User Guide

Shiraz Focus V4 Wall Art Edition

www.shiraz-software.com

Table of Contents

About this guide

This document is divided into the following chapters:

Chapter 1 – *Table of contents*

Chapter 2 – *About this guide*

Chapter 3 – *Introduction*

Chapter 4 – *Installation*

Chapter 5 – *Overview*

Chapter 6 – *Getting started*, explains how to get started.

Chapter 7 - *Design*, describes general operation of the Design module.

Chapter 8 - *Printer*, describes general operation of the Printer module.

Chapter 9 - *Tools*, describes general operation of the various tools available.

Who Should Use It

This guide is intended for users of different degrees of knowledge and experience with the Shiraz Focus software.

This guide assumes that you have some knowledge of the operating systems and the printer operation.

For more information please consult the appropriate documentations.

Typographical Conventions

This document uses the following typographical conventions:

Command and option names appear in **bold** type in definitions and examples. The names of directories, files, machines, partitions, and volumes also appear in **bold**.

Variable information appears in *italic* type. This includes user-supplied information on command lines.

Screen output and code samples appear in monospace type.

Introduction

Purpose

The Shiraz Focus software is an integrated design & production system aimed at the professional digital printers who require producing high quality prints on high-end inkjet printers from all major printer manufacturers such as Canon, Epson and HP as well as minilabs from various vendors. It helps the user to easily and quickly create colour accurate prints that fully optimize the media and ink usage. It uses real time polling of information from these printers to control production and minimize any potential mistakes by the users. All images are colour managed to simulate an accurate representation of the final print.

A powerful photo pack editor is included that allows the user to create and modify photo pack templates. These templates can then be populated accurately and quickly with selected images. Additionally images can be edited with various tools available if required. The system uses a sophisticated ICC colour management engine for colour matching RGB, CMYK, Lab and grey scale images on the selected media. Advanced Image processing techniques are used to optimize image resolutions and quality for best output.

Production and job management is carried out by the built in printer queue system. Jobs for the same media type can be nested automatically and dynamically for the best use of the loaded media. Various nesting conditions and parameters can be set to control the nesting behaviour; furthermore users can manually edit the nest layouts if required.

Specialist features such as gallery canvas wrap with additional effects like triptych and diamond formation can easily be achieved by utilizing the associated in-built functions. Uniquely users can carry out live editing of these jobs and see the resultant effects in real time.

To help the smooth running of the system and minimize any problems, jobs not matching the currently loaded media type or size are held automatically and released once the conditions are met (media matching). The system is supplied with the full range of media profiles for the OEM range as well as many third party ones. Additional profiles can be added via automatic updating system from the Shiraz Focus cloud storage sites around the globe. Advanced users can add their own media profiles by utilizing the intuitive colour profiling module.

Scope

This guide is intended to help new users to quickly get familiar with main functions and operational procedures of the Shiraz Focus system. It can also be used as a reference guide from time to time if needed.

System Requirements

Shiraz Focus software can be installed and used on the Windows XP SP3, Vista Business and windows 7 Professional, Mac OSX 10.5.8 (Intel) or higher operating systems.

Minimum hardware specifications are as follows:

2 GB Ram memory, 20 GB free hard disk, USB port, 1024 x 1280 24bit video card and screen, pointing device and DVD player. Intel Core Duo or higher processors.

The following list of image formats is supported:

TIFF, PSD, BMP, GIF, JPEG, JPEG 2000, PCX, PNG and TGA.

Installation

Installing the system

Shiraz Focus is supplied on a DVD-ROM or as a download from www.shiraz-software.com site for both Windows and Mac OSX operating systems. If using a download run the 'Focus Installer' application. If using a DVD and Auto run is enabled on your system then the installer starts automatically when you insert the DVD-ROM into the drive. Otherwise locate the installer program that is located on the DVD-ROM and double click to start the installation program.

Once the installer has started simply follow the setup wizards to complete the installation. You should reboot your computer to complete the installation.

Please note that you must be logged-in as an **Administrator** for the installation procedure.

Uninstalling the system

To remove **Shiraz Focus** from a Windows computer:

1 Select **Settings > Control Panel** from the Start menu.

2 In the Control Panel click **Add/Remove Programs** and select **Shiraz Focus** in the list.

3 Click the **Add/Remove** button to remove the program.

A confirmation prompt is displayed.

To remove **Shiraz Focus** from a Mac OSX computer:

1 Locate the folder on the **Macintosh HD: Application** where **Shiraz Focus** is installed.

2 Run the **Uninstall** application and follow the instructions.

3 Drag &Drop the **Focus** folder onto the **Trash**.

Starting the system

Once the software has been installed a shortcut to it is created on the desktop. Double click on this to start the application.

Overview

This section gives a brief overview of the various components that constitute the Shiraz Focus software. These include **Design**, **Printer**, **Nesting**, **Status**, **Photo Pack Editor, Hot Folder** and **Image Editor**. Once you have covered this section you should have a clearer idea of the Shiraz Focus system and its functionalities. Each of these modules will then be covered in greater details in subsequent chapters.

Design

As the name suggests it is here that you design and prepare your jobs for output. Your image libraries can be added to the favourite list for quick access. You can select from a list of categories of photo pack templates. Additional photo packs can be easily added to the list by using the **Photo Pack Editor** included.

Once a photo pack has been selected then the user can simply drag image thumbnails from the thumbnails view onto the photo cells to populate them. Multiple cells can be selected to hold the same images if required. Images can be automatically made to **fit** or **fill** the photo cells. Additional image editing such as rotation, mirroring and zoom & pan can be applied to these cells if required. Images can also be retouched in the powerful and easy to use Image Editor if needed. Optional print marks such as crop marks and job labels can be automatically added to jobs if required.

Printer

Once images have been prepared they can be submitted to the print queue for printing. The integrated print server manages all the incoming jobs and will process these jobs for output. Jobs can be printed single or nested automatically for best use of the loaded media. Nested jobs can be manually edited by the user if required.

Jobs that do not match the currently loaded media type or size will be held automatically until the right conditions are met. The system constantly checks the printer status for loaded media size/type, ink levels and other printer conditions. These information are then used to check against jobs in the queue to make sure that all jobs match the current conditions and would print with no problems. If any potential problems are detected then the system would warn the user of any impending issues hence minimizing any costly mistakes.

Once print jobs have been successfully processed they will then be archived for future resubmission if needed.

Nesting

Jobs that are sent to the print queue can be submitted with their nest attributes switched on. Jobs with the same media type are then grouped and nested together for the best use of the currently loaded media size. Various nest conditions and parameters can be set as default to control the nesting behaviour. These can include minimum area coverage, justification and trimming arrangement. Nested jobs can be manually

edited by the user to suit their requirements. Individual jobs can be added or removed from the nest group if required.

Nesting jobs are dynamic and fluid, meaning that they will change on the fly as various parameters change or whenever a new job is added or removed. Nesting jobs can be locked by the user to prevent any more changes if required. Also nest jobs that have been manually edited are automatically locked by the system but can be unlocked by the user if needed. Nest jobs that have been processed and printed (archived) are kept intact and can be resubmitted as a group for further printing if needed.

Status

Information fed back from the printer is used by the system to check and direct the print production as well as informing the user about various printer conditions such as ink levels, loaded media etc. Depending on the printer's built-in features the system can also control media calibration, nozzle check and head cleaning.

Current printer state is highlighted at all time and any problems such as a connection error or open door is immediately relayed to the user's attention.

Messages from the printer are divided to three categories. Error (Red) messages are critical and would mean no printing will be possible. Warning (Amber) messages point to possible issues that might arise in the future, printing is still possible. Ready (Blue) messages indicate normal operating conditions and all printing can be done without any potential issues.

Photo Pack Editor

Users can create and use their own photo pack templates by using the editor included. This powerful tool includes many functions that allow for easy and accurate creation of templates. Text boxes could also easily be added to contain any free form text or be linked to a photo element in order to use the Exif data or file information.

Special functions for creating canvas wrap and panoramic type printing are also included. Borderless templates can also be made by specifying the relevant parameters. Any number of photo pack categories can be created that enables the user to logically and easily organize their templates.

Getting Started

The Shiraz Focus system is designed to be as easy as possible to setup and operate with minimal training or instructions required. As far as it is possible all actions required by the system from the user are carried out in a logical and easy to follow manner.

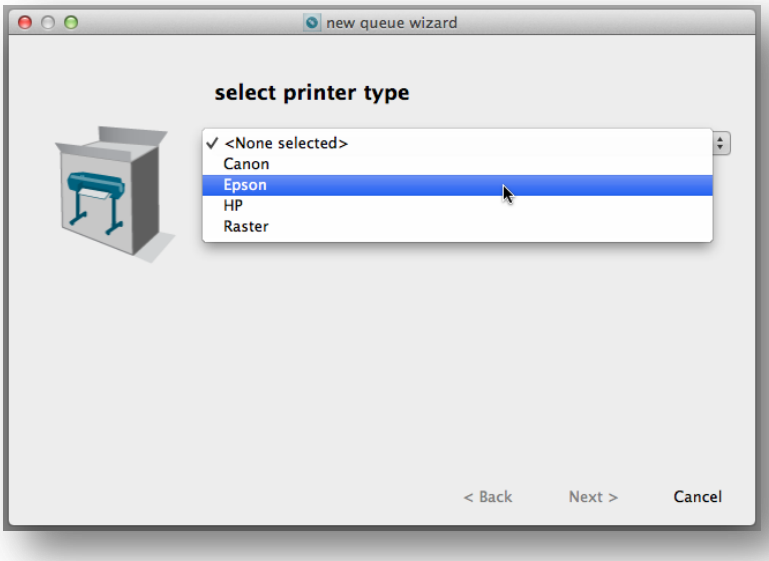
The software is fully configurable and allows the user to utilize it in either a simple or a very demanding production workflow environment. At its heart there are many sophisticated and state of the art technologies that hides all the hassle and complexity of printing and managing high quality images on the latest inkjet printers from all major manufacturers.

In this chapter we will first cover the initial setup of the system as well as all the options and preferences available and will conclude with an actual example of a simple job from start to finish. This should hopefully familiarize you with the working and ethos of the system.

In the following chapters we will then cover all the available features of the Shiraz Focus software in more depth. You should first cover this chapter before moving on to the detailed area of the manual.

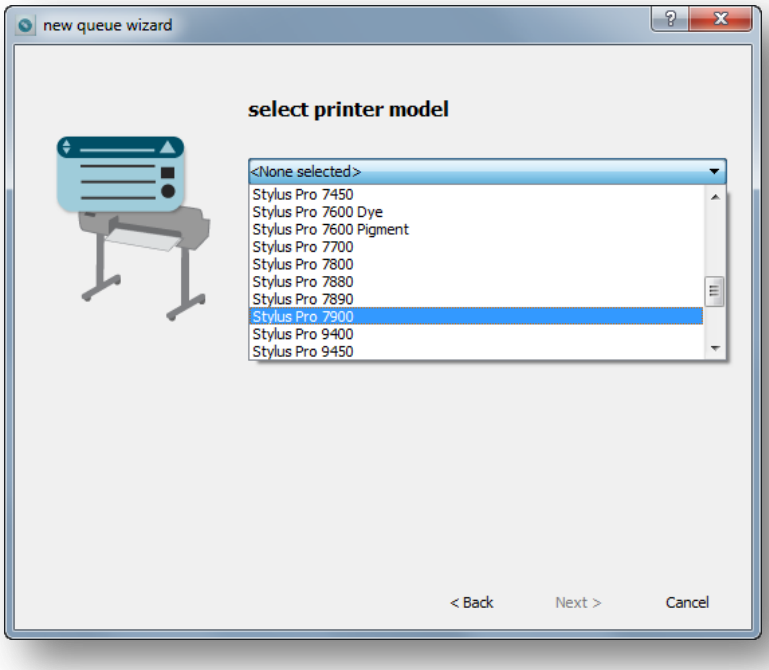
Queue wizard

The very first time that the Shiraz Focus is run the **Queue wizard** system is called to help the user in setting up the system for their particular printer and environment. Simply follow the wizard's step by step guide to create the default printer queue. This process can be run at any time later on to change the configuration.

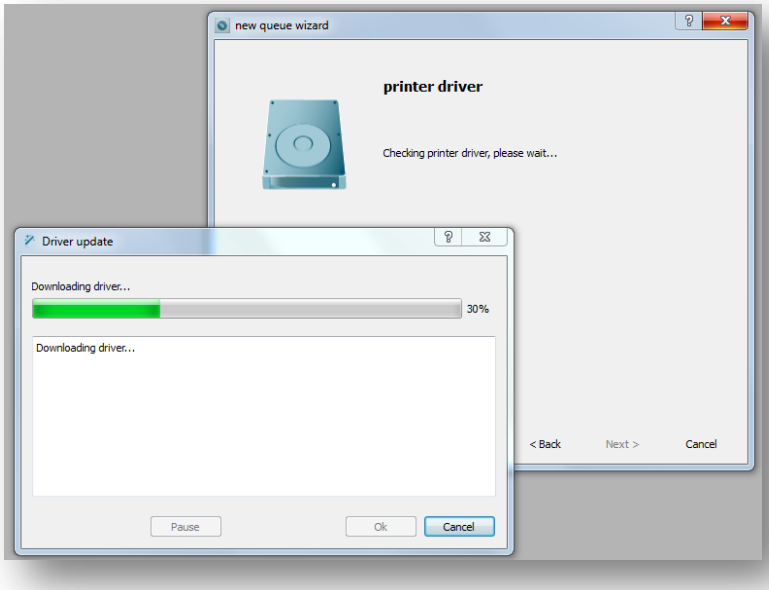


You will first need to select the printer make from the list presented. Once you have selected the one that you require click **Next** to go on to the next step. Click **Back** if you have made a mistake in your selection.

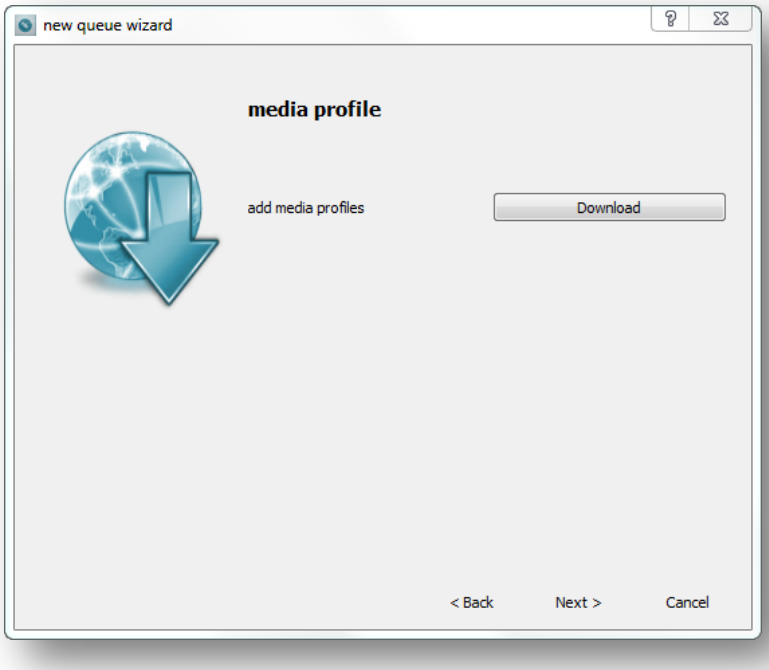
You will then be presented with the list of printer models that are supported for the previously selected manufacturer.



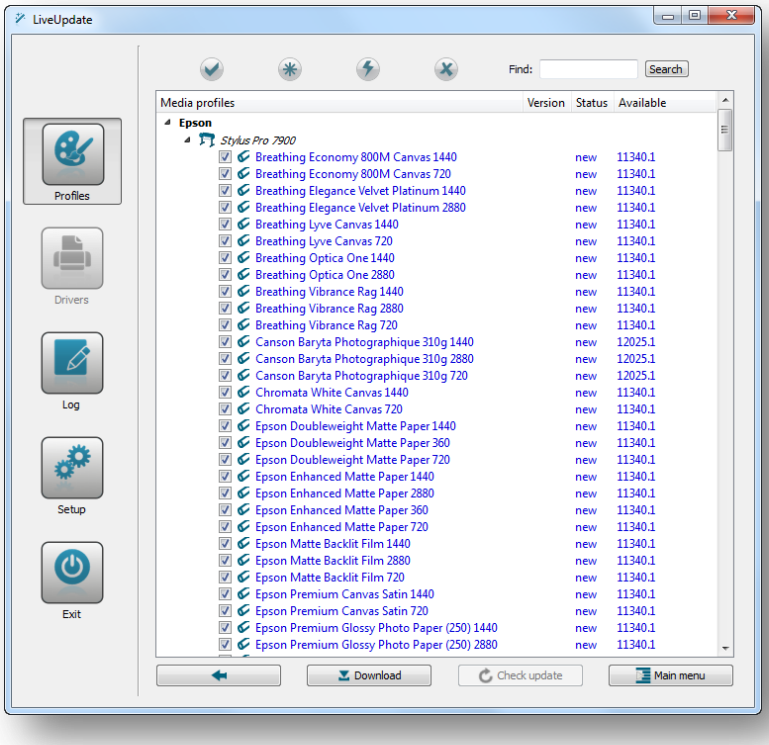
Now select the printer model required and click **Next**. The installer wizard will now download and install the latest Shiraz printer drivers for the selected model from the cloud storage on the internet or from the installer DVD if no internet connection is available.



Next the user can download the required media profiles for their printer from the Shiraz profile library online or the media profile DVD if there are no internet connections available.

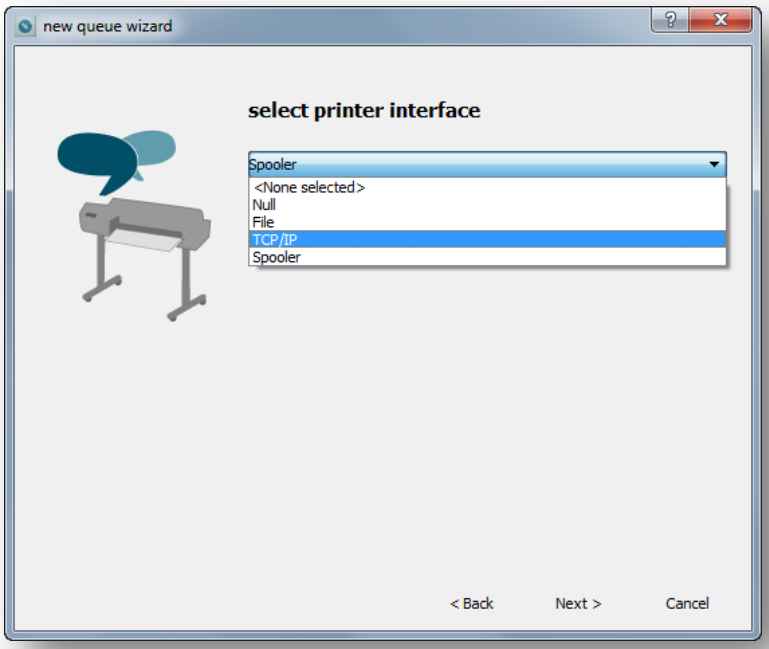


Click on the Download button to initiate the Liveupdate application launch that enables the users to select and download media profiles.



Users can select manually by checking from the list of profiles or by using the various selection options and search feature. Once selected then click on the Download button to start the downloading process.

In the next stage based on the printer make and model selected so far as well as the operating system being used the system will show you the choices of printer interface types available.

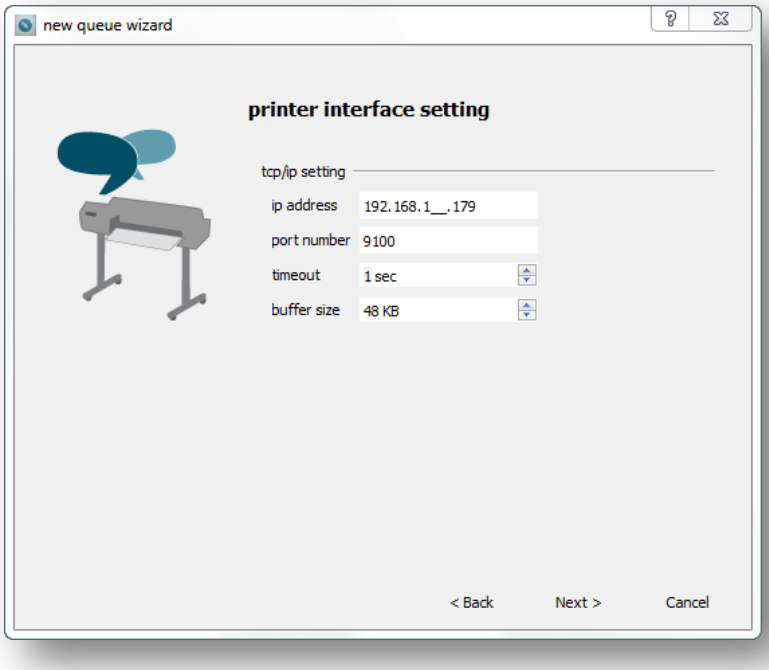


Interface type describes the actual physical connection from the host computer to the printer. The choices here is very much dependent on the printer make selected.

- **Null** – this interface type is not a physical one and is only used for testing purposes. There are no parameters available for this selection.

- **File** – this instructs the system to send the print data to a file in a selected folder location.

- **TCP/IP** – this type of interface uses an Ethernet type connection and requires the IP address of the printer.

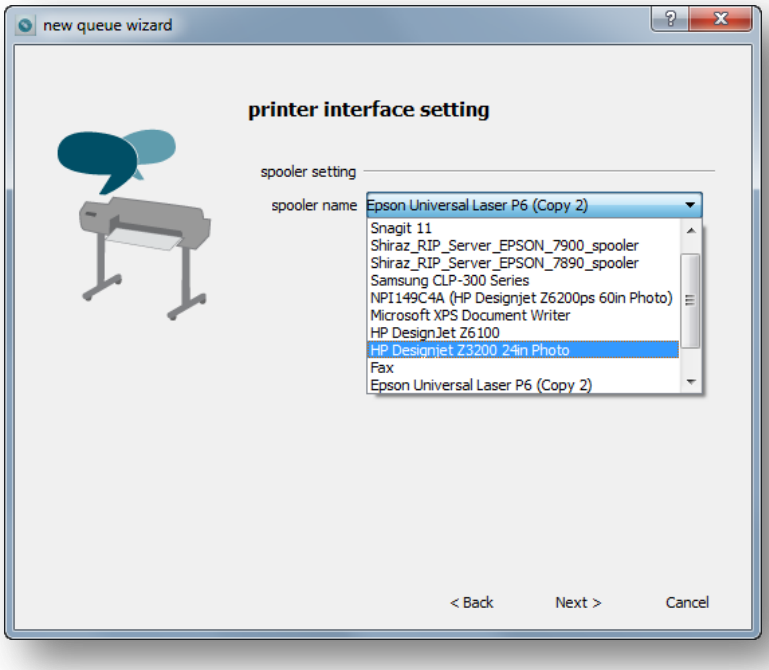


- **IP Address** - IP address of the printer on the network in 999.999.999.999 format. Make sure the address has the same domain range as the computer.
- **Port Number -** the port number of the Print-Server on the printer where direct binary printing is done. Most Print-Servers use 9100 as their port, however some may be different. Refer to the print server documentation for the correct port number.
- **Timeout -** timeout value in seconds which has to expire before an I/O error occurs if the receiving node is not responding or accepting data. For maximum throughput speed set this timeout to 0, effectively disabling timeout checks.
- **Buffer Size -** size of TCP/IP internal buffer which is used to store data before outputting packets on the actual I/O channel. The optimum size is dependent on system and will require some trial. The default 48KB will work best on most systems.

- **Spooler** – this interface outputs to a system spooler found on the computer. Spoolers are usually created by installing the printer drivers supplied by the printer manufacturers. The actual spooler's interface port type can be set to any type supported by the operating system such as USB, FireWire, TCP/IP, etc.

  The Shiraz Focus system only uses these spoolers as a communication channel and bypasses all their image processing and colour management features. This option should only be used if there are no other direct connections available from the software such as Epson stylus Pro printers with a USB or FireWire connection on the Windows operating system.

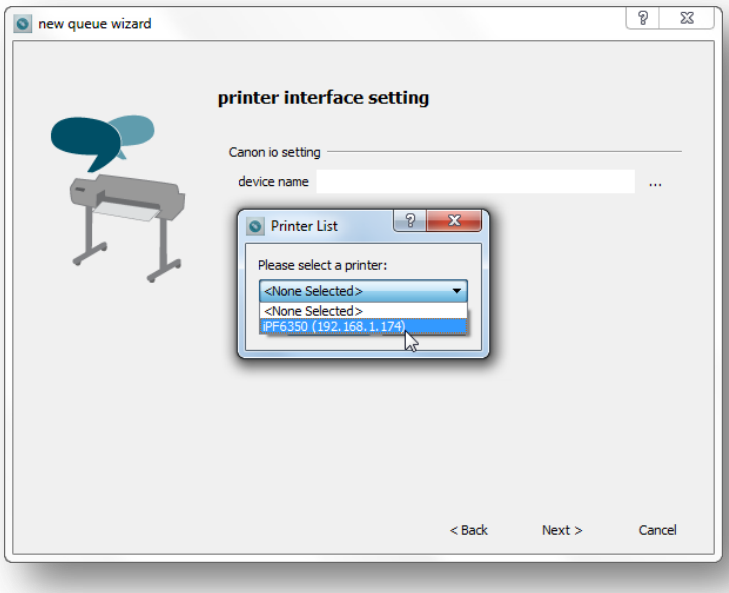
  Once this option is selected then the drop down menu will list all available printer spoolers on the computer. Select the required spooler from this list.



- **Parallel (Windows only)** – this is an old interface type that is not used any longer on modern printers as it is very slow and unreliable. It is only listed here for legacy reason.

- **HP Direct (HP and Windows only)** – this is a direct USB connection for HP Z-series printers on Windows platform. We currently do not recommend this option as it has proven to be unreliable in our lab tests when running big batch of jobs.

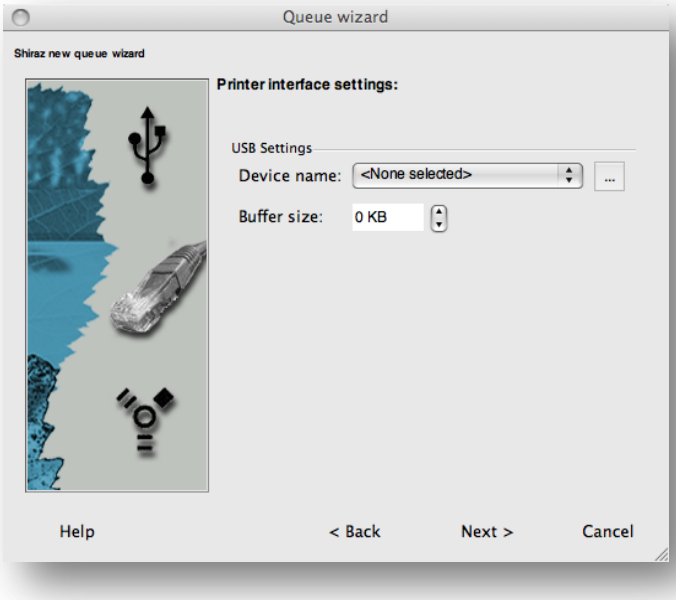
- **Canon (Canon only)** – this is a special interface type for the Canon range of printers. Regardless of the actual physical connection between the computer and the printer it is recommended to use this option for all Canon printers.



Click on the ‘find’ button next to the **Device Name** entry to start the system scanning for all Canon devices.

The system will now automatically find and list all Canon printers connected to the computer directly (USB, FireWire) or on the network (TCP/IP). Now select the printer from the list shown.

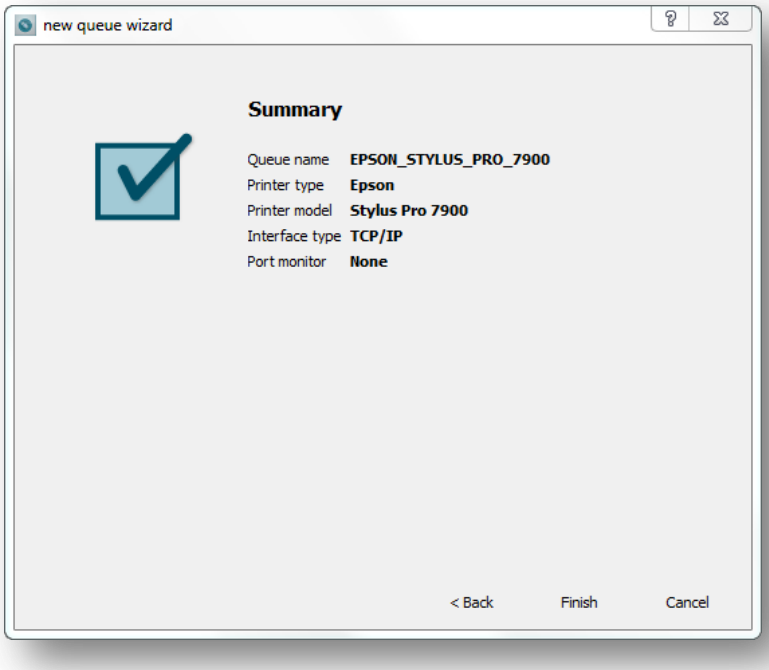
- **USB (Mac only)** – this interface type is for direct USB connections on the Mac.



Click on the ‘find’ button next to the drop down menu to search for all connected USB printers. Now select the required one and click OK.

- **Epson FireWire (Mac and Epson only)** – this option is only valid for the Epson Stylus Po printers connected to a Mac computer via FireWire port. The selection procedure is exactly the same as the USB connection above.

At the end of the wizard a summary of the configuration made is shown for confirmation.



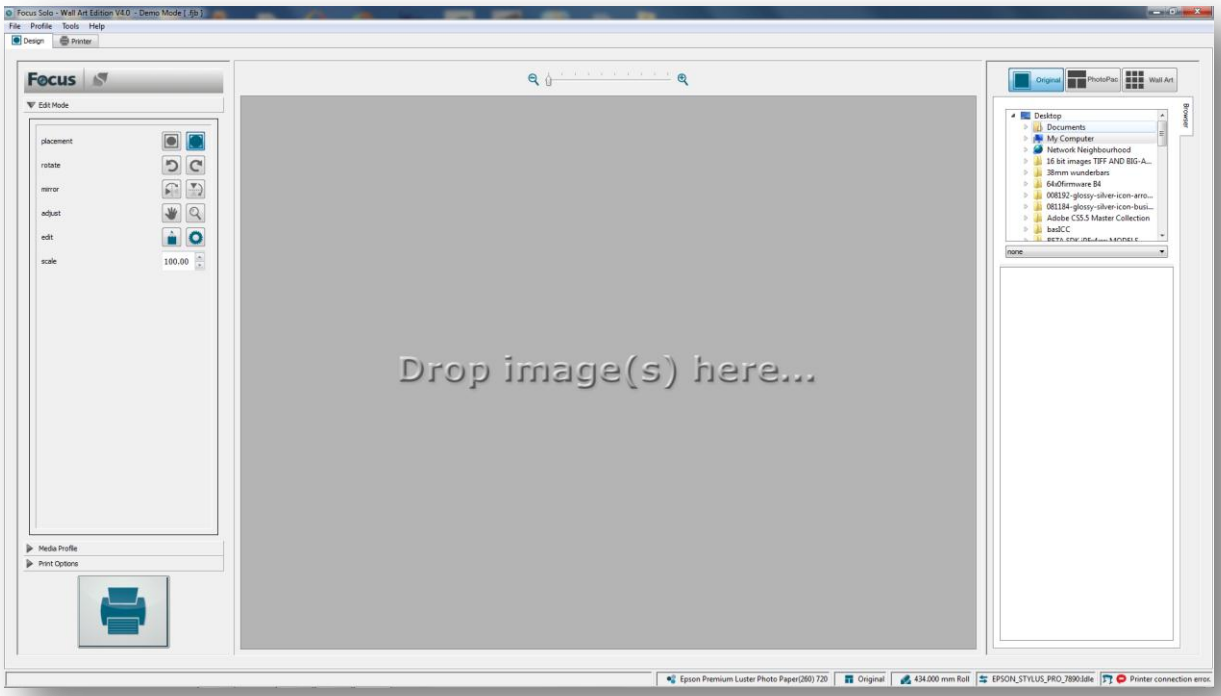
If you are happy with your selections then click on the **Finish** button to end and accept the configuration.

You can run this procedure at any time by selecting **New Printer** option from the **Tools** menu available in the main window. This will be covered later in this manual.

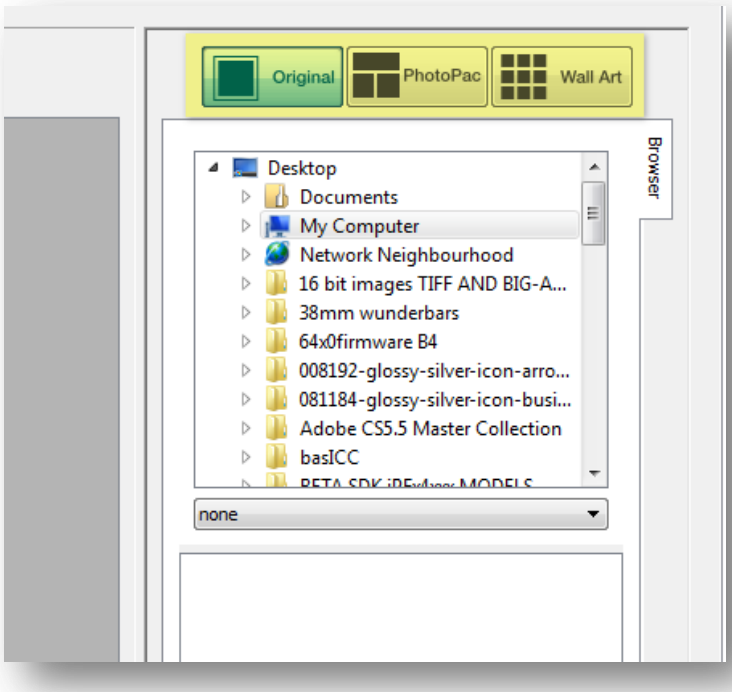
You are now ready to start working with Shiraz Focus software and get your first print job out.

Example Job

On the successful completion of the system setup detailed above the main window of the Shiraz Focus system will be displayed as shown below.



The first step is to select the mode of operation that we want to work with. This is done by clicking on the options available on the tool bar as shown below:

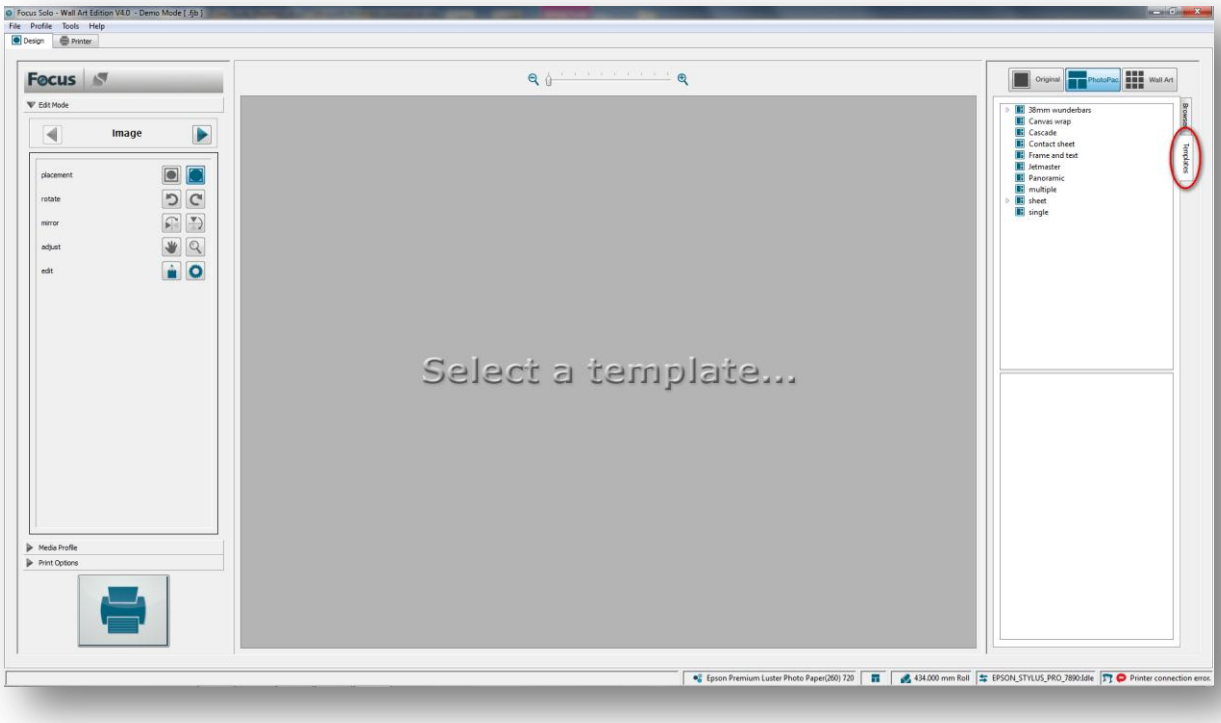


Original –Use this mode for images that have already been sized and prepared. Simply drag & drop images on to the work area. Further editing can be carried out on these images if required.

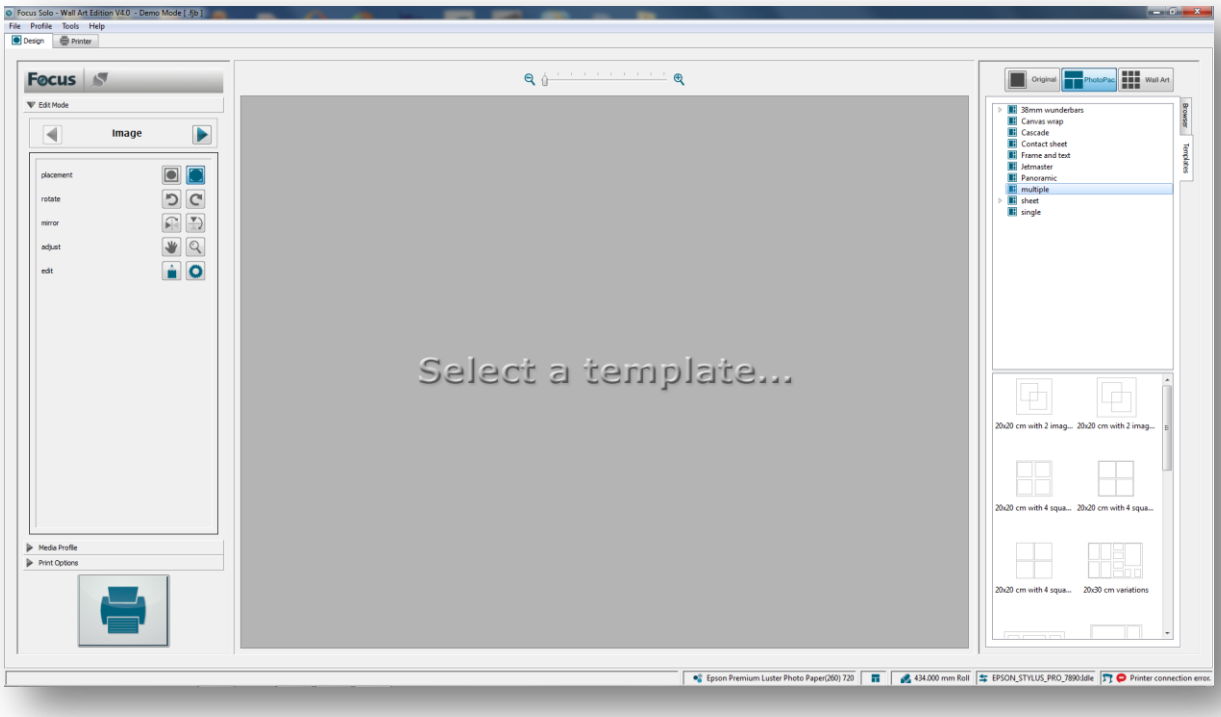
PhotoPac – In this mode the images can be placed on the selected photo packs where they will be automatically adjusted for the given templates. Additional editing can be carried on these images if needed.

Wall Art – This optional mode enables users to design very sophisticated canvas gallery wraps in a free format way. It is also possible to output the background image as wall paper tiles.

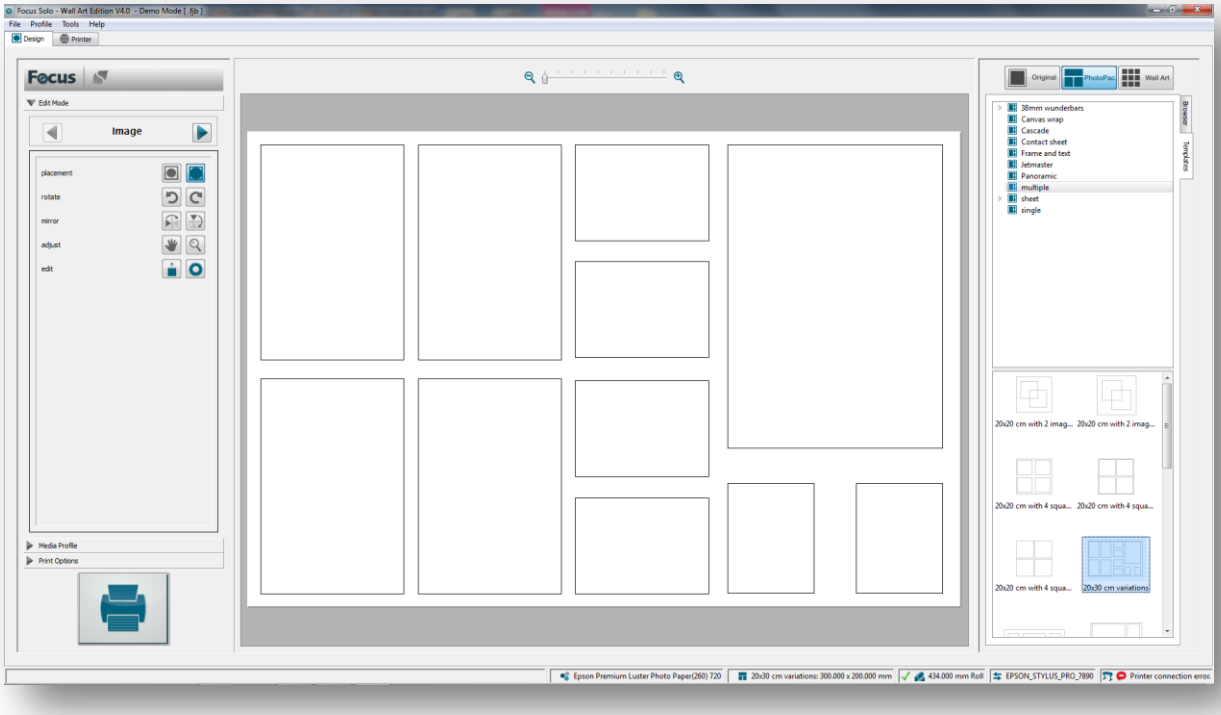
In our example we will use the PhotoPack mode to create our job. On the selection of this mode the list of photo pack categories available are displayed on the right hand side of the window.



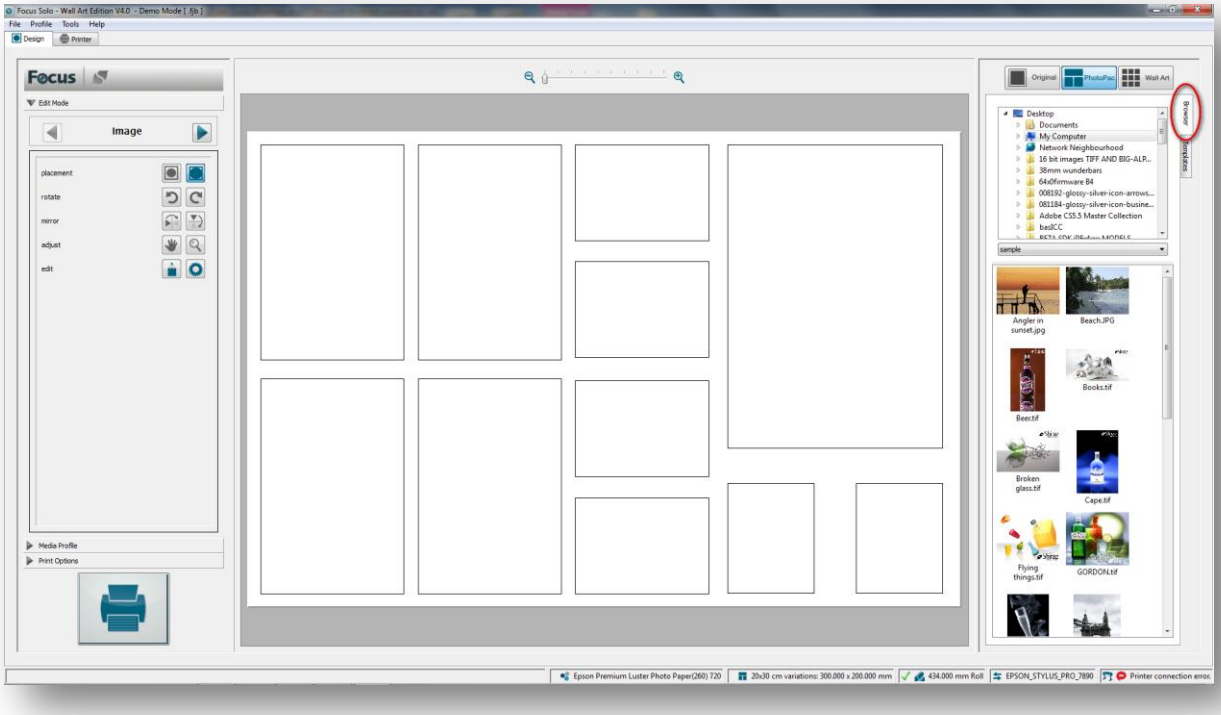
Click on any of these categories to display the list of photo packs within them.



Next select the actual photo pack required from the list by simply clicking on it.



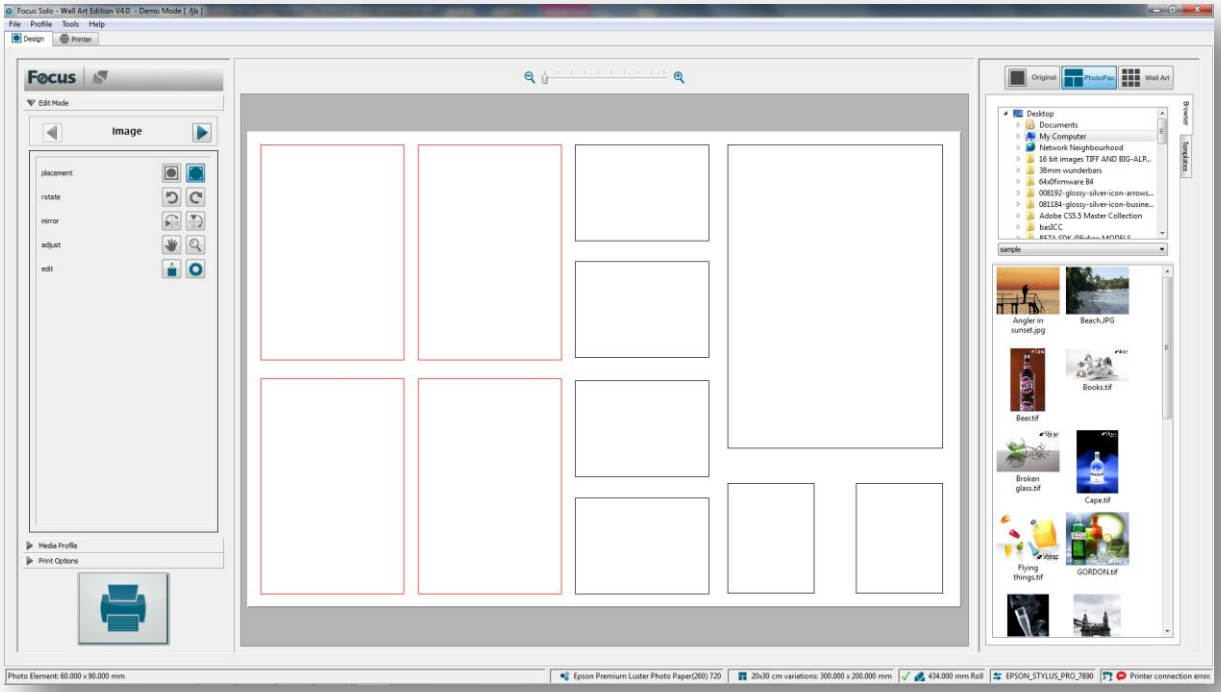
The next step would be to browse for the images that we want to use on this photo pack. To do this click on the Browser tab to first select it and then browse your system for the image folder.



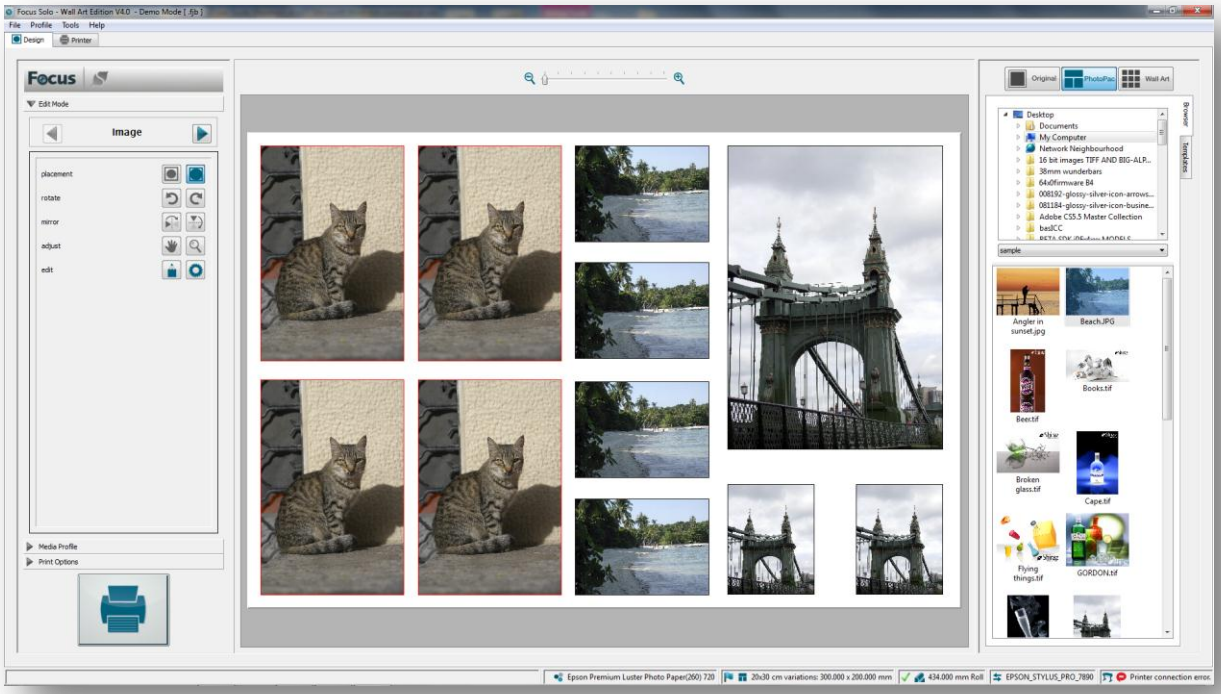
In this case we have selected the Sample folder located in the Focus program folder. Once the folder is selected the system scans for all supported images within it. As images are found their thumbnails are generated and displayed.

To add the folder to the favourite list for easy access next time right-click on the selected folder and select this option.

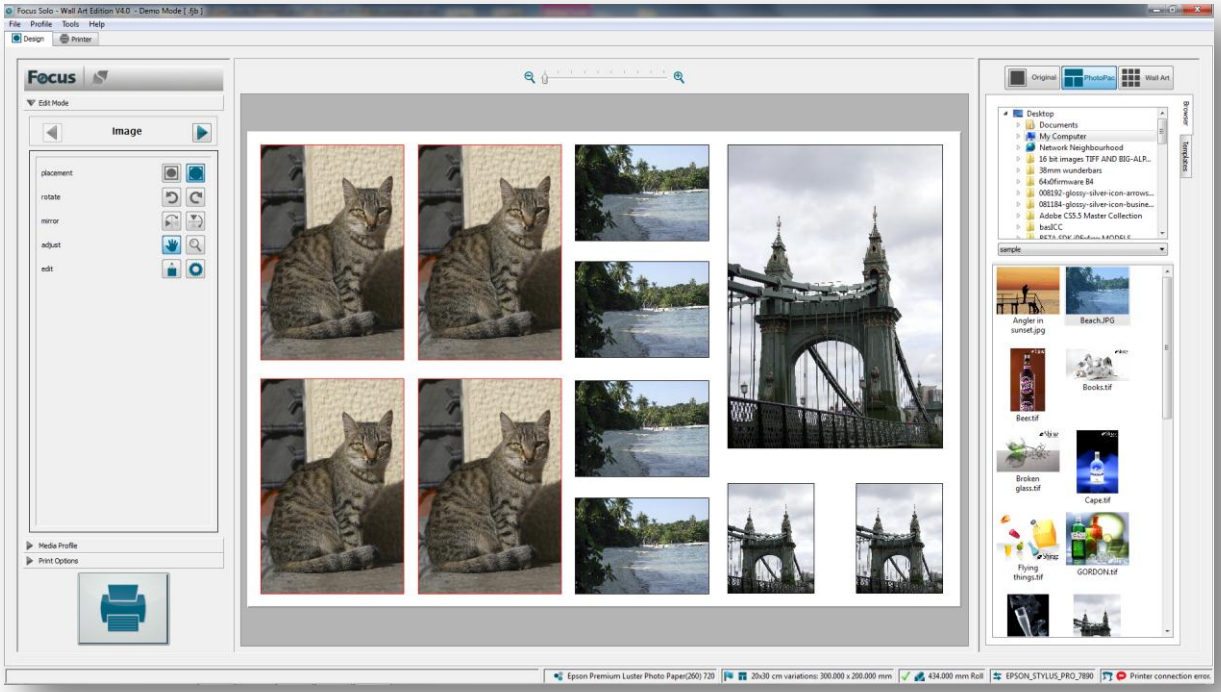
As you can see there are a number photo cells with different dimensions within this photo pack. We can populate a number of these cells with the same image by first selecting them as a group. To select a number of cells, first hold the **Control** key and then click on the cells required. Selected cells are then highlighted in red.



Once you have finished with the selection, drag & drop the required image onto any of the selected cells or simply double-click on it as illustrated below. In a similar way populate the other cells with other images.

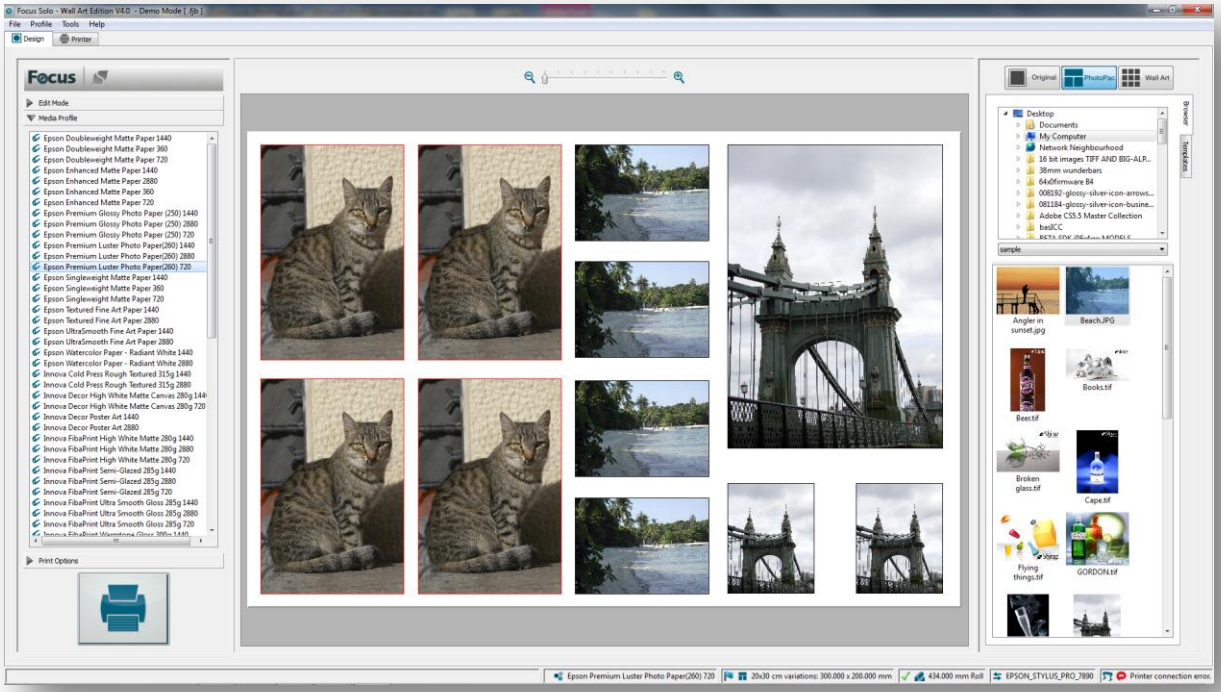


In the next stage, we can edit the image with respect to the cell. Again multiple selections can be edited simultaneously. In this example we would want to zoom in onto the image and then use the pan function to move the image around the cell to block out image areas not wanted.

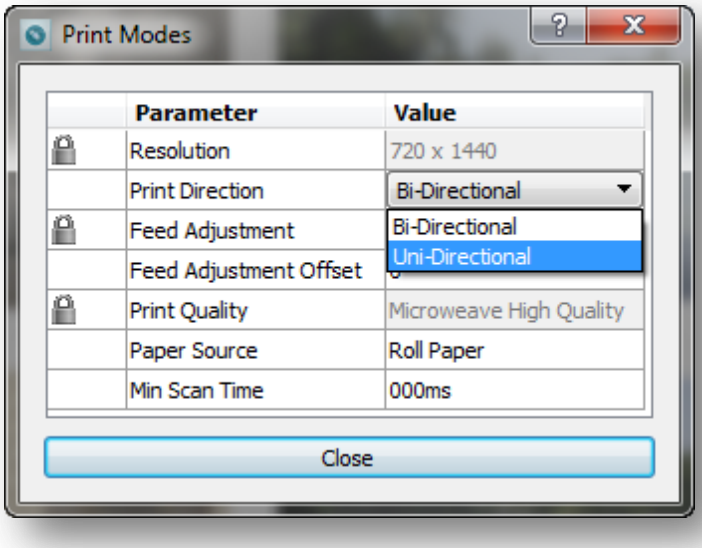


Once the editing has been done we can then move on to the next step and select the media profile for the media that we want to print on.

The loaded media profiles are listed under the Media Profile tab as shown below. Depending on the printer make & model there might be multiple profiles for each media. These are for the various print modes that the printer supports.

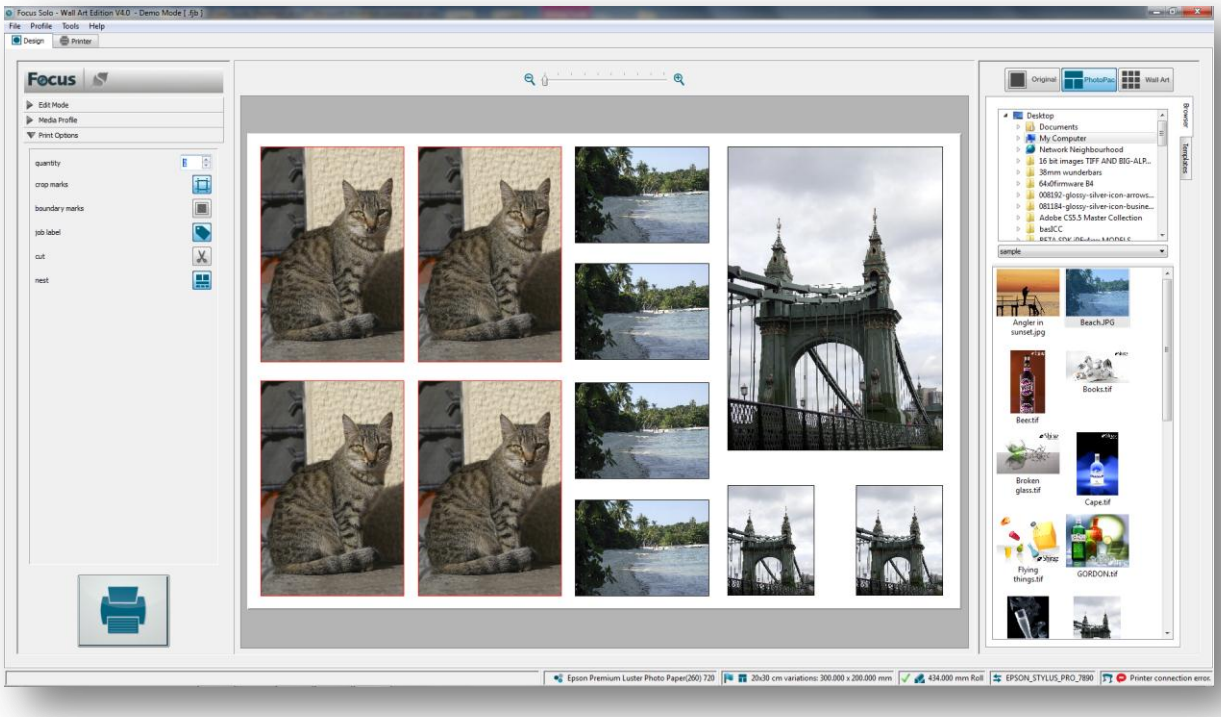


Simply click on the media profile to select. Media profile names also imply the print mode that will be used. To change the print mode, double-click on the profile name to display the print mode table as shown.

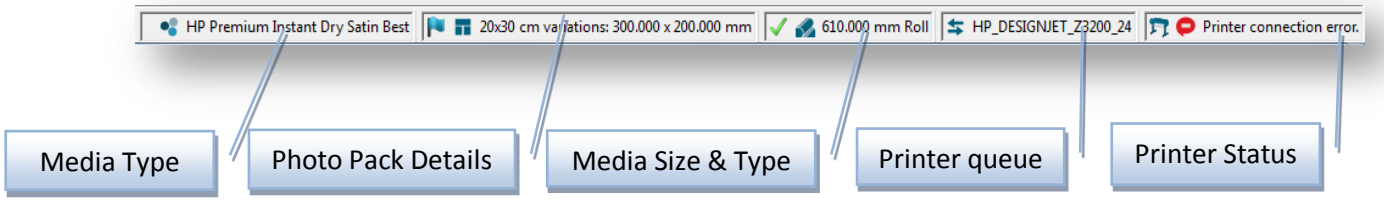


For example you can change the ‘Print Direction’ setting to be ‘Uni-Directional’ as shown above.

In the final stage you can select from the list of print options available such as quantity and crop marks.



In our particular example here we have opted for quantity of 2, 'crop marks' and 'job nest' options enabled. But before we go ahead and submit the job for printing we can do a visual check to see that everything is Ok with the current system status and there are no potential issues. To do this take a look at the bottom right corner of the window where the Info Bar is located.



- **Media Type** – the information shown here is the actual name of the currently selected media profile. If it matches what is actually loaded on the printer itself then a green tick is also highlighted next to it. If it does not then a red cross is shown instead. If there is no information about the type of media loaded then no symbol will be shown.

- **Photo Pack Details** – Name of the currently selected photo pack and its dimensions. The blue flag also indicates that all placed images print resolution (PPI) are good and there will not be any issues with the print quality.

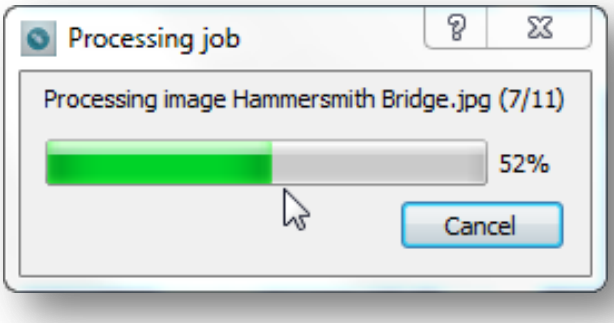
- **Media Size** – The actual media type (Roll or Sheet) and its actual value is shown here.

- **Printer** – name and model of the printer that the system is currently configured for.

- **Printer Status** – the current state of the printer. In this case it is in the Ready state indicating that printing can go ahead with no problems.

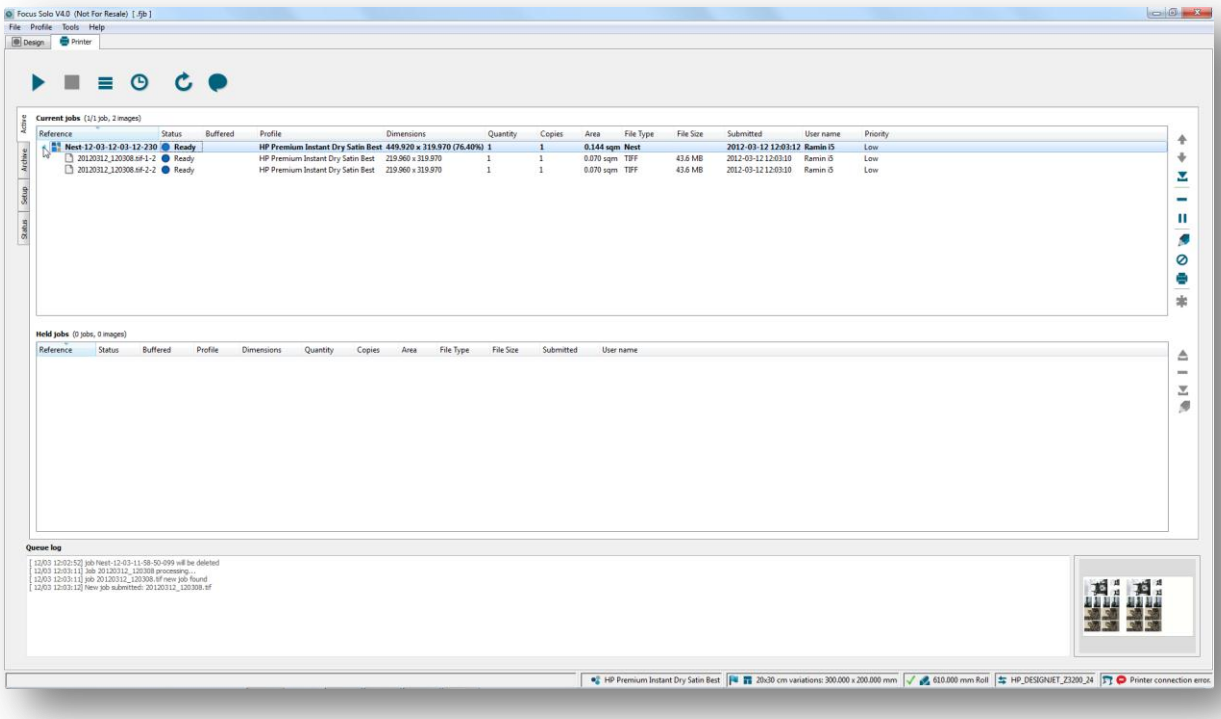
In our example here you will notice that the printer status is in error mode because there is a connection problem. Although the job can still be submitted but it will ne be printed until the problem is resolved. Assuming that the issue has been resolved we can go ahead with submitting the job to the printer queue.

Click on the big print button to start processing and submitting the job to the printer queue for output. The system will now show a progress bar and showing the name of the images on the photo pack being processed.

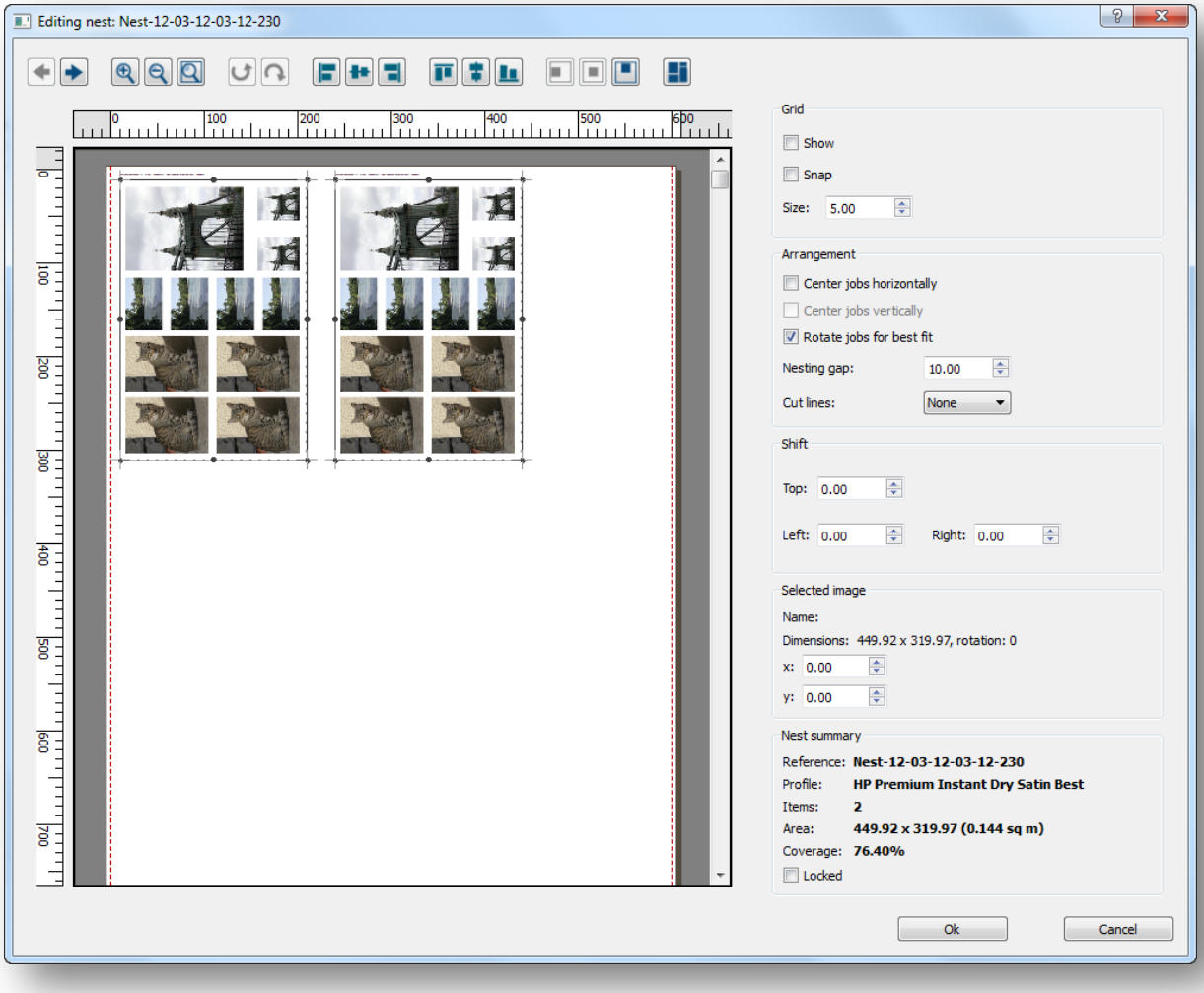


All images are now processed including the application of all the relevant ICC profiles and image optimizations to create the final output image.

Once the job has been submitted to the print queue click on the Printer tab and you should see the nest job listed in the Active tab section.

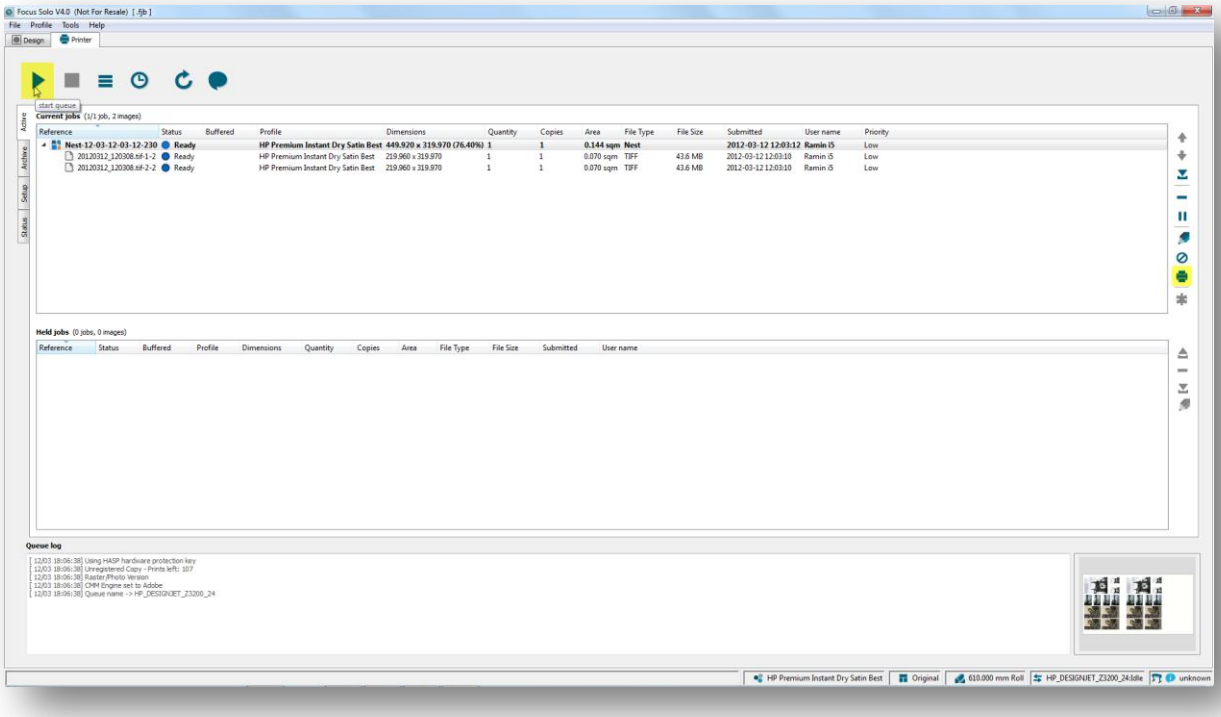


The nest job contains the two jobs arranged for the best fit on the currently loaded media as shown by the image thumbnail at the bottom right corner. To edit the actual nest double click on the nest job entry to open the ‘editing nest’ window.

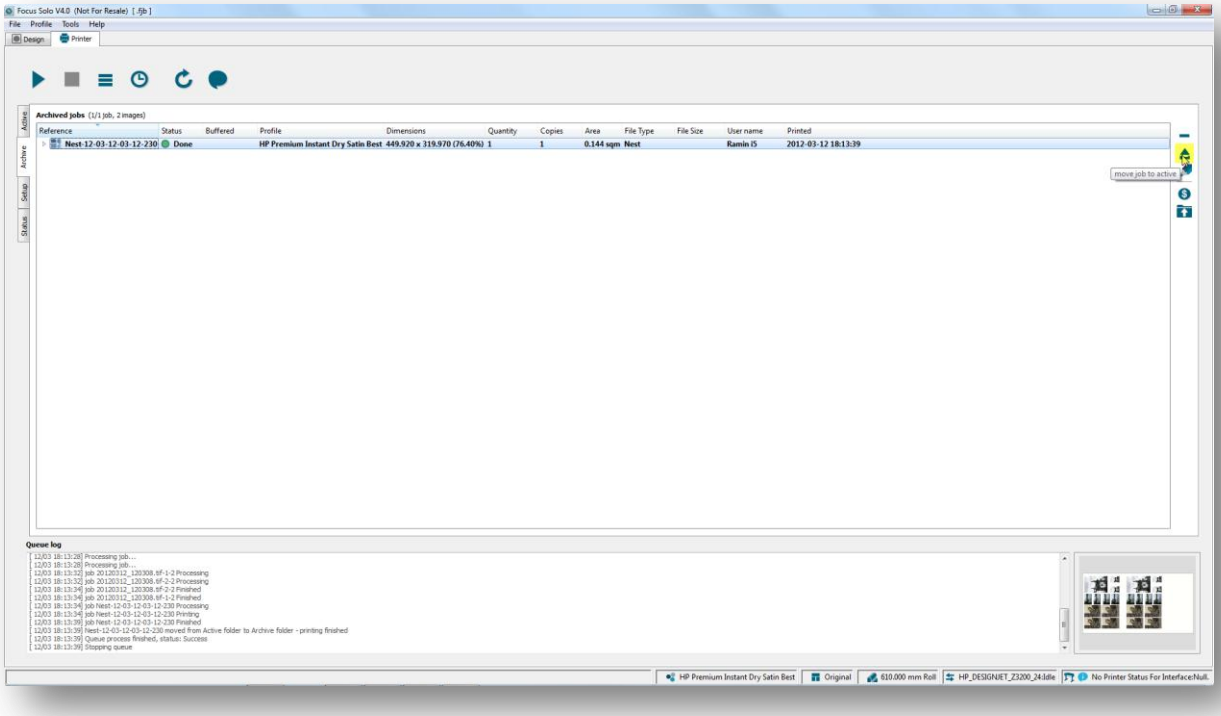


In here you can move and rotate images within the nest in anyway required. You can also change the nesting parameters available here and then use the ‘Nest Automatically’ button to get different nesting arrangement. Click again to get a different arrangement. Examine the nesting statistics displayed to help you decide the best arrangement.

To start the queue that in turn starts processing and printing all jobs found in the Active tab click on the Play button at the top left corner of the main window. Alternatively right click on the nest job entry and select the ‘Print job’ option. This will only process the currently selected job.

