IRISJET PRO

USER MANUAL

ColorJet
India's largest manufacturer of digital inkjet printers

EFFICIENT INDIAN ENGINEERING

Foreword

This user manual is briefly describing the operational aspects of the **IRISJET PRO** machine. In this document, the step-wise instructions for handling various aspects of the machine with visual screens are provided for easy and better understanding. It also describes the error messages encountered while working with the machine with appropriate remedial actions required to be taken by the user.

This manual serves as the reference tool which guides their customers how to use or operate the **IRISJET PRO** machine without anyone else assistance. The information provided in this document ensures its uniqueness and language quality. For safe and proper use of the product, please read this manual carefully and follow all the instructions.

Disclaimer

The information and instructions provided in this user manual have been checked for accuracy, uniqueness, and reliability. ColorJet group reserves all the rights to modify and revise this manual as per the company requirements without any prior notice.

"No part of this document shall be reproduced or used by externals without prior permission of the ColorJet group".

The reference table is shown in the below table:

Doc Type	Doc Code	Version	Machine Name	Date of Issue
User Manual		1	IRISJET PRO	June 2019

Table of Contents

1. About Document

Purpose

The purpose of this document is to guide and educate the targeted audience about the Printer and its Printer Manager software so that they can easily and effectively handle as well as use it as per their requirements. Additionally, this document also provides step-wise instructions for handling various aspects of the printer and its related software with the help of graphical screens for easy and better understanding. Moreover, the document also describes commonly encountered problems while working with the printer and Printer Manager software with appropriate remedial actions.

Intended Audience

This document is meant for all the users who want to use the Printer for their printing business. Sometimes, the targeted audience has little knowledge about the printer but in most of the cases, targeted audience is much familiar with the terminologies of printer and printing business. Thus, this document is designed to facilitate both types of users.

2. Printer Accessories

Please make sure that all the items listed below are available with the printer. If anything is missing, kindly report the same to the dealer. The following items are included with the printer as given below:

1. USB Cable	2. Night Plate
3. Zinc coated Screws LN 4x16 for fixing head	4. Leveler
5. Fan L&R Brackets	6. Media Clips
7. Air locking pipes	8. HIB Cable 35 cm
9. Tissue papers	10. Software & driver CD
11. Syringe 50ml	12. Flexi Print/ONYX (Optional)
13. Spanner	14. Media Pipe Fitting
15. Shrink Wrap	16. INKS (CYMK)

* The list can be varied as per the company norms and standard.

3. Printer Specifications

IRISJET PRO		
Printing Technology		Drop-on-demand, Piezo electric inkjet
Print Heads		Industrial Grade Jetting Assemblies
Fabric	Width	3300 mm (129 in)
	Thickness	Maximum 3.0 mm (120 mil) with Liner (flexible)
	Roll Outer Diameter	Maximum 300 mm (12 in), 50.8 (2 in)
	Roll Weight	Maximum 90 kg
	Core Diameter	76.2 mm (3 in)
	Type	SAV, PVC Banner, Backlit Film, Window Film, Fabric (Solvent Base)
Printing Width		Maximum 3200 mm (126 in)
Ink	Type	Solvent / Mid Solvent Inks
	No of Colors	4 Colors (CMYK)
Printing Resolution (dots per inch)		Maximum 1440 dpi
Distance Accuracy		Error of less than $\pm$ 0.3% of distance travelled, or $\pm$ 0.3 mm whichever is greater
Media Heating System		Pre-heater and post-heater, setting range for the pre-set temperature: 30^0C to 60^0C Dryer setting range for the pre-set temperature: 30^0C to 60^0C
Connectivity		High Speed USB
Power Requirements		AC 220 V $\pm$10%, 20 Amps, 50/60 Hz
Printer Dimension (without stand)		4700 x 1050 x 1550 MM (L x W x H)
RIP Software		Flexi Print/ONYX
Weight (approx. with stand)		595 kgs
Environmental	Power ON	Temperature: 18 to 28℃ Humidity: 20 to 80% RH (non-condensing)
	Power OFF	Temperature: 5 to 40℃ Humidity: 20 to 80% RH (non-condensing)

4. Printer Overview

Front View of the Printer

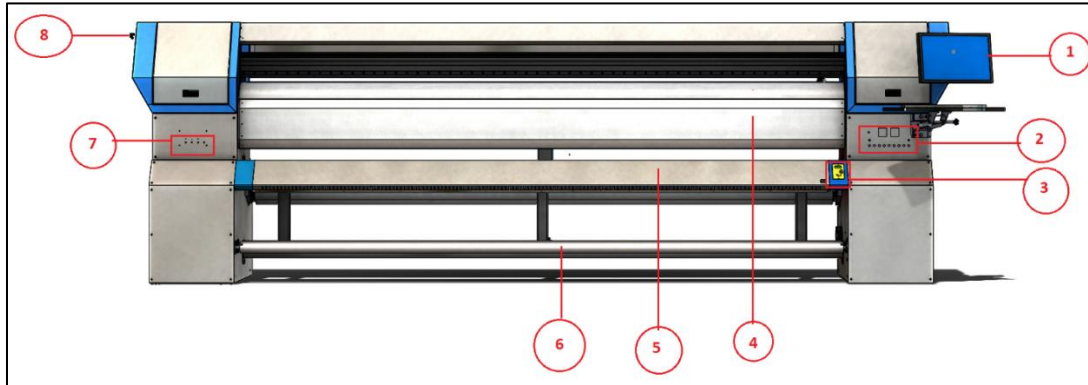The **Front View** of the printer is shown as below:

Fig 1: Displaying the Front View

Table 1: Different Parts (Front Side) of the Printer

1. Console	2. Control Panel
3. Actuator	4. Extended Heater
5. Dryer	6. Take-Up
7. Ink Refilling and Low Ink Warning	8. Media Lever

Back View of the Printer

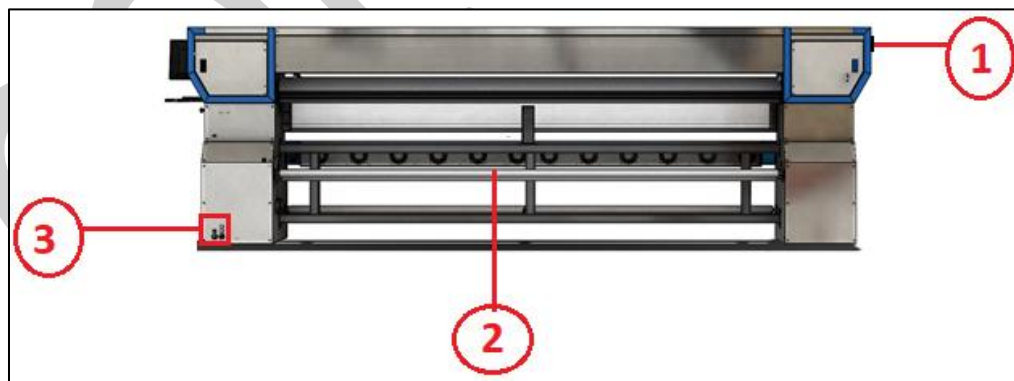The **Back View** of the printer is shown as below:

