pull down list.
- Trim older lines – Trims the log based on the time selected in Fetch back log. If this is set to 60 minutes, the log file is trimmed back so only the last 60 minutes remain.
- Export – Allows you to export the log to a file. Selecting this displays a window with further options as detailed below:
    - Destination File – Choose the filename and location where the file is to be saved. Use the Browse button to navigate to your preferred location.
    - Message Lines – Choose to save all messages in the log window or only those that are highlighted. This way you can save just a few lines if desired.
    - Format – Choose the format to save the file in, either html or plain text. The plain text file is saved with tab characters between the columns.
    - Cancel – Revert to the Server window without saving any changes.
    - Save – Save the file based on the settings selected.
- Configure Filter – You can filter messages in the log. Choose between the following options:
    - Completed Jobs – Shows messages about completed jobs.
    - Polled Jobs – Shows messages about polled jobs.
    - Errors – Shows errors from the Server.
- Search – You can search the log for messages. Enter the text of characters you want to search for and the ServerLog will only display the lines matching the search.

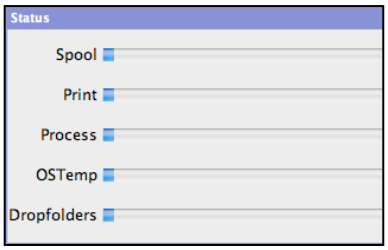
Display Options

- Module – This is the function that the Server used.
- Routine – This is the operation inside the function.
- Date – The time the Server called the module.
- Message – The message resulting from the routine.

Status

Status shows the current disk status (usage) of the Server processing areas, such as spooling, temporary directories and DropFolders. Editing the ***ss.conf*** file in the installation directory under the "*etc*" folder can change disk locations.

The available options are:



- Update – Checks the disks and updates the view.
- Preferences – Sets the Status window preferences. A further option available is:
    - Update Interval – Sets the time between updates.
- Colour Scheme – Changes the colour of the Status window.
- Font options – Allows you to change the size of the text.

Thumbnail

This module displays a thumbnail of jobs as they are imaging and rendering. Thumbnail progress is updated at the same time as the Imaging or Rendering QueueStatus is updated.

The following options are available from the contextual menu (right click):

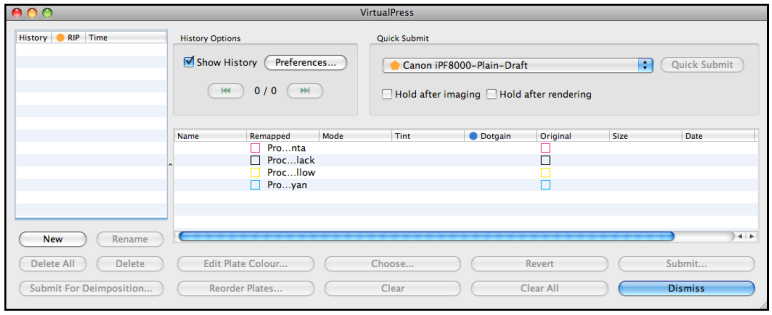
- Show Imaging – Show the Imaging thumbnail, denoted by "gears" in each inset.
- Show Rendering – Show the Rendering thumbnail, denoted by a "paintbrush" in each inset.
- Normal Thumbnail – Displays a small thumbnail.
- Large Thumbnail – Displays a large thumbnail.

Each active Thumbnail module may only show either Imaging or Rendering, not both.

The module window displays as many Thumbnail insets as there are simultaneous Imaging/Rendering tasks configured in the Server Settings.

VirtualPress

VirtualPress gives users the ability to manage the plates of the job. You can drop plates, change plate colours and merge plates from other jobs. If a job contains an un-allocated plate (i.e., no colour), use VirtualPress to allocate a colour, unless a Replace Colour Set is selected containing the plate.



- The **History** keeps jobs that have been imported into VirtualPress. Any changes or additions are kept so the jobs can be resubmitted at any time without having to recreate the changes. The history is held while the Client is running. Once the Client has quit, any history is purged.
- **Quick Submit** shows a pulldown list of the configured Pagesetups. Clicking this button submits the selected job to the Pagesetup shown. The option to Hold After Imaging or Rendering is also available.
- **Edit Plate Colour** displays a colour editor, allowing you to change the colour attributes for this plate only. The edit is not stored anywhere and does not affect the Special Colour Set. This option is also available when right clicking on a plate.
- **Choose** allows you to select a colour from the colour libraries. This is only available for special plates. You can also double click the plate in the list to choose a colour from the libraries.
- **Reorder Plates** allows you to change the order of the process plates. Plate position is used for Overprint, Knockout, Opacity and Transparency simulation. The order of the list dictates the order the plates are merged and can affect the job where plates have attributes such as Opacity. The button will appear in italics when the order has been changed from the original.

Applications

The applications available within Serendipity Blackmagic add functionality to the Client and provide additional tools for managing the Server and your jobs.

There are fourteen (14) Applications available, including the Workbench and Monitor. All are accessible via the Applications menu in the Client. Some, such as Calcheck, can be launched via other Applications or Monitor Modules.

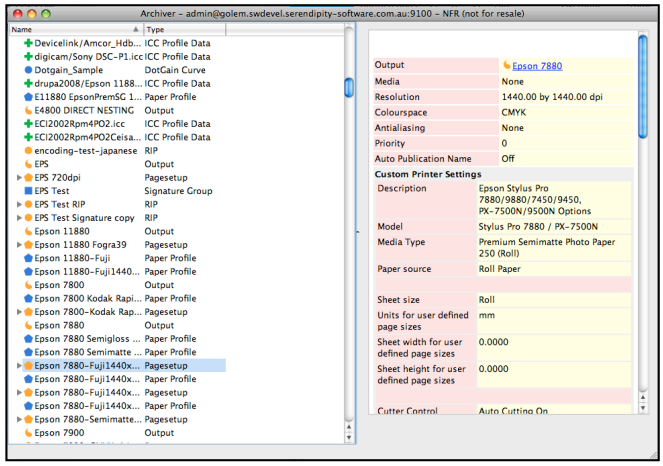
The available Applications are listed here with further details on each following:

- **Archiver** – Make partial or complete backups of your Workbench configurations.
- **Calcheck** – Verify the calibration status of a printer or monitor.
- **ClusterManager** – Allocate and manage Imaging and Rendering tasks across multiple computers and networks.
- **Densitometer** – Measure and display density readings taken with a Densitometer or Spectrophotometer.
- **FlipBook** – Display a publication as a 2D or 3D virtual book.
- **Lineariser** – Create a Linearisation curve for use with a Pagesetup or Media.
- **Monitor** – Display and manage jobs as they pass through Blackmagic (see the "Monitor" section for more information).
- **MonitorCalibrator** – Create ICC profiles for system monitors for accurate onscreen colour softproofing.
- **Press Agent** – Interface with press console controls to load/reload softproofs.
- **SoftProof** – Proof jobs onscreen.
- **Spectrophotometer** – Display, compare and/or save colours measured using a Spectrophotometer.
- **Studio** – Designed for the manual nesting or tiling of jobs.
- **Touch Console** – Use a touch screen to load, manage and proof jobs within the SoftProof application.
- **Workbench** – The principal configuration tool for Blackmagic (see the "Workbench" section for more information).

Archiver

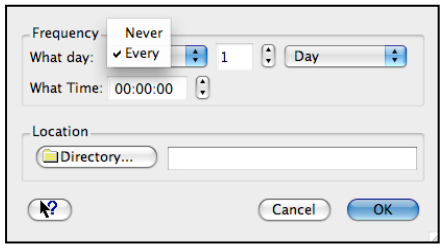
The Archiver allows you to make backups or archives of your Workbench configurations. Individual items or complete systems can be archived for safekeeping. Stored items can be loaded into the Archiver for adding to the Blackmagic database. This can be used for copying a database to another Server, or for recovery from failure or corrupt configurations. You can configure the Archiver to automatically backup your settings on a regular basis.

Important Note: Archives cannot be back-ported to previous versions, i.e., version 5 archives cannot be used with version 3. Version 3 archives can be used with Version 5 however, and will be automatically allocated to their respective databases when loaded.



File Menu Options

- Open Archive – Open a previously saved archive. A chooser window allows you to browse and select an archive (.sdb file) to load. You can also load an archive by dragging the database into an open Archiver.
- Save Archive – Saves the archive to a (.sdb) file.
- Close Archive – Closes the currently opened Archive.
- Perform Full Backup – Adds all Workbench data types to a new Archiver window. Once done, you are prompted to choose a name and location to save the file. Once saved, the Archiver window is dismissed automatically.
- Automatic Backup Preferences – Allows you to configure the frequency, time and location that a system backup is performed. The options are:
    - What Day – Choose a day of the week, every day, every number of days or never.



- What Time – Choose the time the backup is performed.
- Location – Choose the location the archive should be saved to.

A check is performed when the Client is first started and every hour afterwards to see if a backup should be performed. The Client must be running for a backup to take place.

The table below gives you a guide as to when a backup would occur in different scenarios.

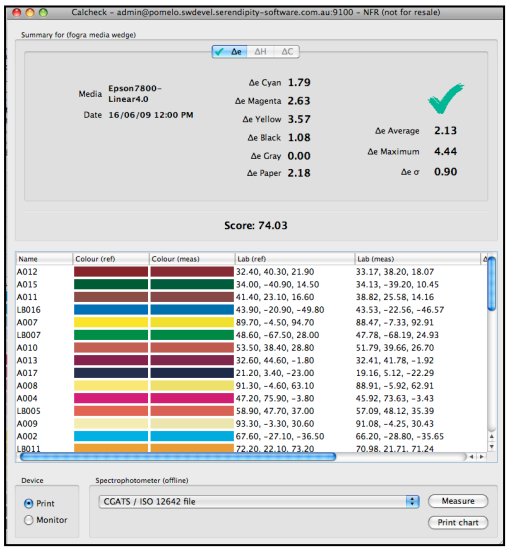
Auto Backup Time	Client Started	Client Quit	Time Backup Performed
Monday 2am	Monday 9am	No	When Client is started – 9am
Tuesday 12:10pm	Tuesday 9:30am	No	Tuesday 12:30pm
Everyday 12am Midnight	Tuesday 8:20am	No	When Client is started – 12:20am each day
Wednesday 11pm	Thursday 8:30am	No	The following Wed at 11:30pm
Sunday 10pm	Monday 8am	Friday 5pm	Never

Edit Menu (and Context Menu) Options

- Add to Archive (All) – Select everything or all of a particular data type, for e.g., All Pagesetups.
- Add to Archive (Selection) – Allows you to select individual items from the database to add to the Archive. Selecting the type, for e.g., Gradation Curves, displays a chooser with all the Gradation Curves allowing you to choose one or more to add to the Archive.
- Add to Database – Choose to add items from the Archive to the database. You can add the whole Archive or selected items.
- Remove from Archive – Remove the selected items from the Archive.
- Collapse – Collapses the selected items if they are expanded.
- Expand – Expands selected items if the item contains references (denoted by a '+'). For example, a Pagesetup will contain at least a Media, an output and ICC Profiles. Expanding the Pagesetup will display the other items connected with it.
- Open/Save/Close Archive – Open, save or Close the Archive as mentioned previously.

Calcheck

The Calcheck application is used to verify the calibration status of a printer or monitor, ensuring proofs are printed and/or softproofed accurately.



The user manually defines or imports Lab or CMYK values from a number of sources to create a Calcheck Chart. The chart represents the print/press standard against which the printer or screen are to be checked (see the Workbench – Calcheck Chart section for more information).

For printers, the selected Calcheck Chart is printed from Calcheck to the Pagesetup and Media being used to proof jobs (or a chart can be assigned to a Pagesetup to print with each proofing job). The chart is then measured using a supported Spectrophotometer.

For monitors, the Calcheck Chart is selected, a supported display Spectrophotometer is placed on the screen to measure the patches from the chart as the Calcheck application cycles through them.

After the measurement phase, the results are displayed in the Calcheck window. A pass (green tick) or fail (red cross) is determined by whether all the measured patches fall inside the tolerances as defined in the Calcheck Chart. The results can be printed as a label to a system printer, or depending on how the Calcheck was initiated, saved with the Job or Media (see below).

The Calcheck window is made up of a Summary Panel (top), Display Panel (centre) and a Device/Spectrophotometer panel (bottom).

Summary Panel
The Summary panel contains information about the completed Calcheck. This information is available for view within the MediaStatus module, the Calcheck Info section of a Media, or the Job Info window of jobs that have been calchecked. The following information is displayed:

- Summary for – The panel title shows the Calcheck Chart used for the check.
- Δe/ΔH/ΔC – These tabs switch between summaries of the three respective Δ standards. The tabs available depend on which Δ standards are defined in the chart for the Calcheck. The Δe summary values listed are CIE76 by default. This can be changed to CIE94 or CIE2000 by setting either as the measurement standard in the Calcheck Chart.
- Job/Media (Print mode only) – The Job or Media being calchecked. The field displays N/A if a Calcheck is done without assigning a Job or Media to it.
- Date (Print mode only) – The date and time the Calcheck was completed.
- Monitor Area Toggles (Monitor mode only) – A 3x3 grid of buttons can be toggled to include or exclude the Calcheck results for each area of the monitor in the Calcheck summary. Once a monitor area has been calchecked the button will be marked with a tick (pass) or a cross (fail).
- ΔCyan/ΔMagenta/ΔYellow/ΔBlack/ΔGray/ΔPaper – The Δ values for the significant CMYK process, gray and paper (substrate) patches are displayed here.
- Pass/Fail – Displays a green tick (pass) if all the measured patches fall within the Δ tolerances as defined in the Calcheck Chart. A red cross (fail) is displayed if any patches measure outside the defined tolerances.
- Δ Average – The average delta of the patches measured in the Calcheck.
- Δ Maximum – The maximum delta measured for any patch in the Calcheck.
- Δσ – The standard deviation of the patches (from the Δ Average).
- Score – The relative quality of the print or monitor Calcheck as compared to the reference values. Rated from 1-100.

Display Panel
The Display panel contains the detailed reference and measurement data for each colour patch in the Calcheck Chart being checked. Colour patches that pass are shown in black, those that fail are shown in red.

The following sort columns can be selected using the contextual (right click) menu on the column header bar in the display panel. The columns can be reordered by using drag and drop, or by using the Configure Headers option in the contextual menu.

Headers available for sorting are:

- Name – The name of the colour patch.
- Colour (ref) – A colour swatch of the reference colour in the Calcheck Chart.
- Colour (meas) – A colour swatch of the measured colour.
- Lab (ref) – The reference Lab values of the colour patch in the Calcheck Chart.
- Lab (meas) – The measured Lab values of the colour patch.
- Δe max – The maximum Δe (CIE76, CIE94 or CIE2000) tolerance value for the patch as defined in the Calcheck Chart.
- Δe – The measured Δe (CIE76) of the colour patch.
- CIE94 – The measured Δe (CIE94) of the colour patch.
- CIE2000 – The measured Δe (CIE2000) of the colour patch.
- ΔH max – The maximum ΔH tolerance value for the patch as defined in the Calcheck Chart.
- ΔH – The measured ΔH of the colour patch.
- ΔC max – The maximum ΔC tolerance value for the patch as defined in the Calcheck Chart.
- ΔC – The measured ΔC of the colour patch.
- Delta L – The measured delta L of the colour patch.
- Delta a – The measured delta a of the colour patch.
- Delta b – The measured delta b of the colour patch.

- Location – Used in monitor Calchecks. Shows from which of the nine screen positions the patch was measured. For print Calchecks this field will read "N/A".

Device/Spectrophotometer Panel
This panel allows you to choose whether a Print or a Monitor Calcheck is required and which measuring instrument is to be used.

- Device – Choose whether to Calcheck for a Print or a Monitor.

Print Mode
- Spectrophotometer – Choose which Spectrophotometer is to be used for measurement from the list of supported instruments.
- Measure – Initialises the chosen instrument and opens a popup window to select which Calcheck Chart is to be measured. Measurement begins after the chart is selected. The data from a chart measured by a third party software package can be loaded for a Calcheck be selecting CGATS/ISO12642 file from the instrument list. The file must have been saved in an appropriate format.
- Print Chart – Opens a chooser window to select the Calcheck Chart for printing, and the Pagesetup and Media to submit the chart to. The chart will be printed in a configuration suitable for reading by the chosen instrument.

Monitor Mode
- Instrument – Choose which display Spectrophotometer is to be used for measurement from the list of supported instruments.
- Measurement Type – Select which of the nine (9) areas of the monitor to Calcheck, or choose 3x3 grid of screen to sequentially check all areas of the screen. Pass or fail results will be displayed on the Monitor Area Toggles as each area is calchecked.

Note: Before calchecking a monitor, it is recommended that the monitor be calibrated to the required ICC profile using the MonitorCalibrator application (see the "Applications – MonitorCalibrator" section for more information).

Menu Options
The following options are available from the Calcheck menu or the contextual menu (right click) from within the Calcheck application:

- Load Media – Select a Media to load into Calcheck. Any Media that have been calchecked previously will display complete results of their last Calcheck. A new chart can be printed and/or new measurements taken and the results updated to the Media.
- Check Media – Select a Media to be measured. This options assumes a Calcheck Chart for the Media has been printed. It immediately opens a window to select the chart for measuring and initiates measurement on the selected Spectrophotometer. On completion, results are saved to the Media and previously calchecked Media will be updated.
- Load Job – Select from a list of previously calchecked Jobs sitting in the QueueManager. Once loaded, complete results of the job's last Calcheck are displayed. A new chart can be printed and/or new measurements taken and the results updated to the Job Info.
- Check Job – Select any job currently in the QueueManager to be measured. This option assumes a Calcheck Chart for the job has been printed. It immediately opens a window to select the chart for measuring and initiates measurement on the selected Spectrophotometer. On completion, results are saved to the Job Info and previously calchecked jobs will be updated.
- Print Label – Print a summary label of the currently displayed Calcheck results to a system printer.
- Page Setup – Allows the user to configure the label printing properties for the Print Label option above.
- Show Graph – Displays a representational graph of the Δe for each patch of the currently loaded Calcheck result. Checkboxes toggle pass/fail views. Results can be displayed in one of three formats, selected via dropdown menu:
    - Show Error Bars – Shows two (2) coloured spheres, joined by a bar for each patch positioned in a 3D Lab colourspace. The dull sphere represents the reference value for the patch; the shiny sphere is positioned based on its Lab values in the colourspace. The relative distance between spheres shows the Δe between them.
    - Error Plane – Shows a line of coloured spheres representing each patch, lined up in order. The larger the sphere, the higher the Δe.
    - Error Spheres – Shows a coloured sphere for each patch position in a 3D Lab colourspace. The larger the sphere, the higher the Δe.

Contextual Menu Options

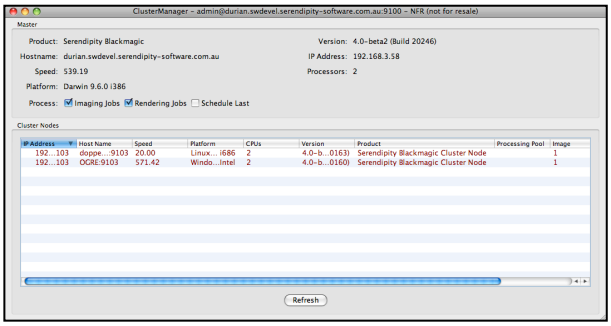
- Export – Export the colour patch data from the display panel to a text file.
- Import – Import colour patch data into the Calcheck application from an exported text file.

Further details on running Calcheck are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

ClusterManager

Clustering is the ability to share the workload of processing jobs across multiple devices. Slaves or cluster nodes can be installed on other machines on the network and jobs can be sent to them from the Master for processing.

The ClusterManager allows you to add and manage these cluster nodes. They can be enabled for use in imaging, rendering or both.



As a node device starts up, its speed is calculated. When a job is submitted for processing, the Master machine has priority as no network traffic is required. If the Master is busy processing another job, the job can be sent to the fastest available node. The node processes the job and once completed, sends it back to the Master. It is then ready to accept another job. Nodes can be installed on any machine on the network.

Running a Cluster Node requires a separate Blackmagic dongle. If you have extra Blackmagic dongles, any Server can act as a node if it is started as a Cluster Node (see "The Blackmagic Server" section for more information).

Note: In this mode, the Server can only be used as a Node (slave) for another Server. It is recommended that the database be backed-up and job queues cleared before a Blackmagic Server is started as a Cluster Node. This avoids any conflicts with existing job IDs or settings.

Master Panel

This panel displays information about the Master Server machine.

- Product – The Serendipity Blackmagic software in use.
- Version – The Server software version.
- Hostname – The network name of the Master Server.
- IP Address – The network IP address of the Server.
- Speed – The relative speed of the Server, calculated by Blackmagic.
- Processors – The number of CPUs in the Server machine.
- Platform – The operating system/kernel version of the software.
- Process Imaging/Rendering/Schedule Last – Check whether the Master Server is to perform any Imaging or Rendering Jobs. The Schedule Last option allows nodes to have priority over the Master when jobs are processing. This is advantageous when polling large RIPs, as it allows the Master to concentrate on gathering the list of jobs and displaying them.

Cluster Nodes

This list shows nodes that are available and running on the network. Information about each node is displayed in the window. Online nodes are displayed in green; offline nodes in red.

The following sort columns can be selected using the contextual (right click) menu on the column header bar in the Cluster Node panel. Columns can be reordered by dragging and dropping them into the desired order, or by using the Configure Headers option in the contextual menu.

The sort options are:

- IP address – The network IP address of the Node. Checkboxes become available to enable the node and select if it is to be used for Imaging and/or Rendering tasks. Once enabled, the Master handles the clustering in the most efficient manner possible.
- Hostname – The network name of the Node.
- Speed – The relative speed of the Node calculated by Blackmagic.
- Platform – The operating system/kernel version of the Node machine.

- CPUs – The number of CPUs in the Server machine.
- Product – The Serendipity Blackmagic software being used for the Node.
- Version – The Server software version of the Node.
- Processing Pool – Optionally choose a Pagesetup Pool (see the Workbench – Pagesetup Pool section) for which the Node will perform image and render tasks.
- Image – Shows the number of simultaneous Imaging tasks that can be performed by the Node. Click on the field to change the number.
- Render – Shows the number of simultaneous Rendering tasks that can be performed by the Node. Click on the field to change the number (see the System Settings – Server section for details on Imaging and Rendering task settings).

Refresh – The Refresh button polls the network for active Nodes and registers any Nodes in the list that are offline.