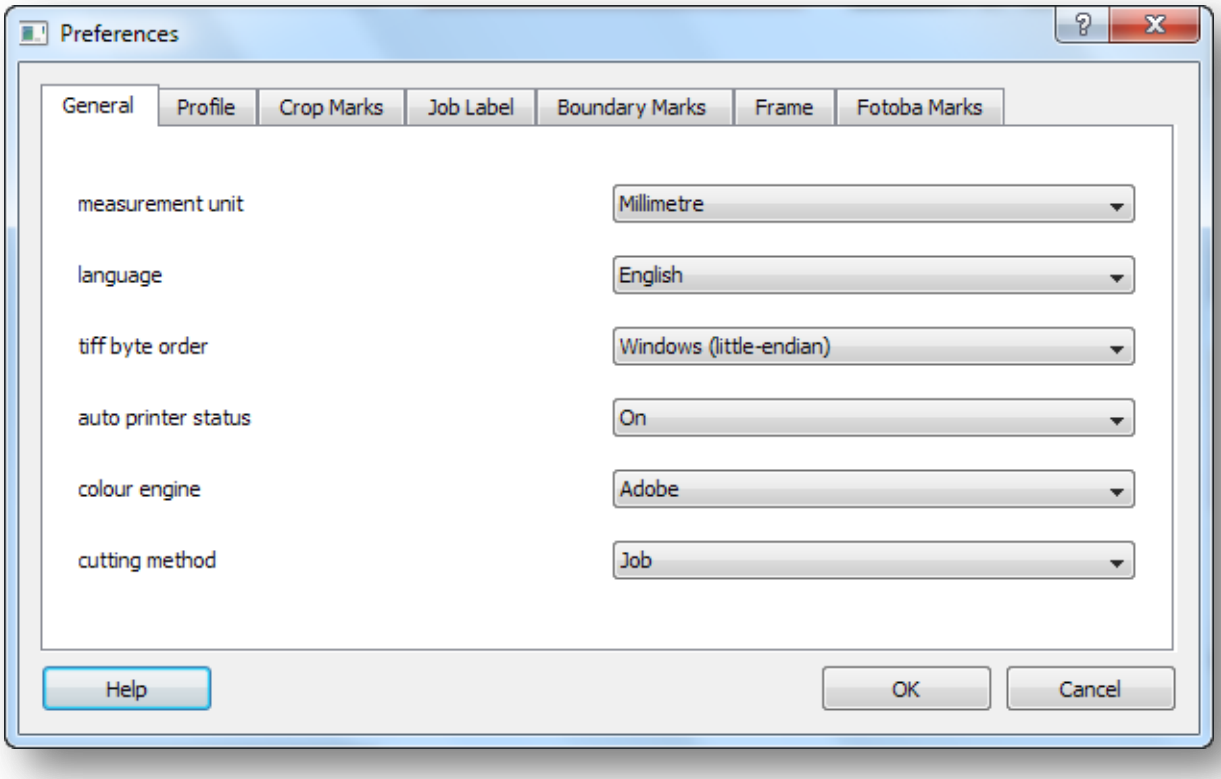


Once the job has been processed and printed, it will be moved to the Archive area of the queue where it can be resubmitted back to the Active folder for more printing.



Preferences

Before starting to work with the Focus application you should first examine and if needed change any of the preferences needed. You can open the Preferences window by selecting this option from the File menu.



General

In this tab there are four settings available that can be changed by the user.

- **measurement unit** – select from the drop down list the unit setting for the Shiraz Focus system. You can select from the metric or imperial options available here.

- **language** – the foreign language setting for the complete system can be set here.

- **tiff byte order** – this is an option for the creation of the Tiff data from the Focus system. This option is only relevant for the Minilab drivers.

- **auto printer status** – to switch off the live polling of data from the connected printer set this option to Off. This will then disable the systems communication with the printer. Please see the Status documentation for more details. This option should normally be On unless there is a system problem.

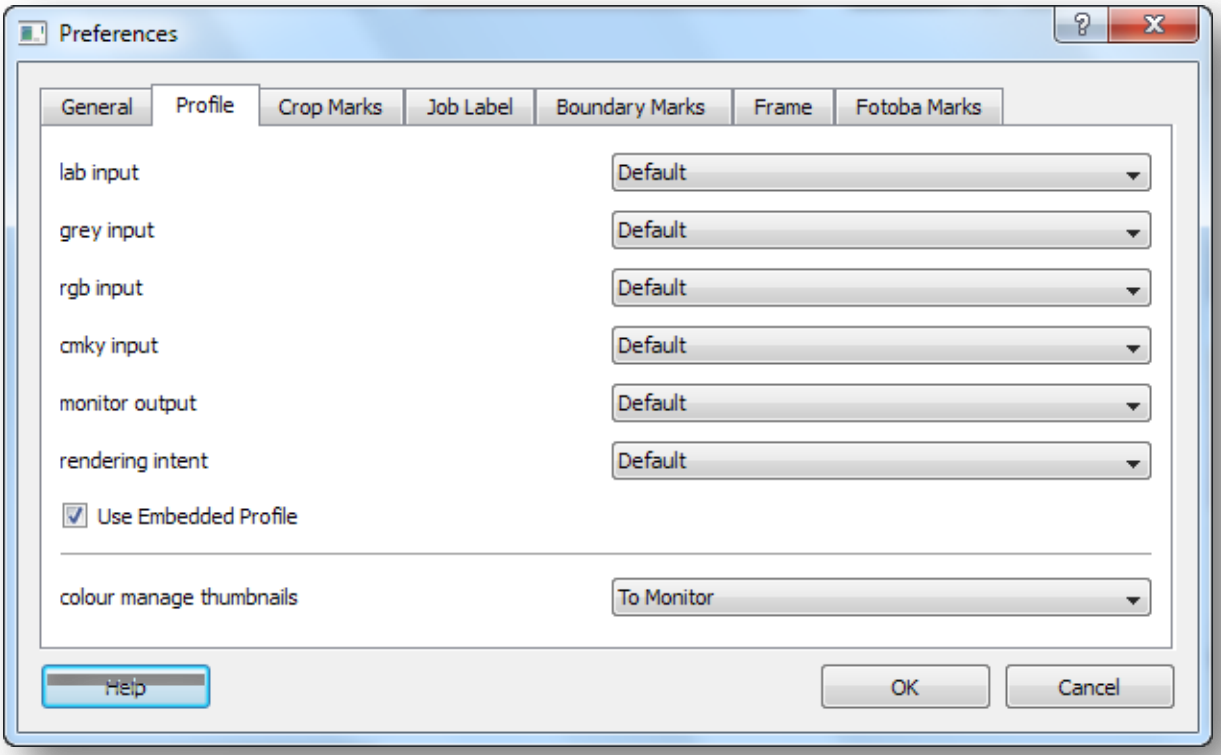
- **colour engine** – select from the list of available CMM engines for managing the Focus colour transformations.

- **cutting method** – the selection here controls the cutting behaviour of the system. If set to Jobs then the cutting occurs after the complete job is finished printing. If set to Rows then the cutting occurs after each row of the print is done.

After any changes here you must restart the system for these to take effect.

Profile

In this tab the user can set their own preferred settings for the input ICC profiles for various colour spaces as well as the rendering intent used.

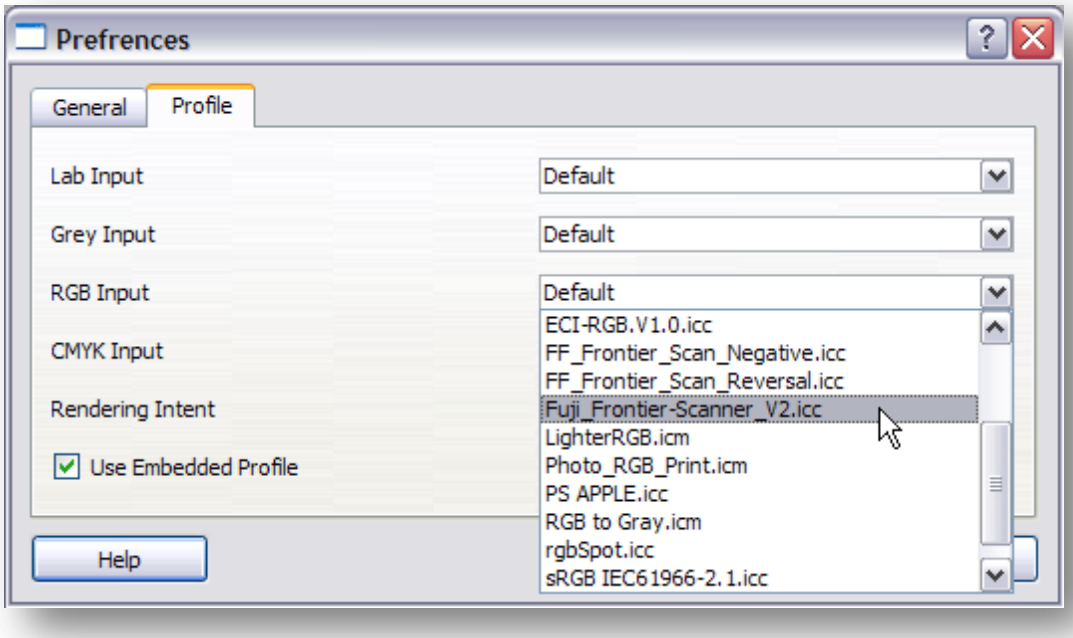


As default the Shiraz Focus system uses its own generic ICC input profiles that might not be suitable for your type of workflow. For example if you would want to use your own digital camera or scanner profile then first of all copy its ICC profiles to the Shiraz Focus input profile folder located in a similar path as the one shown below.

For Windows OS ---------- **\Shiraz\Focus\profile\input**

For Mac OSX OS ---------- **Applications:Focus:profile:input**

Now click on the **RGB Input** drop down menu and select the profile just copied.



From now on any RGB image without embedded profile would have this input profile assigned to it. This can correspondingly be configured for all the other colour spaces listed here.

In a similar way you can set the ICC profile for the monitor being used by first copying the profile to the 'monitor' profile located under the 'profile' folder and then selecting from the 'monitor output' drop down menu. This ensures that all images are accurately previewed on your screen.

Rendering Intent - Converting colours to a different colour space usually involves an adjustment of the colours to accommodate the gamut of the destination colour space. Different translation methods use different rules to determine how the source colours are adjusted; for example, colours that fall inside the destination gamut may remain unchanged, or they may be adjusted to preserve the original range of visual relationships as translated to a smaller destination gamut. These translation methods are known as rendering intents because each technique is optimized for a different intended use of colour graphics. There are four main options available here as explained below.

- **Perceptual** rendering attempts to compress the gamut of the source (image) space into the gamut of the destination (printer)space in such a way that the overall relationships between the colours and hence the overall image appearance is preserved, even though all the colours may change in the process. Perceptual intent will produce prints with accurate hue and while overall saturation levels may be a bit less. In addition, this method reduces artefacts like banding in images like blue skies. Typically perceptual rendering de-saturates all colours to bring the out-of-gamut colours into the target gamut while more or less maintaining the overall relationship between colours. Preserving the relationship between colours helps preserve the overall appearance of images. This is the default setting of the system and should be used normally.

- **Relative Colorimetric** rendering translate the white of the source to the white of the output, and shift all the other colours accordingly. Then it matches the adjusted colours in the source space that are inside the gamut of the target space exactly, and clips out-of-gamut colours to the nearest

reproducible hue, sacrificing lightness and saturation. Use this rendering method in certain cases where reproducing accurate colours is vital. This rendering intent is often used when your original image contains only a narrow range of colours.

- **Absolute Colorimetric** rendering would reproduce the colours as close as possible, similar to the Relative Colorimetric except that this rendering intent does not account for the human eye's ability to adapt to the surrounding paper white. This would mean that the system might print dots in what is usually the white area of the image order to simulate the paper white.

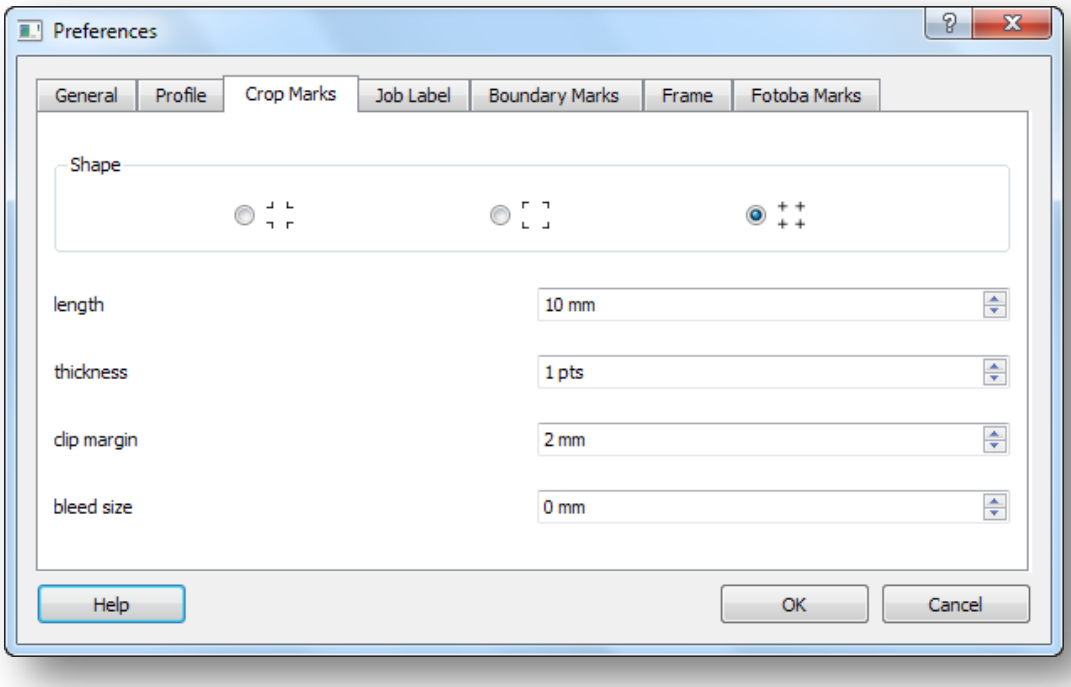
- **Saturation** rendering maps the saturated primary colours in the source space to the saturated primary colours in the target space, without considering the differences in hue, saturation, or lightness. It's designed for rendering business graphics like screen captures and business graphics, where we simply want vivid colours and aren't particularly concerned as to exactly what those colours are.

Use Embedded Profile option instructs the system to use any embedded profiles, if any, found within images as the input profile. This would then override the system's input profile setting. The default setting is on.

colour manage thumbnails – the user can control the system behaviour when generating the thumbnails. If 'To Monitor' is selected then all images are colour managed according to the monitor profile set. 'To Printer' setting means that images are colour managed by also applying the printer profile to 'soft proof'. If 'No' is selected then image thumbnails are not colour managed.

Crop Marks

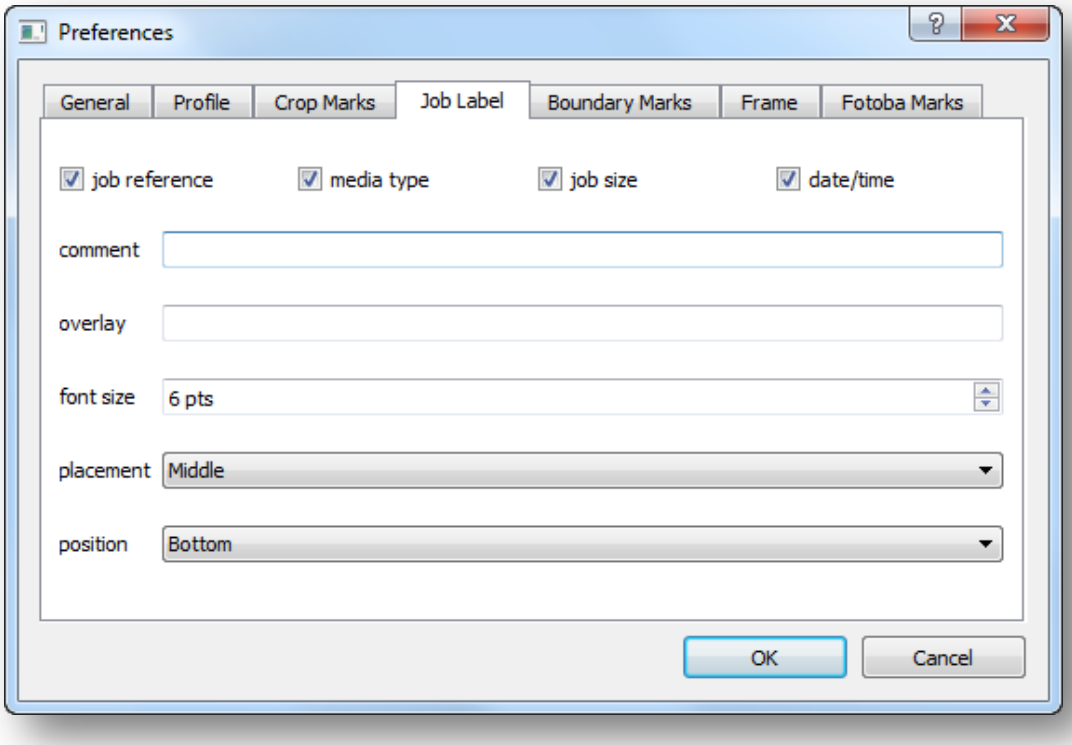
Choose from the different shaped crop marks available here.



You can also change their lengths and thickness if required.

Job Label

The user can choose the kind of job information that is printed along with the job when the Job Label option is selected in the Print Options tab.



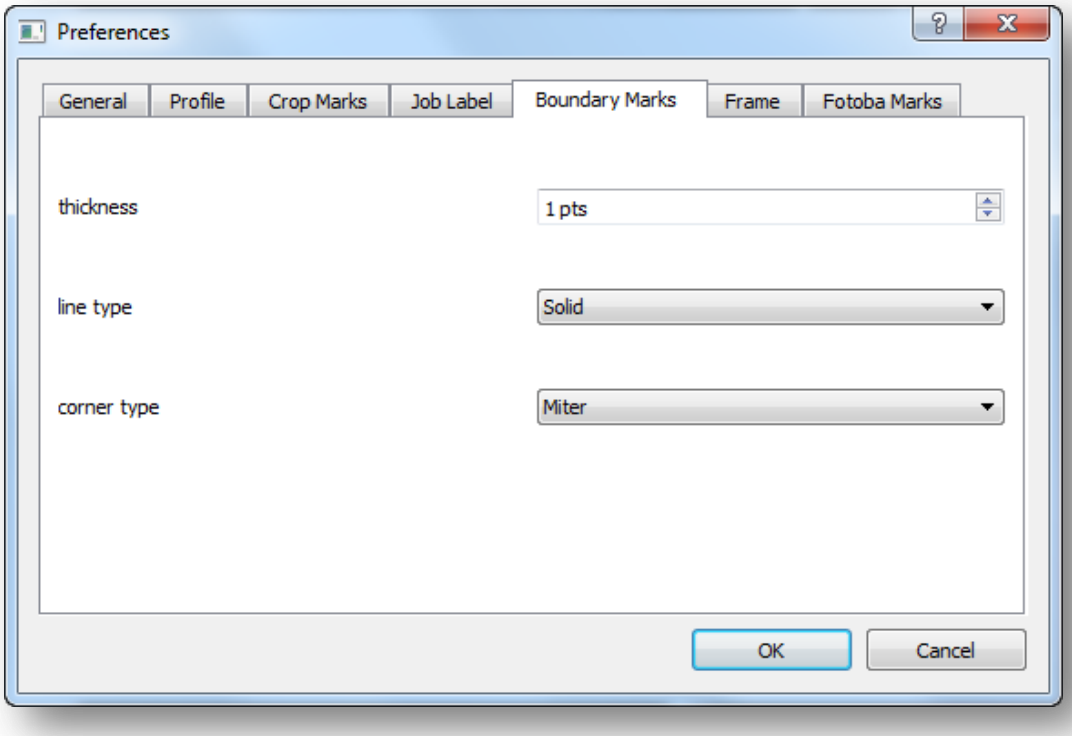
Additional user defined information can be printed alongside the job label by using the Comment entry.

Overlay text entered here will be printed across the print and can be used for marking the prints with labels such as ‘Confidential’.

The print labels size and placement can be set here by changing the relevant parameters here.

Boundary Marks

The parameters available in this tab control the various ways that boundary marks around output prints are drawn.



Line thickness values, in points, set here decide the thickness of the lines used to draw the boundary box.

Solid or dashed lines can be used for drawing the boundary depending on the option set for the Line Type.

If thick lines are used for drawing then the corner types where the straight lines intersect can be configured by the Corner Type option available here.

Frame

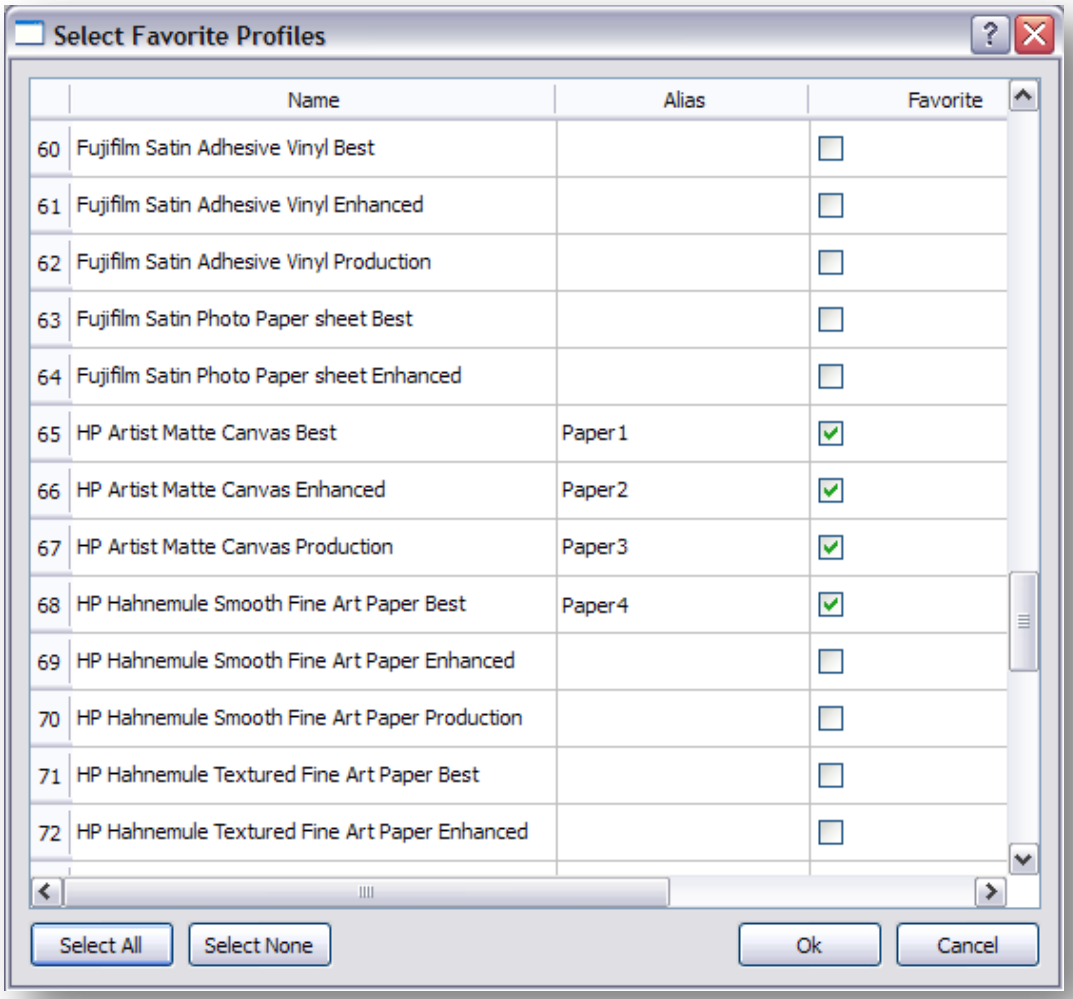
The value set for this option here dictates the size of the frame (white space) that is placed around the printed image.

Fotoba Marks

Special trim marks that are used by the automatic XY cutters can be placed around output prints by selecting this option.

Profile List

To customize your media profile list select this option from the **Profile** drop down menu. Here you can decide which profiles to show in the main Focus module and optionally assign aliases for them. This option is usually useful to users that only use a few media profiles and want to assign their own names for them.



To select your preferred list of profiles tick the **Favorite** box and optionally enter an **Alias** for it. Click **OK** to save the list and the media profile list will now be refreshed to reflect the changes.

We are now ready to look at the main modules of the Shiraz Focus system and in the following chapters we will cover in full details all aspects of the system.

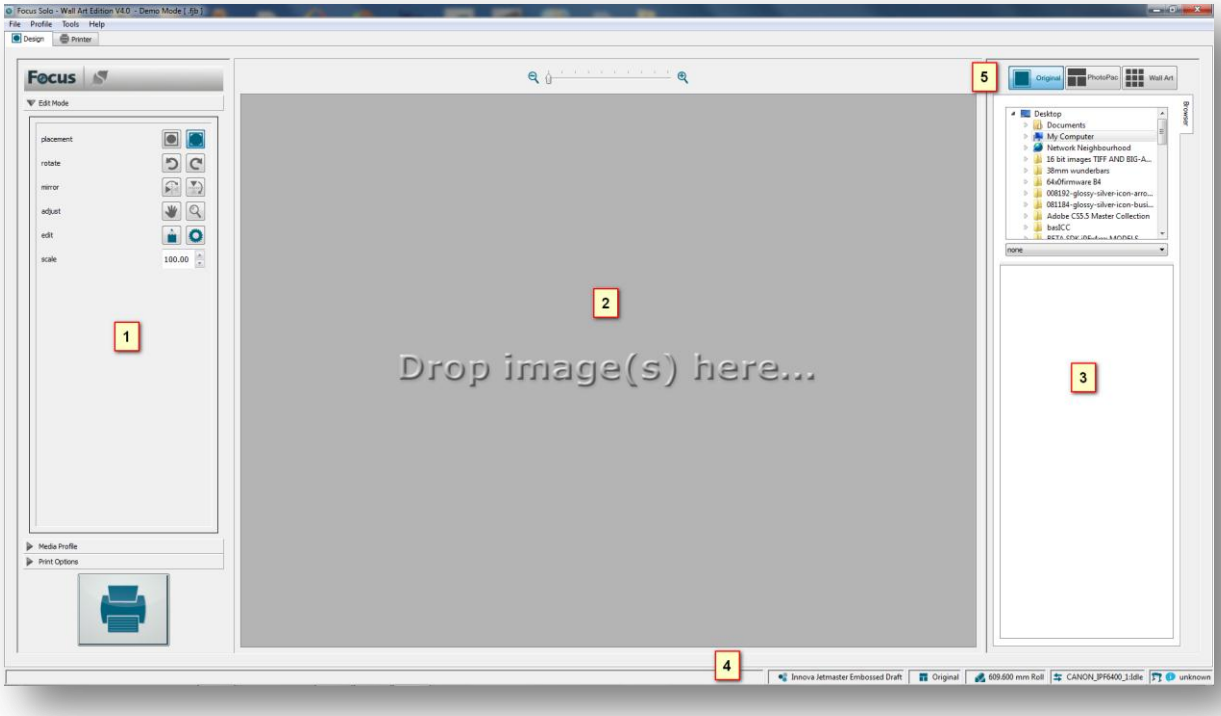
The system comprises of two main distinct areas, namely **Design** and **Printer.** Use the **Design** tab for the creation of your photo layouts (jobs) and submit these jobs for output to the print queue (**Printer)**.

Let's take a closer and detailed look at each of these areas in more details starting with the **Design.**

Design

This is the main module for creating your print jobs. All the controls are logically and clearly laid out so as to make the process fast and easy. All editing are done interactively and the resultant jobs are previewed very accurately to reflect the expected print results. Images are simply dragged & dropped from the image libraries previously added to the system by the user. Real time information from the printer is highlighted here to keep the user informed at all times.

The **Design** window is organized into four main sections as illustrated below.

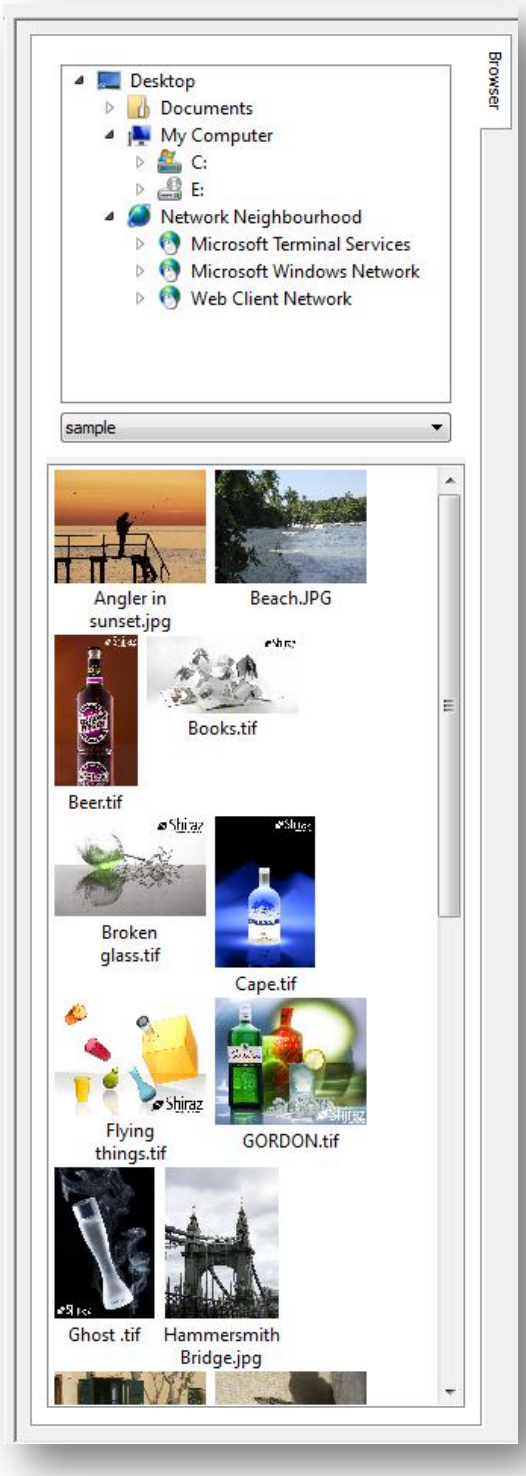


1. **Control Panel** – the main functions for selecting and manipulating photo packs are located here.
2. **Layout Area** – selected photo packs and their associated images are previewed in this area.
3. **Items List** – thumbnails of various items utilized within the job are visually listed here.
4. **Info Bar** – information about the current setup and printer status is highlighted here.
5. **Mode** – the three operational mode of the software can be selected here.

The software is designed to enable users to create their designs in as few steps as possible. These steps are organized in a logical order.

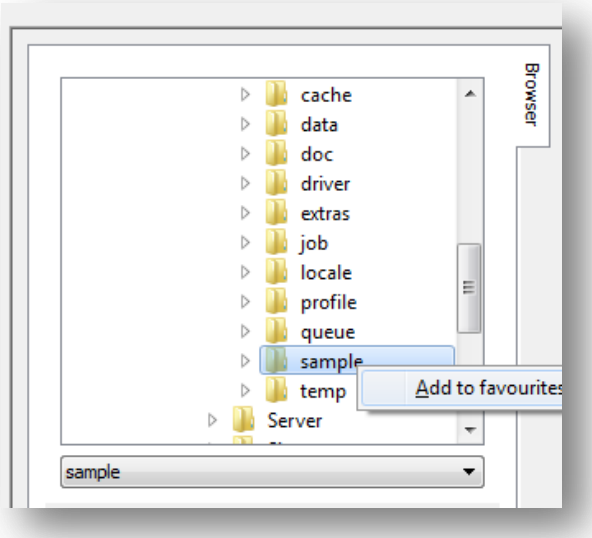
Image Browser

Use this tab to browse for images from various folders on your computer, removable storage devices and network connections.



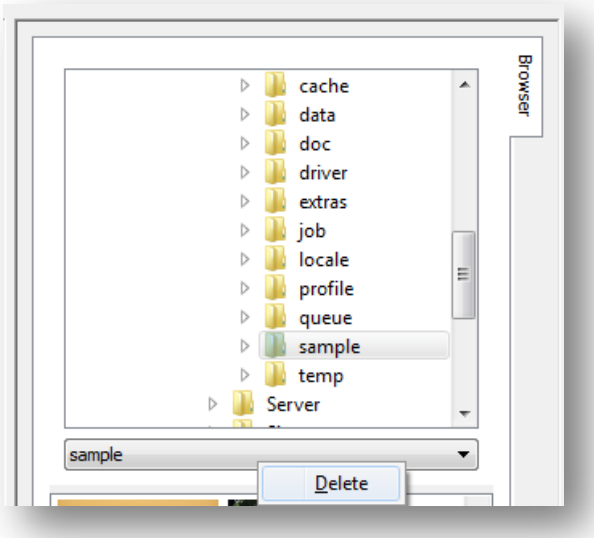
Once an image folder is selected then the system will scan and add the thumbnail of all supported images found to the Image List area.

The user can abort the scanning by clicking on the **Cancel** button. Once the images have been loaded into the system, the full path name of the folder will be shown and the users can right-click on the selected folder to add it to their favourites list.



The system will automatically detect and scan for images whenever a removable device such as USB pen drives or memory cards are inserted in the computer.

The system will then cache all the image thumbnails into the memory for faster loading whenever the list is selected subsequently. These libraries will reside on the system until they are removed by the user. To remove any of these library, right-click on their name and select **Delete.**



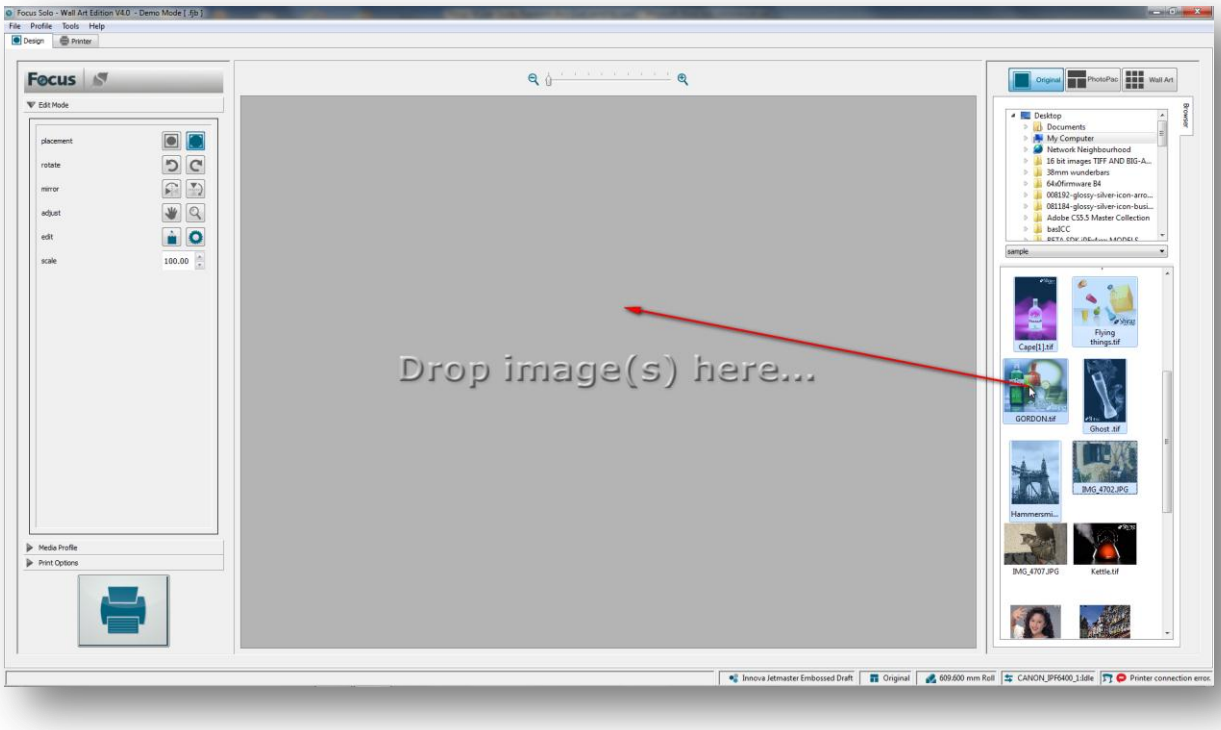
Mode

The system can be operated in three distinct modes. Each of these modes are designed for specific type of jobs. These three modes are described in great details in the following sections.

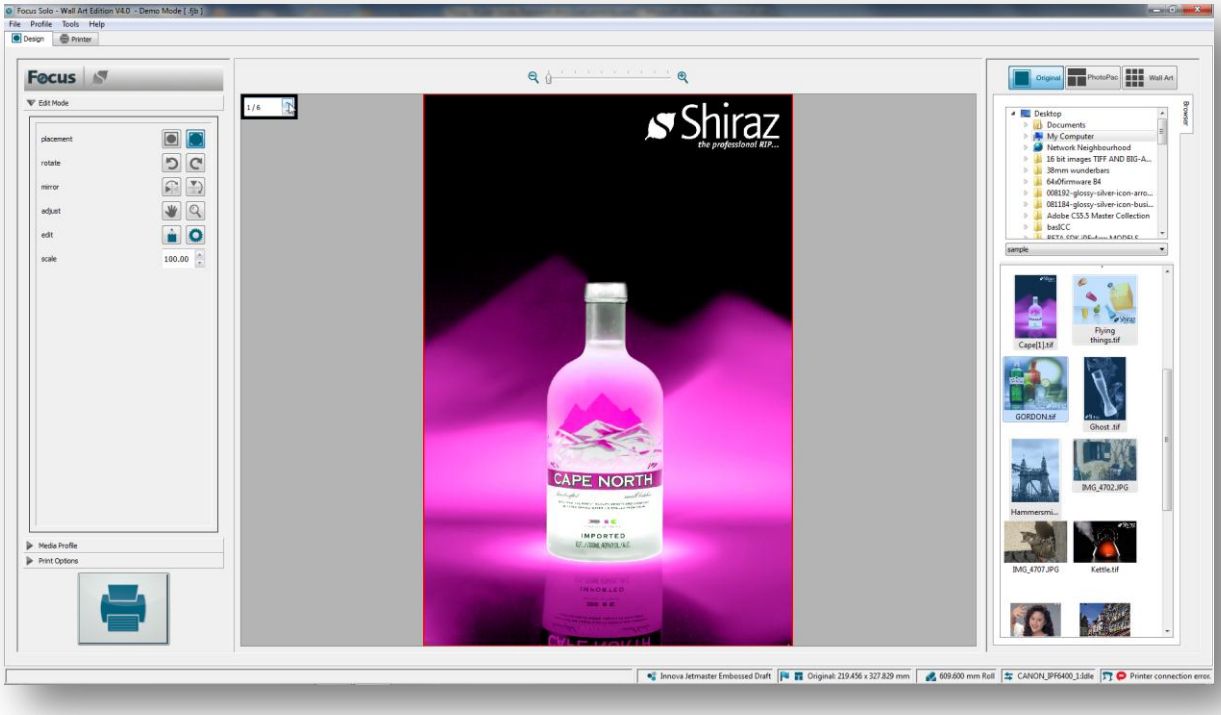
Original

Use this mode to print images in their default format. This mode is designed for users who usually prepare their images in their favourite image editing applications and only require the software to print them optimally.

Simply select the required images and drop them on the layout area.



Once the images have been dropped they are previewed in the layout area and users can browse through them by using the spinner. The total number of images selected is indicated in the spinner.



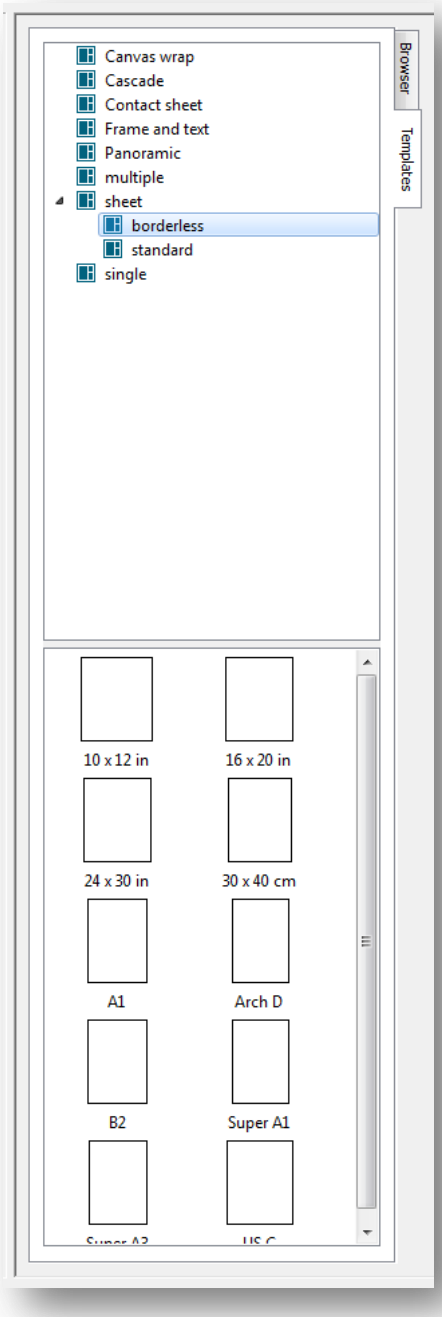
Images can be easily scaled up or down by using the scale factor option in the Edit Mode tab. The print size of each image and their associated PPI (Pixel Per Inch) values are shown in the Info Bar as well the tooltip.

A blue flag indicates that image resolution is high enough for the current print size. An orange flag points to a borderline image quality and users should be wary of possible print issues. Red flag means that image quality is below standard and system will warn users before proceeding.

PhotoPac

The list of current photo pack templates that are available on the system are listed here**.** These are divided into many distinct groups that can also be expanded by the users. To select any of these templates simply click on their name.

More templates can be added to the list by using the **Photo Pack Editor** included with the system.

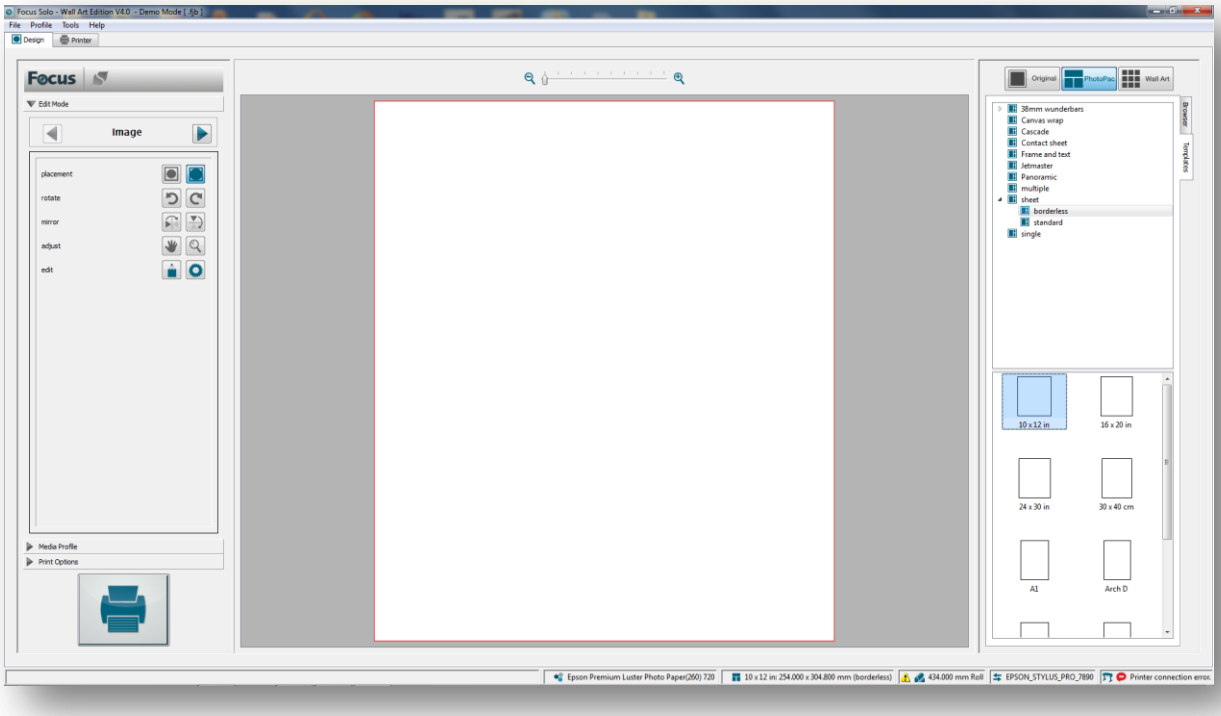


Clicking on the template name will select it as the current layout as shown below.

Note: By selecting any template the system will automatically erase the previous layout and displays the new empty one.

Single

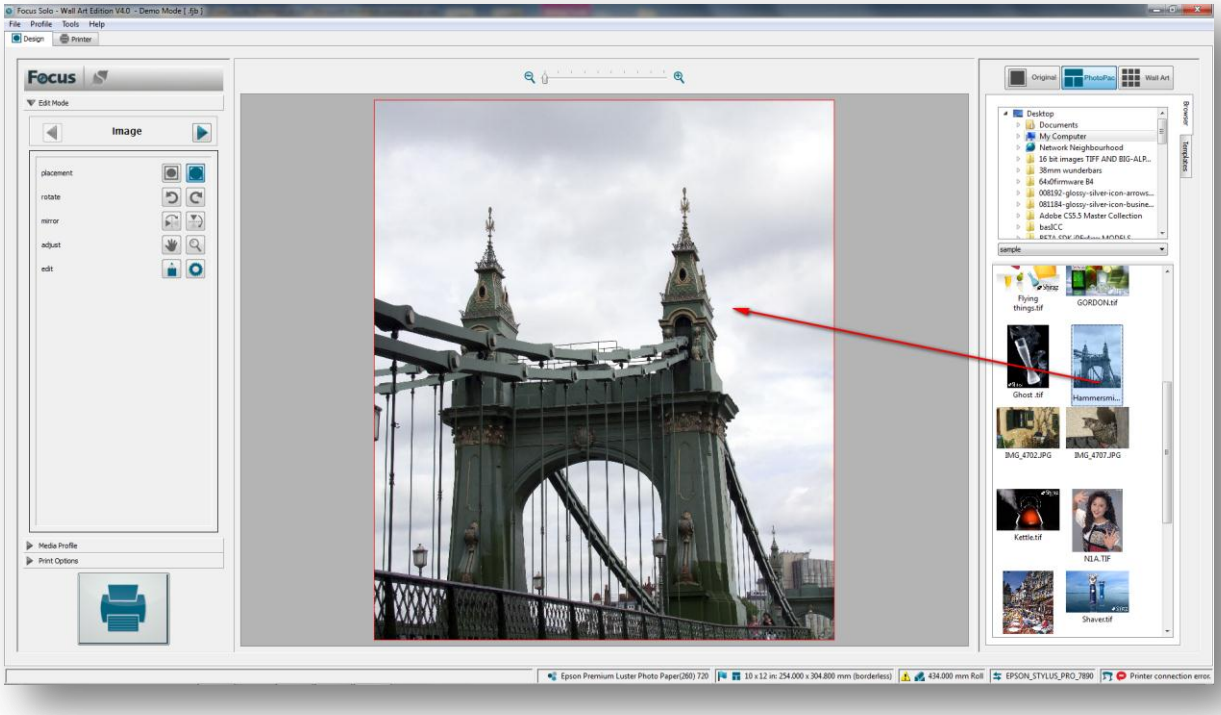
These photo packs as the name suggests can only contain one image at a time. Standard photo sizes such as(5 x 7) or (10 x 12) can easily be created this way.



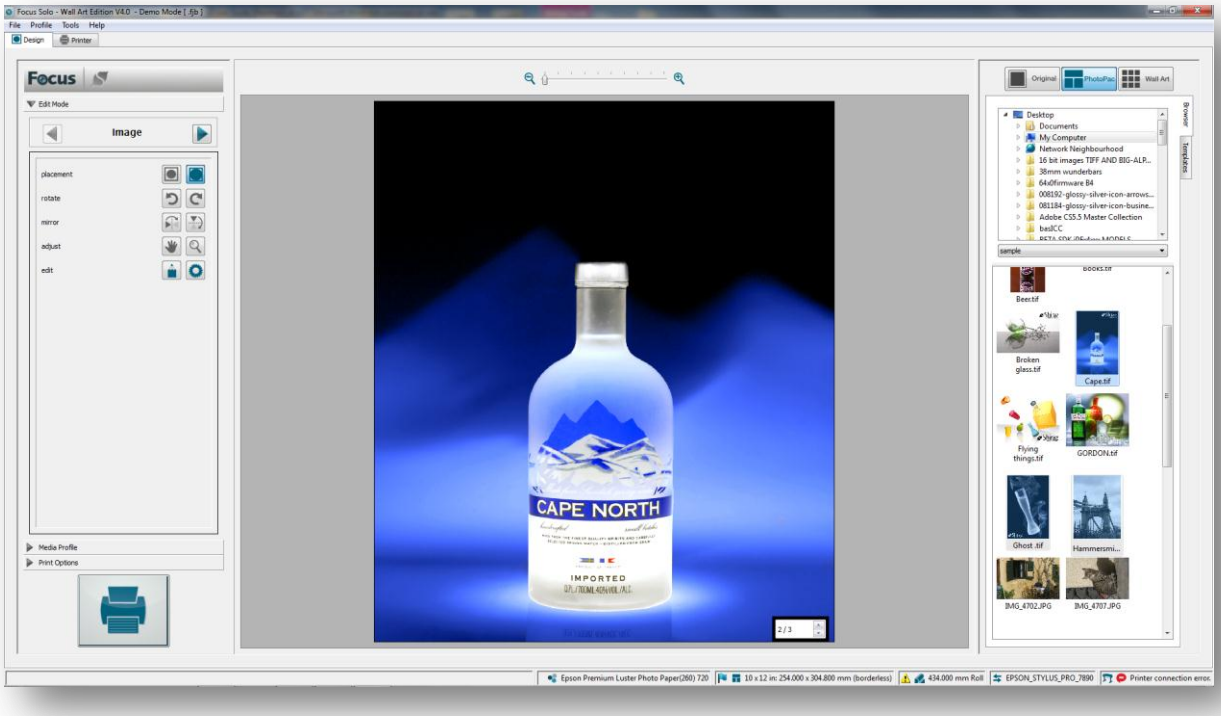
To select any of the photo packs listed here simply click on its name in the list. The system will now display a blank layout of the selected photo pack.

To populate the photo pack simply drag & drop a photo from the **Image List** area onto it. Images are automatically 'filled' to the size of the photo pack selected. This is the default behaviour of the system but can be changed if required. (see **Image Edit**)

It is also possible to drag & drop a selection of images onto the layout. This would then result in the system creating multiple jobs with the same settings. A spinner with the total number of jobs and the current job number is also displayed at the bottom right corner of the photo pack.



To select a different job simply use the spinner to navigate to the required one. These jobs can be further edited and manipulated if required (image editing will be covered in the next section).

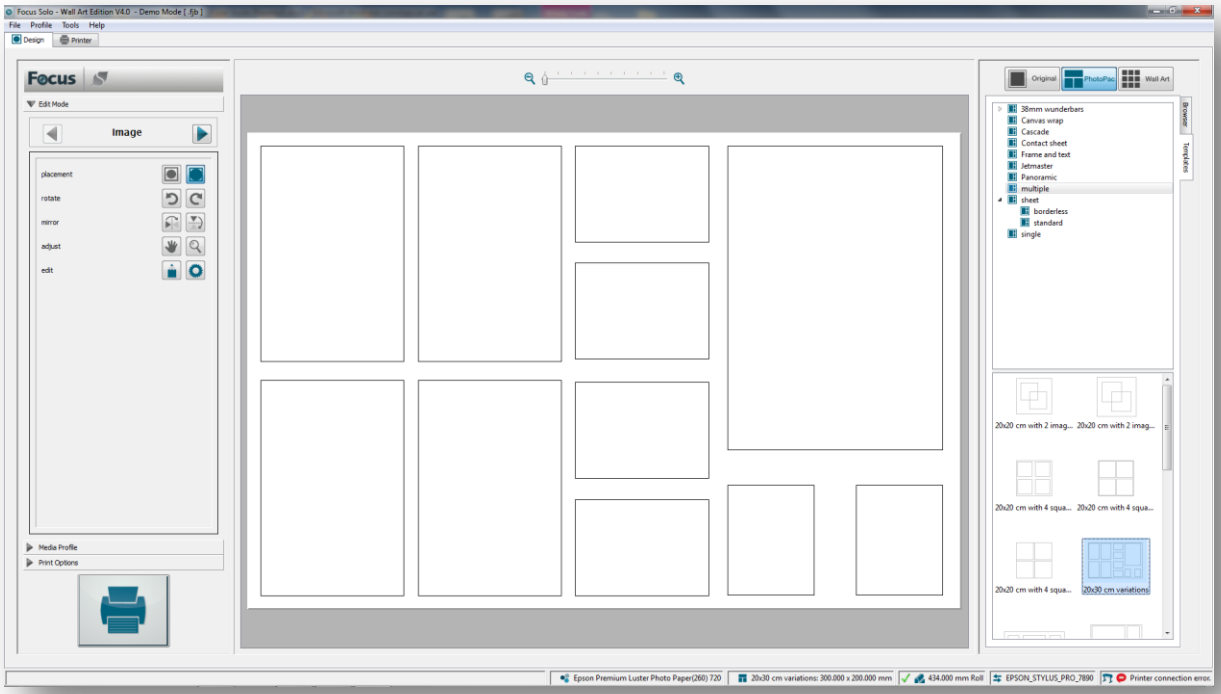


Please note that any image editing carried out is only applied to the currently selected job. If you want to apply the same editing to all the other jobs in the stack then press the Shift key when clicking on the photo

pack. A dotted line will now be shown to indicate that you have selected the group and all changes will also be applied to the rest of the group.

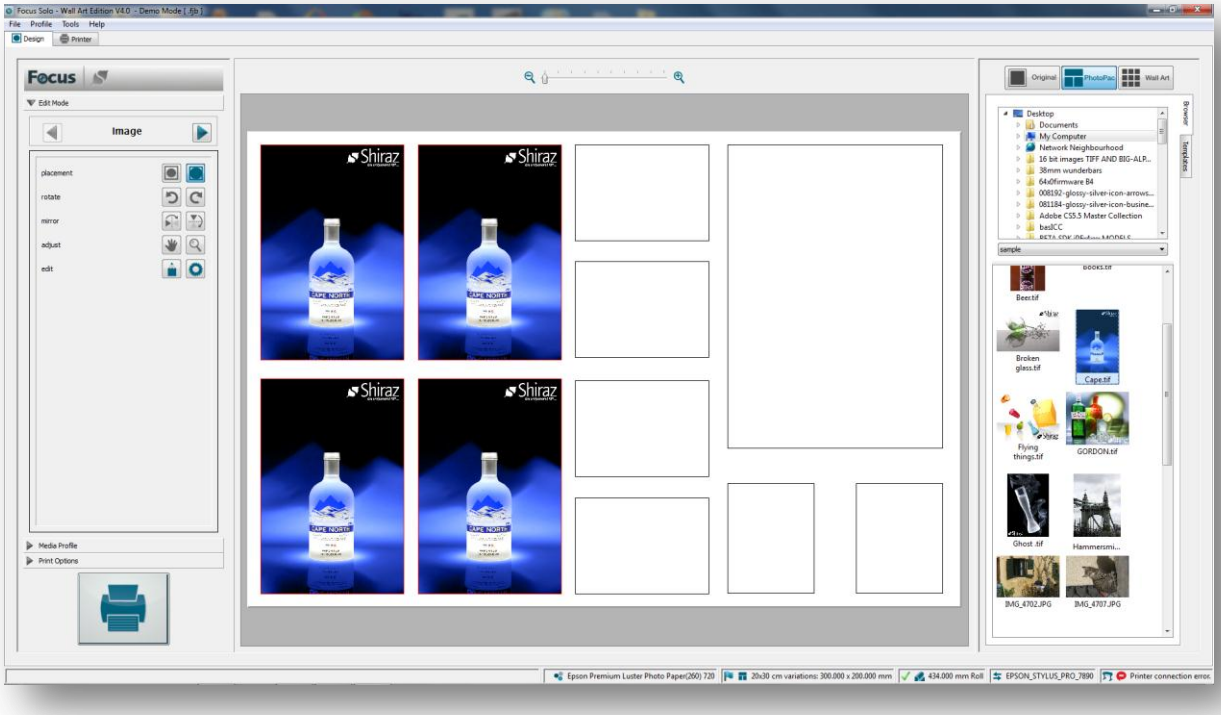
Multiple

Select this category to list the corresponding templates. Now click on one of the ones listed to select it. Multi packs can include a number of different cell sizes that can be loaded with the same or different images.

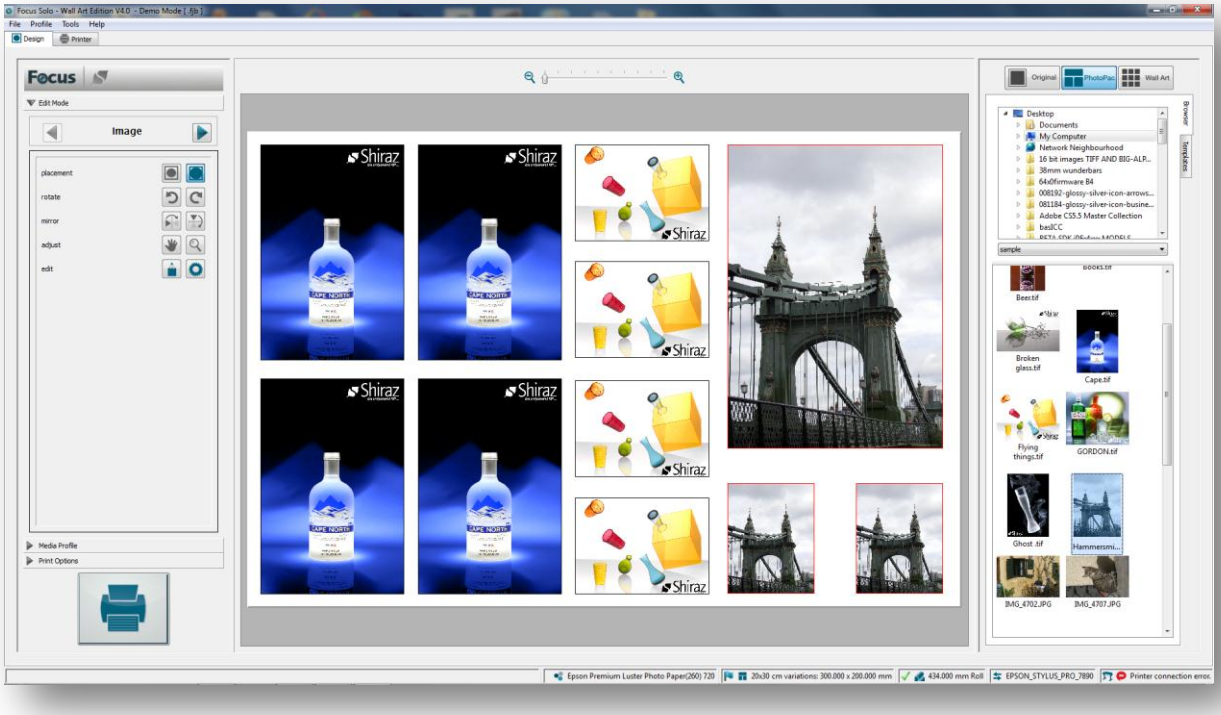


To select any of the photo cell simply click anywhere within its perimeter. Selected photo elements are highlighted in red. To select multiple elements hold the Control key (Windows)/Command Key (Mac) and click on the ones required. If you now drag an image on any of the currently selected one they will all be loaded with same image. Alternatively double-click on the image required and all the selected photo cells will be loaded alike. The rest of the photo elements can be filled in the same manner.

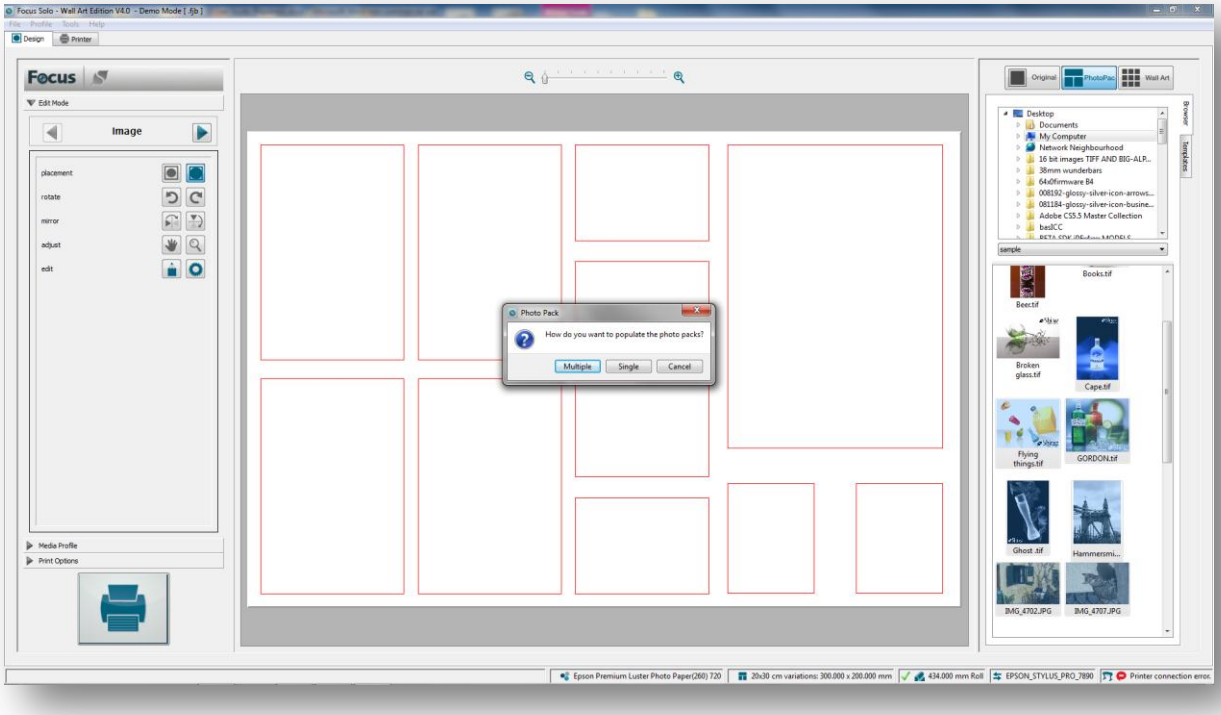
By default the images will use the **Fill** option when loading and will also be rotated for best fit if required. The current selection items will remain intact to allow the user to change the image quickly or apply any image editing on all selected cells simultaneously.



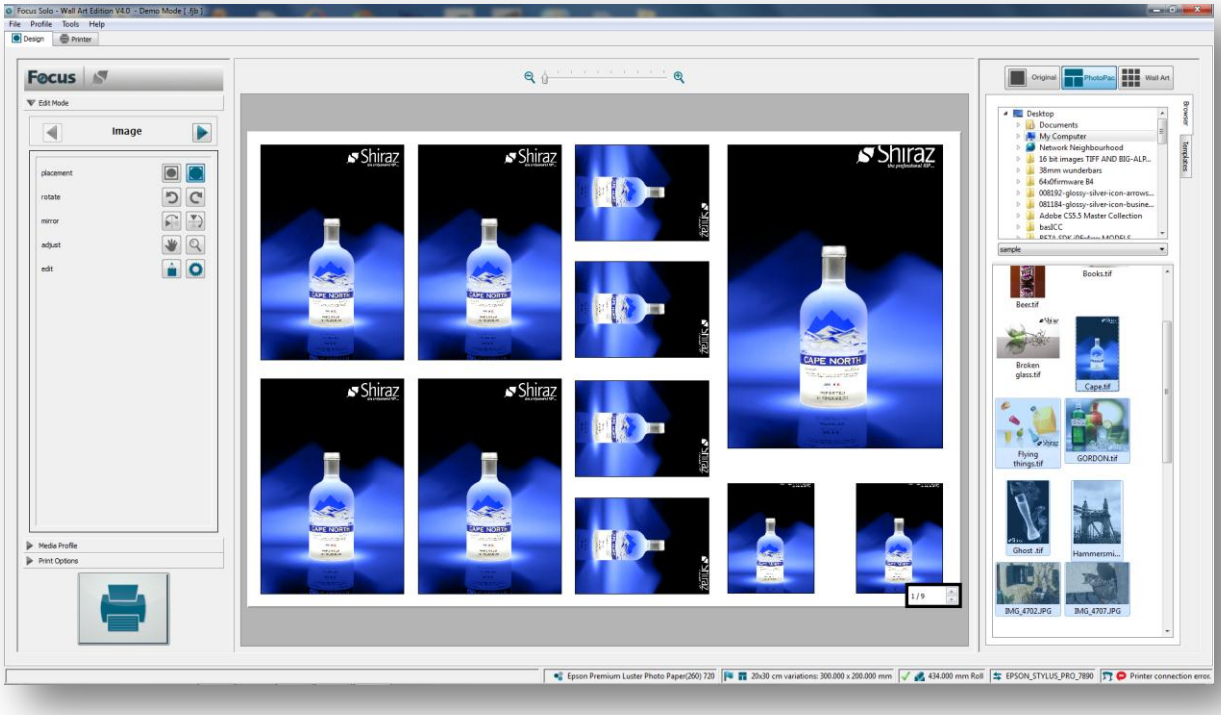
Similarly to fill the rest of the photo pack first select the cells required and then drag the image onto any of the selected items.



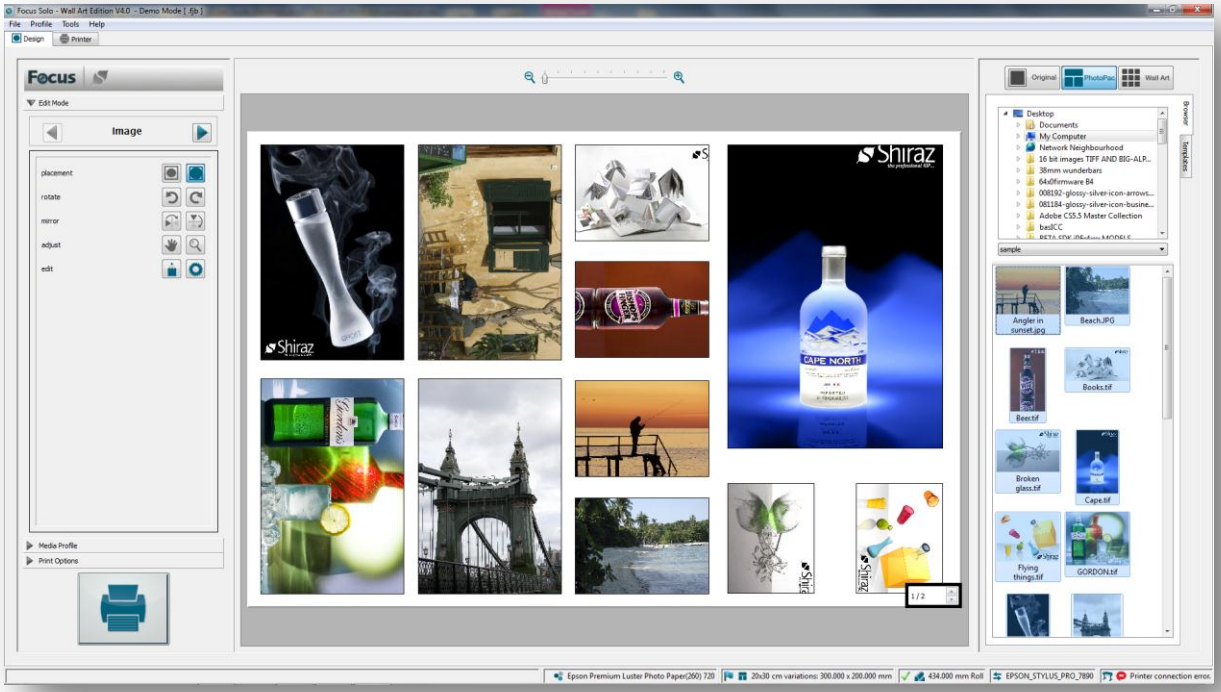
If a selection of images is dragged onto the selected cells in a photo pack then the system will present the user with two choices as shown below.



If the **Multiple** option is selected then each image will occupy a separate photo pack. A number of photo pack equivalent to the number of images selected will be automatically created. Use the spinner to navigate to the required photo pack.



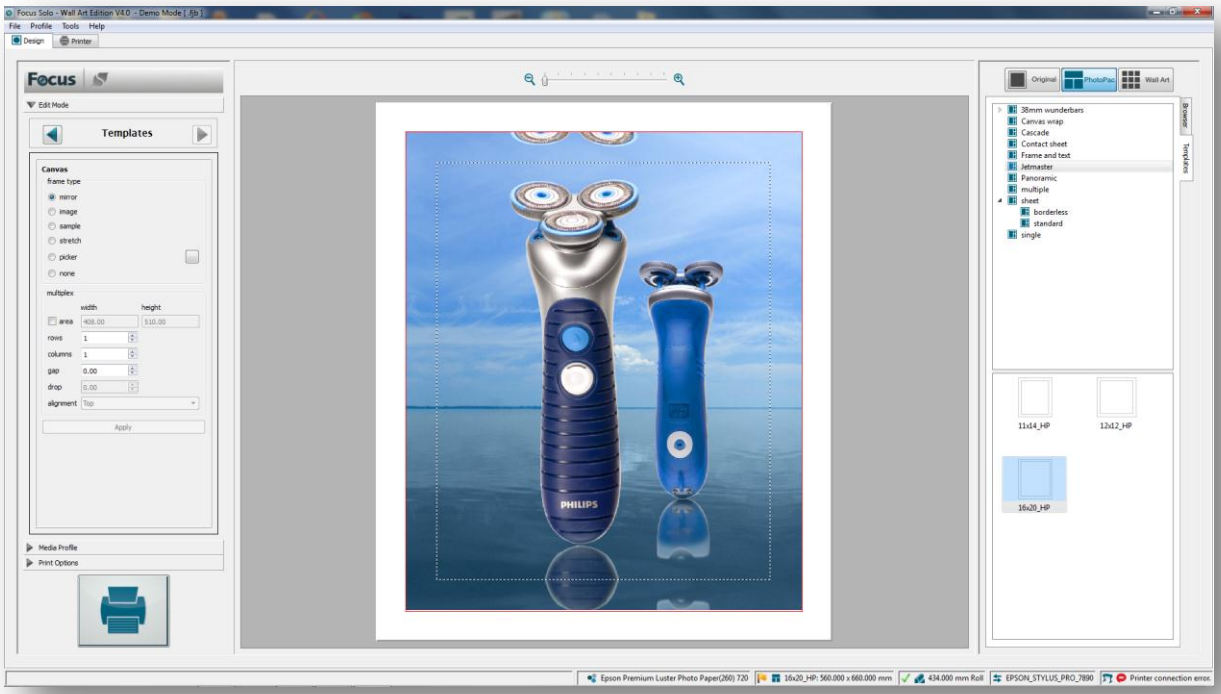
If the Single **option** is selected then the selected images will each occupy a single photo cell.



If there are more images than photo cells on the photo pack then multiple photo pack copies will be created automatically. To remove images from the photo pack select and then click on the Delete key on your keyboard.

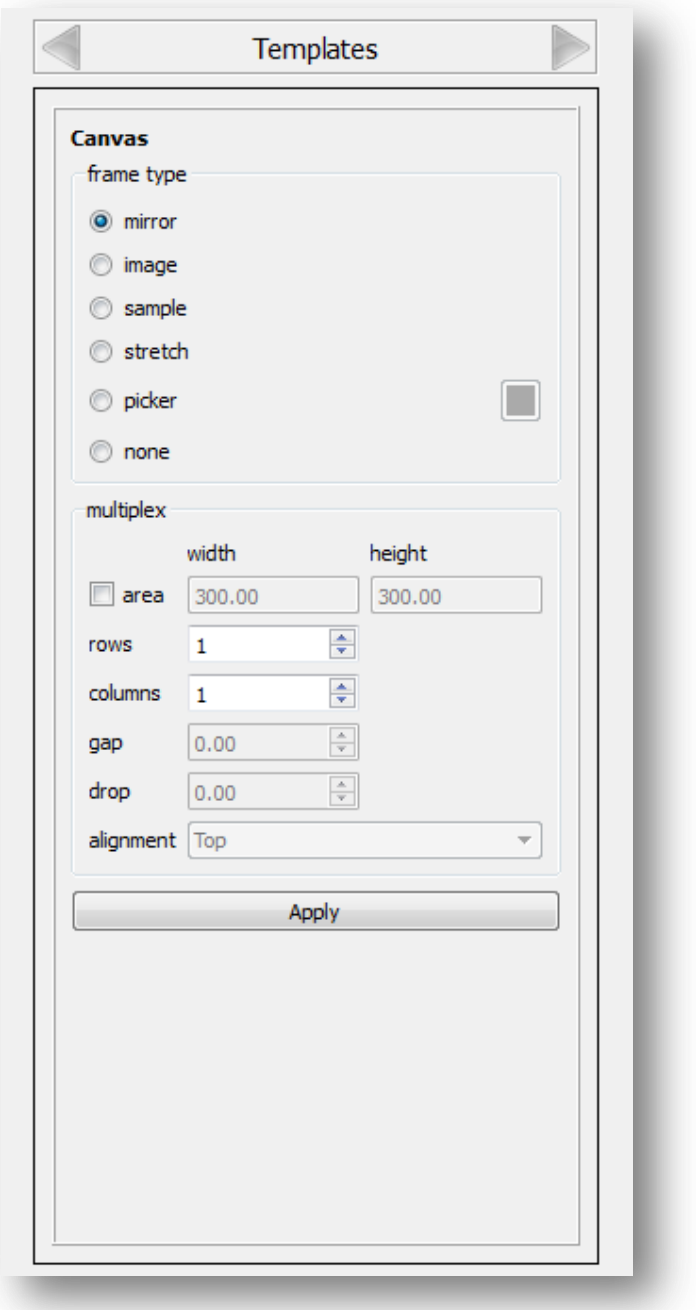
Canvas Gallery Wraps

These are special type of photo packs that enable automatic canvas gallery wrap production. An example of this is shown below.



As you can see the image's edges are mirrored by the amount defined in the photo pack frame setting. This frame size can be configured in the Photo Pack Editor.

To change and design for different effects click on the Parameters tab. Here you can edit any of the related parameters and see the effects immediately. It is also possible to create many different variations of the gallery wrap including triptych, diamond formation and other effects here.



Frame Type

The Frame Type options changes the way that the canvas frame area is filled. The default *Mirror* option mirrors the boundary area of the canvas face to the same width of the frame.

Using the *Picker* option allows the user to assign any colour from the system colour picker or manually enter the RGB or HSB values required. The frame is then drawn with a solid colour based on the selected colour.

In the *Sample* mode the software will automatically calculate the average colour of the placed image and then assign this as the frame colour.

To get a similar effects to manual stretching of the canvas use the *Stretch* option. The software will stretch a small part of the boundary area to cover the width of the frame to simulate this effect.

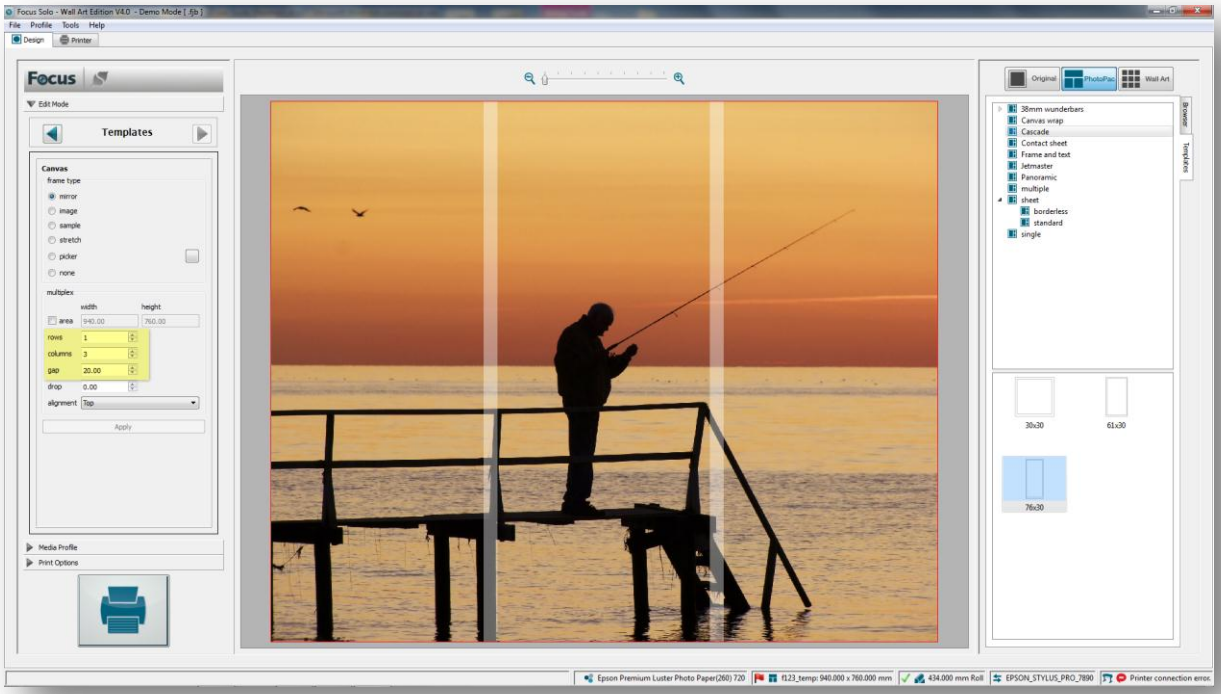
To use the actual image to cover the frame areas use the *Image* option. The image is then sized to cover the canvas face as well as the frame.