Fig 2: Displaying the Back View

Table 2: Different Parts (Back Side) of the Printer

1. Media Lever	2. Supply
3. Power Inlet	

Control Panel Details

The **Control Panel Screen** is shown as below:

Fig 3: Displaying the Control Panel

Pre Heater

Post Heater

Bed Vacuum Regulator

Fig 4: Displaying the IRISJET PRO Controls

HEAD, HEATER, MEDIA TAKE-UP, and MEDIA SUPPLY Controls
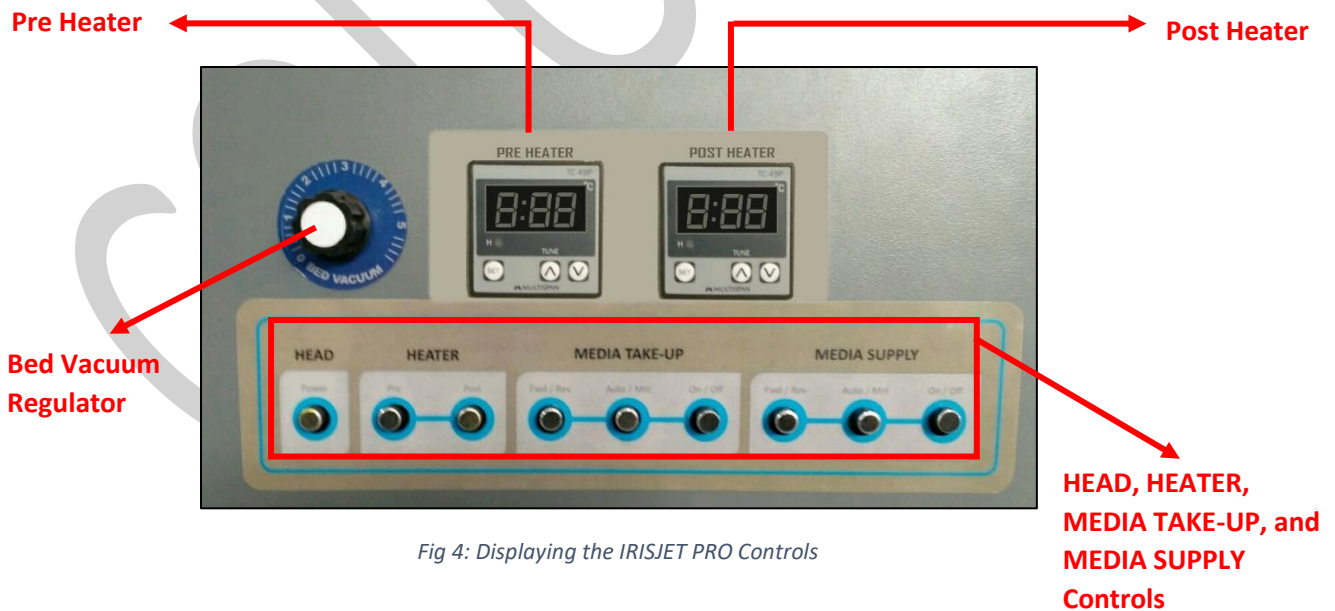
The description of different parts of the machine is given as below:

- **HEAD:** Switch ON or OFF the Print Head power.
- **HEATER:** Switch ON or OFF the pre and post heaters.
- **MEDIA TAKE-UP:** Enable to switch ON/OFF, control different modes; auto/manual, and change direction forward/reverse of the media take-up.
- **MEDIA SUPPLY:** Enable to Switch ON/OFF, control different modes; auto/manual, and change direction forward/reverse of the media supply.

5. Getting Familiar with Printer Manager Interface

The **User Interface** of the Printer Manager software is shown as below:
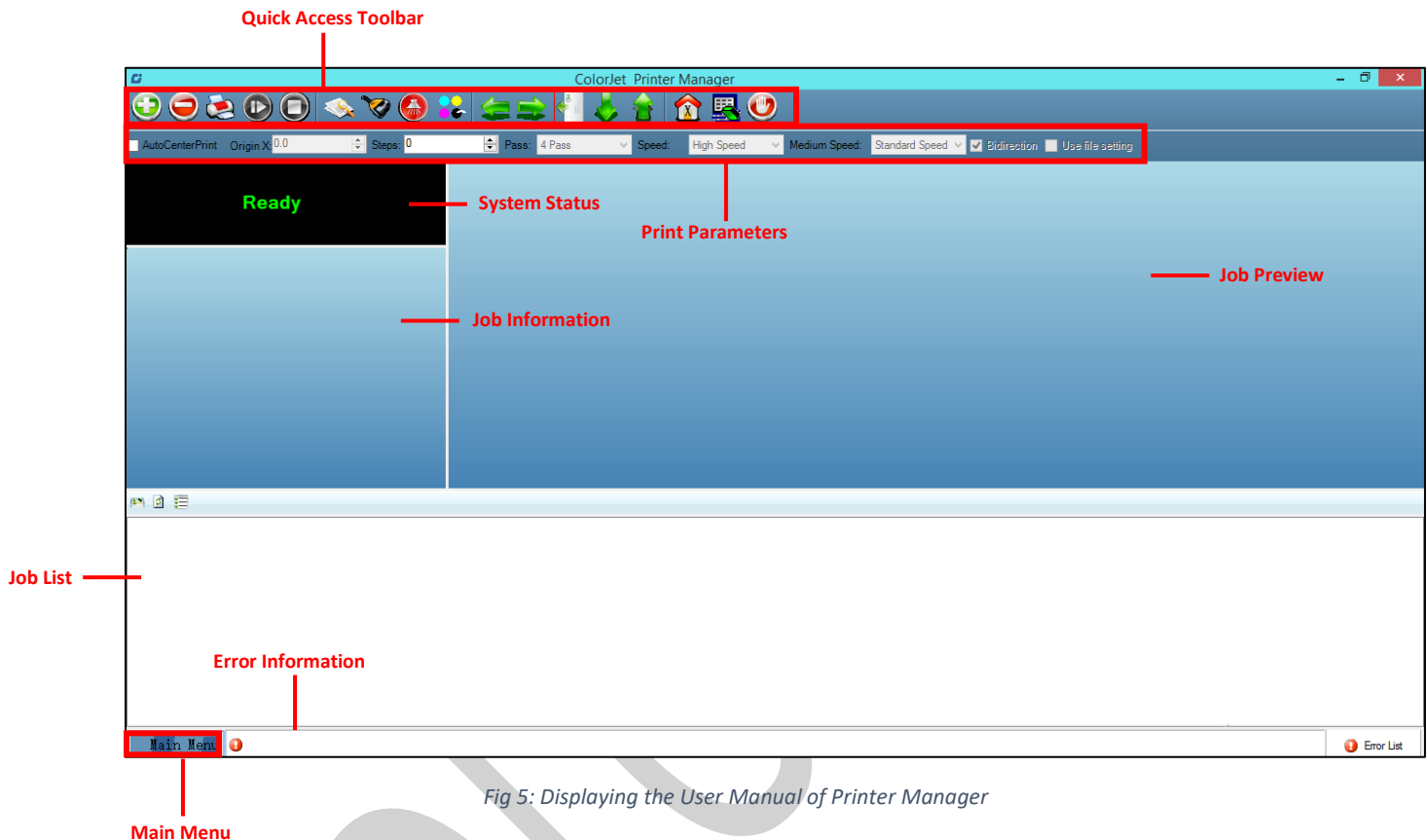