Cluster Node activity can be monitored in the ClusterStatus module (see the Monitor Modules – ClusterStatus section for more information).

Menu Options
The following options are available from a contextual (right click) menu within the Cluster Node panel:

- Add Node – Add a Cluster Node that cannot be seen. Sometimes Nodes on subnets cannot be detected. Selecting this allows you to enter the hostname or IP address of the Node and add it to the list manually. The Node to be added must be running.
- Add Processing Pool – Select, change or remove the current Pagesetup Pool for which the Node performs Image and Render tasks.
- Remove All Offline Slaves (Nodes) – Remove a Node from the list that has gone offline.
- Remove Node – Available for offline Nodes only. This option removes the selected Node from the list.

Further details on how to use the ClusterManager are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

Densitometer

The Densitometer application allows you to measure and display density readings with a supported Spectrophotometer. When measuring a patch, the densities of all four process CMYK colours making up the patch are read.

The Last Measured panel in the top half of the application window shows the density and dot percentage values for the dominant process colour of the measured patch, with the values of the other three colours to the right. The values can be recorded and saved to a file if desired.

Note: The Densitometer application is a utility allowing you to use a Densitometer or Spectrophotometer that does not have a display to read values. This can be as a one-off reading to compare densities, or you may want to read values and export them for plotting on a graph. There is no requirement to use this for the normal operation of Serendipity Blackmagic.

Densitometer/Measurement/Paper Options
- Yule Nielsen Number – Enter the YN number for the paper you are reading (if known). The default is 2.0.
- Densitometer – Choose one of the supported instruments from the available list.
- Instrument Default Density Standard – Select your desired density standard from the available list.
- Activate/Deactivate – Connect or disconnect the chosen device.
- Add – Add the measured values to the list. This appears after the Densitometer has successfully connected.

To being measuring, select a Densitometer from the dropdown list and click the Activate button. The status field is shown when the device connects without error. Follow any instructions when prompted – Calibrate, Measure Cyan Solid, etc.

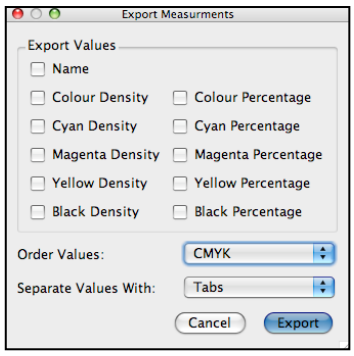
Measure Targets
In order to read percentage tint values of any plate, you must first read the paper white and the solid density value for that colour. The Measure Targets menu or contextual (right click) menu allows you to measure the solid reference densities for the process colours and the paper white. With these values stored, colour percentages can be calculated and displayed. You can measure or update an individual Solid density or Measure All Targets.

Colour List
This is a list of readings taken if the Add is enabled. Each reading is appended to the list and the values measured are displayed. The columns can be resized or reordered as required by dragging the header to the preferred position.

The columns are:

- Name – The name of the colour read. Defaults to "*Untitled*" but can be changed by selecting the name and entering a new one.
- Colour – Shows the dominant colour read, i.e., the one with the highest density value. This may not be the colour you perceive it to be, but the contents making up the colour are recorded and the colour is calculated and shown.
- Density – The density value for the colour. This is the highest density read from C, M, Y and K. It shows the density of the colour stated in the Colour column.
- Cd/Md/Yd/Kd – The C, M, Y and K densities of the colour read.
- Dot% – The dot percentage of the colour shown in the Colour column.
- C%/M%/Y%/K% – The C, M, Y and K percentage values for the colour measured. If any of the % columns are blank, the reference paper white or solid density for that colour has not been measured.

Export
You can export the values from the Colour List to a file. The available options are:



- All – Saves all entries in the list.
- Selected – Save the selected entries in the list only.

Selecting either of these options displays a window allowing you to choose the values to be saved. The choices are:

- Name – Save the name of the colour.
- Colour Density – The highest density reading regardless of colour.
- Cyan/Magenta/Yellow/Black Density – The density reading of the chosen colour. For e.g., if Cyan is selected, the Cyan density for each reading is taken. This is the value displayed in the Cd column of the list.
- Colour Percentage – The percentage reading of the highest density read as displayed in the Dot% column.
- Cyan/Magenta/Yellow/Black Percentage – The percentage reading of the chosen colour. For e.g., if Cyan is selected, the percentage of Cyan for each reading is taken. This is the value displayed in the C% column of the list.

The percentage values must be present for the values to be exported. If they are not, the exported file will show a 1% value in place of the reading.

- Order Values – Choose whether to export the file in CMYK or KCMY order.
- Separate Values With – Choose to separate the values with either a tab character or a space.
- Cancel – Cancels the Export action.
- Export – Displays a file chooser allowing you to enter a name and select a location to save the file to.

Table 1 – Supported Density Standards

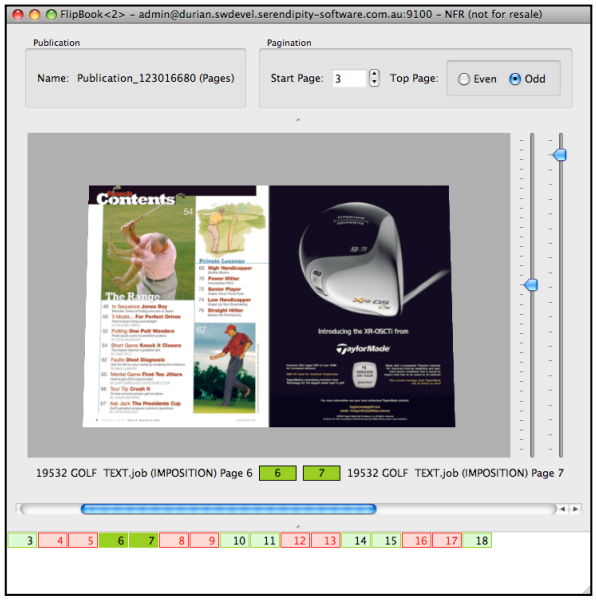
Instrument	Density Standard - Status				
	A	E	I	T	Default
DTP41	✓	✓	✓	✓	✓
DTP34	×	×	×	×	✓
DTP22	✓	✓	✓	✓	✓
DTP20	✓	✓	✓	✓	✓
Spectrolino	✓	×	×	✓	✓
EyeOne	✓	×	×	✓	✓

Not all instruments support all density standards.
This table is not a complete list. Consult your instrument user guide for more information.

Further details on how to take Density measurements are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

FlipBook

The FlipBook application allows you to view a publication as a virtual book. In Blackmagic, a publication is defined as a group of pages with the same publication name. This is a collection of book or magazine signatures that have been de-imposed, but a publication may consist of any number of pages.



FlipBook allows you to load the publication and flip through pages as you would with a real magazine or book. This enables you to check that your de-imposition has worked correctly, that pages are in the correct order, orientation and if there are any duplicates. Larger views of the pages can be called up and the whole publication can be exported to PDF or as a QuickTime movie.

FlipBook can be opened in three ways:

1. From the Application menu of the Serendipity Client. Publications can be dragged and dropped from the QueueManager into the FlipBook window and will open automatically.
2. From the QueueManager application by selecting a job and choosing View Flipbook. The View FlipBook option is only available if the job has a publication name.
3. From the BookMonitor application by selecting a Publication title and choosing View FlipBook (Available for Veripress/Blackmagic Softproofing Add-on Only). If the pages for the selected publication title have not been imaged or rendered in the QueueManager yet, the FlipBook will open but will not show any pages.

The FlipBook window comprises of four (4) main panels – **Publication**, **Pagination**, **Page View** and **Page Navigator**.

Publication Panel

This panel contains the name of the Publication being viewed.

Pagination Panel

- Start – Enter the page number for the starting page or use the arrows to select the first page number of the FlipBook. If the first page loaded is page 1, you cannot alter the start page number. If the first page loaded is greater than 1, you can enter a lower value as the start page number. This can be used if you are viewing a part publication where the first pages have not been processed.
- Top Page – Choose whether the top page of the FlipBook is Even or Odd.

Page View Panel

This panel is where the FlipBook pages can be viewed. When a FlipBook is opened, the pages of the publication are loaded and displayed in 2D (two-dimensional) view. There are various ways to navigate through the publication:

- Clicking on the page of the image – If you click on the right page, you move forward through the publication. Clicking on the left page moves backwards.
- Clicking on the pages in the Page Navigator Panel – displayed below the Page View panel. The view jumps to the page (pair) you select.
- Space Bar – The space bar moves forward to the next pair of pages. Hold the shift key and press the space bar to move backwards.
- PageUp/PageDown – Use these buttons on the keyboard to navigate forwards and backwards through the publication.
- Arrow Keys – Use down or right arrow keys to move forward through the publication and left or up to move backwards.
- Scroll Bar – Moving the scroll bar below the image moves forwards or backwards through the publication.

Page View (Contextual Menu)
There are various options available from the context (right click) menu:

- Open Publication – Opens a QueueManager showing all jobs processed in the system. Select a job or publication job to load and click OK.
- Reload Publication – Reloads the current publication with files from the queue. This is used if additional files have been processed as part of the publication, or changes have been made and the publication needs to be updated.
- Choose Press – Select a Press configuration to apply to the job currently (and subsequently) loaded into the FlipBook. (see Workbench - Press for details)
- Job Info – displays the Job Info information about the currently selected page. (see Workbench - QueueManager for details).
- Swap Page with – This allows you to swap the page currently selected with another page from the same (currently loaded) publication.
- View Original – opens and views the imaged file of the selected page in the SoftProof application.
- View Printed – opens and views the rendered file of the selected page in the SoftProof application.
- View 3D – toggles between a 3D or 2D view of the publication. Three dimensional viewing shows the page turning as you navigate through. The turning speed can be adjusted FlipBook Settings.
  3D mode adds 2 sliders on the right side of the Page View. The first alters the angle at which the 3D virtual book is viewed, the second zooms the view in and out.

Note: The performance of the page turning may vary depending on the size of the thumbnail being viewed and the performance of the graphics card.

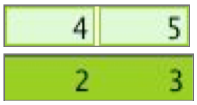
- View as Calendar – Only available in 3D mode. Changes the flip axis to horizontal so pages flip up and down in the same manner as a calendar.
- Export – Exports the FlipBook as a PDF. Select the resolution, compression type and quality. Choose between exporting the whole book or a range of pages.
- Export as Spreads – Exports the FlipBook as a PDF but as spreads. The same options as above apply.
- Export as Movie (3D view mode only) – Exports the FlipBook as a QuickTime movie. After selecting this there are three further options:
  - Codec Type – Choose the preferred compression type from the menu.
  - Quality – Choose the preferred quality.
  - Keyframe Spacing – Choose how often a keyframe is saved.

The settings you choose will affect the size of the movie, the quality and the compatibility with other applications. There are many Codec types available and not all work on all systems. Commonly used types are Apple MPEG4 and H.264 avc1. Increasing the quality setting also increases the file size. This is also true for the keyframes. The more keyframes, the better the quality but the larger the file size. Trial and error will provide you with the desired result.

- Render Queue Thumbnails – View the Rendered thumbnails in rather than the default Imaged thumbnails.

Page Navigator Panel
The Page Navigator displays a numbered box for each page making up the loaded Publication. It allows for direct navigation to any page by clicking on it.

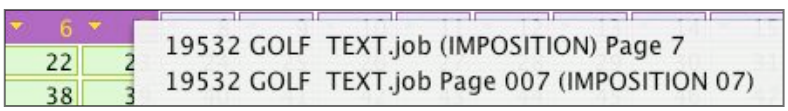
The page boxes are colour coded:



Light Green indicates the pages are loaded into the FlipBook and can be viewed. These show as dark green when selected.

Purple indicates there are duplicate pages, i.e., they have the same publication name and page numbers. Dark purple indicates the pages are selected.

Clicking on these pages allows you to select and view the alternative page:



Light Red indicates the page is not in the FlipBook. This occurs when there are other pages greater than the numbers displayed. This could be due to the imposition signature not yet being rendered. As they render, you can simply reload the publication to update the pages.

The status colours are updated whenever Reload Publication is selected.

A bar directly above the Page Navigator displays the Job Name for each currently viewed page on the left and right sides respectively. Pages with more than one version will show a dropdown to select which version to view. The Page Numbers being viewed are shown in the centre of the bar.

Menu Options
The following are available from the FlipBook File Menu:

- Open Publication
- Reload Publication
- Export
- Export as Spreads
- Export as Movie

Two other options are also available:

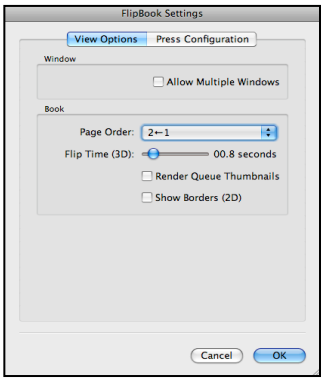
- Edit Touch Console UI (Veripress/Blackmagic Softproofing Add-on Only) – Opens an Edit Interface window allowing for the configuration of the buttons enabled (and visible) for control of the FlipBook in the Main screen of the Touch Console (see the Applications – Touch Console section for more information). Enable or disable buttons by clicking on them. Those disabled will appear with a red cross and will be excluded from the Touch Console when using it to view a FlipBook.

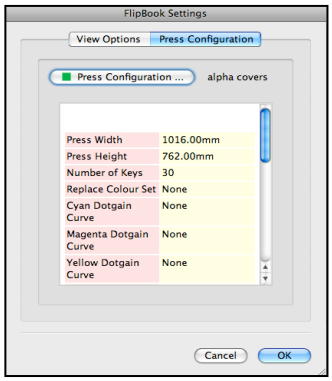
  The Toolbar has a Preview toggle to see how the Touch Console controls will appear and a Reset button to restore and enable all buttons.

- FlipBook Settings – Configure the FlipBook viewing options and press configuration.

  View Options
  - Allow Multiple Windows – Enable or disable. Allows multiple Publications to be opened and viewed in separate FlipBook windows. If disabled, a newly opened Publication will replace the one currently being viewed.
  - Page Order – Choose between reading left to right or right to left.
  - Flip Time (3D) – Select the speed for the flipping of pages when in 3D mode.
  - Render Queue Thumbnails – Enable or disable render queue thumbnails.
  - Show Borders (2D) – Enable or disable the borders when viewing in 2D mode.

  Press Configuration
  - This panel allows you to view or change the Press configuration FlipBook uses to display Publications.





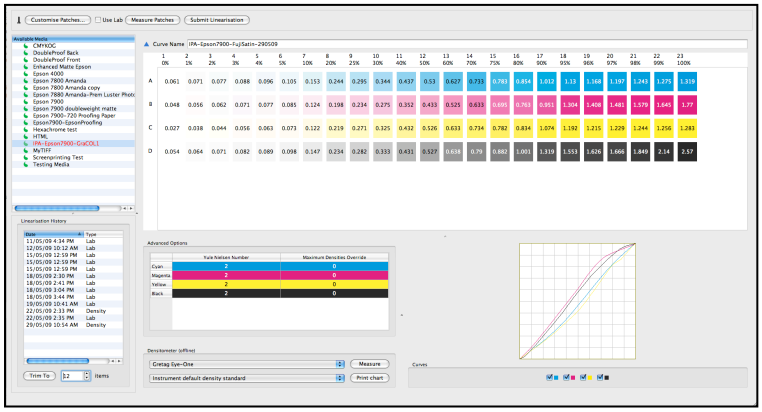
View Menu
These options are also available from the FlipBook View Menu:

- View 3D
- View as Calendar
- Ink Weight – Opens the Ink Weights window displaying the FlipBook publication's ink weights and coverage.

Further details on how to use the FlipBook are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

Lineariser

The Lineariser application creates a Linearisation Curve for an output device (printer). Assigned to a Media after paper profiling, it brings the output device to a known (linear) state. This means a 50% Cyan will print at 50%.



The user first prints a stepped wedge chart for a selected Spectrophotometer/Densitometer to the output device in the colourspace specified by the Media. The chart is measured and the resulting curve is saved, assigned to the Media and a History recorded.

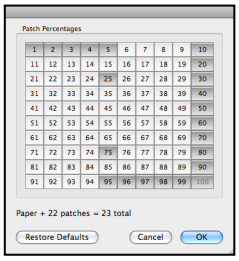
At this stage, ICC profiles can be created and applied for accurate colour representation. If the printer output varies due to ink batches or head wear, a quick re-linearisation process is all that's required to get back to the same linear state initially created. The original ICC profiles can be re-applied to achieve the same colour output.

The Interface

The Lineariser window is made up of a Toolbar and a number of panels – Available Media, Linearisation History, Measurement, Advanced Options, Spectrophotometer or Densitometer information and Curves display.

Toolbar

The Toolbar has the following options (also available via the Lineariser Menu):



- Customise Patches – Allows for the selection of patches to be used in the Linearisation Chart. Choose which Patch Percentages using the numbered buttons. Total number of patches selected is displayed.
    - Restore Defaults – Restore the patch selection to the default 23 patches per channel.
- Use Lab – Toggles between Density and Lab measurement modes. Lab mode for linearisation is required for printers with built-in Spectrophotometers.
- Measure Patches – Initialises the connected Spectrophotometer. Follow any instructions in the status bar to measure the chart.
- Submit Linearisation – Save the data in the Measurement panel to the Media being linearised. A popup will request a name for the curve.

Note: The Customise Patches and Use Lab options are new to Blackmagic Versions 4 & 5. If viewing curves loaded from a Version 3.x or earlier database, the options will be unavailable until the Update Legacy Curves option is selected from the Measurement panel contextual menu (see below).
There is no need to update Version 3 curves if your printer is performing satisfactorily. However, there have been significant improvements made to the Lineariser so it is worth considering re-linearising with Version 5.

Available Media

This panel displays a list of available Media. Select a Media to view its current linearisation curves and data, or to linearise a new Media.

Any changes made are applied to the currently selected Media.

Linearisation History

Shows a list of all the linearisations performed for the selected Media, allowing the user to track the performance of the output device.

The following sort columns can be selected using the contextual menu on the column header bar. Column order can be changed by dragging and dropping the columns into the desired order, or by using the Configure Headers option in the context menu:

- Date – Date and time the linearisation was measured.
- Type – Shows whether each linearisation curve was measured in Density or Lab mode.

The panel has one (1) button:

- Trim To – Trims the number of stored histories to the value shown from oldest first.

The following options are available from the context (right click) menu within the History list:

- Show Charts – Launches a separate window that plots the linearisation history of the Media/Gradation Curve on various charts (See below for further information on the available charts). Checkboxes at the top of the window allow you to choose which ink channel to view. Shift+click to view another channel at the same time. Double click a channel to see all.
- Revert to this Date – Reverts the linearisation curve assigned to the Media to the selected, historical (previously measured) curve.
- Unload – Unloads the historical curve data being viewed in the Measurement panel and loads the currently assigned curve.

Measurement

- Curve Name – Displays the name of the Linearisation Curve currently selected. This can be the saved curve assigned to the Media or a selected History item.
- Last Linearised – Located top-right above the measurement panel, Last Linearised displays the date and time the printer/media combination was last linearised.

The display shows the colour-coded linearisation patches for each ink channel. The patch number and the Dot % it represents are listed across the top of the panel. Measured Values (Density or Lab) are shown within each patch. If no values are present, the Media has not yet been linearised.

Advanced Options

- Yule Nielsen Number – Enter the YN number if you know what it is for the media in use. The default is 2. The Yule Nielsen number or N-Factor is used to compensate for dot spread on different media types. This is basically a "fudge factor" added to the standard Murray-Davis formula used to calculate dot area from a density reading. An N-Factor of 1 means no compensation is made and just the Murray-Davis equation is used. An N-Factor of 2 seems to work well with most media types. As adjustments are made, the curve preview on the graph will change, showing the effects of the value entered. Further information on the Yule Nielsen Number can be found below.
- Maximum Densities Override – Enter a value to limit the top end density for each of the process colours. The default is 0 (no override). As adjustments are made, the curve preview on the graph will change, showing the effects of the value entered. Further information on Maximum Densities Override can be found below.

Densitometer/Spectrophotometer

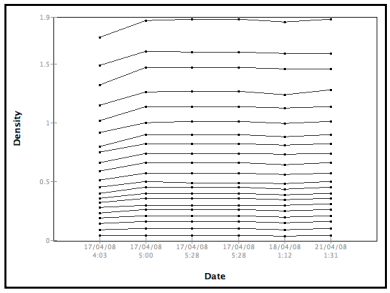
- Device – Select the appropriate instrument from the pull down list of devices.
  Note: The Embedded Printer Spectro option is only available when in Lab measurement mode (Use Lab enabled).
- Instrument Standards – Choose from the list which instrument standard is to be used for measurement. This will only appear when Use Lab is not enabled.
- Measure – Connects to the selected instrument and prepares to read patches. The patch window changes to a measuring window and the instrument list changes to a text field where instructions are displayed.
- Print Chart – Print the appropriate chart for the selected instrument to the Media selected. You will be prompted with an options window with the following:
  - Cancel Printing – Cancels the action and returns to the previous window.
  - Don't Apply. Print to Linearise – This will disable all colour management except for Paper Profile. Use this to make a Linearisation Curve.
  - Yes. Print to check Linearisation – This applies all colour management so you can check a Linearisation.

Curve
This panel shows the Linearisation Curves for each ink channel.

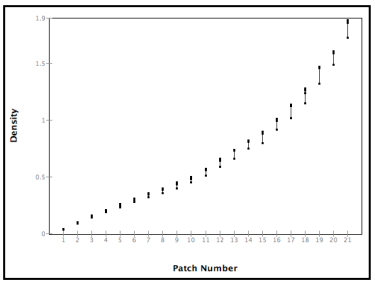
Select individual channel checkboxes to view a channel. Shift+click to add more channel curves to the view. Double click a channel to show all curves.

Show Charts
Selecting Show Charts will display another window with a chart for each channel in the linearisation curve. At the top of the window is a series of tick boxes, one for each colour. Selecting one displays the single colour and hides all others. Selecting another box changes the graph to that colour. Select the same colour again and all graphs will be displayed. Use SHIFT+Click to show more than one graph.

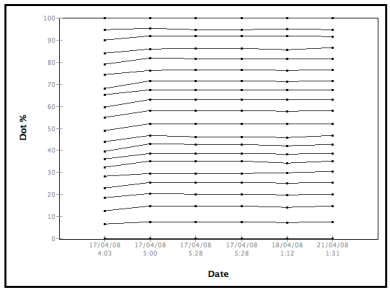
Chart Types
There are five (5) chart types available for selection:



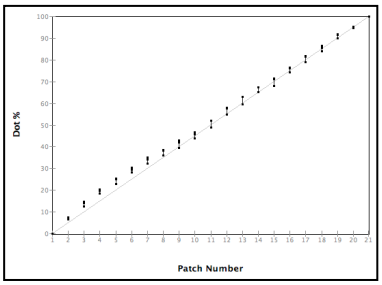
Density / History – Plots the date of the curve on the X-axis and the density values for each patch on the Y-axis. If the density begins to drop off, it will be displayed in the chart.