To leave the frame are blank use the *None* option that then simply sizes the placed image to the canvas face only and leaves the frame area empty.

Multiplex

Users can create triptych type canvas works by using any number of canvas photo packs required to cover the placed image.

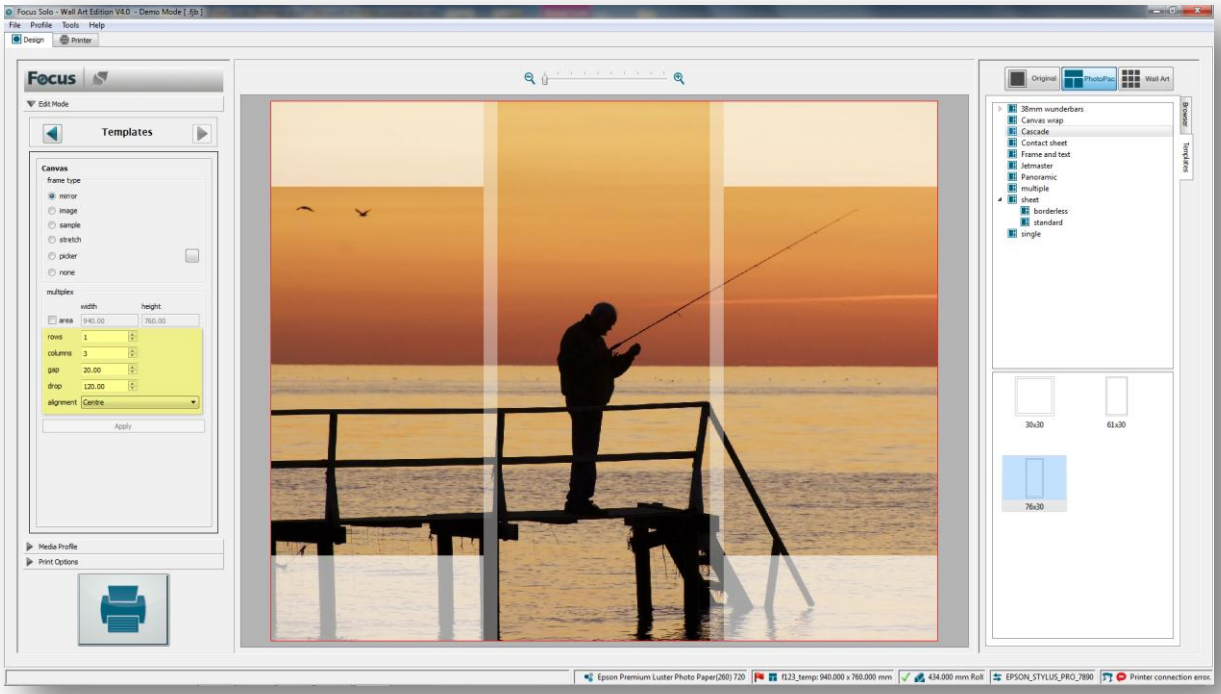
For a simple three column triptych with a gap between the canvases simply change the columns value to three and enter the required gap. Click on the Apply button to see the effects.



Each of these columns will be processed as a separate canvas job with the frame type selected. The gap value is taken into account when generating the final output to allow for this cut out.

An example of such design is shown below:

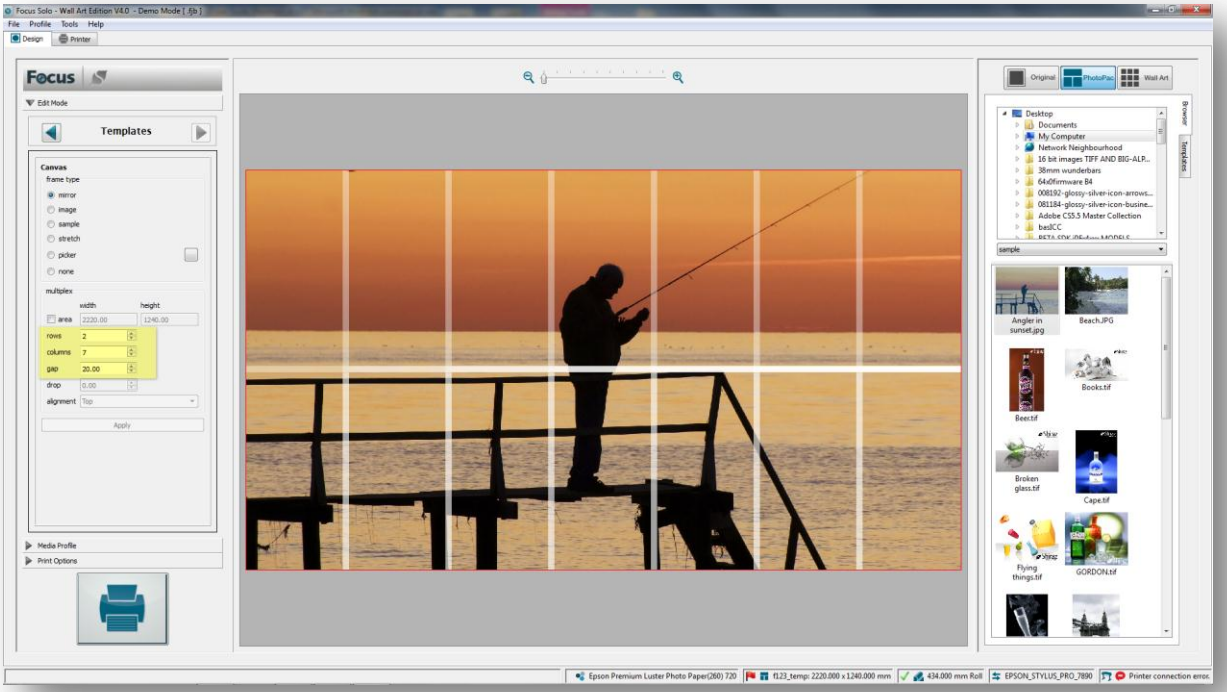
To create even more interesting designs you can use the Drop option to create diamond shape canvas designs.



In the above example the drop value of 80mm with a central alignment results in the design shown. Of course any number of columns can be used to create even more variations. Please note that users can also utilize all of the Image Edit options available such as Zoom & Pan to edit the placed image on the canvas.

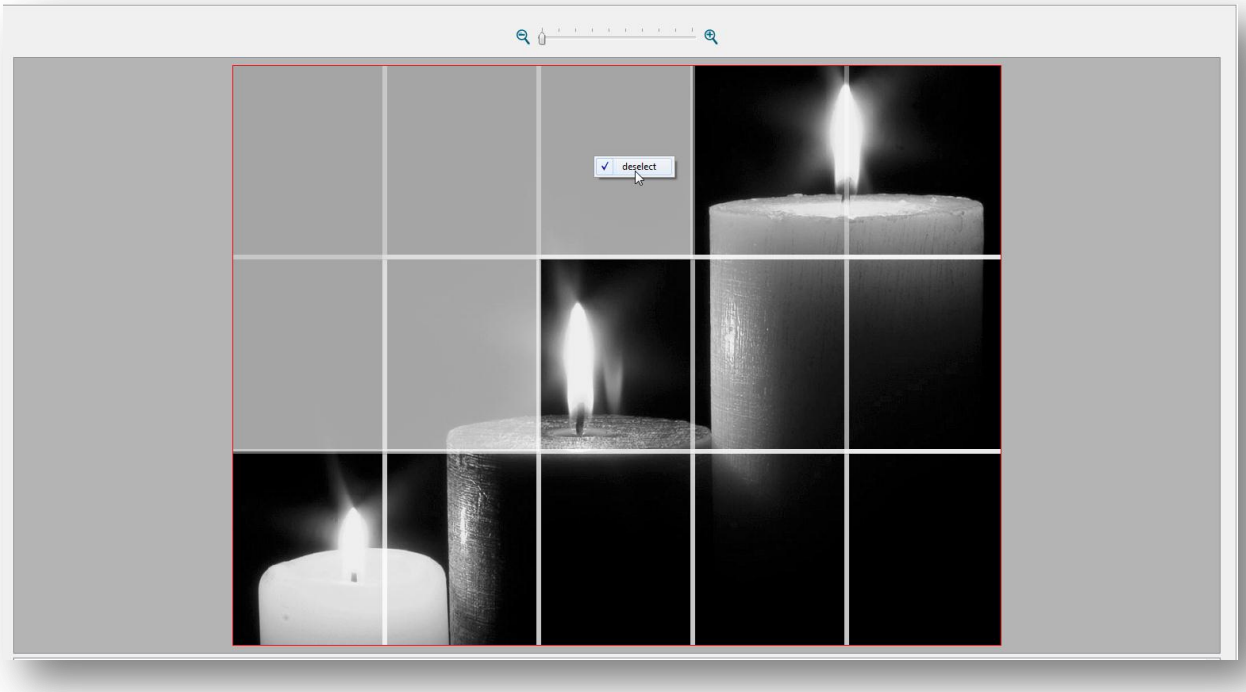
An example of an actual design is shown below:

To cover a rectangular area with canvases, either enter the area size needed or alternatively the number of rows and columns and the gap required.



An example of an actual work is shown below:

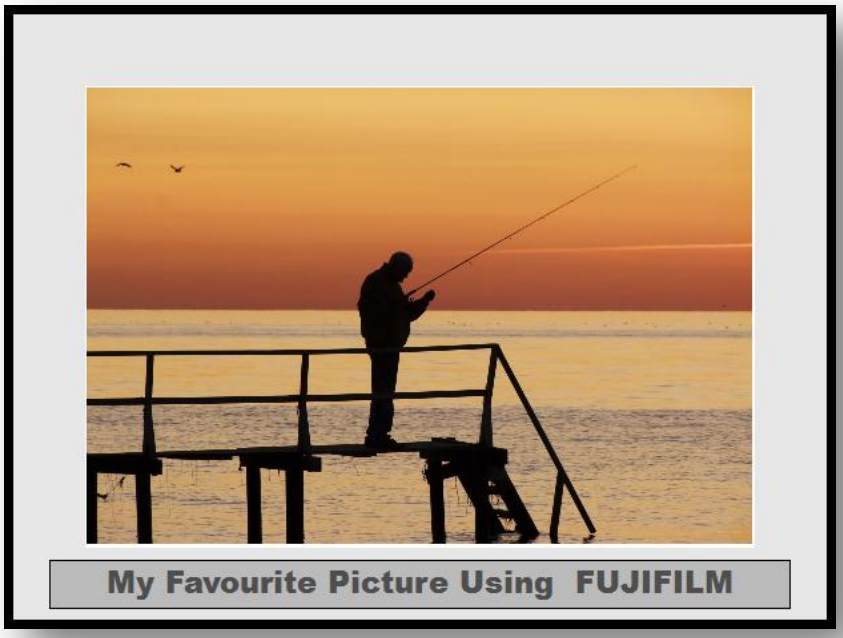
Any number of canvases can be deselected for output and can be used for creating special effects and designs as illustrated below.



Frame and text

Text can be easily added to photo packs by adding text boxes in the Photo Pack Editor. Texts can either be freeform or variable ones utilizing file information or Exif data embedded in the placed images.

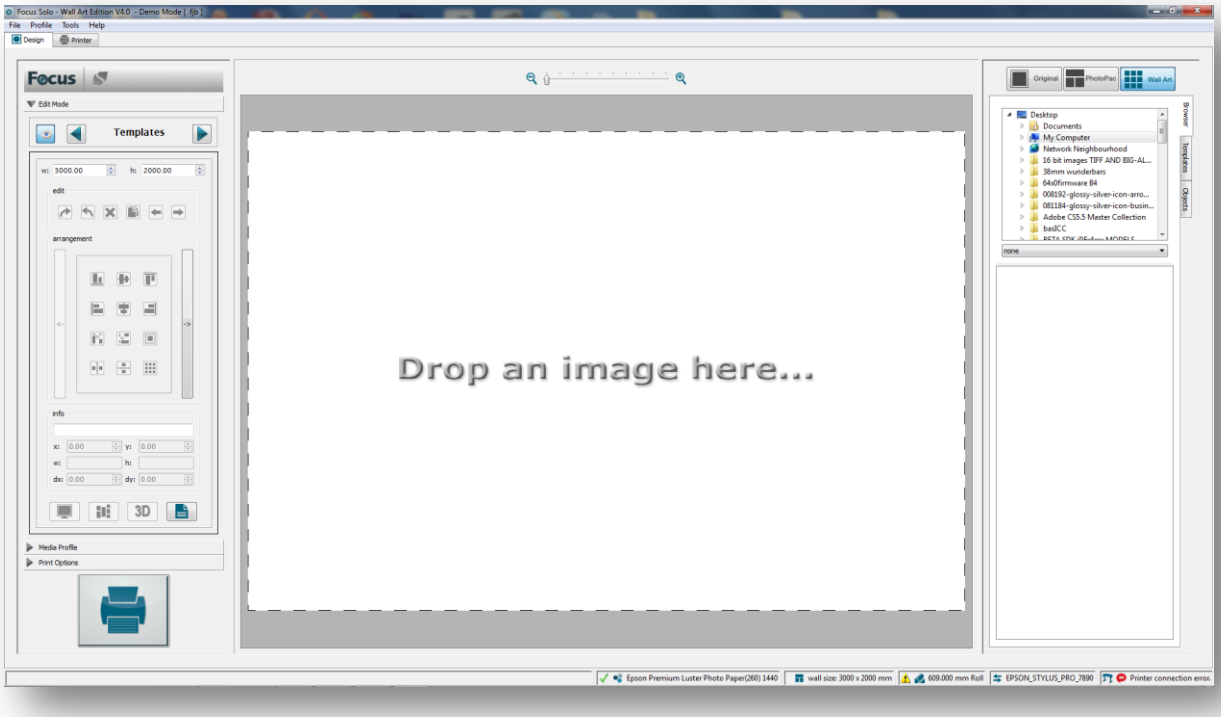
The above photo pack is shown before an image is placed. As can be seen the Exif entry enclosed in the square brackets is referring to the camera make that is replaced with the actual data once an image is placed.



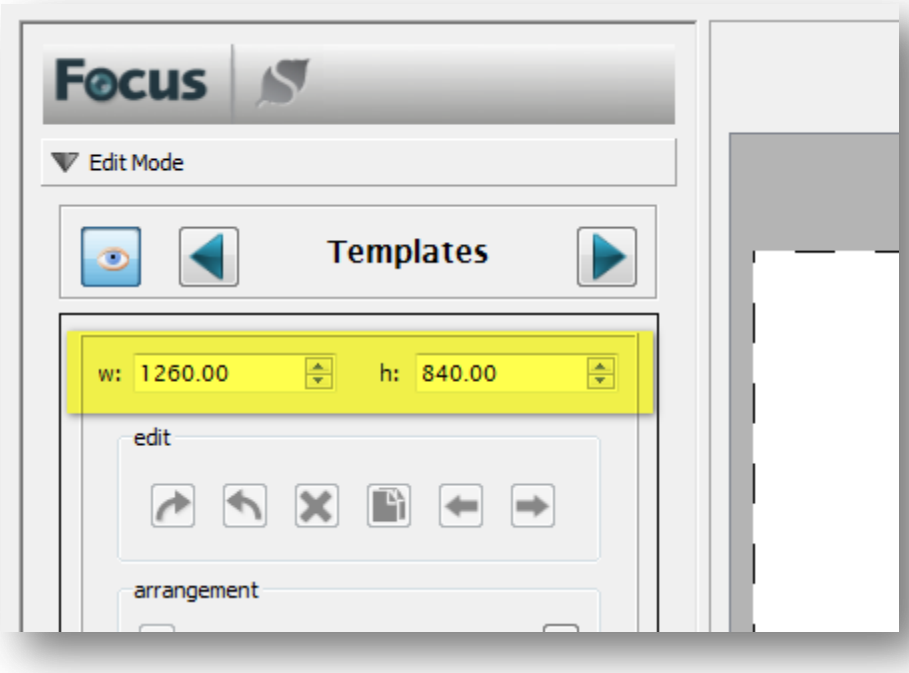
The [1,010f,Ifd.Make] is replaced with the actual data that it refers to which in this example is 'FUJIFILM'. Please note that if the referenced Exif data is not found in the placed image then blank text is inserted.

Wall Art

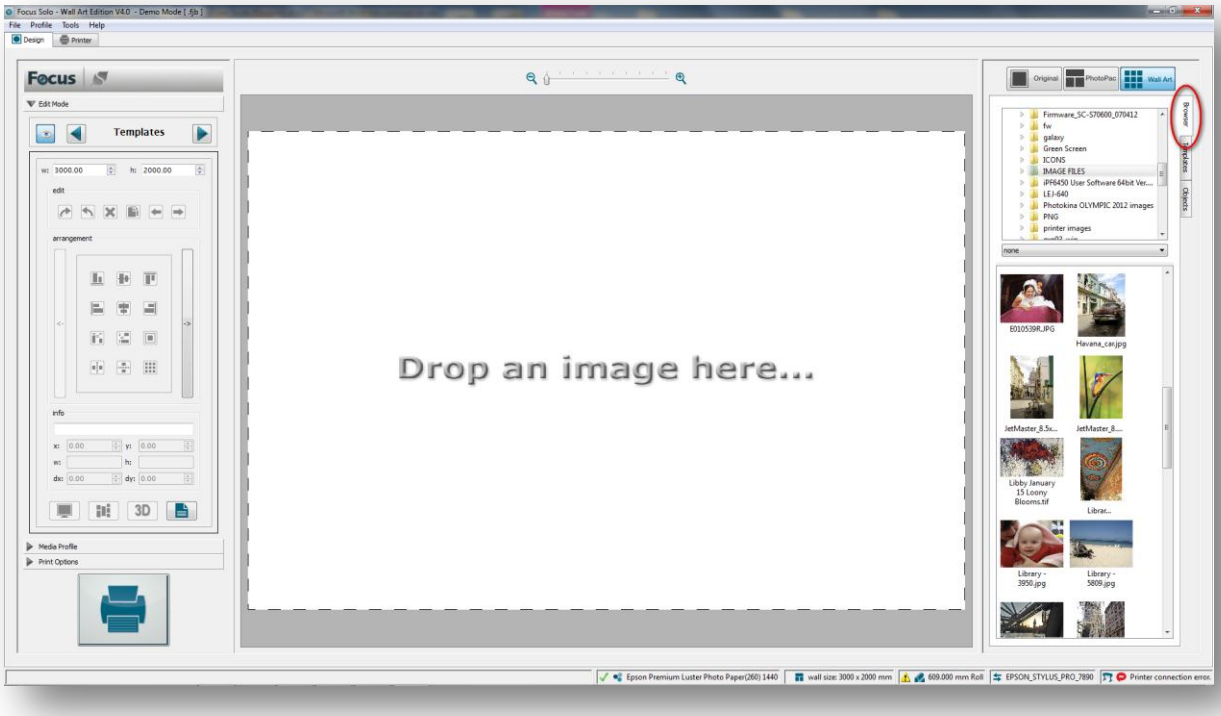
To select this mode of operation click on the Wall Art button on the Mode tool bar as shown below:



The first step is to set the wall area that we want to work with. In this example we set this to 1260x840mm.



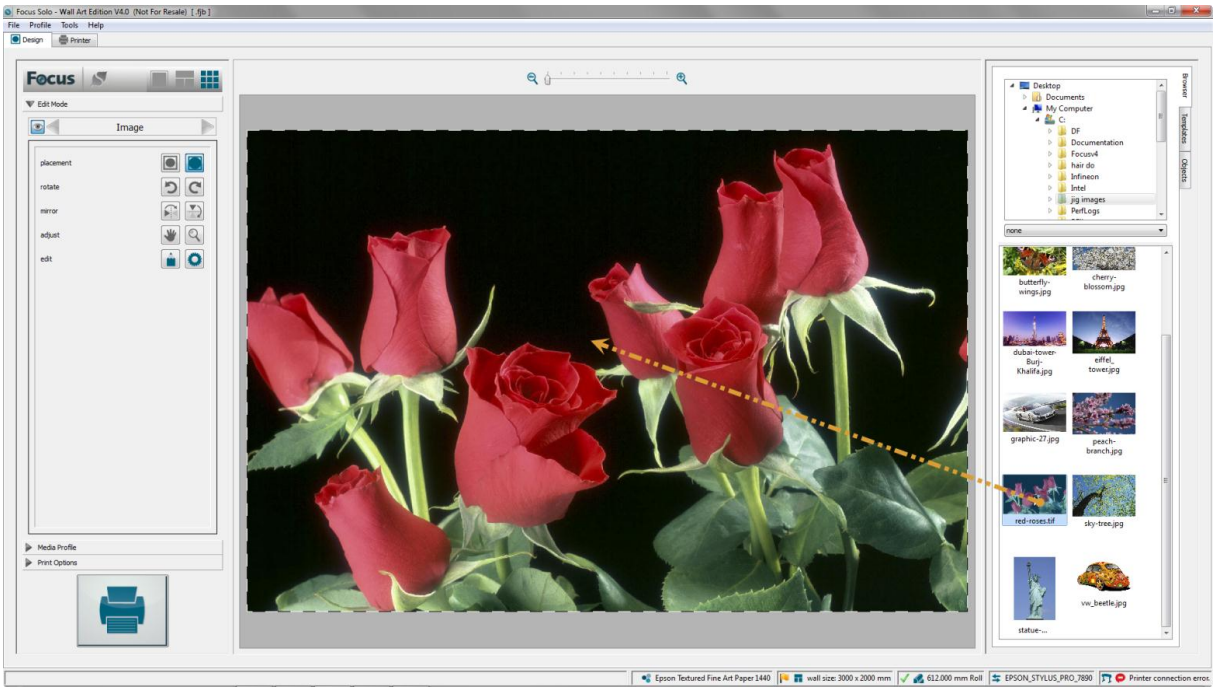
Next click on the Browser tab and then select the particular folder with the images required.



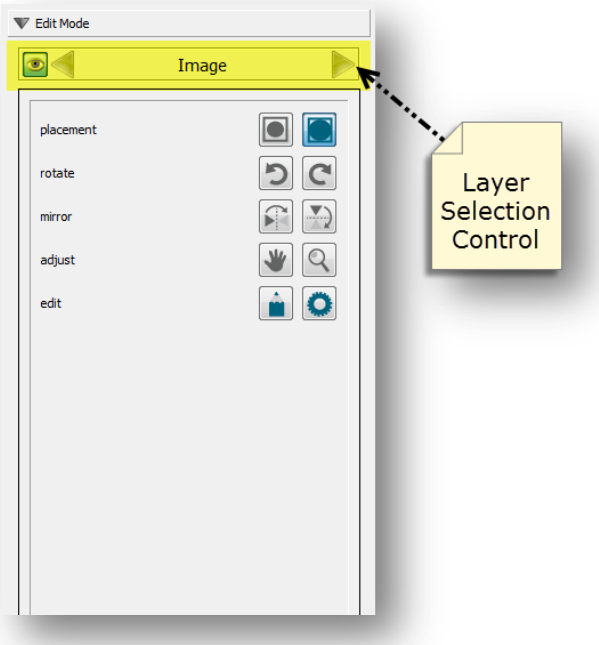
Once the folder has been selected then the application will scan it for all supported image files in it and add their thumbnails to the view list as shown above.

Image

Now we can drag & drop any of the image thumbnails on the wall area to fill it.



Once the image has been selected then it will be automatically scaled and filled to the current wall area. The **Image** layer will also be selected so that the user can edit the image and its placement with respect to the wall area.



Use the editing functions available here to manipulate and adjust the images relative to the wall area. There is also a fully featured colour editing application that allows detailed retouching. The editing options are divided to distinct groups as explained below. These functions can be applied in any order required.

Placement

There are two options available here that control the way that image is placed and scaled in relation to the wall area.

Normally placed images have dimensions that cannot fit exactly to the designated wall area. For instance if the wall area is set to 2000mm x 1000mm and the placed image is 800mm x 600mm then as their aspect ratios are not the same image will not fit exactly. The default behaviour is for the image to be automatically cropped and scaled to **Fill** the wall area. Alternatively you can opt for the **Fit** option that does not crop any part of the image but simply scales the image for the best fit to the wall size.

Examples of these are graphically demonstrated below:

Fill Placement

Fit Placement

Note: In either mode the system automatically rotates the image for best fit if needed.

Rotate

This option causes the image to rotate clockwise or anti-clockwise relative to the wall. By clicking repetitively on the button the image will be rotated through successive 90 degrees angle.

Mirror

Images can be reflected horizontally (mirror) or vertically (flip) by clicking on the corresponding icon. Clicking again will revert the image back to the original state.

Examples below demonstrate these functions:

Original

Mirror

Flip

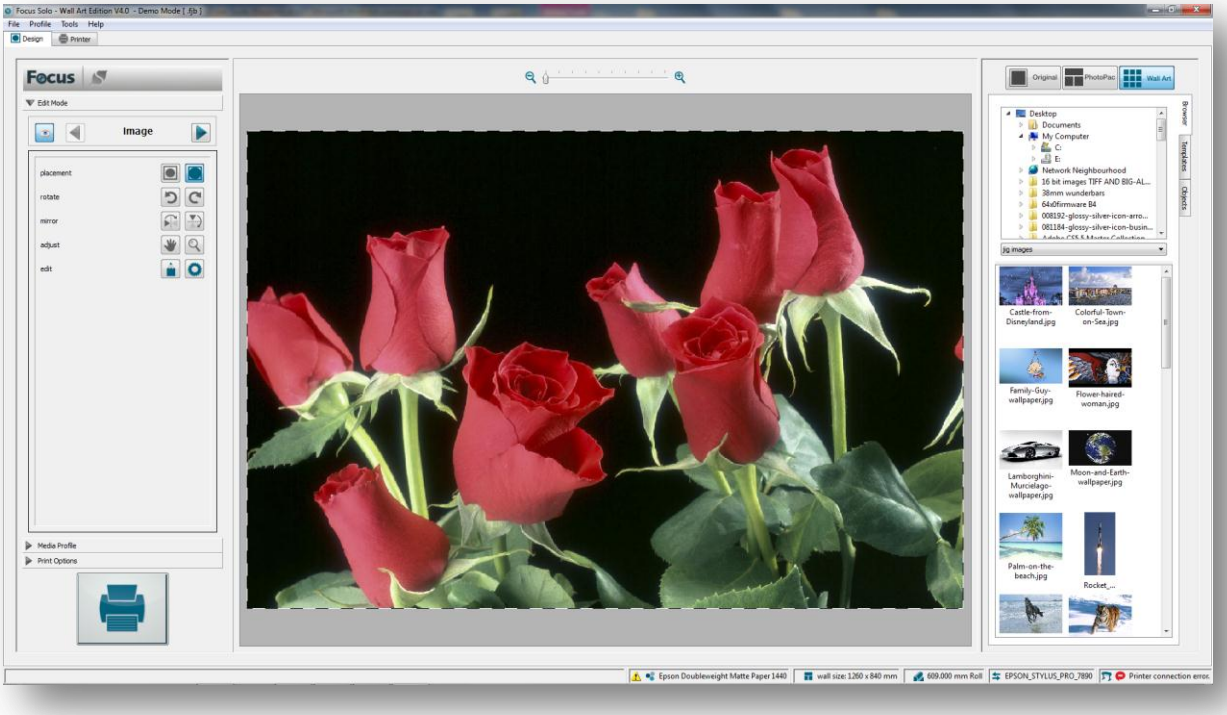
Adjust

To finely tune the image for better placement within the wall area use the 'zoom & pan' option available here.

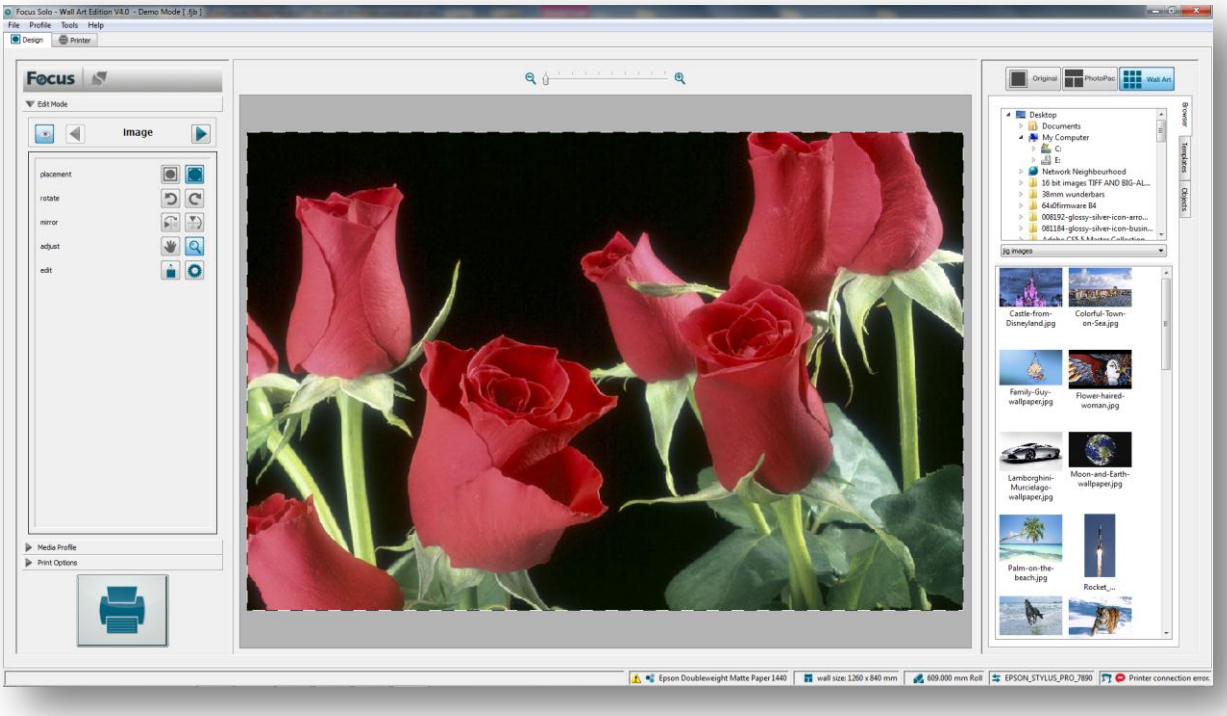
The pan option allows the user to move the image with respect to the wall area in X or/and Y directions.

By using the Zoom option it is possible to scale up or down the image size with respect to the wall. Place the zoom cursor anywhere on the image and click. Left mouse click zooms up (bigger) and right mouse click zooms down (smaller) the image. The incremental zooms are in 1% step. The maximum zoom allowed is 150% and the minimum is 20%.

Once an image has been zoomed up or down then it will also be possible to shift it in any direction by using the Pan option.

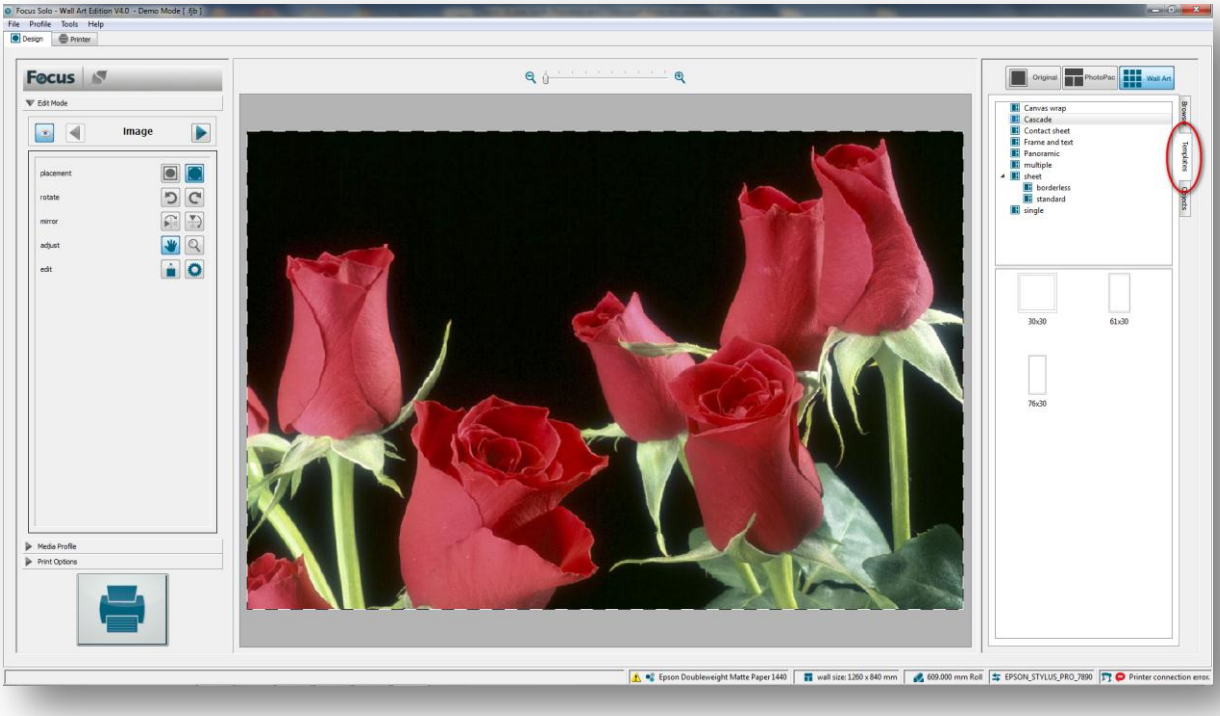


To incrementally increase or decrease the zoom, continue clicking on the image. Once you are happy with the size of the image use the Pan option to move the image around the photo cell for best positioning.



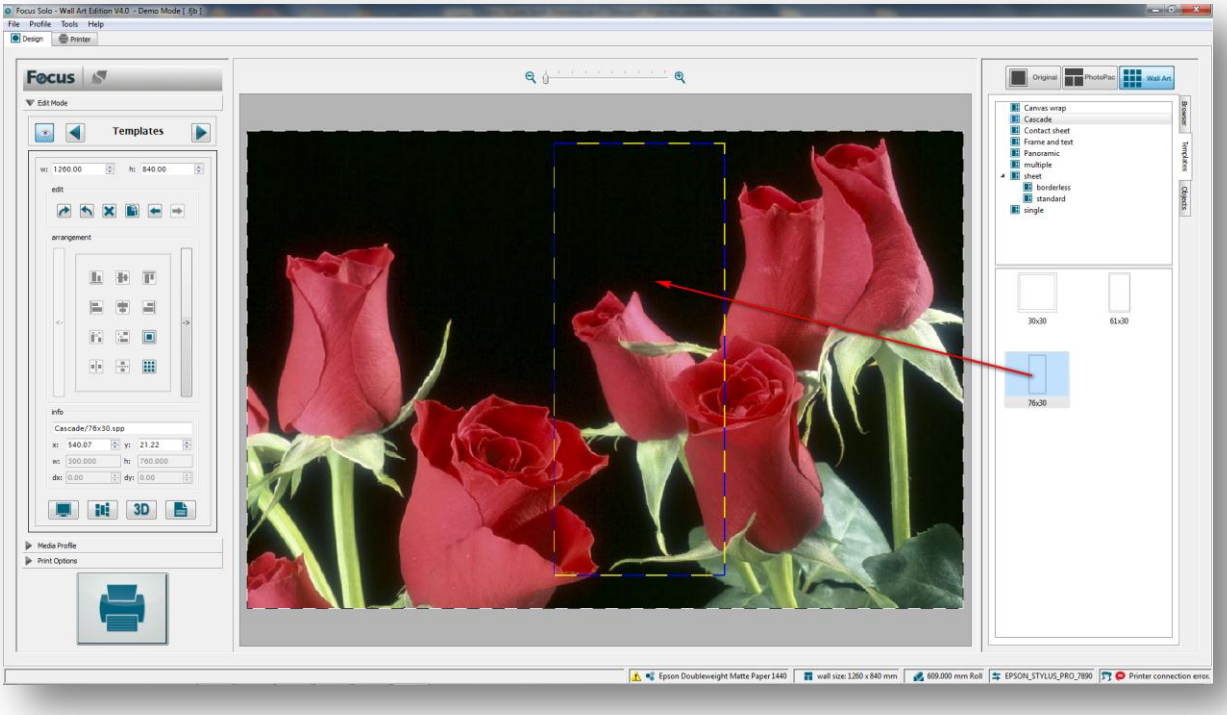
Templates

Once we are happy with the image placement then we can move on to the next stage where we place the canvas templates on the wall area. Click on the Templates tab as shown below to select the required templates.

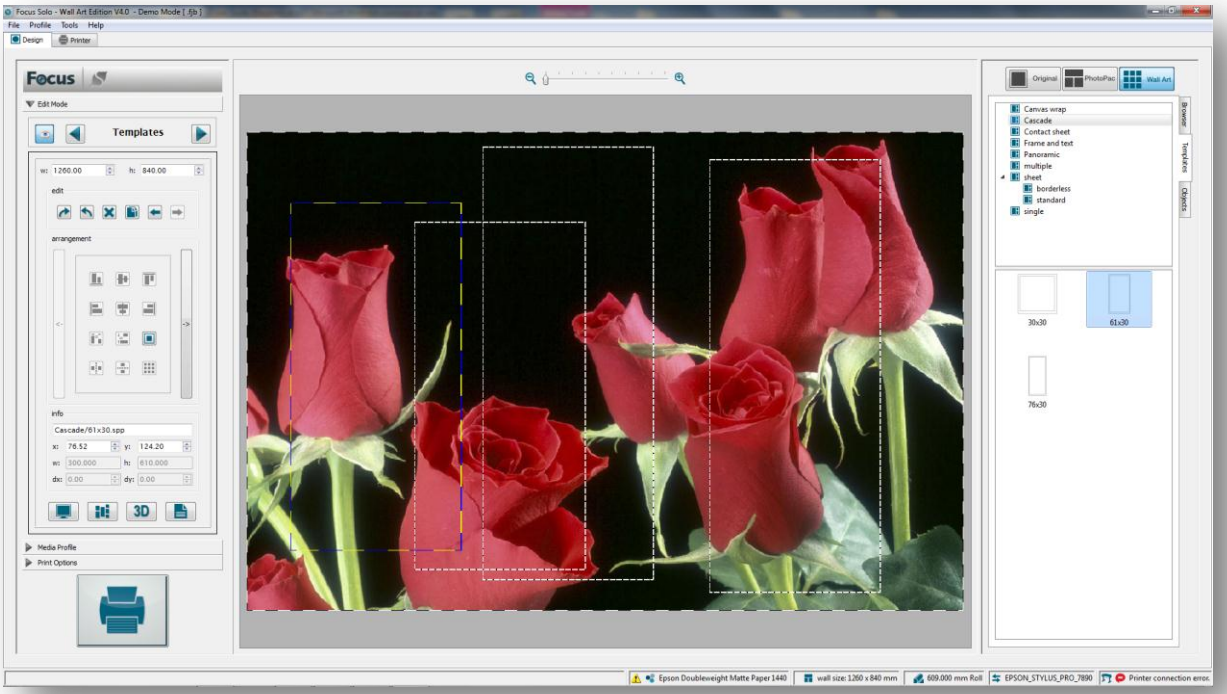


Locate the template category to list all the canvas templates contained within it. You can now simply drag & drop the required template anywhere on the image area. Place as many templates as required.

You will notice that as soon as a template is dropped on the image the Templates layer under the Edit Mode tab is automatically selected. Here you will find all the tools that allow you to position and arrange the canvas templates exactly as required.

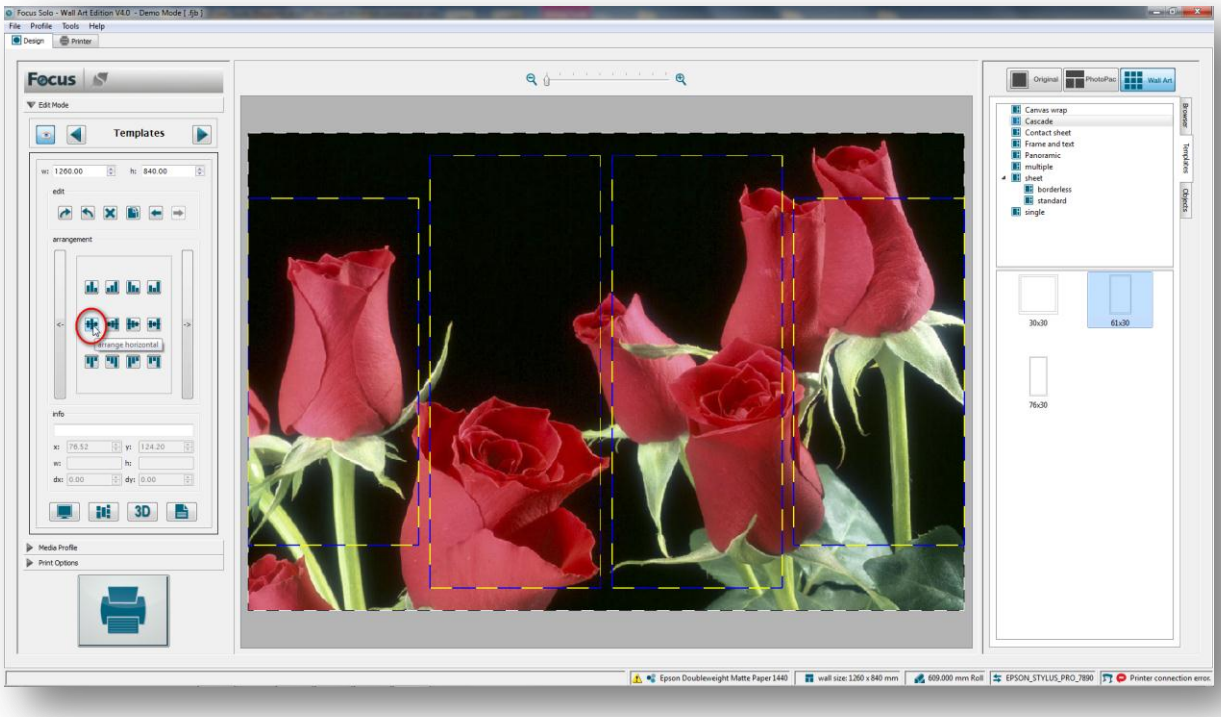


Simply click on the canvas templates located on the right hand column in the **Templates** tab and drag them anywhere on the image area. This process can be repeated for as many canvas templates as required.



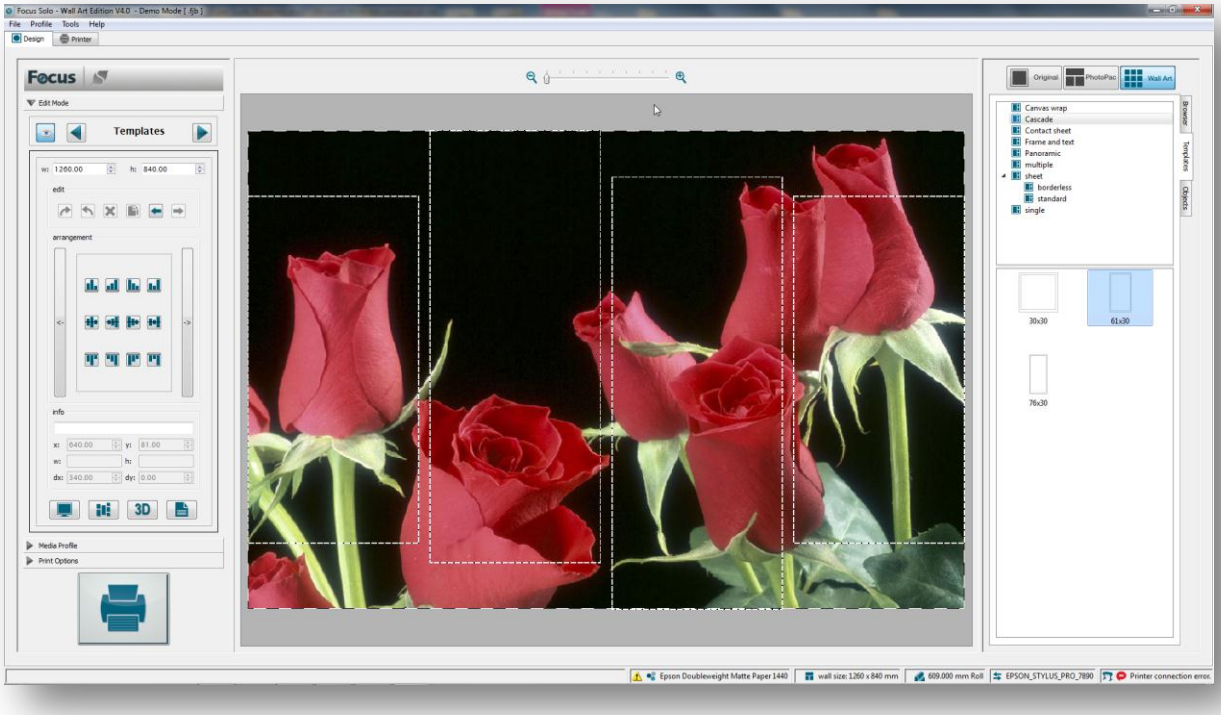
The user can either manually position the canvases on the layout or click on one of many pre-defined arrangements available. There are three groups of arrangements, selected, horizontal and vertical.

In the example below we have selected the horizontal arrangement that places the biggest templates in the middle and the smaller ones on the edges. Select all the templates required and click on the option highlighted below:

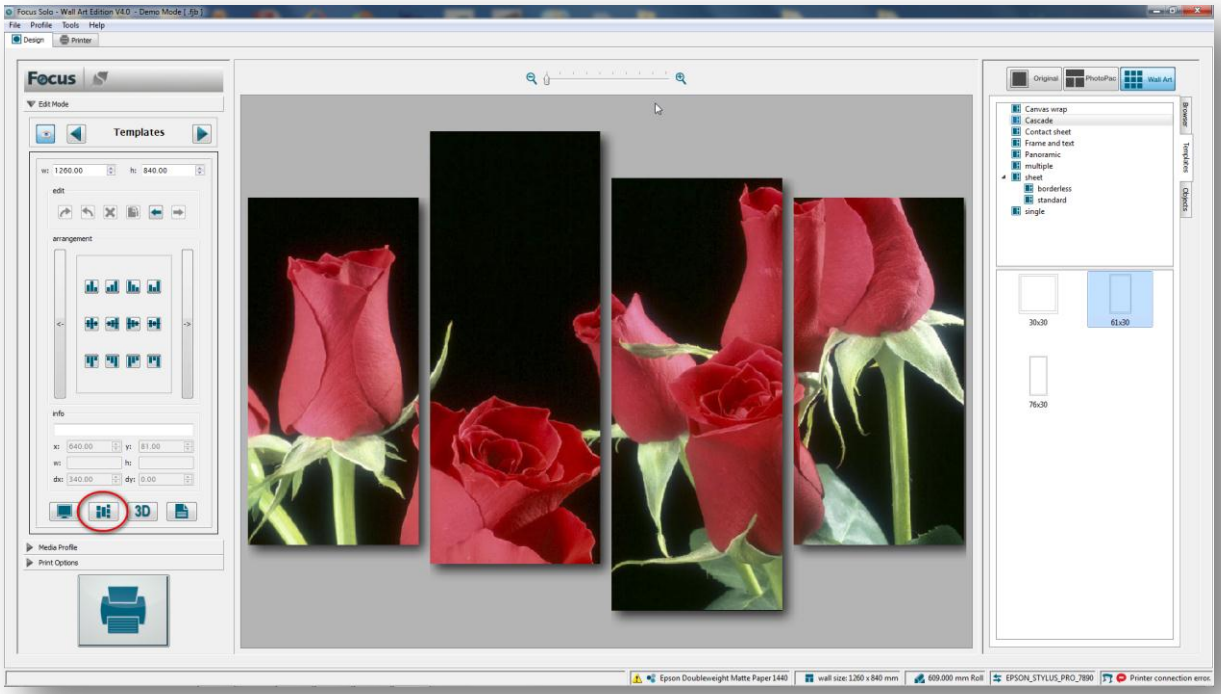


As can be seen from the above image the templates have been automatically arranged and aligned as well as auto spaced.

To make the design above more interesting we can shift the middle two templates in the opposite directions to give a ‘cascade’ effect. The templates must be first selected and then by using the arrow keys on the keyboard moved in the vertical direction to give the effect shown below:



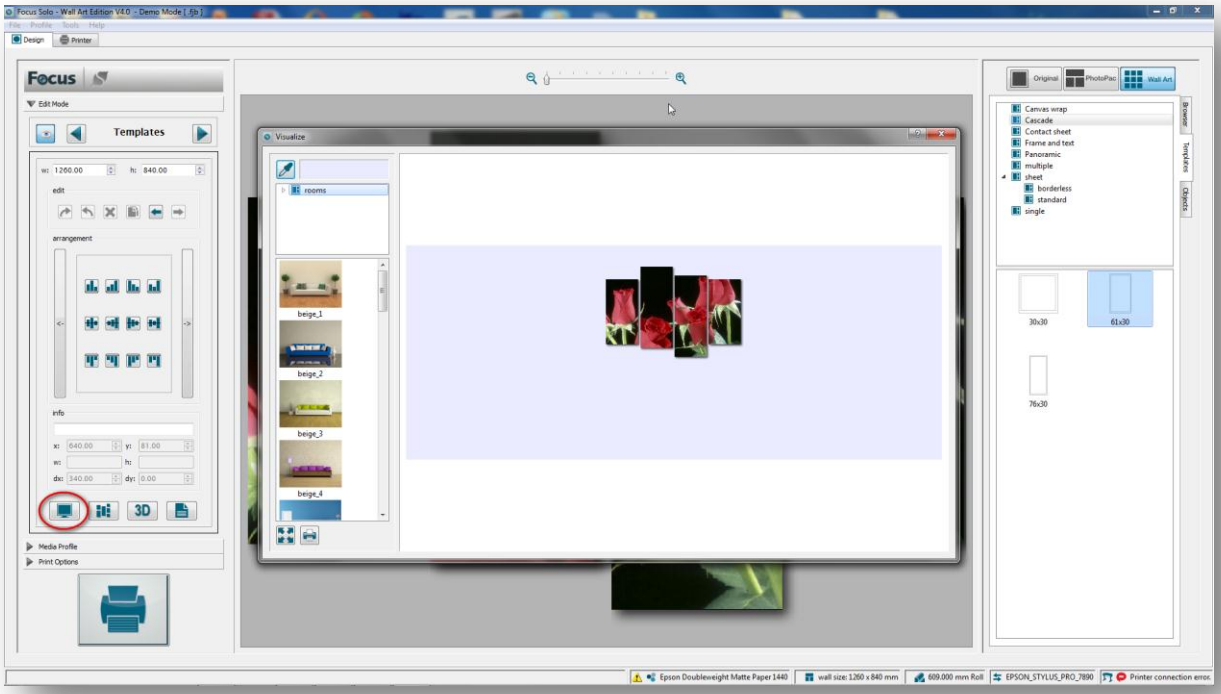
The Wall Art feature includes a number of tools that aid the operator to better visualize their design. These are located at the bottom of the **Templates** layer window.



In the above example we have opted for the **Proof** option that shows a simulation of the canvases on a 'raised' background. All other parts of the images not on the canvas area including the gaps are removed.

Click on the same icon again to go back to the normal viewing mode.

To actually simulate the design as would be mounted on a wall in a room click on the **Visulaize** option as shown below:



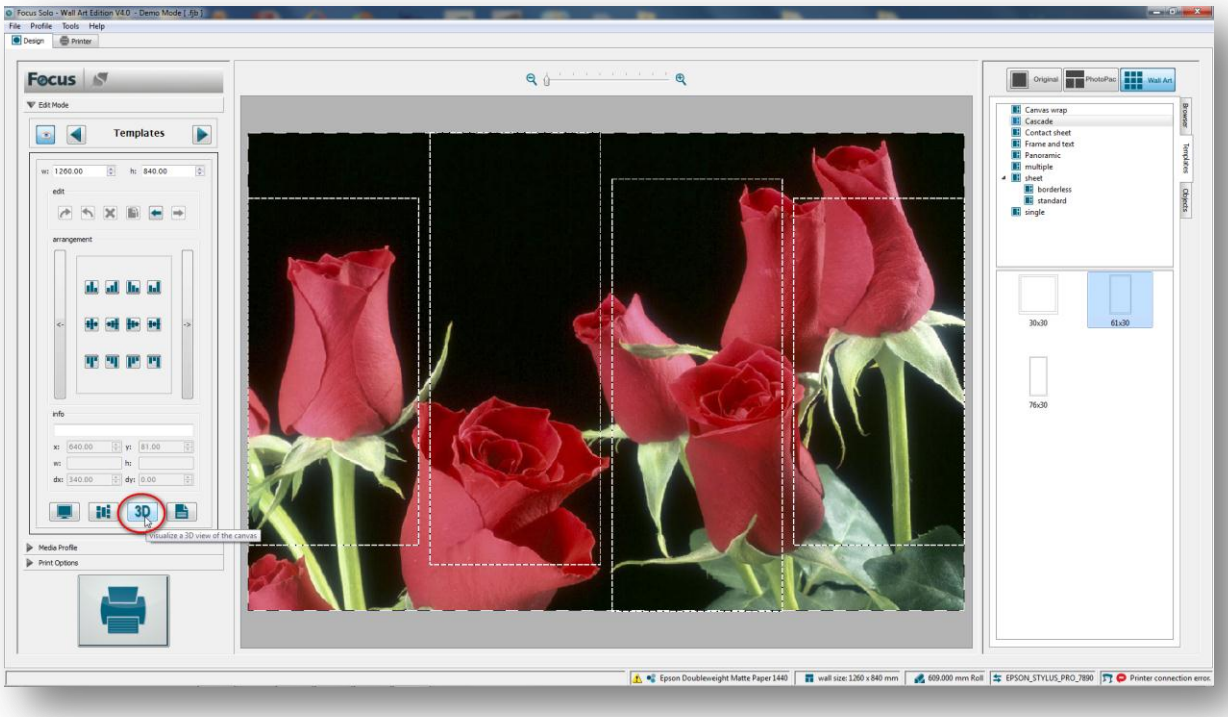
The canvas arrangement is now placed on a colour background representing a wall colour. Alternatively the background image can be changed to an actual room layout by selecting from the list of available rooms in the library.

The canvas layout will now be placed on the room background and can be move to any position required.

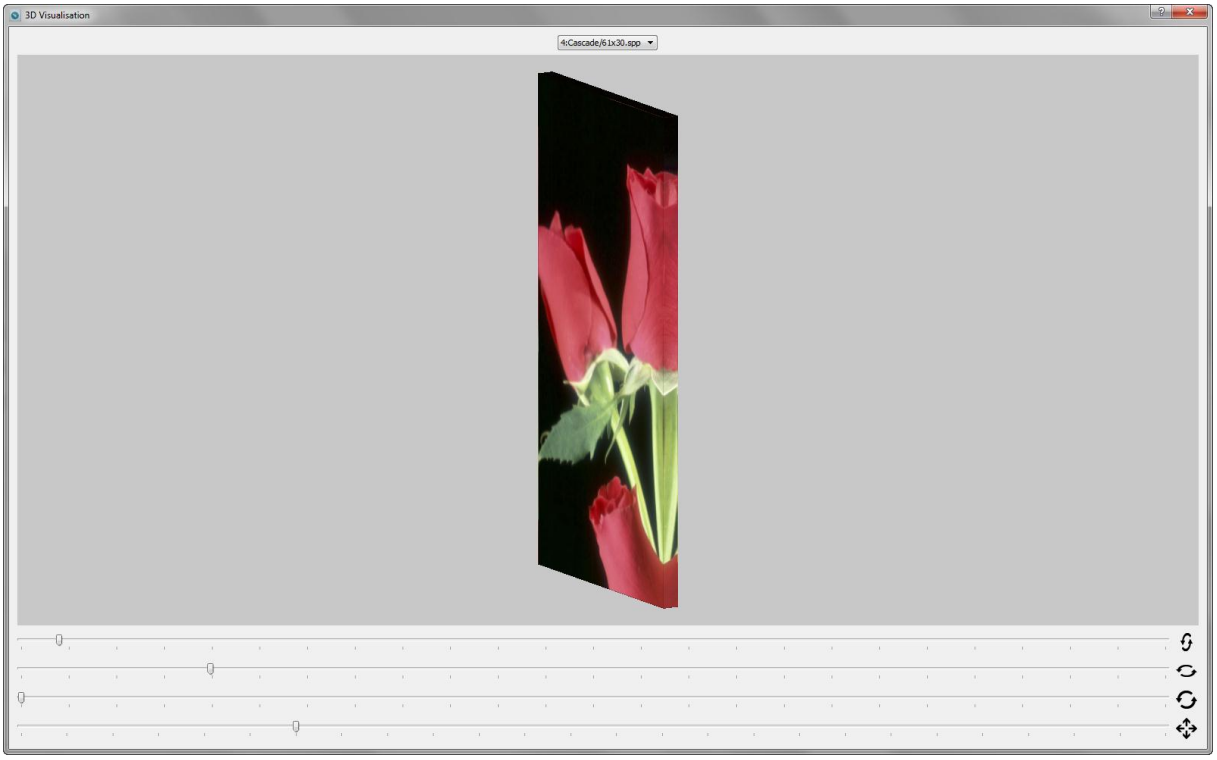
To get a better view of the room click on the **Full Screen** button. The screen will now be in full view mode. Press the Esc key to go back to the main screen.

A hard copy of the layout design can also be printed on any desktop printer on your network by clicking on the **Print** button.

To examine the individual canvases in full 3D mode click on the associated button as illustrated below:



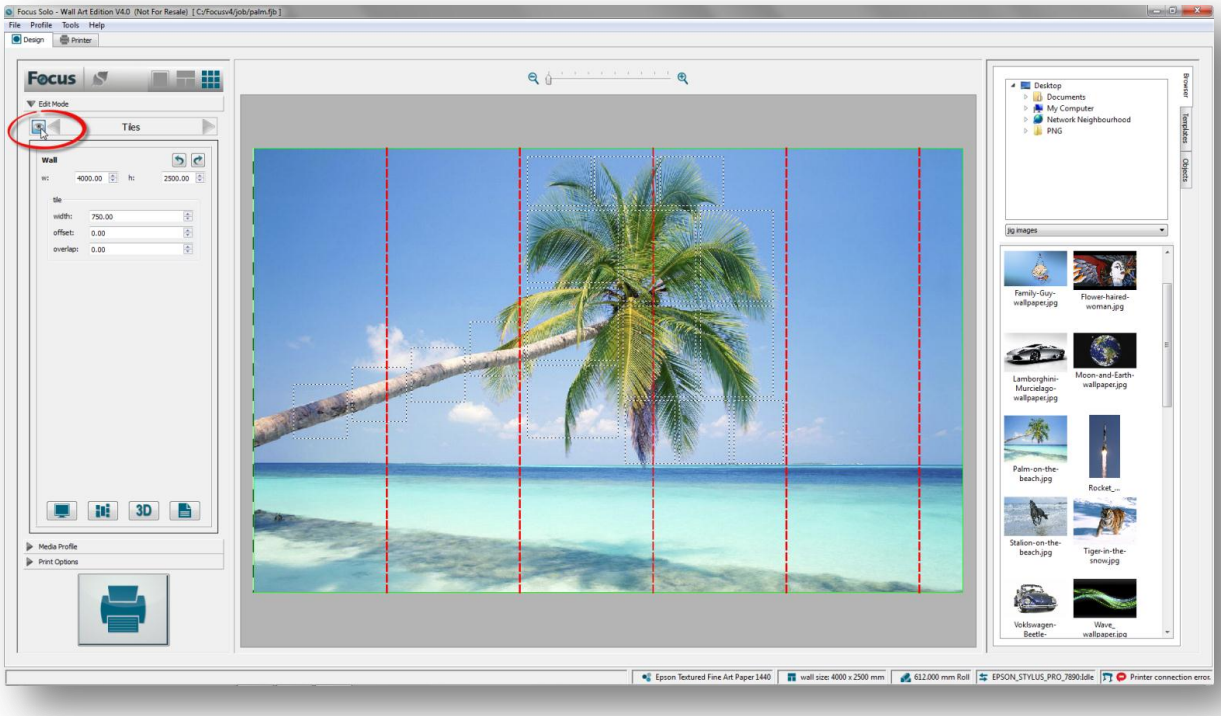
All the canvases will now be processed for the 3D visualization and can be selected for viewing from the drop-down menu located at the top of the window.



Using the mouse or the sliders the canvas frames can be manipulated on all axes and zoomed in and out for closer examination. The 3D images show an exact preview of how the final canvas wraps will look like including the frame effects set for the templates (mirror in the above example).

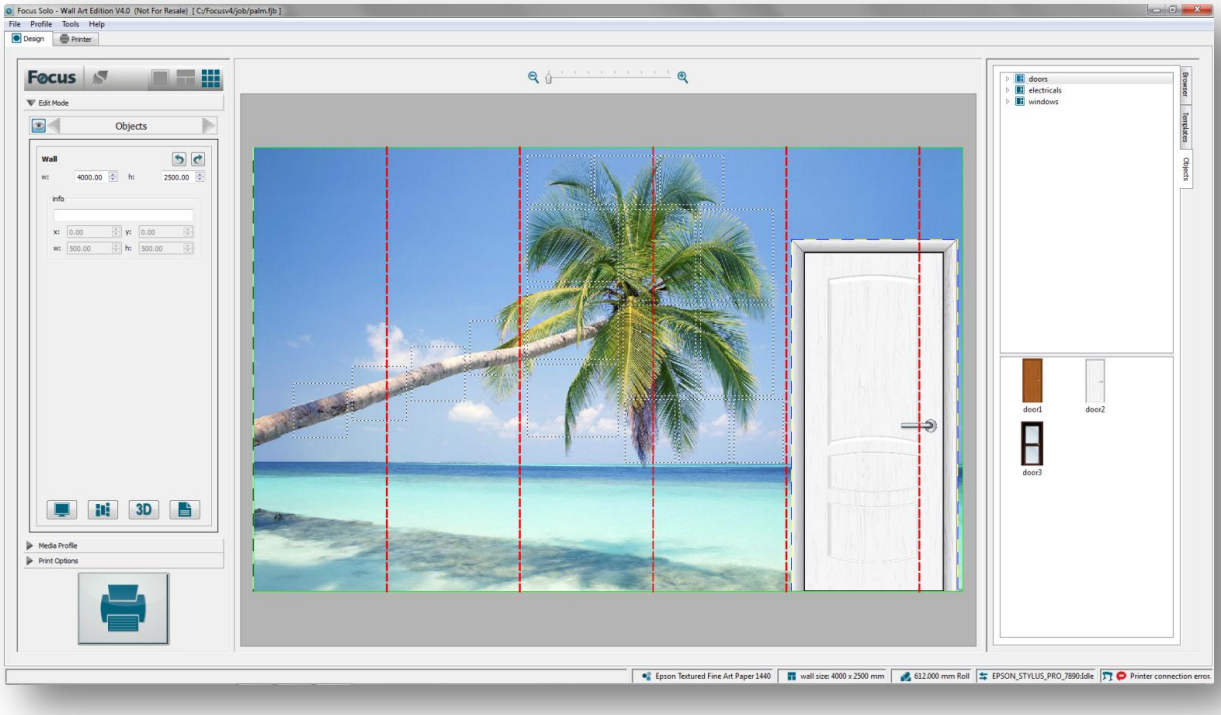
Tiles

It is also possible to print the wall image as wallpaper tiles if required. Objects such as doors and windows can be superimposed to simulate accurate layout. Select the **Tiles** layer by clicking on the right arrow on the layer control panel. To make the tiles layer contents visible click on the 'eye' icon located on the left hand side of the layer panel. It should be now possible to see the tiles as indicated by dashed red lines.



The tiles width as well as their overlaps and offset values can be set here. The offset value shifts the tiles by the entered amount to the right. The overlap value adds the specified amount to each side of the overlapping tiles that can help with the mounting and alignment of the tiles on the wall.

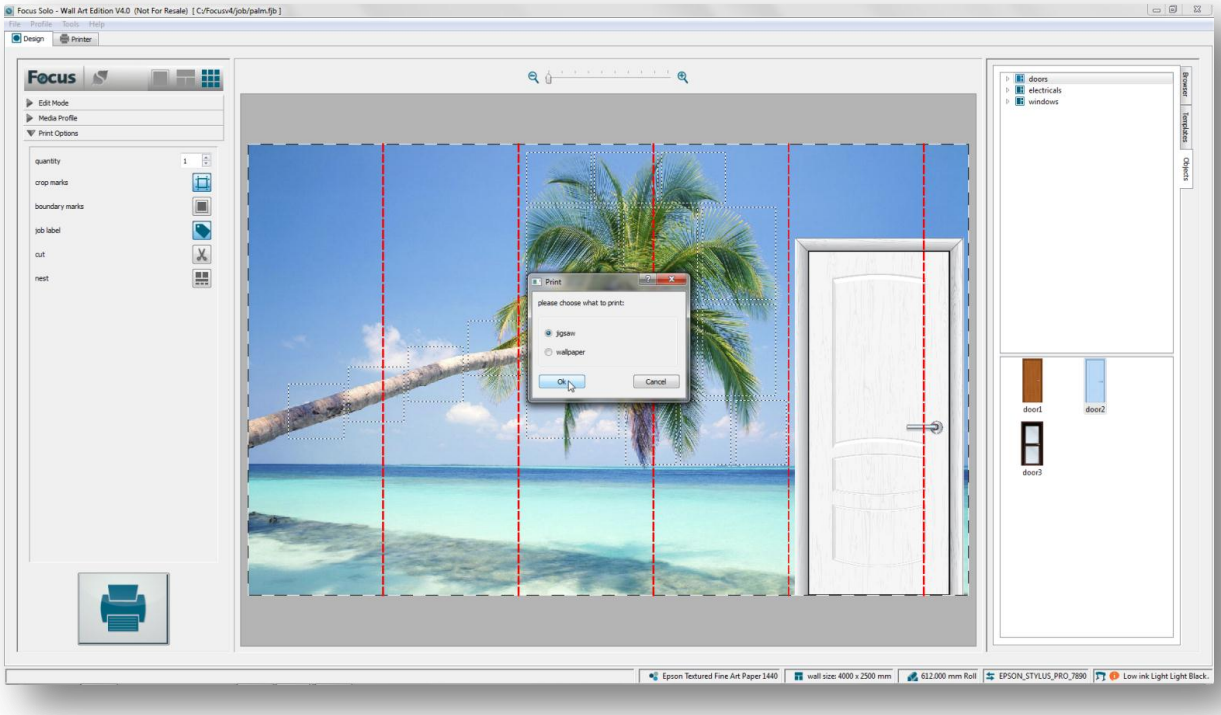
To help with the accurate placements of tiles, objects such as doors and windows can be added in the **Object** layer.



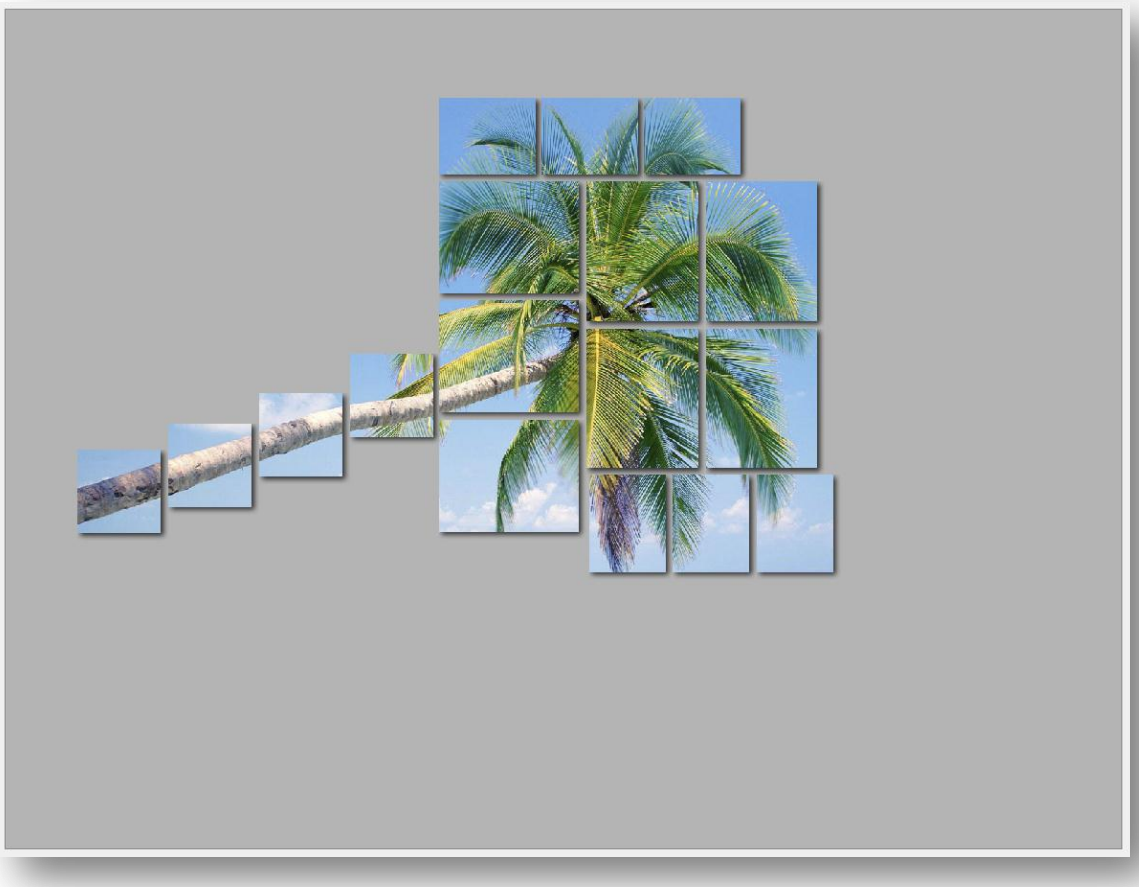
These objects are only used as a visual guide and do not affect the tiles output.

Output

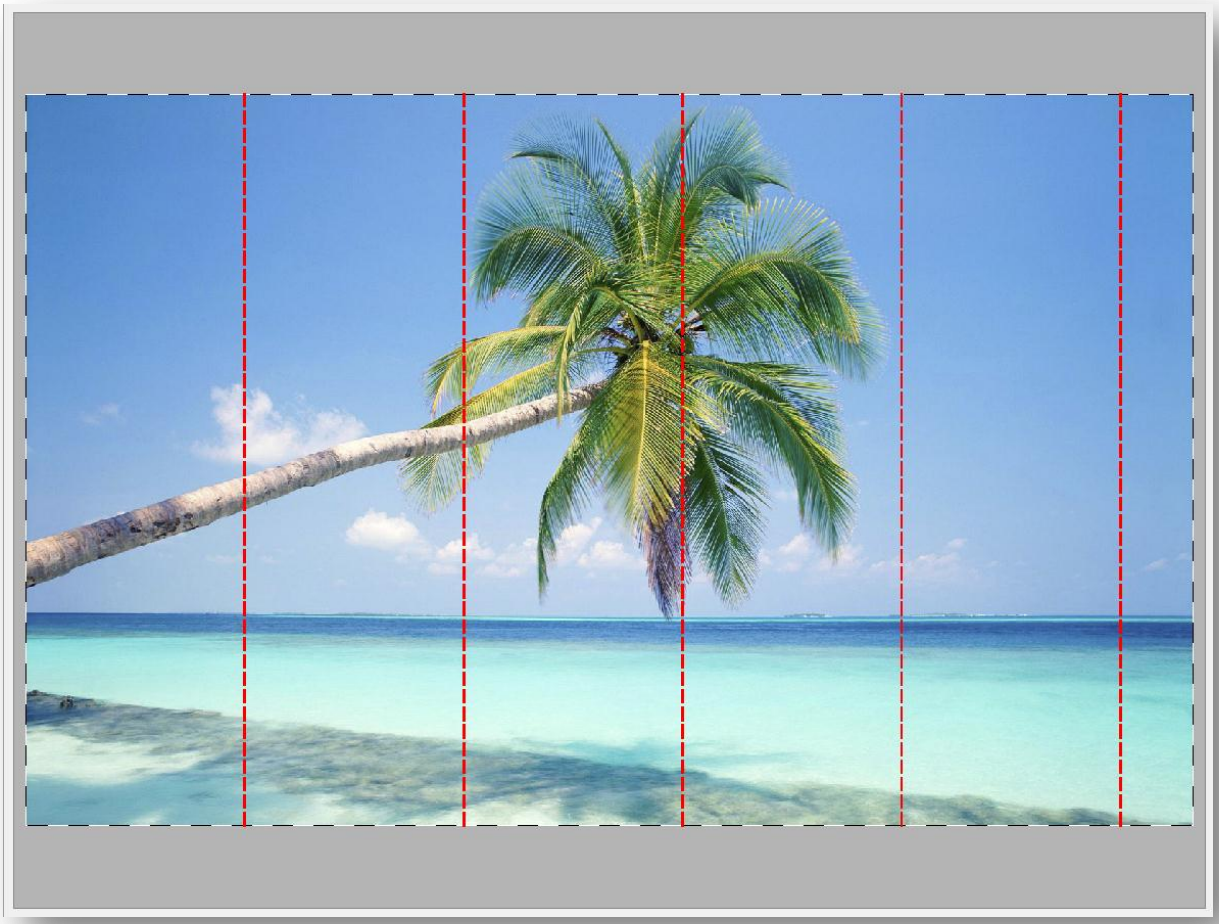
Once the design work has been completed then the job can be submitted to the queue for printing. As there are two distinct set of items that can be printed, i.e. canvas gallery wraps and wallpaper tiles, the system will prompt for the selection of the items that are required for output. This allows the operator to select different media profiles as well as print options for the output.



By selecting the **Jigsaw** option only the canvas jobs will be submitted to the queue.

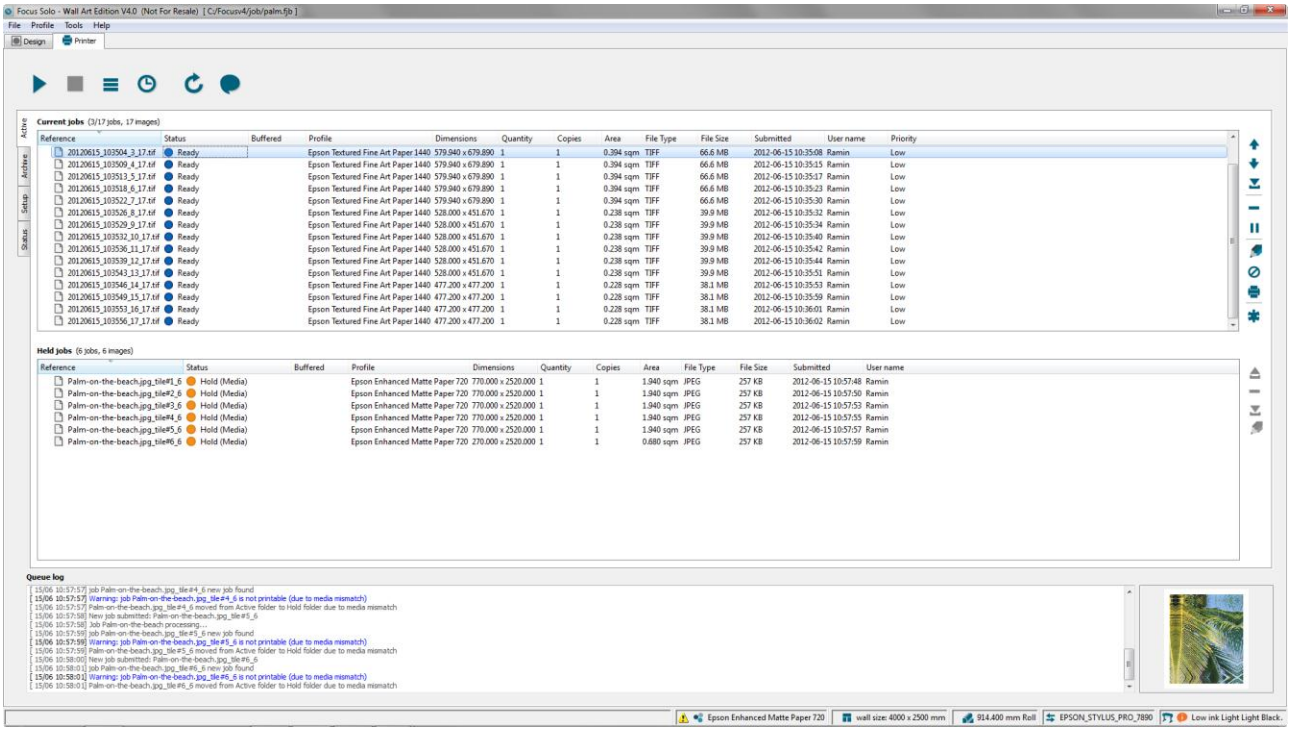


Once these have been submitted then the user can change the media profile and the print options before submitting the **Wallpaper** jobs.



The image above shows the tiles that would be submitted to the queue. The tiles would be numbered from left to right in ascending order.

The image below shows all the jobs that have been submitted to the queue for printing. As can be seen each canvas and tile is listed and can be examined and edited if required.