Fig 5: Displaying the User Manual of Printer Manager

The description of the Printer Manager window is given as below:

- **Main Menu**: Consist of several sub menu options viz. Settings, Tools, and also provide variety of functions in well-organized manner.
- **Quick Access Toolbar**: Display frequently performed actions like Add Job, Delete Job, Print Job, Pause or resume, Abort job, check nozzle, Auto clean, Move left, Move right, Set print origin, Move forward, Move backward, Move carriage to origin, and Edit job are available as buttons on the Quick access toolbar.
- **Job Information**: Display the properties of the selected job like file name and path, Status, Print Size, Print Area, DPI, Pass, and more.
- **Job Preview**: Show the job preview as well as print progress in this area.
- **Job List:** Displays the thumbnail preview of added jobs.
- **Error message:** Displays the system generated error messages.

---

6. Main Menu Options

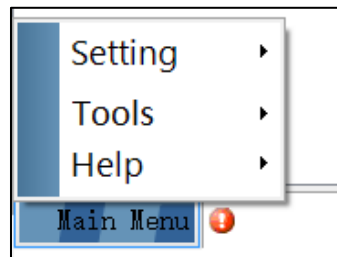The **Main Menu** options are shown in the image below:

Fig 6: The Main Menu Options

Setting Menu

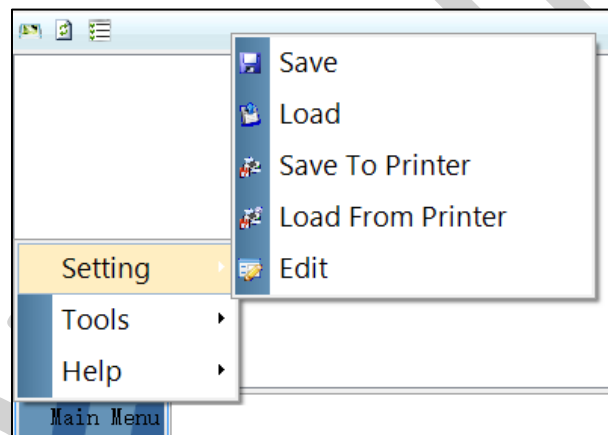The **Setting** menu options are shown in the image below:

Fig 7: The Setting Menu Options

- **Save**: Using this option, you can save the default settings of the machine. When you save the settings, an xml file will be created for further references.
- **Load**: Using this option, you can load the previously saved machine's settings.
- **Save To Printer**: When you click on this option, all the current settings get saved in the Main Board of the machine.
- **Load From Printer**: When you click on this option, the printer settings get saved from Main Board to Printer Manager software.
- **Edit**: Using this option, you can edit the previously made settings of Printer. On clicking the Edit option, the Setting window with Printer, Move, Preference, and Calibration tabs appears on the screen.

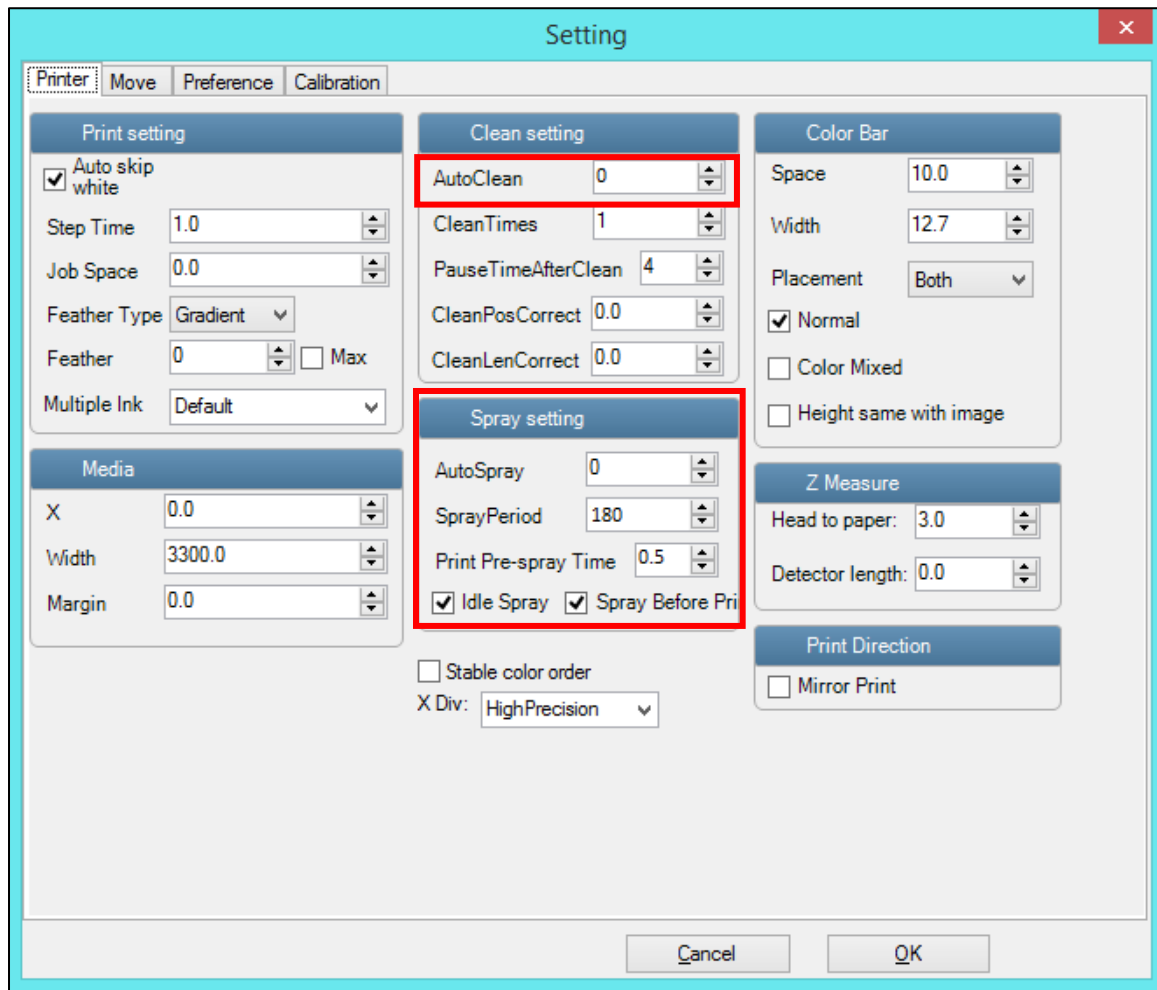The **Setting** window with the **Printer** tab is shown in the below image:

Fig 8: Displaying the Setting Window

Describing the different sections of the Setting window, as given below:

- **Print setting**
  - o **Auto skip white**: Enable to auto skip the white space in the image during printing.
  - o **Step Time**: Set time interval of the feed motor during printing.
  - o **Job Space**: Set space between multiple jobs.
  - o **Feather**: Select the type of feather effect and intensity percentage of the feather.
  - o **Multiple Ink**: Enable to select the color depth of an image according to the passes. The available options are Default, Double, and More.
- **Color Bar**
  - o **Space**: Specify the distance of the color bar from the image.
  - o **Width**: Set width of the color bar.
  - o **Placement**: Enable or disable the color bar and its placement viz. left, right, or both.

- o **Height same with image**: If enabled, the height of the color bar is same as the image height.

- **Spray setting**
  - o **Auto Spray**: Set the duration (number of passes) for auto spraying.
  - o **Spray Period**: Define the duration for spraying (set as 180). If the duration increased, spray frequency gets decreased.
  - o **Print Pre-spray Time**: This is the duration of spray before start of print.
    This option works when the **Spray Before Print** option is enabled.
  - o **Idle Spray**: Spray during carriage at home position. This option must be enabled.
  - o **Spray Before Print**: This option enables spray before start of print.
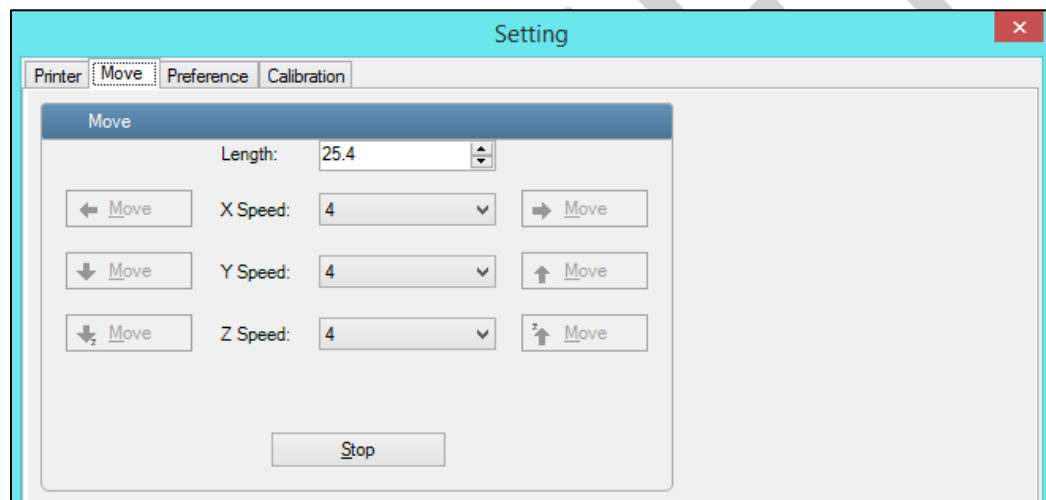
The **Move** tab is shown in the image below:

Fig 9: Displaying the Move Tab

Note: X and Y manual moving speed can be selected using the Move tab.

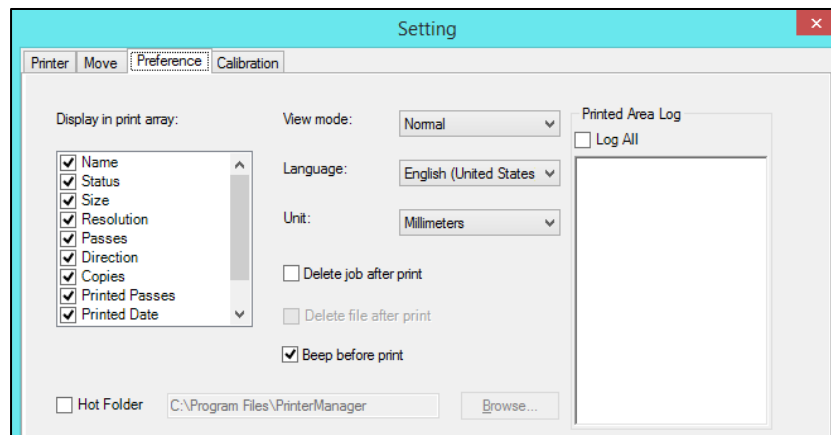The **Preference** tab is shown in the image below:

Fig 10: Displaying the Preference Tab

Description of different options available under the Preference tab:

- **View Mode**: Enable to set the Printer Manager screen view.
- **Language:** Enable to change the language of the Printer Manager.
- **Unit:** Enable to set the measuring unit like Millimeter.

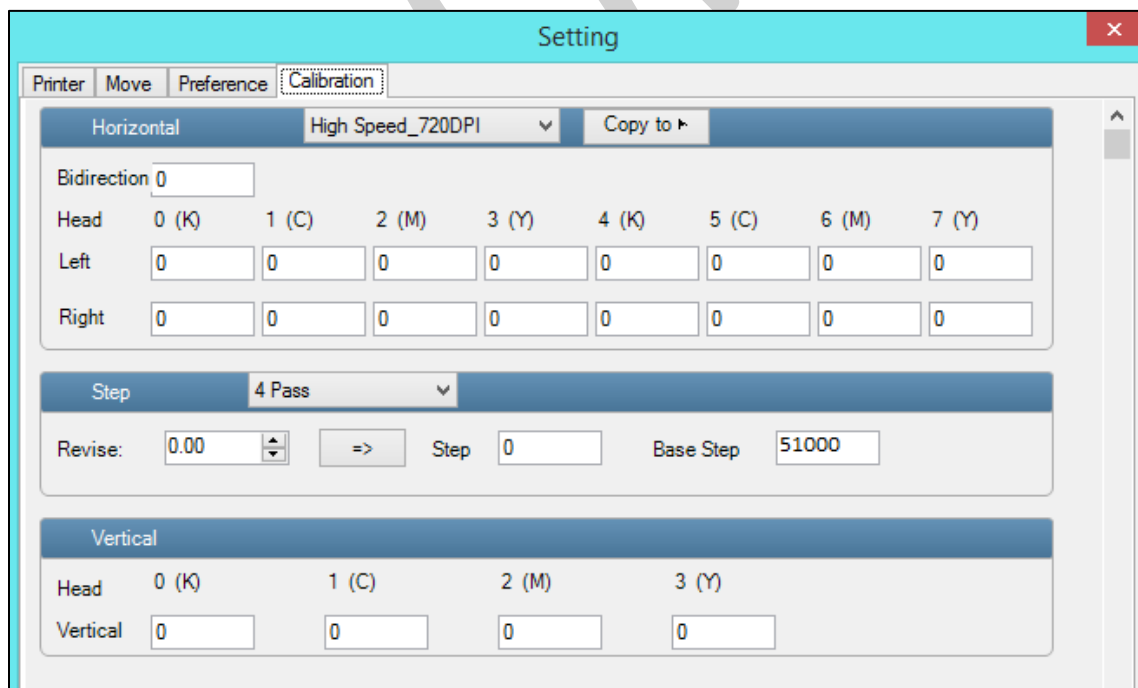The **Calibration** tab is shown in the image below:

Fig 11: Displaying the Calibration Wizard

Tools Menu

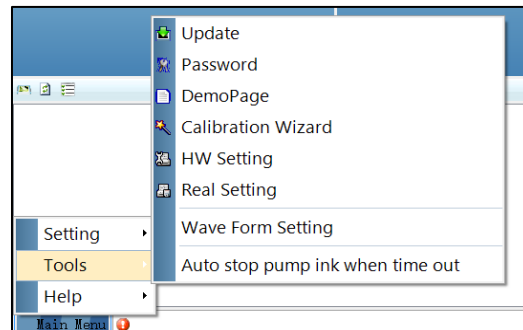The **Tools** menu options are shown in the image below:

Fig 12: The Tools Menu Option

- **Password**: This option enables to feed the time and language passwords of the printer.
- **Calibration Wizard**: Using this option, you can perform different types of calibration viz. Angle Check, Vertical Check, Nozzle Check, and more. For more details, please read the "**Calibration Wizard**" section carefully.
- **Auto stop pump ink when time out**: Enable or disable the pump automatically when time out occurs.

Help Menu

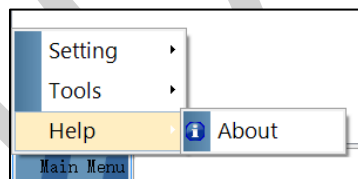The **Help** menu option is shown in the image below:

Fig 13: The Help Menu Option

- **About**: Enable to view the details about Printer Manager software viz. software version and copyrights.

7. Getting Ready for Printing

Switch ON Procedure

Follow these steps to switch ON the printer:

Step 1: Check Waste Bottle.

Step 2: Check Ink Level.

Step 3: Maintain the room temperature.

Step 4: Move the carriage manually away from the home position.

Step 5: Switch ON the printer from the main power or board.

Step 6: Load the media.

Step 7: Perform purging and then, nozzle test.

Now, the printer is ready for printing.

Loading Media

Follow these steps to load the media:

Step 1: Lift up the Media Lever, as shown below:

Fig 14: Displaying the Media Lever

Step 2: Unwind the media roll to reach near the platen and hold it.

Step 3: Insert the taken-out media between the platform and the pinch roller.

Step 4: Pull the media out in front of the machine.

Step 5: Holding the media firmly and push down the Media Lever.

Step 6: Turn on the Supply Auto/Supply switch in auto mode and carefully observe the direction of media either reverse or forward.

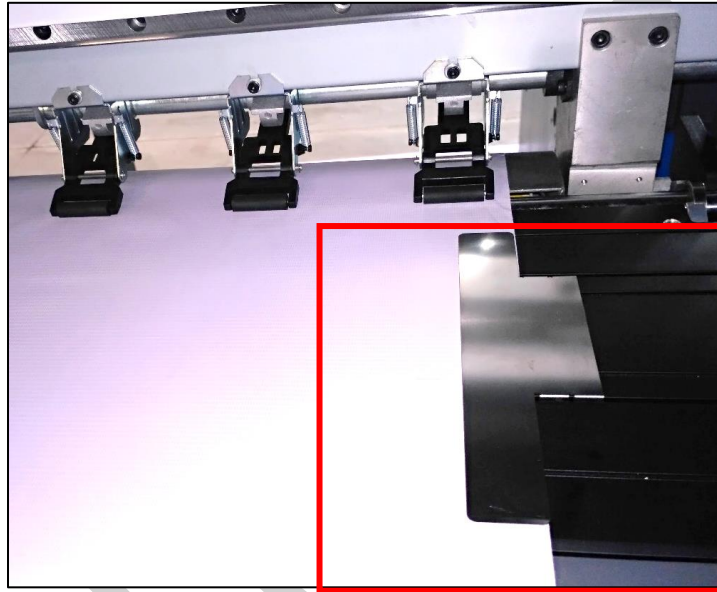**Step 7**: Install the media clamps from both ends, as shown below:

Fig 15: Installing the Media Clamp

Step 8: Pull the enough media so that it reaches to the Take Up roller (Optional) or let the media down by issuing the Print command).

Step 9: Paste the front edge of the media on the Core.

Step 10: Turn on the Take Up System and observe the media direction (either reverse or forward), as shown below:
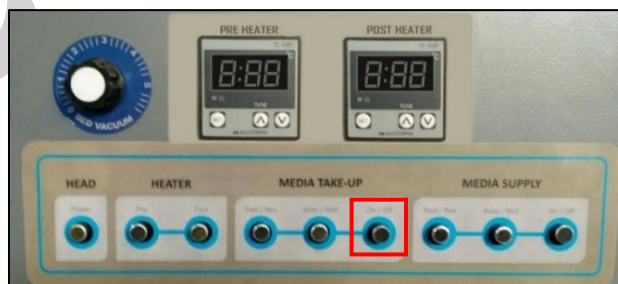

Fig 16: Enabling the Take-Up System

**Step 11:** Move the media forward so that it rolls easily over the Core.

Step 12: Adjust the bed vacuum to firmly hold the media as per the media type, using the **Bed Vacuum** regulator.

Now, the media gets loaded.

Note: Before issuing the Print command, verify the following things:

- Check the Waste Bottle and empty it, if required.
- Check the ink level in main tanks and refill it, if required.