Density / Patches – Plots the patches along the X-axis and the density on the Y-axis. For each patch in the history, a point is placed on the graph. If the density for a given patch does not vary greatly, the points will appear on top of each other. Where there is some change, a line will appear between points.

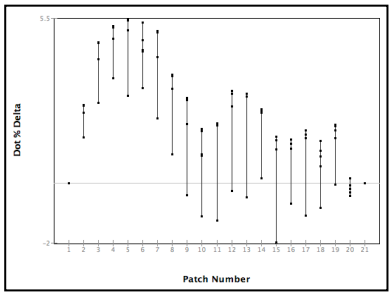


Dot % / History – Plots the date of the measurements on the X-axis against the dot percentage on the Y-axis. The points on the chart represent the patches. For any patch, the effective dot % and how it varies across the history is shown.



Dot % / Patches – Plots the patch number along the X-axis against dot percentage on the Y-axis. A diagonal line from 0 to 100 is shown as a guide to a linear curve. This graph will show if the patches are generally higher or lower than a linear measurement, as well as differences over the course of time.

Dot % Delta / Patches – Plots the patch number along the X-axis against the dot percentage delta on the Y-axis. It shows the percentage difference from the target. For example, if the target is 40% and the measured value for that patch is higher or lower, the error is shown in the graph.



Yule Nielsen Number
The Yule Nielsen Number is essentially a "fudge factor" applied to the standard Murray-Davis formula used when calculating dot percentage area from density.

The value is used to compensate for various media types, as some react differently to others in the way a dot will spread on a particular media and thus affect the dot percentage value. It is sometimes helpful to change the YN number (and some manufacturers will quote a YN number for a given media) but this is rare.

The YN formula used for calculating the dot percentage is:

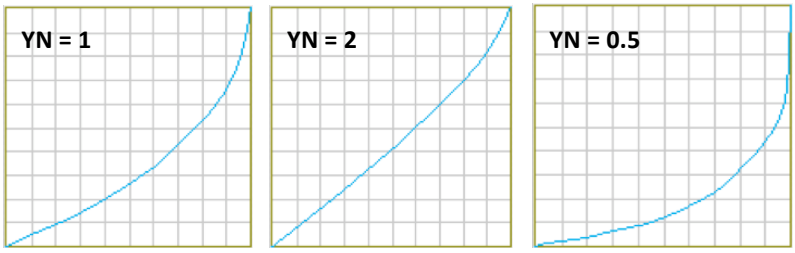
$$\text{Dot \%} = \frac{1 - 10^{\frac{-dot}{YN}}}{1 - 10^{\frac{-solid}{YN}}} \times 100\%$$

dot is the value of the density being measured

solid is the density of the solid patch

Therefore, a YN value of 1 has no effect on the dot percentage area. A value other than 1 will compensate for the dot spread on the media. If the YN is greater than 1, the Dot % decreases and if the YN is less than 1, increases.

This can be seen from the graph on the Lineariser:



The curves display the compensation; therefore if the YN number is less than 1 the dot percentage calculated is increased so the curve applied will go down. The reverse is true for a YN number greater than 1.

For most of the testing done during initial development, the value of 2 (the default setting) seemed to work well. It was also noted on occasions, better results were obtainable by setting different values for each process colour.

Note: As the ICC profiles are created after Linearisation, any value entered will be used for printing the ICC chart and will affect the output. This means when the ICC profiles are applied, the same YN number must always be used in the Lineariser to obtain correct results.

Maximum Densities Override
The Maximum Densities Override allows the user to cap the top end density to any value less than the maximum value read.

If a value less than the highest value measured is entered, the curve will change. The top end will move down and the rest of the curve will adjust to compensate for the new end position. The values in the middle of the curve will also change.

Pros and Cons
There are various arguments for and against setting a maximum density override. In general, the Match ICC profile would set the maximum density values so there should be no need to set them here. However, some users have found it to be an advantage to set the values to the target densities required for the final proof output and in doing so, have achieved very good results.

Reducing the density of the output used to print the ICC chart will affect the gamut. However, as the gamut of a press is generally smaller than that of a proofing device, this may not have any noticeable effects.

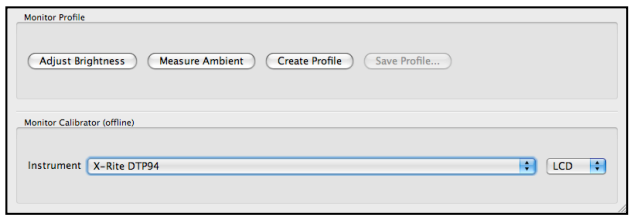
It is desirable to drop the top end densities of the output prior to ICC creation, as sometimes there is a need to boost the values after ICC is applied. This should only be used as a last resort and is not desirable as a general rule. If the top end densities drop, the ICC profiles are generally to blame and therefore should be corrected.

Note: It is the Match ICC profile that has the biggest bearing on the output and sets the output top end densities.

Further details on how to linearise media and printers are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

MonitorCalibrator

The MonitorCalibrator application uses a supported Spectrophotometer to create an ICC profile for a selected monitor. This allows quality graphics monitors to be calibrated to a chosen print standard for colour accurate softproofing of print material. SoftProof accuracy can be verified at any time using the Calcheck application.



Creation of the profile is very simple, requiring one of the supported devices and a few minutes of time. The Spectrophotometer is placed on the screen and a series of measurements is taken from which the ICC profile is created.

Note: The MonitorCalibrator creates a profile for use with the Match ICC profile assigned to the monitor in System Settings. Ensure the correct match profile is set before creating the monitor profile (see the System Settings – Colour Management section for details).

The MonitorCalibrator is launched from the Application menu. If the Match and Monitor profiles have not been set previously, a prompt will appear to select both. A default monitor profile should be selected until a unique profile is created.

Options

- Adjust Brightness – Calibrating a screen to an established standard often requires that the screen be set to a particular brightness. This function uses a Spectrophotometer to measure the current Brightness (in cd/m^2) and Colour Temperature (in °K) of the monitor. Measurements are displayed in the bottom left of the screen. Hit Esc to exit the function. The brightness settings can be adjusted using the monitor's own hardware or software controls, until the correct level is achieved.

  Note: This function does not have any control over monitor brightness; it is a measurement tool.

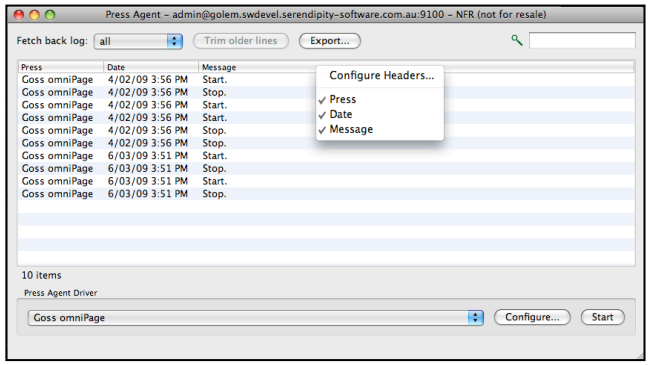
- Measure Ambient – Uses a Spectrophotometer (equipped with a filter) to measure the Ambient light in the proofing environment. The ambient light level (in cd/m^2) is displayed in the bottom left of the screen. Ambient light levels can be important when meeting proofing environment standards. Hit Esc to exit the function.
- Create Profile – Calibrates and profiles the monitor using an online device. The device must be selected from the dropdown menu, be connected and turned on. Follow the onscreen instructions (press Enter to start). When the profile is complete, you will be asked to save it. It is recommended profiles be saved in the default ICC/Monitor directory.
- Save Profile – Saves the current measured profile. This will save the last profile measured/created by the MonitorCalibrator. This data is lost if the application is closed. It is recommended the profiles be saved in the default ICC/Monitor directory.
- Instrument – Choose one of the supported devices from the list.
- Display – Select your display type for calibration – LCD, CRT, RAW

Further details on how to configure a Monitor are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

Press Agent

The Press Agent application allows Veripress to be connected to a Press console through a network port.

After selecting the appropriate Press Agent Driver, a press operator can load or turn softproofing jobs/pages using press console buttons.



Other options include interfacing with a press desk camera. The press operator turns a hardcopy page on the press desk - Press Agent will use the page recognition data from the camera/console to automatically load the correct left and right pages, or page spreads.

Log

The Press Agent window has a central Log panel to show events/messages/commands received from the press console while the Agent is active.

The following sort columns can be selected by using the contextual (right click) menu on the column header bar. Column order can be changed by dragging and dropping the columns, or by using the Configure Header option from the contextual menu:

- Press – The Press console that generated the event/message/command.
- Date – The date and time of the event/message/command.
- Message – The event/message/command generated by the press console.

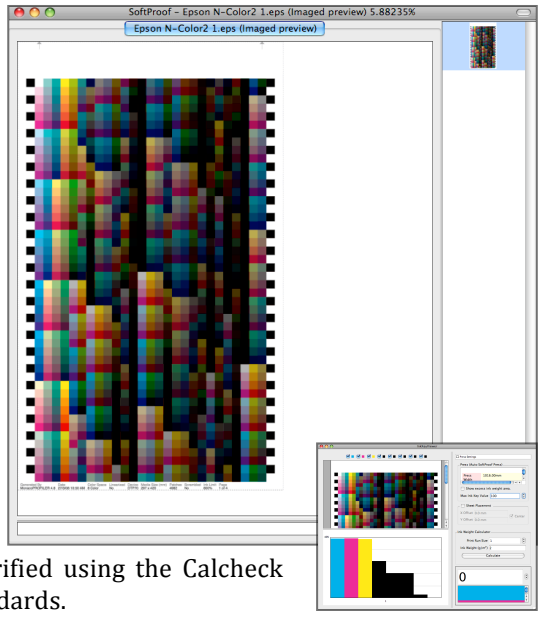
Log Options

- Fetch Back Log – Displays the log for the time specified. For example, it retrieves and displays the last 4 hours of messages. Choose the time from the dropdown list.
- Trim Older Lines – Trims the log based on the time selected in Fetch Back Log. If this is set to 60 minutes, the log file is trimmed back so only the last 60 minutes remain.
- Export – Allows you to export the log to a HTML or tab delimited text file.

Interface Options

- Press Agent Driver – Select the required Press Agent Driver from the dropdown list of supported press consoles.
- Configure – Opens a Configuration pop-up for the selected Press Agent Driver. Available options vary dependent upon the press console driver.
- Configure is not available while the Press Agent is running. Hit Stop if settings need to be changed.
- Start/Stop Button – Starts or stops the Press Agent.

SoftProof



The SoftProof application is used to proof a job on the screen. There are many tools available to check every aspect of the job at any stage of production or processing. SoftProof can be used in conjunction with or instead of a hardcopy proof.

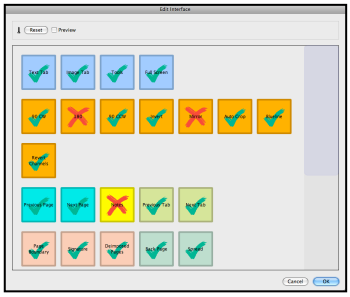
Using a calibrated monitor and configured Press settings, proofs can be viewed with precise colour accuracy and verified onscreen.

All job plates are shown and can be turned on or off, or changed as desired. Colour attributes and plate characteristics can be changed to see the effects of different printing processes, including paper types and the effects of show through from the reverse side. The data can be exported to various formats including CIP3 and PDF.

An InkKeyViewer (below) can display a job as it would be on the press, with the values for each Key. The ink weight can be calculated and over ink areas identified. The proof can also be verified using the Calcheck application to give a pass or fail status in accordance with colour standards.

File Menu Options

- Open Files – Load an image file directly into SoftProof. Supported file types are Canon RAW format (CRW), JPEG, PNG, PPM, Serendipity Blackmagic Image and Tiff.
- Open Jobs – Load completed jobs into SoftProof. A QueueManager window will open showing available jobs. Once selected, choose whether to load the Imaged or Rendered file.
- Save – Save the preview as a Blackmagic Image file. This can be submitted or placed in a hot folder, or on a DropSpot.
- Export – Export data from SoftProof. The available formats are CIP3, PDF, Postscript (Separated) and Tiff Multichannel.
- Submit – Submit the current job to a Media and Pagesetup with any current changes. This re-images and re-renders the file. When submitting the image to be processed again with any relevant changes, the current image resolution is submitted. If the resolution is restricted in the System Settings, this is the resolution that will be used.
- Edit Touch Console UI (Veripress/Blackmagic Softproofing Add-On Only) – Opens an Edit Interface window that allows the configuration of the buttons enabled (and visible) for control of SoftProof in the Main screen of the Touch Console.
  Enable or disable buttons by clicking on them. Those disabled will appear with a red cross and will be excluded from the Touch Console when using it to view any softproofs.
  The Toolbar has a Preview checkbox to see how the Touch Console controls will appear and a Reset button to restore and enable all buttons.

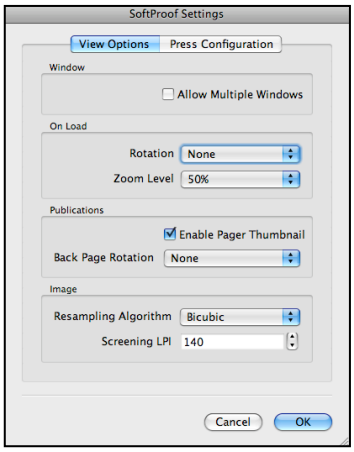


- SoftProof Settings – Opens the preferences for the SoftProof application, allowing the selection of default viewing conditions. See below for further information.

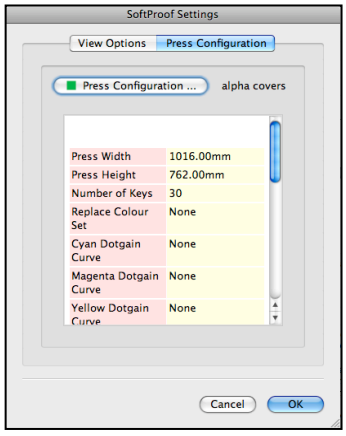
SoftProof Settings

The SoftProof settings allows you to select viewing preferences, including how to load a job, the quality and press settings to produce accurate proofs. The settings window is split into two (2) tabs – View Options and Press Configuration.

View Options



- Allow Multiple Windows – Check this box to enable or disable. Allows jobs to be opened and viewed in separate SoftProof windows. If disabled, a newly opened Publication will replace the current one being viewed.
- Rotation – Control the orientation of jobs when they first load. The option None leaves the job in its imaged or rendered orientation.
- Zoom Level – Select the default zoom setting. All Fitting zoom modes calculate the size based on the monitor resolution. This is set in the Colour Management tab of the System Settings.
- Enable Pager Thumbnail – Enable or disable the thumbnail viewer in the Page Navigator panel of a softproofed publication. When enabled, a thumbnail of a page appears when the mouse pointer hovers over the page number box. The shortcut key of shift+T in the SoftProof window can also be used.
- Back Page Rotation – Set a default rotation for a back page when using the option Show Back Page.
- Resampling Algorithm – Set the resampling algorithm for jobs as they are viewed in SoftProof.
- Screening LPI – Enter the desired value for screen ruling for SoftProof in Lines Per Inch (LPI). The default is 150lpi.



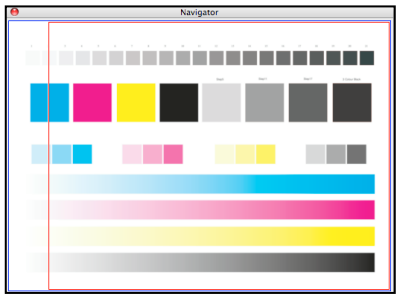
Press Configuration

This tab allows you to select a Press configuration from the database to be applied to the loaded job, and for all subsequent jobs opened in SoftProof. The results of the press settings can be seen on the output job and should match the printed copy.

An information window shows the settings of the currently loaded press setup. Press configurations are managed in the Workbench and contain information such as size, number of keys and colour information.

Navigator Menu

The Navigator is a small preview window showing the whole job, irrespective of the zoom level of the main SoftProof window.



When the Navigator is open, moving the mouse pointer inside will display a red box showing the respective area shown by the main window. If the main SoftProof window is zoomed in, the red box will be smaller than the navigator window size. A single click (or click & drag) will reposition the main window to show the portion of the image selected.

The Navigator window can also be used in conjunction with some of the SoftProof tools:

- Zoom – Click and drag to view a particular area and the main window changes to the selected area.
- Crop – Click and drag to mark a crop area. Reposition the marked area as desired and crop by pressing Enter, double clicking, or right clicking and selecting Crop. To cancel the crop, right click and select Cancel, or press the Esc key.
- Large Navigator – Toggle between the default or large sized Navigator window.

View Menu

- Tabs – Control the tabbed viewing of images in SoftProof.
    - New Tab – Opens a new, empty tab ready for a job. Use the Open Job option or drag a job from the QueueManager into a new tab to load it.
    - Close Tab – Closes the currently selected tab. If there is a job loaded it is closed and the next tab is selected.
    - Next Tab – Loads the next tab containing an image into the main window.
    - Previous Tab – Loads the previous tab containing an image into the main window.
    - Text – Enables text tab guides at the top of the window.
    - Thumbnail – Displays the thumbnail viewer on the right of the main window.
- Get Info – Display information about the softproofed job and how it was processed.
- Show Page Boundary – Places a red line around the page area of the job. This is viewable when the SoftProof window is large and the image reduced in size.
- Ink Weights – Opens an Ink Weights window displaying information regarding the Source and Print Inks for the selected job.
- Zoom In/Out – Zoom in or out of the image.
- Show All – Show the whole job in the window.
- Show Actual Pixels – One pixel of the screen is equal to one pixel of the job. This is shown at 100%. This view mode has the quickest load time as no resampling for scaling is required.
- Show Actual Print Size – Show the print size of the job.
- Fit Width / Height – Fit the job to the height or width of the preview window.
- Full Screen – Change between full screen mode and window mode.
- Page Index – Show/Hide the page numbers from appearing at the bottom of the SoftProof window when viewing multi-page publications.
- Loupe – Display a virtual loupe on top of the image loaded. The Loupe can be resized and magnification changed if required. The current magnification is shown at the bottom of the Loupe; 100% means 1 screen to 1 job pixel.
- Loupe HUD (Veripress/Blackmagic Softproofing Add-on Only) – Toggles a Heads Up Display (HUD) showing the CMYK dot percentages at the centered cross-hair or within the average % box (see below).
- Screened Pixel Readout (Veripress/Blackmagic Softproofing Add-on Only) – Toggles the HUD between cross-hair point measurement of ink percentages and a square for measuring area average dot percentages. The square resizes depending on the Zoom % to always cover an area equal to a full halftone cell at the LPI defined in the SoftProof Settings (above).
- Screening LPI (+/-) (Veripress/Blackmagic Softproofing Add-on Only) – Increase or decrease the effective LPI at which the HUD area square averages the dot percentages. Increase (+) the LPI and the square will get smaller; decrease (-) the LPI and the square enlarges.

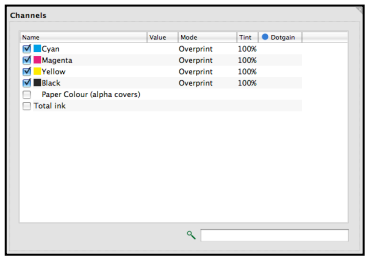
Tools Menu

- Palette – Show or hide the floating tool palette. The position is remembered the next time SoftProof is launched.
- Pan – Navigate around the image by clicking and dragging the job around the screen. The cursor displays as a hand.

- Zoom – Zoom in or out of the job. Clicking the mouse zooms twice the current percentage factor. Holding SHIFT+Clicking zooms out to half the current percentage factor. Click and drag over an area to zoom in. This works in both the main window and the Navigator.
- Note – Create, manage and delete notes.
- Measure – Take a measurement on the image. The cursor displays as a rule. Use the shift key to draw straight lines.
- Crop – Crop and image and resubmit it.
- Guide – Display guide lines on the image to check for alignment. Change the orientation by pressing SHIFT. Esc will remove the guides and change to Pan mode for general navigation.
- Spectro – Take measurements of the job being viewed. A popup window will appear displaying the Lab/Lch/XYZ/Density values at the point the Spectro cursor is onscreen. Additionally, (Veripress/Blackmagic Softproofing Add-on Only), the Spectro Tool gives the user the option to choose an instrument which can be used to measure a hard proof. The measurement taken is compared to the SoftProof and the deltaE displayed onscreen.
- Panels – Open the Panels window featuring the Channel View, Notes, Publication and Effects panels. Panels can be shown or hidden as required using the buttons at the top of the window.
- Channels – Opens the Panels window, showing only the Channels section (see Channel Viewer below).
- Notes – Opens the Panels window, showing only the Notes section (see below).
- Publication – Opens the Panels window, showing only the Publication section (see below).
- Effects – Opens the Panels window, showing only the Effects section (see below).
- Ink Keys – Opens the InkKeyViewer (see below).

The Channel Viewer

The Channel Viewer shows the channels or plates of the job currently being viewed in SoftProof. Plates can be turned on or off by clicking the relevant checkbox to the left of the plate name, and can be reordered by clicking and dragging them to a new position. The plate colour and associated attributes can be changed by double clicking and choosing another Special Colour Set from the library, or edited for that SoftProof instance only. Columns can be reordered by using the Configure Headers option in the contextual menu, or by clicking and dragging them to the new location.

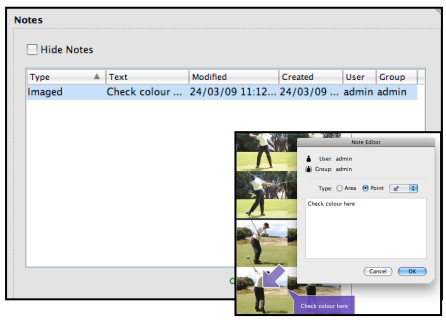


Channels

- Name – The plate name. The checkbox indicates whether or not the plate is displayed.
- Value – The percentage of colour at the point of the cursor in the SoftProof window. Total ink displays the total amount of ink at the point of the colour selector, i.e., the sum of all plate percentages. For RGB, it will show the relative RGB values only.
- Mode – The paint mode of the colour as defined in the Special Colour Set or Replace Colour Set. If it is not defined, the default is Overprint.
- Tint – The intensity or tint value of the colour.
- DotGain – The name of the dotgain curve applied to the colour. This is blank if a dotgain curve has not been applied.