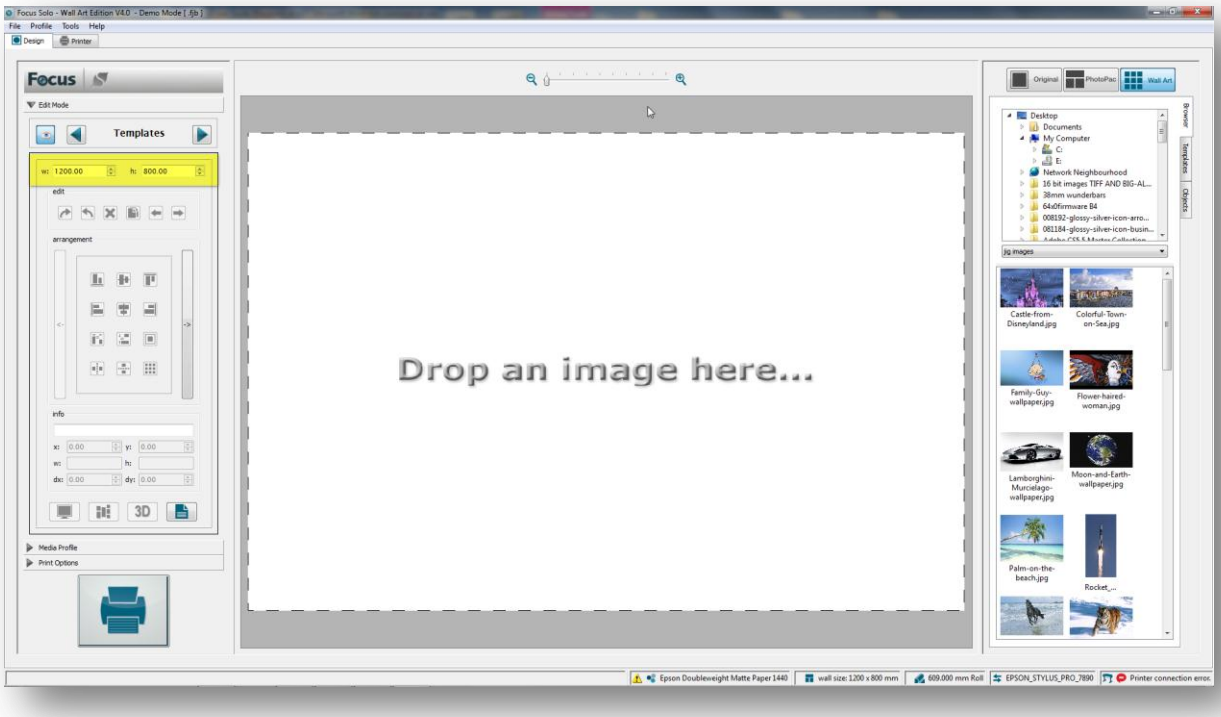
The wallpaper jobs are being held by the server as they do not match the media currently loaded. Once the media has been changed to the relevant wallpaper media then these jobs will be released automatically to the active queue for printing.

By combining the canvas and wallpaper elements it is possible to create truly unique wall art with a '3D' effect.

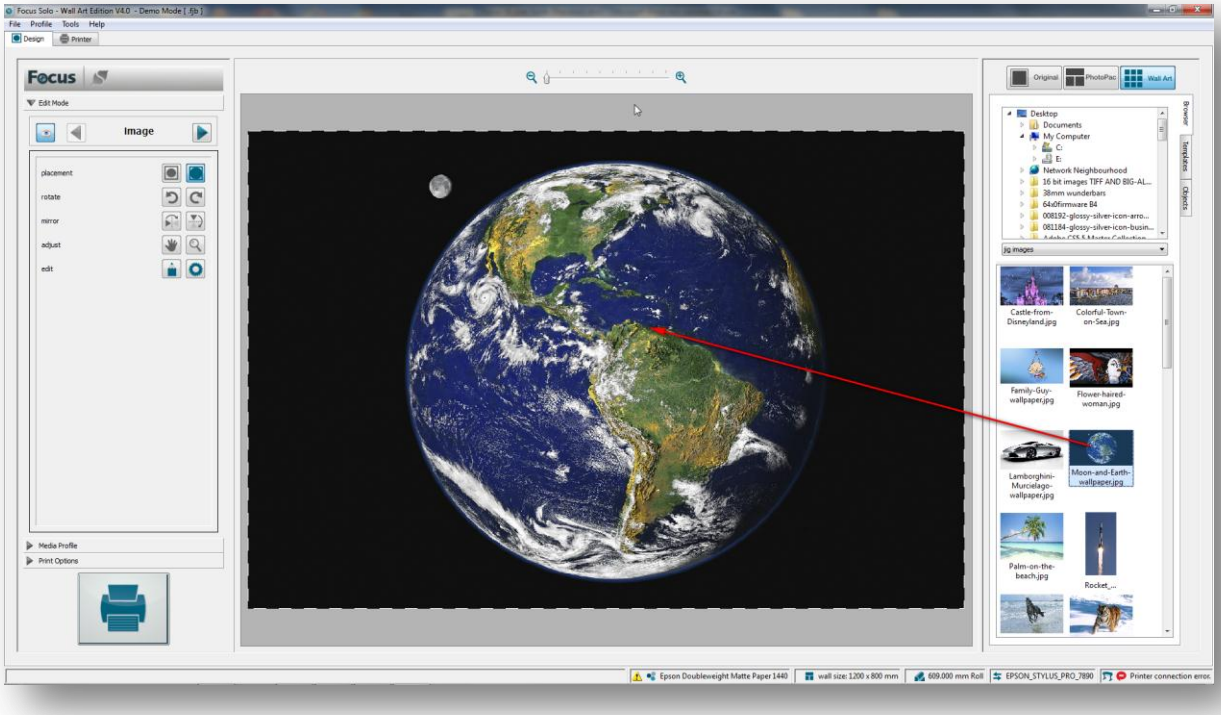
Advanced editing

To demonstrate the powerful range of tools that are available to users for design and production of wall arts we will now go through an actual example from start to finish.

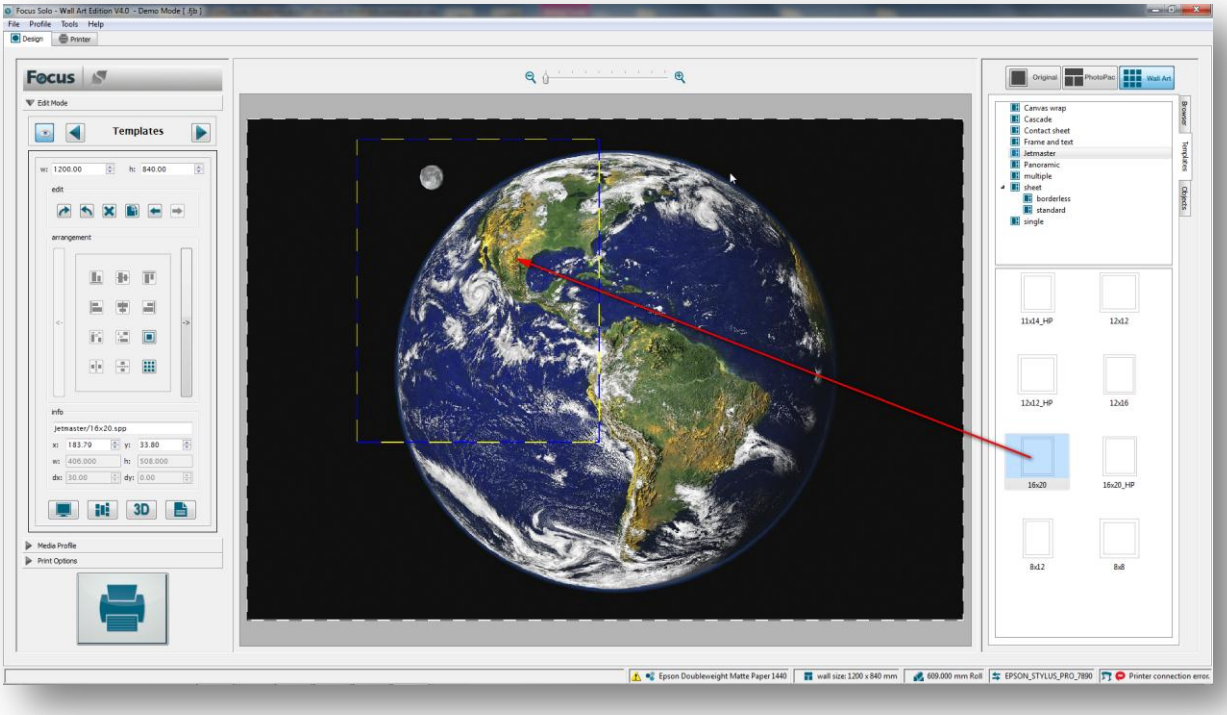
The first step is to define the wall size that we would want to work with, 1200 x 800mm in this example, as shown below:



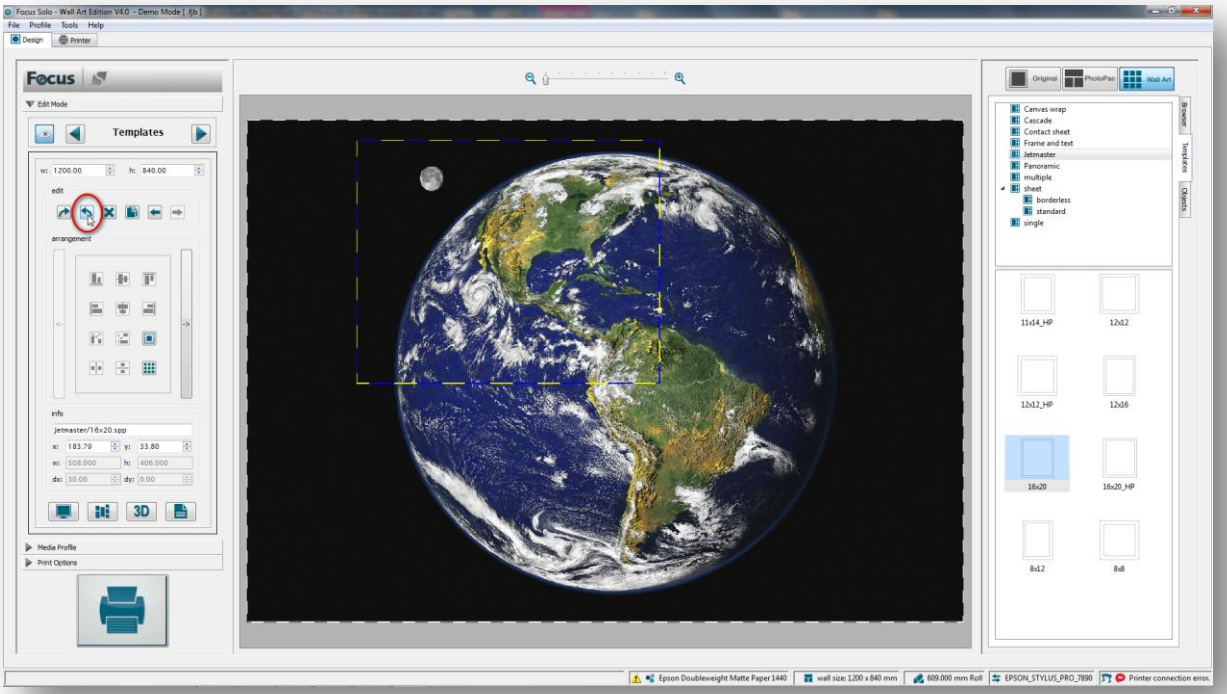
Next we will drop the image that we want to work with on the wall area.



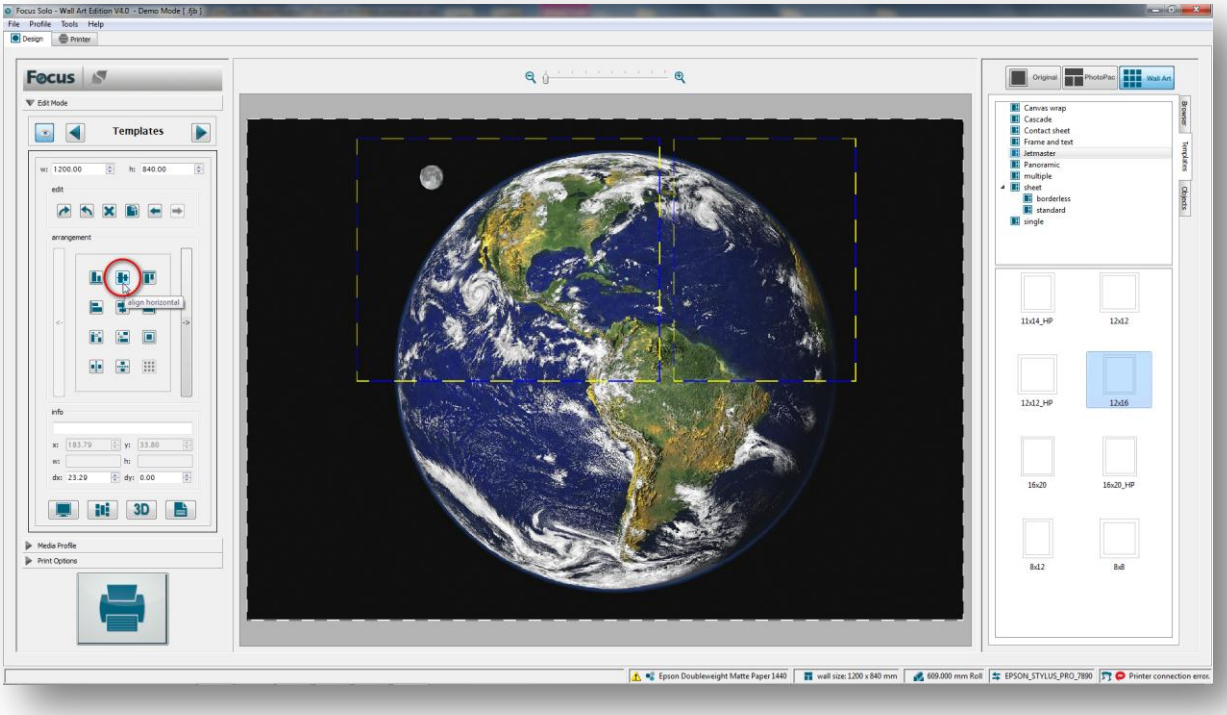
Now we can start designing the canvas wall art by arranging the canvas templates on the image.



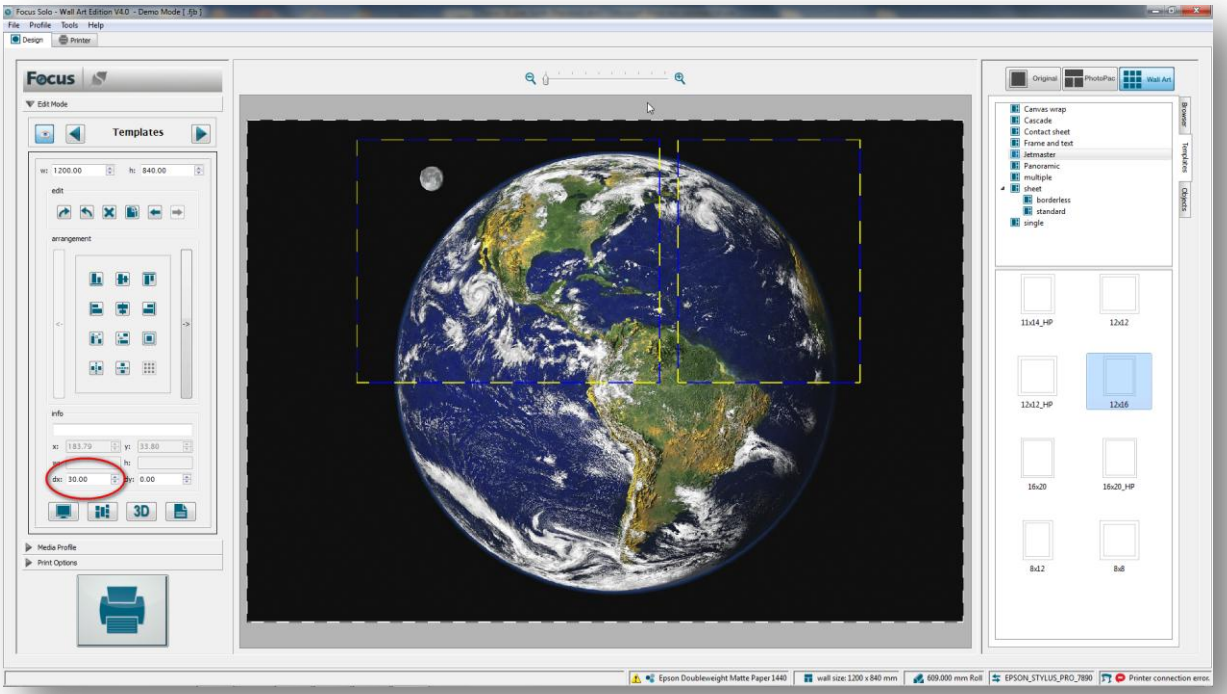
We roughly position the template where it should be. Next we rotate the template by clicking on the Rotate icon. Use the Redo and Undo buttons to correct any editing mistakes.



Now we drag a second smaller template on the image area and position it close to the other template.

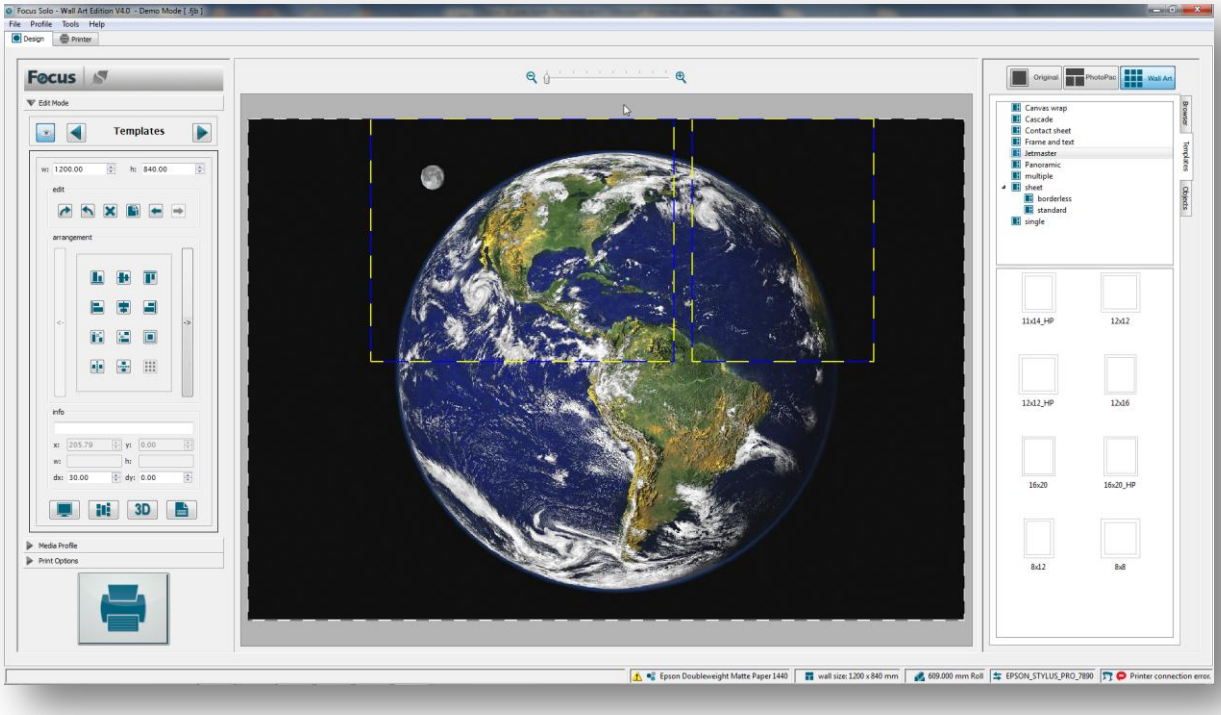


Next we would want the templates to be aligned centrally in the horizontal direction to each other and can achieve this by selecting both templates and then click on the Horizontal Centre Align icon as shown above.

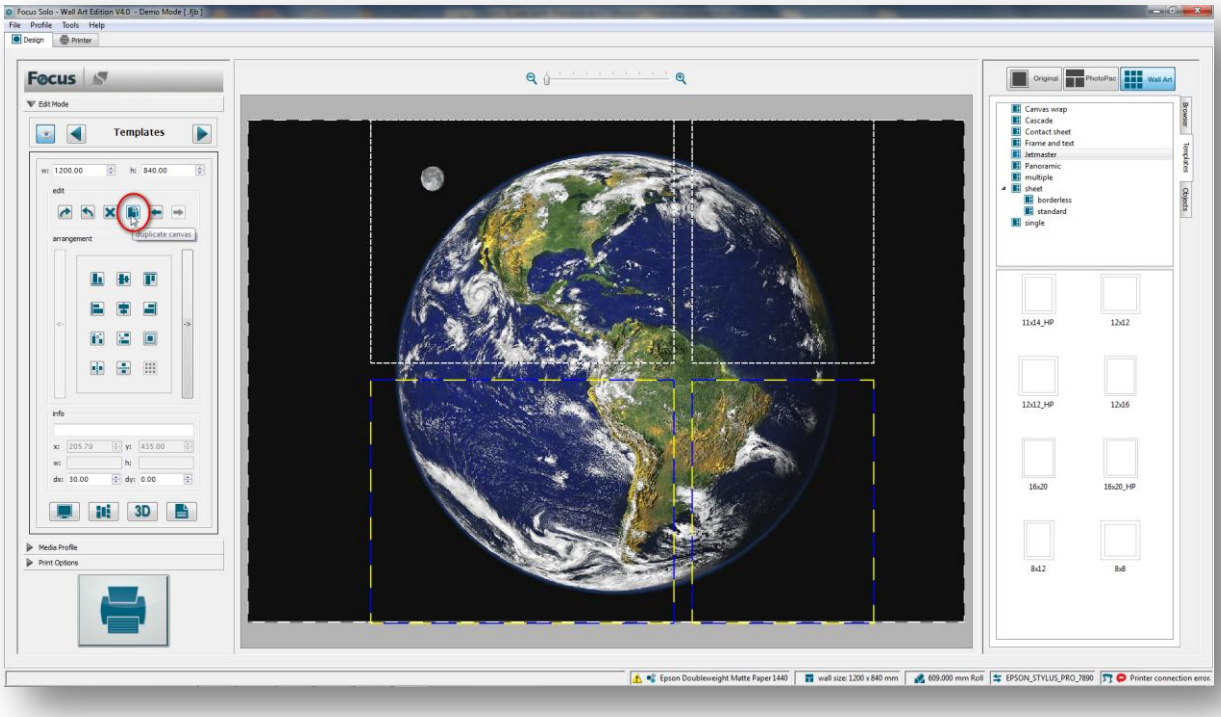


To assign an exact gap distance between the templates enter the required value in the designated box as shown above.

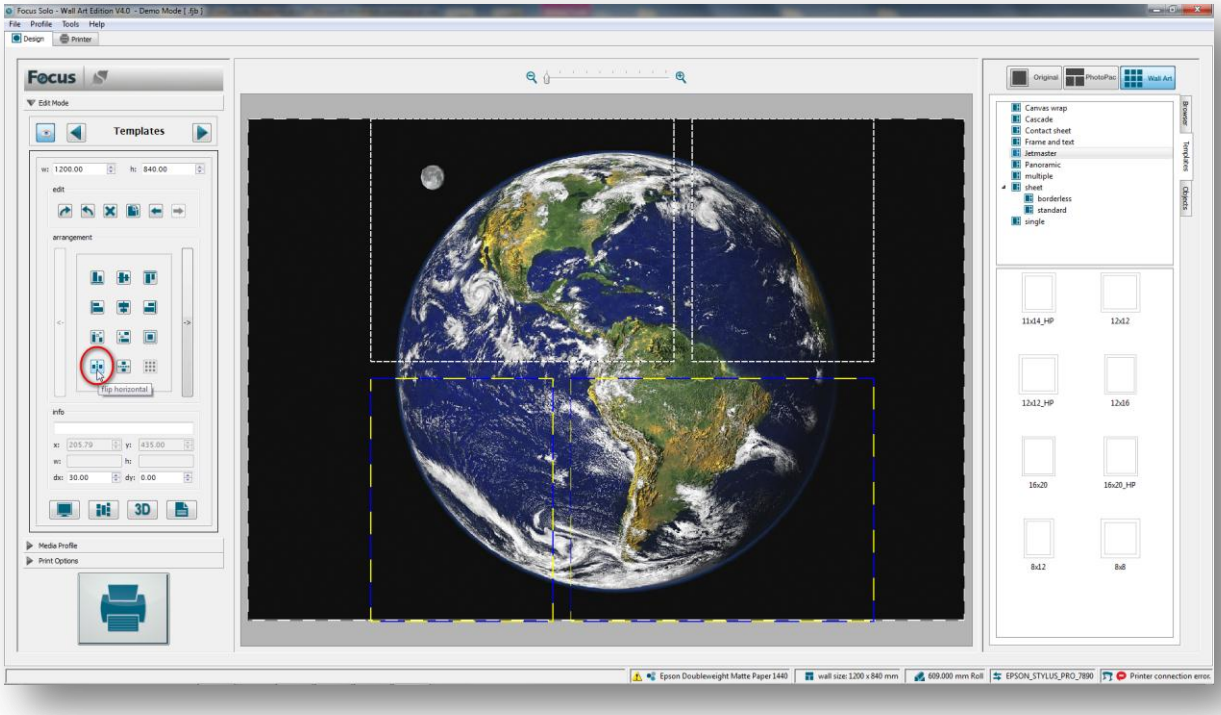
Now we will shift the templates while selected to the desired area by using the arrow keys on the keyboard.



We want to compliment the same arrangement on the bottom side but in mirrored arrangement. So we will first copy the existing templates arrangement and then shift it to the edge of the bottom border.

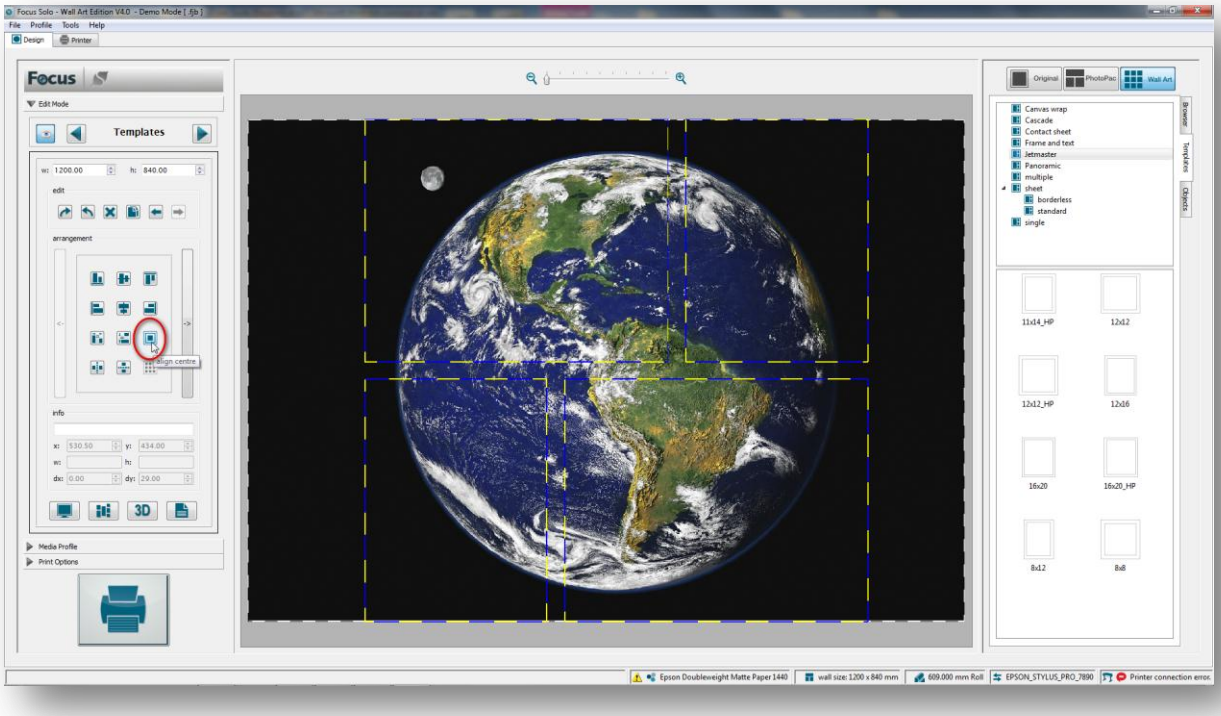


Next will now mirror the duplicated canvases by clicking on the Mirror button as shown below.

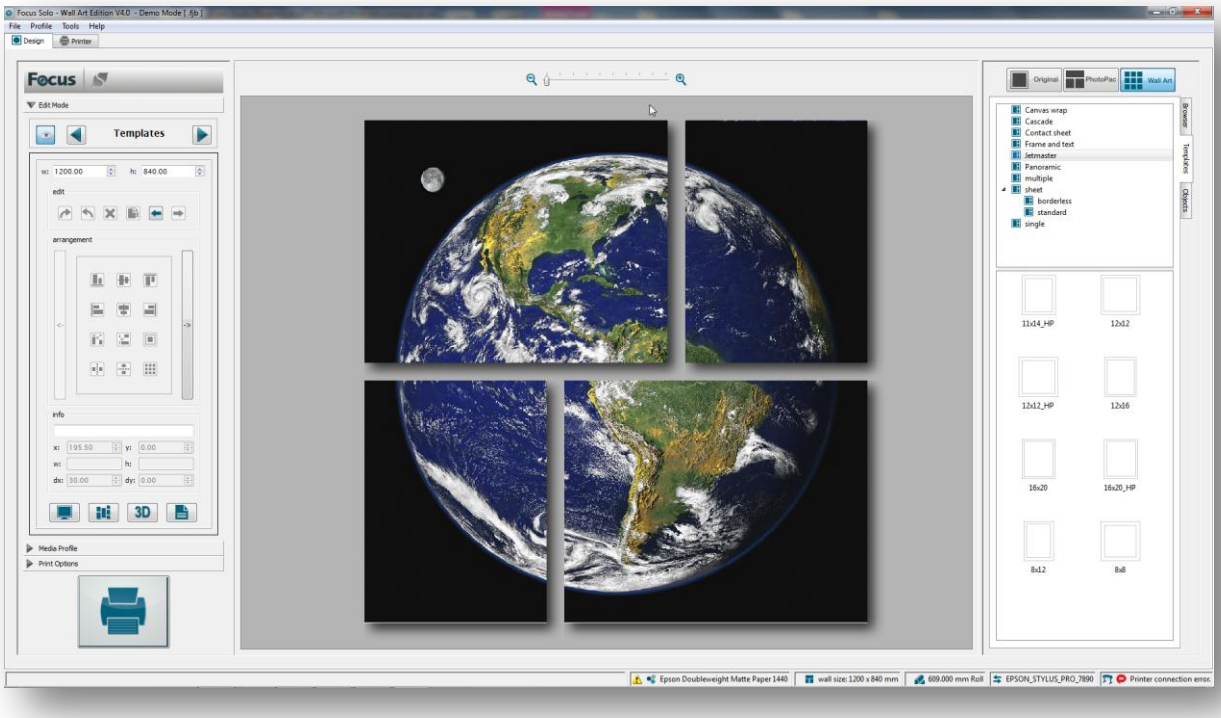


We will now flip the selection by again clicking on the Flip button and then move the selection to the left.

Finally to centre the whole design on the wall area we will first select all templates by pressing (Ctrl + A) or dragging a lasso around them and then clicking on the Centre button.

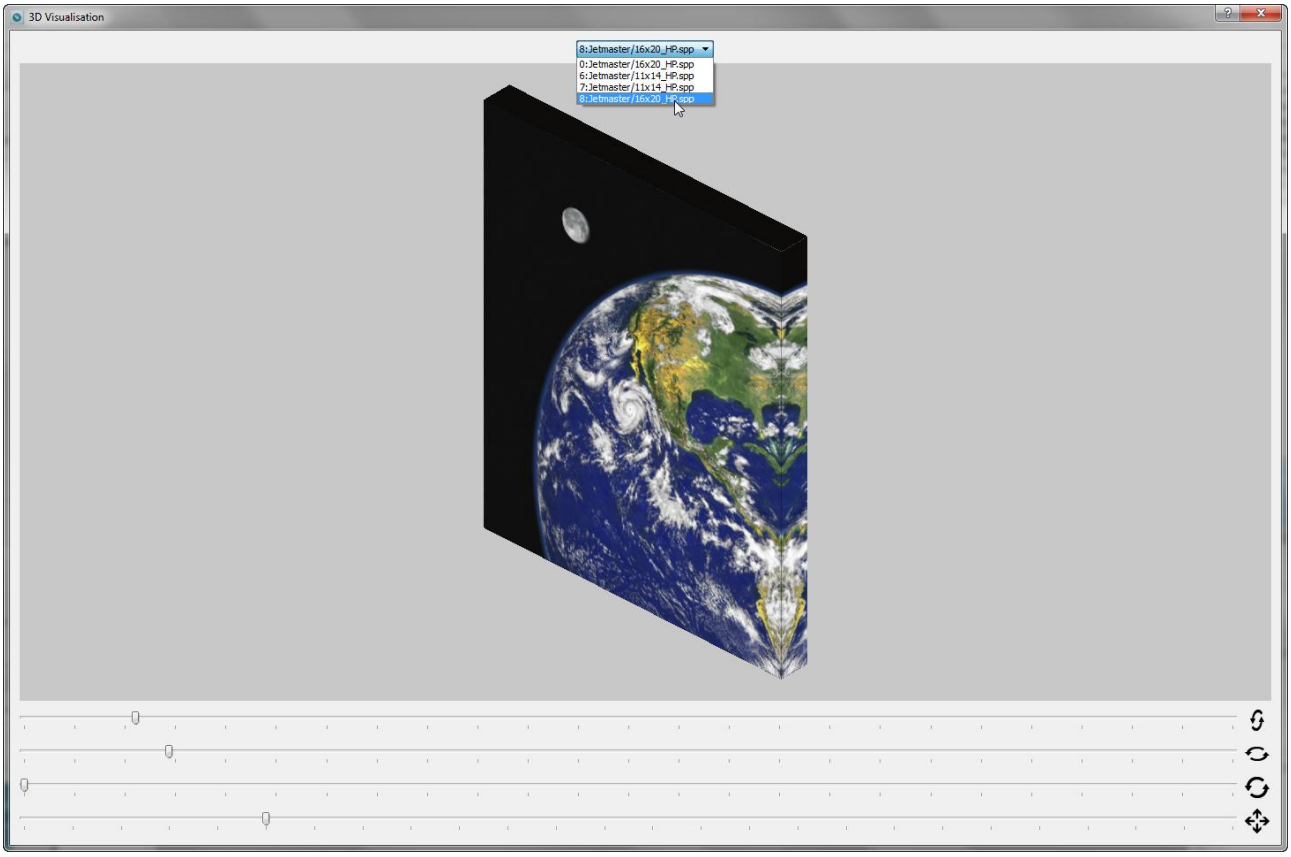


To visually examine the design click on the **Proof** button.

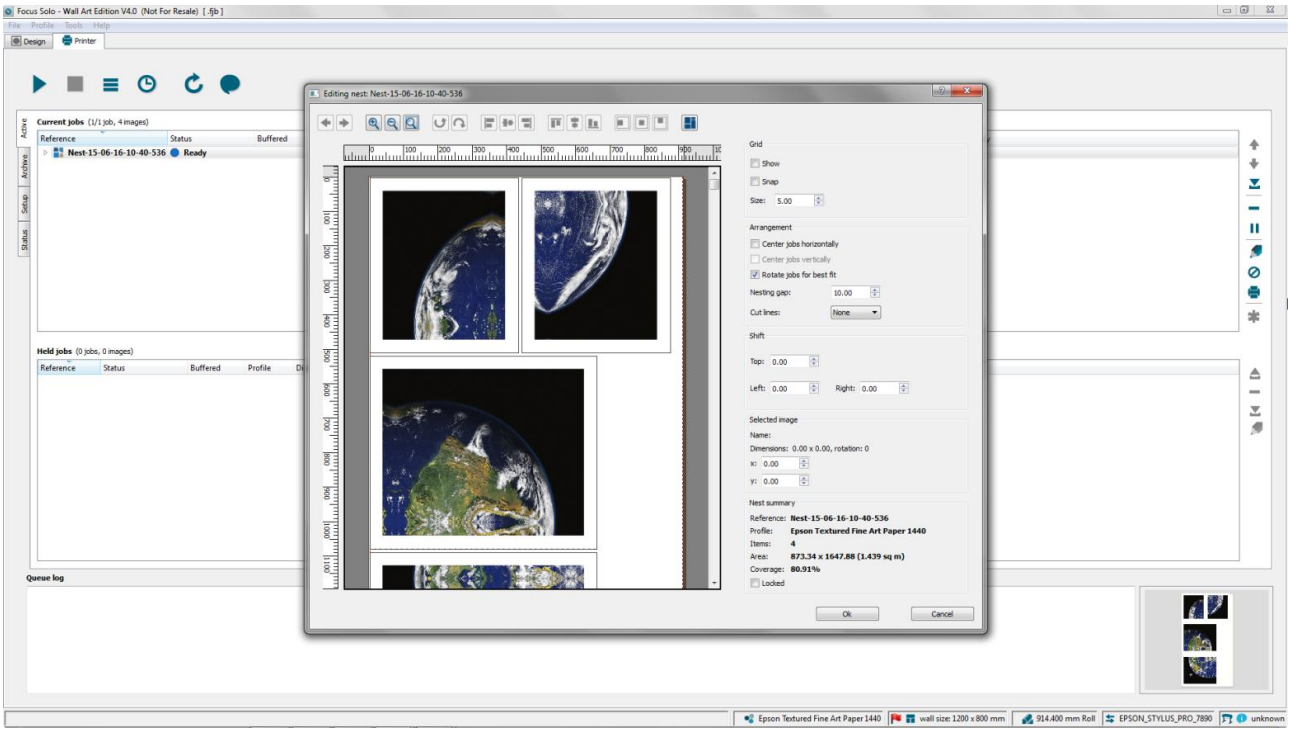


And to visualize it in a room, mounted on the wall, click on the **Visualize** option.

Examine each canvas in more details by using the 3D feature.



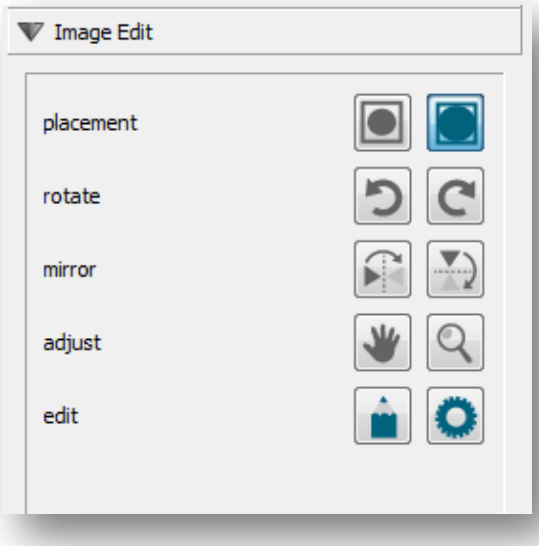
Finally submit the jobs to the queue for printing fully nested on the media.



The canvas jobs will then be printed exactly as shown in the nest layout including the trim marks and job labels that help the operator to finish them easily and quickly.

Image Edit

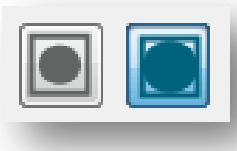
Use the editing functions available here to manipulate and adjust the images relative to their corresponding photo cells. There is also a fully featured colour editing application that allows detailed retouching. The editing options are divided to distinct groups as can be seen below. These functions can be applied in any order required.



Placement

There are two options available here that control the way that images are placed and scaled in relation to the photo cells.

Usually your photos have dimensions that cannot exactly fit to the desired photo cell size. For instance if a template defines 10 x 15 photos to be printed, but your source photo is 8 x 6 size, they will not fit correctly. Here you may choose to automatically crop your pictures (**Fill**) or size them proportionally (**Fit**).



The default setting is **Fill** that 'auto-crops'. This mode will not scale your photos in such a way that would distort them from their original aspect ratio. Instead, it determines how best for the photos to fit in each photo cell of the template. You can always adjust the auto cropping by using 'zoom & pan' described later in this section. This allows you to fine tune what portion of the photo will actually print.

The **Fit** mode will size the photo to proportionally fit into the photo element of the template. This sizing does not distort the photo. Because of the way that the fitting is applied there will be unused space (white space) in the width or height of the photo element. No part of the original image is cropped out or lost in this mode.

Examples of these are graphically demonstrated below:

Fill Placement

Fit Placement

Note: In either mode the system automatically rotates the image for best fit if needed.

Rotate

Causes the images to rotate clockwise or anti-clockwise relative to the photo cell. By clicking repetitively on the button the image will be rotated through successive 90 degrees angle.

Mirror

Images can be reflected horizontally (mirror) or vertically (flip) by clicking on the corresponding icon. Clicking again would revert the image back to the original state.

Examples below demonstrate these functions:

Original

Mirror

Flip

Adjust

To fine-tune images for better placement within the photo cells use the' zoom & pan' option available here.

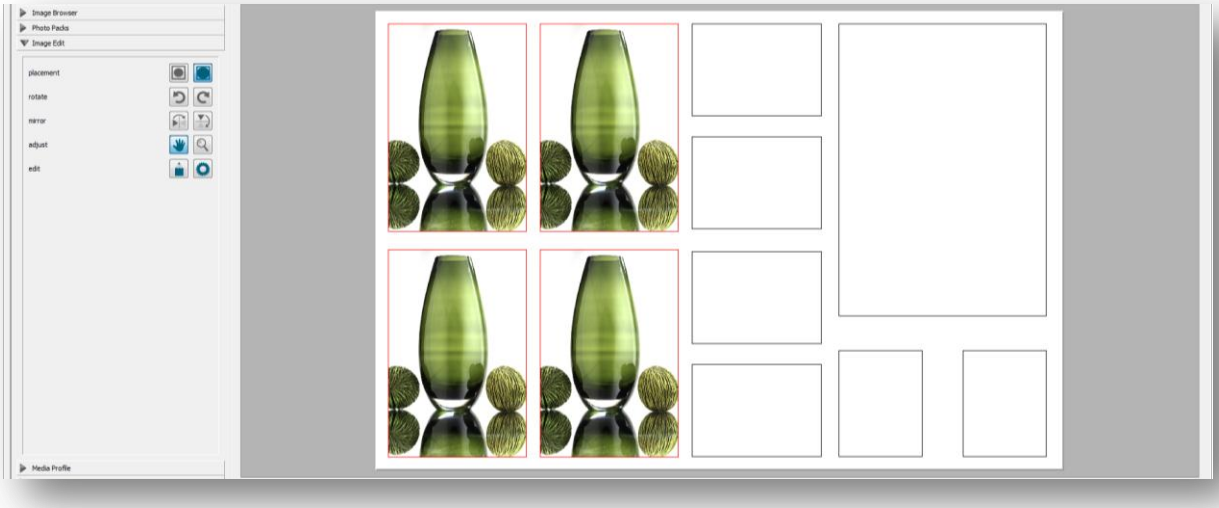
The **pan** option allows the user to move the image with respect to the photo cell in X or/and Y direction. No movement is allowed if the *placement* option is set to **Fit**. If the *placement* is set to **Fill** then the only movement allowed is in the direction where the image cropping has occurred.

By using the **Zoom** option it is possible to scale up or down the image size with respect to the photo cell. Place the cursor anywhere on the image and click. Left mouse click zooms up (bigger) and right mouse click zooms down (smaller) the image. The incremental zooms are in 1% step. The maximum zoom allowed is 150% and the minimum is 20%.

Once an image has been zoomed up or down then it will also be possible to shift it in any direction by using the **Pan** option.

To incrementally increase or decrease the zoom, continue clicking on the image. Once you are happy with the size of the image use the **Pan** option to move the image around the photo cell for best positioning.

The same editing can as easily be applied to multiple elements by first selecting them and then applying the 'zoom &pan' functions.

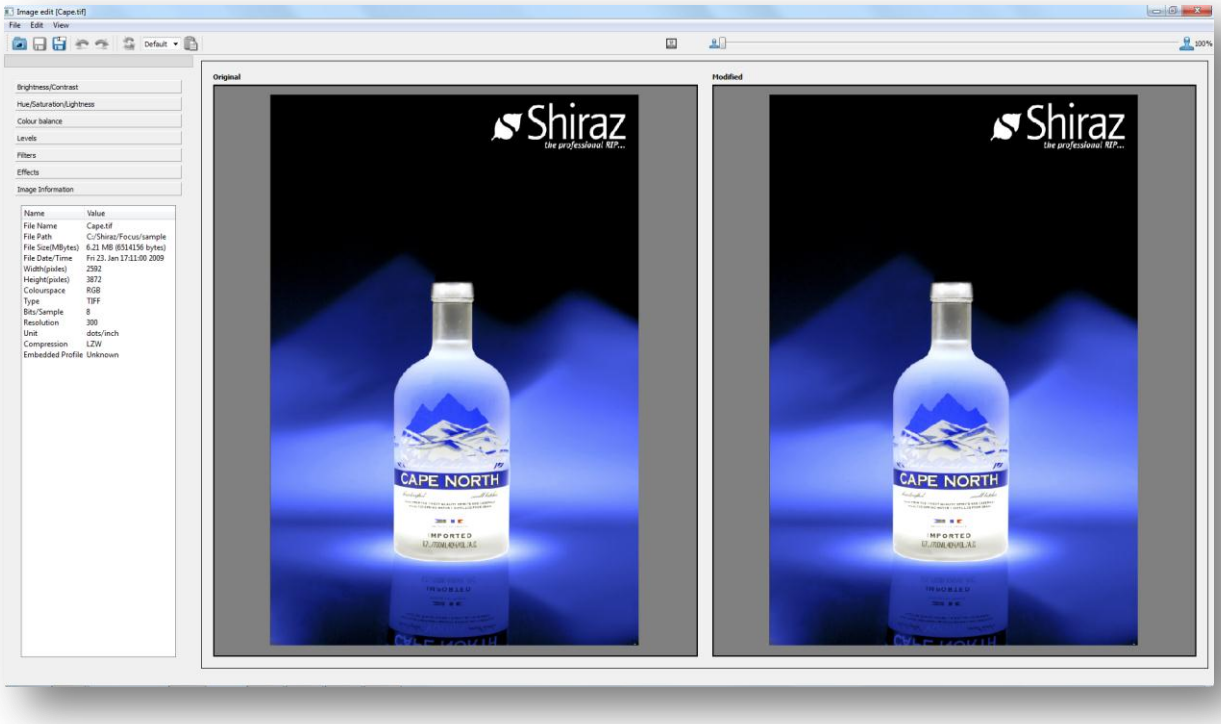


Selected images will be highlighted in red and any editing on one would be also applied to all the others.

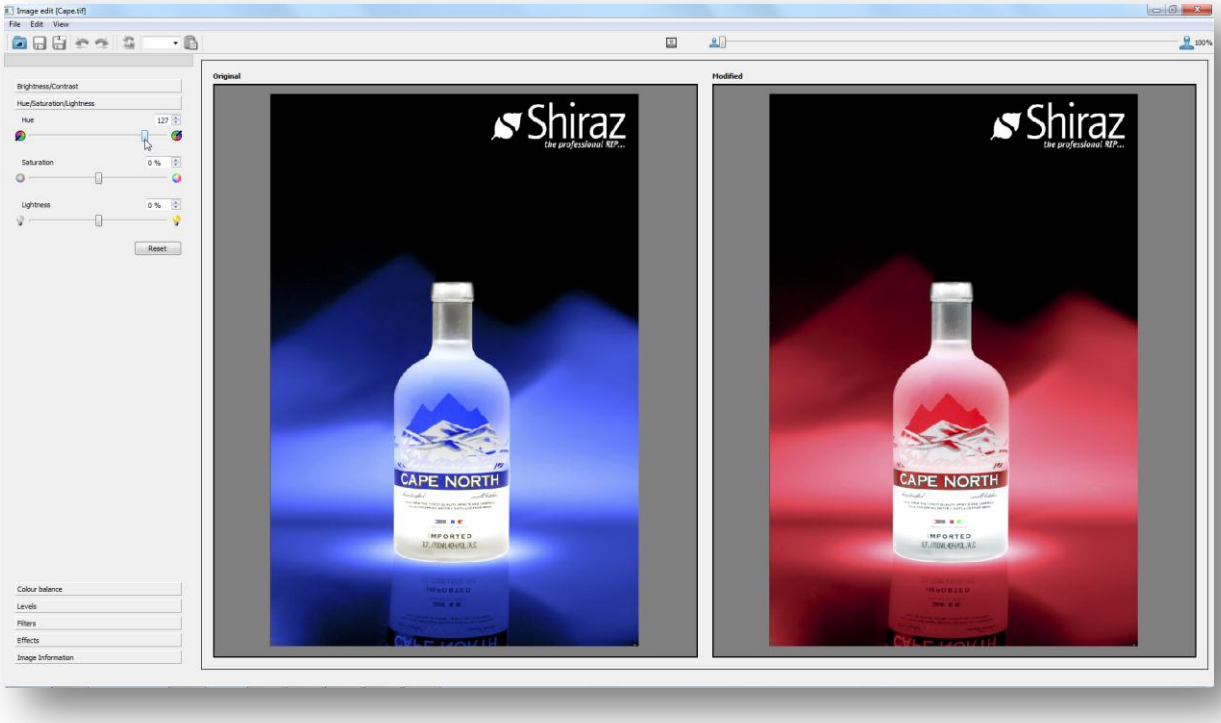
Edit

Selected images on the photo pack can be retouched and colour edited in either interactive or in a batch conversion mode.

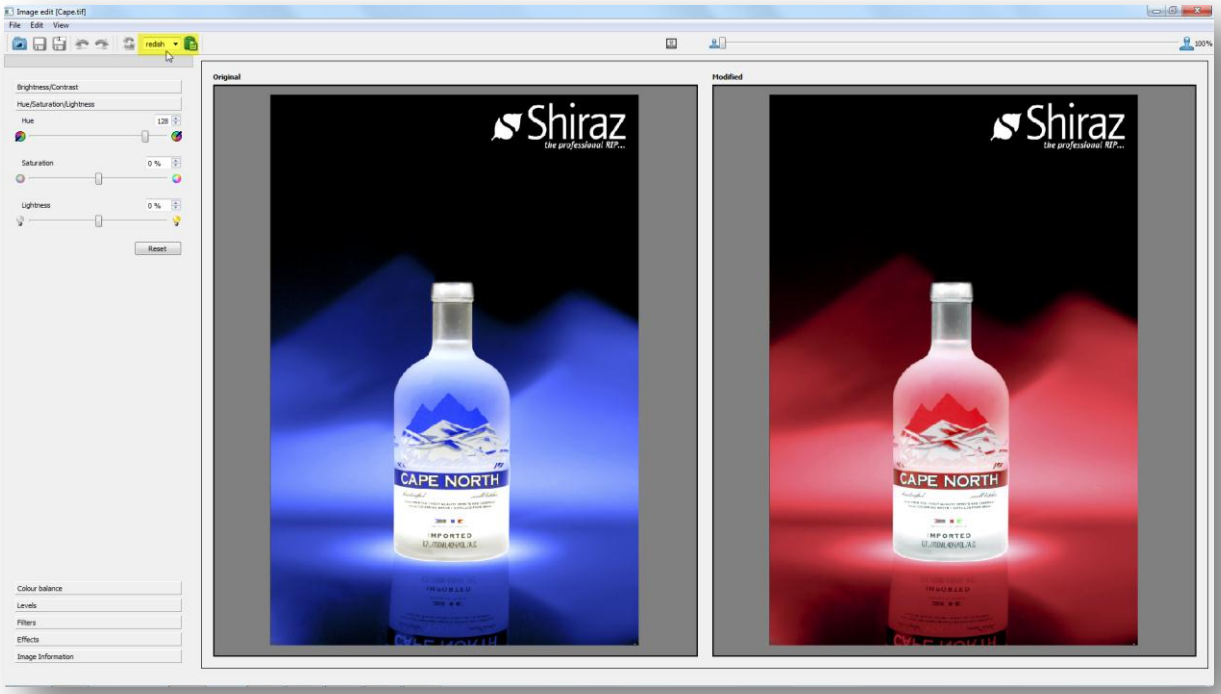
Select any of the images by clicking on its photo cell. The selected items are highlighted in red. Next click on the pen icon to start the interactive colour editing application.



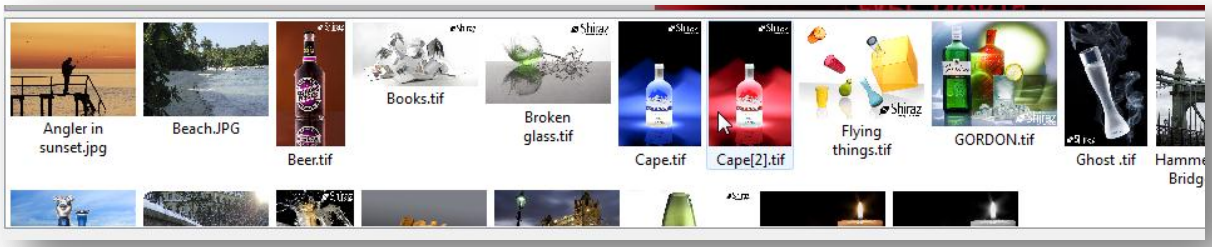
The user is able to utilize the comprehensive list of colour editing features available here to visually alter and enhance images. There is a before & after preview of the image being edited. Any changes are shown instantly and all previews are colour managed to show the colour changes very accurately.



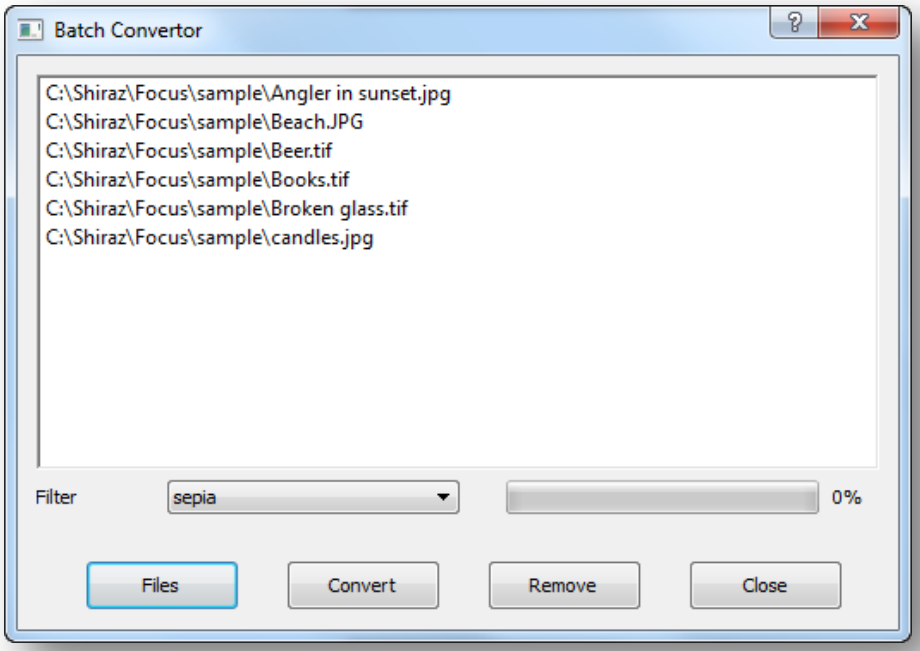
All steps can be undone and reset if required. All editing steps can be saved as a preset that can then be applied to any selection of images in a batch mode.



Upon exit from the Image Edit application the system saves a copy of the original image with all the changes applied. The filename of the original image is amended by adding an incremental number to it.



To apply the pre-sets that was saved in the Image Edit application in a batch mode to a number of selected images click on the gear icon to launch the batch application.



The selected filter is then applied to all the selected images and copies of them are created.

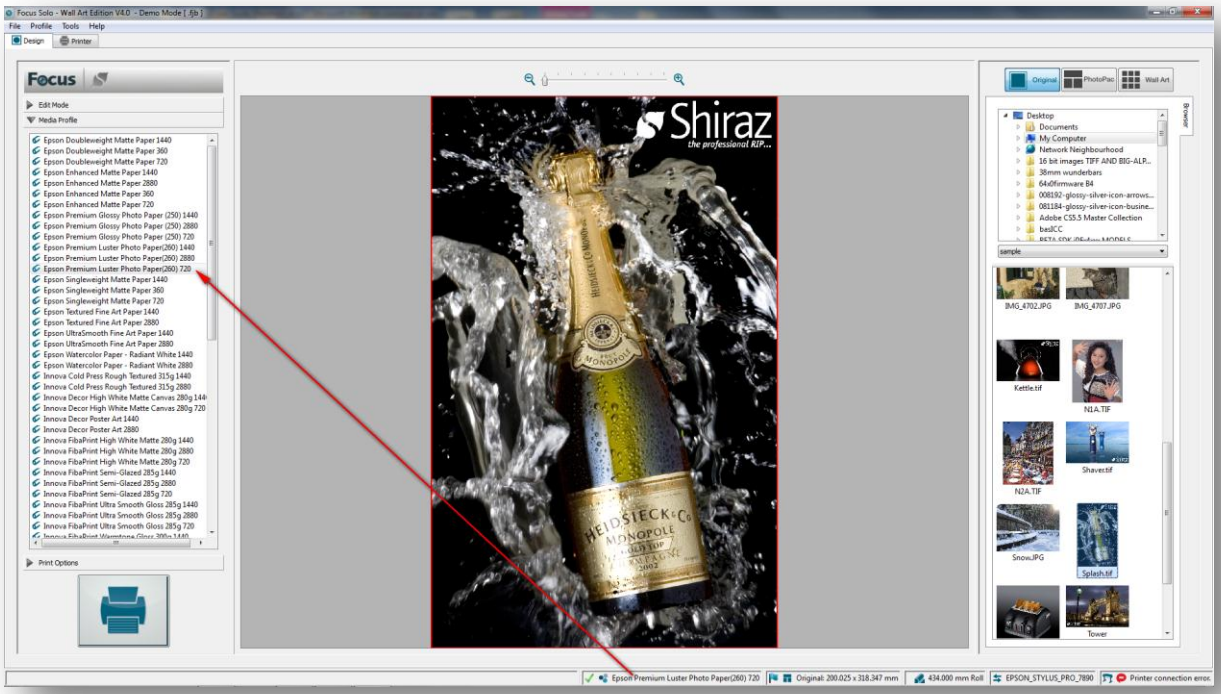
Media Profile

Every media that is supported by the Shiraz Focus system has its own unique colour profile table, for the particular printer model, listed here. This is further expanded by the number of print modes that the printer supports.

For example for an **Enhanced Matte Paper** on the **Epson Stylus Pro 9900** printer that has three print modes **720**, **1440** and **2880,** there would be three profile tables as listed below:

- Epson Enhanced Matte Paper 720
- Epson Enhanced Matte Paper 1440
- Epson Enhanced Matte Paper 2880

The naming convention for the profile tables here are designed to fully describe the media and the print mode being used. By selecting the right tables here you will be assured that not only images printed are colour accurate but also that they are printed at the required speed and quality.



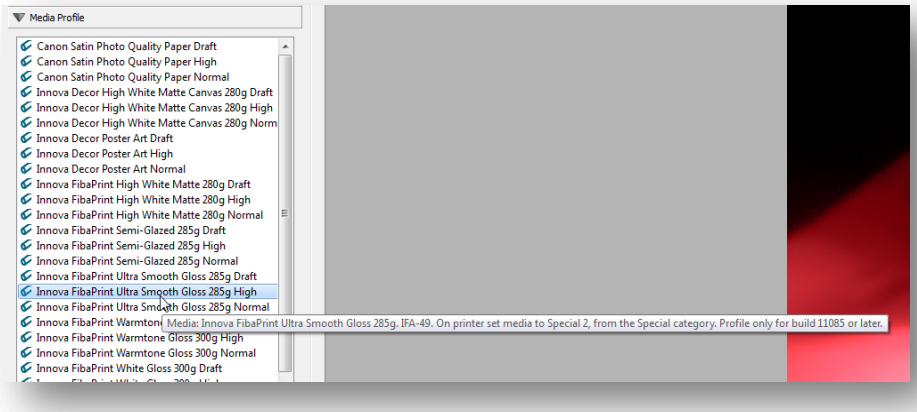
Media tables contain within them not only the various ICC colour profiles for colour transformations and gamut mapping but also the ink limiting, linearization and printer controls such as number of passes, carriage speed, print direction and others for optimum print production.

Shiraz Focus colour engine supports all major colour spaces such as RGB, CMYK, Lab, and Grey. The user is free to use images with different colour spaces within the same photo pack as the system will automatically detect and apply the appropriate colour conversions needed. The various **ICC Input Profiles** and **Rendering Intents** can be configured to suit your production requirement. It is also possible to configure the system to apply the embedded ICC profiles or not. (Please refer to the **Preference** section for more details).

The full name of the currently selected media is displayed in the info bar at the bottom of the window. Additionally if the selected media matches the loaded media on the printer a green tick is also shown. If there is a mismatch between the selected media profile and the loaded media then a yellow warning triangle is shown. If there is no tick or triangle then the media matching is not active.

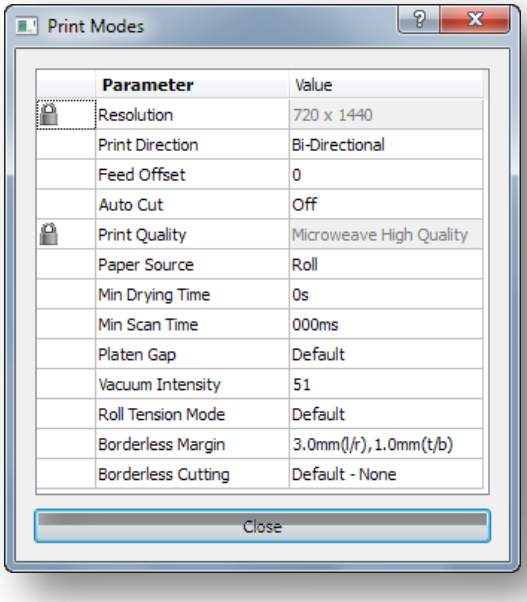
Note: Additional media profiles can be loaded into the system by using the **Liveupdate** program located under the **Tools** menu.

Additional information and instructions will be shown in the tool tip when placing the cursor on the profile media selection area. This information is important when loading media on the printer and must be used for optimum production.

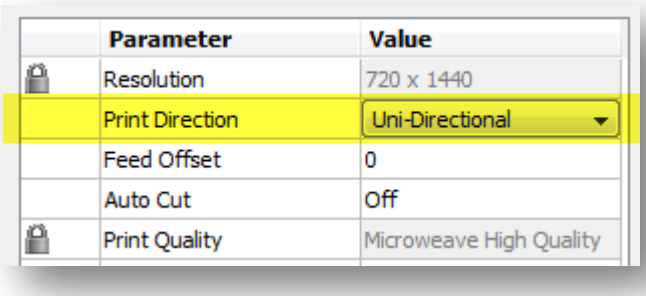


Print Mode

To view and edit the print mode of the selected media profile, simply double-click on its name. The associated print mode table will now be displayed.

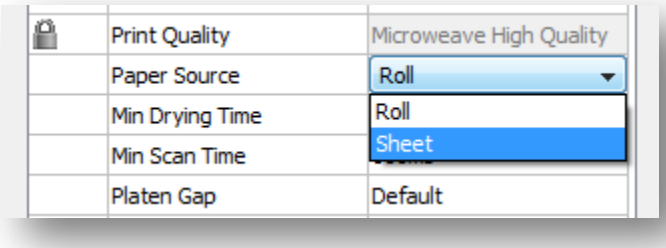


Various print parameters are listed here and can be changed by the user to alter the printing characteristics. For example to force the printer to print in uni-direction we set the **Print Direction** parameter to **Uni-Directional** as shown below.



As can be seen certain parameters are locked and cannot be altered. This is because changing any of these will cause printing issues or will affect the colour accuracy of the print.

One of the most important parameter that the user needs to be aware of is the selection of the 'Paper Source'.



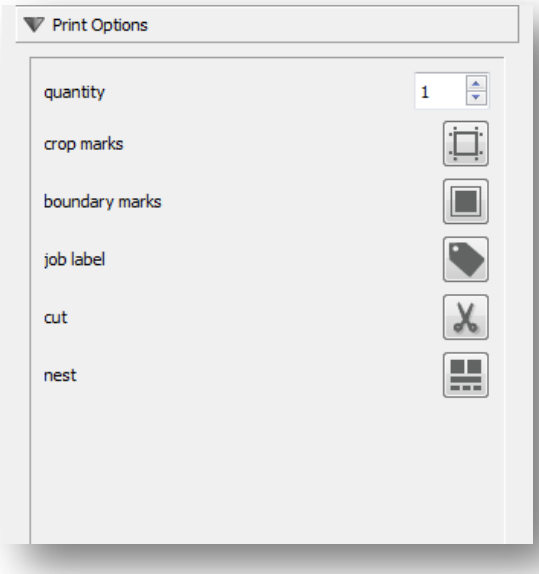
This setting instructs the printer which media source to use for the print job. Sending the wrong parameter here can stop the print from happening.

Please note that any changes made here are only valid while the profile table remains selected. To change these parameters permanently edit the profile tables in the Colour module.

Print Options

In this final step of design process and before you submit the job to be printed, the user can select from various printing options listed here. The system will then submit the job to the print queue with these additional instructions.

Note: Selecting any of these options here does not have any effect on the images shown. They are only used at the print stage by the system.



To use any of these option simply click on its icon to switch it on. These options will persist until they are switched off even after the Focus application is restarted.

quantity

Total number of repeats required for the current job can be set here. The valid range is 1-100. If the current media source is set to **Roll** and **Nesting** is not selected then images will be step & repeated automatically along the roll width and length.

If the media source is set to **Sheet** and **Nesting** is not selected then each image is printed individually on individual sheets.

In either cases of media source if **Nesting** is selected then the system would automatically nest the images for the best use of the media. Furthermore in **Sheet** case the system prints as many sheets as required to cover all images.

crop marks

Crop marks will be placed automatically at the corners of the photo packs if this option is selected. These marks can be used for easy trimming of the images specially if there is white space around the image.

The markers add additional spaces to the width and height of the printed image. Please note that these marks are added to the photo pack boundary and not the photo cells within the pack. To configure the size and type of crop marks used open the **Preferences** window and configure the respective parameters.

boundary marks

This option when used adds a rectangular boundary line to the perimeter of the photo pack. The thickness, line type and its corner type can be configured in the system **Preferences**.

job label

Information regarding the job size, date/time etc. can be printed along the outer edges of the photo packs by selecting this option.

The label adds additional spaces to the width and height of the printed image. The user can also add a diagonal watermark on the image if required. All these parameters can be configured in the system **Preferences**.

cut

To instruct the printer to cut off the printed images at the end of the print operation select this option. The cut option can be configured to execute a cut command at the end of a print job or after each row for jobs that contain multiple rows of images. This option can be set in the system **Preferences**.

nest

Jobs sent to the print queue will be nested for the best use of the currently loaded media by selecting this option. The nest attribute of the job is switched on by this option. Only jobs with the same **Media Profile** and their nest attributes on are nested together.

Nesting behaviour can be configured by the settings available in the **Setup** area of the **Printer** section. (Refer to **Nesting Parameters** later in this manual).

submit

To send jobs to the print queue where they will be processed and printed, click on the big print button as shown below.

The system will now process all individual images and text within the photo pack for the ultimate output quality. This includes colour managing and image processing routines that will result in a ready to print image.

Note: Any options selected here apart from the **quantity** setting will be persisted by the system as the default setting for the next session.

In the next chapter we will cover the actual printing and job management part of the Shiraz Focus system.

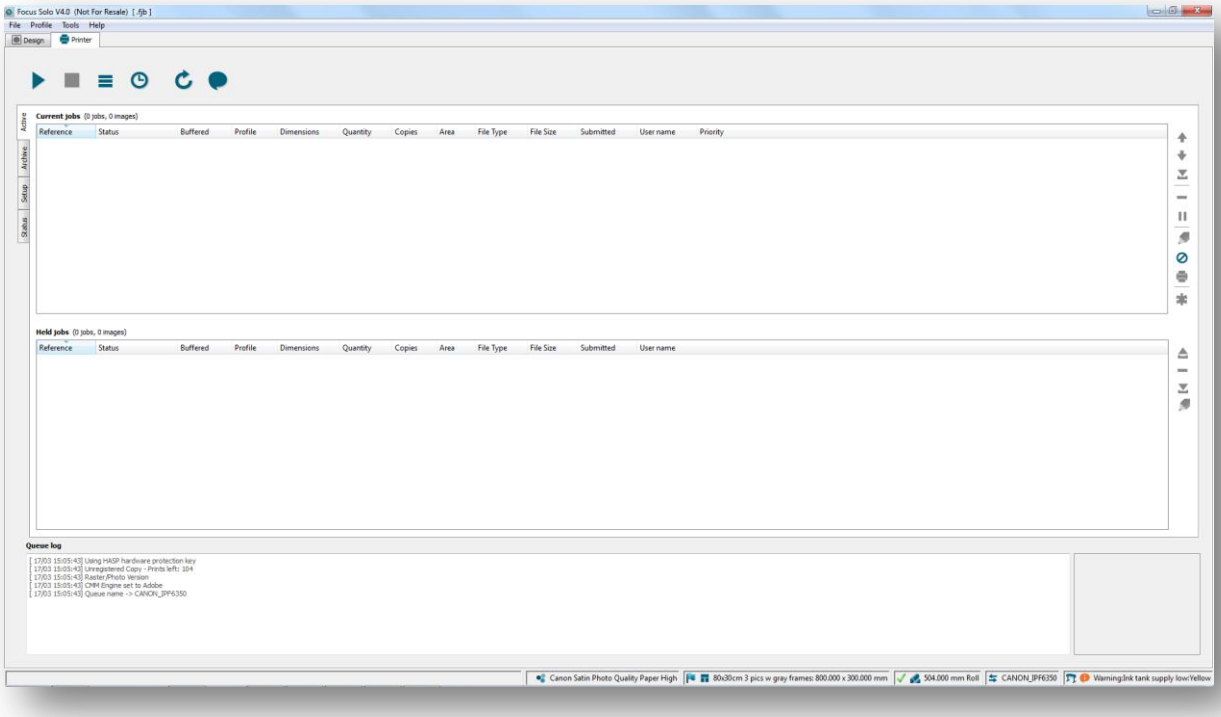
Printer

Jobs that have been submitted for printing from the **Design** module will be managed and processed in this section. There are many features available here that enables the user to control the incoming jobs and parameters that can be configured to customize the production aspects of the Shiraz Focus system. These include changing job priority, editing job parameters, holding and removing jobs etc. It is also possible to manually edit the nest layouts if needed.

Jobs that have been printed are automatically archived in the system and can be submitted back for printing again. A comprehensive report of the activities and messages from the system are logged and can be examined at any time by the user.

The system employs live polling of information from the printer that is used to check and manage incoming jobs for various conditions such as media type and size as well as printer's status such as ink level and calibration state. Based on these information the system will automatically halt printing process, warn the user of impending problems or hold jobs that do not match the currently loaded media (media matching).

The print queue can be configured to start up automatically on system boot up or can be started manually by the user when required. It is also possible to program the queue to start and stop at certain times by scheduling it.



We will now examine the various components of this module in more detail.

There are four tabs available in this window as detailed below.

Active

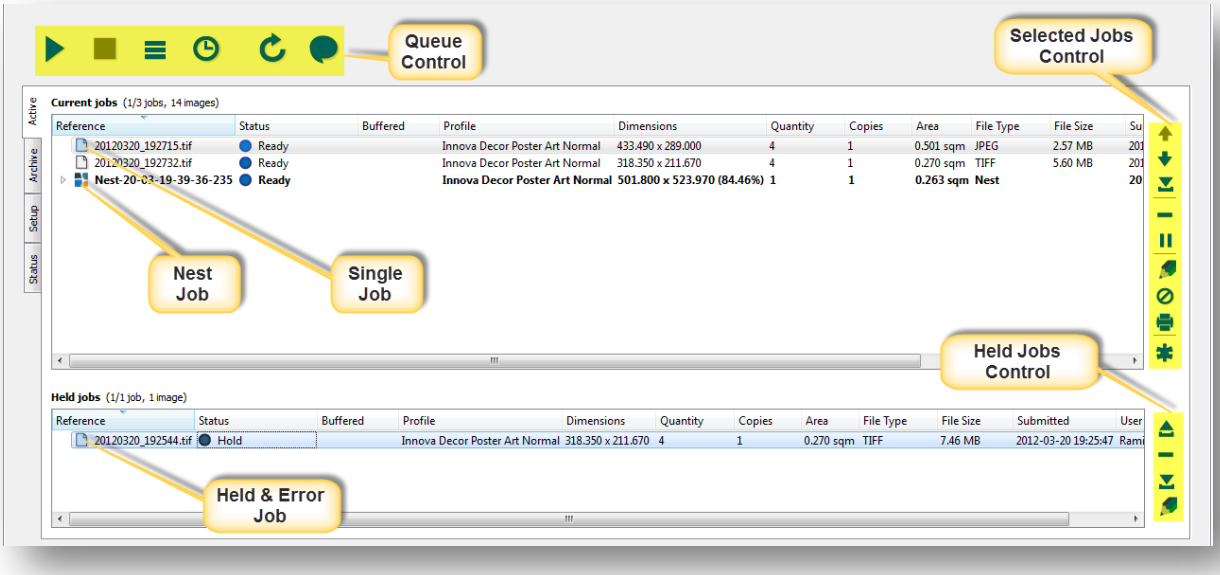
This is the main tab where the job processing and management is carried out by the system. The area is divided into two parts.

Current Jobs

Jobs listed here will be processed and printed in the order shown. These jobs could be either *single* or *nested* depending on how they were submitted from the **Design** module. Jobs in the queue can be operated on by either right-clicking on them and selecting the function required from the drop menu or selecting and then using the controls available in the **Current Job control**.

Held Jobs

Jobs can be put on hold or released by the user by simply drag & dropping it on the **Hold Jobs** area or vice versa. Also the system will automatically put on hold jobs that do not fit on the currently loaded media or if the wrong media type is loaded. Once the right conditions are met then they will be automatically released from the hold area to the current one. Jobs that have not been successfully processed and had error for various reasons would also be listed here.



Each job found here has important information about them listed in the various columns of the table. Some of these details are static and do not change and others might change when their parameters are adjusted. These are now explained in more details.

Reference – this is the job reference that is assigned to the job by the system when it is submitted from the **Design** module. The name assigned is based on a time stamp in the **YYYYMMDD_HHMMSS** format.

Status – the current job condition is highlighted here. There are a number of states that jobs can posses:

Ready - The green indicator signals that the job is all set and waiting to be printed.

Hold - This state indicates that the job has been put on hold by the user.

Hold (Media) - The job has been put on hold by the system for not matching the current media loaded on the printer. The job will be automatically released once the matching media is loaded.

Hold (Size) - Jobs that are bigger than the currently loaded media are automatically put on hold by the system. The job will be released once the correct media size is loaded.

Waiting - Nest jobs that have not reached the minimum conditions set in the **Nesting Parameter** will show this state. Once they reach the minimum requirements then the status is set to the Ready state.

Error - Jobs that have failed to process or print correctly have their status set to this condition. These jobs can be submitted back to the **Current Jobs** queue by the user for reprocessing if required.

Done - Jobs that have been successfully processed and printed are archived by the system and have their status set to this. These jobs can be submitted back to the **Current Jobs** queue by the user for reprinting if required.

Buffered – An icon in this column indicates that the print data for the job already exists and printing will commence without any additional job processing.

Profile – The **Media Profile** that was selected when the job was submitted is shown in this column.

Dimensions – The width and height of jobs in the current system units are displayed here. Additionally for nest jobs the area coverage in percentage is also indicated here.

Quantity – This parameter is used to repeat the job by its value for best fit (step & repeat) across the width of the media.

Copies – The number of times that the system will print this same job is indicated here.

Area – The total area coverage of the job in the currently selected unit is shown here.

File Type – The file format of the current job is indicated here.

File Size – The value here shows the actual size of the file for the job in the current unit.

Submitted – The information shown here is the actual date and time of when the job was first submitted from the Design module or hot folder.

User name – The name of the user who submitted this job is shown here.

The job listing here can be reordered automatically by clicking on various columns heading. If for example you want to order the jobs by their file sizes click on the **File Size** heading. Click gain to order in the opposite sense.

Nest jobs headings are highlighted in bold lettering and the list of the individual jobs within the nest group can be examined by expanding the job tree. To expand the tree click on the arrow or plus sign adjacent to the nest icon. To collapse the job tree click again.

The set of commands that control the entire print queue operation, **Queue Control**, is located at the top left corner of the window.

Each of these commands are nowexplained in more details.

	Start the printer queue. All current jobs as well as incoming ones will be processed and printed.
	Stops the print queue and returns the queue to the idle state. Any job being processed or printed will be aborted and placed in the hold area.
	Click on this button to start the system processing jobs and buffering print data. This enables the system to 'RIP ahead' and commence printing immedietly.
	Schedules the queue to start and optionally stop at selected times.
	Refreshes the queue status and updates all parameters.
	Clears the system console. All messages will be erased.

The commands for the jobs listed in the queue are located in the **Selected Job Control** menu. These operators affect only the selected job(s) and are context sensitive. They can also be selected by right clicking on the selected job entries and then choosing from the drop down menu. These commands are now explained in the table below.

	Moves the selected job(s) up by one position.
	Moves the selected job(s) down by one position.
	Moves the selected job(s) to the Archive folder.
	Removes and deletes the selected job(s) from the queue.
	Puts the selected job(s) on hold.
	Opens and edit the currently selected job or nest group.

	Processes and prints selected job(s). The queue will be in idle state when finished.
	Nests selected jobs together.
	Moves the selected job(s) to the Current jobs folder.
	Aborts currently running job.

Jobs can be moved in and out of a nest group by drag & drop action. To add jobs to a nest group, first select the jobs by single clicking on them (use Ctrl key to select multiple jobs) and then drag them over the nest group entry.