The **Media Path** is shown in the image below:

Fig 17: Displaying the Media Path
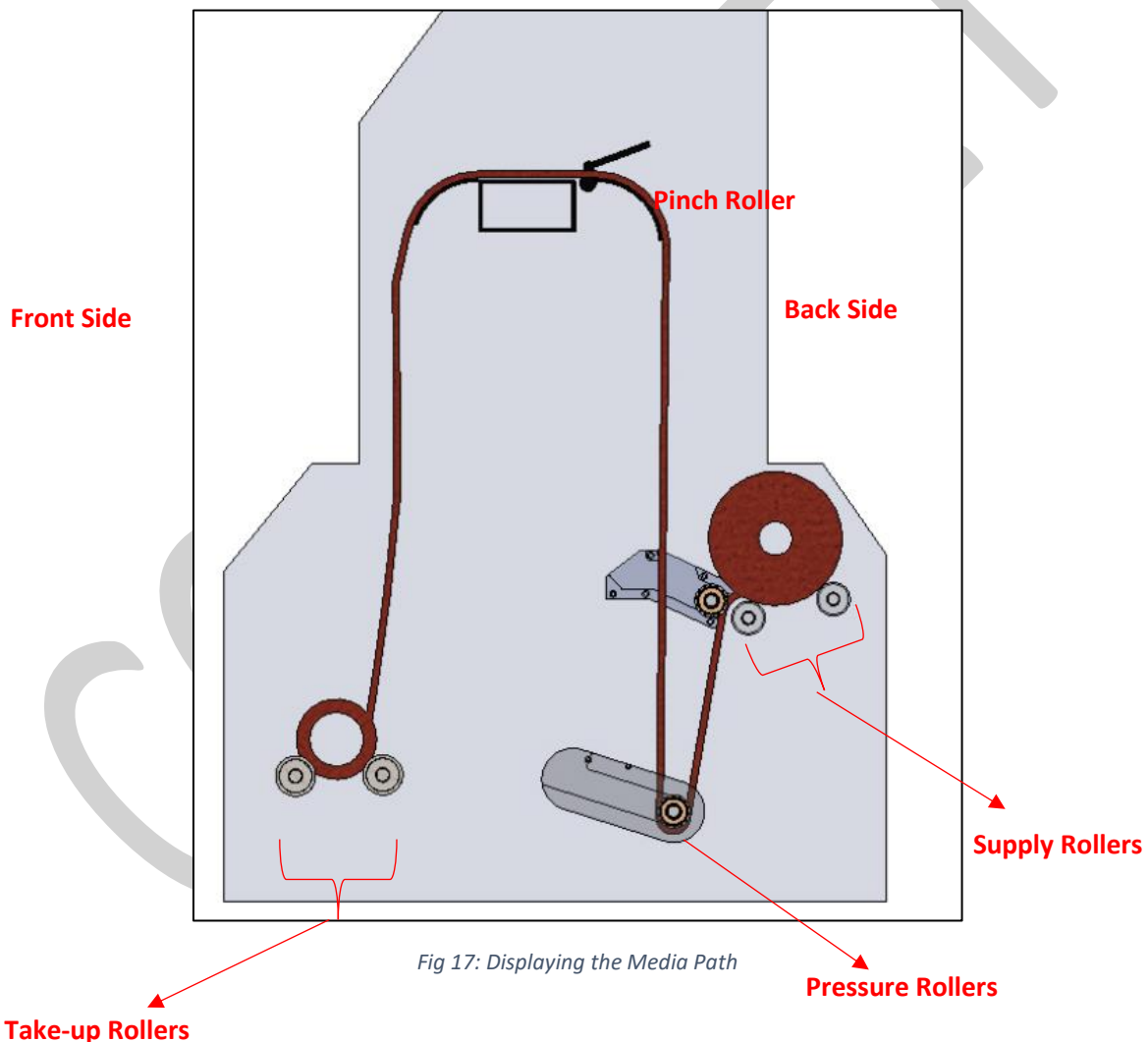
Note: Take-up is an optional part of the machine.

Ink Filling

Please use the recommended ink in the printer for high printing quality and long life of print and Print Head.

Follow these steps to fill ink in the printer

Step 1: Open the left door of the printer to find out main tanks.

Step 2: Replace ink bottles, if empty.

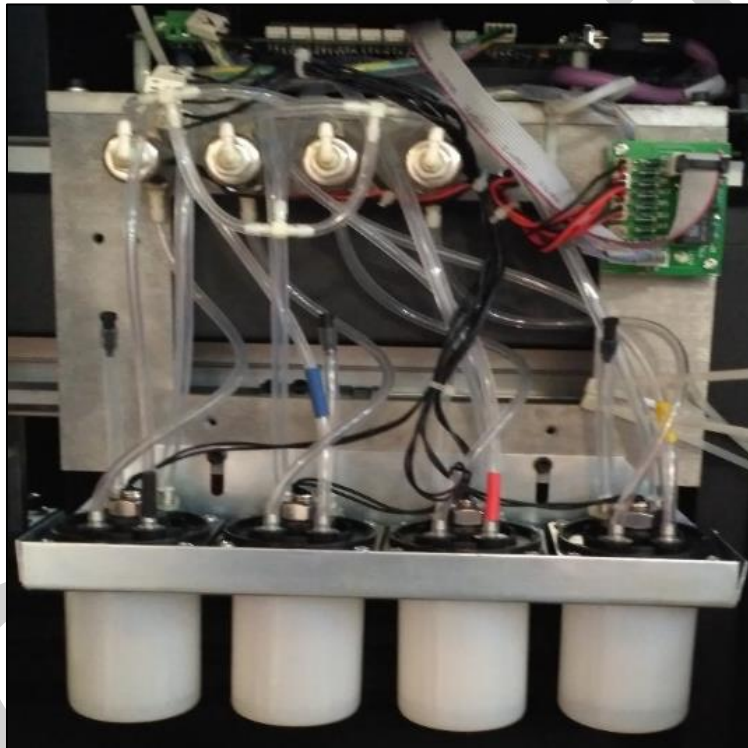Ink gets filled in the Sub tanks shown below:

Fig 18: Displaying the Ink Sub Tank

Feeding Password

The Password option enables operator to feed or update password of the printer. On clicking **Password** option under the **Tools** menu, the **Password** window appears with two options viz. Time Password and Language Password.