The contextual menu (right-click) in the Channel Viewer reveals additional menu options:

- Choose Plate Colour – Select a plate colour from a Special Colour Set for the selected channel. Double clicking will display the same Special Colour Set window.
- Choose Paper Colour – Select a colour from the Special Colour Set to use to simulate the paper colour. Once set, the option to unset becomes available – Revert Paper Colour.
- Edit Plate Colour – Displays a colour editing window to edit the selected colour for the current SoftProof instance only. The edits are not stored in a library.
- Apply a Replace Colour Set – Select a Replace Colour Set to apply to the job. Any plates matching the set will be replaced.
- Revert All Plates to Press Settings – Changes all plates back to the press configuration currently selected.



Notes

Notes gives users the ability to draw a text box on the imaged or rendered SoftProof to make a note. The note is attached to the job file and remains attached until it is either deleted or the job is removed from the system. There is no limit to how many notes can be created, and they can be shown or hidden as required.

Notes cannot be attached to files opened in SoftProof via File Menu > Open Files. The file needs to be submitted as a Blackmagic job before any embedding of notes can take place.

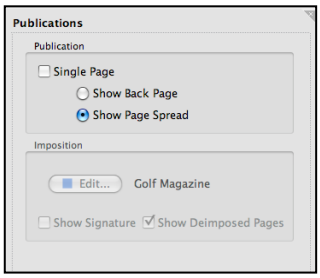
When creating a note with the Note Editor, a configurable arrowhead pointer option is available along with the existing area marker for a more precise commentary on the job. The User and Group of the note creator are also displayed (see Secure Mode). Notes can be edited or the pointer adjusted by double-clicking on the Note.

The Note panel displays any notes attached to the job currently selected in the main viewing window. There is also a Note column in the QueueManager showing the number of notes attached to a particular job.

- Hide Notes – Show or hide the notes on the preview. By default, loading an image will display any notes.
- Type – Lists whether the note was made on the Imaged or Rendered file.
- Text – The text making up the note.
- Modified – The date and time the note was last modified.
- Created – The date and time the note was created.
- User / Group – The User and Group responsible for the note.
- Search Box – At the bottom of the window a search box can be used to locate specific note information. All fields in the Note channel are searched.

Publications
When softproofing a job forming part of a publication, additional controls and view options are available.

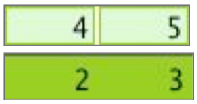
The Publications panel has the following options:



- Single Page – Display just the single page selected. De-selecting this enables the options below:
  - Show Back Page – Display the reverse side of a page through the page currently loaded, as if the final print was being held up to light. The Back Page Opacity setting in the Press Settings controls the amount of show through.
  - Show Page Spread – View the spread of the selected page, for example, pages 2 and 3 as a spread.
- Edit Imposition – When an imposition flat is loaded, changes can be made to the Signature Group here without closing SoftProof. Any alterations can be viewed using Signature Overlay.
- Show Signature – Overlays the signature used to de-impose onto the image. This is only available if the job has been de-imposed.

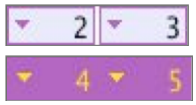
Page Navigator Panel
Positioned along the bottom of the main SoftProof window, the Page Navigator displays a numbered box for each page making up the loaded publication. This allows for direct navigation to any page by clicking on the page number. Hovering the mouse over a page number will pop-up a thumbnail for the page.

The page boxes are colour coded:

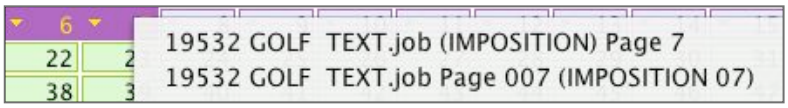


Light Green indicates the Publication pages are loaded and can be viewed. These show as dark green when selected.

Purple indicates there are duplicate pages, i.e., they have the same publication name and page numbers. Dark purple indicates the pages are selected.



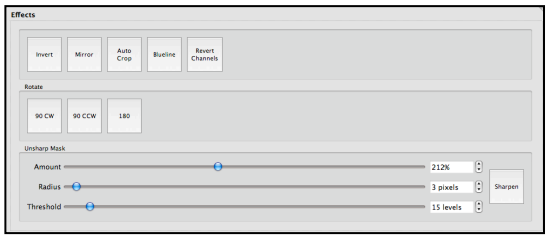
Clicking on these pages allows you to select and view the alternative page:



Light Red indicates the page is not yet available for viewing in SoftProof. This normally occurs when there are page number gaps if pages have not yet imaged or rendered; or when processing a de-imposed publication with known (signature defined) page numbers. As the missing pages image/render, close and re-open SoftProof to update the publication pages.

Effects

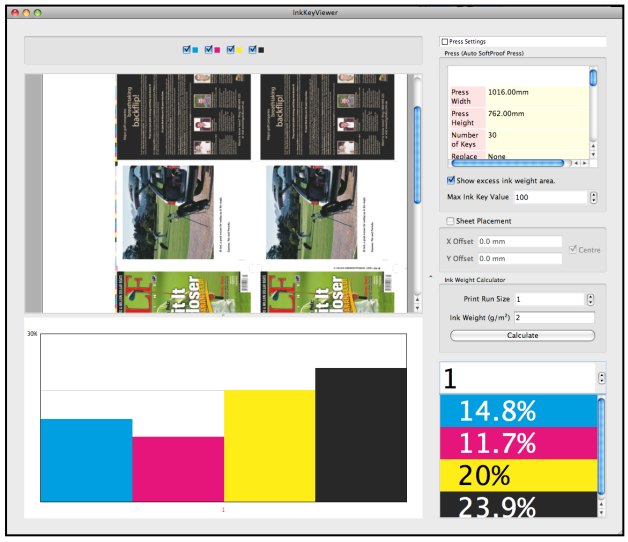
The Effects panel contains the basic effects that can be applied to the image, These are simple actions to either improve the view or to adjust the job and resubmit it with the change.



- Invert – Negate the image.
- Mirror – Mirror the image.
- Auto Crop – Remove white space around a job. There must be a completely clear area on any one side of the job.
- Blueline – Replace all colours with varying shades of blue to see any traps.
- Revert Channels – Revert to the original channel values.
- Rotate – Rotate the image in various ways.
- Sharpen – Apply an unsharp mask. This will affect the edges within an image and can be controlled with the parameters available.

InkKeyViewer

Launching the InkKeyViewer (via the Tools menu) will open a new window containing the loaded image.



At the bottom of the window will be a series of ink keys. Colour bars give a graphical display of the proportion of each ink contained within the job across the keys. For each key selected, the relative percentage of ink for each of the plates is displayed. An information panel runs down the right hand side of the window. The top of the panel shows information about the currently loaded Press settings. Job view and placement can be changed and ink weight can be calculated for any job.

- Colour Check Boxes – Positioned above the image, these show the inks or plates used in the job. Clicking on one will turn the others off and leave the ticked colour on. Click each in turn to view another colour or double click one to show all colours. Shift+Click to add or subtract colours from the view.
- Ink Keys – The keys at the bottom of the window show the inks selected to be viewed on a graph. The scale of the graph varies, depending on the amount of ink in the job. Hovering over or clicking on an Ink Key will display the Key number and its ink values at the bottom of the information panel.
- Press Settings – Shows the values for the currently loaded Press. Click the box to hide or show the details. Press settings used are selected in the SoftProof Settings (see Workbench – Press for details on press configuration).
- Show Excess Ink Weight Area – Display areas exceeding the Maximum Ink Weight setting as defined in the Press configuration.
- Max Ink Key Value – Set the size of the ink keys to match your press. Ink values are calculated based on the size entered. If the size is 100, percentages are displayed.
- Sheet Placement – Show the job as positioned on the press sheet as defined in the Press configuration. The job can be centered (selecting the Centre checkbox) or offset from the left (X) and bottom (Y). De-selecting this displays the whole job in the viewer and changes the ink keys to show total ink amounts for the job.
- Ink Weight Calculator – Use this to calculate the amount of ink required to print x number of copies.
    - Print Run Size – How many to print.
    - Ink Weight (g/m^2) – Enter the weight of the ink used in grams per square metre.
    - Calculate – Based on the values entered for ink weight and print run size, the total weight of ink for each colour can be calculated for the job loaded and displayed in the ink value area.

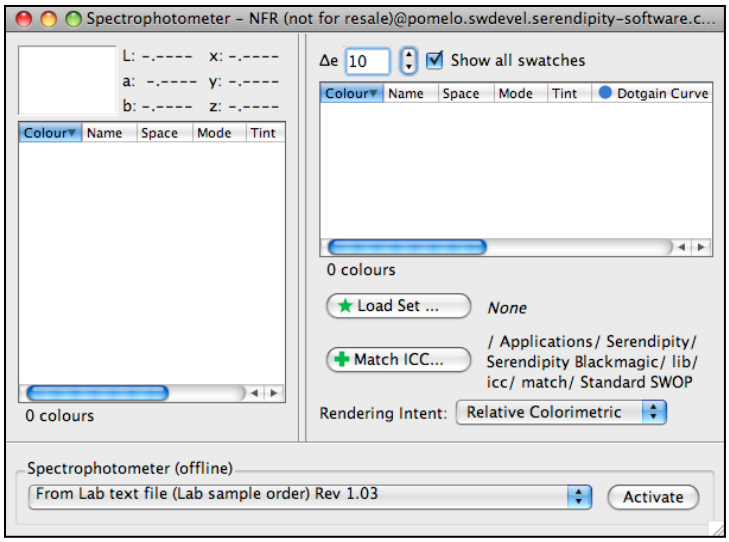
Contextual Menu Options (right click)

- Show Ink Key Table – Shows a preview listing the ink key values of all keys for each plate. These can be printed using a local printer if required, or exported to PDF.
- Export Tab Delimited – Exports the values for the keys and ink values to a tab delimited text file.
- Close – Close the InkKeyViewer.

Further details on utilising the SoftProof features are available on our website, under the HowTo Guides section: http://www.serendipity-software.com.au/support

Spectrophotometer

The Spectrophotometer application allows for the measurement of colours with a Spectrophotometer. The accuracy of the measured value can be viewed against an imported value when mapped through a selected ICC profile.



The window is split into two sections. The right side allows for the import and viewing of a Special Set, which is used as the comparison base. The left side displays the measured values.

Selecting a particular measured value matches the closest colour of the imported set, giving it relative deltaE values. These can also be filtered to only show the closest matches for better viewing.

Options

- Load Set – Select a Special Colour Set to load. This is the set used to compare measured values with. Choose from any of the Special Colour Sets created.
- Match ICC – Select a Match ICC profile.
- Rendering Intent – Select the rendering intent for the Match profile.
- Spectrophotometer – Select your device from the list of supported Spectrophotometers.
- Activate – Connect to your selected device. Once connected, the pulldown device list will change to display any status messages from the device and the values measured.
- Turn Off – Disconnects the connected Spectrophotometer. Alternates with the Activate button.
- Add – Select this to append to the list for each reading. If this is not selected, the last reading is updated. This is available after the device has successfully connected.
- △e – Select the value of deltaE to display for when comparing measured colours with those in a loaded set. This is used in conjunction with the Show All Swatches option.
- Show All Swatches – Select this to view all swatches. By de-selecting this, only those swatches below or equal to the deltaE value entered will be displayed. Colours within the defined tolerance values will show in blue.

Measured / Loaded Set Panels

The Measure and Loaded Set panels show the following information:

- Colour – A swatch visually representing the colour.
- Name – The name of the colour. This can be edited by clicking in the name field.
- Space – The colourspace of the colour (Lab or CMYK).
- Mode – The paint mode of the colour.
- Tint – The tint value of the colour.
- DotGain – The dotgain curve assigned to the colour (if any).

In addition, the Loaded Set panel displays the following:

- △e/CIE94/CMC (1:1)/CMC (2:1)/Delta L/Delta a/Delta b – These columns list the relative delta's of the loaded set colours when compared to the selected, measured colour.

Export Menu

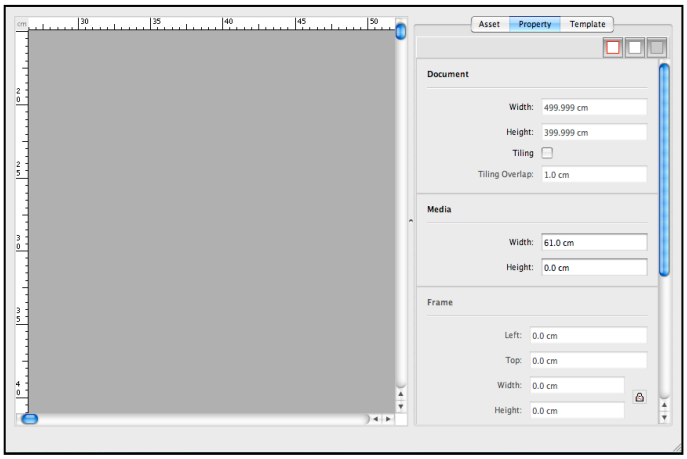
The Export menu allows for the measured values to be exported to a space or tab delimited file. Save all or only selected entries and select the format for export:

- Lab – Export just the Lab values.
- XYZ – Export just the XYZ values.
- Lab XYZ – Export the Lab values followed by the XYZ values on the same line.
- XYZ Lab – Export the XYZ values followed by the Lab values on the same line.
- Separate Values With – Choose if the values are to be separated with spaces or tabs.

A contextual (right-click) menu in the Measured / Loaded Set panels has the option to Delete (a selected colour); Delete All (measured colours); Print (the measured/loaded set to a system device); and Font Options.

Studio

The Studio application is designed for the manual nesting or tiling of jobs being processed and output by Blackmagic.

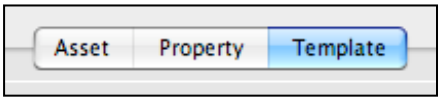


Jobs to be nested or tiled using Studio are submitted to an Asset Queue using the Submit Files As Assets option in the Application menu; a button in the RIPMonitor toolbar; or by dragging files into an Asset DropSpot in a DropZone.

Submitted assets are visible in the Asset Queue in the QueueManager and remain in the queue, even after printing, until deleted from the QueueManager. Unlike other queued jobs, assets exist only as placeholder thumbnails until a manual nest or tile is submitted from the Studio application. The submitted jobs are then imaged, rendered and the nest is printed, appearing in the appropriate queue.

The Studio user interface window is made up of four (4) sections:

- The main **Layout** area, where jobs (assets) are placed and nests created;
- The **Asset** panel, displaying thumbnails of the assets available for nesting or tiling;
- The **Property** panel, defining the tiling document area, editable media dimensions and frame properties;
- The **Template** panel, where nesting templates can be saved for repeat use.



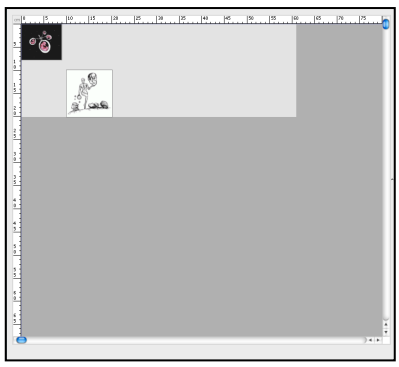
Submitting a Nest or Tiles

The Print option in the Studio menu opens a Submit Chooser window to send the manual nest to a Pagesetup and Media. If tiling mode is active, the option appears as Print Tiles, opening a chooser window with the same options as previously mentioned.

Nesting

It is not necessary to have dimensions entered for the Media when creating a manual nest. When submitted, the nest will print to your selected Media from the top left origin point, printing as much of the width or length of the nest as the paper in the printer will permit, cropping the remainder.

A media guide sheet will appear to scale in light grey in the Layout area when dimensions are entered into the Media fields. This allows for clear and simple placement of assets for nesting. When submitted for printing, everything on the media sheet is printed.



If only a width is entered, once an asset is placed on the Layout area, the media guide sheet will automatically lengthen to fit the job. As more assets are placed, the sheet will extend to display the total nesting area.

Cloaking and Nesting with Large Format Flatbed Devices

One of Studio's primary functions is the laying out of jobs for print, using large format flatbed printers. When activated via the Studio menu, the cloaking feature locks images and frames after they have been submitted as a nest to the printer.

Cloaked images appear shadowed in the Layout area, are static and non-editable unless de-cloaked. This allows for the easy placement and printing of new jobs onto blank areas of the flatbed media. Cloaked images are not reprinted when a new nest is submitted.

If desired, it is certainly possible to place jobs over others that have already been printed. Any new image prints exactly where placed, regardless of whether anything has already been printed in the area.

Important Note: The cloaking feature is turned off by default and is not recommended for use with printers using roll media unless the device has the ability to roll back to previous areas of the media.

Tiling with Media

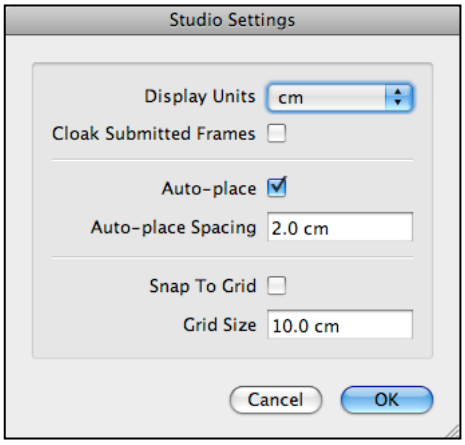
A media width and height must be defined when using tiling mode. If using roll sheet media, the length of paper to be used for each tile can be entered into the Length field in the output settings of the Media itself (see Workbench). Alternatively, the tile length can be entered using the Studio interface via the Height field of the Property panel's Media area.

Menu Options

Studio has the following options available via the main and contextual menus:

Studio Menu

- Save New Template – Saves the current frame layout to the Template library. The untitled nest can be renamed by clicking on the text "Untitled". Only frames are saved, not the images within them.
- Save Template – Saves the current frame layout to the selected nesting template, overwriting the existing data.
- Remove Template – Removes the selected template from the Templates library list.
- Export Template – Export a saved template to a user-defined location. Multiple templates can be selected and exported to a single file.
- Import Template – Import a saved template. The imported template will appear in the Template library list when loaded.
- Print / Print Tiles – Opens a chooser window to submit the jobs currently in the Layout area for imaging, rendering and nesting to the selected Media/Pagesetup combination.
- Studio Settings – Opens the preferences for Studio.
    - Display Units – Choose the measurement units to be used in Studio from the dropdown list.
    - Cloak Submitted Frames – Locks images and frames after they have been submitted for printing, preventing them from being edited. Cloaked images appear shadowed.
    - Auto-place – Allows for the auto placement of assets onto the Layout area when dragging and dropping them. The default position is top left. If a job has already been placed in the area, the auto position will align with the left side of the frame.
    - Auto-place Spacing – The distance between jobs being auto placed in the Layout area.
    - Snap to Grid – Allows for assets to snap to a user-defined grid spacing, measured from the left ruler. The asset frame will snap to the closest defined grid position, taking into account any auto-place spacing settings as well.
    - Grid Size – Define the snap to grid size for frame placement in the Layout area.



Edit Menu

- Undo – Undo the last change made. The amount of available undo levels is configured via the System Settings (0 = operating system default).
- Redo – Redo the last undone change made. The amount of available redo levels is configured via the System Settings (0 = operating system default).
- Cut – Cuts the currently selected frames to the clipboard.
- Copy – Copies the currently selected frames to the clipboard.
- Paste – Pastes the frames in the clipboard to the Layout area. Paste is centered at the current mouse pointer position.

Frame Menu

- Bring to Front – Move the selected frame to the front/top layer of the layout.
- Bring Forward – Move the selected frame one layer forward/up.
- Send Backward – Move the selected frame one layer backwards/down.
- Send to Back – Move the selected frame to the back/bottom of the layout.
- Group – Group multiple selected frames for movement, deletion, locking or asset multi-drop.

- Ungroup – Ungroups currently grouped frames.
- Align Left – Aligns grouped frames along the left edge of the leftmost box in the group.
- Align Right – Aligns grouped frames along the right edge of the rightmost box in the group.
- Align Top – Aligns grouped frames along the top edge of the uppermost box in the group.
- Align Bottom – Aligns grouped frames along the bottom edge of the lowest box in the group.
- Align Horizontal Centre – Aligns grouped frames along the averaged horizontal centre line of the frames in the group.
- Align Vertical Centre – Aligns grouped frames along the averaged vertical centre line of the frames in the group.
- Lock – Lock the selected frames. Locked frames appear transparent and cannot be moved, edited, deleted or have assets assigned to them.
- Unlock All – Unlock all currently locked frames.
- Decloak All – Decloaks all frames. Allows for movement, deletion or editing of frames locked/cloaked after submission (only available in Cloaking mode).
- Select All – Selects all frames in the nest area for grouping/ungrouping, movement, locking or deletion.
- Select Inverse – Deselects current frames while selecting all previously unselected frames.

View Menu

- Zoom In – Zooms in the Layout area view. Holding down Z+Left click will also allow you to zoom in within the Layout area.
- Zoom Out – Zooms out the Layout area view. Holding down Shift+Z+Left click will also allow you to zoom out within the Layout area.
- Fit All – Scales the Layout area view to show all frames currently in the Layout area.
- Fit Document – Scales the Layout area view to show all assets and frames within the dimensions defined in the Document panel.
- Print Size – Shows the nest in the Layout area at actual print size.
- Fill with Document – Scales the Layout area, filling the view to the shorter width or height dimension defined in the Document panel.
- Full Screen – Toggles between a windowed or full screen view.
- Asset – Toggles the view of the Asset panel. F1 can also be used.
- Property – Toggles the view of the Property panel. F2 can also be used.
- Template – Toggles the view of the Template panel. F3 can also be used.
- Sidebar – Toggles the view of the sidebar containing the Asset, Property and Template panels.
- Section Headers – Toggles the headers of each section within the sidebar under the Asset, Property and Template panels.

As an added option, holding down the spacebar will allow you to pan around the Layout area when moving the mouse, similar to a navigator used in graphics applications.

Layout Area

The Layout area is where jobs (assets) are laid out for nesting and/or tiling.
The area is surrounded by a ruler, marked with the user-defined units, appropriately scaled to the current zoom level. All assets and frames are shown at accurate relative size.
The dark grey area is the work surface onto which assets are placed and positioned.
If tiling, the edges of the total area to be tiled appear on the work surface as a red box.