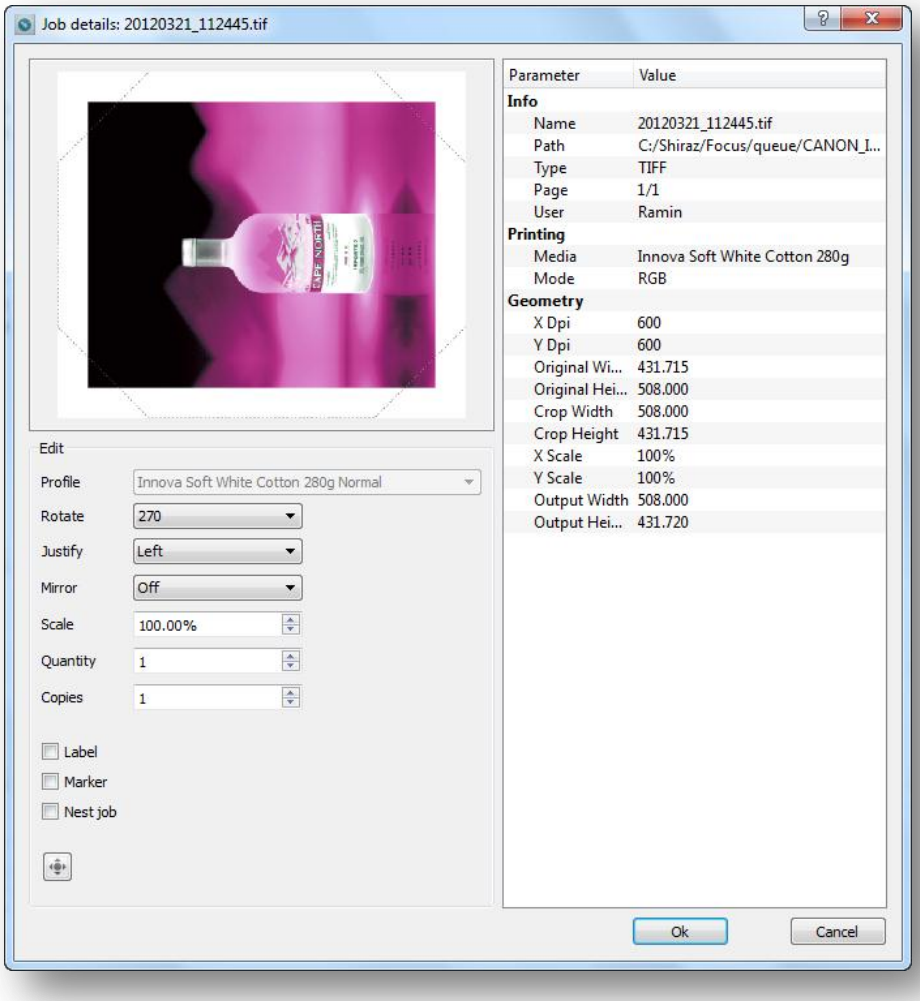
Note: Only jobs with the same media profile can be nested together. Also locked nest groups cannot be added to.

Individual jobs can be moved out of a nest group by simply dragging their entries from the nest job list and dropping them outside the nest job entry.

To edit single jobs or a nest group, double click on their job entry. You could also select them first and then click on the **Edit button**. Depending on weather a single job or a nest group was opened for editing, you would be presented with different windows as explained in more details below.

Editing Single Jobs

The user can edit certain parameters of single jobs in the queue by editing them. Also there is additional information about the job shown here. The job options that can be edited are listed in the **Edit** section and are explained in more details below.



Profile – the name of the output ICC profile that has been applied to the image is shown here. This parameter cannot be changed by the user.

Rotate – rotates the image in 90 degrees angle.

Justify – this option is used to position the image relative to the media. There are three options available here, Left, Center and Right. The default justification is Left.

Mirror – images can be reflected against the horizontal or vertical axis by using this option.

Scale – images can be resized from their original job size here by applying the desired scale factor. The user is warned if the new image size is bigger than the current media size.

Quantity – the value entered here sets the number of repeats for the job. Images are automatically step & repeated for the best use of the media.

Copies – this parameter sets the total number of times that this job gets processed. It is similar in operation to submitting the same job multiple times.

Label – when selected a job label with information about the job will be printed at the top left corner of the job. This option increases the job size by 20mm in both X and Y direction.

Marker – crop marks will be added to the four corners of the job if this option is selected. This option increases the job size by 20mm in both X and Y direction.

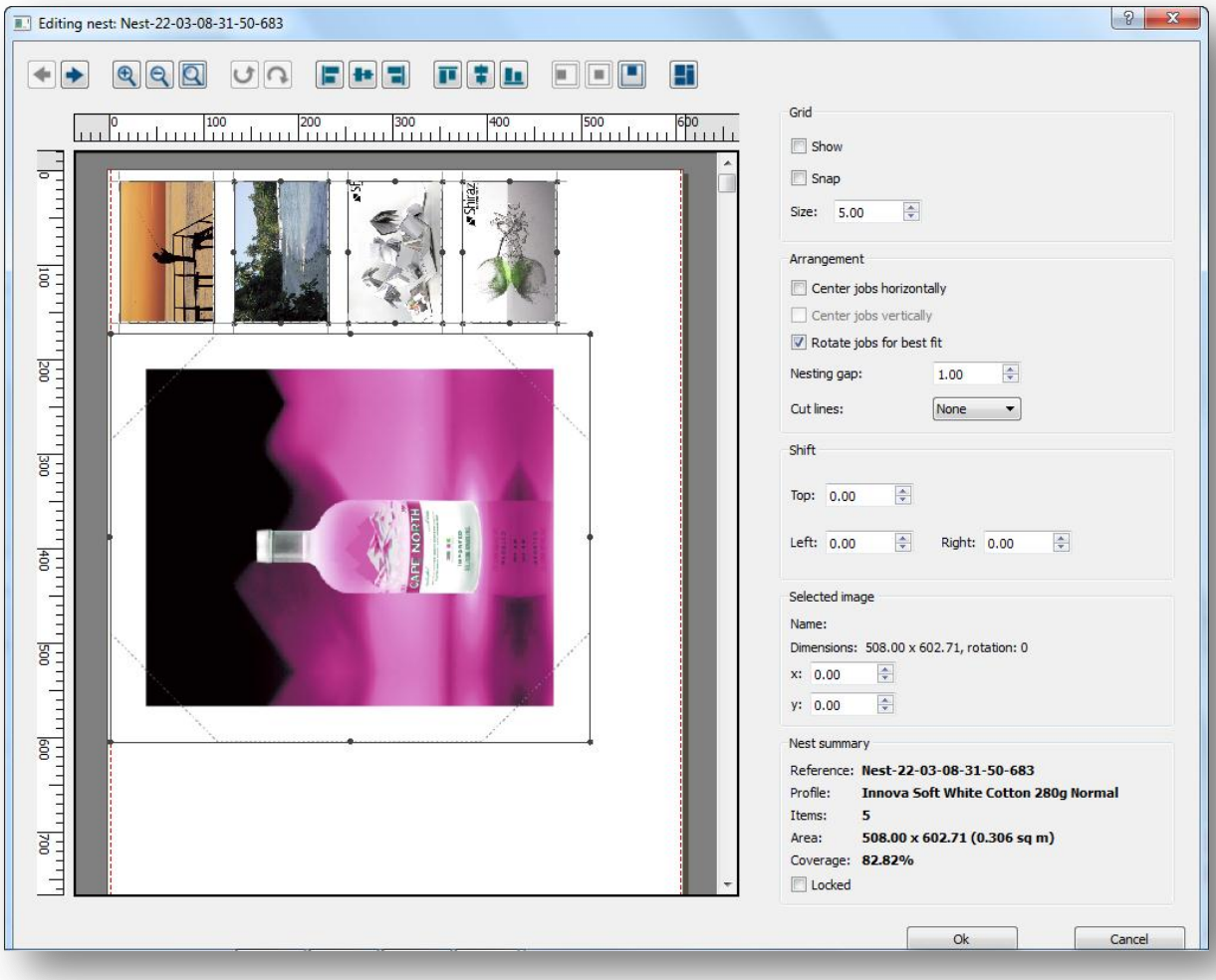
Nest Job – jobs can be added or removed from nest groups by using this option here.

Print Mode – Click on the icon  here to examine and edit the print mode settings for the job.

To save any changes made click on **OK** button otherwise click **Cancel** to exit without save.

Editing Nest Jobs

Nest jobs entries in the print queue are highlighted in bold lettering and can have an expanded view that lists all the jobs contained within them. Double click on the nest name to view and edit the nesting layout.



A layout of the nest job relative to the media size is shown here. Nesting parameters that dictate the nesting arrangement and relevant information about the nest are arranged on the right hand side of the window. Also various buttons for layout control and automatic alignment are located at the top bar of the window. Parameters that can be changed by the user are detailed below:

Locked – no new jobs can be added to a nest group that is locked. Nest jobs are locked automatically by the system if any editing has been done on them. The user can also lock nest jobs to prevent them from being

changed by the system as nest groups are dynamic and are modified constantly by the system as new jobs arrive.

Center jobs horizontally - select this option in order for the nest group to be horizontally centered on the media.

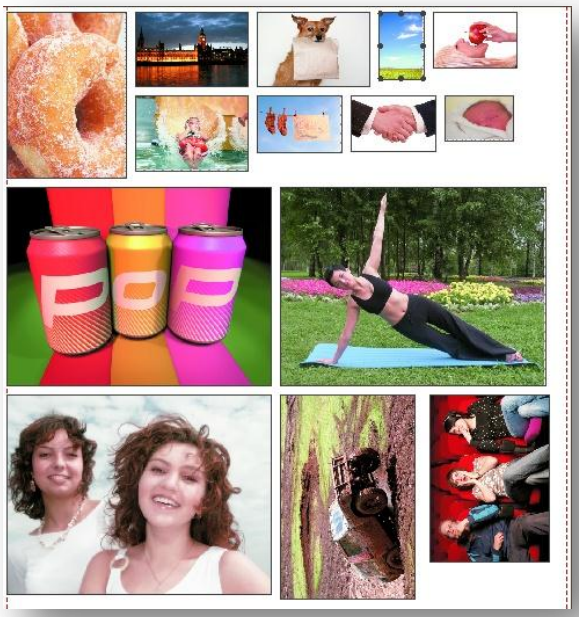
Center jobs vertically - select this option in order for the nest group to be vertically centered on the media. This option is only valid for sheet media type.

Rotate jobs for best fit – to enable the system to rotate images automatically for better fit and nesting optimization select this option.

Nesting gap – the value entered here sets the horizontal and vertical gap between nest items.

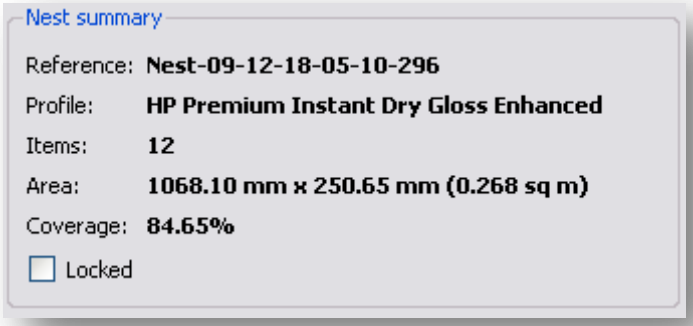
Trim lines – for easier cutting out of the printed images the system can be instructed to arrange the nesting layout so that they can be trimmed easier in either horizontal or vertical direction. If this option is set to **None** then the system will pack the images as closely as possible to each other. This arrangement gives the best media utilization at the cost of more difficult trimming layout.

Select the **Horizontal** option and click the **Nest automatically** button.

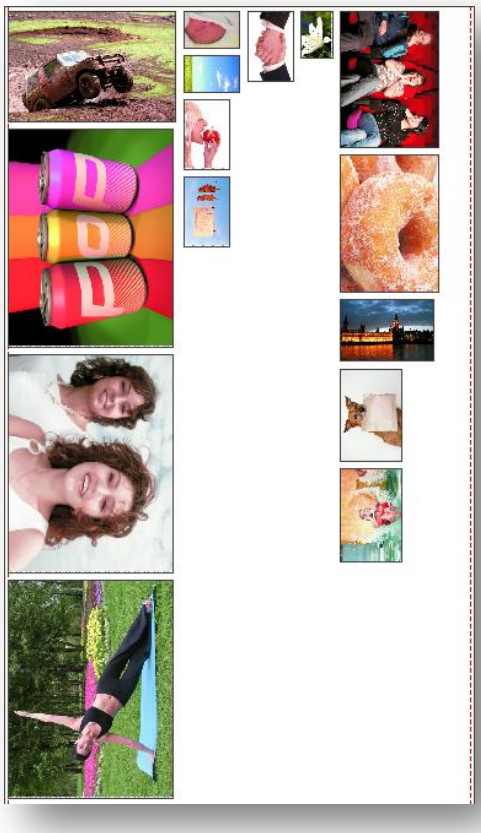


An example of horizontal trim line arrangement is shown above. If not happy with the arrangement press the button again to see alternative arrangements.

You can examine the **Nest summary** information when deciding what arrangement to select.



Now select the Vertical option and click on the **Nest automatically** button. The system will rearrange the nest arrangement for this setting.



An example of vertical trim line arrangement is shown above.

Shift – the position of a nest group relative to the media can be altered by the values entered here. All the values are relative to the origin that is located in the top left corner.

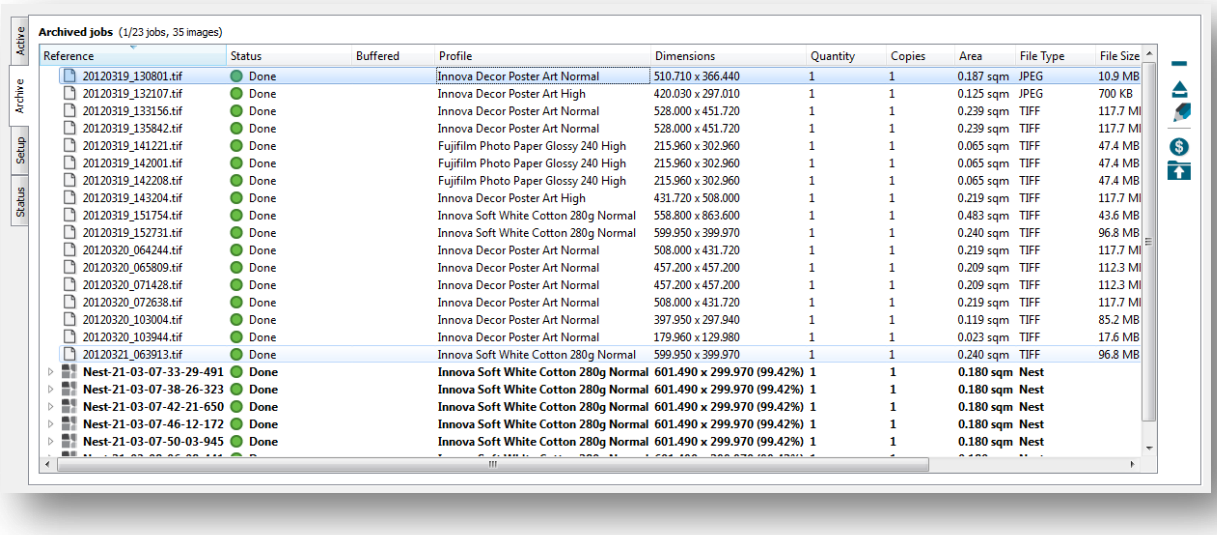
Nest automatically - With any changes are made to the parameters explained above click on this button to accept and execute the nest routine. The new nesting layout is subsequently shown graphically and the resultant statistics are displayed. To get an alternative nesting arrangement press the button again and observe the new results.

It is also possible for the user to manually edit the nesting layout. Select images by clicking on them and then drag them to the position required. Once selected you could also rotate images by using the options available at the top menu bar. When multiple images are selected then it is also possible to use the various alignment options available here for accurate placement.

Use the **Undo** & **Redo** buttons to step back and forth in the stages taken so far.

Archive

Jobs that have been processed and printed successfully are then archived and listed in this area.



Reference	Status	Buffered	Profile	Dimensions	Quantity	Copies	Area	File Type	File Size
20120319_130801.tif	Done		Innova Decor Poster Art Normal	510.710 x 366.440	1	1	0.187 sqm	JPEG	10.9 MB
20120319_132107.tif	Done		Innova Decor Poster Art High	420.030 x 297.010	1	1	0.125 sqm	JPEG	700 KB
20120319_133156.tif	Done		Innova Decor Poster Art Normal	528.000 x 451.720	1	1	0.239 sqm	TIFF	117.7 MI
20120319_135842.tif	Done		Innova Decor Poster Art Normal	528.000 x 451.720	1	1	0.239 sqm	TIFF	117.7 MI
20120319_141221.tif	Done		Fujifilm Photo Paper Glossy 240 High	215.960 x 302.960	1	1	0.065 sqm	TIFF	47.4 MB
20120319_142001.tif	Done		Fujifilm Photo Paper Glossy 240 High	215.960 x 302.960	1	1	0.065 sqm	TIFF	47.4 MB
20120319_142208.tif	Done		Fujifilm Photo Paper Glossy 240 High	215.960 x 302.960	1	1	0.065 sqm	TIFF	47.4 MB
20120319_143204.tif	Done		Innova Decor Poster Art High	431.720 x 508.000	1	1	0.219 sqm	TIFF	117.7 MI
20120319_151754.tif	Done		Innova Soft White Cotton 280g Normal	558.800 x 863.600	1	1	0.483 sqm	TIFF	43.6 MB
20120319_152731.tif	Done		Innova Soft White Cotton 280g Normal	599.950 x 399.970	1	1	0.240 sqm	TIFF	96.8 MB
20120320_064244.tif	Done		Innova Decor Poster Art Normal	508.000 x 431.720	1	1	0.219 sqm	TIFF	117.7 MI
20120320_065809.tif	Done		Innova Decor Poster Art Normal	457.200 x 457.200	1	1	0.209 sqm	TIFF	112.3 MI
20120320_071428.tif	Done		Innova Decor Poster Art Normal	457.200 x 457.200	1	1	0.209 sqm	TIFF	112.3 MI
20120320_072638.tif	Done		Innova Decor Poster Art Normal	508.000 x 431.720	1	1	0.219 sqm	TIFF	117.7 MI
20120320_103004.tif	Done		Innova Decor Poster Art Normal	397.950 x 297.940	1	1	0.119 sqm	TIFF	85.2 MB
20120320_103944.tif	Done		Innova Decor Poster Art Normal	179.960 x 129.980	1	1	0.023 sqm	TIFF	17.6 MB
20120321_063913.tif	Done		Innova Soft White Cotton 280g Normal	599.950 x 399.970	1	1	0.240 sqm	TIFF	96.8 MB
Nest-21-03-07-33-29-491	**Done**		**Innova Soft White Cotton 280g Normal**	**601.490 x 299.970 (99.42%)**	**1**	**1**	**0.180 sqm**	**Nest**	
Nest-21-03-07-38-26-323	**Done**		**Innova Soft White Cotton 280g Normal**	**601.490 x 299.970 (99.42%)**	**1**	**1**	**0.180 sqm**	**Nest**	
Nest-21-03-07-42-21-650	**Done**		**Innova Soft White Cotton 280g Normal**	**601.490 x 299.970 (99.42%)**	**1**	**1**	**0.180 sqm**	**Nest**	
Nest-21-03-07-46-12-172	**Done**		**Innova Soft White Cotton 280g Normal**	**601.490 x 299.970 (99.42%)**	**1**	**1**	**0.180 sqm**	**Nest**	
Nest-21-03-07-50-03-945	**Done**		**Innova Soft White Cotton 280g Normal**	**601.490 x 299.970 (99.42%)**	**1**	**1**	**0.180 sqm**	**Nest**	

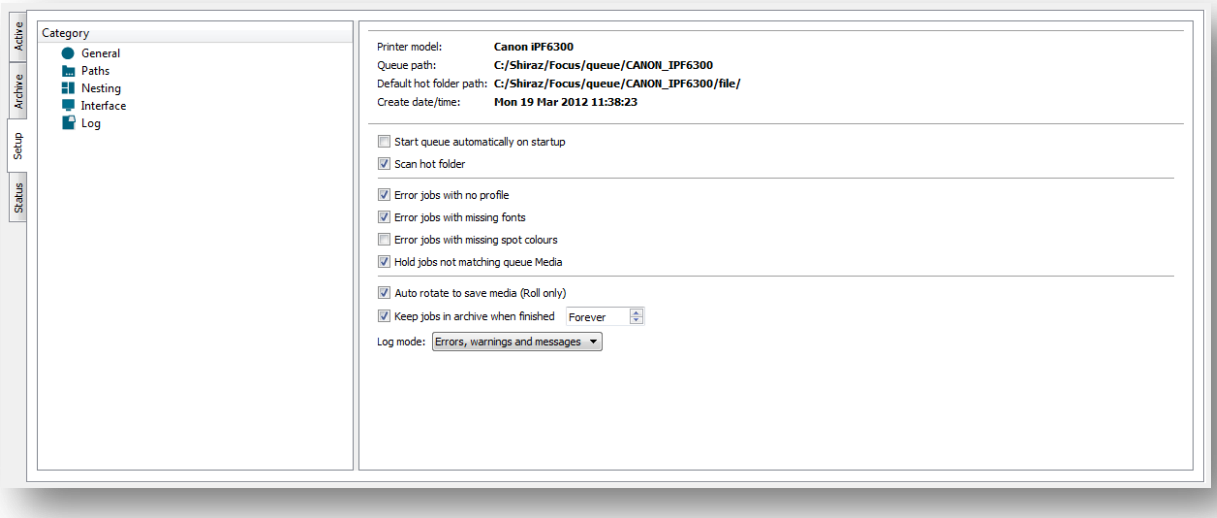
These archived jobs can be submitted back to the **Active** queue for reprinting if required. They can also be removed from the list permanently.

Archive jobs are hidden as default when the software is first started. To load and display the archived jobs click on the Load Archive icon on the right hand side bar.

The user is also able to open these jobs for examination by clicking on the Edit option or double-clicking on their name. But no editing can be carried out on these jobs until they have been submitted back to the **Active** area.

Setup

The various settings and parameters that affect the running of the print queue are found in this section. These are divided into three categories.



General

As the name suggests this is the category that includes all the commonly used settings. This section also contains additional information about the current queue.

Under the **Queue properties** heading you will find general information about the print queue and its associated printer. There is also a **Description** entry that you can use to enter your own free text describing the queue.

Under the **General settings** there are a number of conditions that the user can select or deselect depending on their production requirements.

Start queue automatically on startup – Whenever the Shiraz Focus software is started the print queue default state is idle. This means that the system would not start processing and printing the incoming jobs until the user starts up the queue. To override this behaviour and allow the queue to also start on boot up select this option.

Error jobs with no profile – If a job is submitted with no associated profile table to the print queue then the system will error this job if this option is selected. Otherwise it is allowed to process and print. It is strongly recommended to leave this option selected.

Error jobs with missing fonts – This option checks that all fonts used within the job being printed are available on the system if selected. If a missing font is found then the job is errored.

Hold jobs not matching queue Media – As default the system checks all incoming jobs for their media setting and if they do not match the currently loaded media type then they will be put on hold until the media type is changed. This is important to insure correct printing of images. The user can override this behaviour and switch off the media matching mechanism of the system by deselecting this option.

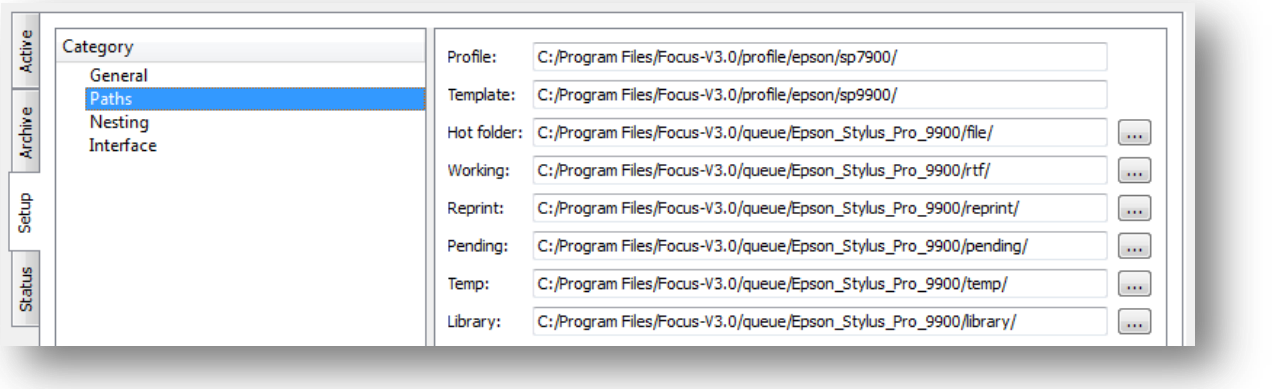
Auto rotate to save media (Roll only) – If a non-nesting (single) job that has been submitted from the **Design** module to the print queue would yield a better media usage by rotation then it will be if this option is selected. This option is only applicable to Roll media type and does not affect the nesting behaviour.

Keep jobs in archive when finished – Jobs can be automatically archived in the system when printed if this option is selected. If deselected then they will be deleted once they have been printed.

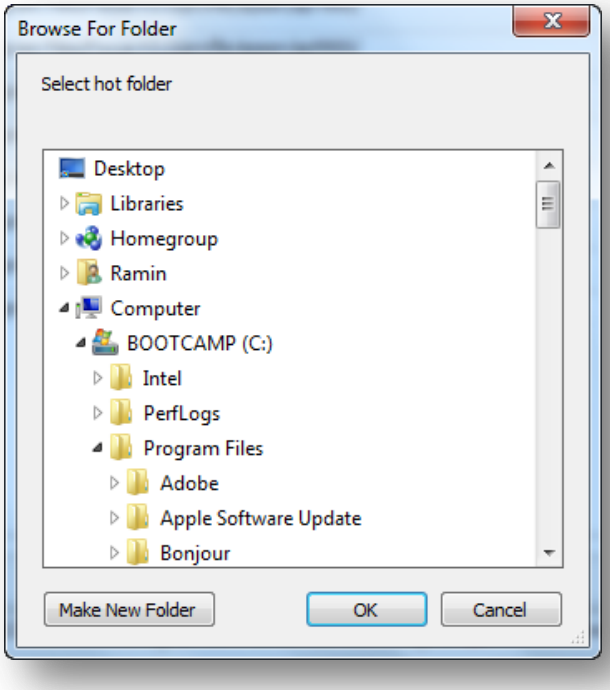
Log mode – There are four modes available here that decides the content and level of messages generated by the system console. The **Verbose** mode is a very comprehensive logging mode and is only used for trouble shooting and debugging purposes. The other modes behave as their name sake suggests.

Paths

The system uses various default folders for its operation that can be changed by the user if needed.



Some of these paths are fixed and cannot be changed. To change any of the ones allowed click on the button located next to the current location listing. A standard operating system folder election window will now be displayed that can be used to navigate to the required folder.



The 'Hot folder' location can be changed using the corresponding setting here. This allows the user to change the path to the main hot folder location. All hot folders created will be sub-folders within this folder.

Please note that the location chosen for the hot folder must have read & write access enabled for the current user.

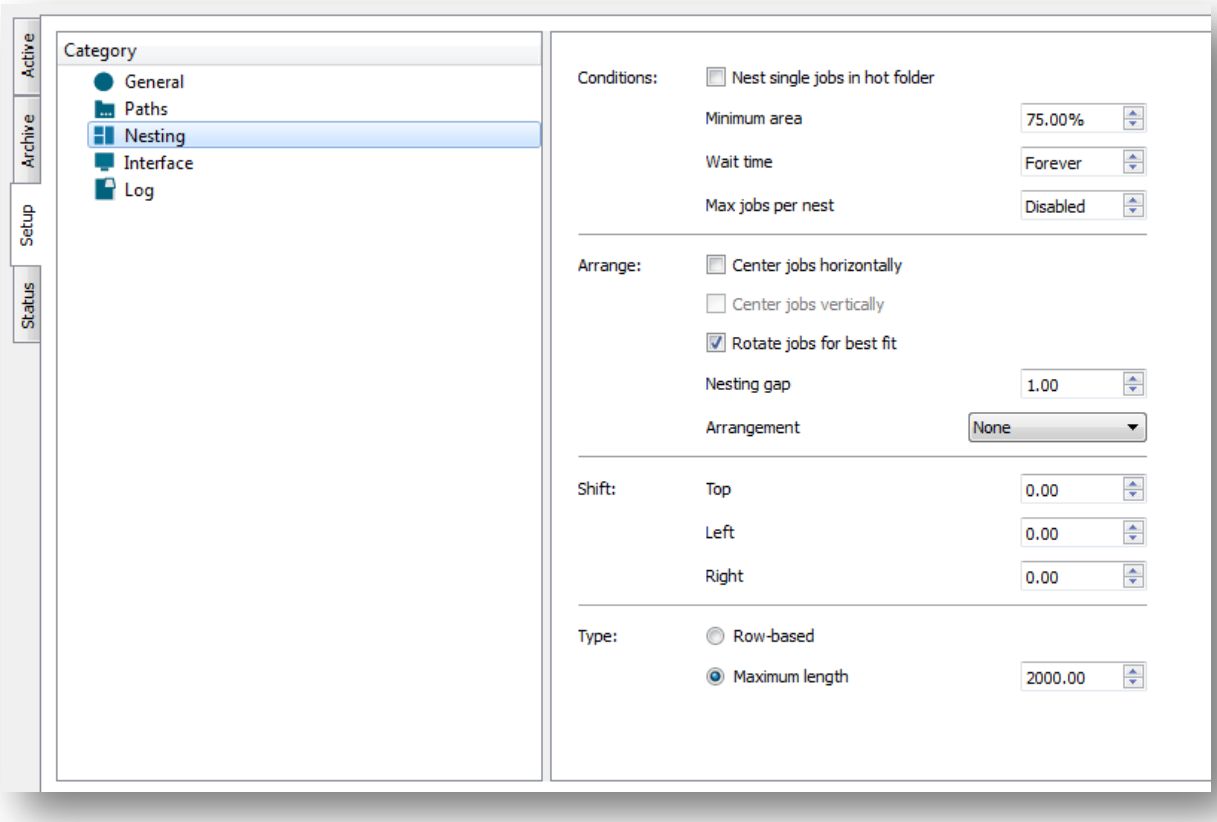
Other paths shown here are related to the locations used by the software for its working. They usually do not need to be changed unless space available on the hard disk where these folders are located is running low.

Nesting

The Shiraz Focus software employs a very sophisticated nesting algorithm that can be tailor made to suit different production requirements. The nesting layout is calculated based on the current roll or sheet size. Only jobs for the same media type and printing mode are nested together.

The nesting system is dynamic, meaning that the system will automatically update the nesting arrangement as new jobs are submitted or various printer parameters are changed. New nesting jobs are created or removed by the system as required. A nesting job will only be processed by the system if its state is set to **Ready**.

The user can set additional parameters and conditions found here that can dictate and control the nesting behaviour of the system. These are divided into various headings and will be explained in full details now.



Conditions

Various conditions can be set by the user here to instruct the system when a nest job has reached the minimum requirement for it to be set to **Ready** state. A nest job will not be processed (**Waiting** state) by the system unless it has achieved at least one of the three parameters set here. As soon as any of the conditions set here are reached then the nest job state is set to **Ready** and it will be processed and printed.

Minimum area – This is the minimum area coverage (media utilization) that the nest group needs to achieve before it is set to the **Ready** state. The default value is set to 75%.

Wait time – The value selected here is the amount of time that the system will wait before a nest job that is still in the **Waiting** state is set to **Ready**. The timer starts from the moment that the nest group was first created. The default setting is set to **Forever,** indicating no waiting time is active and this condition is ignored by the system.

Maximum jobs per nest – The number of jobs per nest can be controlled by the parameter set here. If this number is reached then the nest is set to **Ready**. The default value of **Disabled** in actual fact means that this condition is not used by the system and will be ignored.

Arrange

The actual layout of the nesting jobs and the way that they will be arranged in relation to the currently loaded media are affected by the parameters found here.

Centre jobs horizontally – Nesting groups are left justified as default on the media but can be cantered on the media horizontally by selecting this option. This is a useful option if you are laminating or automatically trimming the printed jobs.

Centre jobs vertically – This option is only applicable to **Sheet** media and places the nest group in the centre of the media in the vertical direction.

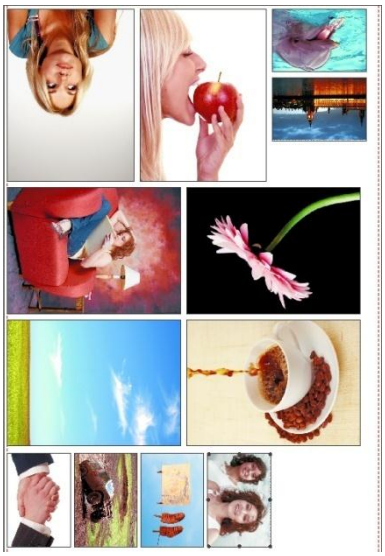
Rotate jobs for best fit – By selecting this option the system is instructed to rotate images, if needed, on the media to achieve better nesting arrangement. The default option is enabled that gives more flexibility to the nesting algorithm and usually yields a more efficient nesting layout.

Nesting gap – The distance between the nest items in both X and Y directions can be set here. Setting this value to zero will usually give better nesting but might create problems at trimming stage. The default value is set to 10mm.

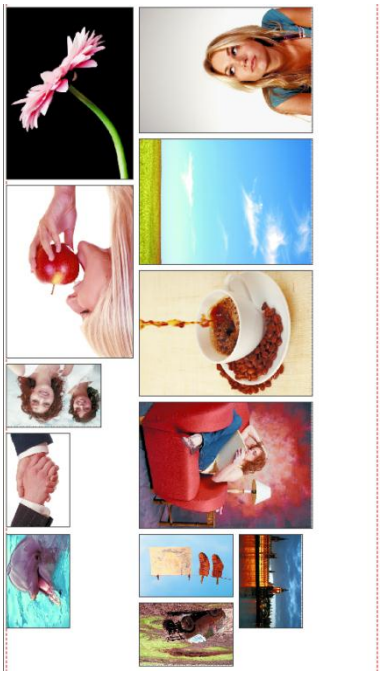
Cut lines - for faster and more convenient trimming of the printed images the system can be instructed to arrange the nesting layout so that they can be cut easier in either **Horizontal** or **Vertical** direction. If this option is set to **None** (default) then the system will pack the images as closely as possible to each other. This arrangement gives the best media utilization at the cost of trickier trimming layout. Please note that the system might arrange images in multiple layout groups that will require additional trimming.

Examples of the three different cut lines options are illustrated below.

None



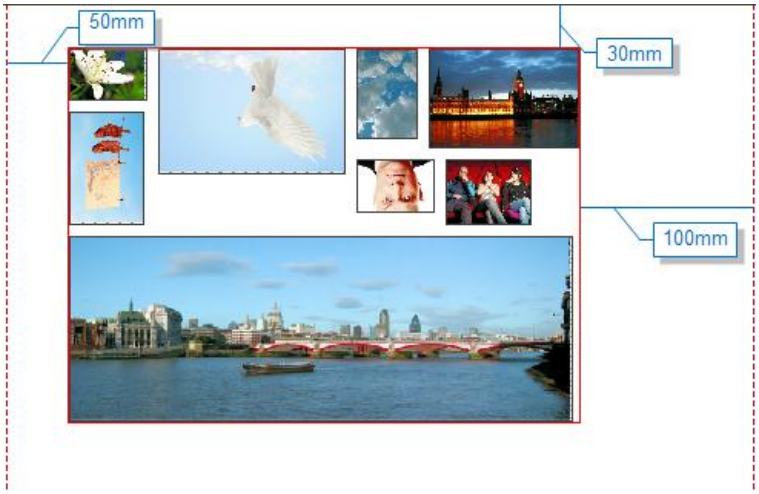
Horizontal



Vertical

Shift

Nesting layouts can be positioned precisely in relation to the media size loaded by setting the parameters available here. Please be aware that by using these shift values you are in actual fact reducing that usable media available and might cause some jobs to be held by the system if their sizes exceed the effective media size.



The image below illustrates the effect of the shift values on the nesting group.

Type

The nesting algorithm can be configured to create nest groups based on the width and height parameters (2D) or alternatively just filling rows of images (1D).

Row-based – In this mode the group of nests created are based on the biggest image in the group and then all other images arranged around it for the best use of the media. This mode of operation is best suited for environment where the time factor is more crucial than the nest optimization as nest groups are set ready faster but do not usually yield optimum media utilization.

Default – This mode should be selected for the best use of the media as it optimizes the media usage in both width and length direction. The length can be set to different values to suit your particular requirement. This value sets the maximum nest length that can be created.

Note: Any changes made to any of the parameters found in the **Nesting** setup will automatically trigger a recalculation of all nesting jobs and may result in new layouts.

Interface

The setup parameters here describes the actual physical connection from the host computer to the printer. The choices here is very much dependent on the printer make and model as well as the operating system being used.

Null – this interface type is not a physical type and is only used for testing purposes. There are no parameters available for this selection.

File – this instructs the system to send the print data to a file in a selected folder location.

TCP/IP – this type of interface uses an Ethernet type connection and requires the IP address of the printer.

IP Address - IP address of the printer on the network in 999.999.999.999 format. Make sure the address has the same domain range as the computer.

Port Address - the port address of the Print-Server on the printer where direct binary printing is done. Most Print-Servers use 9100 as their port, however some may be different. Refer to the print server documentation for the correct port number.

Timeout - timeout value in seconds which has to expire before an I/O error occurs if the receiving node is not responding or accepting data. For maximum throughput speed set this timeout to 0, effectively disabling timeout checks.

Buffer Size - size of TCP/IP internal buffer which is used to store data before outputting packets on the actual I/O channel. The optimum size is dependent on system and will require some trial. The default 48KB will work best on most systems.

Spooler – this interface outputs to a system spooler connected to the printer. Spoolers are usually created by installing the drivers supplied with the printer. Spooler interface port can be set to any type supported by the operating system such as USB, FireWire, TCP/IP, etc.

Parallel (Windows only) – this is an old interface type that is not used any longer on modern printers any more as it is very slow and unreliable. It is only listed here for legacy reason.

HP Direct (HP and Windows only) – this is a direct USB connection for HP printers on Windows platform.

USB (Epson & Mac only) – for direct USB connection on the Mac to an Epson Stylus Pro printer select this option and then click on the find button to list the USB connections found.

Firewire (Epson & Mac only) – for direct firewire connection to the Epson Stylus Pro printer select this option. A list of firewire connections to the printer are then listed for the user to select from.

Canon (Canon only) – this is a special interface type for the Canon range of printers. Regardless of the actual physical connection between the computer and the printer it is recommended to use this option for all Canon printers. The system will automatically scan and find all Canon printers connected to the computer directly (USB, FireWire) or on the network (TCP/IP). Now select the printer from the list shown.

Log

Daily logs of printer activities and all the jobs processed and printed are generated by the system that are listed here. These can be examined and printed by the user if required.

Status

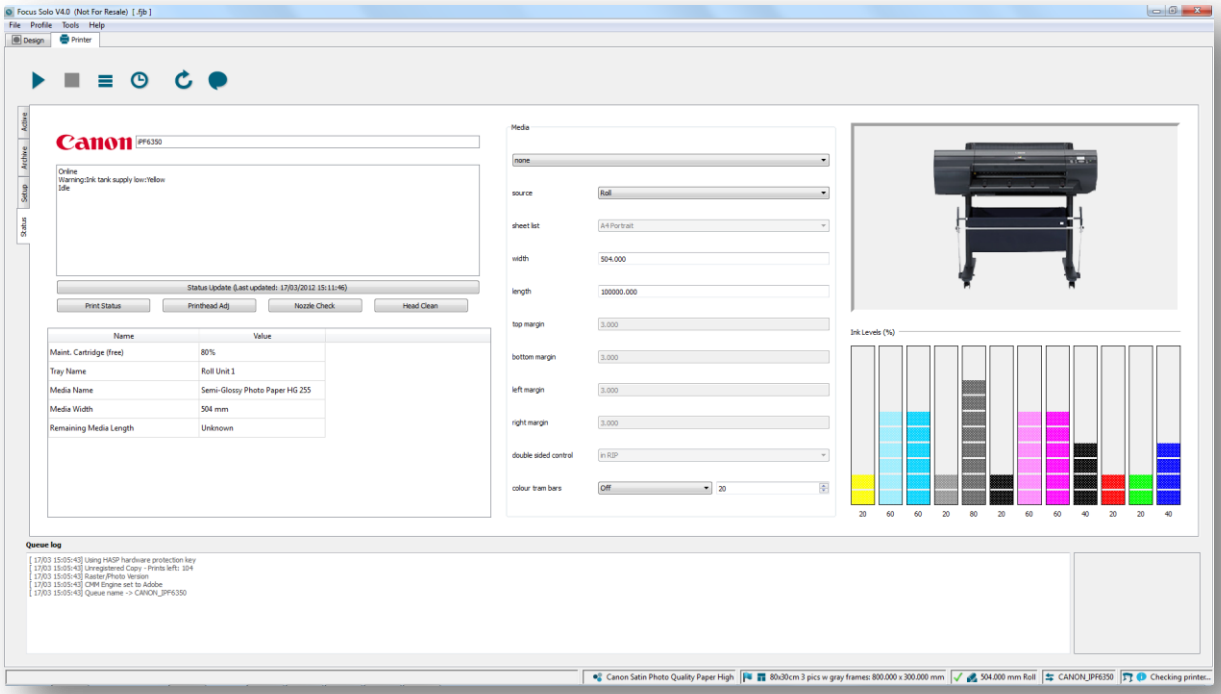
Detailed information about the connected printer and various settings for the media sizes are found in this window. There are also remote printer commands that execute different procedure such as head cleaning and nozzle tests on the printer.

The system constantly monitors and updates the information displayed here. The information is also used by the system for production management and media matching. Any serious problem reported back from the printer is immediately highlighted to the user for urgent actions, these include media and ink out, door open, connection problem etc.

The different printer makes have each their own unique set of information and remote commands available. We will now look at each of these in greater details.

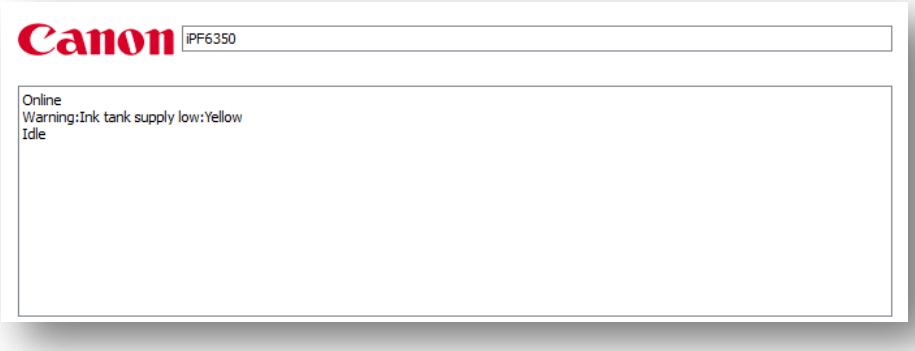
Canon

The Canon iPF range of printers will have a similar status screen to the one shown below.



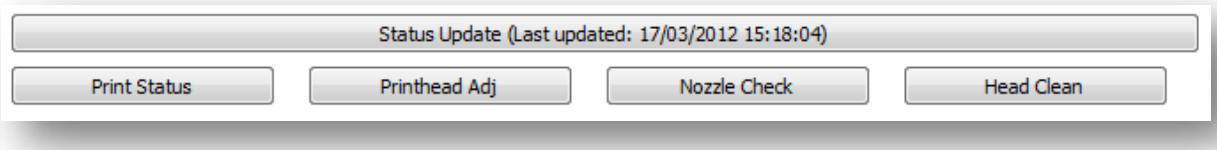
Printer state

At the top left corner of the window the printer make and model are displayed. Below that the printer current state is shown. This is a more comprehensive listing of the printer's state than the one highlighted in the Info Bar at the bottom right corner of the screen.



Remote commands

Here you will find a number of commands for instructing the printer to execute certain procedures. Also the user can force a **Status Update** that refreshes all the information shown in this window. A time stamp indicates the last update.



Print Status – Causes the printer to output a list of important information about the printer's current setup as well as statistics about the media usage so far.

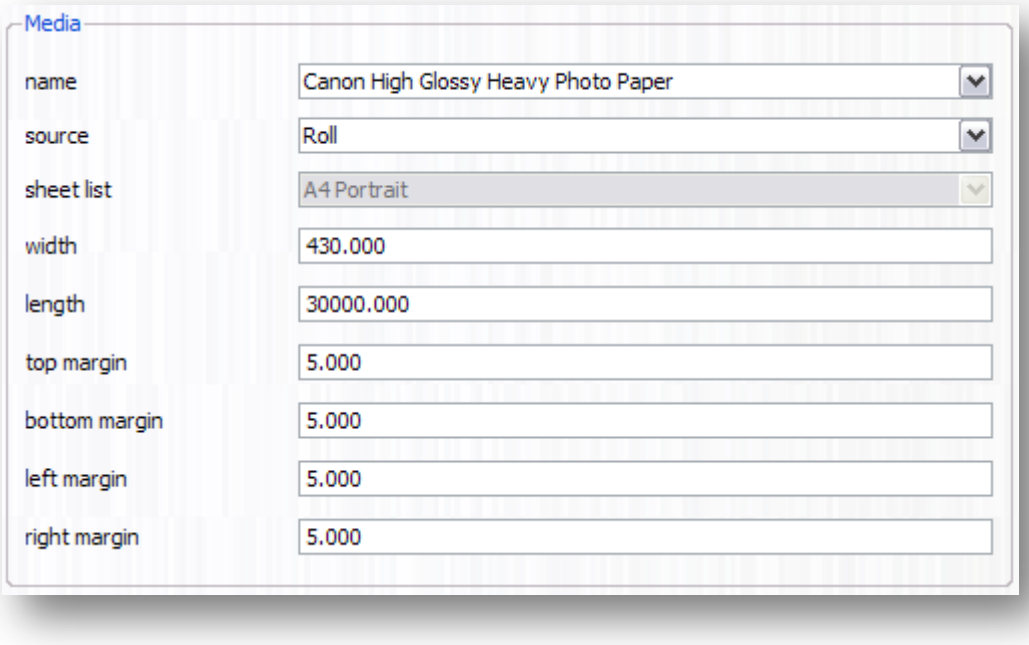
Printhead Adj. – Prints a series of colour patterns and scans these to adjusts for optimum head alignment. This procedure ensures that all colours printed are perfectly registered.

Nozzle Check – The printer output a series of pattern for each colour that the user can examine to check if there are any missing nozzles.

Head Clean – If any nozzles are missing from the nozzle test pattern above then executing this command would force the printer to do a head clean that usually rectifies the problem.

Media

Information about type of media and its associated sizing are listed in the table here. Most of the data here are read only and are fed back from the printer.



name – The name of the media that is currently loaded is listed here if a matching media profile is actually found for it on the system. Otherwise this entry will be set to **None** by the system indicating that no media matching will be done by the system. The system constantly monitors the printer status and will update this information if any changes have taken place.

If the profile table for the current media is available on the system then any jobs submitted from the **Design** module will be checked against it and will be held (**Hold (Media)**) by the system if not matched. This behavior is termed **Media Matching**. It is a very important feature of the Shiraz Focus system as it ensures that jobs are printed accurately on the correct media.

The Media Matching state is graphically highlighted to the user in the **Info Bar** area. There are three possible conditions as shown in the table below.

Media Profile – (Design)	Media Name (Status - Media)	Media Matching State (Info Bar)
Canon High Glossy Heavy Photo Paper Draft	Canon High Glossy Heavy Photo Paper	Canon High Glossy Heavy Photo Paper Normal
Quicksilver Universal Gloss 240g Draft	Canon High Glossy Heavy Photo Paper	Quicksilver Universal Gloss 240g Draft
Canon High Glossy Heavy Photo Paper Draft	none	Canon High Glossy Heavy Photo Paper Draft

First Row indicates that media matching is active and the correct media profile is selected. Jobs submitted from Design module will be processed and printed

Second Row indicates that media matching is active but the selected media does not match the current printer media. Any job submitted from Design module will be held by the system.

Third Row indicates that media matching is not active as no corresponding media profile is available on the system for the currently loaded media. Jobs submitted will be processed and printed. User must ensure that the media loaded corresponds with the profile selected.

Note: If the 'auto printer status' option is switched off in the **Preference** settings then the user must manually select the media name from the list.

source – The choices here are either **Roll** or **Sheet** depending on what media source is used on the printer. This information is fed back from the printer.

sheet list – If the **source** is set for sheet then the list of available sheet size can be selected here from the drop down menu. This option must be set by the user.

width – The width of the currently loaded media will be shown here in the current unit. This information is fed back from the printer.

length – The length of the media that is currently loaded on the printer is displayed here in the current unit. This information is usually fed back from the printer but in the case where this data is **unknown** then the default media length for the printer type is used.

margins – The margin settings for all four directions are listed here in the current unit. These information are the values specified by the manufacturer and cannot be altered by the user. Please note that the margin values for roll media could be different to sheet.

Printer Info

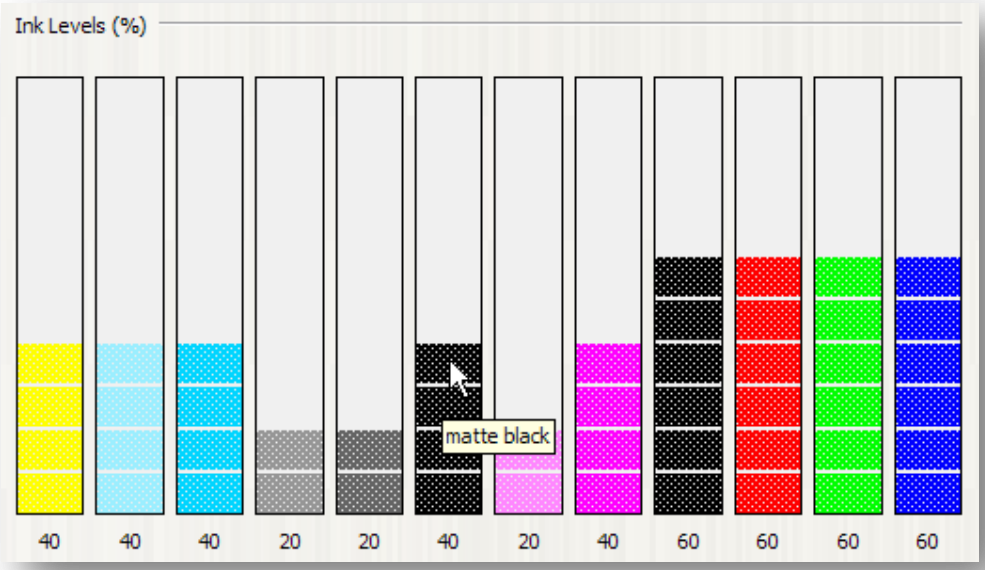
Various information about the printer and the media loaded are shown in the table here.

Name	Value
Maint. Cartridge (free)	40%
Tray Name	Roll Unit 1
Media Name	glossy paper
Media Width	430 mm
Remaining Media Length	Unknown

This information is fed back from the printer and is read only. Please note that the information shown above might vary from printer to printer and is different when no media is loaded.

Ink levels

The amount of inks left in the printer cartridges is graphically illustrated here.

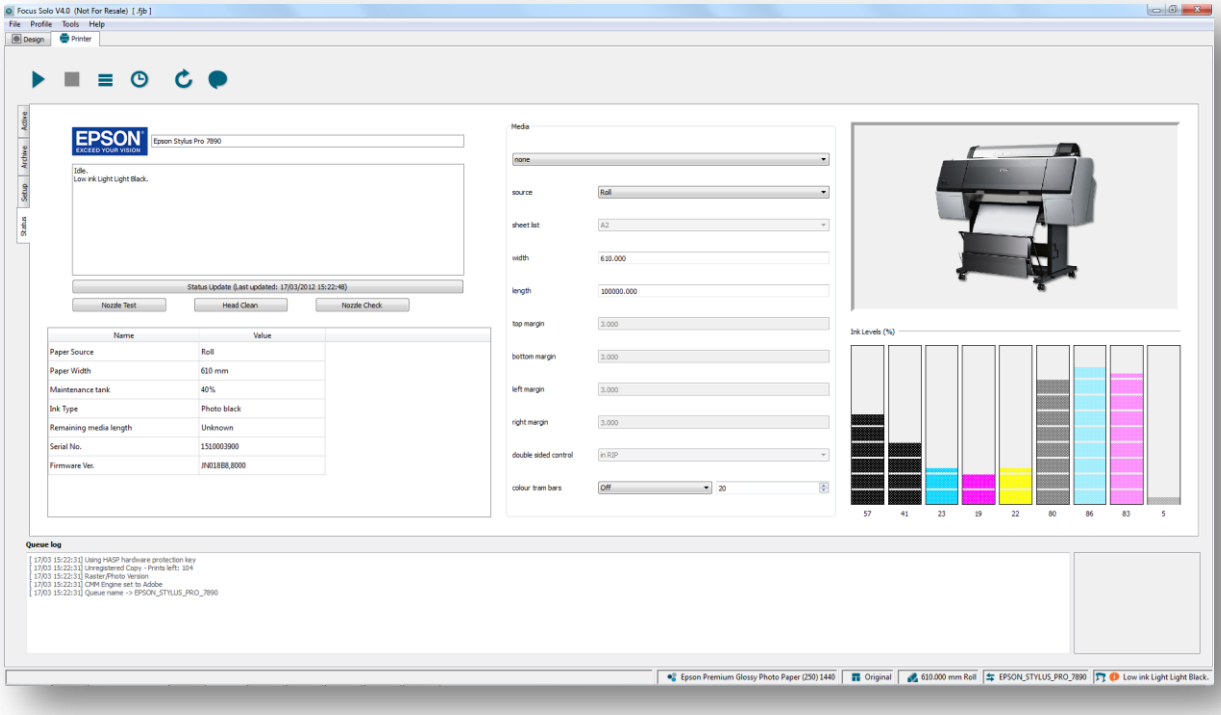


By placing the cursor on any of the ink levels shown here the system would indicate the actual name of the cartridge.

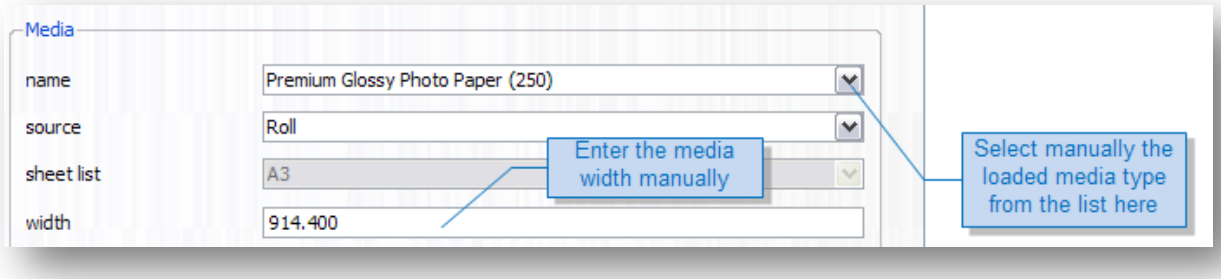
Please be aware that the values shown here are not guaranteed to be 100% accurate and are only intended as an indication.

Epson

The Epson Stylus Pro range of printers will have a similar status screen to the one shown below.



Overall the controls and information available here is very similar to the one described earlier for the Canon printers with one major exception and that is the fact that Epson printers do not feedback the media size or type. So this information has to be entered manually by the user.



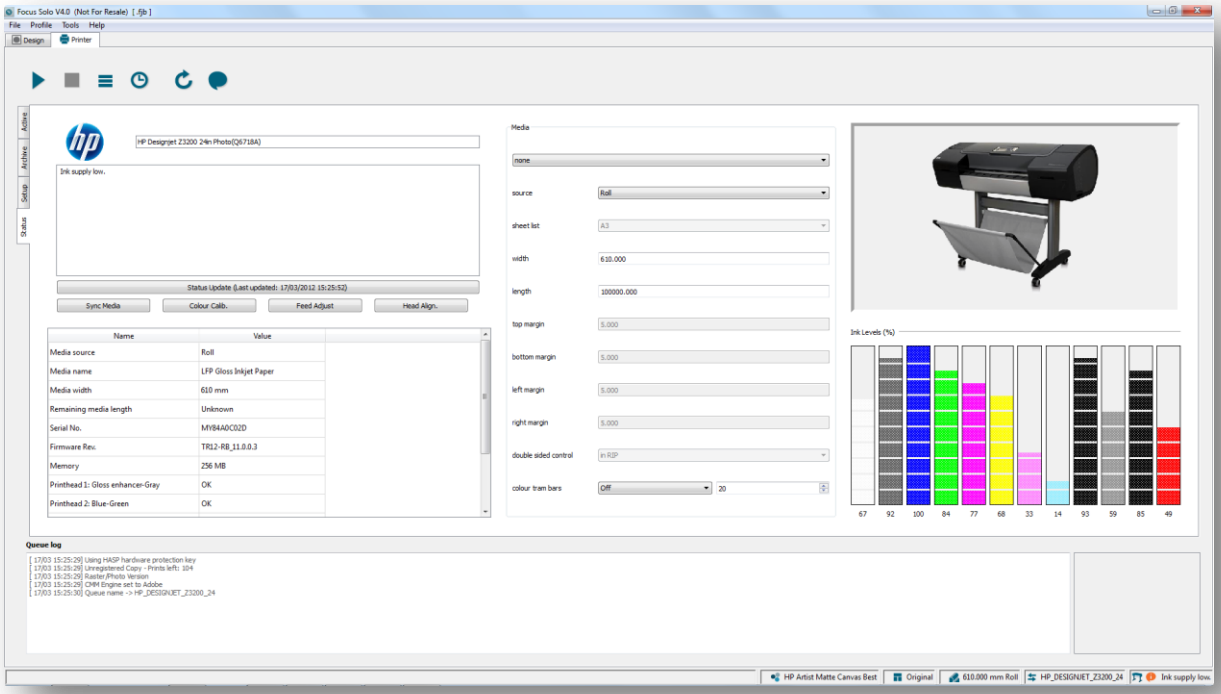
The user must select the media name and roll size every time a new media is loaded. This information will not be updated by the system. It is vital that this information is correctly entered here to ensure correct printing.

For the width entry the user can either enter the values exactly or use short cuts for standard roll sizes such as ‘24i’ or ‘44i’ and the system will then convert this to the actual measurements automatically.

Example - enter ‘24i’ and press enter, this will convert to 609.60mm and will be shown as such.

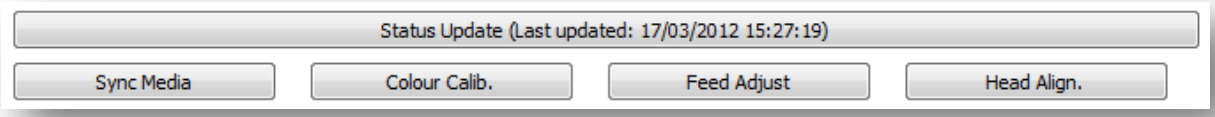
HP

The HP Designjet range of printers will have a similar status screen to the one shown below.



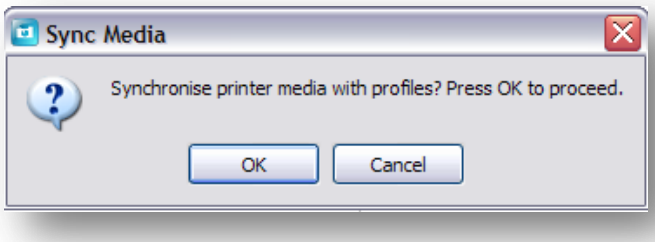
The main difference between the HP status and the other ones described so far, is in the **Remote Commands** section. Because of the HP sophisticated media management and calibration system there are specific commands available here that fully utilize these features.

Remote Commands



Sync Media – Whenever third party (Non HP) media profile is downloaded (see **Liveupdate** in the**Tools** section) on to the Shiraz Focus system then it would be necessary to upload the media information to the HP Z printer. This would then allow the user to select the correct media type under the Custom Media category on the printer as well as ensuring that the correct media calibration and setting is used when printing on to it.

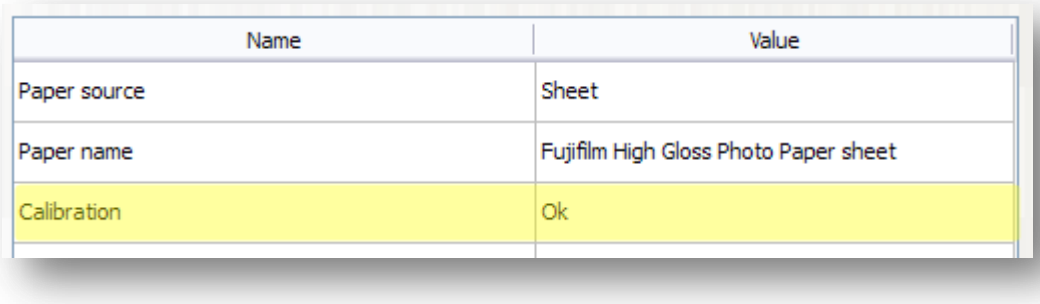
Clicking on this button would then prompt the user for confirmation. Click OK to start the process.



Once the process is completed (it will take a few seconds depending on how many medias are uploaded) then a message is shown to verify this. You should then be able to see the new media type on the printer's 'Paper Type' under the 'Custom Media' category.

Note: Currently the HP Z printers have a limitation of a maximum capacity of 17 custom media. If you try to upload more than this number a printer system error will occur.

Colour Calib. – The system regularly tracks the media calibration state and will signal any changes that would require a new media calibration. This information is shown in the **Printer Info** table as illustrated below.



Name	Value
Paper source	Sheet
Paper name	Fujifilm High Gloss Photo Paper sheet
Calibration	Ok

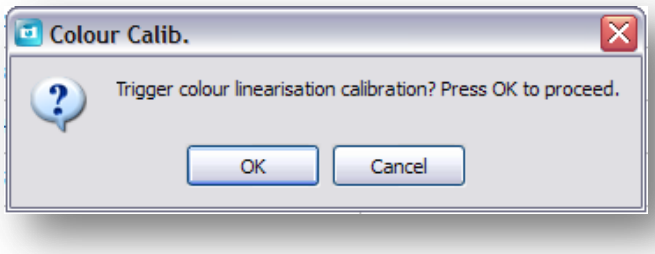
There are three Calibration state as detailed below:

OK – Media calibration is up to date and does not require any action from the user.

Pending – Media calibration will be out soon and calibration is recommended. The user might choose to execute calibration procedure or not.

Expired – Media calibration is out and the user must initiate media calibration to ensure optimum quality.

Press the button to start the calibration procedure on the printer. A confirmation window is then displayed.



Click OK to proceed. The printer will then print the linearization patches followed by scanning and reading of these patches. This will usually take a few minutes to complete. It would then update the internal profile tables for the current media and sets the Calibration value to **OK**.

Note: Certain media type such as Backlit or Films cannot be calibrated this way.

Feed Adjust –This command instructs the printer to carry out an automatic media feed correction procedure. This might be necessary if there is a horizontal (printing direction) banding problems on the prints.

The printer first prints specific patterns that it will then measure and analyze for setting the correct feed adjustment values.

Head Align. – This procedure might be necessary to ensure that all print cartridges are perfectly aligned to each other especially when new ones have been installed. Click on the button to start the procedure that automatically prints and measures the alignment patterns for setting the correct values.

Tools

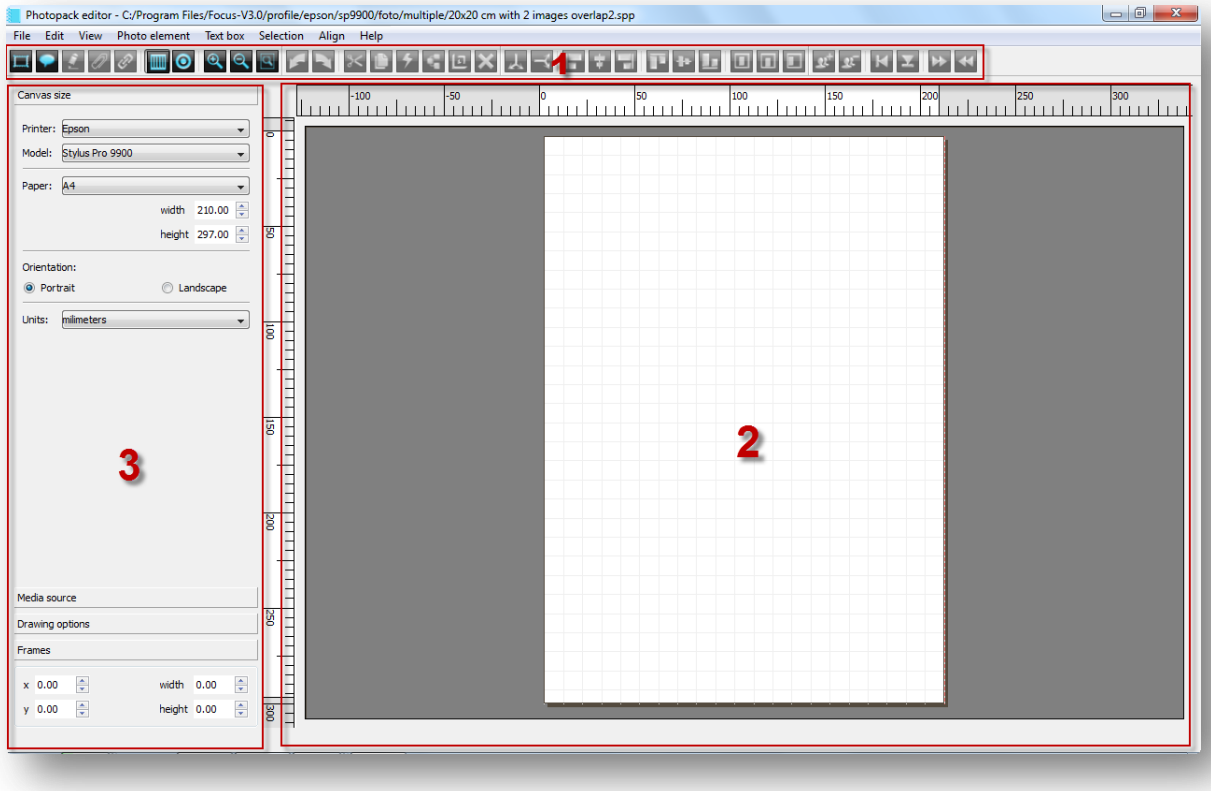
There are a number of utility programs available here that can be called up at any time by the user to perform certain tasks. These applications are all integral part of the Shiraz Focus software and help in the smooth running of the system.

Photo Pack Editor

The application's main task is the creation of additional photo packs or editing of existing ones. This is a simple 2D drawing package specifically designed for the making of photo packs. All the tools required for the task are clearly laid out for the user.

We will first have a closer look at the window's layout and all the components that constitute it. All the functions and options available here will be explained in full details. We would then run through an actual example and create a photo pack step by step.

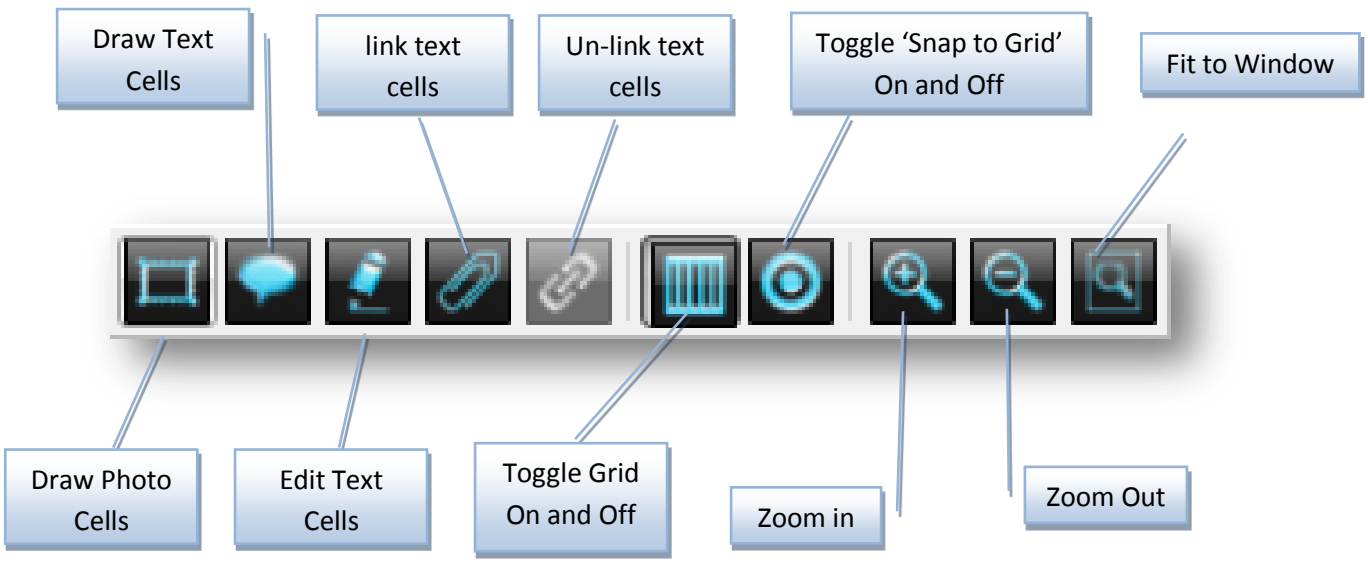
The window is divided into three distinct areas as illustrated below.



Tool Bar

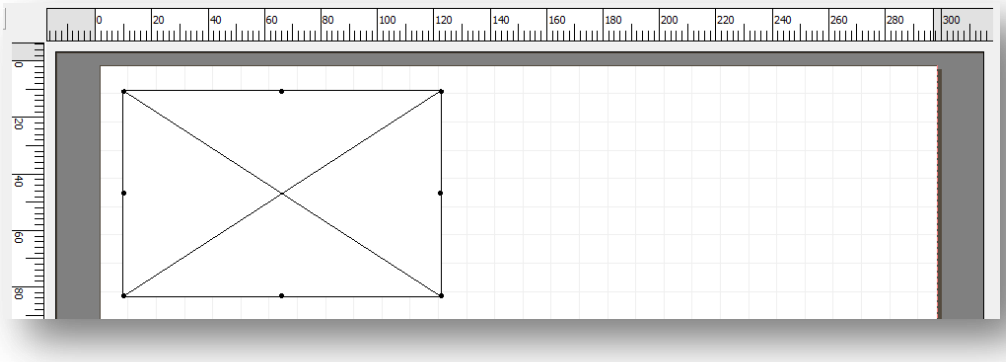
All major operators that are used for creating and manipulating photo cells are located here [1]. These operators are all context sensitive and can be applied to a single cell or a selection of.

Commands that perform similar operations are grouped together. These operators can also be called from the drop down menus located at the top of the window or short keys assigned to them.

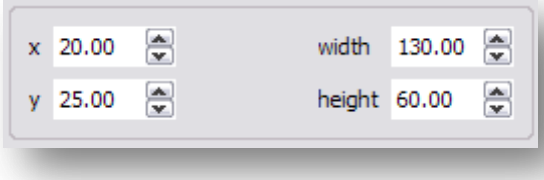


Draw (Photo Cells)

This is the main drawing tool in the editor. Select this option to start drawing photo cells on the canvas. First place your cursor somewhere within the canvas then click and drag the mouse. You will start seeing a transparent light blue rectangle being drawn. Move the cursor to indicate the opposite diagonal corner. Once you are happy with the sizing release the mouse button to end the drawing. You will now see a rectangle outline with anchor points placed on its boundaries.



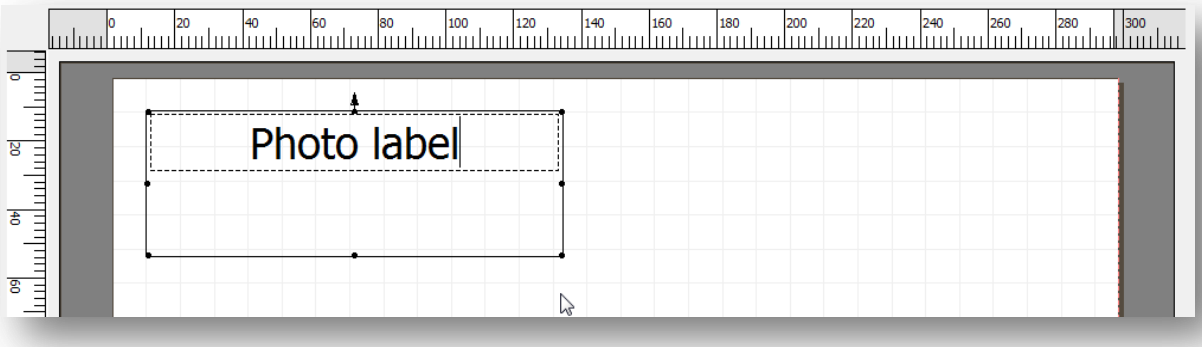
At the end of the draw the edit mode changes to 'size & pan' allowing the user to resize or move the photo cell if required. It is also possible to enter the precise width and height as well as the X & Y coordinates of the cell in the entries provided in the **Control Panel** section.



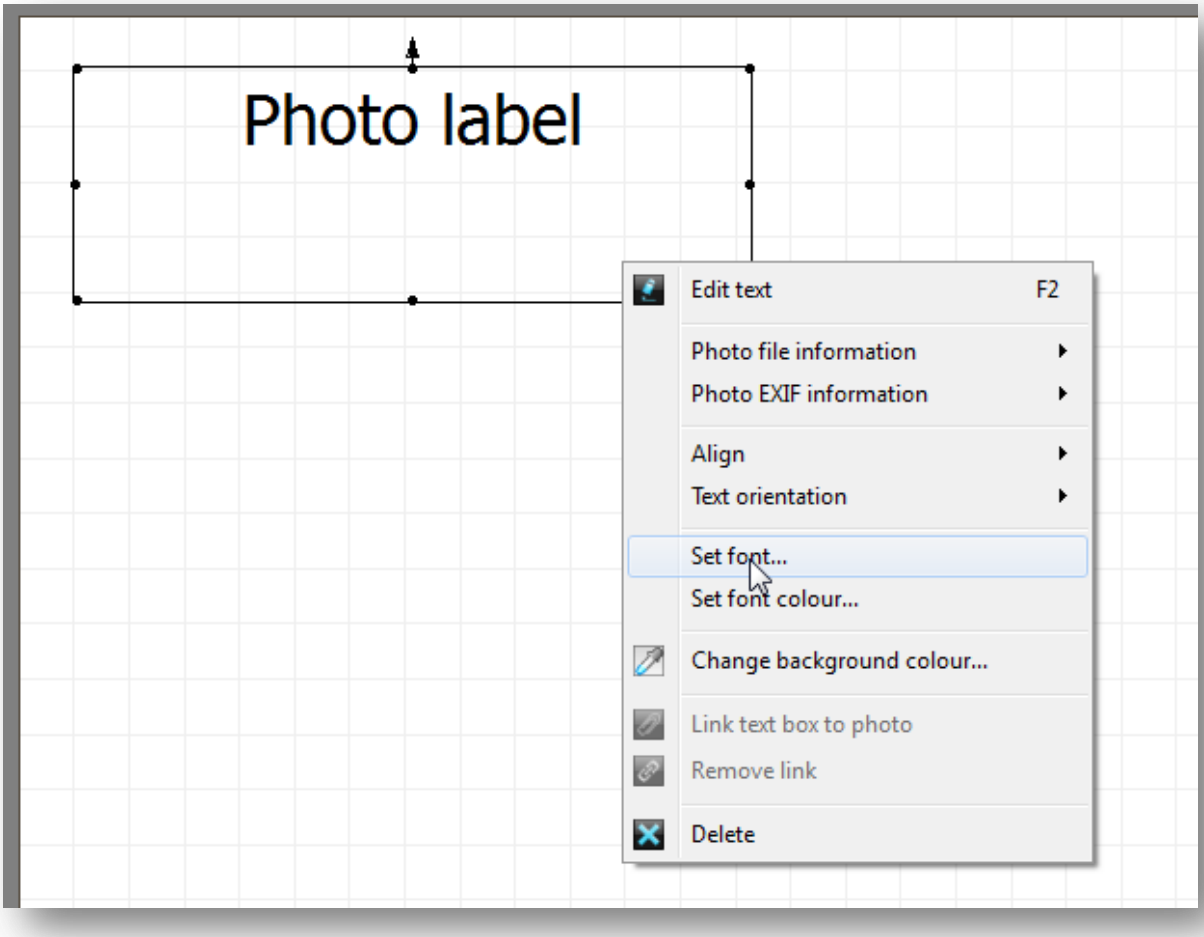
The editor automatically limits the size and coordinates to the current photo pack canvas limits.