Follow these steps to change the passwords of the printer:

Step 1: *Click* on the **Main Menu➔Tools➔Password** path, as shown below:
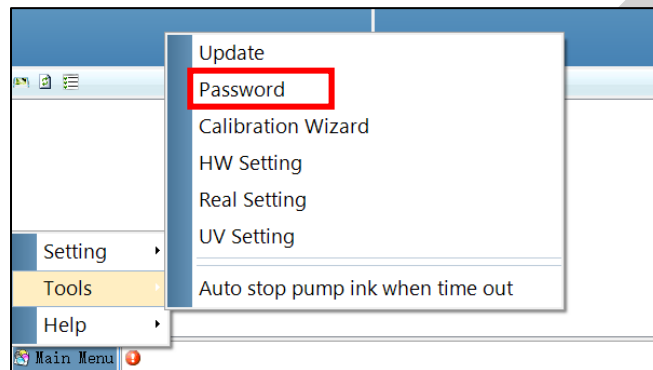

Fig 19: Selecting the Password Option

The **Password** window appears on the screen as shown below:

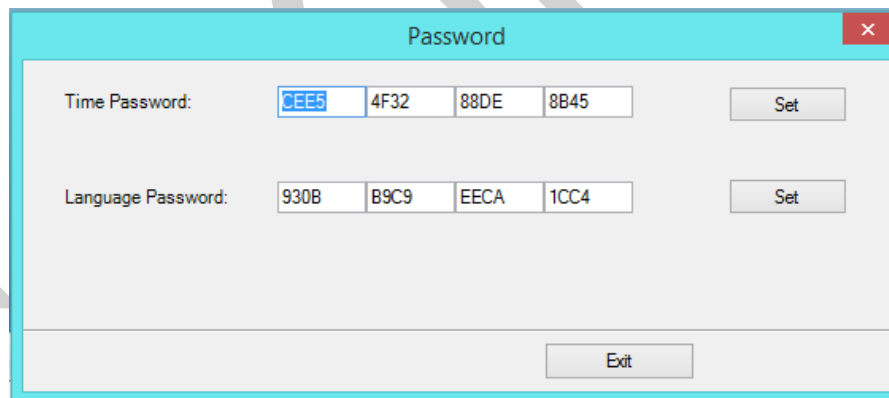
Fig 20: The Password Window

Step 2: Feed Password in the **Time Password** field (Refer to Fig 20).

Note: The length of the password field must be of 16 digits.

Step 3: After feeding the passwords, *click* on the **Set** button (Refer to Fig 20).

Step 4: *Click* on the **Exit** button to close the **Password** window (Refer to Fig 20).

Note: When **"First Warning"** appears, kindly contact Head Office with the following screen:

- Password Screen (Refer to Fig 20)
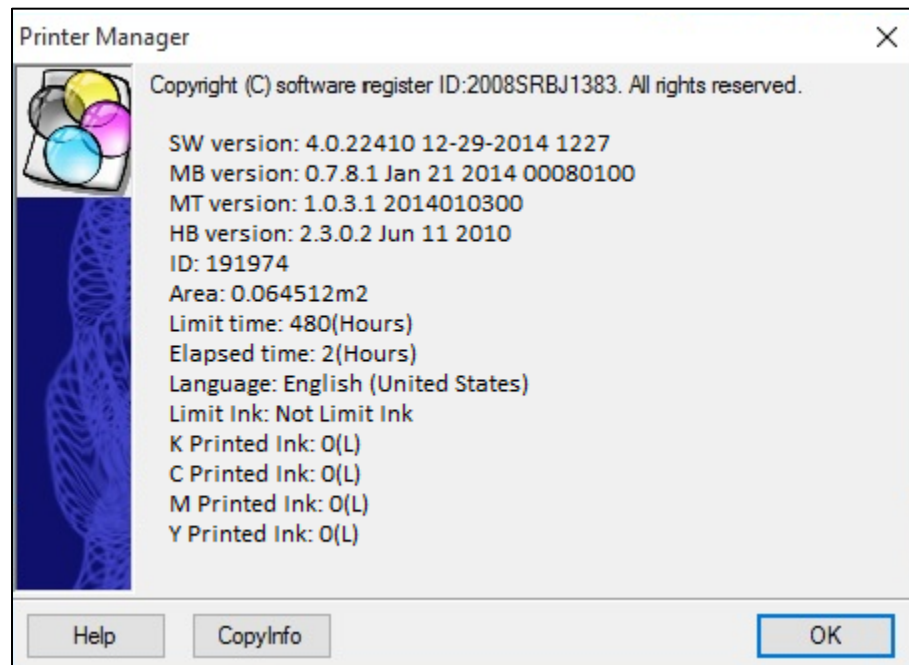- About Screen

Fig 21: Displaying the About Us Screen

8. Printing

Nozzle Testing

Before starting with calibration tests, the Print Heads should be checked for blockage. Each Print Head has multiple tiny nozzles through which ink drops emerge and get deposited onto the print medium. Any nozzle blockage can compromise the print quality by forming discolored horizontal streaks or bands.

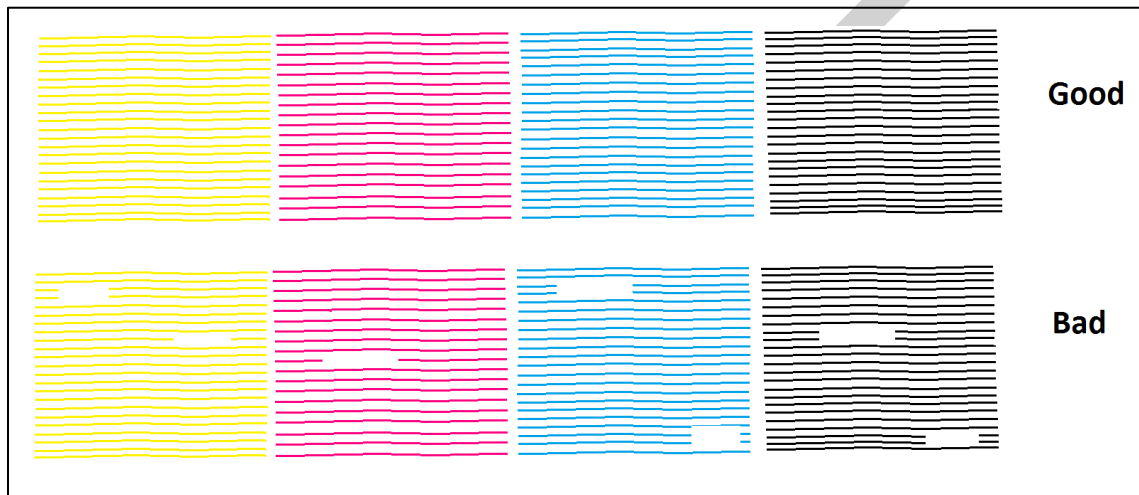The good and bad nozzle test results are shown in the image below:

Fig 22: Good and Bad Nozzle Test Result

To check the nozzle, click on the **Check Nozzle** icon available on the **Quick Access Toolbar**, as shown below:

Fig 23: Clicking the Check Nozzle Icon

In case of blockages, refer to the Head Cleaning section to perform head cleaning before proceeding to other calibration steps.

Print Head Calibration

The Print Head calibration is categorized into the following types:

- **Mechanical Check**: Includes Vertical Check and Angle Check
- **Software Calibration**: Includes Horizontal Calibration and Step Calibration

Note: Mechanical checks are only performed by the Service Engineer.