Loading Stored Templates

Stored frame layouts can be loaded from the Template library by double clicking the name of the saved template.
Assets dragged into an existing frame are resized to fit or fill, rotated and cropped according to the frame's settings. Assets dragged into a selected group of frames are duplicated and placed into every frame in the group.

Positioning Assets for Nesting

The following mouse controls are available within the Layout area:

- Left click (on a frame) – Selects the frame for editing, movement, locking or deletion. Currently selected frames are shown with a magenta border.
- Left click (on empty layout area) – Deselects all frames.
- Left click (hold) + drag (on empty layout area) – Creates a temporary framing square for selecting multiple frames. Any boxes wholly or partially within the square when the mouse button is released are selected.
- Left click (hold) + drag (on a frame) – Moves the selected frames around the Layout area. Release the mouse button to drop/place the frames.
- Right click – Opens the contextual menu with options depending on where in the Layout area the click occurred.

- Double click (on a selected frame containing an asset) – Activates Crop mode for the selected frame. A frame in crop mode will have a green border (see Cropping below).
- Spacebar + left click (hold) – Activates the grip tool, allowing you to pan around the Layout area.

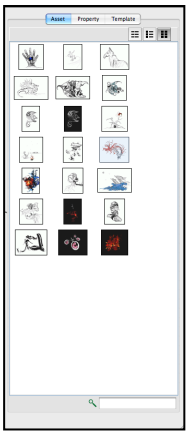
Frame Resizing
The following resizing options are available when clicking at the borders of a frame:

- Left click+drag – Enlarge or shrink the frame. Proportions are maintained. Resize is anchored at the opposing edge or corner of the frame.
- Alt+Left click+drag – Enlarge or shrink the frame. Proportions are maintained. Resize is anchored at the centre of the frame.
- Shift+Left click+drag – Free resizing of the frame ignoring locked width/height ratios. Assets within the frame will fit or fill the resized frame dependent upon frame settings. Resize is anchored at the opposing edge or corner of the frame.
- Ctrl/⌘+Left click+drag – Snaps the frame proportions to the assets native proportions and resizes. Resize is anchored at the opposing edge or corner of the frame.

Cropping Assets
Cropping mode is activated or deactivated by double clicking anywhere within a frame containing an asset image. When active, the asset is separated from the frame and appears with an orange border – the Crop box.

If the crop box is resized larger than the asset within it, the space around the asset will also be printed (to the size of the entire frame).

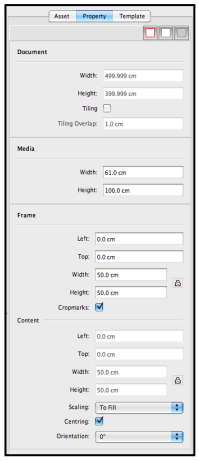
Asset Panel
The Asset panel shows thumbnails of all the jobs submitted to the QueueManager as assets to be manually nested or tiled.



The Asset header bar has the following options:

- List View button – Displays the Assets in text form (filename/jobname).
- Small Thumbnail button – Displays the Assets as small thumbnails with the jobname listed beside them.
- Large Thumbnail button – Displays the Assets as large thumbnails only.
- A search field is available at the bottom of the panel. Enter text in this field to find job names containing the search string. Non-relevant assets are temporarily removed from view as the string is typed. This will not appear for the Large Thumbnail view.

Assets dragged and placed onto the dark grey work surface of the Layout area are scaled to their native size. Assets dragged and placed onto a frame scale, fit or fill, rotate and crop to the defined frame parameters.

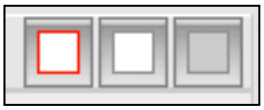


Property Panel
The Property panel displays information on defined elements being used in the Layout area. The panel has three (3) areas: Document, Media and Frame.

- Document is used to activate Tiling Mode and define the total area to be tiled.
- Media shows the width and height (length) of the printable area for nesting or tiling.
- Frame contains configurable parameters for the currently selected frame, including fields for size, scaling and orientation.

Configurable measurements can be input using any supported unit (for e.g., 60cm, 32in) and will be automatically converted to the chosen default unit selection upon entry.

The sections within the Property panel can be shown or hidden by clicking on the box icons at the top of the panel (shown here).



Document
The Document area is used when using Studio for tiling an image or nest of images that are larger than available print media. When active, a red document box will appear in the Nest Area defining the total area being used for tiling.

Activating Tiling Mode
To activate, tick the Tiling checkbox in the Document area of the Property panel. Any asset or frame placed inside the Document area will be tiled.

A media length (height) must be defined when using tiling mode. The dimensions entered will appear in the Layout area, tiled and overlapped to cover the entire document area. After placing and locking an asset (making it transparent) in the document area, users can see how the image will be tiled and overlapped onto each media sheet.

The following fields are available to define the tiling area and Media dimensions:

Document area
- Width – Total width of the area to be tiled.
- Height – Total height (length) of the area to be tiled.
- Tiling – Checkbox. Activates the Document area and Tiling Mode.
- Tiling Overlap – The image overlap of each tile.

Media area
- Width – Width of the media used for printing.
- Height – Height (length) of the media used for printing.

Frame
The Frame information panel displays data for the currently selected frame. The frame and contained asset can be edited from within this panel.

Options are:

- Left – Offset distance of the frame from the left guideline. Offset is measured from the top left corner of the frame.
- Top – Offset distance of the frame from the top guideline. Offset is measured from the top left corner of the frame.
- Width – Width of the frame.
- Height – Height of the frame.
- Lock button – Locks the current proportions of the frame if resized along one dimension. The locked proportions are overridden by free resizing the frame from within the nesting area. Frames can be unlocked and resized to any dimension if required.
- Cropmarks – Enable to add cropmarks to the selected frame. The cropmarks will only appear when viewing the rendered preview in SoftProof.

Important Note: The job position on the media will change if cropmarks are enabled (when viewed in SoftProof) to allow for the cropmark placement around the job.

Content
- Left – Offset distance of the asset image from the left edge of the frame.
- Top – Offset distance of the asset image from the top edge of the frame.
- Width – Width of the asset within the frame.
- Height – Height of the asset within the frame.
- Lock button – Locks the current proportions of the asset if resized along one dimension.
- Scaling – The method of scaling used for any asset placed within the frame.
    - To Fit – The entire asset image is rescaled and shown within the frame proportions.
    - To Fill – The asset expands to fill the frame, scaling to show as much of the image possible, given the proportions and centring options of the frame.
    - Custom – The dimensions and frame offset of the asset are independent of the frame. This scaling is selected automatically when Crop Mode is activated.
- Centring – Check the box to centre the asset within the frame.
- Orientation – The rotation angle applied to both the frame and the asset.

If custom scaling is used and the asset has different dimensions to the frame, rotation is only applied to the asset.

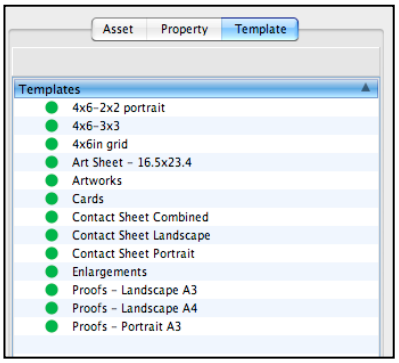
Template Panel

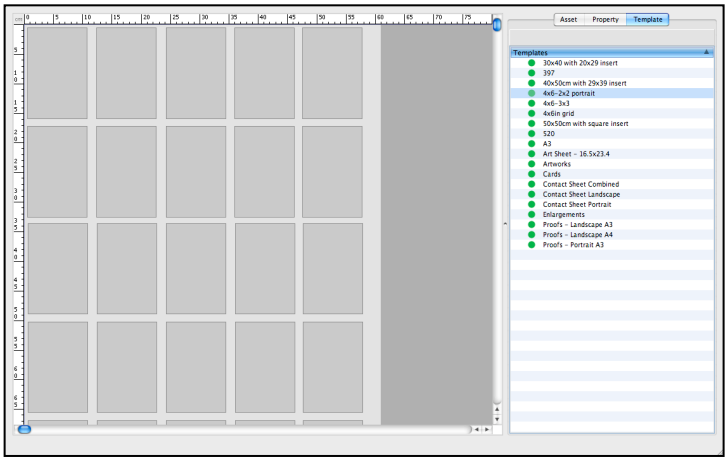
The Template panel is where saved nesting templates are stored.

Templates can be loaded into the nest area by double clicking on the title in the list. This will display the empty frames within the Layout area, ready for asset placement.

Selecting a stored nest for use will overwrite any nest and assets currently in the Layout area.

Templates may be imported or exported for quick and easy sharing among Studio applications.



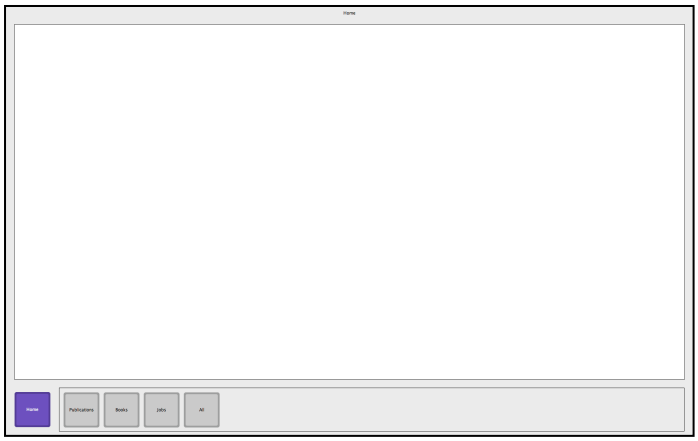


Touch Console

The Touch Console application offers enhanced control and usability of the SoftProof application through the use of a touch screen. Ideal for press room environments, the separate touch screen acts as the console, controlling jobs that are loaded and softproofed on the main screen. Individual jobs or entire publications can be quickly located for proofing.

A Touch Console Settings menu saves valuable time, enabling the operator to choose default navigation options; the queues the Touch Console will search for jobs; and whether the console switches automatically to the Main control screen, the SoftProof view navigator, or the page navigator (for publications) once a job or jobs have loaded.

A Mode Bar allows instant switching between control interfaces from the main Image and Navigation control, through to Ink Keys and Channels; the Virtual Loupe; Press Configurations; Page Navigation; Notes and Tabbed Views.



When the Touch Console is launched, a blank screen will appear on both monitors (the touch screen and the main monitor) with instructions to select which monitor is the touch screen. Simply touch whichever screen is to be the Touch Console to begin.

The Interface

The interface occupies the whole of the touch screen. At the top is a banner advising which section the user is in at the time. The title banner will change to reflect the different modes in use. The bottom of the screen displays the various modes to use with SoftProof. Return to the starting point at any time by pressing the Home button.

Using the Touch Console

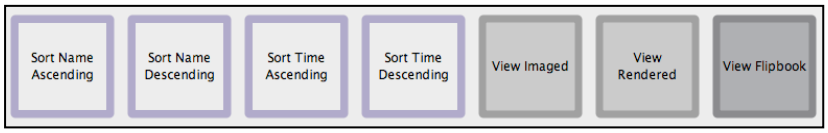
When first starting, Home is the default position. View the jobs in the system by selecting one of the mode buttons along the bottom of the screen:

- Publications – View a list of jobs that are part of a publication only.
- Books – View a list of jobs that make up a Book as defined by the Bookfilter and BookMonitor application. This is available for Veripress/Blackmagic Softproofing Add-on Only.
- Jobs – View a list of jobs that are not part of a publication only.

- All – View a list of all jobs in the system.

Jobs must be in the print queue to be displayed, i.e., they must have completed rendering. It will not show any jobs Waiting to Render or in a Held status.

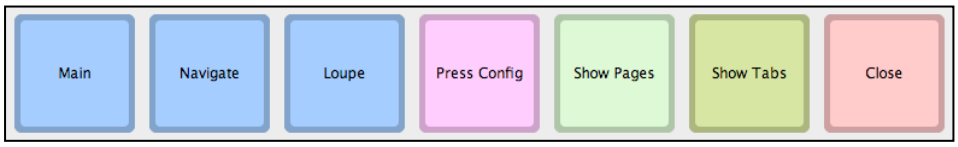
Once a mode has been selected, the screen will change to display the appropriate list of jobs with the available sorting and viewing options:



Actions available include:

- Select – Touch your finger on a job in the list and it becomes selected. The mode options change to display View Imaged, View Rendered and View Flipbook.
- Scroll – Touch your finger on the list and drag it up or down the screen. Lift your finger off and position it again to scroll further.
- Fast Scroll – Touch your finger on the list and drag it fast up or down and let go in a "throwing" action. To stop the list at any point, touch a job on the screen.
- Scrollbar (optional) – If enabled, drag your finger down the overlaid scrollbar to move up and down the list. Moving your finger left-right will change the position of the scrollbar itself.

When the required job has been located and a viewing mode selected, the Touch Console will open the Main, Navigate or Pages control panel.



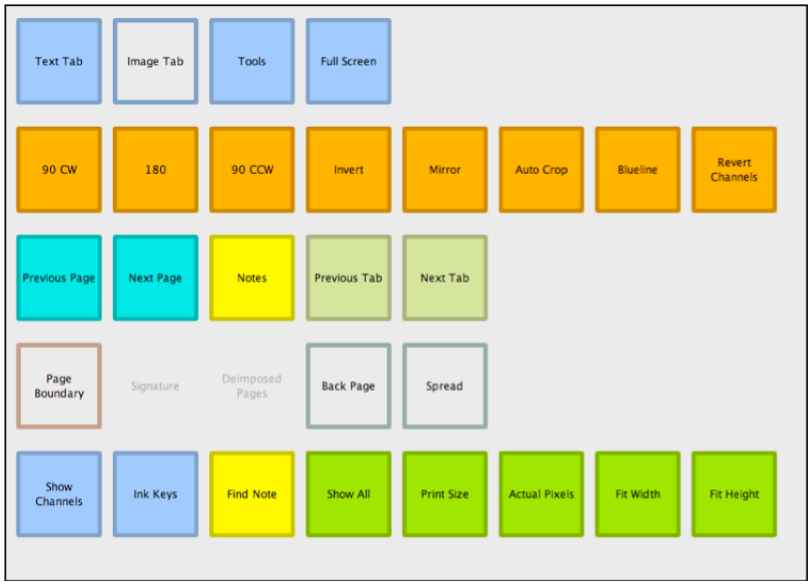
Actions and modes of the Touch Console will adjust to give the options normally associated with the SoftProof application. Selecting View Flipbook will load the job into the standard Flipbook application with relevant actions and modes on the Touch Console.

Modes available include:

- Main – The default main screen displayed when a job is first loaded. This is a control screen for macro-manipulation of jobs. Includes functions such as image inversion and rotation, back page show through, image size on screen and so on.
- Navigate – A control screen for closer examination of proofs – features controls for the viewed image size (fit width/height, original 100%, printed size) and zoom controls.
- Loupe – Opens the Virtual Loupe on the main screen, with controls for the Touch Console.
- Press Config – Opens a list of available Press configurations to apply to the SoftProof.
- Show Pages – Opens a modified Page Navigator for instant page-to-page viewing.
- Show Tabs – Displays a list of job currently loaded in SoftProof Tabs.
- Close – Closes the current job, publication or tab.

Main

A job can be manipulated in various ways once loaded, just as with the conventional controls for the SoftProof application. Some actions will only apply if certain types of jobs are viewed. The actions are colour coded to help group them into like actions. Buttons can be shown or hidden using the Touch Console settings.



← Window / Display

← Image manipulation

← Navigation

← Overlaying objects & viewing publications

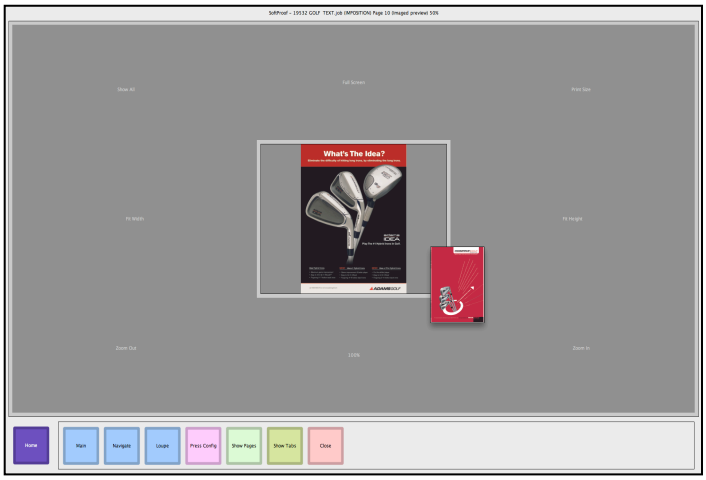
← Fitting methods & tools

- Text Tab – Toggles the text job name tabs for multiple loaded images in the SoftProof screen.
- Image Tab – Toggles the job thumbnails in the SoftProof screen.
- Tools – Toggles the Tool Palette in the SoftProof screen. The Palette must be enabled in the SoftProof application for this to function.
- Full Screen – View the SoftProof window in full screen view or the user-defined view.
- 90 CW/180/90 CCW/ - Rotate the currently viewed proof in the desired direction.
- Invert – Invert the image displayed.
- Mirror – Mirror the image displayed.
- Auto Crop – Remove white space from around a job. There must be a completely clear area on any one side of the job.
- Blueline – Replace all colours with varying shades of blue to see any traps.
- Revert Channels – Revert to the original channel values.
- Previous/Next Page – Move to the previous or next page when viewing a publication.
- Notes – Show or hide any notes embedded in the job (see SoftProof – Notes for more information).
- Previous/Next Tab – Move to the previous or next tab when viewing multiple tabbed jobs.
- Page Boundary – Toggle a red line showing the page/image boundary of the proof.
- Signature – Overlays the signature used to de-impose the job/page if it was submitted for de-imposition. This is only enabled when viewing a de-imposed job/publication.
- Deimposed Pages (Veripress/Blackmagic Softproofing Add-on Only) – De-impose a job submitted as an imposition on-the-fly into separate pages, defined by the signature attached to the job and return it to its original state. (see RIPMonitor – Submit as Imposition for more information).
- Back Page – Display the reverse (back) page through the page currently loaded as if the final print was being held up to light. The Back Page Opacity setting in the Press Settings controls the amount of show through.
- Spread – View the spread of the selected page, for example, pages 2 and 3 as a spread.
- Show Channels – Opens a simplified Channel Viewer touch console interface, featuring a coloured and labeled button for each process and spot ink channel. Selecting each button will toggle the ink channel on or off. If the Channel Viewer (see SoftProof) is open, the channel's on/off state will be reflected in the panel. Touch the Main button in the Mode Bar to return to the Main screen.
- Ink Keys – Opens the Ink Key Viewer for the current image on the main SoftProof screen and a set of controls for it on the Touch Console. Once settings such as Ink Weight and Sheet Placement have been set in SoftProof (see InkKeyViewer), the touch controls offer the ability to easily switch between Channels and Keys. The following control buttons are available:
    - Excess Ink Area – Toggles the view to show areas inked in excess the defined maximum ink key value.
    - Full Screen – Toggles full screen mode for the InkKeyViewer window.
    - Channels – Select which channel to view in the InkKeyViewer. Touching the currently active channel button again will show all ink channels.
    - Ink Keys – These are buttons for each separate Ink Key as defined in the loaded Press configuration. Press configurations with large numbers of Ink Keys may use more buttons than will fit on the Touch Console screen. Excess buttons can be accessed by touch-and-dragging the Ink Key controls up or down. Touch the Main button in the Mode Bar to return to the Main screen.
- Find Note – If any Notes are attached to the currently viewed job/page/spread, this button will open a list of the Notes in the Touch Console. Select a Note to navigate to its location on the proof. Finding a Note will toggle the Notes button to show all notes.

- Show All – Show the whole job within the SoftProof window.
- Print Size – Show the job in the SoftProof window at print size.
- Actual Pixels – Show the job in a one screen pixel to one job pixel ratio (i.e., 100% zoom). This view mode has the quickest load time as no resampling for scaling is required.
- Fit Width/Height – Fit the job to the width or height of the SoftProof window.

Navigate

In Navigate mode, it is possible to pan around the image and change the zoom or fitting method. A thumbnail of the image is loaded into the centre action area of the console.



Touch the thumbnail to jump to that location on the image in the SoftProof; or touch-drag around the thumbnail to pan around the proof.

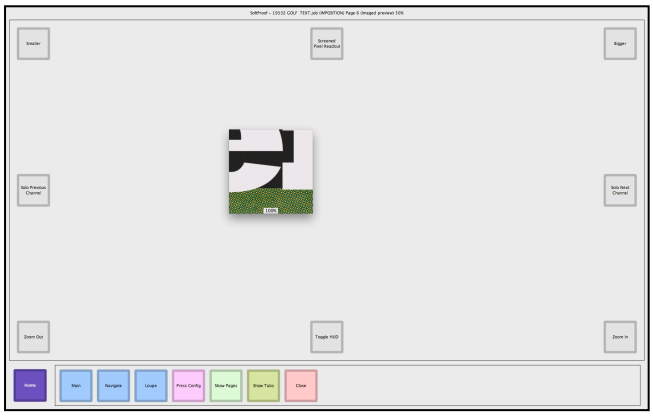
Around the edges of the thumbnail are the Touch Console controls for Show All, Print Size, Full Screen, Fit Width, Fit Height, 100% (Actual Pixels).

The two remaining controls alternate between Previous Page/Next Page or Zoom In/Zoom Out.

Loupe

The Loupe mode positions a loupe on the SoftProof window. The Touch Console action pane acts like a drawing tablet. Touch and drag your finger on the touch screen to move the loupe over your image.

Buttons around the edges of the console control the Loupe's features:



- Smaller / Bigger – Decrease or increase the size of the loupe.
- Zoom In / Out – Increase or decrease the magnification of the loupe.

For Veripress/Blackmagic Softproofing Add-On users only:

- Solo Previous / Next Channel – These controls allow individual Ink Channels of the job to be viewed within the Loupe, acting as the Show Channels function. The buttons cycle through each individual channel then show all channels (default view).
- Toggle HUD – Toggles the Heads Up Display in the Loupe window, showing the CMYK dot percentages at the centered cross-hair or within the average % box.
- Screened Pixel Readout – Toggles the HUD between cross-hair point measurement of ink percentages and a square for measuring area average dot percentages. The square resizes depending on the zoom % to always cover an area equal to a full halftone cell at the LPI defined in SoftProof Settings.