Draw (Text Cells)

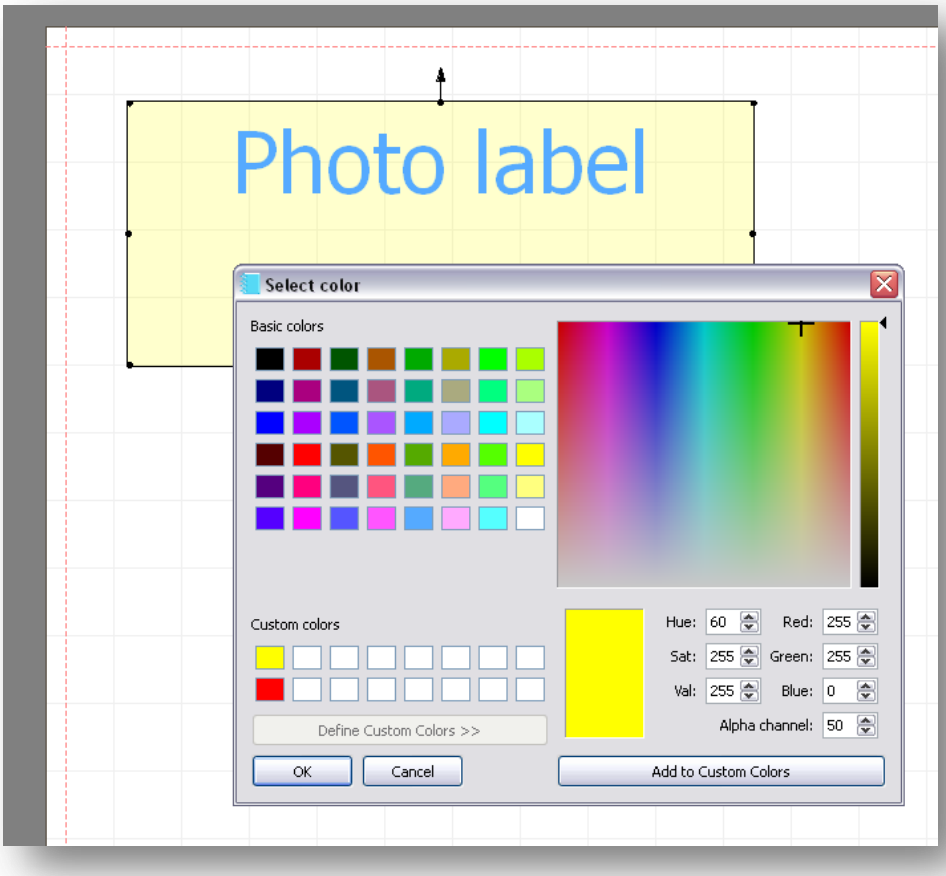
This function allows the user to create text cells that contain user-defined static text or variable one based on file properties or Exif data.



To change the font and its properties, right-click on the select text cell and choose from the options available.



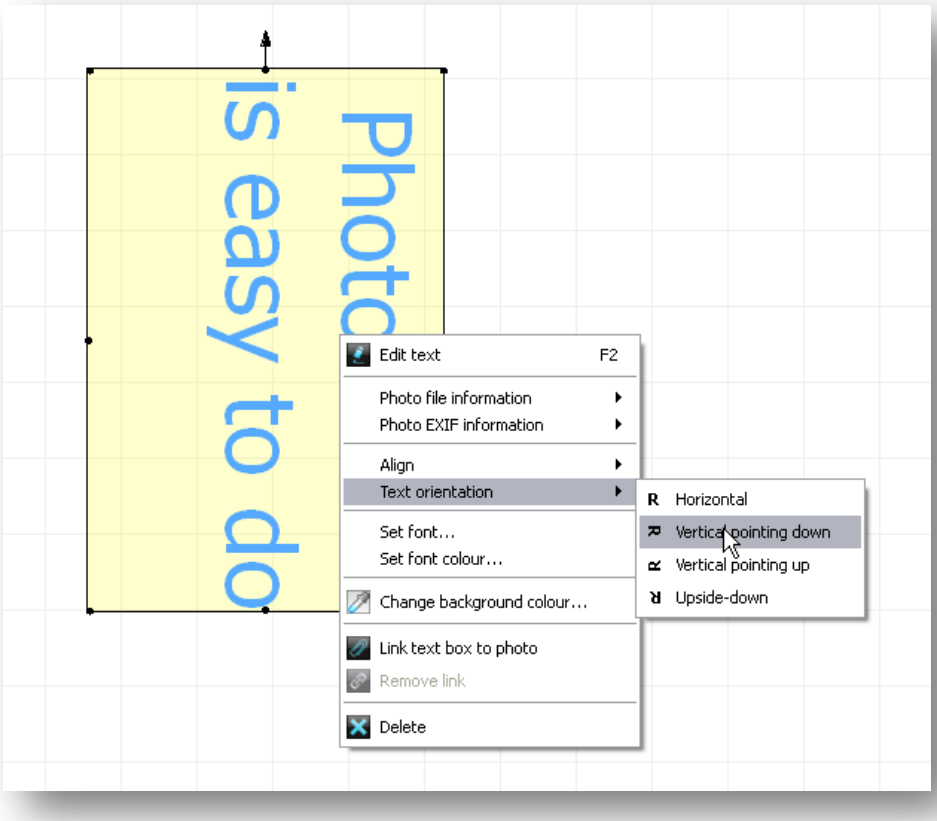
It is also possible to change the font colour as well as the colour of its background box.



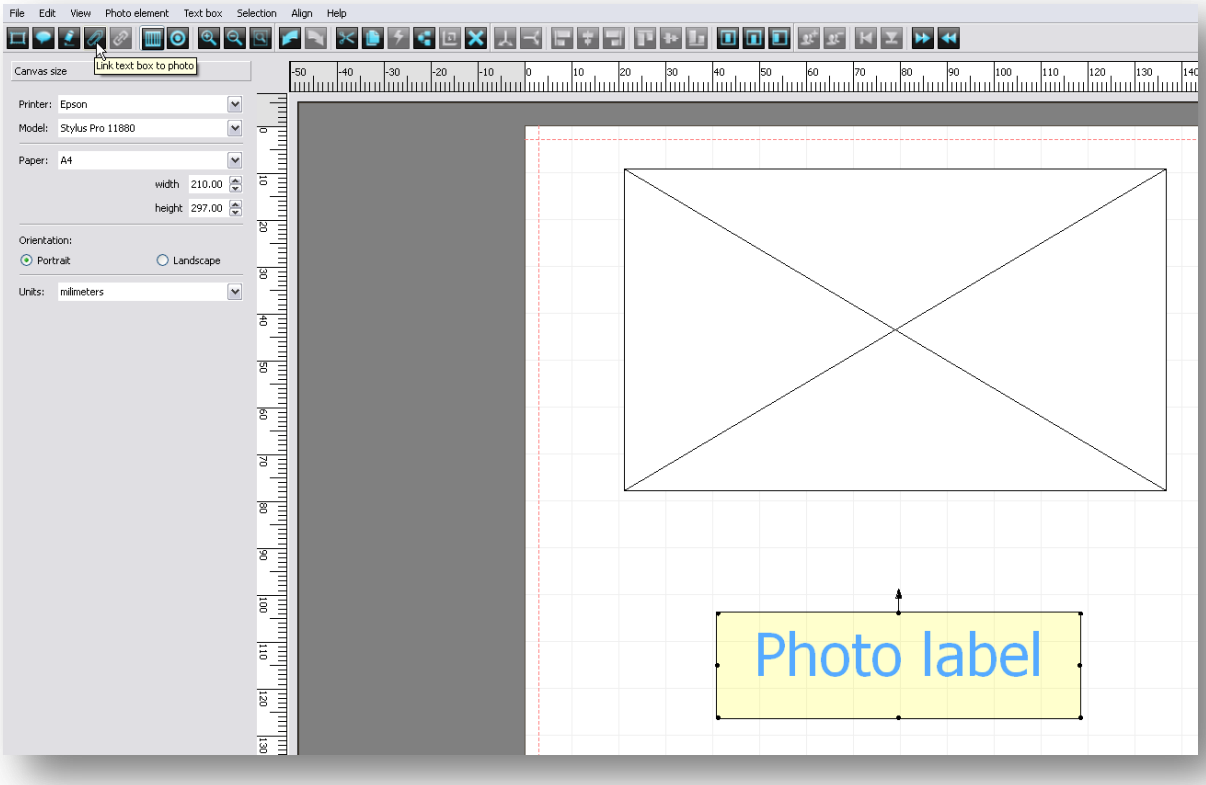
Please note that it is also possible here to specify a value for the Alpha channel that adds transparency to the corresponding objects. This will then results in objects falling behind it to show through. The amount shown from the object behind is controlled by the value entered here (Alpha channel).

To enter multiple lines of text simply press the enter key at the end of the line. The cursor will now be placed on the second line where you can start typing more text. You can move the cursor to any position on the text box by using the arrow keys.

Other type of text manipulations available here includes alignment and orientation. To use any of these functions first select the text cell and then right-click and choose the one required from the drop-down menu.

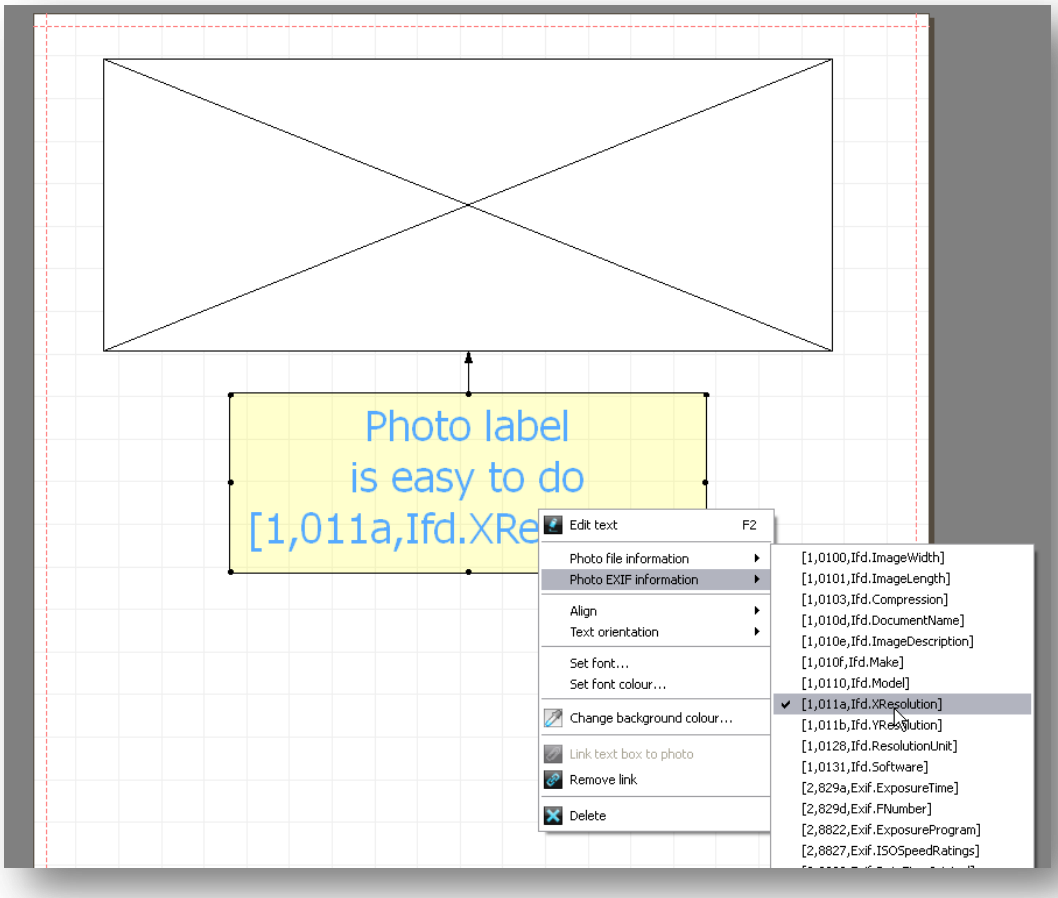


To enable the use of the Exif data or file properties in text cells, you must first link the text cell to a photo cell. This can be done by first selecting the text cell and then clicking on the Link function from the tool bar.



Once the Link option has been selected then the user has the opportunity to point and select from the list of photo cell available the one that that the text cell should be attached to.

It is also now possible to add Exif & file information to the text cell. Right-click on the attached text cell and select as demonstrated below.



The user can add as many variable text data as needed. These entries will then be replaced by actual information from the placed images in the linked photo cells.

This is a very useful feature of the Focus software that enables users to automatically add text data within their photo packs. For example the filename can be added to the images placed in a contact sheet or the date and location of the images taken can be extracted from the embedded Exif data of placed images.

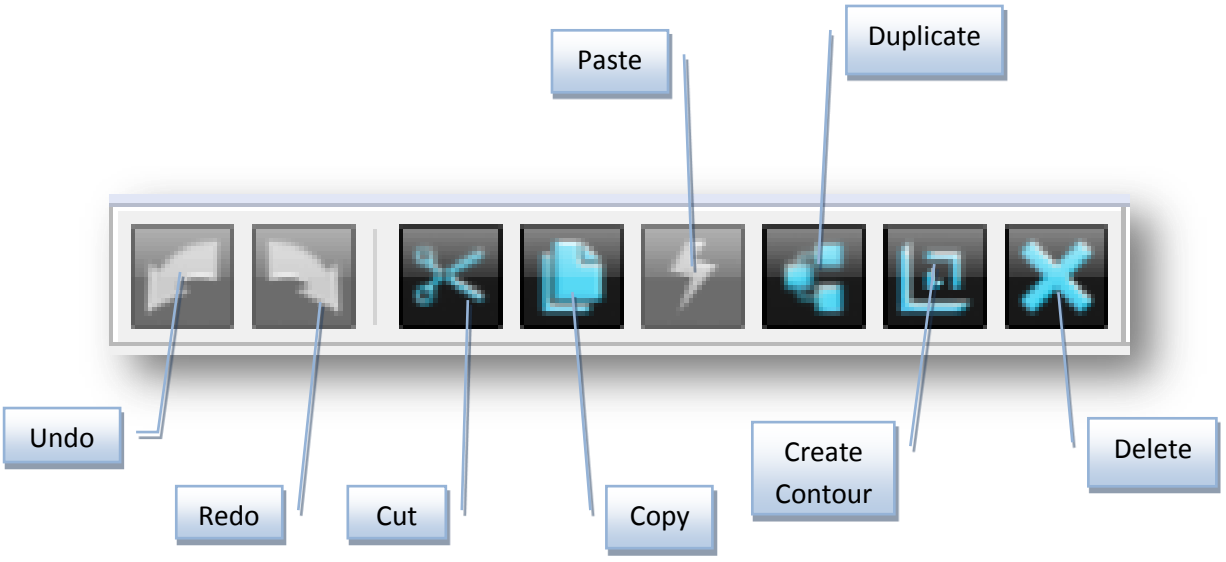
Linked text cells can be unlinked again by using the corresponding button available from the tool bar.

Grid

A grid with user definable size can be over laid on the canvas as a drawing aid for the user. It is also possible to switch on the snap mode that forces the cell sides to snap to the nearest grid when sizing or moving.

Zoom

To examine or edit closely drawn items use the zoom function available here. Clicking on the icons incrementally increases or decreases the zoom factor.



Undo (Ctrl + Z) – To revert back one step in the editing process click on this icon. The user can undo as many steps as possible.

Redo(Ctrl + Y) – If the user has used the Undo option previously to go back one step then by clicking on this option here the editor will go forward one step to the previously undone step. The user can redo as many steps as available.

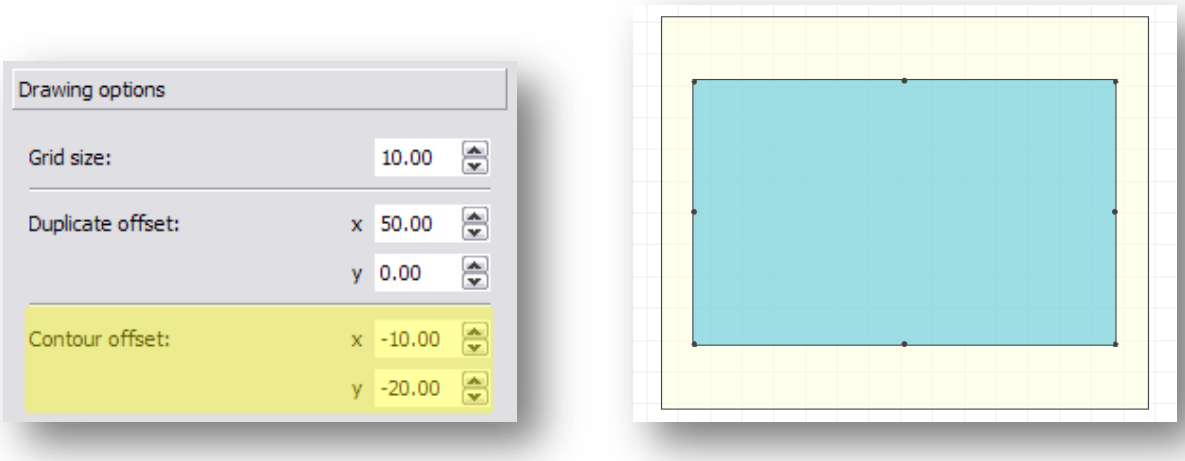
Cut (Ctrl + X) – This option allows the user to remove the selected items from the photo pack. These items are kept in the system buffer and can be pasted back if required.

Copy (Ctrl + C) – To make a copy of the selected items click on this icon. A duplicate of the items copied is kept in the system buffer and can be pasted as many times as required. The system only keeps the last copied elements in its buffer.

Paste (Ctrl + V) – The previously copied or cut items can be pasted at any time by using this option. The pasted item will be placed adjacent to the copied items. This option can be executed as many times as required. Subsequent pasted items will be placed on top of each other.

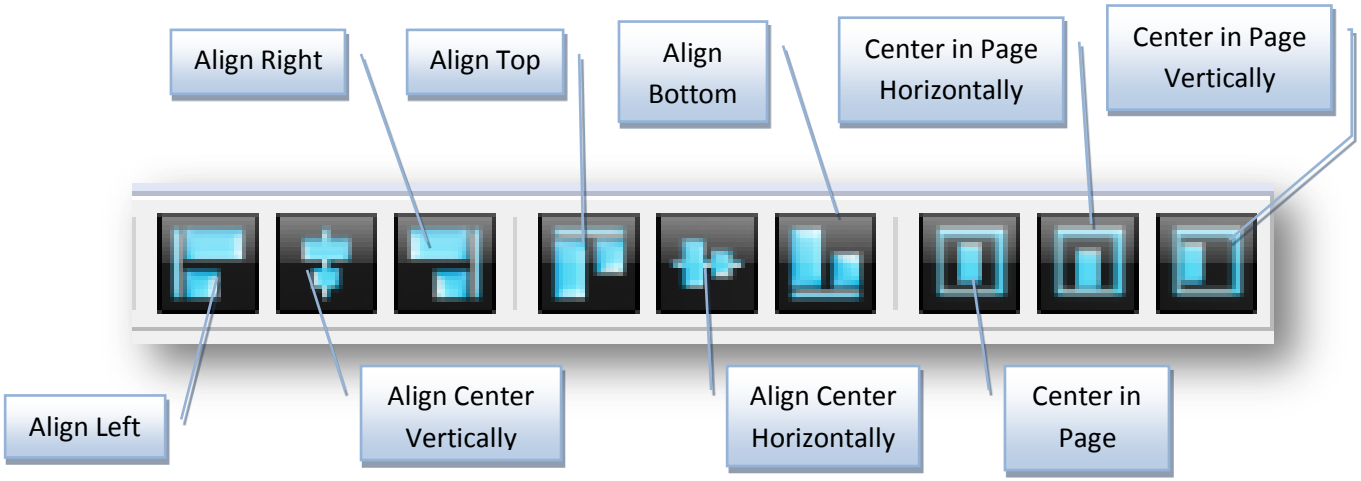
Duplicate (Ctrl + D) – This function copies and pastes selected items at a predefined offset to the original. The offset value can be set in the **Control Panel** under the **Drawing Options** tab. This option effectively combines the copy & paste functions into one. Additional duplication can be made by clicking again. All subsequent duplications are relative to the last one created. This function is very useful for performing step & repeats on selected items.

Create Contour – This option allows the user to quickly and easily create cells at a designated relative offset to a selected one. The offset value can be specified for both X and Y in the **Control Panel** under the **Drawing Options**.

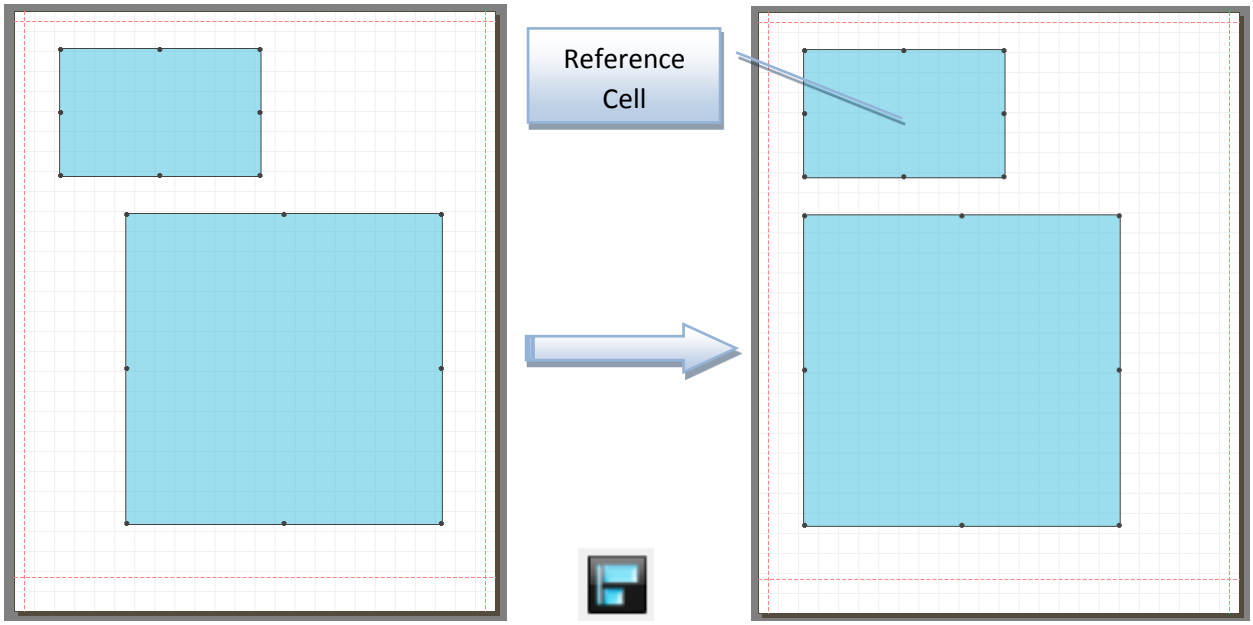


Click again to create additional contours relative to the last one created. A higher Z order is assigned by the system to the newly created cells so that they are positioned in 'front'. This can be changed later if required.

Delete (Del) – To remove permanently any items first select and then click on this option. You can recall by using the **Undo** function.

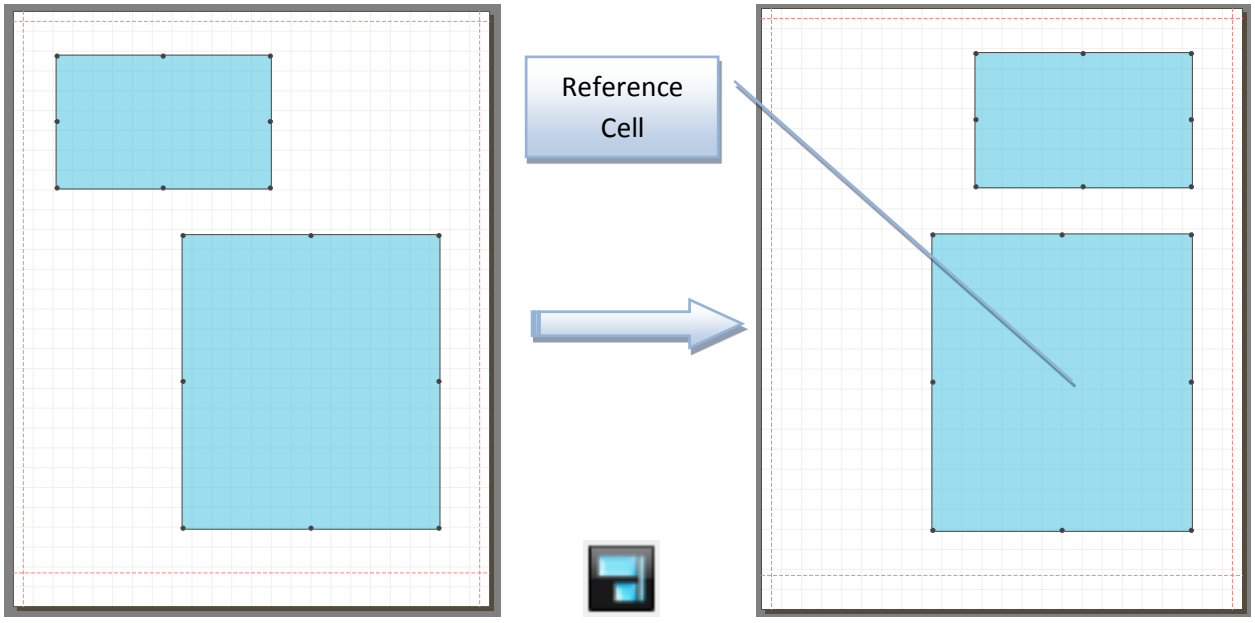


Align – The full set of automatic alignment tools can be found here. As these cell alignments are with respect to other cells, they are only possible when multiple items have been selected. As their names imply they each align in a certain direction. The alignment is with respect to the photo cell (reference cell) that is closest to the direction that the alignment is being done to. This is illustrated graphically below.



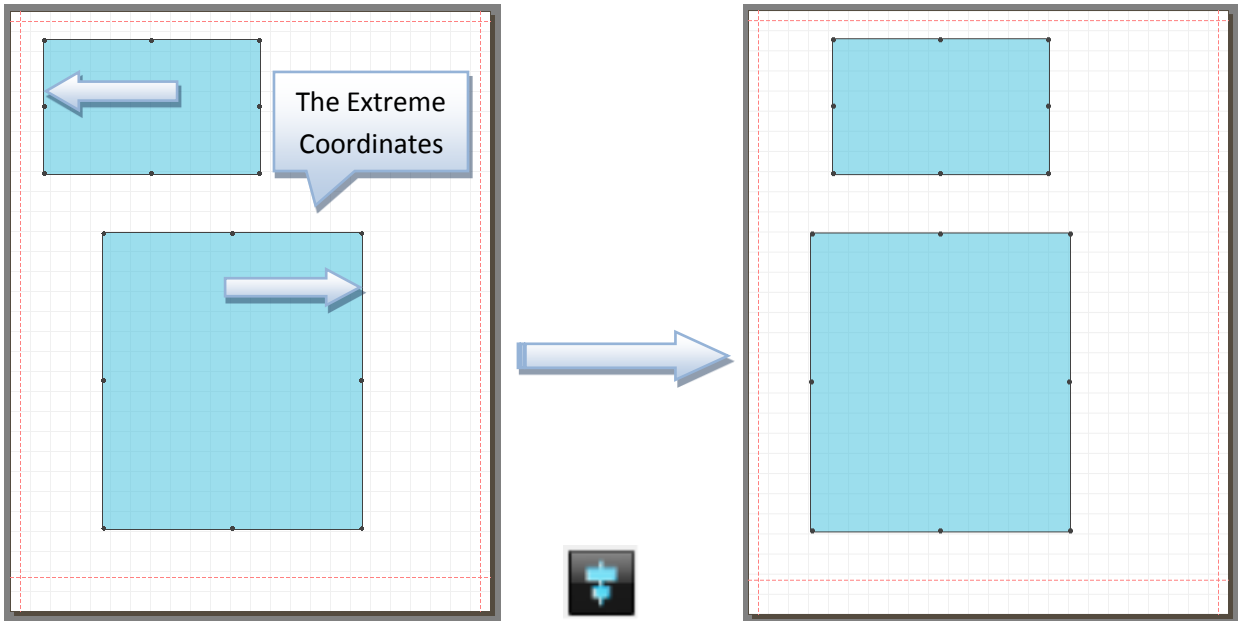
Before ***Align Left*** **After**

Similarly if the **Right Alignment** was selected then the following would be the outcome.



Before ***Align Right*** **After**

In both cases above the reference object does not change position. This is also the case for the top and bottom alignments. But for both center alignments all objects are moved. The centering is done by considering the extreme coordinates of all objects and then calculating the middle point. All objects are then moved so that their center coincides with this point.

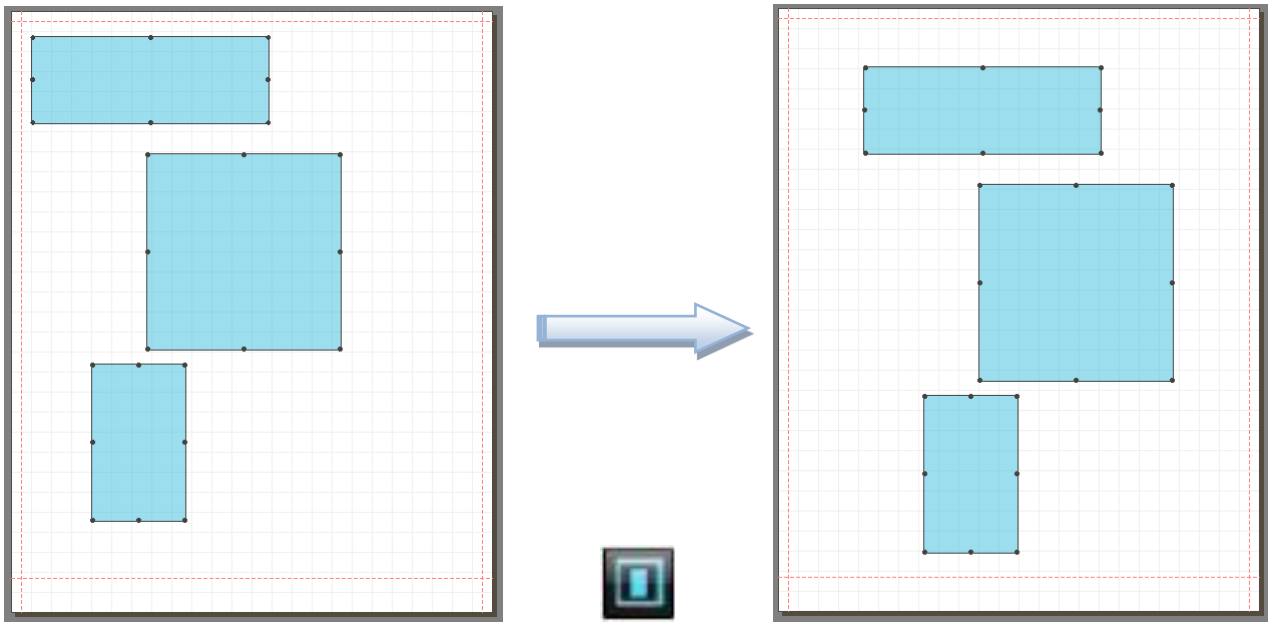


Before ***Align Center Horizontally*** **After**

Similarly aligning center vertically would take the extreme top and bottom coordinates into consideration.

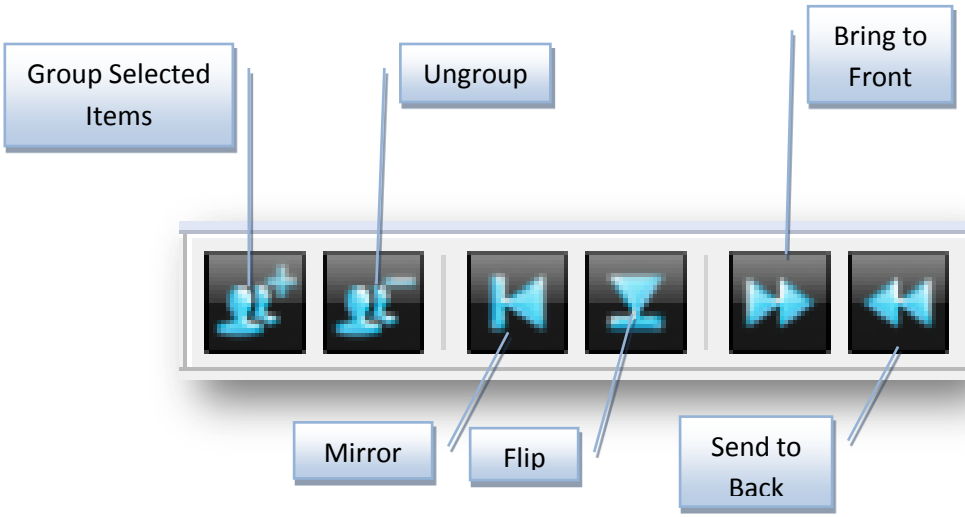
Position

The operators here work with respect to the canvas size. Furthermore they can be applied to a single or multiple items. Their function is to center the selected items centrally horizontally, vertically or both within the canvas area.



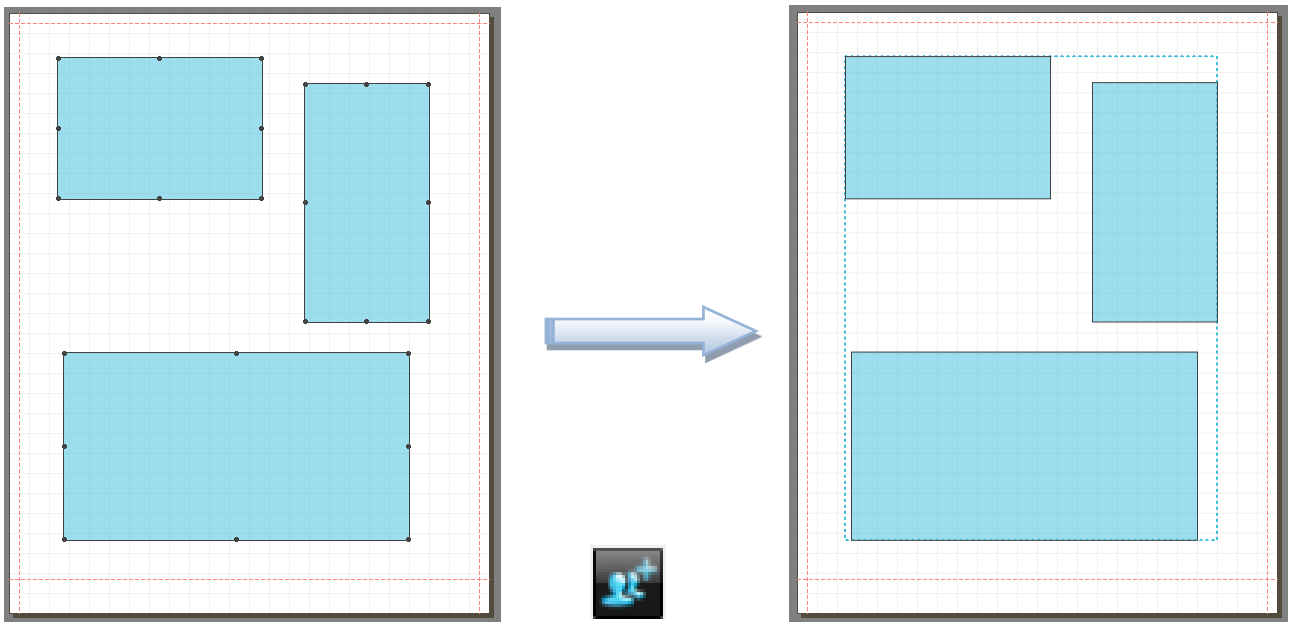
Before **Center in Page** **After**

When centering a number of items the overall boundary of the group is taken into account.



Group

To make simultaneous operations on a number of items easier the user can group them together as shown below.

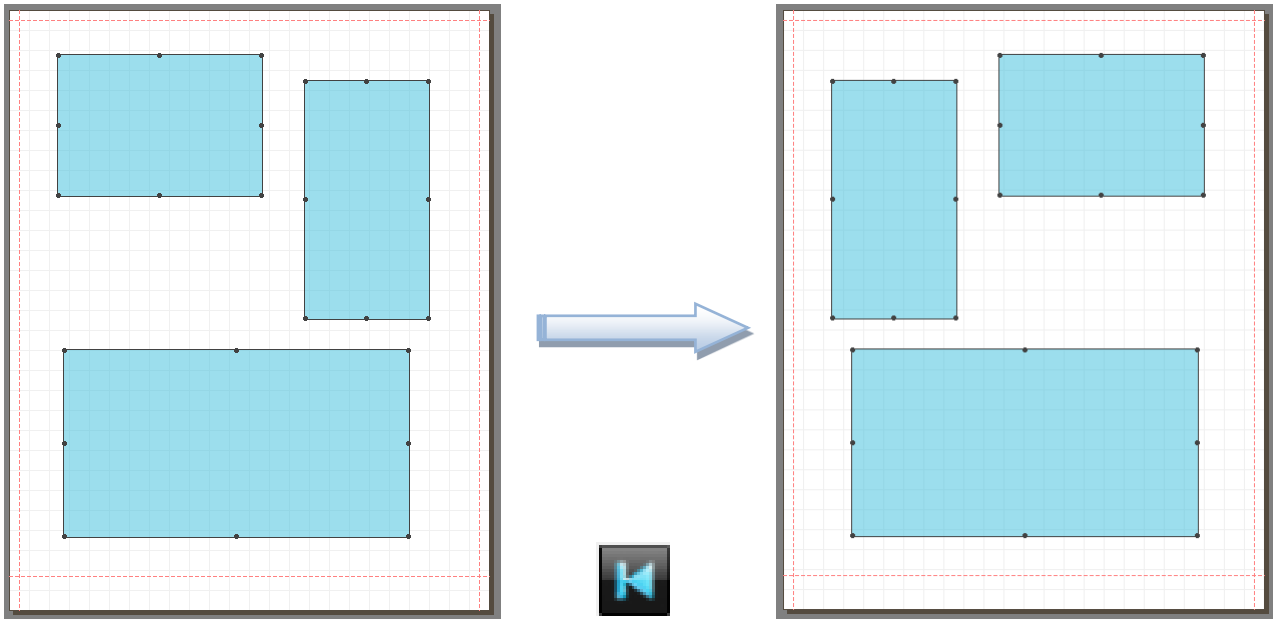


Before ***Group selected item*** **After**

Once items are grouped together a dashed blue line is drawn around the perimeter to highlight this. A grouped item can be split back to its individual items by applying the **Ungroup** function.

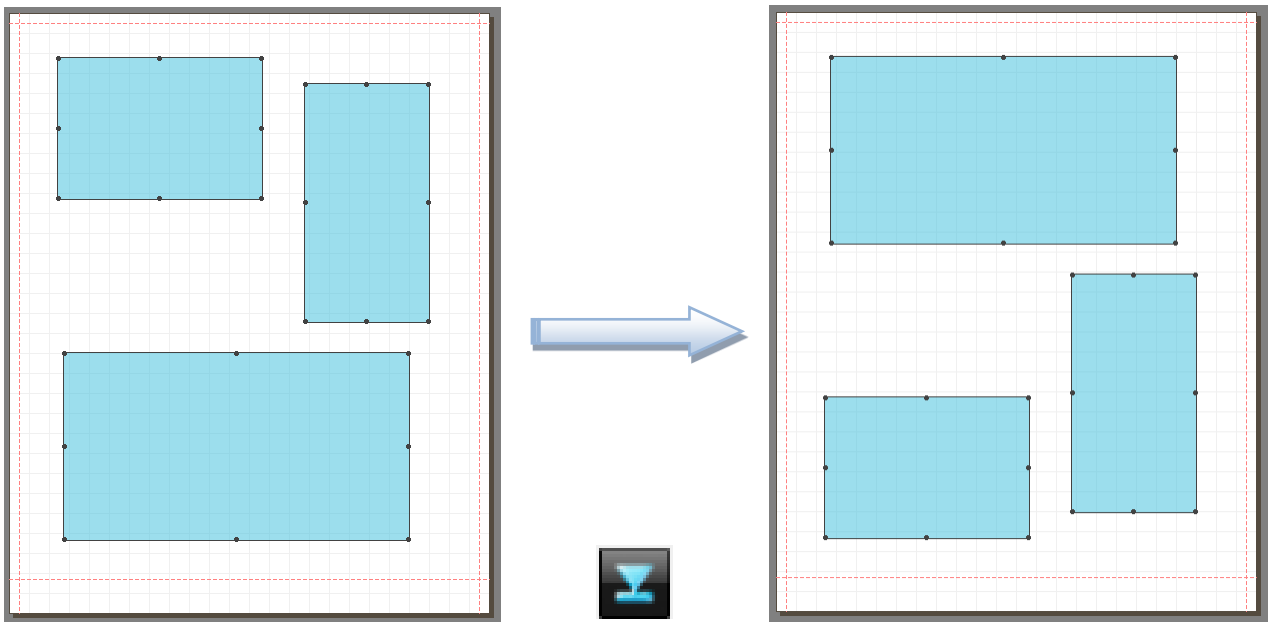
Mirror

Selection of items can be mirrored against the vertical or horizontal axis by applying the corresponding function. These operators are not applicable to single item.



Before ***Mirror*** **After**

In the above example all selected items are reflected against the vertical axis. The imaginary vertical axis goes through the vertical center of the canvas.

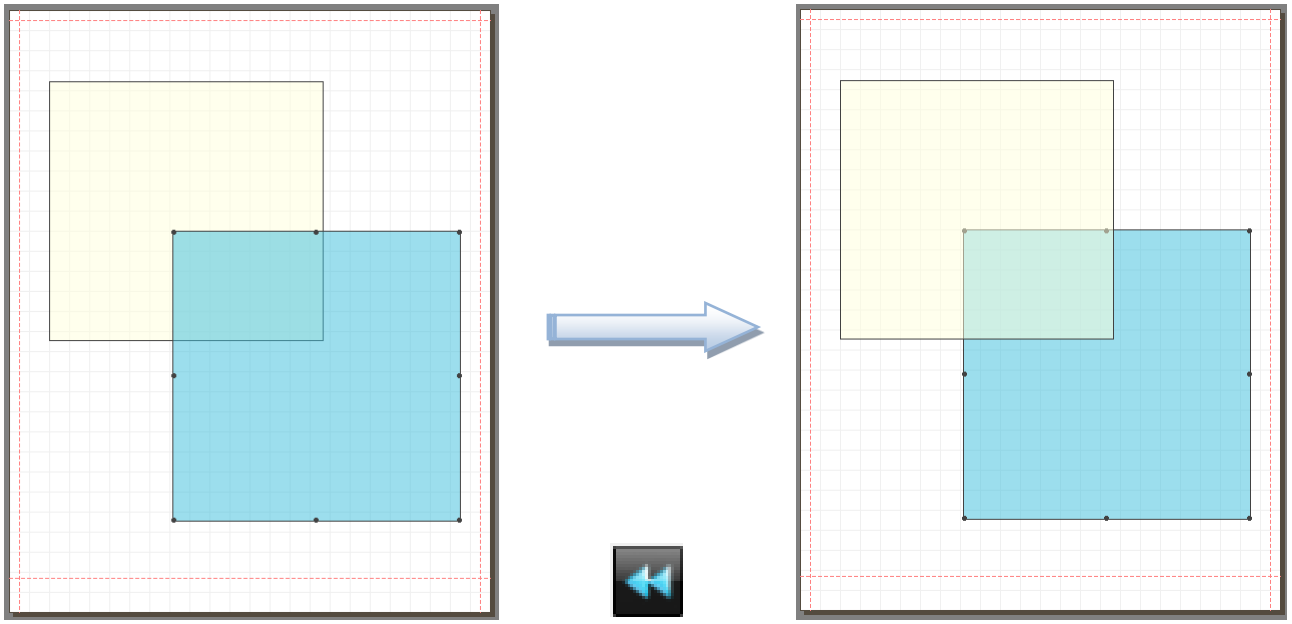


Before ***Flip*** **After**

Similarly to reflect against the horizontal axis use the **Flip** option as demonstrated above. The imaginary horizontal axis goes through the horizontal center of the canvas.

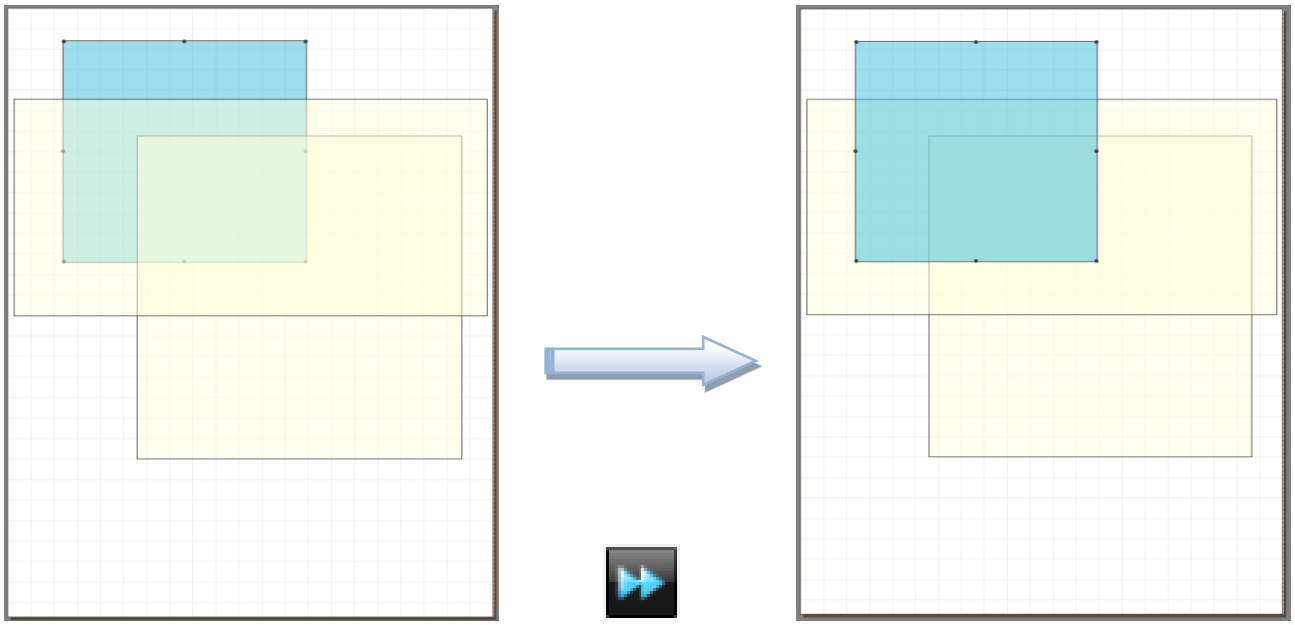
Order

The order in which cells overlap each other can be controlled by the two complementary functions available here. In the example below the lower right cell overlaps the other cell. To change the order, simply select the cell that you want to change the order of and then click on the required icon on the tool bar.



Before ***Send to Back*** **After**

Their order will now change and this is reflected in the preview shown.



Before ***Send to Front*** **After**

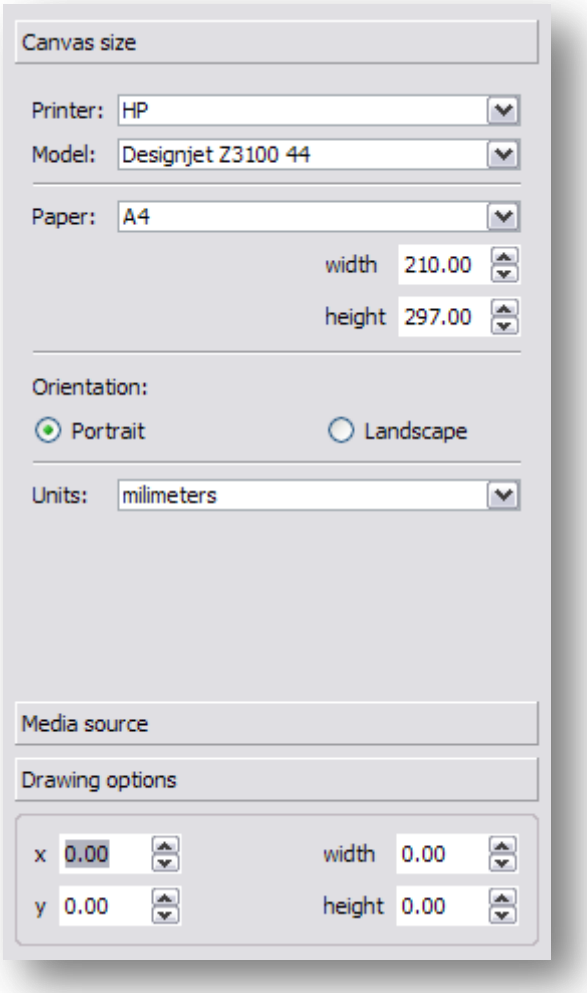
For situations where more than two cells are overlapping each other, then the selected cell will be sent to the top or bottom of the stack depending on the function selected. In the above example the top left cell is sent to the top of the stack so that it will now overlap all items.

To confirm and view the overlap order press (Ctrl + Q) key combinations. The system will now step through all the cells in the photo pack one by one and highlight their orders accordingly.

Control Panel

The settings for the canvas size and media parameters can be found in this section. Also located here are the default parameters for various functions within the editor.

The controls here are separated into three tabs.



Canvas Size

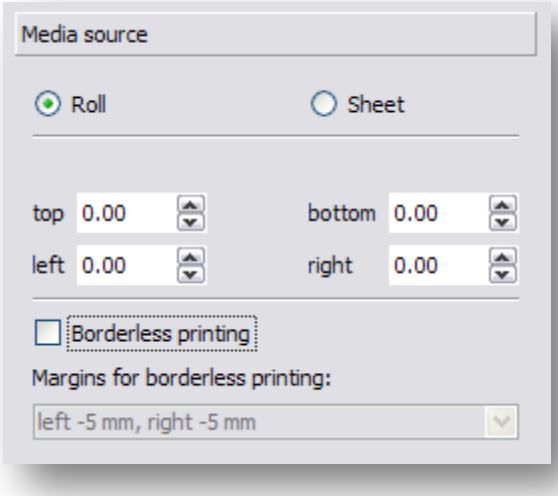
The printer make and model as well as the canvas size that the photo pack will be based on is selected here. The default printer is taken from the main Shiraz Focus setting but can be changed to another make and model if required.

The canvas size can be set by selecting a standard paper size or selecting the **user defined** option to enter your own sizes. It is also possible here to select the required orientation.

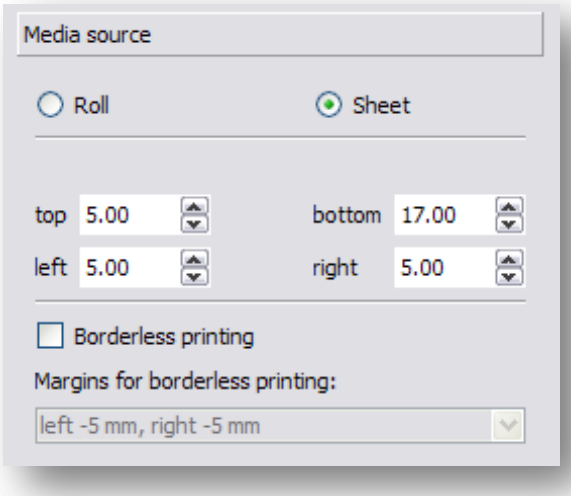
The **Units** entry sets the current measurement unit for all the numerical values used within the editor.

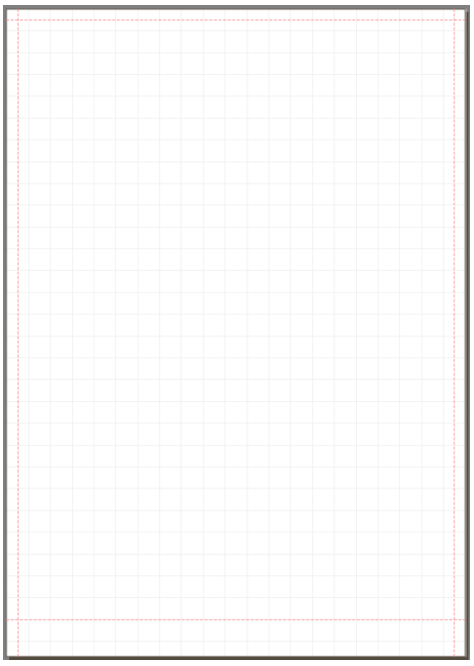
Media Source

The media supply type and its associated margins can be set here. Also in here is the margin setting required for photo packs that need to be printed in borderless mode.



The main difference between the **Roll** and **Sheet** options is that in the roll mode margin values are not relevant whereas in the sheet mode they are crucial to ensure correct layout and printing. The values for the margins are read only and are set from the manufacturer's technical specification. These margins are graphically shown in red dashed line when selected.





The editor will automatically limit the boundaries of drawn items to within these margins setting.

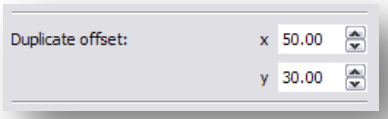
If you intend to use the photo pack in borderless mode on the printer then you must also select the **Borderless printing** option. This will now set the margins slightly outside the canvas area to allow for this. Again these margins are read only and are based on manufacturer's specification. Please note that on some printer makes it is possible to have more than one borderless margin option.

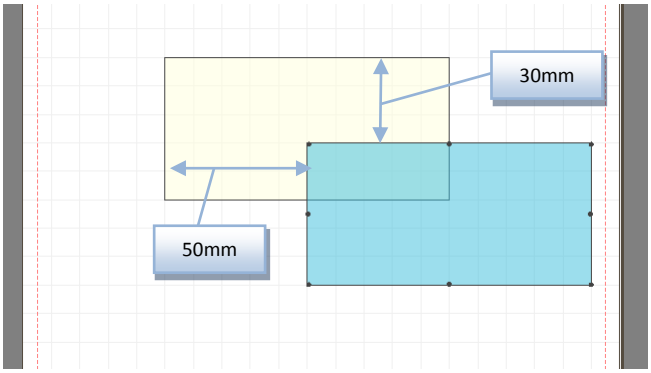
Drawing Options

Parameters for various functions in the editor can be set here. These values are then remembered as the default values on all subsequent sessions.

Grid size – This value sets the distance between the gridlines in both vertical and horizontal direction.

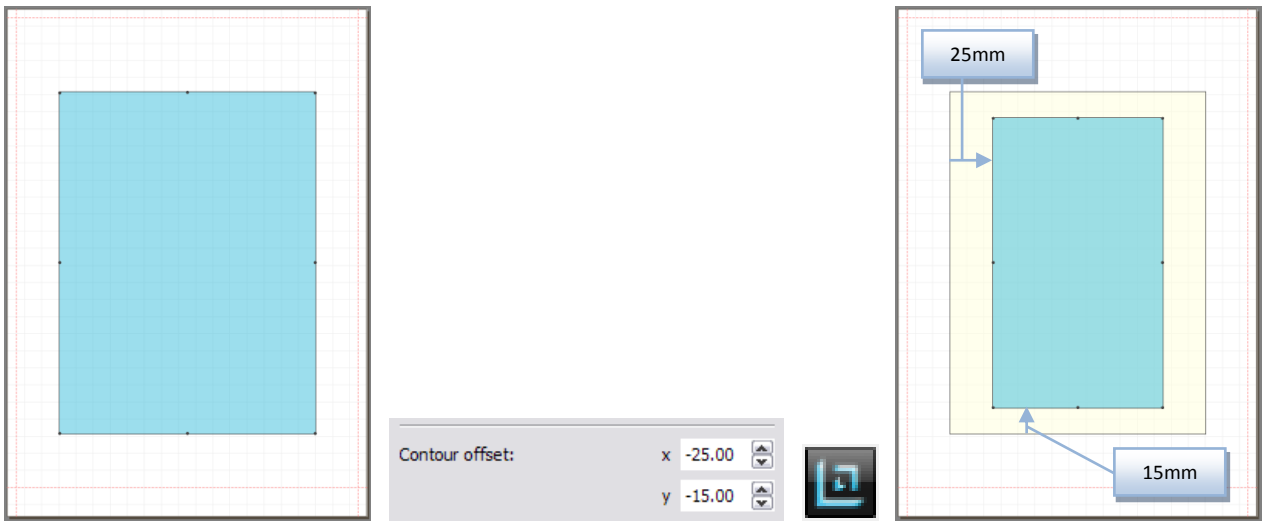
Duplicate offset – These parameters set the distance by which the duplicate items are offset from the original item. These values are measured from the top left corners of the original and copy items.





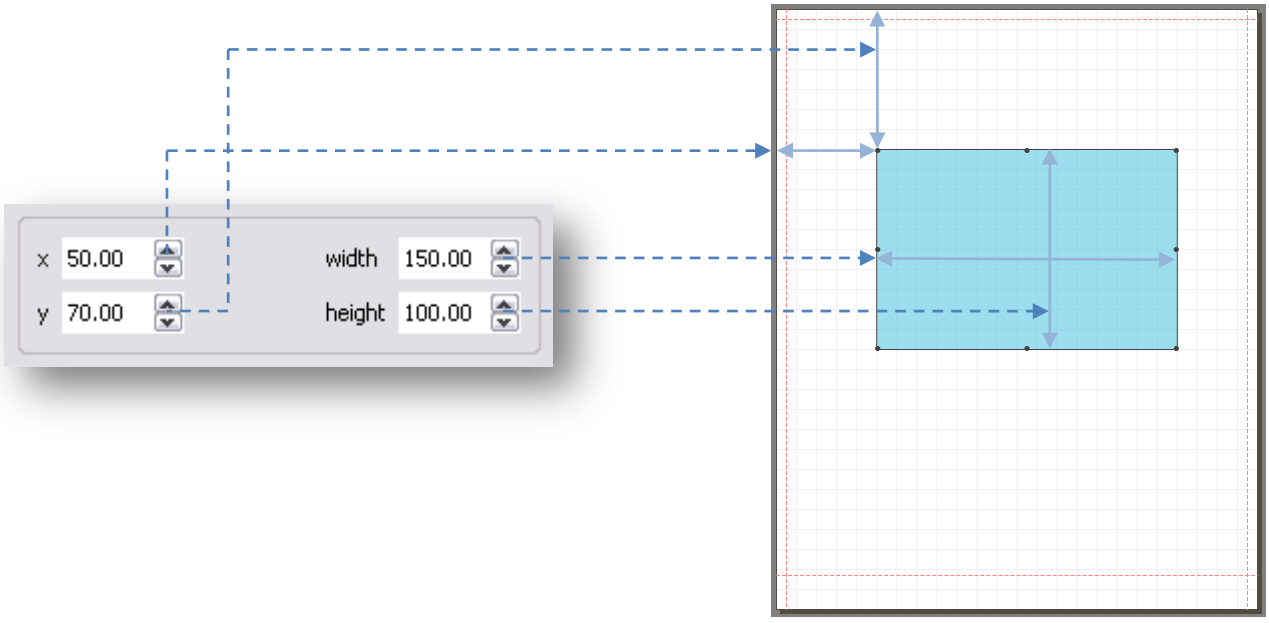
The next subsequent duplication will be with reference to the newly created item. This is a very useful feature for doing automatic step & repeat. Negative offset values would place the copy to the left and above the reference item.

Contour offset –The editor can automatically create offset copies of the selected items, centered to the reference item. The X and Y gap between these items is selected here.



Positive offset values will create copies that are bigger in one or both directions. Subsequent contours will be created with respect to the previous one made. Contours that might be too big or too small for the canvas size will not be created by the editor. The newly created contours have higher overlapping, Z, order than the previous ones.

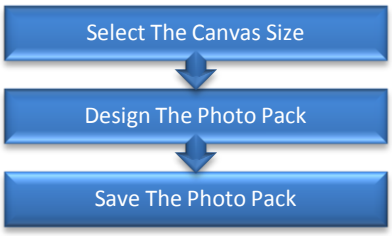
Current Selection – Select the required cell by clicking on it. It will then be highlighted in light blue colour. The width and height of the selected item as well as its X & Y coordinates are displayed in their corresponding entries as shown below. These parameters are writable and the user can enter exact values here if required.



When multiple items are selected, then the values shown in here would be for the group.

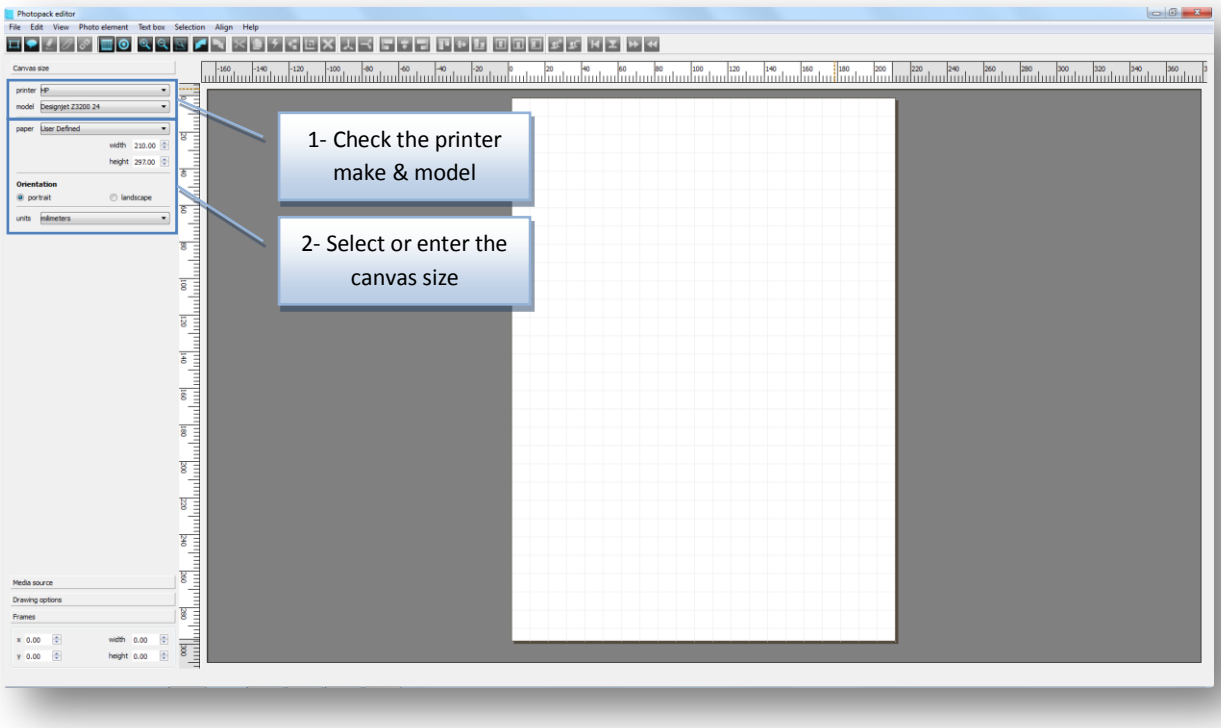
Examples

Let's have a look at some actual examples of creating a photo pack from start to finish. The complete process can be broken down to three easy steps as illustrated in the diagram below.



To start up the editor within the Shiraz Focus system either click on the Tools menu and select this option or press the (Ctrl + O) keys.

Canvas Size - When the editor is first loaded the default settings for the printer make and model are the same as the ones currently set in the Focus module. Also the default parameters are inherited from the previous session.

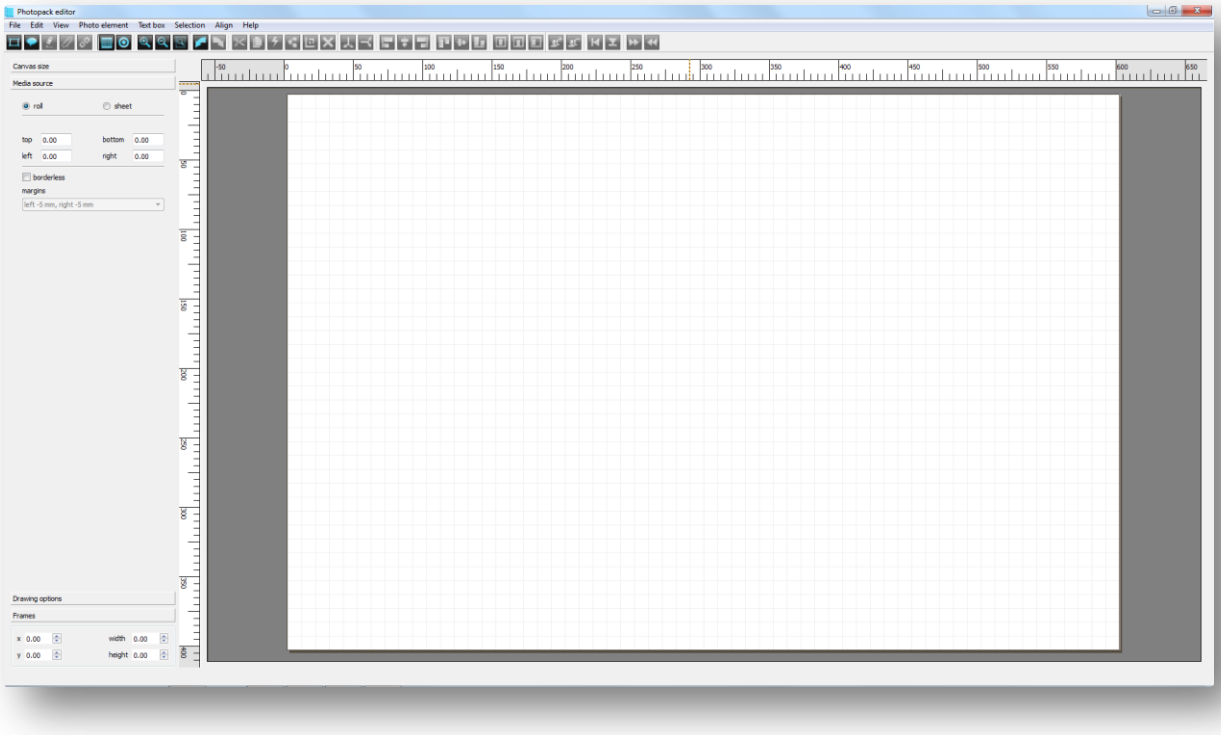


If you would like to create photo packs for other printer types, then as in step **1** above first select the printer and then model required. Next step is to actually set the canvas size as in step **2**. This can either be done by selecting a standard page sizes from the paper drop down menu or typing the actual dimensions required. To change the orientation select on the one required. Any changes made here are then reflected in the canvas shown.

Note: To get a better view of the canvas use the zoom options available in the tool bar.

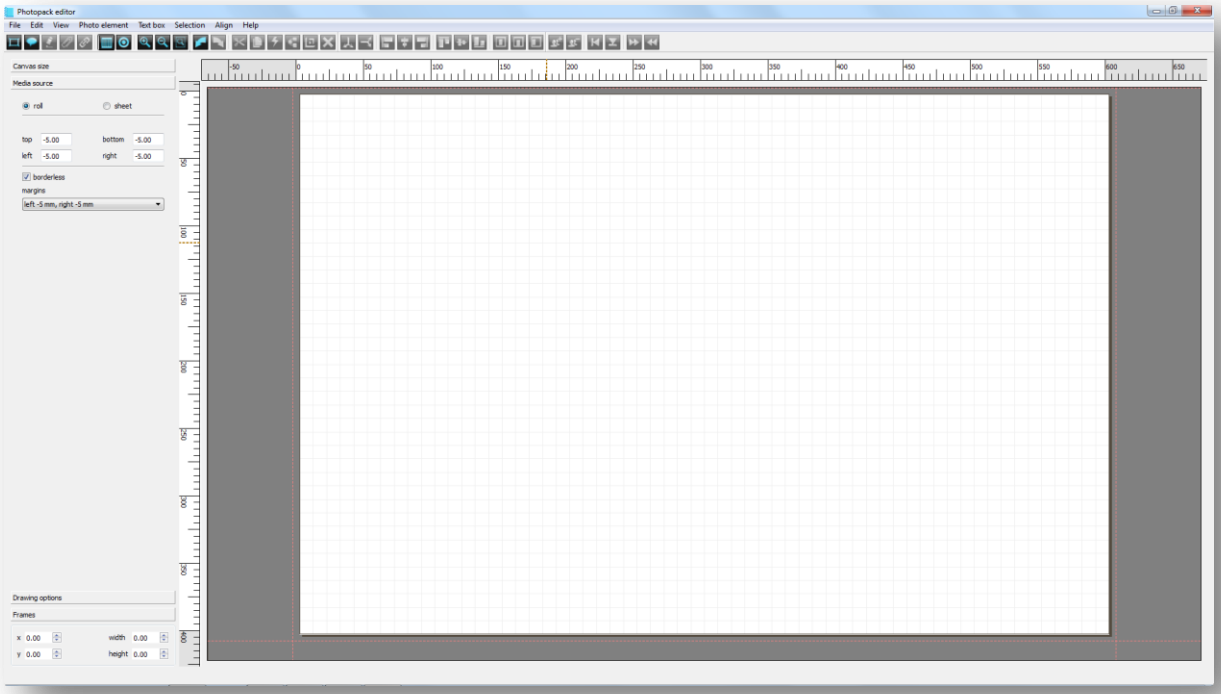
Next choose the media source that the photo pack is being designed for. The two main choices here are **Roll** and **Sheet**. The main difference between these two is the fact that in sheet mode the hardware margins must be taken into account when designing the photo pack. Failing to do so might cause the prints to be clipped on the printer if they fall outside the margins.

In the example above there are no margin settings as the media source is set for **Roll**. On the other hand if the **Sheet** option is selected then dashed red lines are drawn near the edges of the canvas to reflect this. The actual values for the margins are also shown for all four sides. These values are read only and cannot be altered.



By adding the margins we are effectively reducing the usable area but ensuring that all images on the photo pack will be printed in the correct position and without clipping.

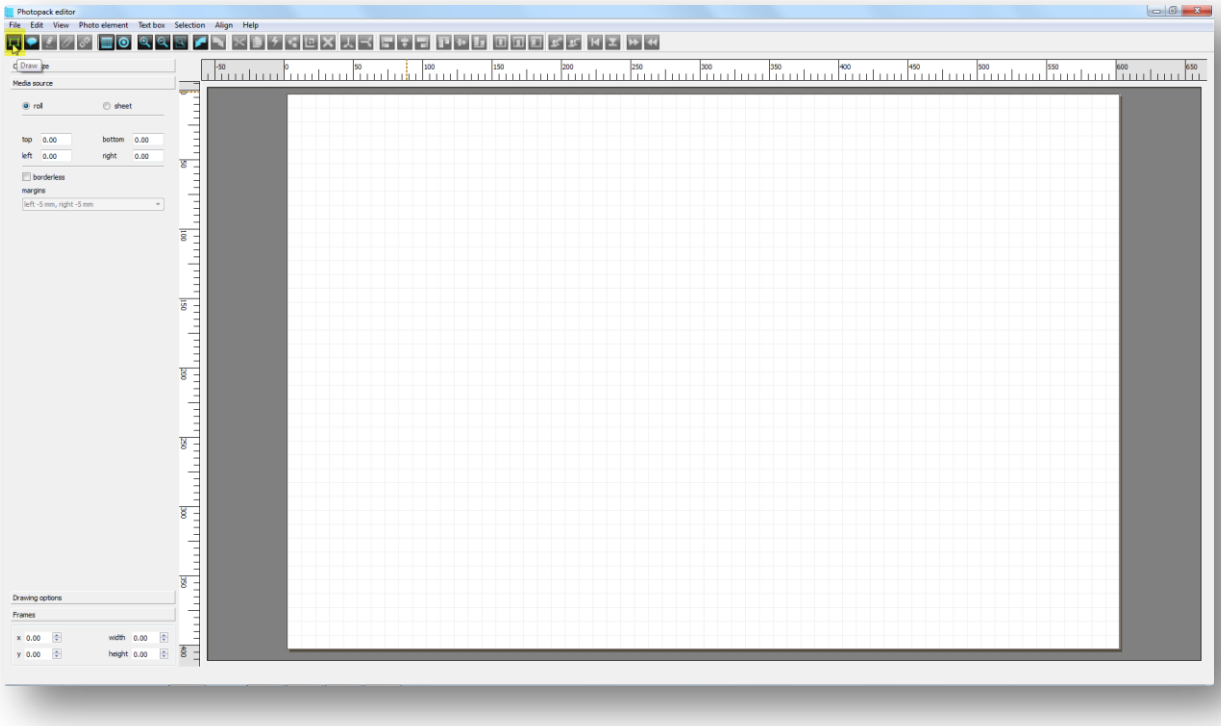
If you intend to use the photo pack for borderless printing then make sure to select this option to instruct the editor to save the photo pack accordingly. When the borderless option is selected then the margins will be set slightly outside the canvas boundary to allow for this.



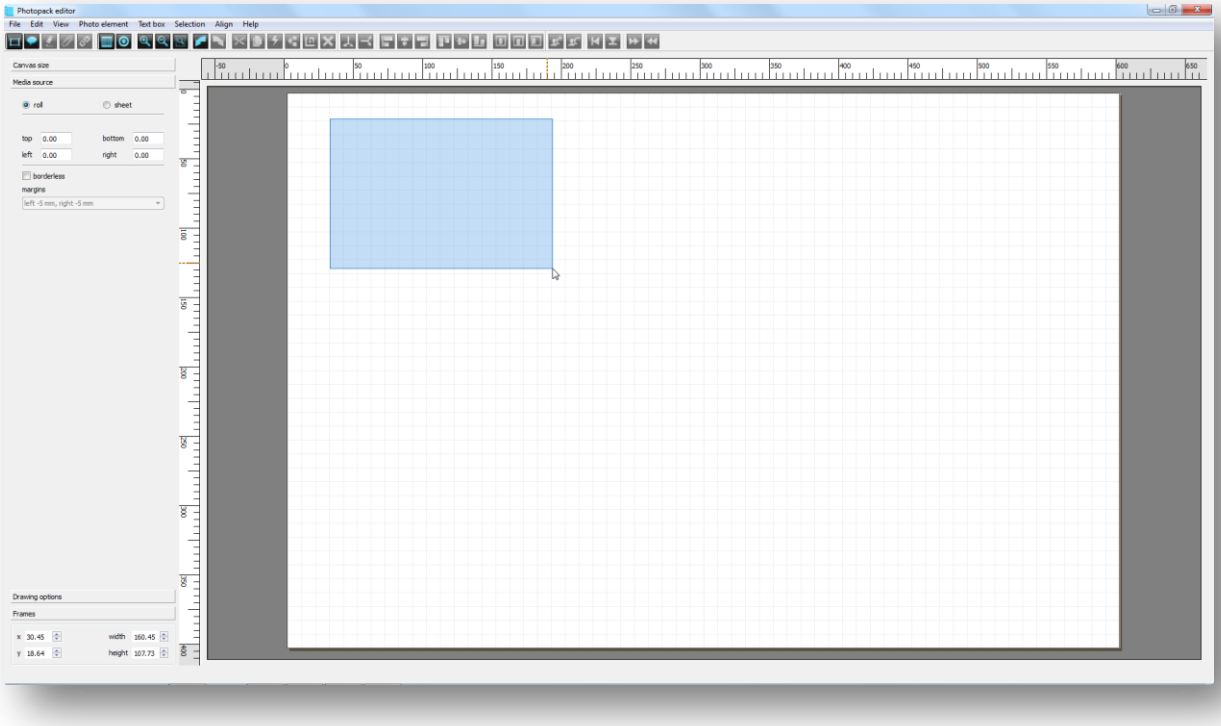
The values for the borderless margins are set from the manufacturer's specification and cannot be changed. On some printer models it is possible to have more than one option of borderless margins. Consult the printer's user manual for more details.

Once the canvas sizes and all its associated options have been set you will be ready to move on to the next step.

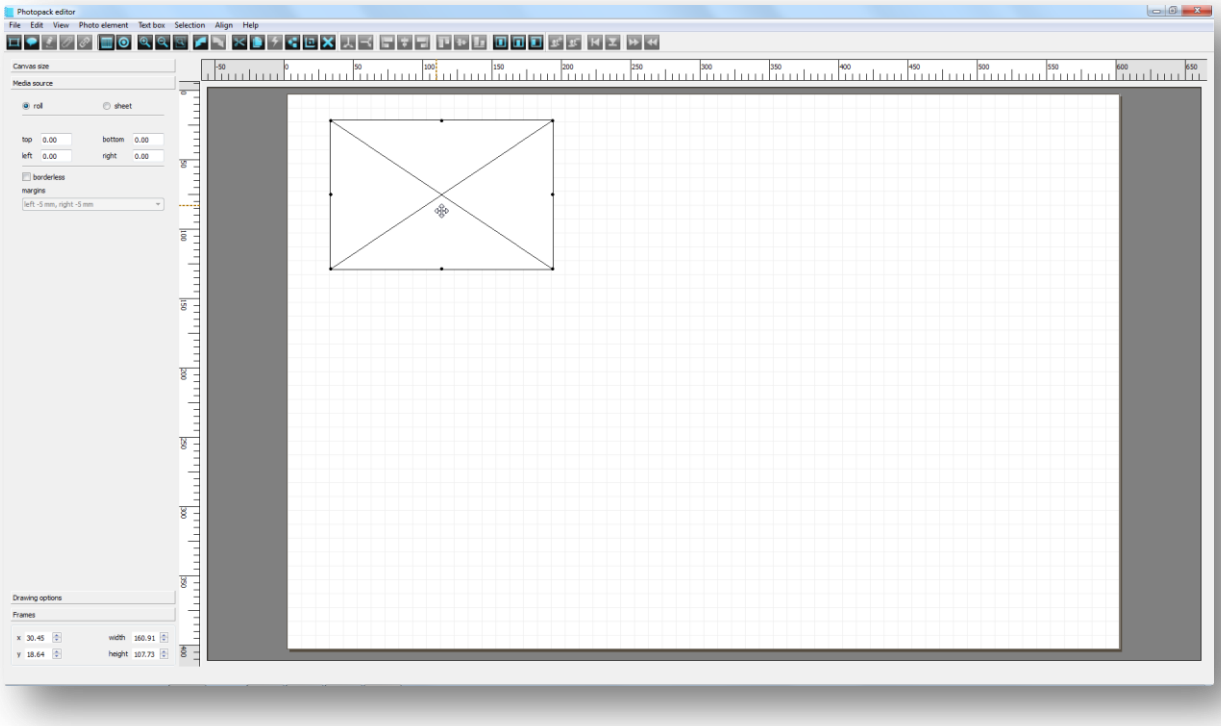
Photo Pack Design – Now that we have setup the canvas properties we can start the main task of designing the actual photo pack. The first step is to select the **Draw** operator from the tool bar.



Now place the cursor somewhere on the canvas and click and drag. A transparent rectangle will now be drawn. Once you are roughly happy with the size release the mouse button to stop the drawing.