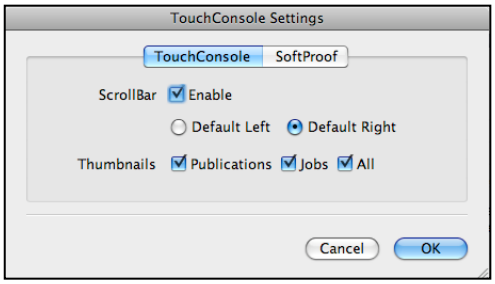
View FlipBook (Veripress/Blackmagic Softproofing Add-On Only)

View FlipBook displays a list of available publications that may be opened and viewed using the FlipBook application. Once a publication is opened, FlipBook controls will appear on the console:

- View 3D, View Calendar, Show Borders and Rendered Thumbnails toggles.
- Decrement/Increment Start Page, Even/Odd Top Page, Read Direction 1->2 / 2<-1 buttons.
- Press Configuration can be selected.
- Top Section and Page Navigator buttons allow sections of the FlipBook window to be toggled on or off.
- Pages can be "flipped" through using Previous/Next Page buttons or accessed directly using the Pages screen.

Touch Console Menu
The Touch Console menu has the following options:

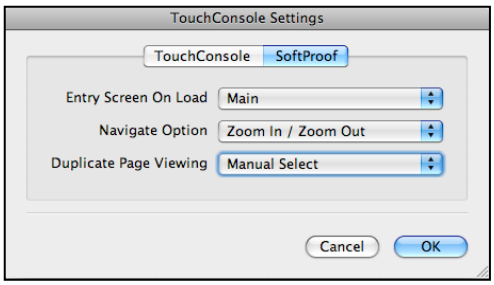
- Font Options – Control the font size for the Touch Console text.
- Queue Order – Select which Output queues are made available for view/proofing in the Publications and Jobs lists on the Touch Console.
- Book Order (Veripress/Blackmagic Softproofing Add-On Only) – Select which BookFilter queues are made available for view/proofing in the Books list.
- TouchConsole Settings – See below for more information.



Touch Console Settings
Default job viewing and touch screen navigation options can be configured using the Touch Console Settings. There are two tabs – TouchConsole and SoftProof:

Touch Console

- ScrollBar – Enable or disable the scrollbar and set the default side it appears on (Right or Left).
- Thumbnails – Enable or disable viewing thumbnails for Publications, Jobs or All selection lists.

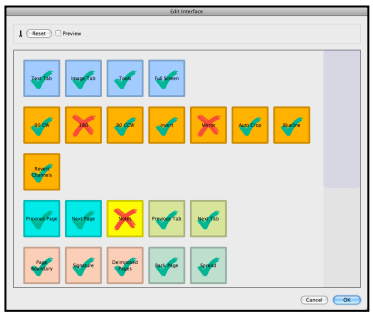


SoftProof

- Entry Screen on Load – Select the control screen the Touch Console will default to when loading a new job/page:
  - Main – The console defaults to the Main screen on load.
  - Navigate – The console defaults to the Navigate screen on load.
  - Pages – The console defaults to the Show Pages screen on load.
- Navigate Option – Choose whether the Navigate console screen has the Previous Page/Next Page or Zoom In/Zoom Out buttons.
- Duplicate Page Settings (Veripress/Blackmagic Softproofing Add-On Only) – When viewing a publication with duplicate (purple) pages, choose from these page load options:
  - Manual Select – When a page with duplicates is selected in the Show Pages screen, the page to view must be manually selected. This is the default mode of a non-Veripress Touch Console.
  - Select Newest Page – Useful in publishing workflows where page updates/revisions are common. This option will automatically display the latest version of the page.

Note: An option to Edit the Touch Console User Interface is available via the File and contextual menus in the SoftProof application for Veripress/Blackmagic Softproofing Add-On users only (below).

- Edit Touch Console UI – Opens an Edit Interface window to allow for the configuration of the enabled (visible) buttons for control of SoftProof in the Main screen of the Touch Console.
  Enable or disable buttons by selecting them. Those disabled will appear with a red cross and will be excluded from the Touch Console when using it to view softproofs.
  The Toolbar has a Preview checkbox to see how the Touch Console controls will appear and a Reset button to restore and enable all buttons.



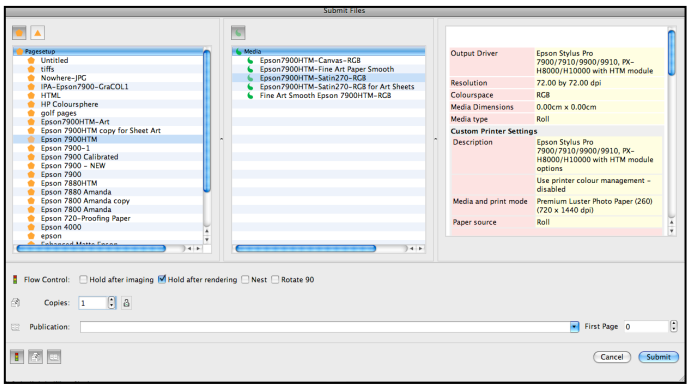
Application Menu Items

The Blackmagic Application menu provides access to direct job submission options, system settings, and extra functions and utilities.

Submit Files

Select files to send to a Media and Pagesetup for processing. One or more files may be selected for processing.

Selecting Open will present a chooser showing the Pagesetups (or Pagesetup Pools) and Medias available. Choose the combination to submit the files to and click the Submit button. This will copy the files into the system for processing. The flow control can be enabled to hold the job after imaging or rendering; the number of copies can be set; or jobs can be placed as pages in a publication.



Submit Window

The Submit window is comprised of four (4) sections – a Pagesetup/Pagesetup Pools selection list; a Media selection list; an Information panel displaying details of the currently selected Pagesetup or Media; and a Submission control panel.

Pagesetup Selection List

This list has two (2) buttons above it. Only one can be active at any time:

- Pagesetup – When selected, this button displays a list of Pagesetups available to submit jobs to.
- Pagesetup Pool – When selected, this button displays a list of Pagesetup Pools available to submit jobs to.

An active (selected) Pagesetup is highlighted in blue.

Media Selection List

This list is only active if the Pagesetup button is selected in the Pagesetup selection list.

When a Pagesetup has been chosen, a list of Media compatible with the Pagesetup will be displayed for selection.

An active (selected) Media is highlighted in blue.

If no Media is selected, the submitted job(s) will be output to the Pagesetup's default Media.

Note: The Serendipity Client saves the last Pagesetup and Media selection so it need not be selected every time a job is submitted to the same Pagesetup.

Information Panel

This panel displays the settings for the currently selected Pagesetup or Media.

Submit Options

The lower section of the Submit window has the following options available when submitting files:

Flow Control

- Hold After Imaging – Check this box to hold the job after the Imaging stage has completed. Held jobs can be released to continue processing via the QueueManager toolbar or contextual (right click) menu.
- Hold After Rendering – Check this box to hold the job after the Rendering stage has completed. Held jobs can be released to continue processing via the QueueManager toolbar or contextual (right click) menu.
- Nest – Submits the jobs for imaging and rendering, then on to be nested with other jobs. Nesting criteria are defined in the Output for the Pagesetup/Media to which the job is sent (see Workbench – Output for further information).
- Rotate 90 – Rotates the job 90 degrees. This will override any rotation settings in a Pagesetup.

Copies

- No. of copies field – Enter the number of copies of the job to be printed.
- Copy Lock button – Locks the number of copies to be printed for any files submitted until unlocked and changed.

Publication

- Publication Name field – Optionally type a publication name to which the submitted file will be assigned. The job will be viewable in the Publication View of the QueueManager.
- First Page field – Enter the page number for the submitted file in the publication. If submitting multiple files, the page numbering will start at the defined page number and increase sequentially for each job.

Submit Files For De-Imposition

Also available via the RIPMonitor, this option allows you to submit files directly for de-imposition, rather than from a RIP queue. After selecting one or more files, a chooser will appear to enable selection of a Pagesetup and Media, or Pagesetup Pool. A Signature Group can also be assigned to de-impose the files (see Workbench – Signature Groups for more information).

Submit Files As Imposition

Also available via the RIPMonitor, this option allows you to submit files directly as an imposition, rather than from a RIP queue. This will submit an imposed job in its original form, but attaches a Signature Group (via popup chooser) to allow the job to be de-imposed on the fly using the Deimposed Pages button in the Veripress SoftProof Touch Console (see Touch Console for more information).

Submit Files as Asset

Select files to send to the Studio application Asset queue. Submitted Assets appear in the QueueManager queue as thumbnails, but are not processed until submitted for printing from the Studio application (see Applications – Studio for more information).

Submit ICC Target

After selecting one or more ICC target files, a chooser allows you to select a Pagesetup and Media to submit the ICC target file to.

Note: This option is used as part of creating an ICC calibrated Pagesetup/Media. After creating and assigning a Paper Profile and Linearisation curve to a Media, this option is used to submit an ICC target file to the printer with all ICC options disabled. The target is then read by third party ICC profiling software and used to generate the printer's output ICC profile, which is then assigned to the Media.

Test Prints

Select one or more Pagesetups and Medias and send multiple copies (if desired) of internal test prints for processing.

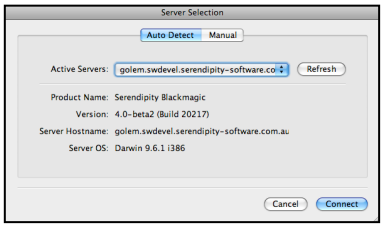
Note: You can add your own files to the **lib/testprints** directory for use as test prints. Any files you have permission to use that are placed in this directory will appear for selection in the Test Prints chooser window.

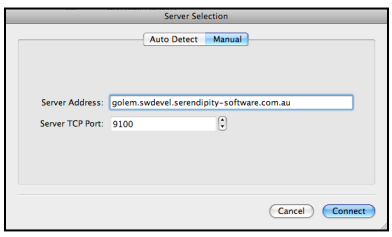
Connect to Server

This allows the Serendipity Client to connect to a Blackmagic Server running on the network. The Refresh button will search for and display any active Servers. Alternatively, you can enter the name or IP address of the Server in the Server Address field under the Manual tab.

If there are multiple Servers (Masters) running on the network, the list is cached on the first "Connect to Server" selection. A dropdown list of available Servers is accessible via the Auto Detect tab. If a new Server appears after this time, the Refresh button must be pressed to find and add it to the list. Likewise, if a Server becomes unavailable, the connection will fail and the list will require a refresh.

When the Serendipity Client is started, it will attempt to connect to the last Blackmagic Server accessed by default.





Accounts Admin

This menu option replaces the previous option of Authorisation. Accounts Admin allows an authorised administrator to create, modify and manage User accounts and User Groups. Users can be reassigned to groups dependent upon the operating privileges granted to each User Group. See the Accounts Admin/Secure Mode section below for further information.

Log Out (Secure Mode only)

This menu item only appears while Blackmagic is in Secure Mode (see Accounts Admin/Secure mode for more information). Selecting Log Out while using Blackmagic in Secure Mode simultaneously logs out the current user and generates the Login window. At this point, the options available are to enter a username and password; Choose Server before login; and to Quit the Blackmagic Client.

While the Login window is displayed, the Blackmagic Client is effectively LOCKED to all users. The Server will continue to operate as normal.

Chatterbox

Chat to other users connected to the same Server. The Chatterbox window will display the Clients connected to the Server. If the user has entered a nickname in the System Settings, this name is displayed; otherwise the machine name is used. If the user's name cannot be selected, the user has selected the Away option and is not available.

Broadcast Message

This allows messages to be sent to all users connected with a Client to the same Server. Selecting the Broadcast option displays a message window to type into and send. The message is displayed on the users window for a short time and will automatically dismiss if it is not acknowledged by clicking OK.

Download PPD

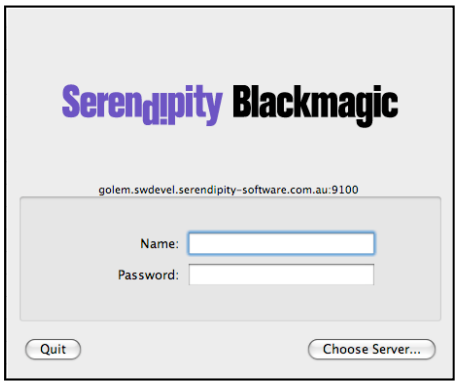
This option downloads the Megarip PPD from the Server to the desired location. A chooser will appear to navigate to the location for saving the PPD file on the drive. This saves having to get the PPD off the disk. Use the PPD when installing a local printer. When installed, the Megarip PPD (Postscript Printer Description) is selected as the printer driver when setting up a Blackmagic Published Pagesetup as a print destination for third party applications (see Workbench – Pagesetup and the Publish to a Windows Printer sections for more information).

Quit

Quits the Client. The session is saved for the next time to start the Client. All windows and positions are saved and remembered.

Accounts Admin / Secure Mode

Blackmagic gives users the option to login using Secure Mode, which allows the administrator to create accounts for users and groups, with each group configured to allow or deny its users access to particular applications and functions.



When Secure Mode is active, users are required to enter a username and password whenever the Client is started or users are changed. The username and password are both case sensitive.

The Accounts Admin menu option is selected in order to display the panels for configuring any Users and Groups and these should be created prior to activating Secure Mode.

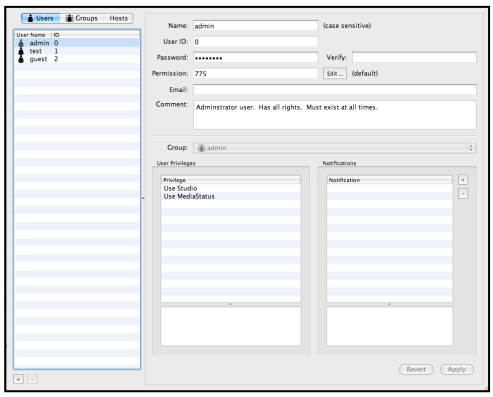
The Log Out option only appears once Secure Mode has been activated. Selecting this while using Blackmagic in Secure Mode simultaneously logs the current user out and generates the Login window with options to login as a new user and select a Server to connect to, or Quit the application. While the Login window is displayed, the Client is effectively locked to all users. The Server will continue to operate normally.

Setting up Users and User Groups

Blackmagic's Secure Mode is set inactive by default. The software will continue to function normally whether or not Secure Mode is activated.

Important Note: It is recommended all users and groups requiring access be setup **BEFORE** activating Secure Mode. Secure Mode cannot be activated until at least one (1) user has been created. This would usually be the **Admin** account, as this is automatically created when the Accounts Admin option is selected for the first time.

Select Application Menu > Accounts Admin... to display the configuration panels.



Activating Secure Mode

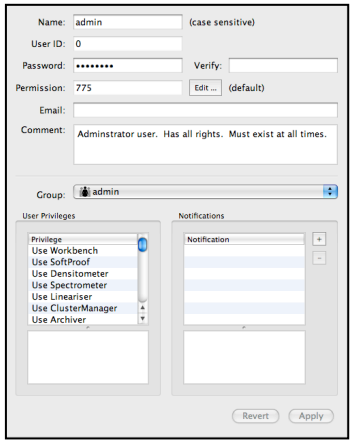
Once the initial user account(s) have been setup, Secure Mode can be activated by checking the tickbox located via Application menu > System Settings > Server (General tab).

Secure Mode can only be activated or deactivated by an administrator (a member of the Admin group).

Configuration Panels

Users Panel

The fields within the Users panel are:



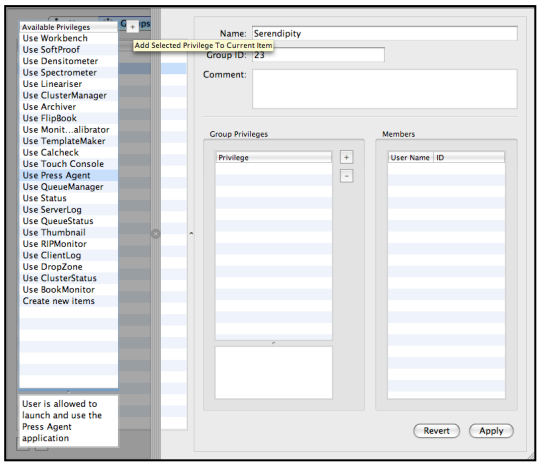
- **Name** – The username of the account. This is case sensitive.
- **User ID** – This is a numerical ID assigned automatically but may be changed by the administrator.
- **Password / Verify** – The password is entered and stored here. New passwords must be verified by entering the details in each field. The password is also case sensitive.
- **Permission** – The level of permission for the user is created here. Click Edit to make changes to the user read/write/execute permissions.
- **Email** – Enter the users email address here.
- **Comment** – Allows the administrator to enter a note on the particular user account if necessary.
- **Group** (dropdown) – Assign a user group to the user account.
- **User Privileges** – Privileges other than those in the user's group can be added here.
- **Notifications** – Select which email notifications the user is to receive by clicking the + icon or remove any via the – icon. Notifications are available for Job Spooling failure, Job Autodetection failure, Job Imaging/Rendering failure, Job Printing failure, if a Dongle is removed, if the Server crashes and Media Remaining warnings.

To create a User:

- Click the **+** icon in the bottom left of the window. To delete a user, click the **-** icon
- Enter a username in the Name field.
- Enter a User ID number or leave the default value.
- Create a password for the user and verify the details. The password boxes will always display black dots irrespective of the length of your password.
- Edit the permission level to the required access level.
- Enter the user's email address (if notifications are required).
- Add a comment against the user if necessary.
- Assign a Group for the user.
- Add any extra privileges to the user if required. This will only show privileges not included in the group selected for the user.
- Add any notifications to the user if required.
- Apply the changes or select Revert to cancel.

Groups Panel

An **admin** User and Group are created by default with access to all permissions and privileges when the Accounts Admin option is selected for the first time. **The admin user and group cannot be deleted**. It is recommended this be the only group with access to the Accounts Admin application.



The fields within the Groups panel are:

- **Name** – The name of the Group.
- **Group ID** – This is assigned automatically but may be changed by the administrator.
- **Comment** – Allows you to enter a note on the particular user group if necessary
- **Group Privileges** – This is a list of available privileges relating to functions within Blackmagic.
- **Members –** A list of Usernames and IDs belonging to the Group.

To create a Group:

- Click the **+** icon in the bottom left of the window. To delete a group, click the **–** icon.
- Enter a name in the Name field.
- To add privileges, click the + icon in the Group Privileges panel. A list will appear to the left with all available items. To add, highlight the privilege and click the **+** icon at the top right of the window.
- Once you have finished adding privileges, click the **X** in the middle of the right edge of the panel to close the window.
- Click Apply to save any changes to the group or Revert to cancel.

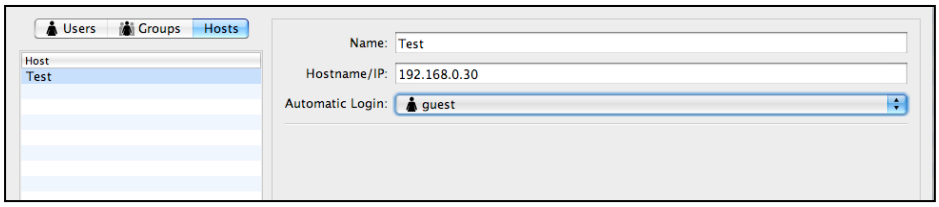
Assigning Users to a Group

Users are assigned to the groups via the Users panel.

- Once you have created the user group, click on the Users panel.
- Select the User Name from the list of users.
- Select the Group to assign the user to from the Groups dropdown menu.
- Click Apply to save any changes or Revert to cancel.

Important Note: A user can only be assigned to one User Group at a time. If extra privileges are required, these must be assigned against the user via the Users panel.

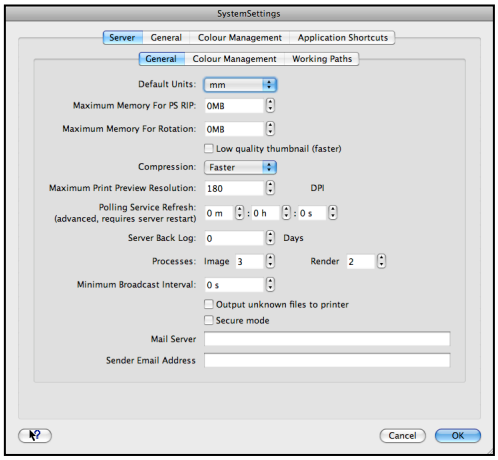
Hosts Panel
The Hosts panel allows for the configuration of automatic Client logins for selected host computers or network IP addresses when using Secure Mode.



The fields available are:

- Name – Enter a name for the Host setup.
- Hostname/IP – Enter the Hostname or IP address of the computer the user will automatically connect to.
- Automatic Login – Disable or Select a User from the dropdown list. Only one user may be selected per Host setup.

Activating Secure Mode
Secure Mode should be activated ***after*** any users and/or groups have been created. Only an administrator or member of the **admin** group can activate or deactivate Secure Mode.



To activate:

- Select Application menu > System Settings.
- Click on the Server tab > General tab.
- Tick the checkbox at the bottom of the screen – Secure mode – to activate or deactivate.
- Click OK and close the settings when done.
- If activating Secure Mode, a login window will appear as soon as you close the System Settings.

If Email Notifications are setup for users:

- Enter the mail server details in the Mail Server field. This is the outgoing SMTP server.
- Enter the email address for the Sender (From) field of the email in the Sender Email Address field.

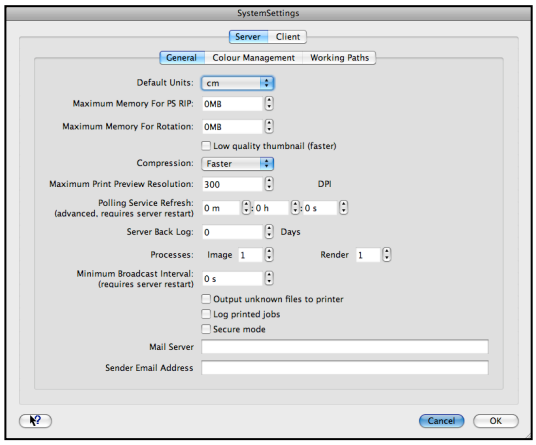
System Settings

The Systems Settings section contains default values and preferences configured for the Server and Client. The settings are split into two (2) tabs – **Server** and **Client**.

Server

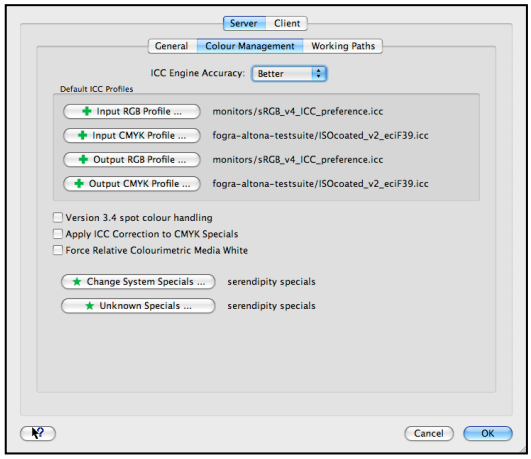
Server settings are saved to the Server and are common to all connected Clients. The Server settings are divided into three (3) tabbed categories – General, Colour Management and Working Paths.

General



- Default Units – Set the units used by the Server. Options are mm, cm, inches, points, picas, metres or feet.
- Maximum Memory for PS RIP – Set the maximum memory used by the Postscript RIP. The default is 0MB (which uses the internal default amount).
- Maximum Memory for Rotation – Set the maximum memory used for Rotation. The default is 0MB (Server chooses the default depending on system configuration).
- Low Quality Thumbnail – Selecting this produces a lower quality thumbnail. This is faster but some detail may be lost in the thumbnail.
- Compression – Control the compression for the intermediate file format (the Imaged file). Choices are Faster or Better. The default is Faster.
- Maximum Print Preview Resolution – Set the maximum resolution for the rendered preview. The default is 180dpi.
- Polling Service Refresh – Set the interval between poll service checks, i.e., how long between checks to see if any RIPs require polling. The default is 50 seconds if the times are left at 0.
- Server Back Log – Number of days to keep the log. Older days are trimmed when the Server starts. Zero (0) means the log will not be trimmed.
- Processes – Control the number of processes the machine will handle, i.e., the number of Imaging and Rendering tasks simultaneously run on the Server. The defaults are 1/1. Up to one imaging and rendering task can be set per CPU core the Server machine possesses. In practice, it is recommended the combined number of imaging and rendering tasks be set to no more than the number of cores. For example, 4 CPU cores = 2 Image/2 Render.
- Minimum Broadcast Interval – Set the time interval the Server sends out updates to connected Clients. The default value is 2s. This is the minimum setting. Zero (0) disables user configuration.
- Output Unknown Files to Printer – Output any unknown files direct to a printer. If this is unchecked, any unknown files will result in errors and will not be output.
- Log Printed Jobs – When enabled, this option will log completed print jobs in the Server log. The jobname and dimensions are noted.
- Secure Mode – Enable or disable Secure Mode.
- Mail Server – Enter the details of the mail server for error notification emails when using Secure Mode.
- Sender Email Address – Enter the details of the Sender (From) address for error notification emails.

Colour Management



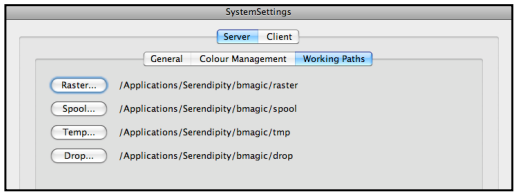
- ICC Engine Accuracy – Select Faster or Better, depending on preferences.
- Default ICC Profiles – Select the default ICC profiles used when first creating a new Pagesetup (Input profiles) and Media (Output profiles).
- Version 3.4 spot colour handling – This is a compatibility setting for users with Spot colour setups, upgraded from Blackmagic v3.4 or earlier to get consistent results from spot jobs. It is recommended as a temporary setting only and setups should be recreated using the improved and more accurate (post v3.4) spot colour handling.
- Apply ICC Correction to CMYK Specials – Select this to apply ICC correction to CMYK Specials.
- Force Relative Colourimetric Media White – Various ICC profiling packages and some older ICC v2 profiles included an

Lab value for media (paper) white in the Relative Colourimetric Intent LUT. This has the effect of printing a paper layer when printing with Relative Colourimetric rendering intent. When enabled, this option ignores the Lab value for paper in the Relative LUT, leaving paper white areas unprinted.

- Change System Specials – Select a default Special Colour Set for plate matching. This is used by the RIPMonitor and polling service for plate assigning. Colours in this set are automatically assigned in the RIPMonitor.
- Unknown Specials – Select a Special Colour Set (optional) to which unknown special/spot colours included in PDF or Postscript jobs can be automatically added.

Working Paths

Working Paths lists the default location of the paths the Server uses to process jobs.



- Raster – Holds all the imaged, rendered and print jobs while they are live in the system.
- Spool – The location where the job is spooled prior to processing.
- Temp – After spooling, the job is moved to the temp directory where it is worked on.
- Drop – The default location for the DropFolders.

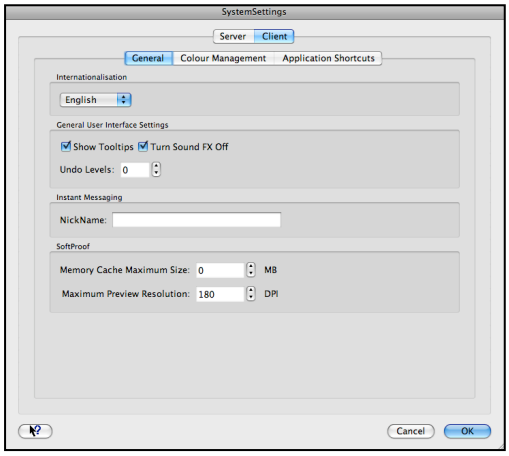
The Raster directory holds all jobs while they are in the system and as such, can be very large. If this is moved it needs to be placed on a disk with plenty of space. A Server restart is required if any paths are changed in order for the changes to take effect.

Client

The Client settings are custom options, specific to the Client currently being used. Settings may vary between Clients and Users connected to the same Server.

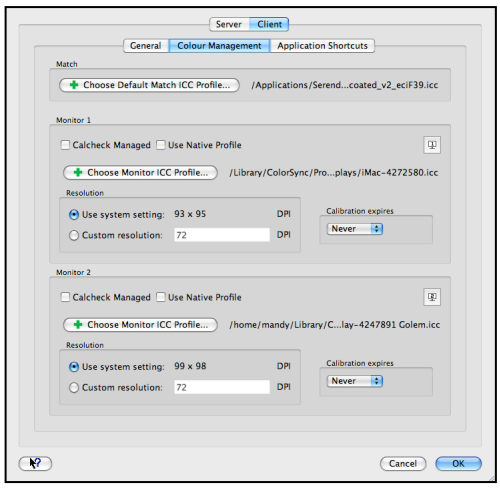
The Client settings are divided into three (3) tabbed categories – General, Colour Management and Application Shortcuts.

General



- Internationalisation – Select your preferred language from those available. This displays all Client and log messages in the chosen language. The default is English. A restart is required if the language setting is changed.
- Show Tooltips – Enable or disable tooltips within the Client.
- Turn Sound FX Off – Check this to disable the sound effects. Sounds are used for things such as drag and drop, and error message alerts.
- Undo Levels – Set the number of levels for Undo. The default is zero (0), which means no restriction.
- Instant Messaging Nickname – Enter a nickname to use when accessing the Chatterbox application.
- Memory Cache Maximum Size – Set the maximum cache size for the SoftProof application. The default is zero (0), where the Server chooses the default depending on system configuration.
- Maximum Preview Resolution – Set the maximum preview resolution for SoftProof for both Imaged and Rendered options. The default is zero (0), which is the full job resolution of the output file.

Colour Management



- Choose Default Match ICC Profile – Select a default match ICC profile for accurate display of CMYK data.
- Calcheck Managed – Enabling this will display the current calibration status of the selected monitor. When selected, there will be a transparent icon showing a green tick or a red cross. This icon is shown in the corner of the monitor and is always on top of other windows. The icon can be moved to any corner by clicking and dragging close to the corner. Its status depends on the expiration time of the monitor calibration (as set below) and the Calcheck status.
- Use Native Profile – Enable this to use the operating system defined ICC profile for colour management. The Client will use

the monitor profile as setup for the operating system, i.e., Mac OS will use what is in the Display Preferences Colour tab, Windows will use the Display Adapter Settings.

- The Client will use the monitor profile as setup for the operating system, i.e., Mac OS will use what is in the Display Preferences Colour tab, Windows will use the Display Adapter Settings.
- Choose Monitor ICC Profile – Select a monitor ICC profile for the display the Client is running on. The profiles are used so any colour element viewed on the display is shown as accurately as possible. This includes SoftProof and any colour swatch. It is recommended the monitor be calibrated and set to the same match profile as is used for the softproofing Pagesetup.
- Resolution – Choose the default resolution to use for the monitors. This is used in SoftProof for calculating various fit methods. Options include:
    - Use System Settings – The Client will calculate the system's monitor resolution.
    - Custom Resolution – Specify your own resolution.
    - Calibration Expires – Set a reminder to popup when a calibration needs updating.

Additional Monitors

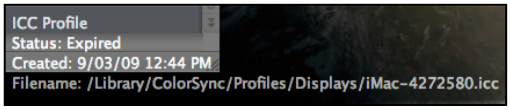
Specific settings may be set for each monitor when in a multi-monitor environment. The System Settings will show additional sections with Monitor 2, Monitor 3 etc listed. To identify which monitor is which, press the monitor indicator button to display a graphic in the middle of the screen for the relevant monitor.

Calcheck Managed

The Calcheck Managed option (under Colour Management) constantly reports the calibration status of the monitor(s).

By enabling this option, a small, transparent icon will appear on top of other windows, giving the current calibration status of the monitor.

This is linked to the Monitor ICC selected in the System Settings, the time it was created with the MonitorCalibrator and the expiration time set. If the monitor has been calibrated and the expiration time has not been reached, there will be a green tick displayed on the monitor. If the time has expired, there will be a red cross displayed.



Hovering the mouse over the cross or tick will display profile information and status.

Right clicking on the tick or cross will display extra options:

- Opacity – Set the opacity value for the status window.
- Calibrate – Opens the MonitorCalibrator and begins to calibrate. If the instrument previously selected is connected, calibration begins. Once calibrated, select an appropriate name and click OK. This will save the ICC to the chosen location. Select the ICC in the system settings and dismiss the MonitorCalibrator application.

Calcheck Managed is also linked to the Calcheck application, where the status is saved to a Calcheck Chart and used when a job is opened in SoftProof.

When a Calcheck is run for the monitor, a Calcheck Chart is selected. The result is stored with the chart, which can be selected in a Press setting. If a job is viewed in SoftProof with that particular Press and Chart selected, the status of the proof being viewed is displayed. This condition lasts for the duration of the current life of the calibration. When a calibration expires, all Calcheck statuses need to be updated.

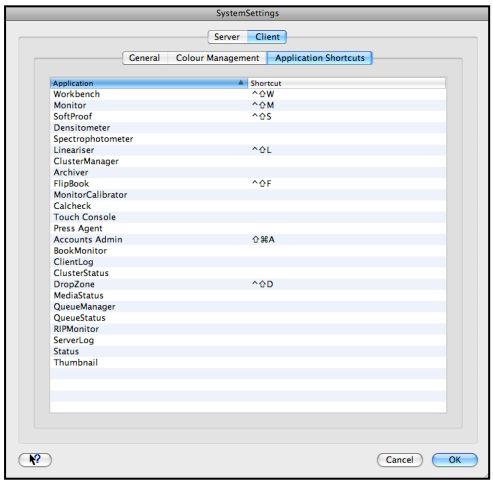
Application Shortcuts

This tab displays a list of the Applications and Modules for which keyboard shortcuts can be created.

Note: It is the responsibility of the user to check the created shortcuts do not conflict with any other Blackmagic, third party software, or operating system shortcuts/hotkeys.

To add a shortcut:

- Highlight the selected application or module in the list.
- Use the Edit option in the context menu (right click) or click in the Shortcut field to the right of the application/module name.
- Type in the key or key combination for the shortcut and press Enter.



The shortcut will now appear in the Application menu of the Client.

To remove a shortcut:

- Highlight the selected application or module in the list.
- Use the Clear option in the context menu (right click); or
- Click in the Shortcut field and delete the shortcut.

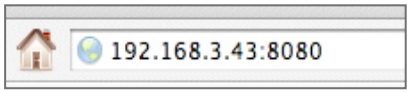
Web Server

The Server has a built-in Web Server that allows you to connect to it from a web browser. This provides status information about the Server and jobs currently in the system. You cannot use this for submitting or managing files in the system, but you can monitor a jobs progress and get some system information.

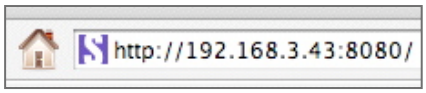
Accessing the Web Server

To connect to the Web Server:

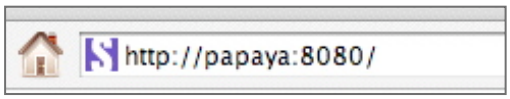
1. Enter the IP address or machine name (if using DNS) of the computer running the Server in the browser window, followed by a colon and the port number 8080. For e.g., 192.168.3.43:8080



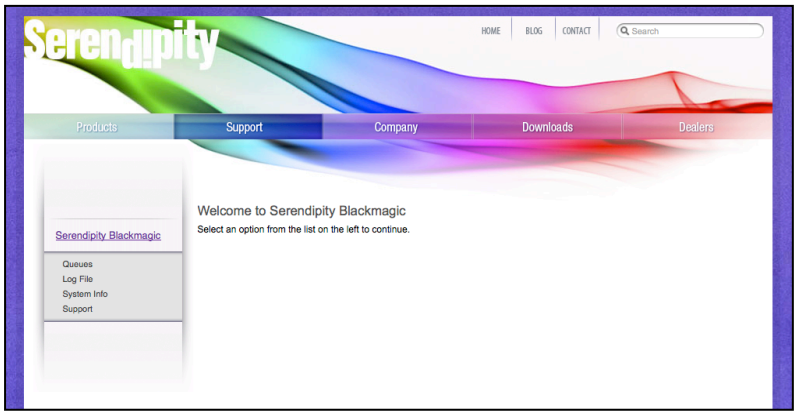
2. Press Enter once the address has been typed in. When it connects, the browser address bar will look like this:



3. If you have a DNS Server, you can use the machine name instead:

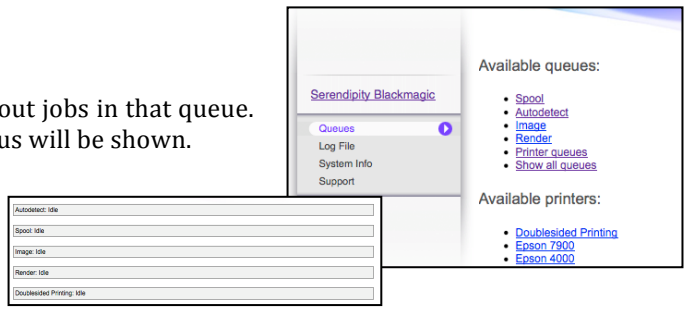


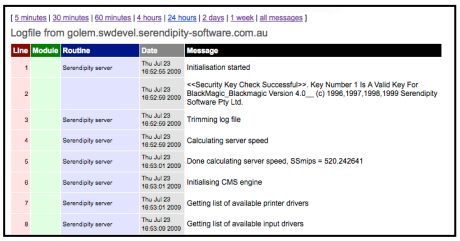
4. Once you are connected, the front page will appear with an options menu on the left:



- Queues – Shows all the queues configured on the Server you are connected to.
- Log file – Allows you to view the log file.
- System info – Displays information about the system.
- Support – Shows various support options & information.

Queues – Click on any of the queues to get information about jobs in that queue. Information about the job, including name and current status will be shown.



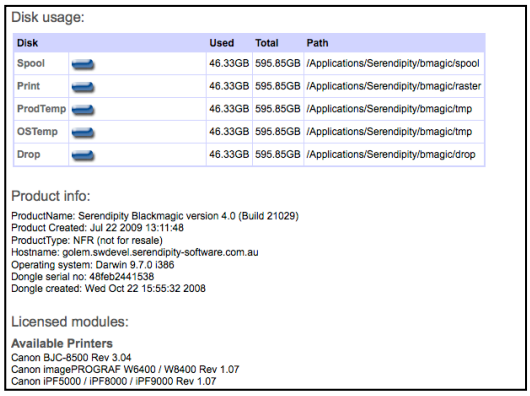


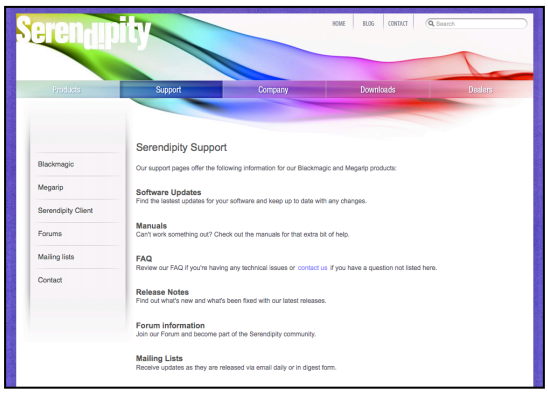
Log File – To view the log file, select the option from the list on the left.

From here, you can select a particular time period to fetch from the Server. Once viewed, you can print the file or save it to disk. The log can be printed, saved or exported from the browser.

System info – Choose this to display information about the system.

Product Info, Licensed Modules – available printers and input filters; and Available Destinations are shown.





Support – To access the Serendipity Support site, select this option from the menu. This is the same as if you accessed the Serendipity Software website directly.

From here, you can download databases, release notes, manuals, updates, tutorials, FAQs and other helpful information.

You will need to have an active Internet connection for access to the support website function.

Publishing a Windows Printer

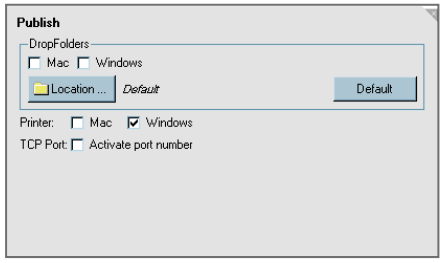
This section explains step-by-step how to publish a configure a Blackmagic Pagesetup for publishing to a Windows printer destination. When correctly setup, third party applications will be able to print directly to the Pagesetup, as if it were a Windows printer.

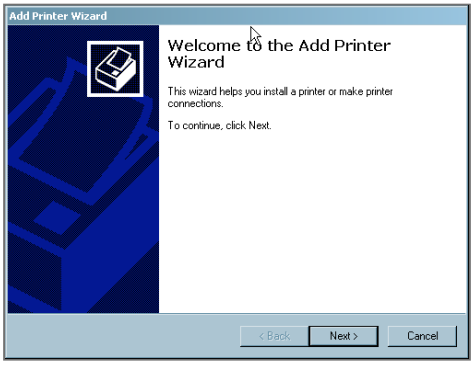
It is assumed that Serendipity Blackmagic is running and a Pagesetup configured.

Method

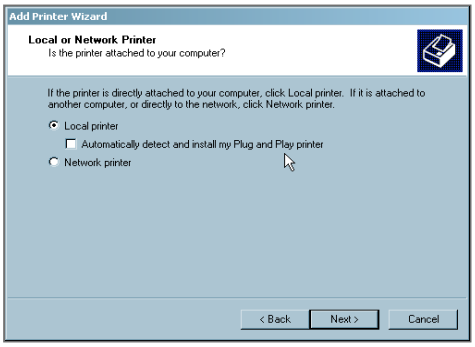
Once the Pagesetup is configured and working, it needs to be published as a Windows Printer.

1. Tick the Windows check box in the Publish panel of the selected Pagesetup and save it. This will make the Pagesetup available to the Windows system to which it will be published.

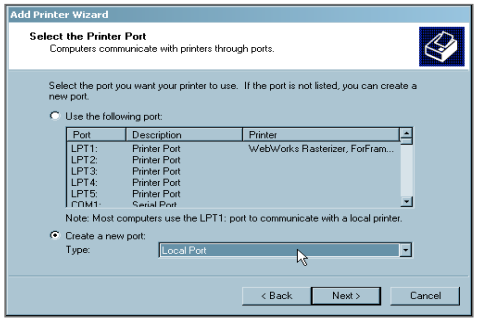




2. Select Settings > Printers from the Windows Control Panel and run the Add Printer wizard.



3. Make sure Local Printer is selected and click Next.

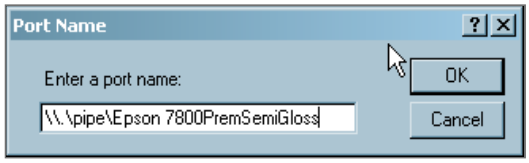


4. Choose Create a New Port and select Local Port from the pull down list. Click Next to continue.

5. Enter the port to add.

   Enter in the following format: \\.\pipe\<Pagesetup Name>

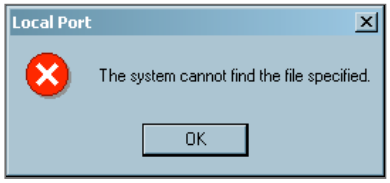
The "Pagesetup Name" needs to be the full name of the Pagesetup.

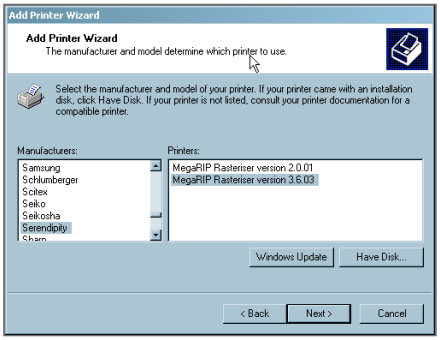


6. Click OK to accept the name and close the window.

The Server must be running and the Pagesetup published so the printer can find and verify the port exists.

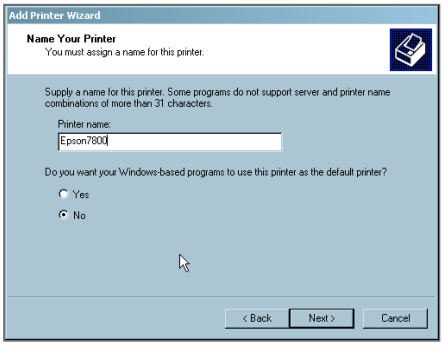
If not, the following error (right) will appear. This error will also appear if the name is typed incorrectly.