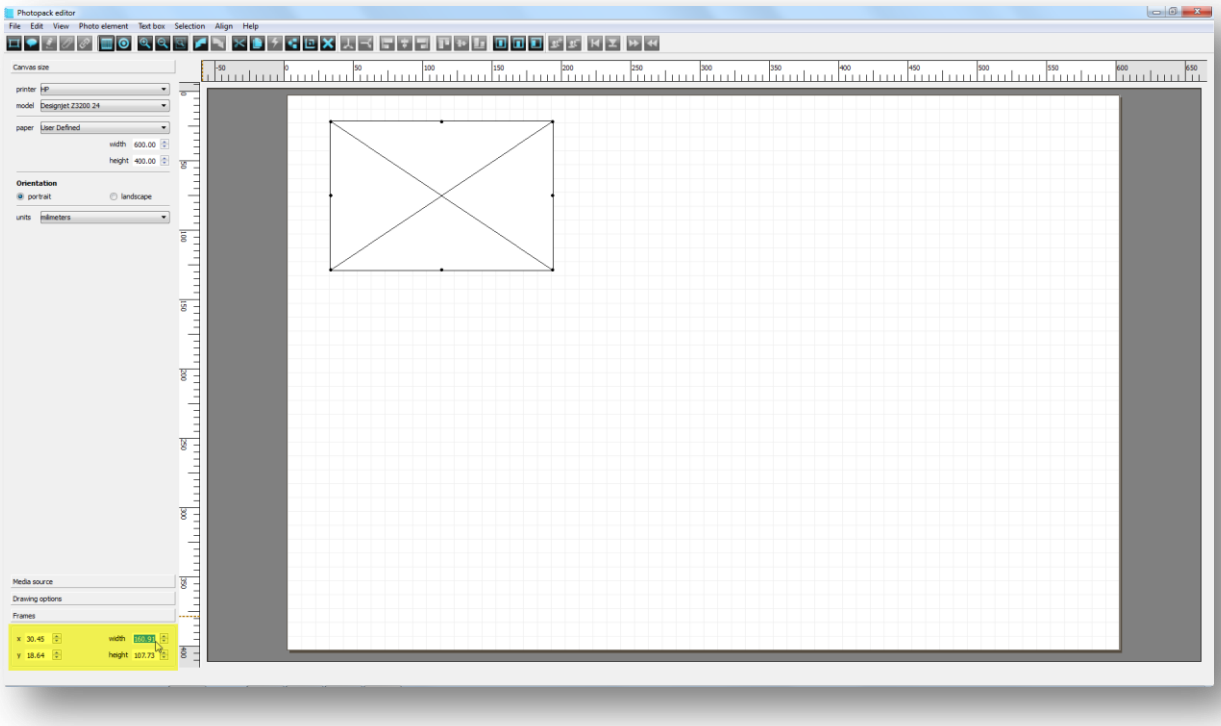


The cell just drawn will now be displayed in light blue and its corner and center points highlighted.



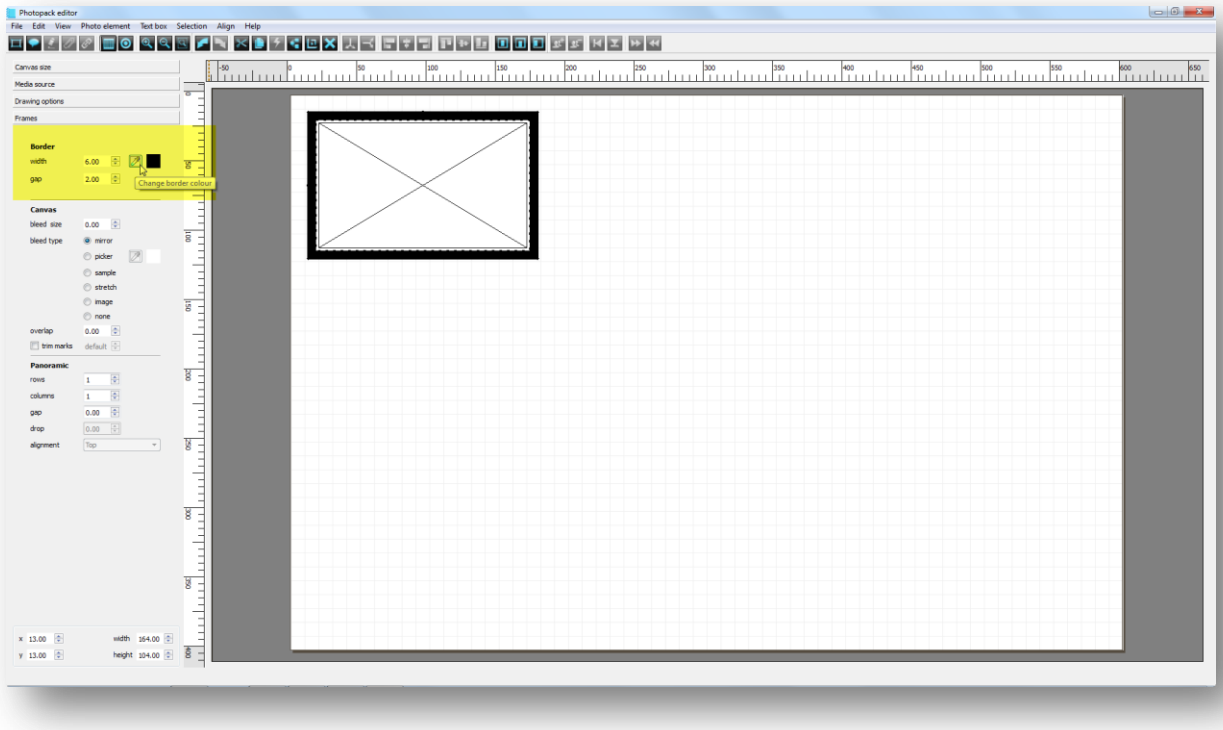
At the end of the draw the editor state is changed to the select mode that allows the user to resize or move the cell. Place the cursor somewhere inside to move or near the corner or center points to resize.

To size and position the cell exactly, enter the corresponding parameters in the entry boxes provided.



The origin of both the canvas and the cell is based on their top left corner. The editor automatically limits the size and coordinates to within the canvas boundary.

Next we want to add a black border frame around the picture box. To do this select the picture box and then click on the Frame tab and set the border size and colour as shown below.

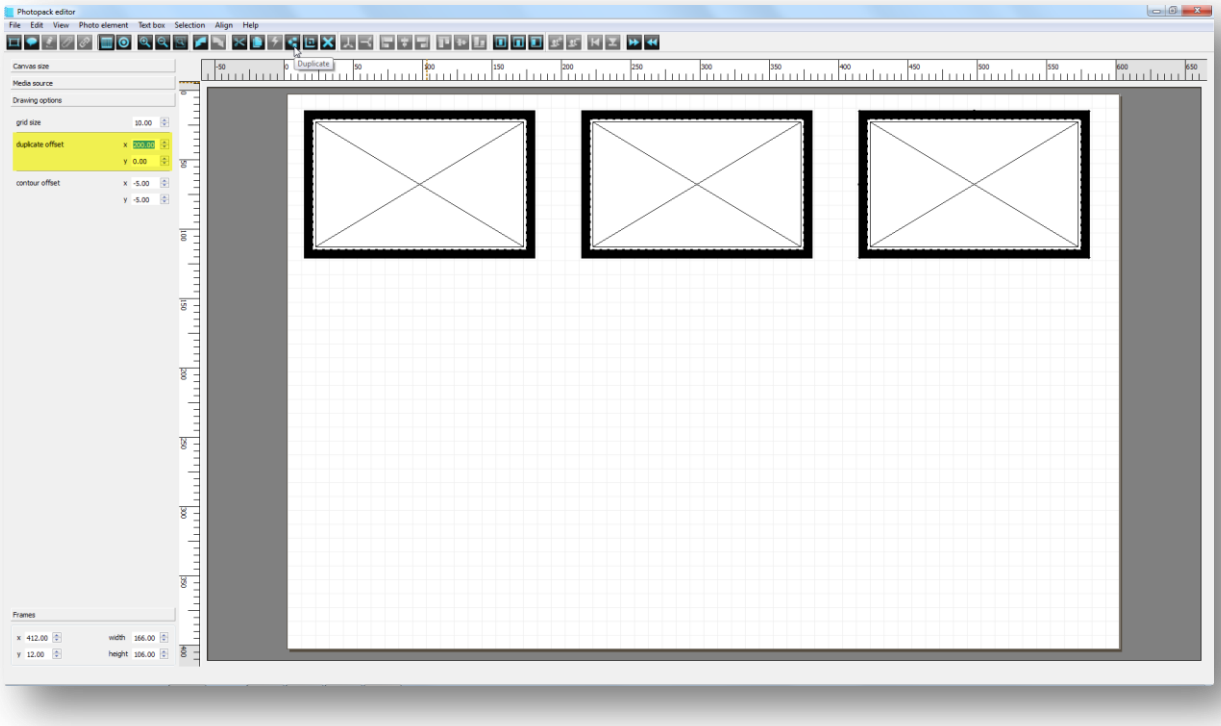


We have also have added a 2mm gap between the border and the photo box for effect.

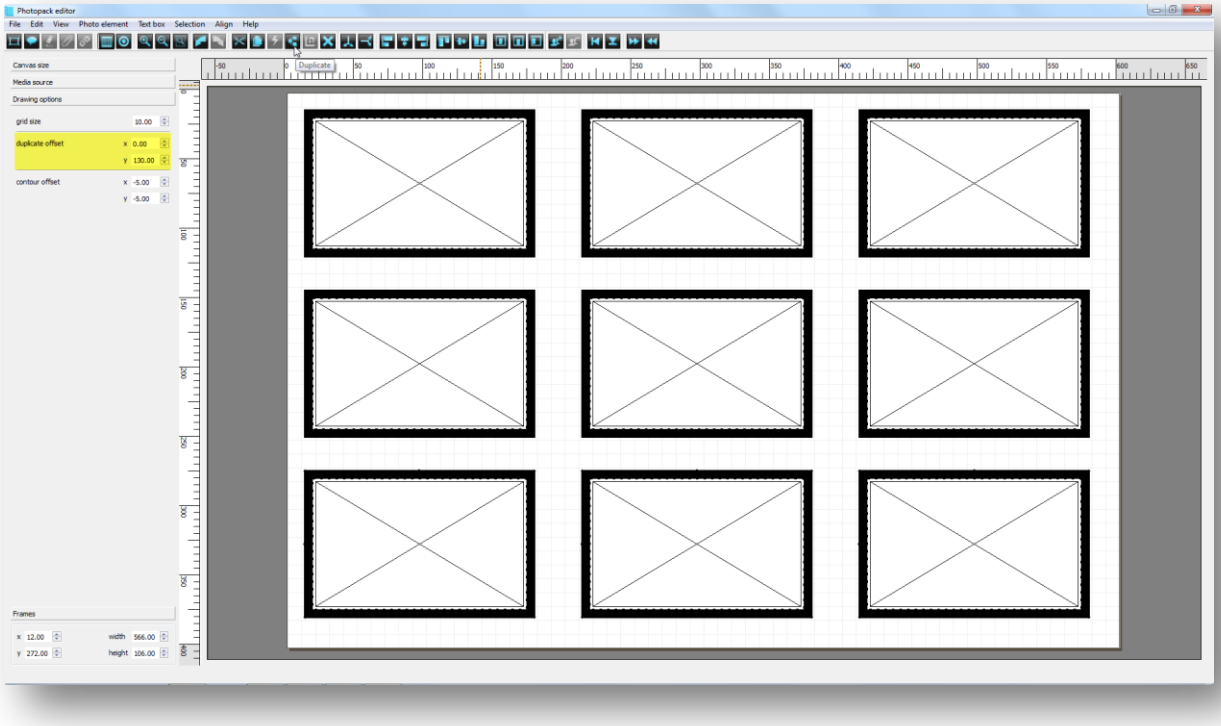
In most cases we would want to create copies of the cells and place them at regular intervals (step & repeat). To do this we must first decide the gap between the repeats and enter this value in the **Duplicate offset** entry boxes.

In the example here we would want to have a gap of 40mm in the X direction and no change in the vertical direction (Zero Y move). So the offset value would be (X:200 ,Y: 0). The reason that the X value is 200 is because the offset is calculated from the left edge to left edge, so in this case the width of the cell which 160 is added to 40 to give us 200. Of course the Y is 0 because we want the repeats on the same vertical level.

Once you have entered the offset, make sure that the original cell is selected and press the **Duplicate** icon on the tool bar as illustrated below.



To create more duplicates simply click on the **Duplicate** icon again. This would result in another copy with respect to the last one just created.

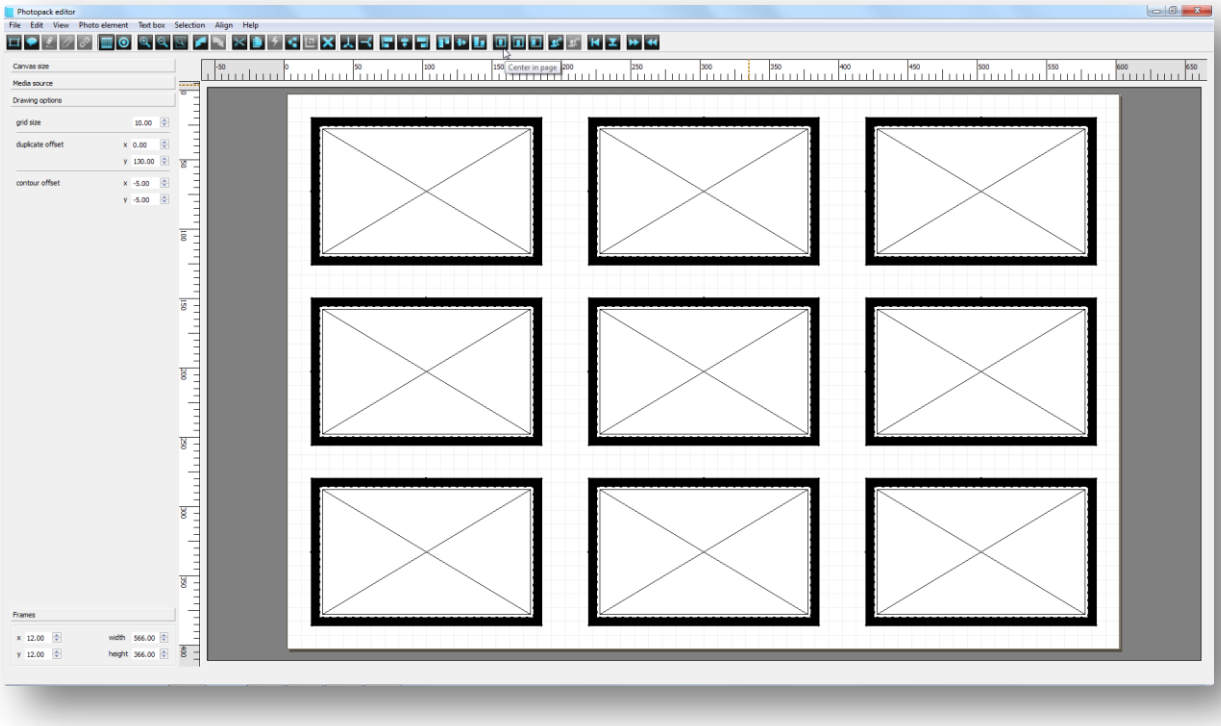


The next stage would be to repeat the entire row in the vertical direction. To do this we would first need to select the row by dragging a lasso around all the cells or pressing the **Select All** (Ctrl + A) shortcut keys. Selected items will be highlighted with their control points.

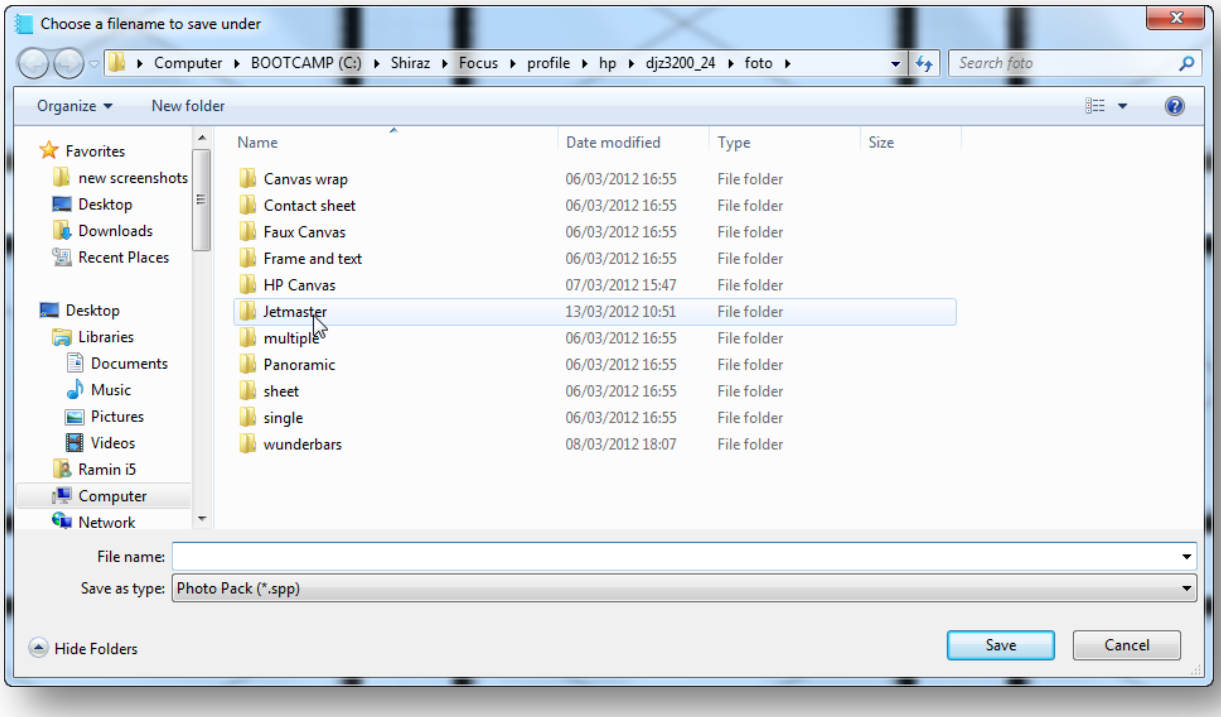
Now we would again need to enter the offset values for the repeats. This time the X offset would be zero and, assuming that we would want the same gap of 40mm in the vertical direction, Y would be 130 (90+40). Click the duplicate button twice to create three rows in total.

Note: If you make any mistake at any stage simply use the Undo (Ctrl + Z) & Redo (Ctrl + Y) icons located on the tool bar.

In the final stage of our design process we would want to make sure that the whole design is exactly centered in the photo pack. This is easily done by selecting all (Ctrl + A) and then clicking on the **Center in page** icon on the tool bar.

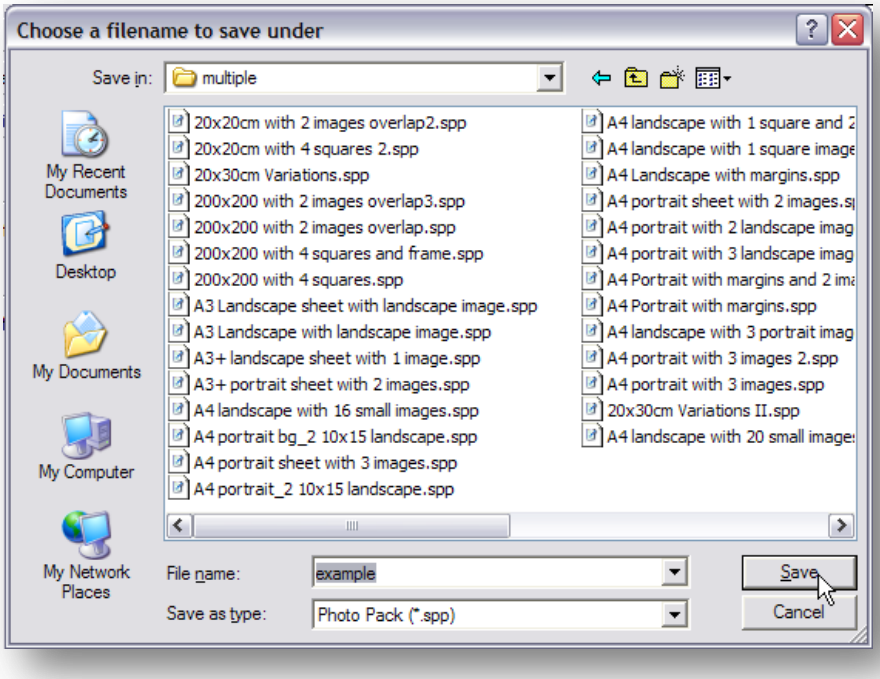


Saving – To save the newly created 'masterpiece' select the **Save** option from the **File** menu or press (Ctrl +S) shortcut keys. A file dialog window will be presented to the user with the default photo pack folder for the currently selected printer model.



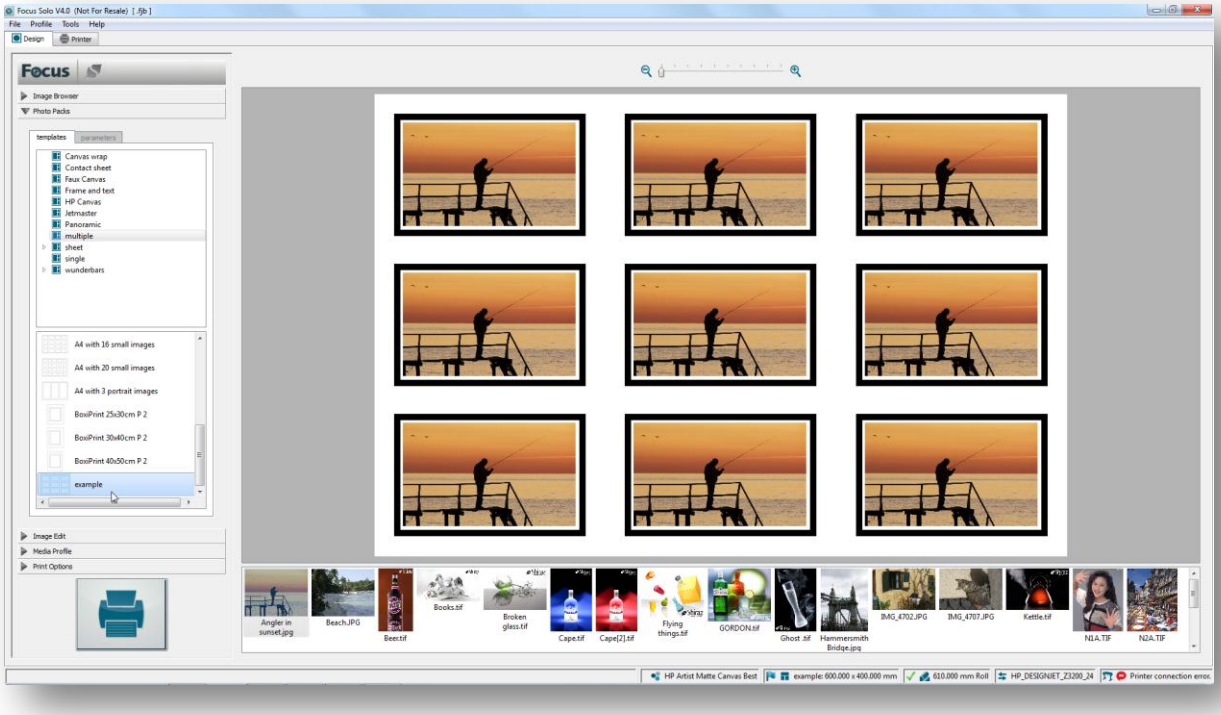
The 'foto' folder is the parent folder for the photo packs and there are many subfolders for all the photo packs categories.

In our case we would want to save it in the **multiple** folder and save it as *example.spp*.



Once we have saved the photo pack, it would appear in the list of photo packs in the Focus module on the exit from the editor. As default the file extension of *.spp* is assigned to the filename.

An example of the use of the photo pack just created can be seen below. Here we have selected all the outside cells and then loaded the image for the 'border'. Then selected all the inside cells and loaded the image of the baby. The resultant design can be seen below.



This is just one example of the kind of templates that can be easily made with the editor. With a bit more creativity and patience it is possible to create very nice and usable range of photo packs of your own.

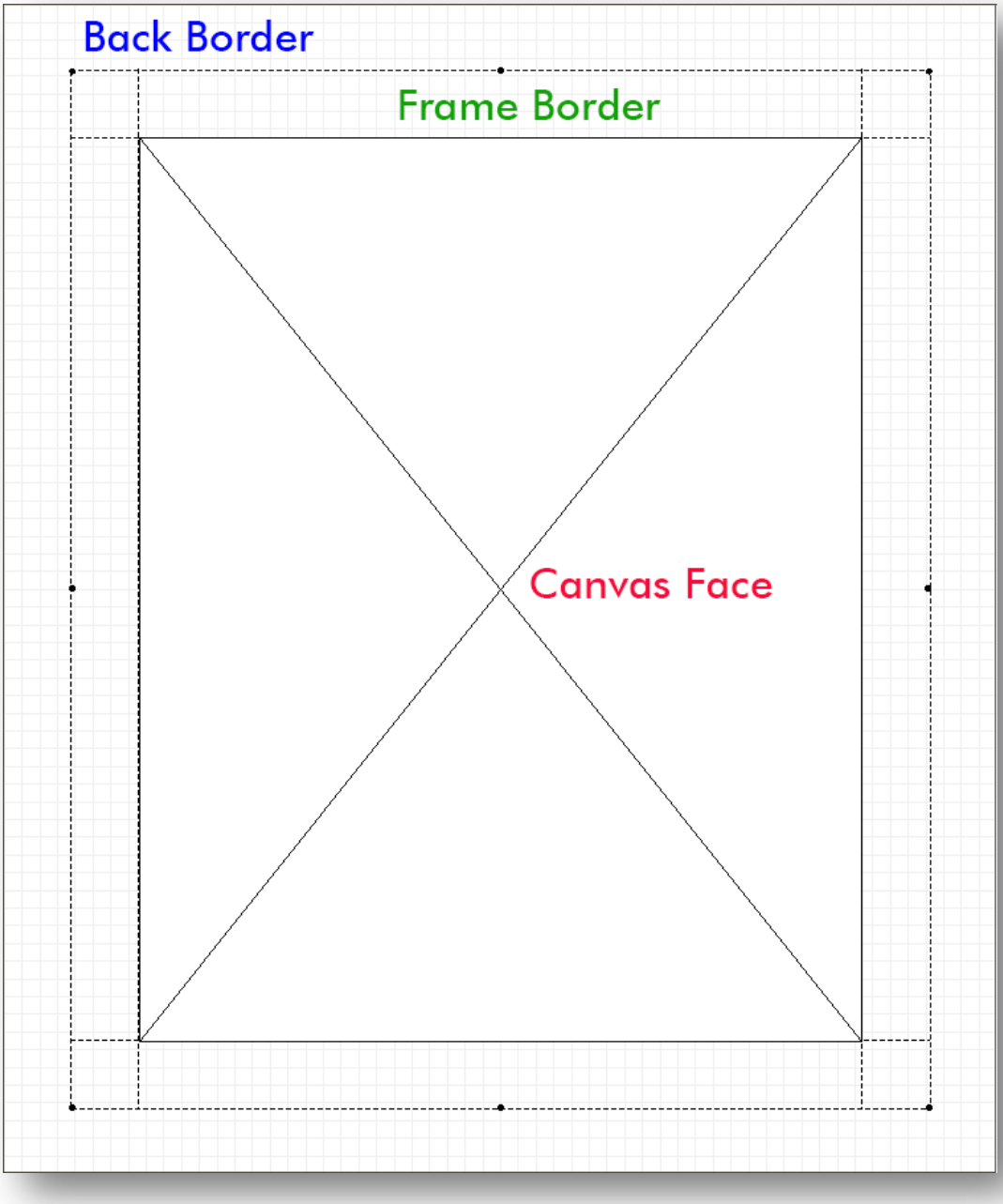
Canvas Gallery Wrap Template Design

In this next example we will go through the steps for creating a canvas gallery wrap template. The steps are very similar to the above example except for the additional step needed to define the canvas border size and type.

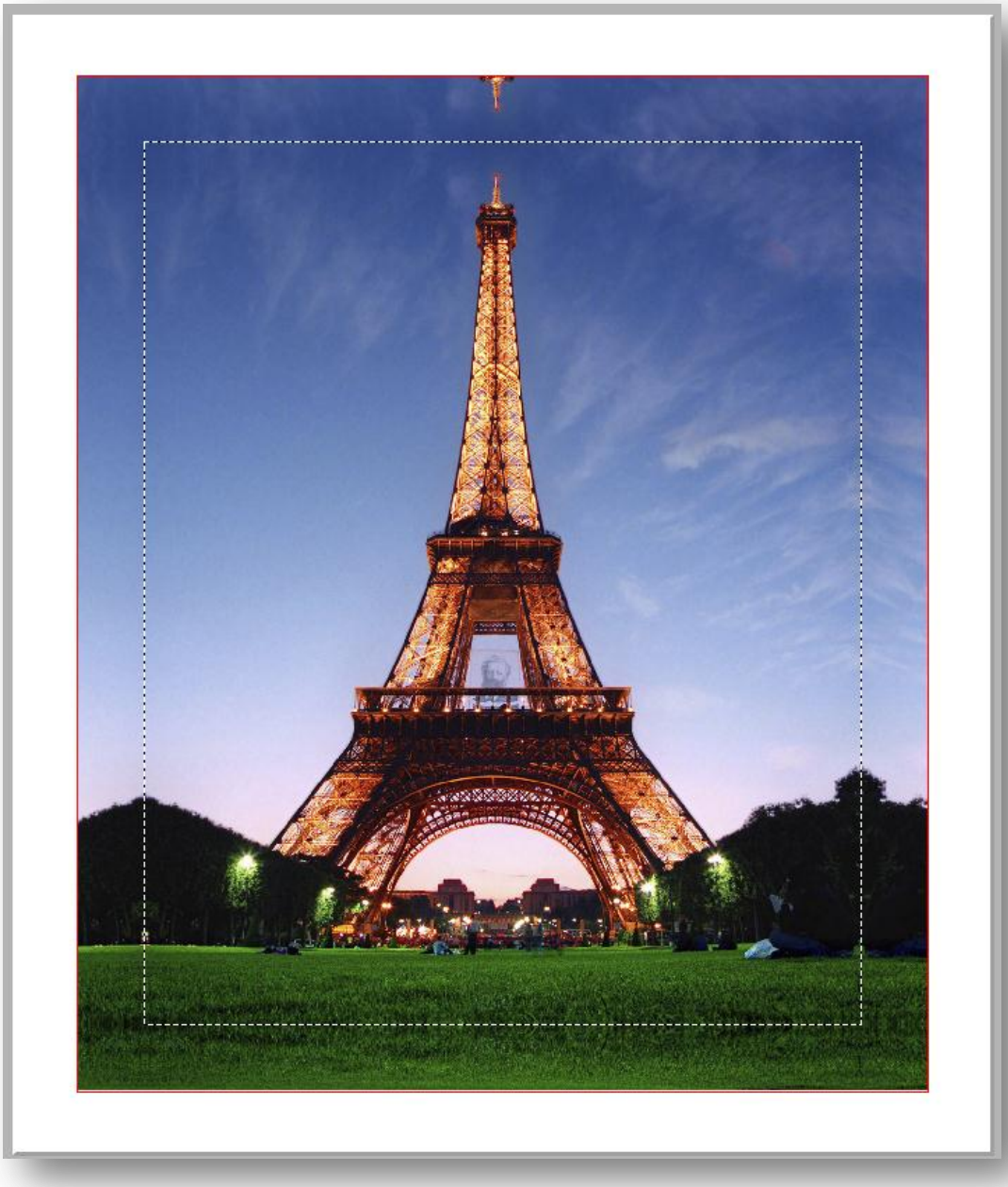
Gallery wrap refers to a method of stretching an artist's canvas so that the canvas wraps around the sides (stretcher or strainer bars) and is secured to the back of the frame. The frame is usually 30mm (1.25") thick. The result is the hardware (staples or tacks) used for securing the canvas is not visible on the sides.

The sides of the canvas are prepared and primed in the same manner as the face, which may then be painted a solid colour or painted to continue the image appearing on the face. This method of stretching and preparing a canvas allows for a frameless presentation of the finished painting.

In canvas printing, the term gallery wrap refers to an image that appears on the sides of the frame as well as the front. The image on the sides is either a continuation or a reflection of the main image as well solid colours. The various gallery wrap options available in the software are graphically demonstrated below:

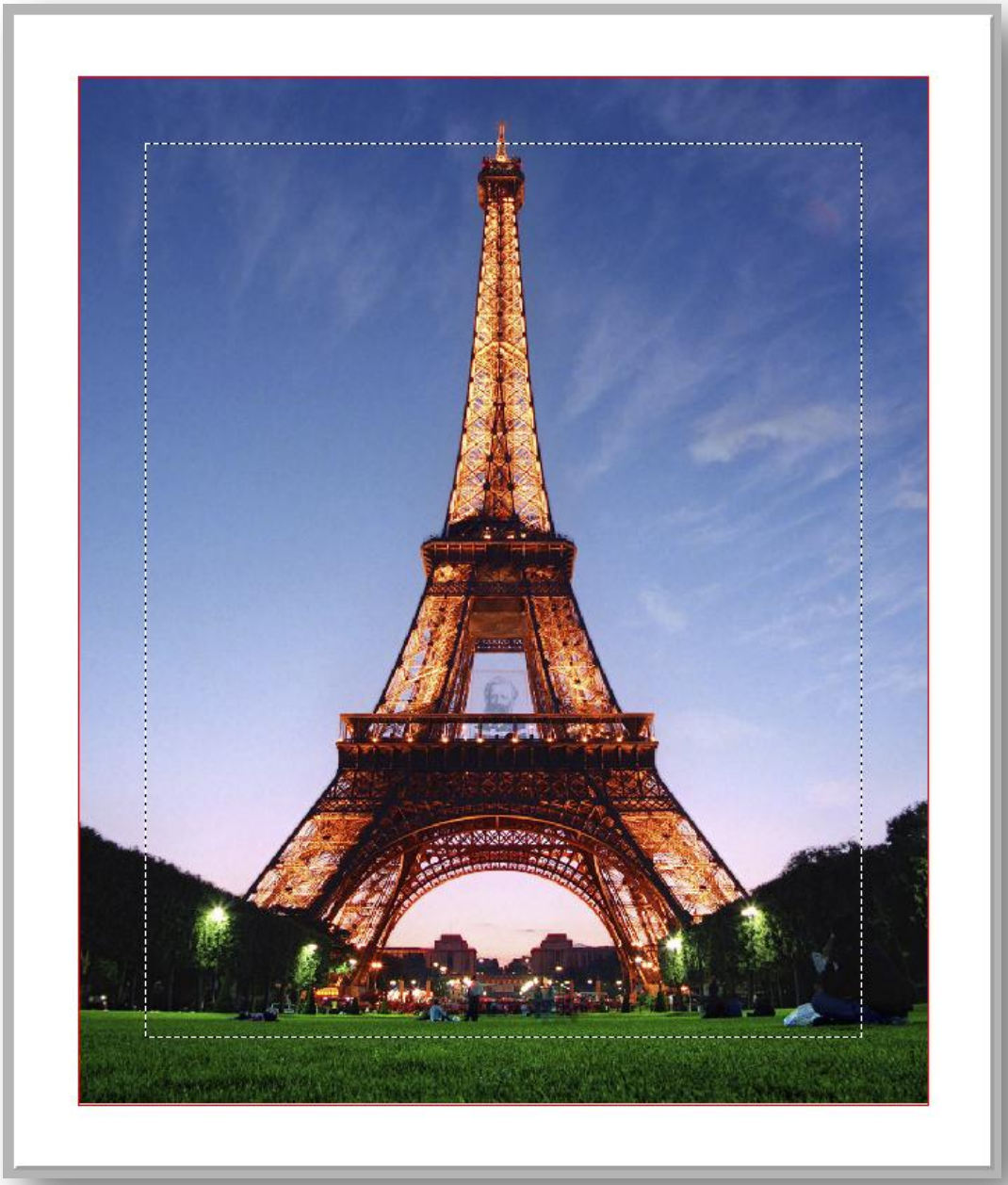


The image above details the various parts of a typical gallery wrap template. The ‘Frame Border’ is automatically generated by the software based on the image placed on the ‘Canvas Face’. The various effects available are shown below:



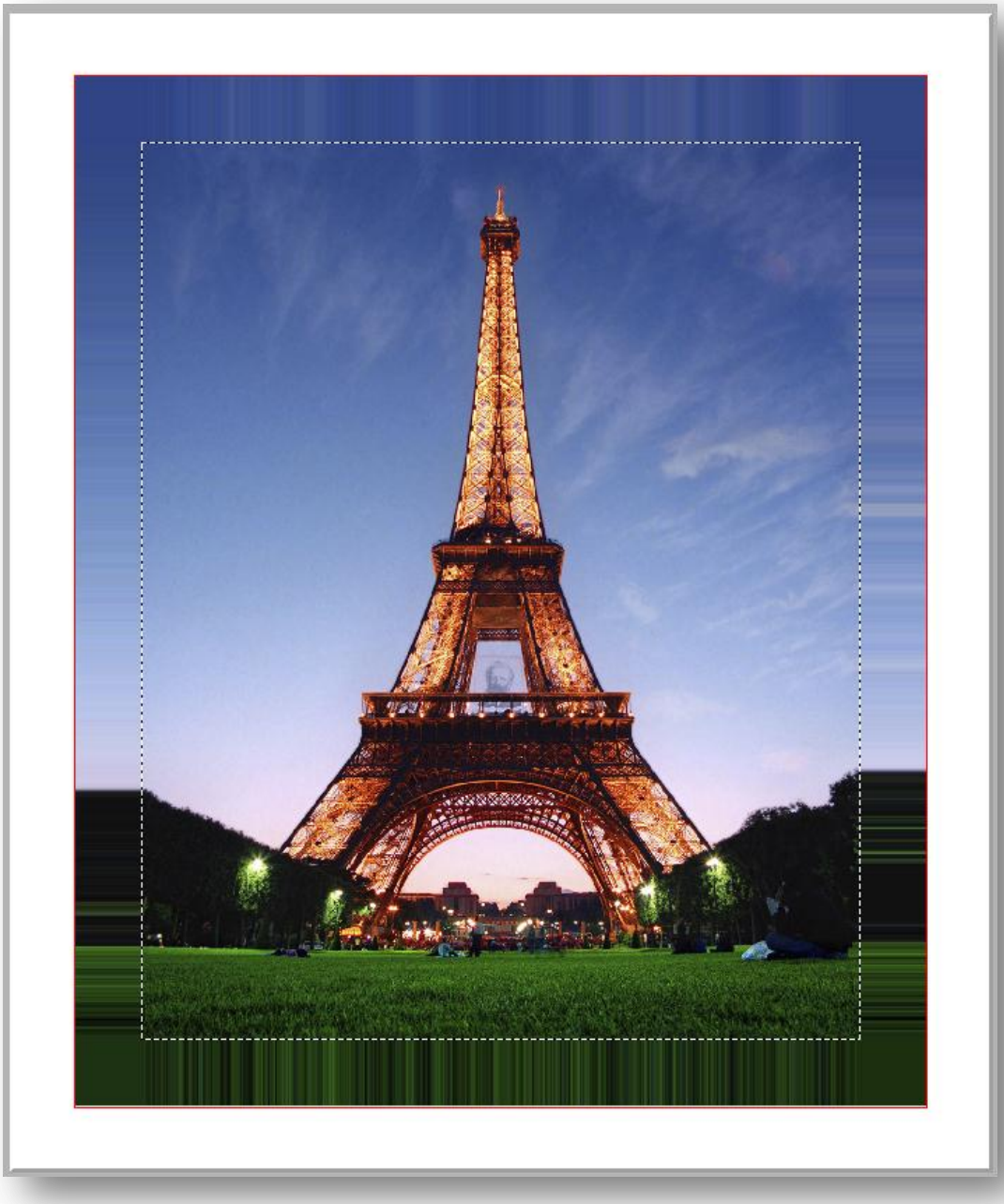
Mirror

In this mode the edge area of the image is automatically duplicated and mirrored to the size of the frame. In this way no part of the image is 'lost' to the frame area. This is the most popular method used.



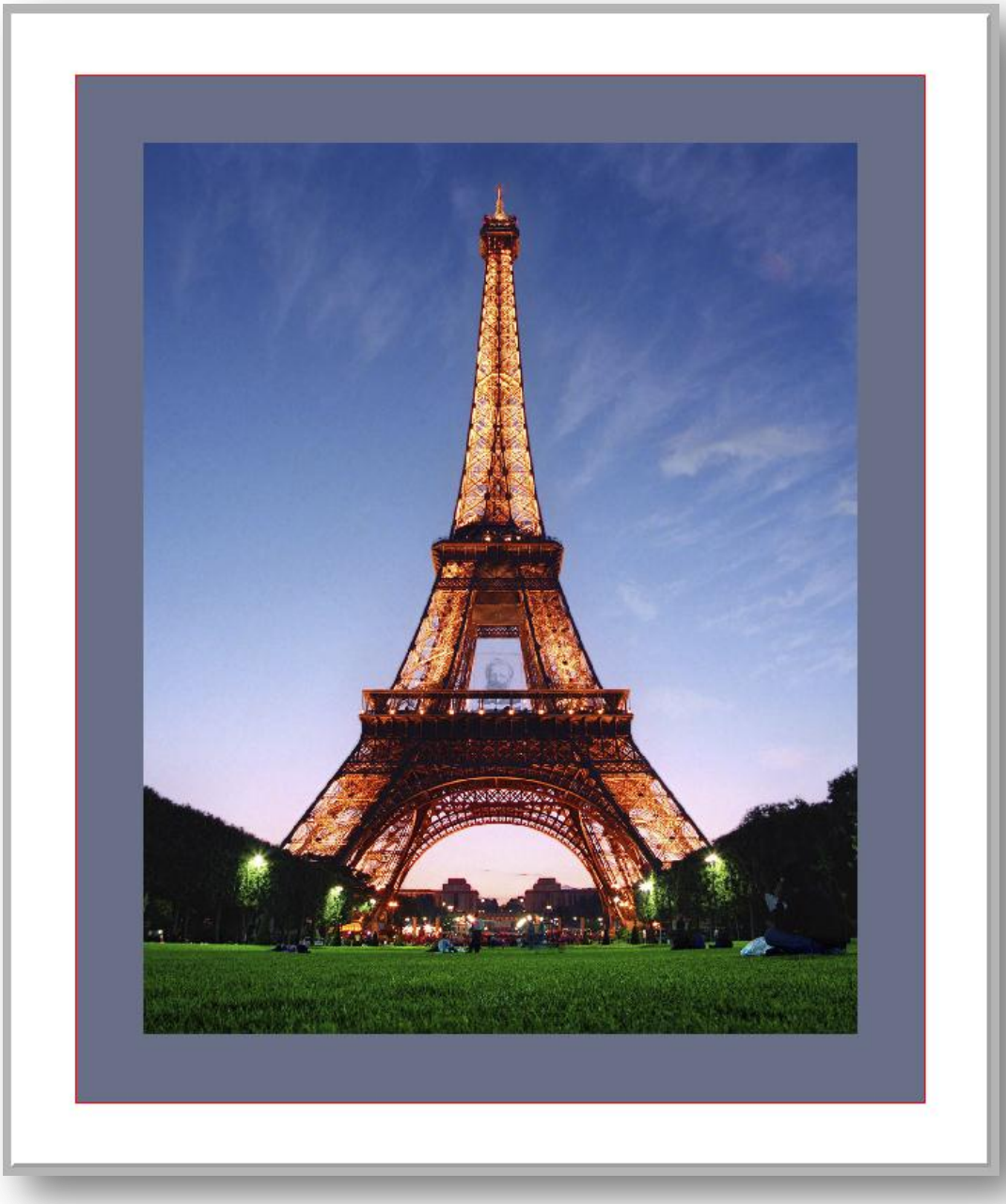
Image

Using the Image option as shown above then the image is scaled automatically to cover the face and frame area. In this way part of the image is used for the frame that can result in cropping of the image. This mode is only useful if the main subject matter is not close to the edges. In the above example it is clearly not a suitable option as the top of the Eifel tower will be 'cropped' out.



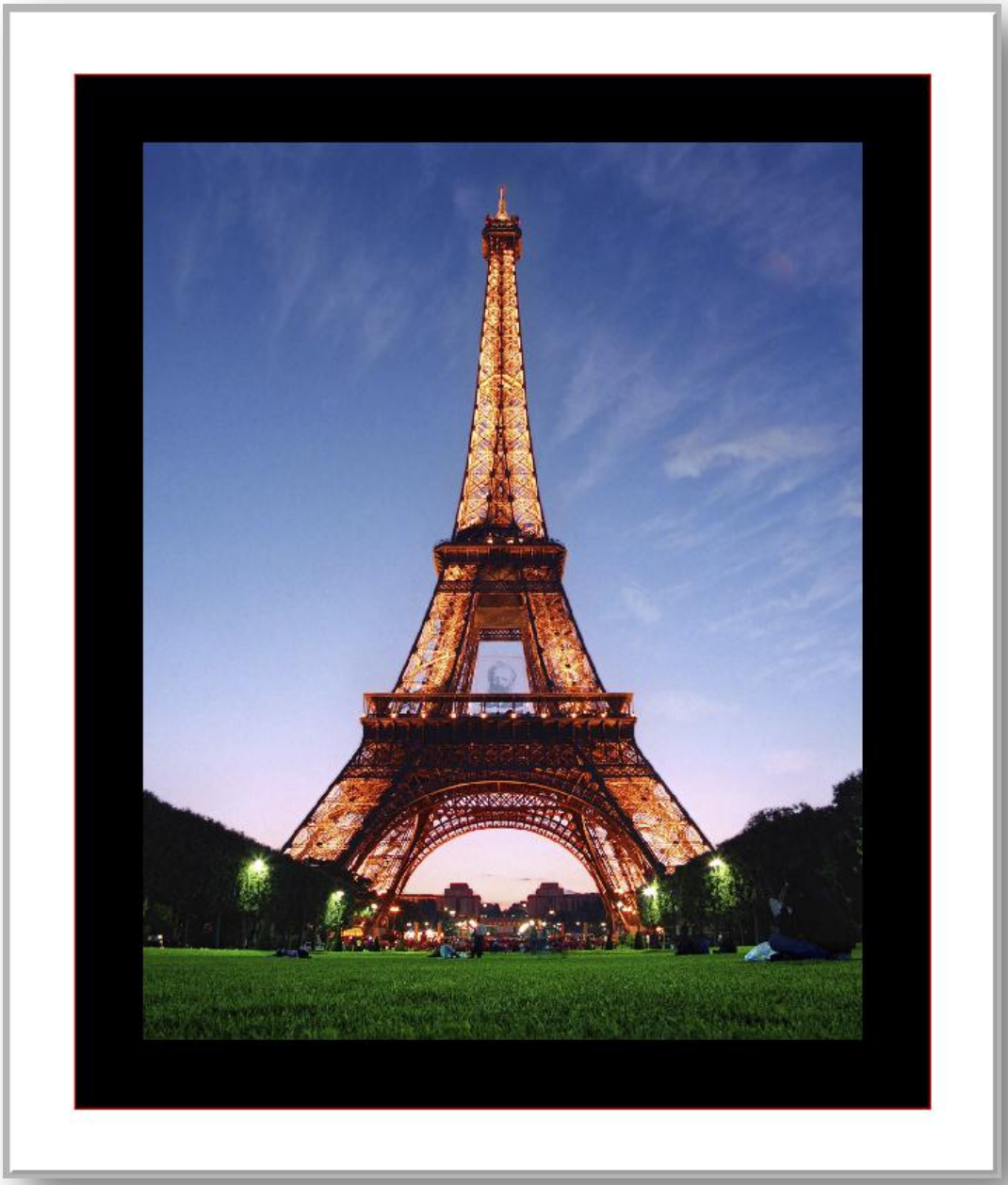
Stretch

The stretch effect simulates the manual stretching of the canvas around the frame. This option works particularly well for images that have uniform colours around their edges.



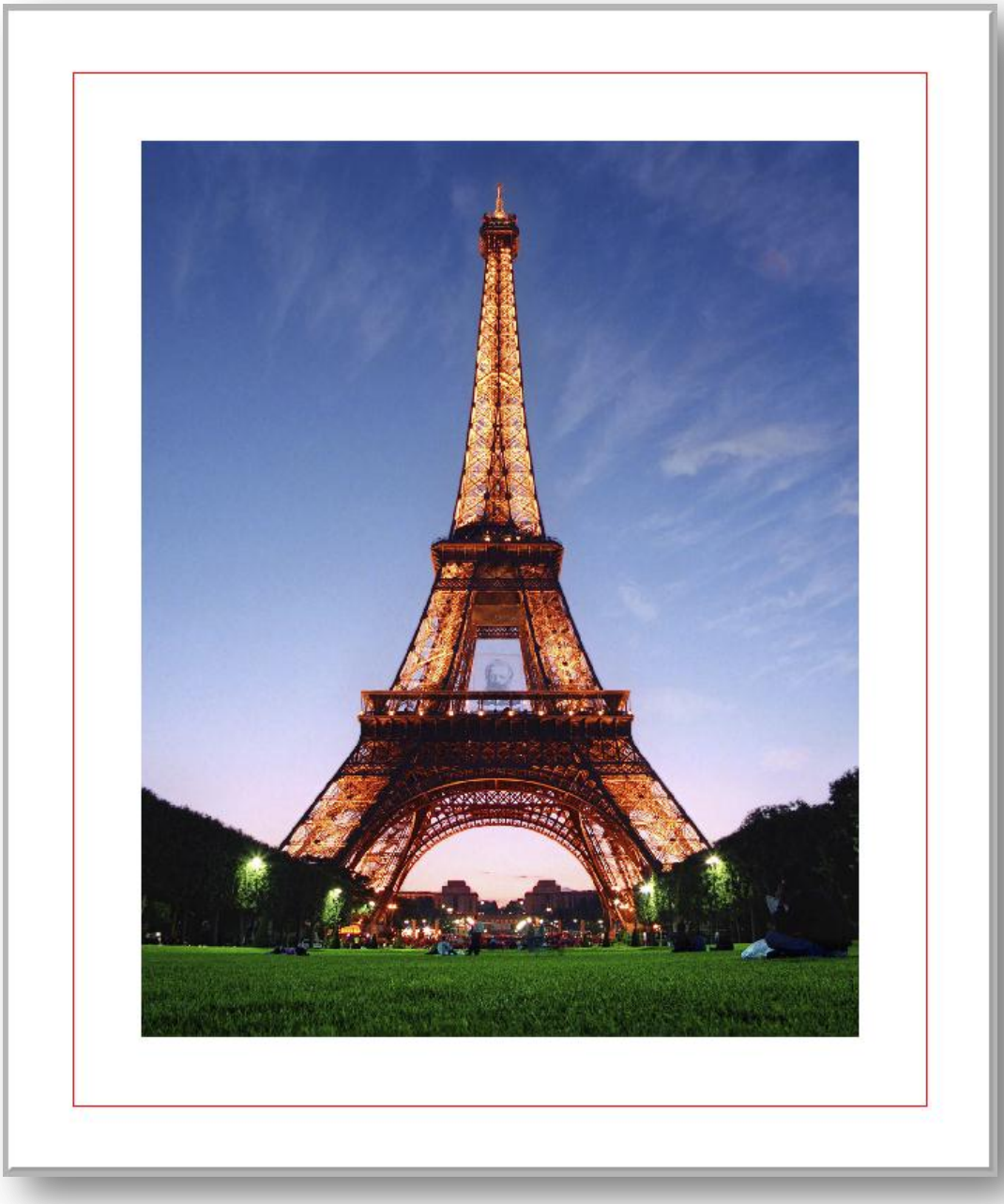
Sample

This option sets the frame to use a solid colour based on the average colour calculated for the placed image.



Picker

This option enables users to select any colour required for the frame by using the system's colour picker feature.

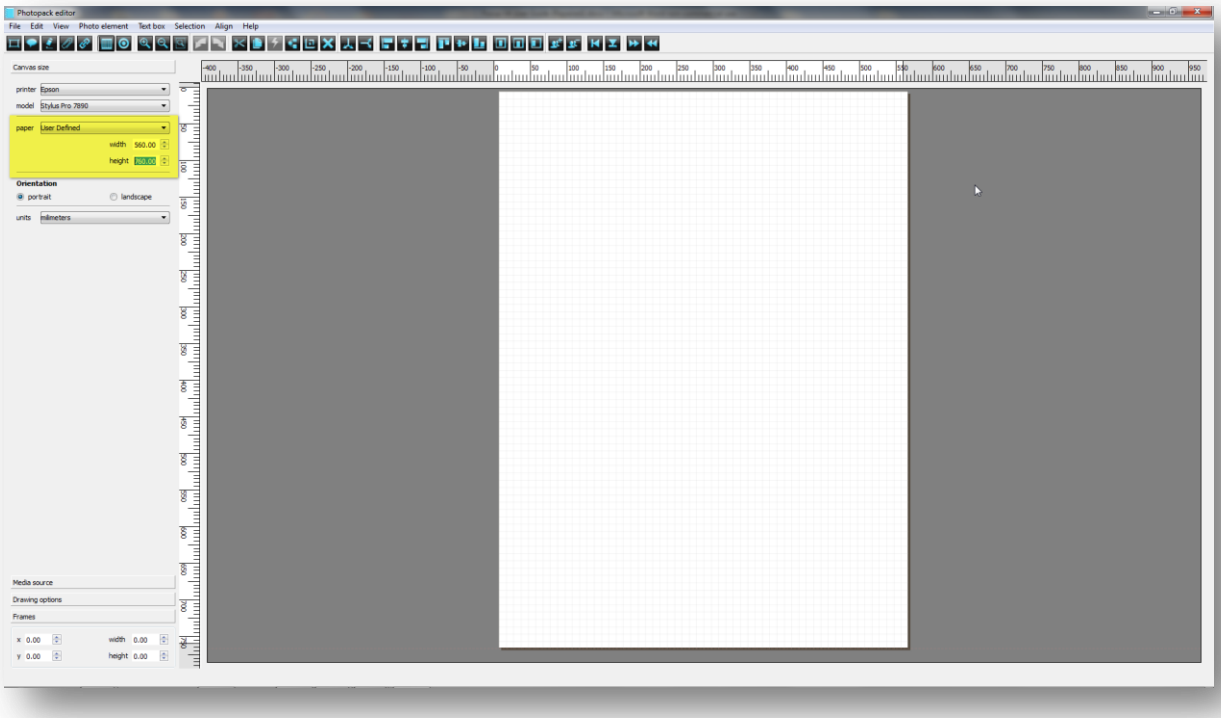


None

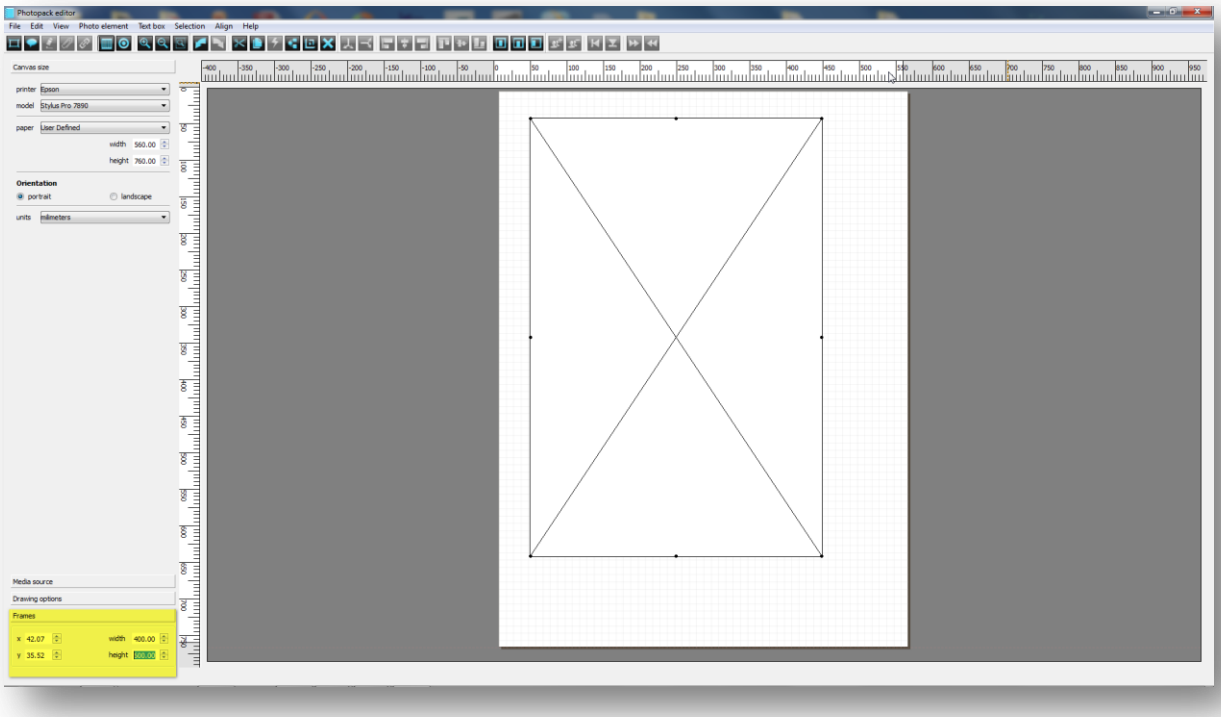
As the name suggests this option leaves the frame area as blank.

The first step in designing a canvas template is to first define the overall dimension. The total width is the total of Canvas Face Width + 2 x Frame Border + 2 x Back Border. Similarly the total height is Canvas Face Height + 2 x Frame Border + 2 X Back Border.

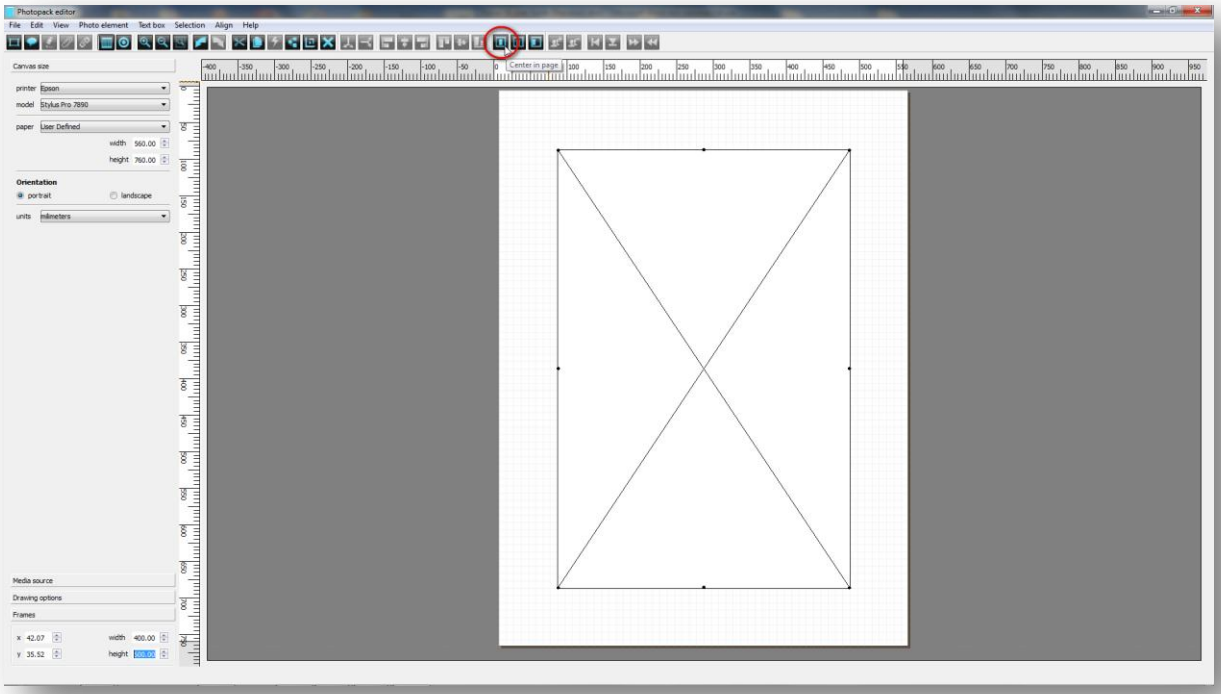
In the example below we want to design a gallery wrap that has a Canvas Face of 400 x 600mm, a Frame Border of 50mm and a Back Border of 30mm. So based on that the total width and height would be = 560 x 760mm.



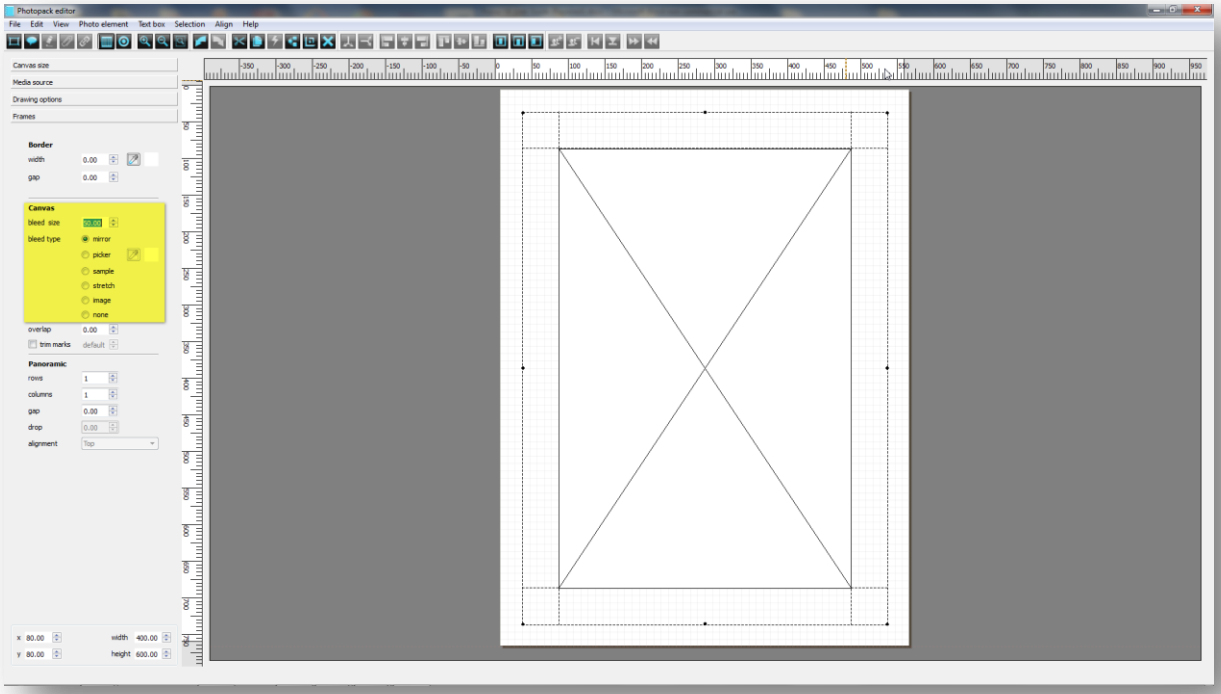
Once we have defined the overall dimensions as illustrated above then we can draw the Canvas Face and define its width/height and X/Y position.



Next step is to place the Face area centrally within the canvas area. To do this, simply click on the auto centre icon as shown below.



Now we need to define the Frame Border size. This can be done by going into the Frames tab first and then entering the required value into the Bleed Size box as shown below.



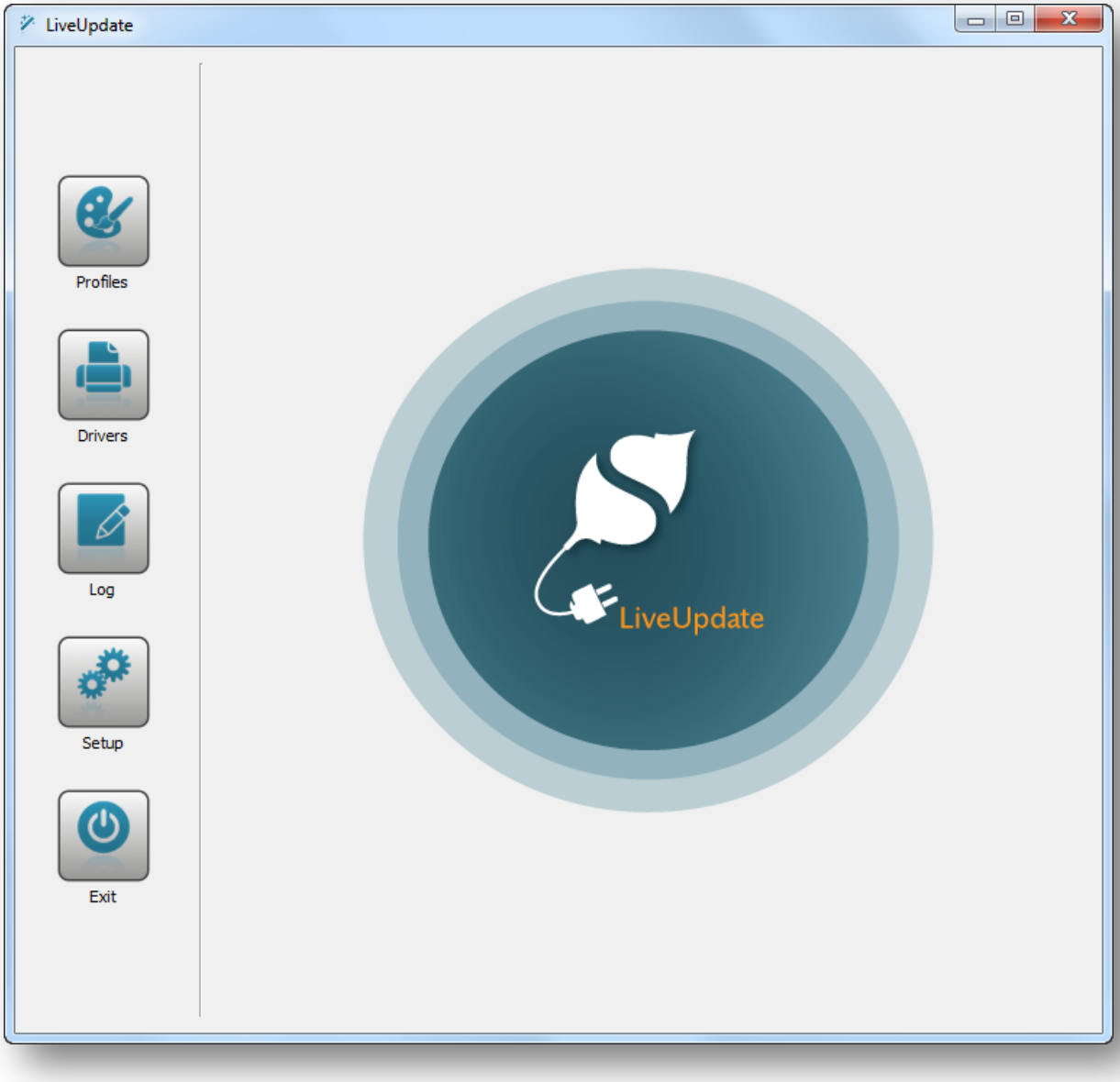
It is also here that we define the Frame Type which in this case is Mirror. The design is now complete and we just need to save this as before.

To use the photo pack, select the template from the folder that it was saved to and drag your image onto it. An example of which is shown above.

Liveupdate

To install additional media profiles or update your Shiraz printer drivers from the Shiraz cloud storage or Shiraz Focus DVD use the **Liveupdate** tool that is available from the **Tools** menu.

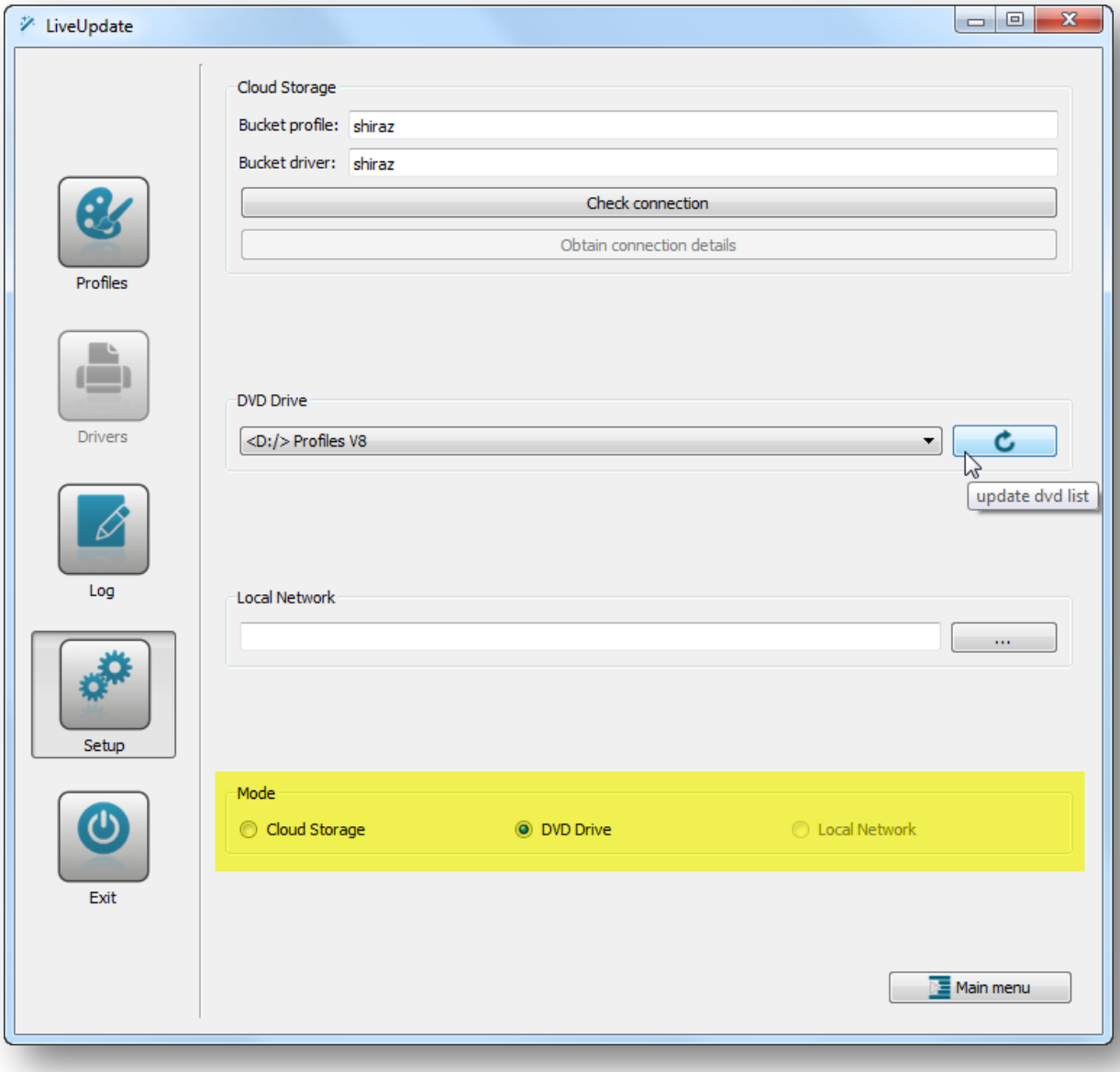
To start up the application click on the Tools drop down menu in the Focus module and select this option. The following windows will then be displayed by the system.



If your computer is connected to the internet then you will be able to check and download the latest media profiles as well as any updates to the printer drivers.

If you do not have an internet connection then you must use the DVD or local network option as your source.

To configure the parameters for the Liveupdate application click on the **Setup** button.

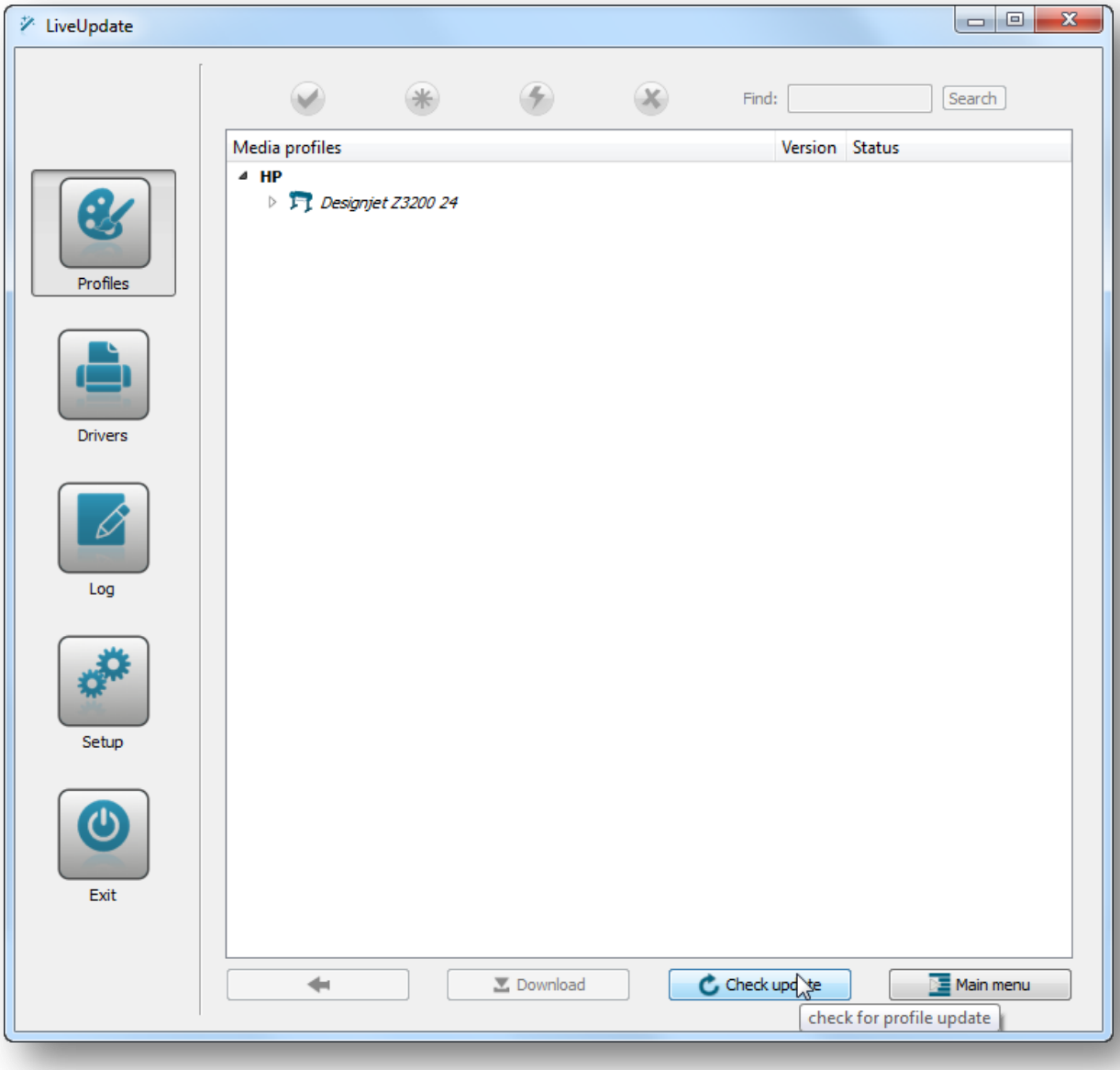


Click on the **Check connection** button to test and validate the computer connection to the cloud storage. A message will pop up to indicate the success or failure of the test. To use a DVD as the source insert the DVD in the corresponding DVD drive on your computer. Click on the refresh icon next to the DVD Drive to check and confirm the DVD contents. Please note that options that are not available are automatically greyed out and cannot be selected.

The **Mode** setting decides what source that will be used for the download. Once everything is set you can proceed to download media profiles or update the printer drivers.

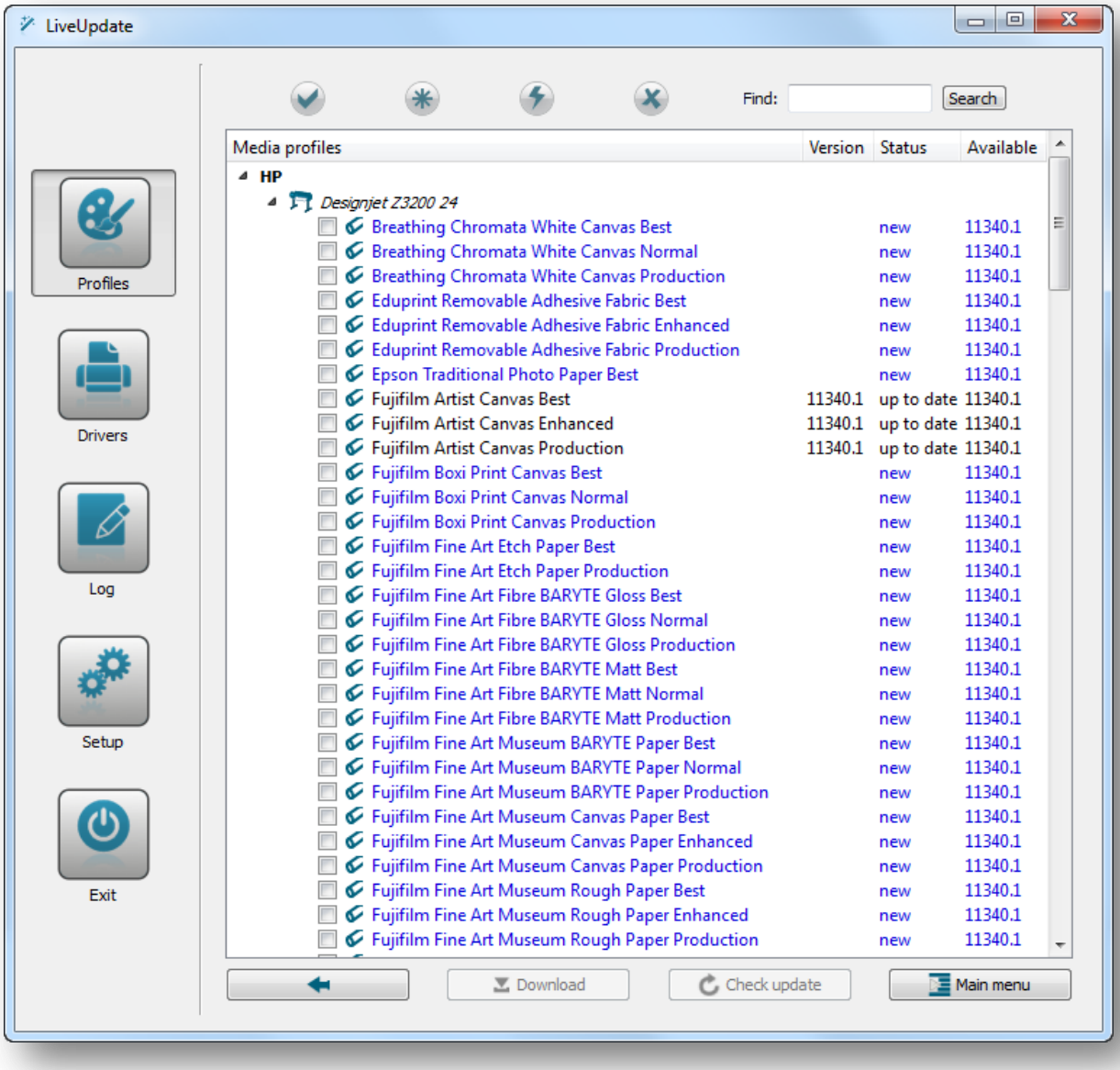
Profiles

Click on the option here to start the media profile download process for the currently installed printer on your Focus system.



Now click on the **Check Update** button to start the system checking and listing the currently installed profiles on your system as well as all the ones available for download. A detailed list of media profiles and their associated information are then displayed.

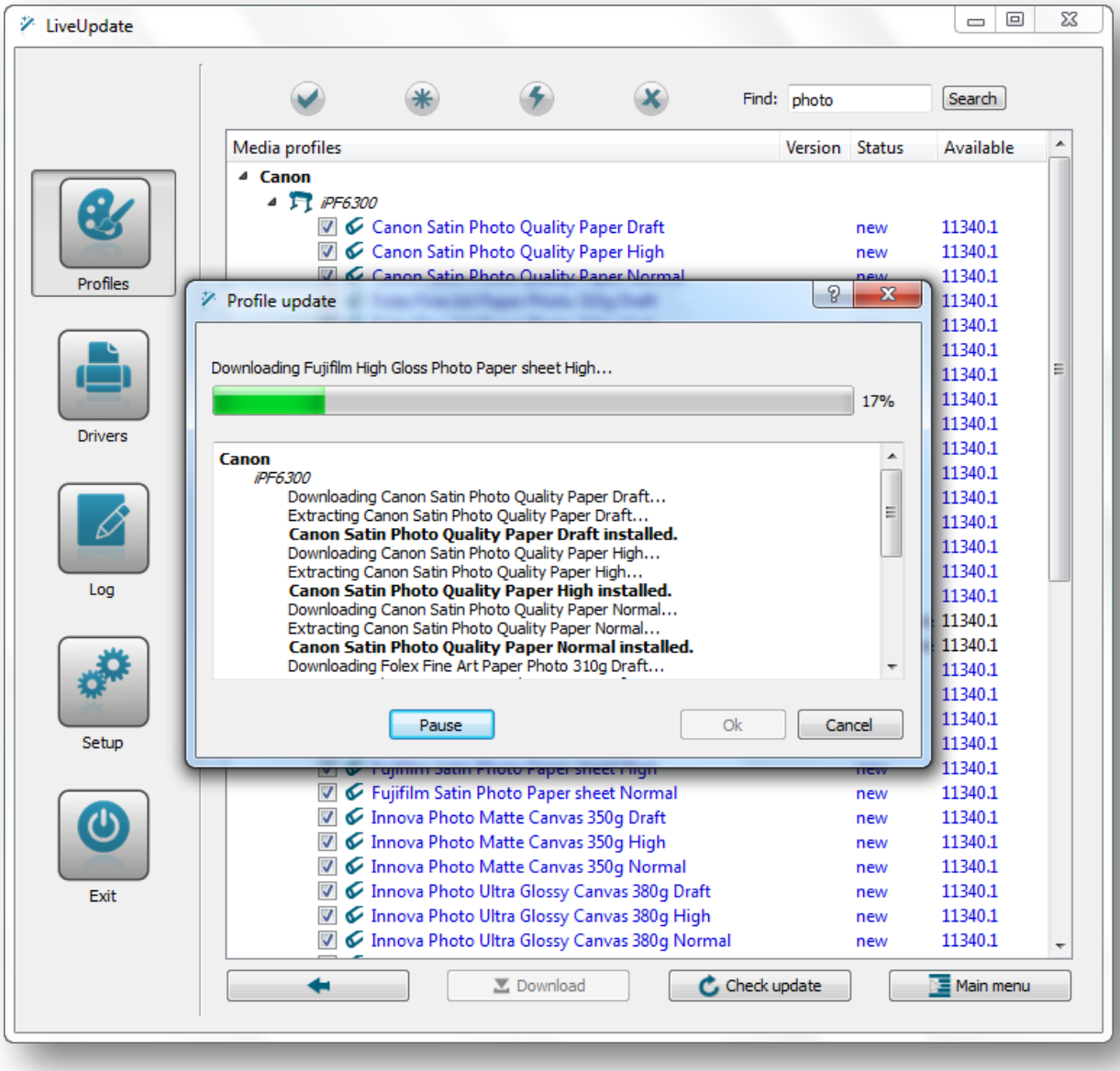
Profiles that are already installed on your system are shown in black. New and updated profiles are highlighted in blue.



Profiles can be selected by manually clicking on their check boxes or by group using the options available.

It is also possible to list profiles that include certain words by using the **Search** feature available. For example to list all profiles that contain the word 'Glossy' type the word and click Search.

Once you have selected the profiles required click on the **Download** button to start downloading them.



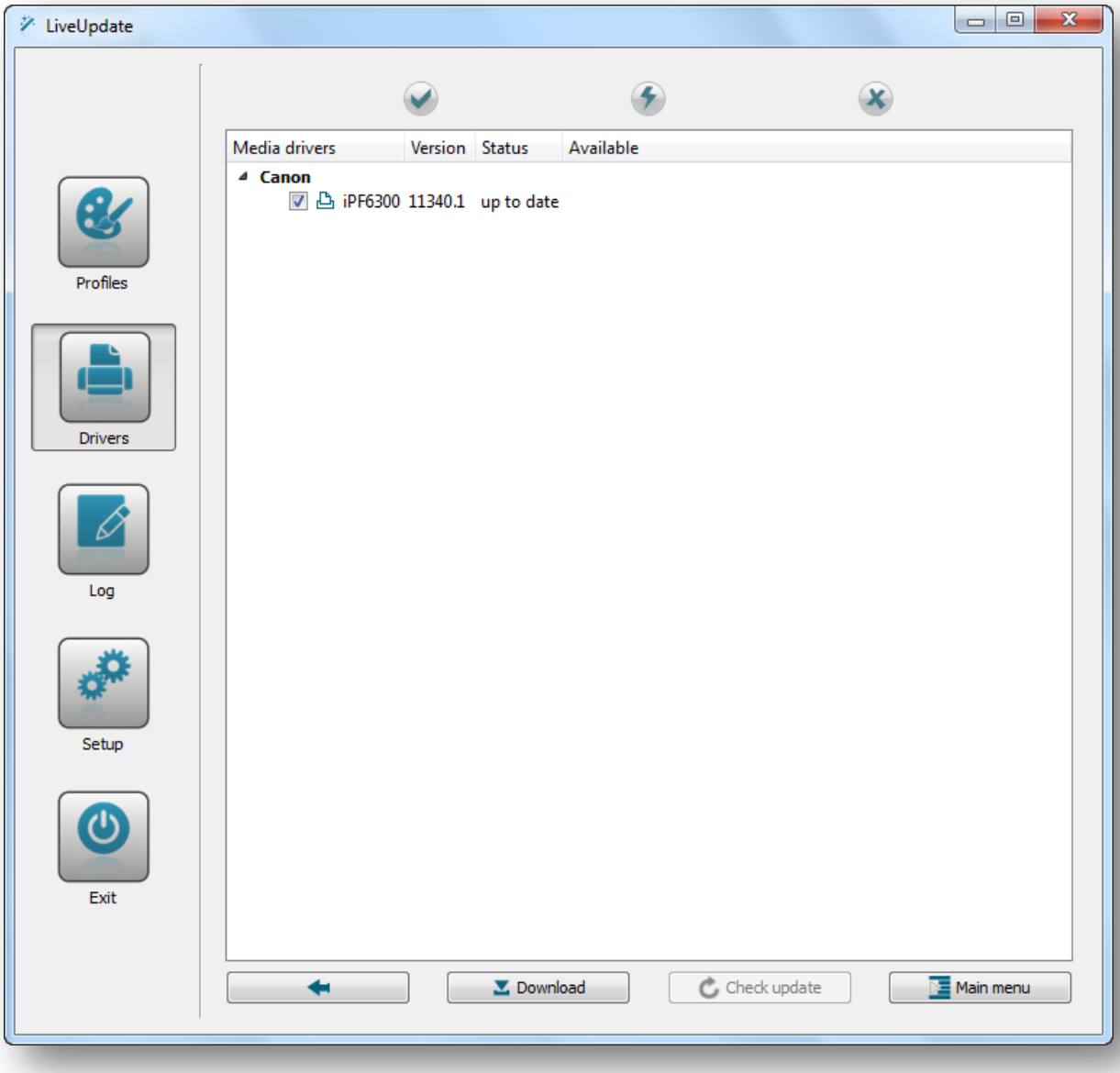
All selected profiles are downloaded and at the end of the process the media profiles status are updated.

Drivers

Printer drivers for the printer model installed can be updated (if available) by using the **Drivers** option.

The version number of the currently installed driver, its status as well as information about any update for it is shown here.

Click on the **Download** button to download the driver for the selected printer model.

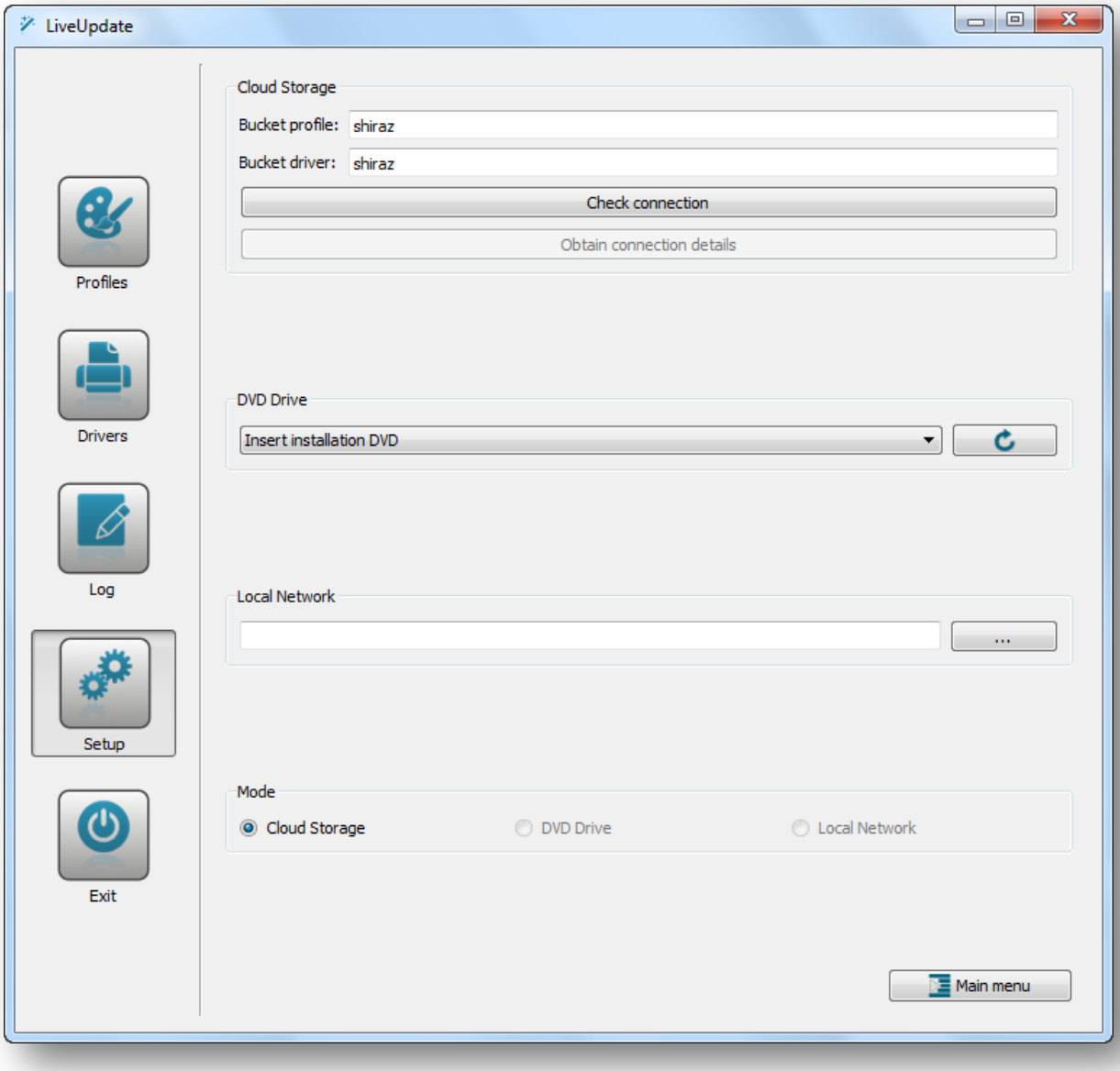


Log

A detailed log of all the activities for each session is generated by the system that can be viewed and examined by users.

Setup

To configure and check the current settings for the Liveupdate application click on the **Setup** button.



Check connection

Click here to check the current connection status to the Shiraz cloud storage. If successful then a corresponding message will be shown. If there are any issues then they are highlighted.

DVD Drive

If you are using a DVD drive for your install then click on the 'refresh' icon located next to the drop down menu to read and confirm the DVD being used. The volume name of the DVD will be then shown as confirmation.

Local Netwrok

It is also possible to use any folder on the local computer or network drive available for the source update. Click on the 'open' icon next to the entry box to locate and set the main folder that contains the source input.

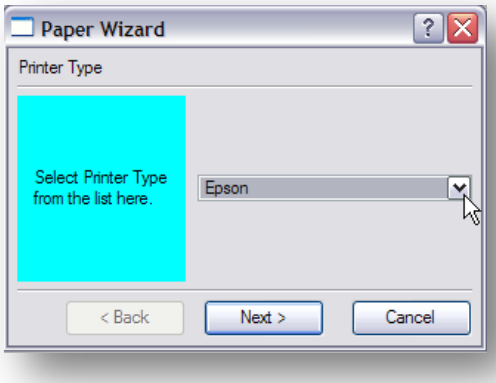
Mode

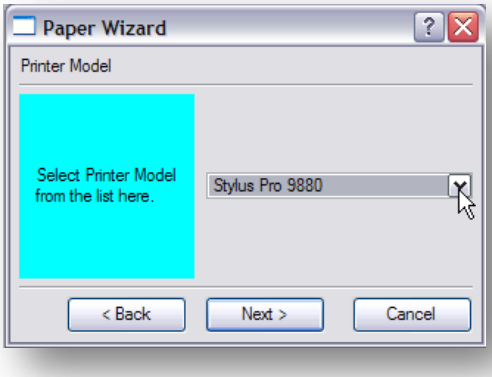
Here you can actually select which input source to use for the Liveupdate application. Any source not available or currently set is greyed out.

Addpaper

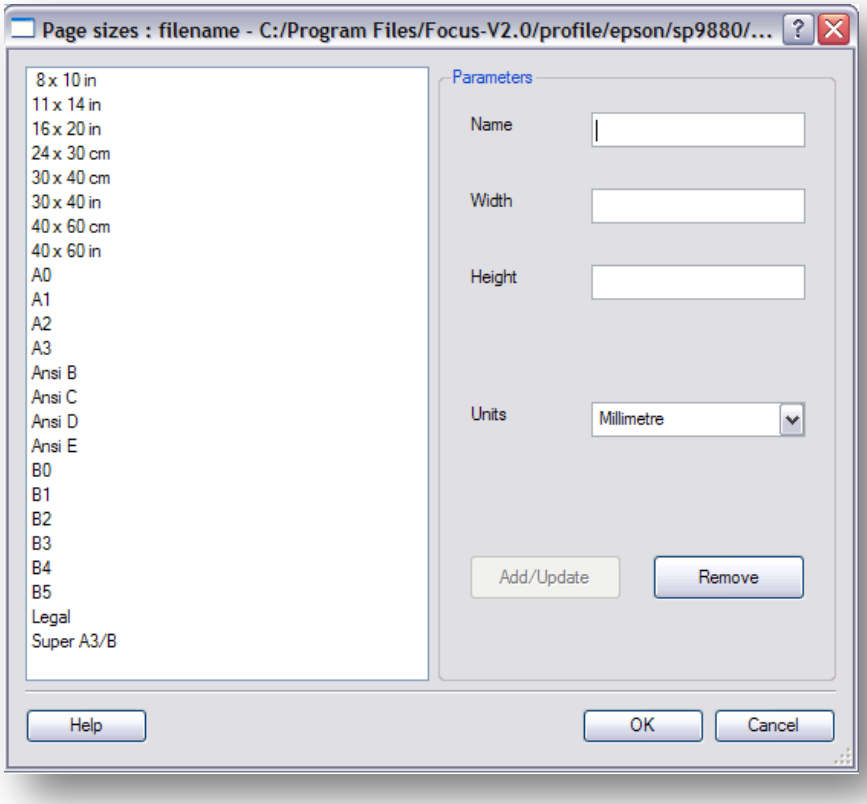
The list of standard page sizes for each printer model can be edited or added to by using this simple tool. These page sizes are used in the Photo Pack Editor application to set the canvas sizes.

To start up this application either click on the **Tools** menu and select this option or press the (Ctrl + R) shortcut keys.





The Paper Wizard will now assist you in choosing the printer make and model that you want to edit the paper list for. Once you have confirmed the selection, the page size edit screen will be displayed.



Here you can either select an existing page size and edit it or add a new one. To edit an existing one click on its name in the list and its parameters will then be shown. Now edit any of the parameters required and click on the **Add/Update** button to save.

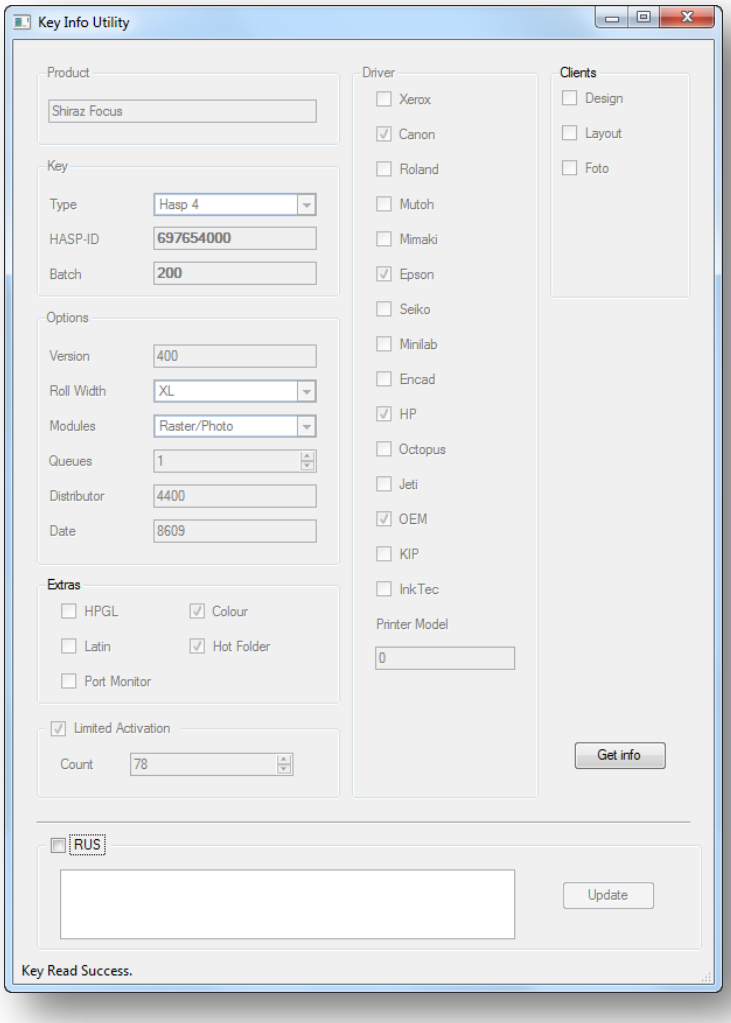
To add a new page size, enter its name followed by its width and height. You can also select the units to use for its dimensions. Press the **Add/Update** button to save the setting. The new page size will now appear in the list.

To delete a page size, select first and then click on the **Remove** button.

Press **OK** to exit the application. You will now be asked if you want so save the changes made or not.

KeyInfo

This application is used for checking and updating the Shiraz Focus security key (dongle). To call up this module click on the Tools menu and select this option or press the (Ctrl + E) shortcut keys.



Note: If you don't have a dongle (running in demo version) then you will get a message saying 'no key found'.

The information here confirms the setup of your key and license. It is here that the system checks for the options allowed for your particular product.

There are five groups of settings available that fully describe all options available.

Product – The string here describes the actual name of your product.

Key – Information here is about the actual hardware key and its internal serial number. This information is recorded in our database system and must be quoted when contacting your dealer or us directly.

Options – The list of modules and features allowed on your product are listed here.

- Version – The version number that is supported by your key is shown here. Newer versions of the software might not run properly. As newer versions of the product are released you might have to upgrade your key to support these.
- Roll Width – This information here confirms the size category of your product. This value here decides to what maximum width you can print to.
- Modules – The product type is shown here. Additional modules might become available later on that require an upgrade to your key to support them.
- Queues – The number of printers that can be run simultaneously from your software is shown here.
- Distributor – The internal code of the Shiraz Focus distributor. For information only.
- Date – Internal date of the key activation. For information only.

Limited Activation – If you are running an evaluation version of the Shiraz Focus software then this information here shows the number of prints that are left before the dongle stops functioning.

Driver – The list of printer drivers that is allowed for your product is listed here.

The **Get info** button here refreshes the lists of information shown by checking the dongle again.

Most of the information and settings described above can be changed by using the **RUS** option available here. To update the key click on the RUS option and then enter or copy and paste the codes given to you. Now click on the **Update** button to save them into the dongle memory. If you have more than one code to enter, then you must enter these one by one.

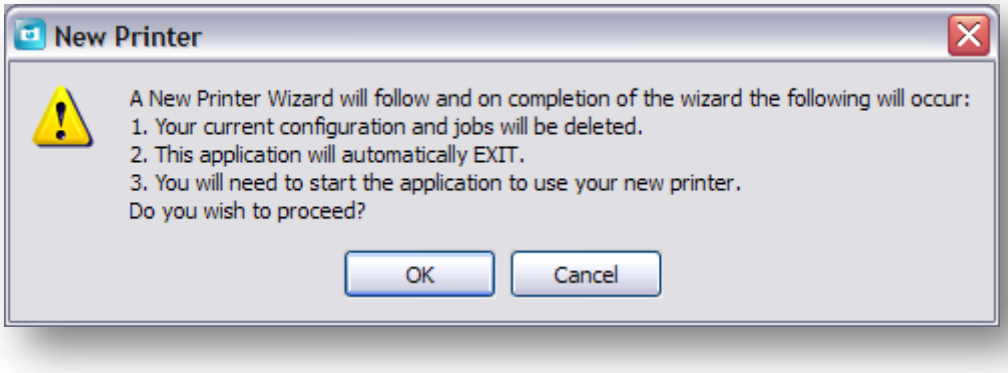
Note: The codes used for updating the key are very long hexadecimal characters (0-9 and a-f) please be careful when typing them in or copy and pasting them.

Once the codes have been accepted successfully a confirmation message is displayed and the information shown updated.

New Printer

To change the current printer type selected in the Shiraz Focus system for another one select this option from the Tools menu or press the (CTRL + W) shortcut keys.

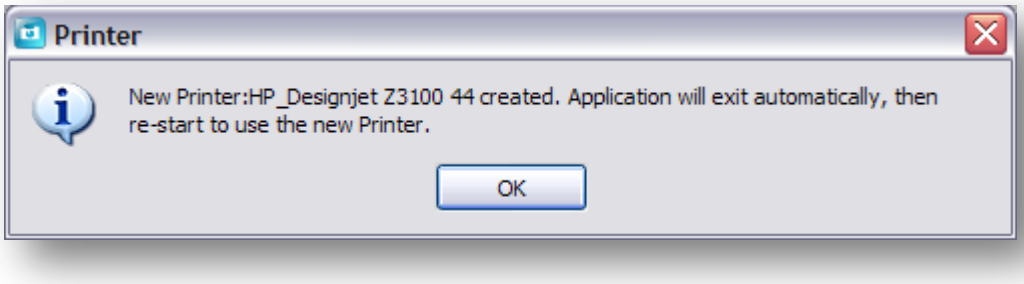
This module effectively runs the setup wizard that was used first time that Shiraz Focus application was run. By using this option you will completely wipe out all existing jobs and reset all configuration and setup options.



A warning message that details the procedure that would follow will be displayed that the user must confirm to proceed. If you are happy to continue then click **OK** to start the queue setup wizard.

For full details of the setup wizard that would follow please refer to the **Getting Started** section of this manual.

At the end of the setup a confirmation message of the new printer model that has been setup will be shown and the application will automatically exit.



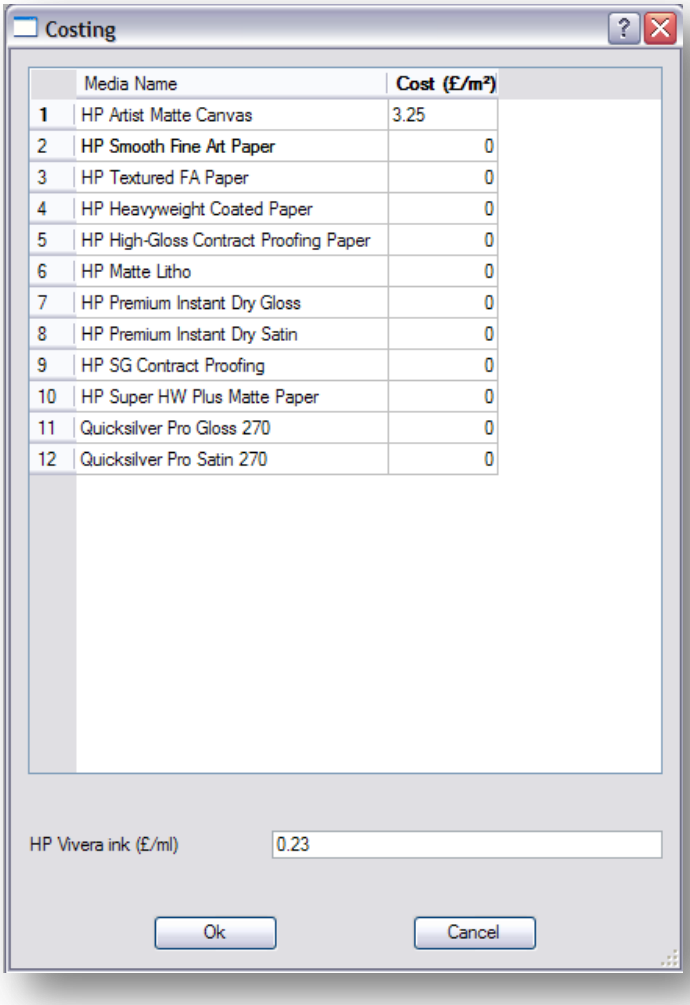
Click on the Shiraz Focus shortcut on the Desktop to start the application with the new settings.

Costing

The costing module allows the system to produce estimates and actual costing of jobs based on user values for ink and media. Before the actual printing the system analysis the amount of inks and media usage for each job and produces an estimated price for the job. Once the jobs has actually been printed then the user can extract the actual ink usage and media from the printer itself. The system will then recalculate the costing based on these.

To setup the costing matrix the user must first enter the prices for the media and ink in the costing table. Select the Costing function from the Tools menu. You will now be presented with a window similar to the one shown below. Here the system will list all currently loaded media profiles and allows you to enter a value against each of these.

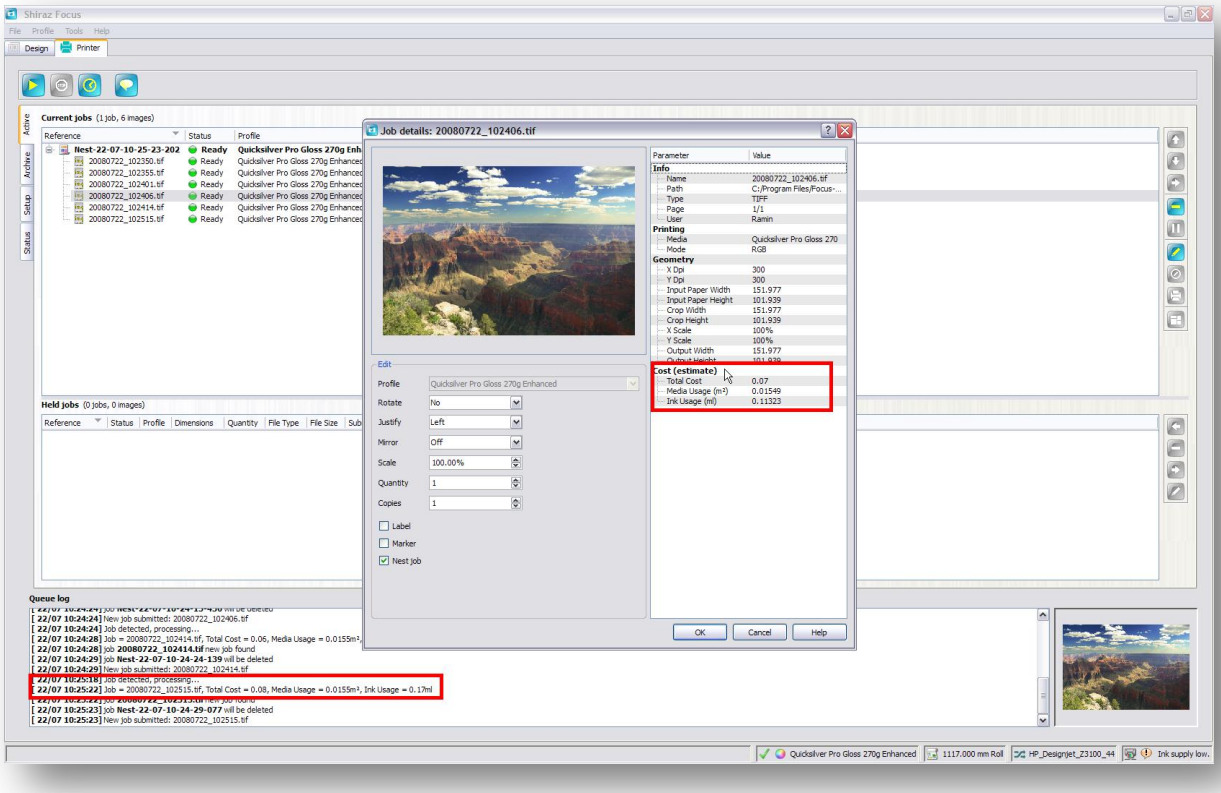
Also here the user must enter the ink prices per milliliter. The actual prices for these items should be obtained from your supplier. Click OK to save the table.



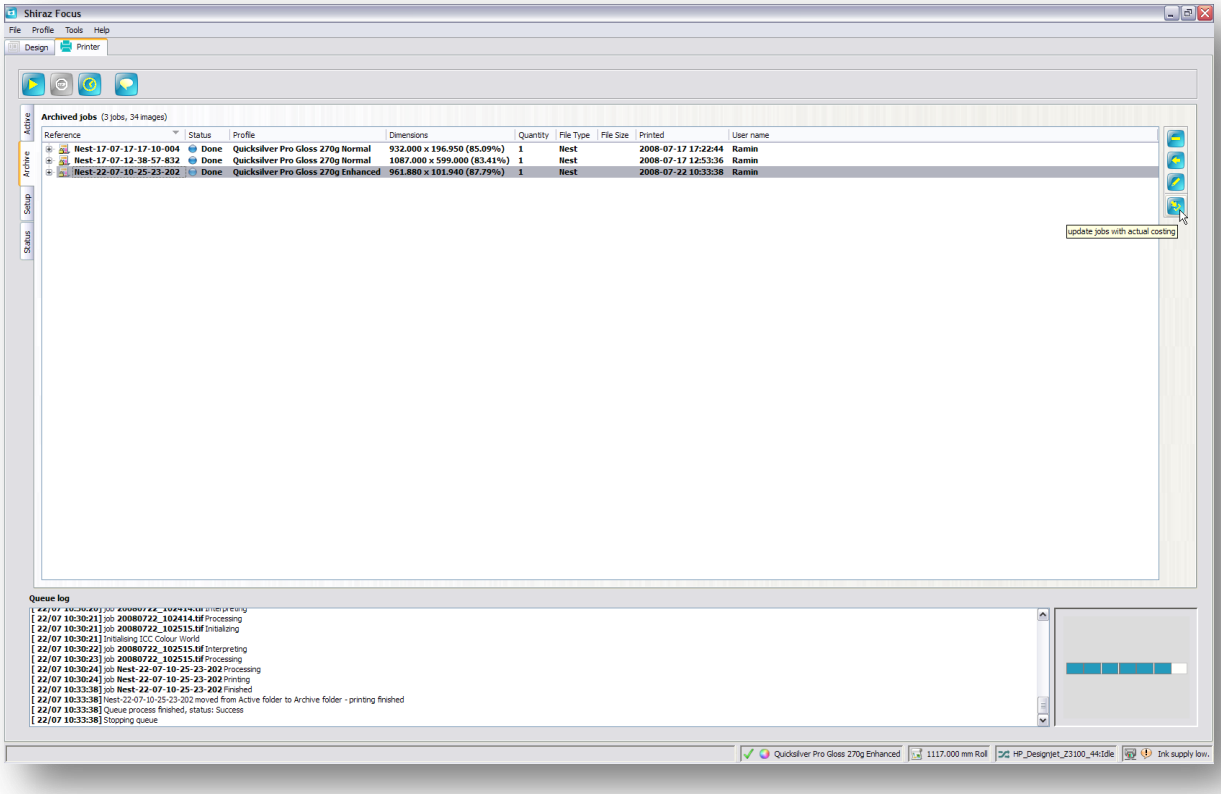
Please note that the system will only calculate the costs for media list that have actual value against them.

Now every time a job is sent to the print queue that uses one of these media with pricing against them the system will produce an estimate of the total media and ink usage as well as their costing.

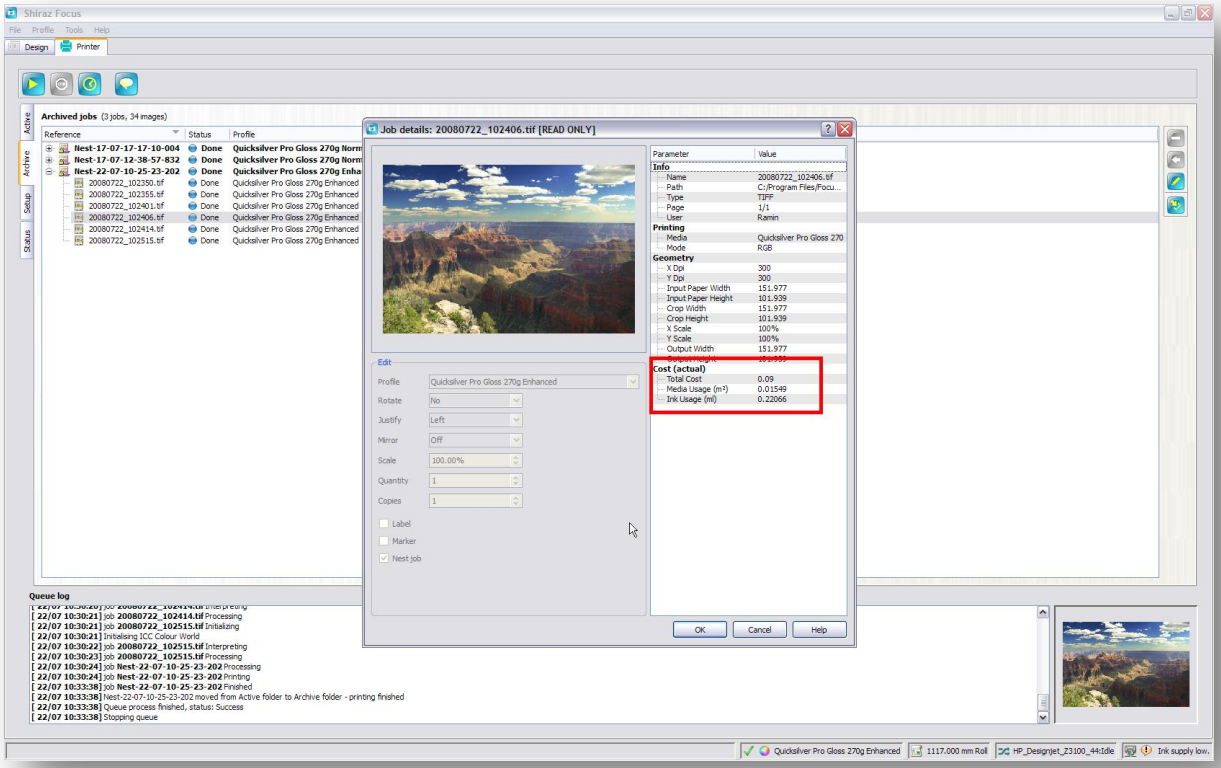
To see the estimate costing you can either examine the queue log or examine the job details by double clicking on each job entry as shown below.



Once the job has been printed then go to the Archive tab and click on the update costing icon to extract the actual usage and costing from the printer.



The system will now query the printer for these data that might take a few seconds and will notify the user once finished. The user can now examine the actual costing by double-clicking on the job entries.

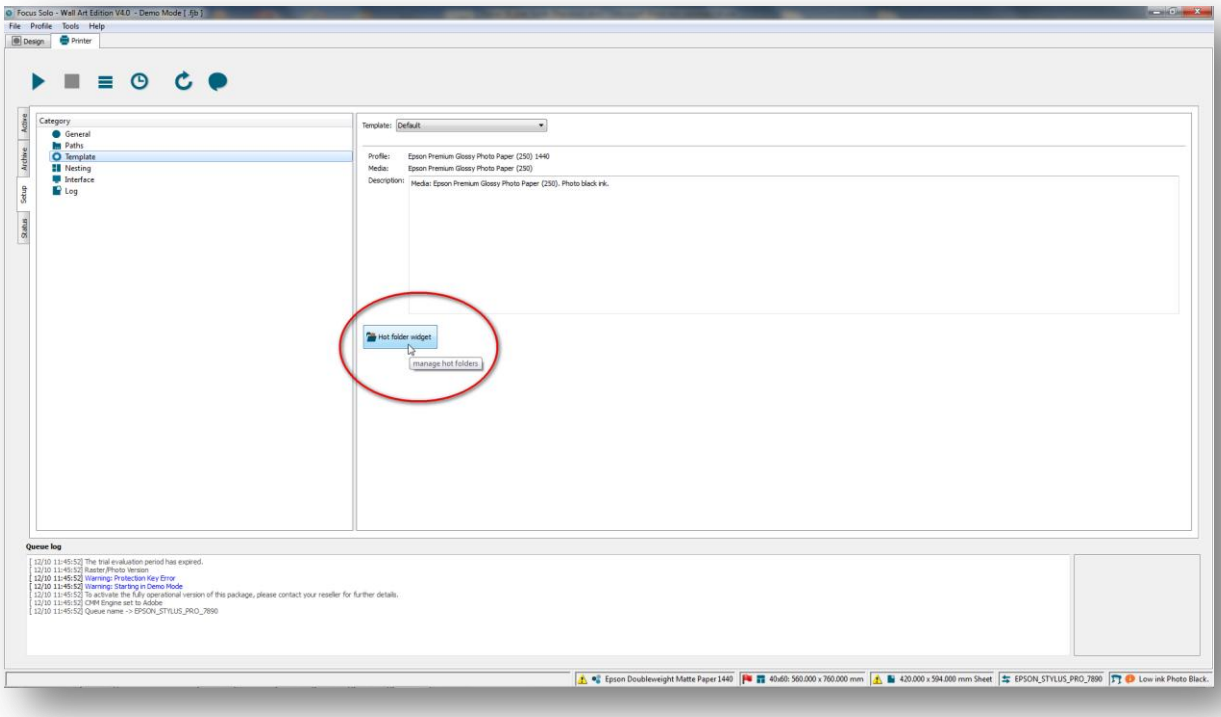


The estimated values are now replaced with the actual data.

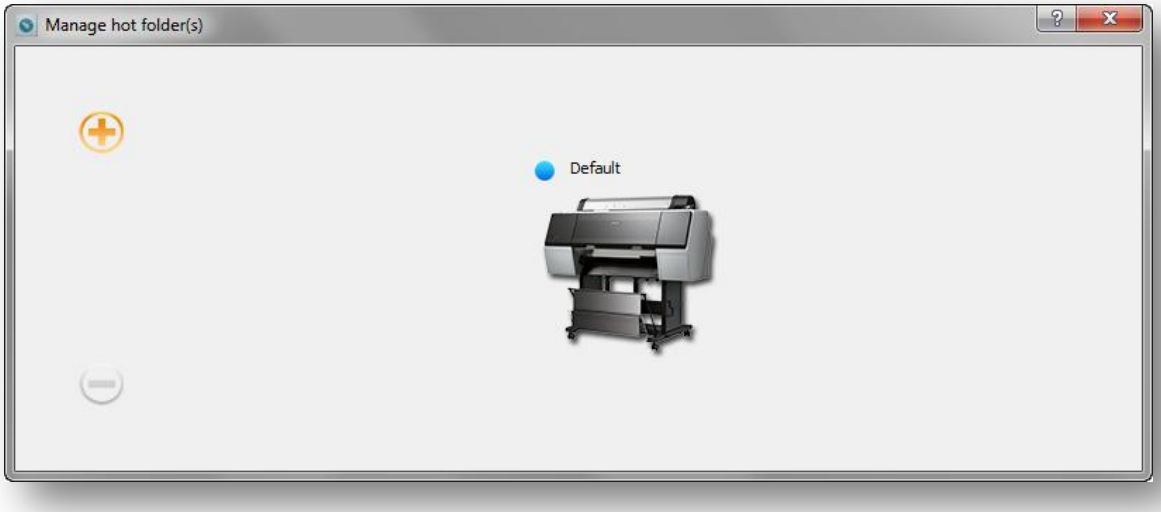
Hot Folder

The system can be set up to operate in an automated workflow manner via the hot folder option. The user can simply drag & drop images on to designated folders where they will then be picked up automatically by the Focus server and processed according to user defined job parameters.

To set up and configure the hot folders go to the Printer tab and then select the Setup tab. Now click on the Template category to locate the Hot Folder Widget option.



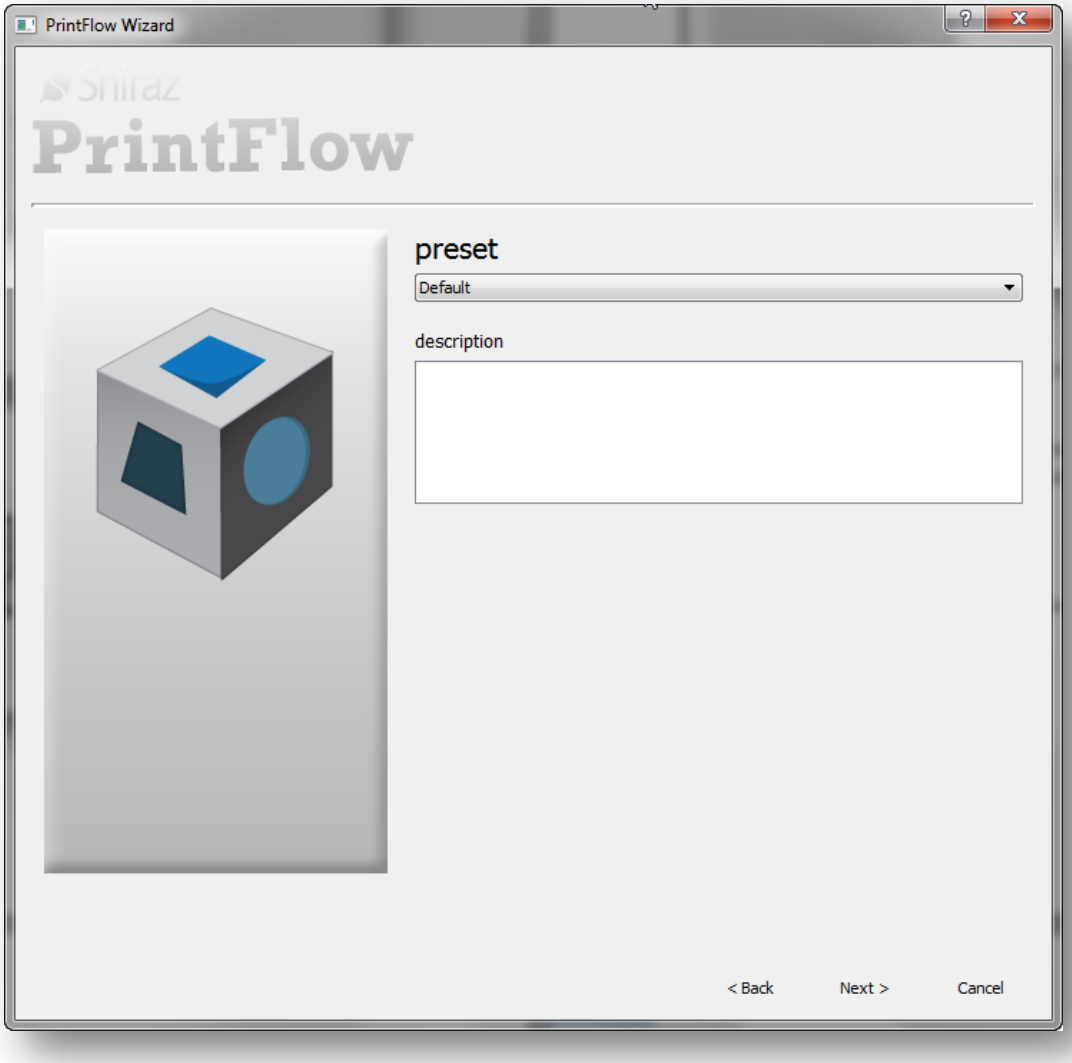
Click on this button to launch the application.



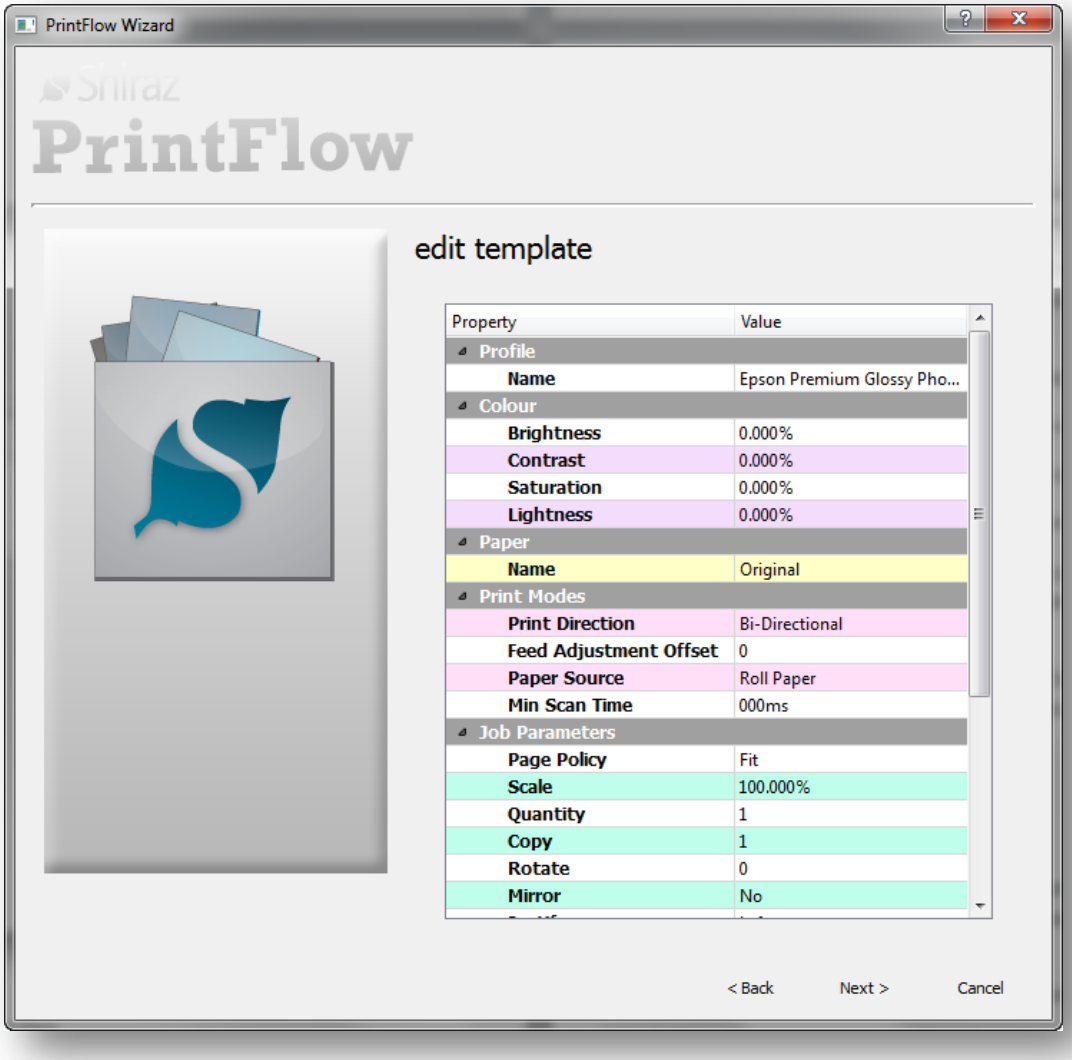
There you can see the Default setting that can be edited but cannot be removed. To add a new hot folder , click on the Plus icon. Now you will be presented with the PrintFlow wizard as shown below:

The first step is to enter the name for the hot folder. Once you have entered the name, click Next to go on to the next step.

In this next step you can select the base template that will be used as the starting point for the job parameters that will be assigned to the hot folder. This could be useful for using an existing setting that only requires a small change to it.



Select the required Preset and click Next to go on to the next step.



Here you can edit and configure from the list of job parameters available.

There are three area s here that control the operation of the hot folder system.

Edit Template

The parameters within the **edit template** area are used to set the job options that are applied to all incoming images. The options available here are further explained below:

Profile Name*:* this parameter sets the colour profile table that will be applied to all images found in the hot queue folder. This table also sets the print mode such as print speed and number of passes that will be used for printing images. The print mode can be further edited under the Print Mode section.

Paper Name: select from the list of paper sizes available that you require the images to be printed at. The system will automatically scale images to this paper size. The user can further control how the images are scaled by editing the Page Policy option under the Job Parameters heading.

Job Paramaters

quantity*:* sets the value for the number of jobs that would be printed.

crop marks*:* selecting this option adds 10mm crop marks to each corner of the image.

job label*:* adds job information to the top left corner of the image when selected.

cut*:* this option when selected instructs the printer to execute a cut command at the end of the print.

super borderless*:* this option enables the printer to print in the borderless mode (edge to edge on all four sides). Please note that borderless printing is not supported for all media types and will not have an effect on non supported media types.

Nest job*:* all incoming images in the hot folder will be automatically nested for the best use of the loaded media when this option is set. When this option is not elected then all images are printed in single mode.

Page Policy

The parameters here decide on the final output size of images. Images can be either printed in their original sizes or be configured to print in user defined sizes.

Fit

Use this option to fit the image to the selected output size with the maximum scale (best fit) without any distortions. The image is centred in the page automatically. The image is scaled so that at least one side is exact fit. This means that the resultant output might have 'white' space in one dimension.

Fill

The entire page is filled with the image without distortions. This option will cause some cropping of the image in one direction.

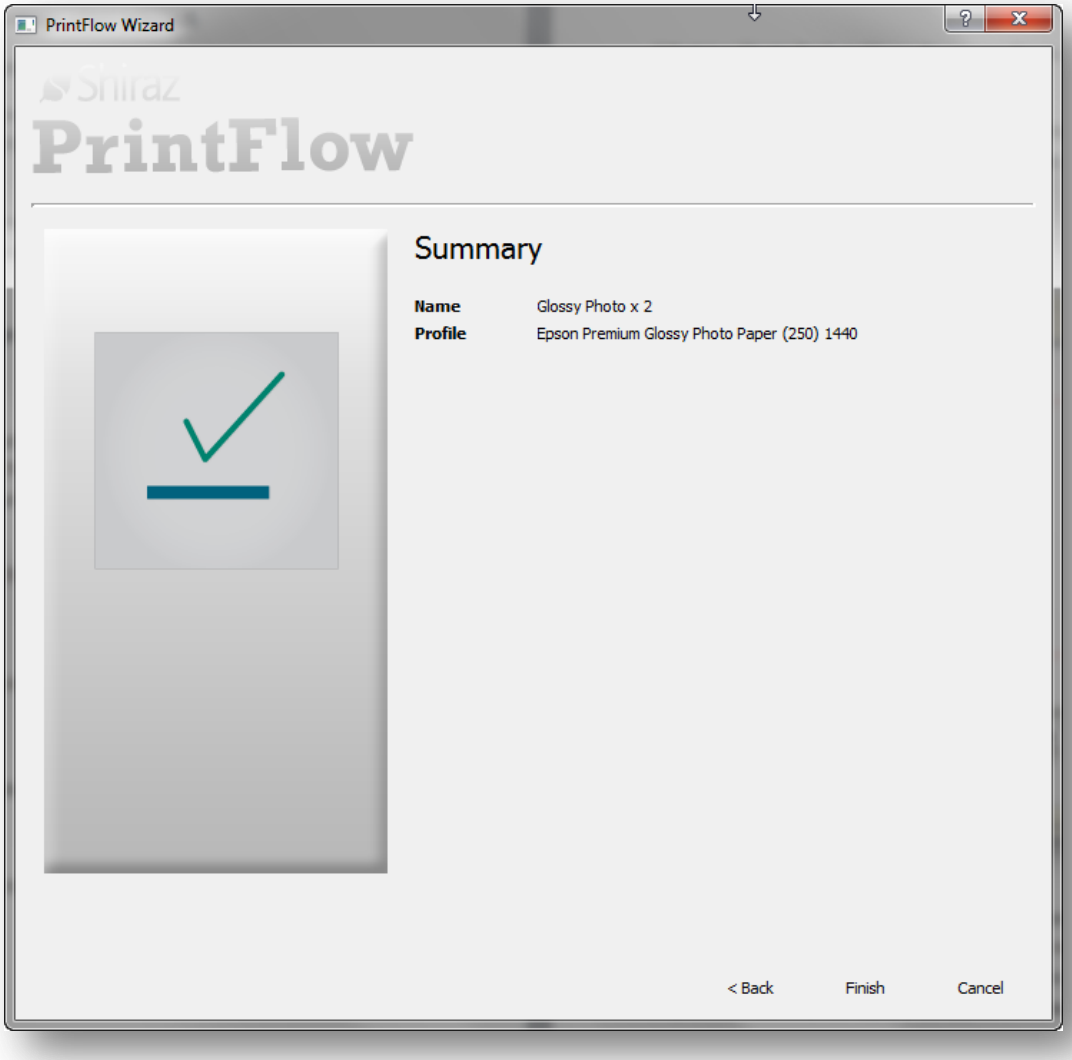
Original

This option will keep the original image size and centres the image in the page. The image will be cropped out if it is bigger than the selected output size.

Distort

As the name suggests the image is distorted in one or both dimensions to fill the entire output size.

Once all the required parameters are set click Next to go to the final step where a summary of the settings is shown.



Click on the Finish button to confirm and create the template as well as the associated hot folder for it.

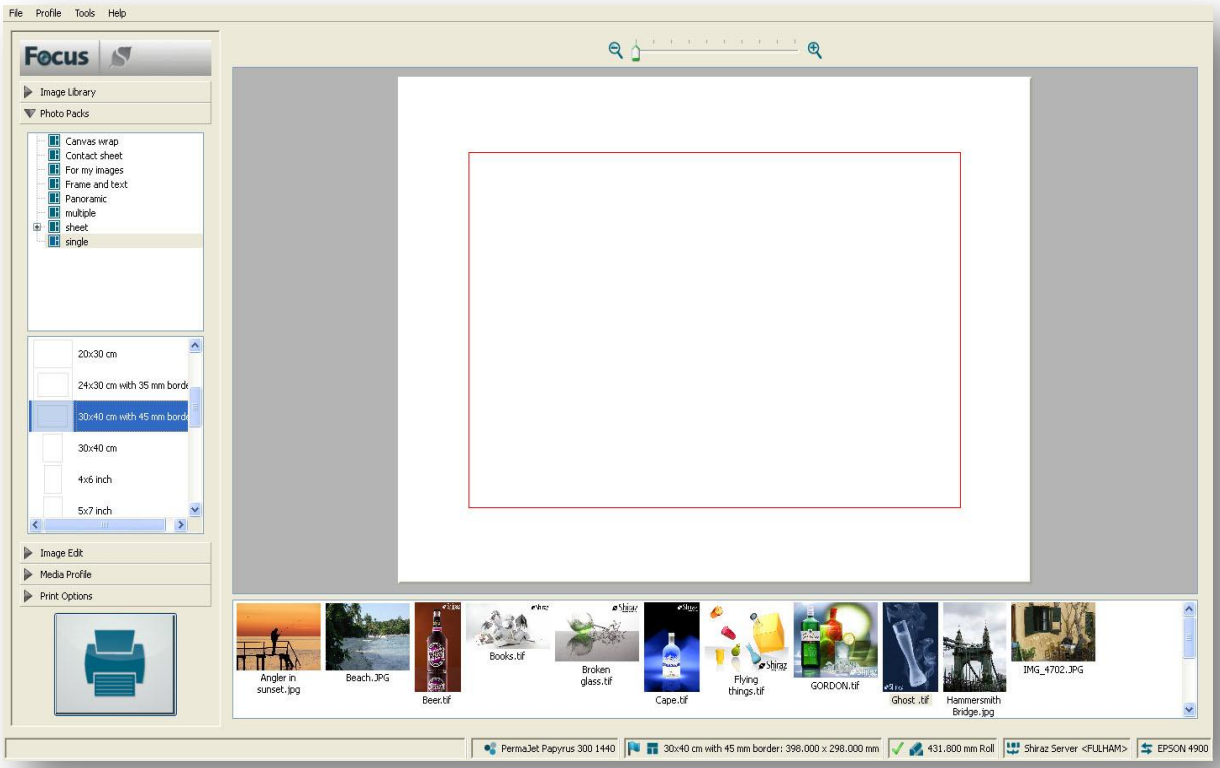
A short cut of the hot folder is created on the computer's desktop where the user can now drop their images that will then be picked up and processed according to the template just created.

Photo Packs

What is a Photo Pack and how do we use them. It is actually quite simple, but very important to understand the concept to fully take advantage of Focus.

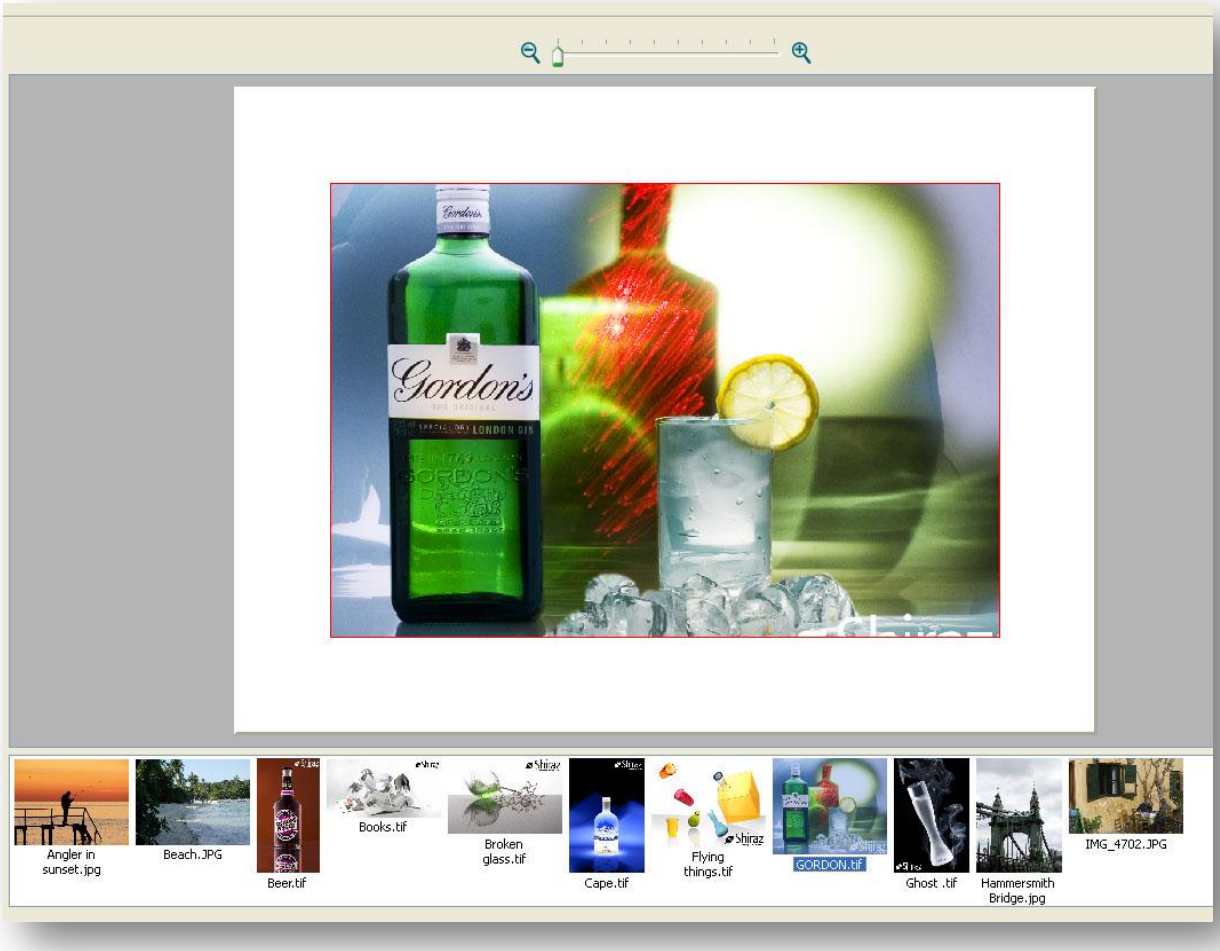
A Photo Pack is a template which determines the size of the paper you want to print on including white space, frames, text etc., and also the size of the printed photo(s) – these two sizes do not have to be the same.

Let us look at an example:

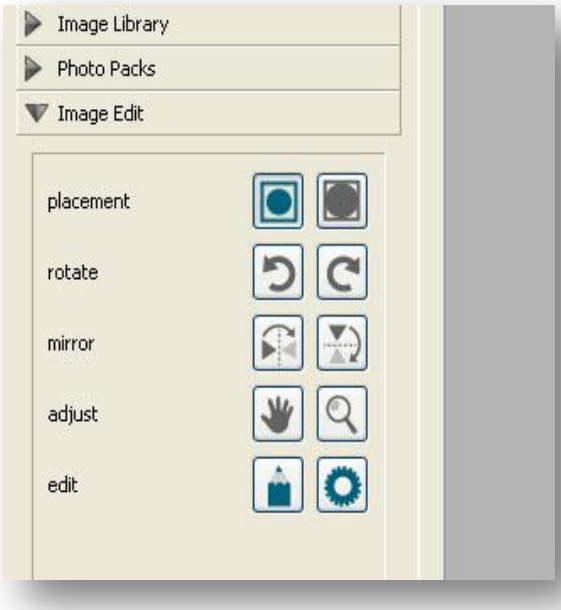


Here we have selected a Photo Pack 400x300mm which has a 45mm white border on each side so the size of the photo will be 310x210mm. The red square represents the photo area and it is here you place the actual photo to be printed. The red square also means that the photo area has been selected, if you click outside the Photo Pack the red square disappears because the photo area is no longer selected.

You put the photo in the photo area on the Photo Pack either by dragging the thumbnail image onto the photo area or by double clicking on the thumbnail (make sure the photo area is selected). It could then look like below.

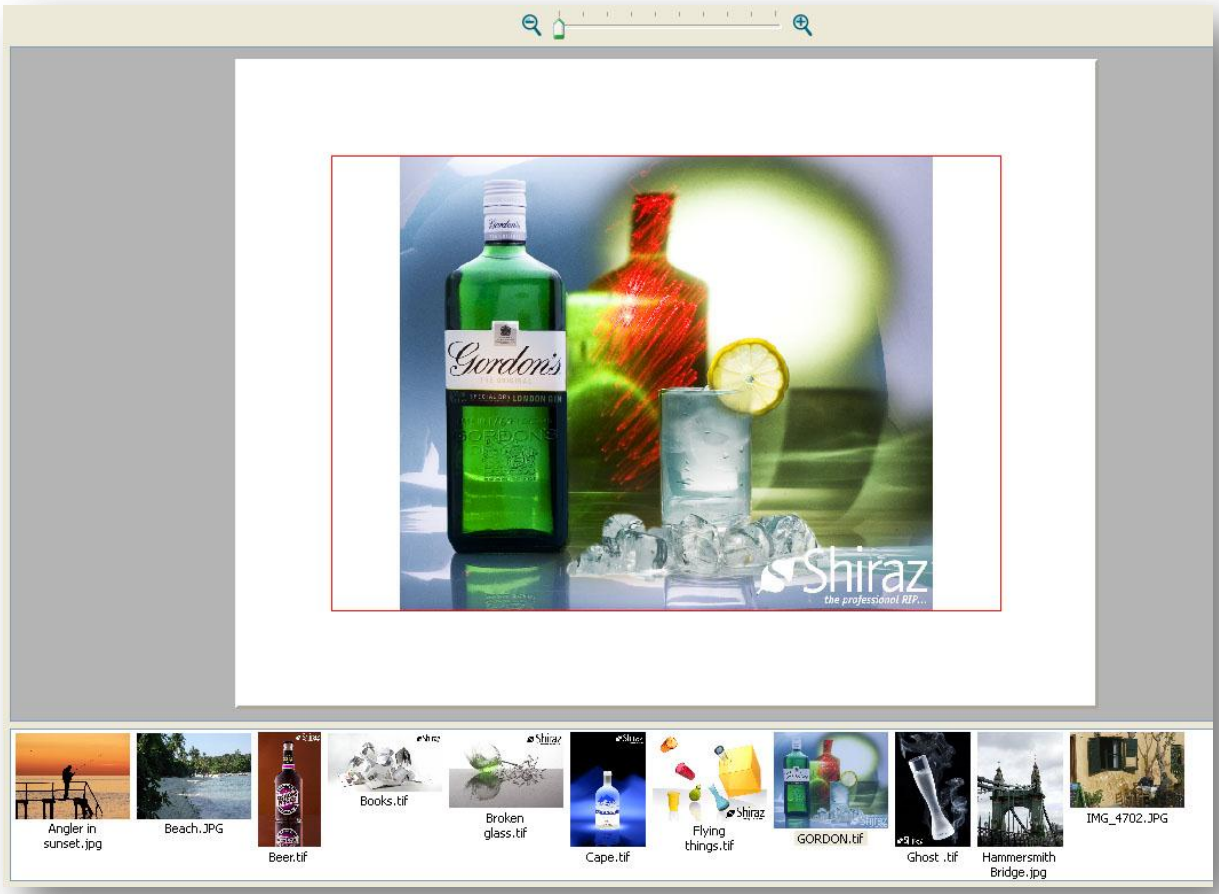


But if you look closer you will notice that the picture has been cropped at the top and bottom, the whole photo area has been filled. This is because the aspect ratio of the picture is not the same as that of the image area.



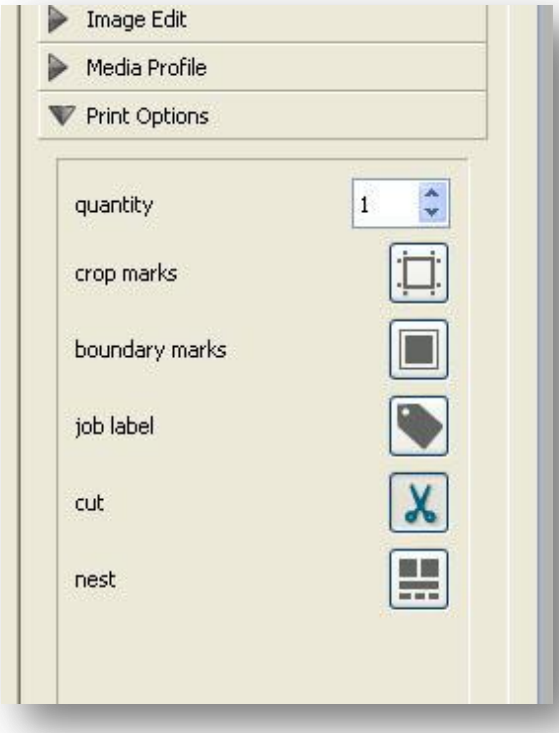
If you want to see and print the whole photo, just click on Image Edit tab on the left side, and then on the left of the two placement buttons.

You will see the following. It is called fit image, the whole picture can be seen in the photo area, but there are extra white spaces on the left and right sides.



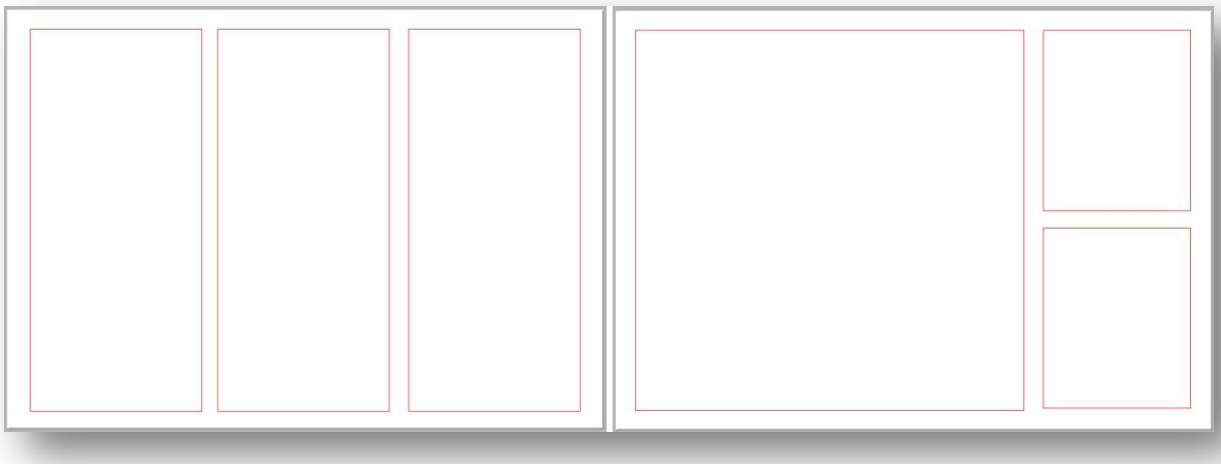
If you print this on a roll it will be difficult to see where to cut it to get the correct size of 300x400mm, because of the white spaces around the picture. So we want to have some cut marks, that is easy just click on Print Options tab and you will see the following.

Here you can click on crop marks or on boundary marks, crop marks set marks in each corner while boundary marks makes a thin black line around the printed Photo Pack. It is best to use boundary marks if you are cutting with scissors. You can configure the size of crop marks and boundary marks in File/Preferences.



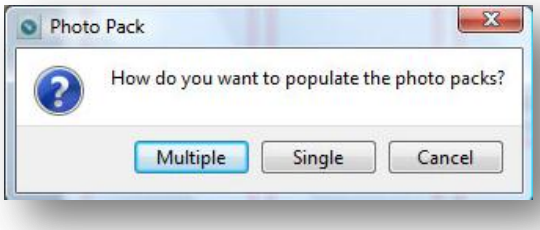
Examples of multi Photo Packs

We can make the Photo Packs much more sophisticated with multiple picture areas, like these two. For clarity all photo areas have been selected. How do we select more photo boxes at the same time? Just as you would normally do multiple selection, hold the Ctrl key down when you click in the picture area. Or select one photo area and then press Ctrl + A to select all the boxes.



The next example is a contact sheet and it is populated as you can see. Here are a couple of new things, text and batch processing.

Select all photo boxes with Ctrl + A, and then select all the thumbnails in the same way, click on the first and then Ctrl + A. Drag the first image into an image area and then answer Single to the prompt shown below.

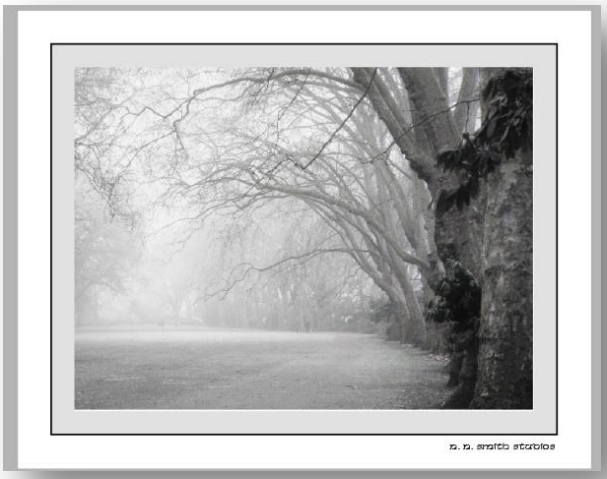


Select all photo areas again and click on Fit image. Then submit by clicking on the big print button, and Focus will automatically populate and submit the next batch of photos until all have been done.

Examples of Photo Pack with text and frames

Here are a few examples of Photo Packs with text and frames. These are examples included in Focus, and they just show a little of what is possible.

The one below has a gray, then a thin black and then a wide white frame with the text.

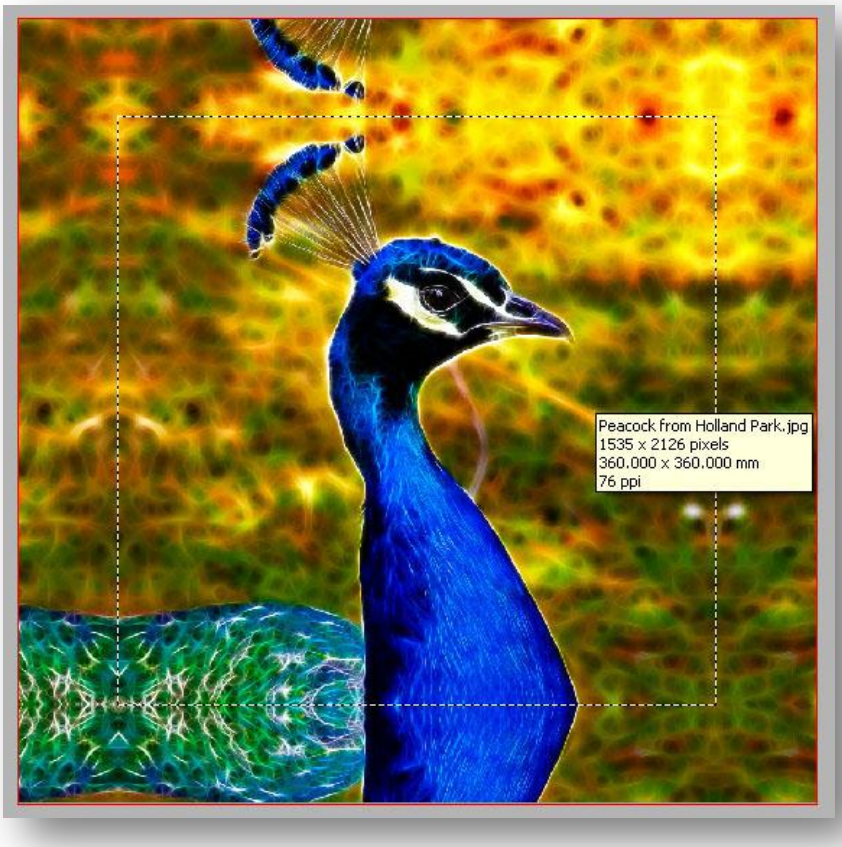


Printing without Photo Packs

You can also print a photo without a Photo Pack but with its original size. All you have to do is select Original instead of a Photo Pack. You can even add a white frame evenly around. Just go to File, Preferences and Frame and here tick on and set the frame width. This type of frame only has effect when printing original.

Canvas wrap and Panoramic print

Last but not least Focus can save you a huge amount of time if you are printing on canvas and do canvas wrapping. Take a look at the picture below, everything inside the dashed line is the front of the canvas.



Outside the dashed line is the wrapping, partly on the sides and partly on the back. And notice that the wrapping is mirrored which is what most people prefer, but there are also other options such as stretch, sample, image or colour pick.

Above you see a panoramic photo Pack with a 10 mm gap between the canvasses. You do not see the wrapping here, because that would make it too difficult to get an impression of the final result but of course it will be printed with the wrap. You can print panoramic with any number of rows and columns.

Here are a couple of examples of panoramic Photo Pack with drop, here centered, but the drop can be both at the top the bottom. And even better, setup of panoramic can be done interactively.