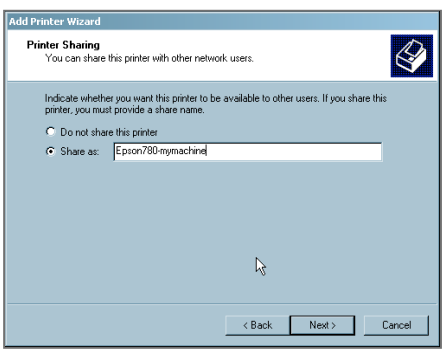


7. Next, choose a driver. If the Serendipity Megarip driver is not installed on the system, select the Have Disk option and browse to locate the PPD. This can be found on the DVD or it can be downloaded from the Server (see Application Menu Items – Download PPD for more information).

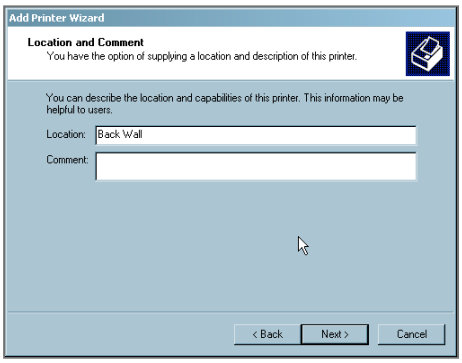
8. Once the driver has been selected, click Next.



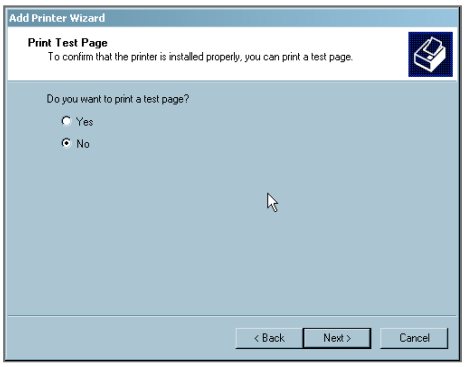
9. Supply a name for the printer and click Next.



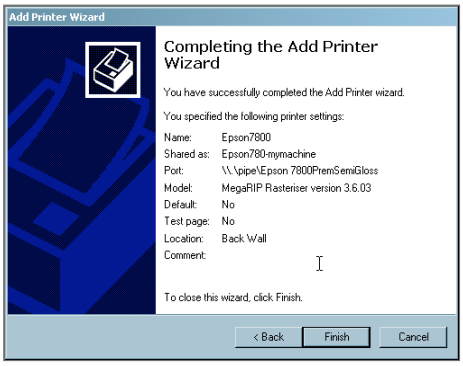
10. Choose to share the printer to make it available to other computers on the network. Enter a share name and click Next.



11. If the printer is shared, a prompt will appear to enter some information in order to help identify the printer. Click Next to continue.



12. Print a test page to confirm the setup is correct, although this is not necessary, as the port has been validated in previous steps. Click Next to continue.



13. The final screen shows a summary of the printer just created. You should now be able to print to the Pagesetup from any network computer that can see the published printer. Click Finish to close the window. The newly created printer will be in the list.

Printing to a Pagesetup on Windows

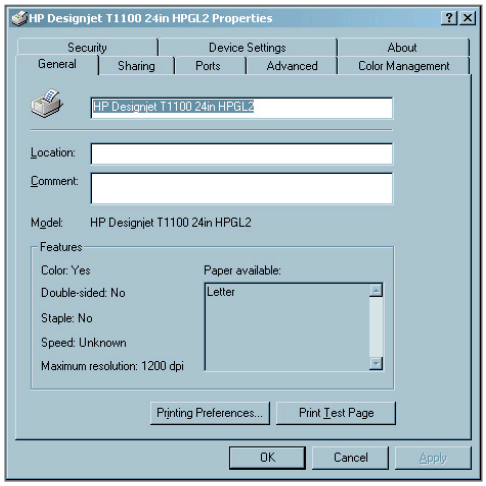
The following provides step-by-step instructions on how to print to a Windows shared printer from Serendipity Blackmagic.

The first section will outline the steps required when the Server is running on a Mac. The second will outline the steps for a Windows environment.

Blackmagic Server Running on a Mac

The first requirement is to create a printer on the Windows machine that will print to the physical printer.

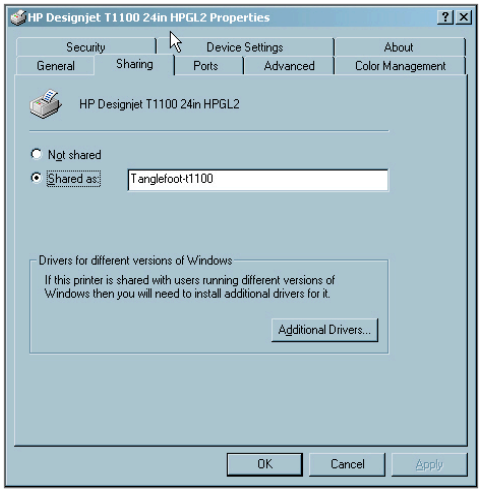
On the Windows machine connected to the printer:



1. Navigate to Control Panel > Printers > Add Printer. Install the printer normally. Give it a useful name that can be identified easily. This is the name that appears on the local computer.

2. Go to the Sharing tab and enter a share name. Again, pick something easily identifiable on the network. It is recommended to use lower case and no spaces. Also, try to keep names reasonably short. This shared printer should now be visible on the network.

For this example, the printer name is “HP Designjet T1100 24in HPGL2” and our share name is “tanglefoot-t1100”.



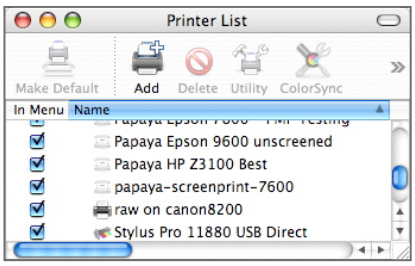
3. The printer name is the default created when the printer was added to the windows print system. The share name uses the computer name (tanglefoot) at the beginning so it is easily identifiable on the network.

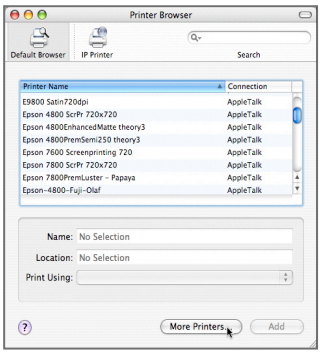
4. At this stage, a test page can be printed to check the Windows side is configured and working correctly.

On the Mac running the Blackmagic Server
(Mac OS X 10.4 and earlier)

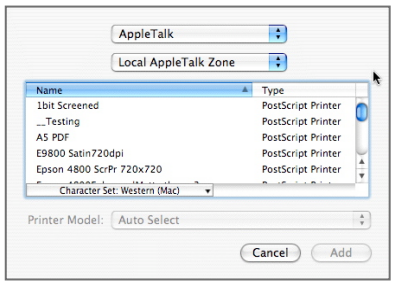
Now the Windows printer is configured and shared, create the printer on the Mac in order to print to it.

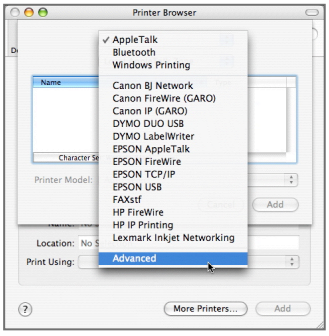
1. From the Finder go to the Utilities folder and launch the Printer Setup Utility.
   A window containing the existing printers will appear.





2. Click on the Add icon. The Printer Browser window will open.
3. Click on More Printers while holding the Option Key. This will give extra options.
4. If you are running v10.3.9 OS X hold the option key when clicking the Add icon earlier to view the extra options.





5. Click on the pull down menu AppleTalk and select Advanced.
6. From the Device pull down menu, select Windows Printer via SAMBA.
7. Enter a Device Name. This is the name that will appear in the Mac Printers list. It should not contain any spaces, capitals or hyphens.

Note: The interface will allow the use of spaces and hyphens, but the CUPs printing will transpose those characters to underscores. This can be confusing as you see a printer with one name but need to use another name to print to it.

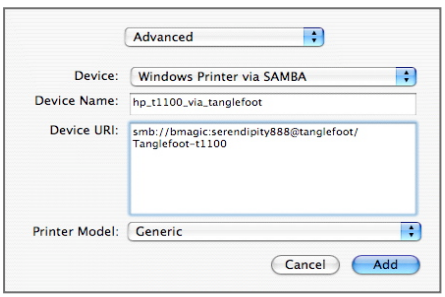
8. Enter the Device URL, which is the path to the printer on the Windows machine. This contains the Printer Share Name, Windows machine name, user name and password to enable SAMBA to pass the job to it.

   The format is: smb://<user>:<password>@<machinename>/<printersharename>

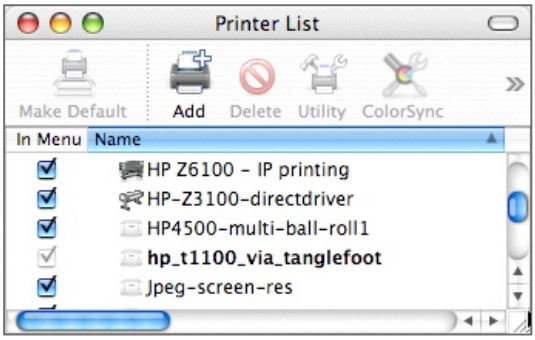
For this example, the names are:

- User: bmagic
- Password: serendipity888
- Machine: tanglefoot (IP address can also be used)
- Printer: Tanglefoot-t1100

The path is: smb//bmagic:serendipity888@tanglefoot/Tanglefoot-t1100
(The line is unbroken)



A driver can be set here but it is not used when printing from Serendipity Blackmagic. This is simply used to deliver the job to the printer. The driver within the Workbench is the one used.



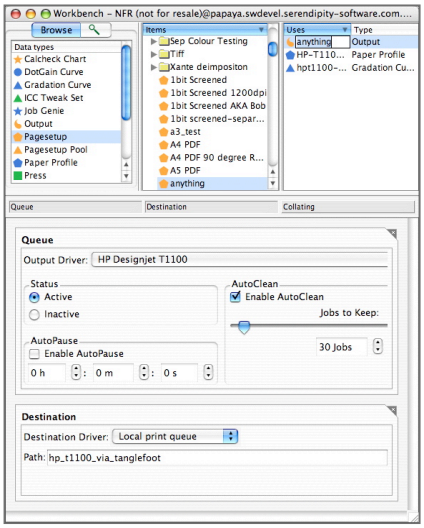
9. Once complete, click the Add button and the new printer will appear in the printer list.

On a Mac running the Blackmagic Server
(Mac OS X 10.5)

1. Open the System Preferences and select Print & Fax from the Hardware panel.
2. Click the + icon to Add a Printer.
3. Select Windows in the Add Printer window.
4. Click through the Network Name, Network Computer <machinename> and select the shared printer <printersharename>.
5. Select the driver you wish to use for the printer from the Print Using dropdown.
6. Click Add.

On Serendipity Blackmagic
Now that the printers are configured for Windows and Mac, an output from Serendipity Blackmagic to the printer needs to be setup.

For this example, a setup for the HPT1100 is required. The Pagesetup is the same as if you were driving the device directly. The only part that changes is the Destination section, as this configures the method by which the print job is delivered to the device.



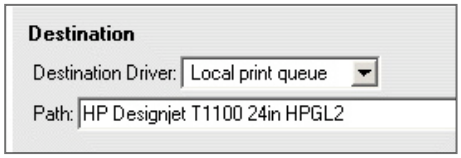
1. Open the Workbench and choose the Output to be used to print to.
2. Make sure the driver matches the output device.
3. In the Destination panel (bottom) select the driver to be Local Print Queue.
4. Enter the path (which is the name of the printer created on the Mac).

   For this example, *hp_t1100_via_tanglefoot* is entered.

5. Save the output configuration and test it.
6. Send a test print and check it is successful.

Serendipity Blackmagic Server Running on Windows
If the Server is running on a Windows machine, the output can be configured to print to any configured printer. This is very simple to setup and can be used if the printer is connected to the network, or to the machine via parallel port, USB or FireWire.

Local Windows Printer
The first section of setting up the printer on Windows is the same as that described for the Mac above. The only difference is that if the printer is on the same machine as the Server, there is no need to share the device.



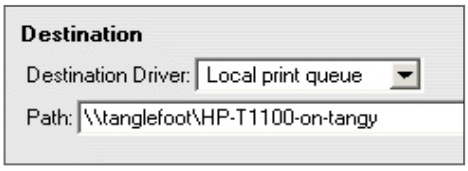
1. In the Workbench, select the output and choose Local Print Queue for the destination. The path entered is exactly the same as the name of the printer.

   As per the previous example, *HP Designjet T1100 24in HPGL2* is entered in the path.

Remote Windows Printer

If the printer is located on another Windows machine, there are two methods that can be used to print to it – either directly to the shared printer, or install a local printer to print to it. Both still set the destination driver to be Local Print Queue.

To print direct to the shared printer, in the path use the following format:



\\<machinename>\<printer> or

\\<machinename>\<printer share name>

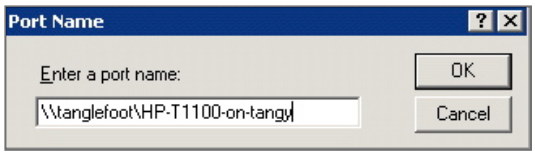
For this example, the path would be:

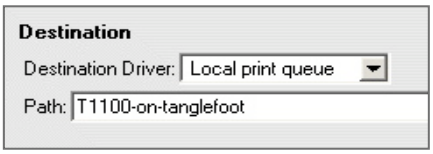
\\tanglefoot\HP Designjet T1100 or \\tanglefoot\HP-T1100-on-tangy

To print to the Windows printer when it is on another machine, a local printer needs to be configured on the same machine as the Serendipity Blackmagic is running on.

To do this:

1. Choose Add Printer in the printer section of Windows.
2. Choose a Local printer.
3. Create a new local port.
4. Enter \\<machine name>\<printer share name> (e.g. \\tanglefoot\HP-T1100-on-tangy)
5. Select an appropriate driver. Use the one for the printer or choose the generic one, as the Server will create the file in the correct format.
6. Enter an appropriate name for the printer.
7. Decide if the printer will be the default and if it will be shared, there is no need to share the printer for Serendipity Blackmagic to connect to it.
8. In the Destination section of the Workbench, select Local Print Queue as the driver.
9. Enter the path of the local name used. For this example it is "T1100-on-tanglefoot".





Note: Whenever you are printing to a local or remote printer, the QueueManager will report the job as Done very quickly. This does not mean the job has printed successfully. As the destination is a print spooler, as soon as the job is passed to the print spooler, the QueueManager is finished with it. Some control is lost from within the Client interface, as jobs will be passed as soon as they are done (unless you set print pages direct on the printer properties).

If there is a problem printing to the printer, the Windows printer will alert you to this, not the Client. As far as the Client is concerned, the task has completed and it is finished with the job.

Troubleshooting

Clustering

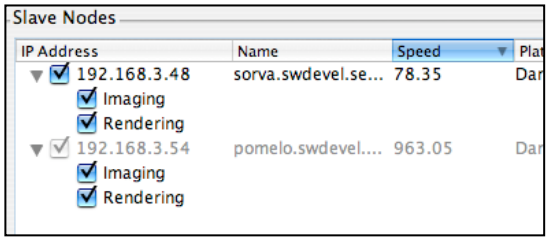
Here are some suggestions of where to look if you run into trouble and experience problems when using a Cluster.

Jobs Not Processing Through a Cluster Node

The possible reasons for this are:

- The Cluster Node is not configured to image, render or both. Check the ClusterStatus to see if either of the processing tasks have been disabled. To enable them, open the ClusterManager and enable the appropriate task.
- The Cluster Node has a Processing Pool attached and the Pagesetup you are submitting jobs to is not contained within the Pool. You can either unselect the Pool or add the Pagesetup to the Pagesetup Pool.
- The Cluster Node has gone offline. To check, open the ClusterManager and check the node. If the ClusterManager is already open, click the Refresh button. This will check for node status. If the node appears grayed out or disabled, this indicates the node is not currently online.

Here the Cluster Node called "pomelo" is currently offline. In this case, you would check the node server is up, the machine is still connected to the network and can see the Master. If there is a problem with the node, check the error log. One the problem is resolved, click the Refresh button or close and reopen the ClusterManager.



- The Node and Master are different versions. The node should always be upgraded when the Master is to maintain the same versions in a Cluster.

Cluster Nodes Errors Log

The Cluster Nodes create an error log, which logs all the messages from the node. This is located in the Blackmagic installation directory on the node's own machine and is called "*errors.log*". This can be viewed with a normal text editor and can help to track a problem, or it can be sent to support for assistance in tracing a problem.

A Node Cannot Be Found

Once you have started your node successfully, you should be able to see it in the ClusterManager. If not, you need to add the node manually. If this fails, there are a few things to check:

- Verify the node is still running and the clock is still counting up.
- Check the error log for any messages.
- Check that the Master machine can ping the node machine. If not, there may be a network issue and you will need to contact your network administrator for assistance.
- Check the ports on the machines are open for the node to connect to the Master and they are not being used by anything else. The port numbers for the node are as follows:
    - 9103/tcp – Server connects here and submits jobs via this port.
    - 9103/udp – Listens to broadcasts so the Server can enumerate available Node Servers.
- Make sure the node is the same version as the Master. Nodes (Blackmagic Slaves) should always be upgraded at the same time as the Master.

Printing to a Pagesetup on Windows

Here are some suggestions of where to look if you run into trouble and experience problems when printing.

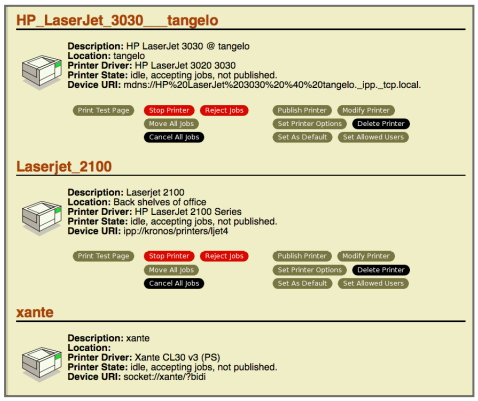
For all of the methods documented in this guide, test each step to see where the problems arise. For example, when a printer is created, try printing a test page.

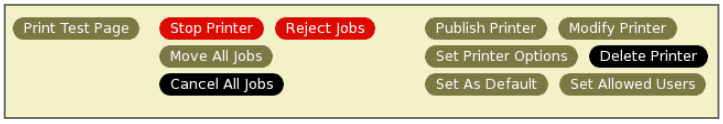
Printing From Mac to Windows

When printing from a Mac to a shared Windows printer, there are a couple of utilities available to verify whether or not the printer is installed correctly and working. These are:

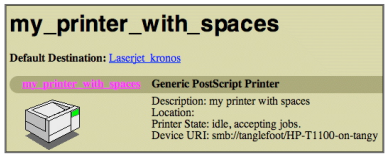
The CUPs printing system on the Mac has a web interface that lets you view and test printers. To access this, do the following:

1. Open a web browser and enter the following address: http://localhost:631
    a. This will connect to the local print system.
2. Choose Manage Printers and the list of printers configured on the Mac will appear.
3. Scroll down the list to locate the printer. A detailed description of the printer is available here.
4. Print a test page to the Windows printer. This will determine if the connection from the Mac to the Windows device is valid. The test job should appear in the Windows print spooler.





As mentioned earlier, if a name is created with spaces or hyphens these are transposed to underscores for the actual printing device. Below shows an example where the description appearing in the Mac Printer Utility list has spaces in the name. Through CUPs the actual device name is shown.



The description still contains the spaces but the actual device being printed to has underscores. In this instance, the path used in destinations would be “my_printer_with_spaces”.

Another way to check the status is to use the terminal.

1. Open a terminal from the Applications > Utilities folder

In the terminal type: lpstat –p

This will report on all printers configured on the Mac.

2. Search for your printer in the list and verify the name. The format will be like:

    printer my_printer_with_spaces is idle. Enabled since Jan 01 00:00

3. Try and print from the terminal. Locate a print file (run a test job with the correct driver and find the file in the raster folder in the installation directory) and type the following on the command line:

    lp –P<printer> <jobname>

For the example of a HP printer, we can type the following: lpr –Php_t1100_via_tanglefoot Quickcal_230166.rtl

This should submit the rtl file created by the Server to the printer spooler.

You must be in the raster folder when the command is typed or if not, enter the full path to the file, for e.g., Applications/Serendipity/Serendipity Blackmagic/raster/Quickcal_230166.rtl.

The Mac Spooler Reports "NT_ACCESS_DENIED"
This means that the print system cannot access the printer. It may be that there are insufficient privileges for the user trying to connect, the username and/or password could be incorrect, or the username and password part of the string have been forgotten.

Client Error
When testing with lpr or from Serendipity Blackmagic and the error "client-error-not-found" is seen, it means it is unable to find the printer the file is being sent to. Check to make sure the name of the printer is correct.

Unable to Print to Remote Windows Printer
This can happen from Mac or Windows.

If you are on a Windows machine and are creating a new printer to connect to the remote printer but it fails to find the path, make sure the remote printer is shared and the name is correct.

Glossary

Client – GUI that monitors jobs and allows configuration of the Server.

Clustering – The use of multiple machines on a network for distributed processing.

CMM – Colour Management Module.

CRT – Cathode Ray Tube. Describes the type of monitor.

CTP – Computer to Plate.

CUPS – Common UNIX Printing System.

Data Types – Database groups such as Pagesetups or RIPs etc.

DPI – Dots Per Inch (resolution).

EPS – Encapsulated Postscript File.

FTP – File Transfer Protocol – Method for copying files between computers across networks.

GUI – Graphical User Interface.

ICC – International Color Consortium.

ICC Profile – A colour lookup table used for converting colour of a job from one device to another.

LAN – Local Area Network.

LCD – Liquid Crystal Display.

LPI – Lines Per Inch (Screen Ruling).

Master – A Master Server, controlling Slave nodes in a Clustering environment.

QueueManager – Client module that displays job queues and jobs in those queues.

QueueStatus – Monitors the progress of a job through the system.

Real Density – Colour content of a patch as measured.

RIP – Raster Image Processor.

Server – Software module that handles the processing of jobs.

Slave (Node) – A separate processing node on the network. Used for processing jobs by a Master.

TCP/IP – Transmission Control Protocol / Internet Protocol.

Visual Density – The darkness of the patch measured (how much light is absorbed). The more light absorbed, the darker the Visual Density.

WAN – Wide Area Network.

Workbench – Client application used to configure the Server.

YN – Yule Nielsen Number.

Yule Nielsen Number – A “fudge factor” used when calculating % tint (dot area) from density readings.

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