Calibration Wizard

Print Heads should be calibrated to ensure good printing quality. To open the Calibration Wizard, *click* on the **Main Menu→Tools→Calibration Wizard** path, as shown below:
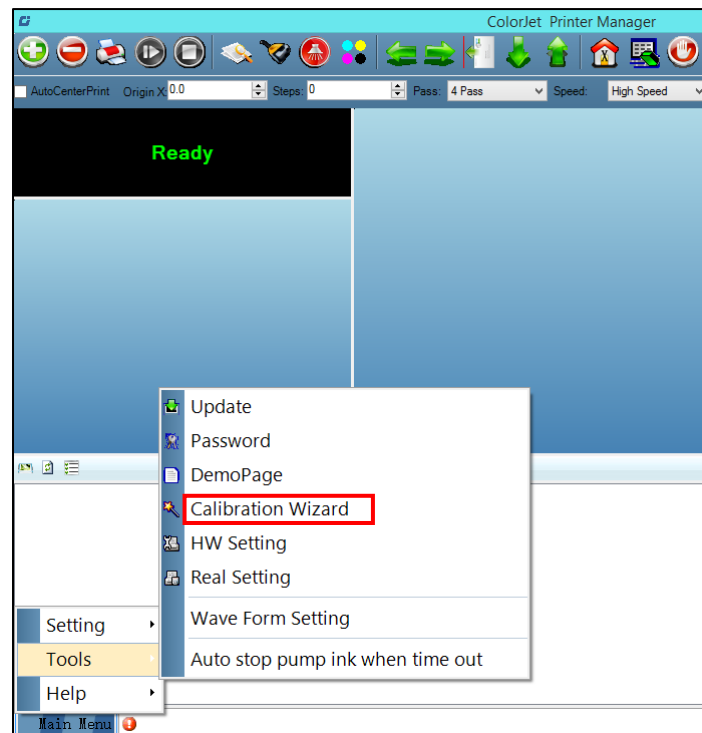

Fig 24: Selecting the Calibration Wizard Option

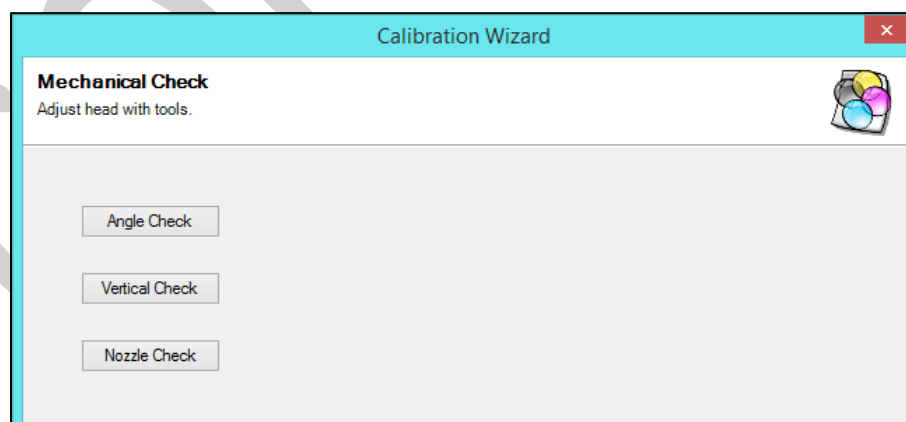This should bring up the calibration wizard which is shown below:

Fig 25: Displaying the Calibration Wizard

Click on the **Next** button to redirect to the software calibration screen, as shown in the below images:

Fig 26: Displaying the Printer Calibration Options

Note: Base Step value should be **51000**.

Horizontal Calibration

Horizontal Calibration checks the bi-directional, left, and right alignment and corrects it by adding or subtracting the correction value from the default set value. It has to be performed for each print mode, whichever is required.

Bi-direction Calibration

Bi-directional calibration is performed to achieve dot placement accuracy between the "Left to Right" and "Right to Left" print sweeps. If the bi-direction offset value is correct, the Left to Right test print would align accurately with the Right to Left test print at**"0"** position. In case of error in the Bi-Direction offset, the Left to Right and Right to Left print would align at some other point on the scale.

The **Bi-direction Calibration Result** is shown in the image below:
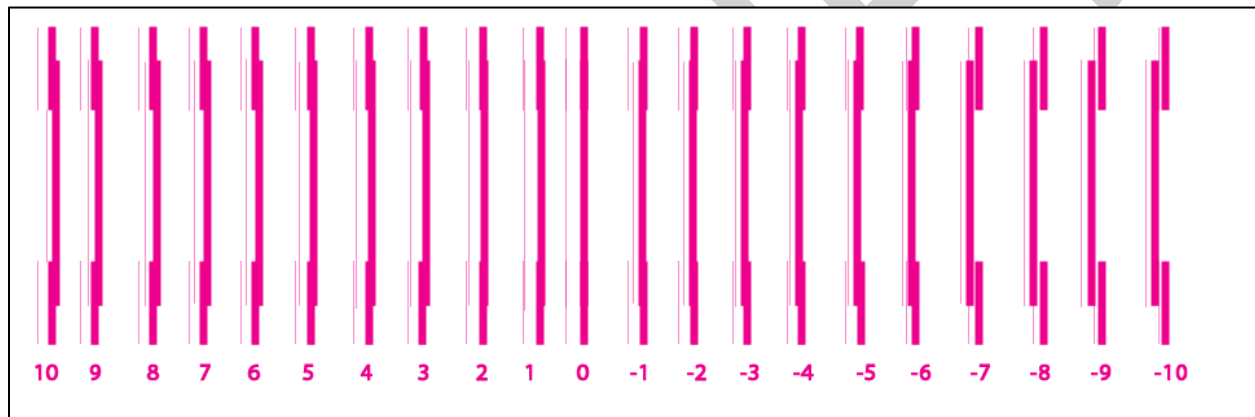
Fig 27: The Bi-Direction Calibration Output

Based on the above figure, you can notice that the Bi-direction calibration is good at **"0"** position. The correction value is **"0"** which means you need not to correct the bi-direction value. Sometimes, the correction value can either positive or negative. If the correction value is positive, then you need to add it in the current bi-direction adjust value or subtract the same if negative.

Left to Right and Right to Left Calibrations

Left to Right Calibration is performed to achieve dot placement accuracy of all colors (Black, Cyan, and Yellow) with respect to Magenta during the carriage's left to right print sweep. Similarly, Right to Left calibration is used to achieve dot placement accuracy during the carriage's right to left sweep.

When the position of the test head is correct, then it would align perfectly with the reference color at **"0"** position, indicating that the error position is **"0"**. If the test Print Head's position saved in the system is inaccurate then it would not align at **"0"** position, but at some other point on the calibration scale. The position at which the test head aligns perfectly with the reference head, indicates the error in position.

Left Calibration and **Right Calibration** Results are shown in the image below:
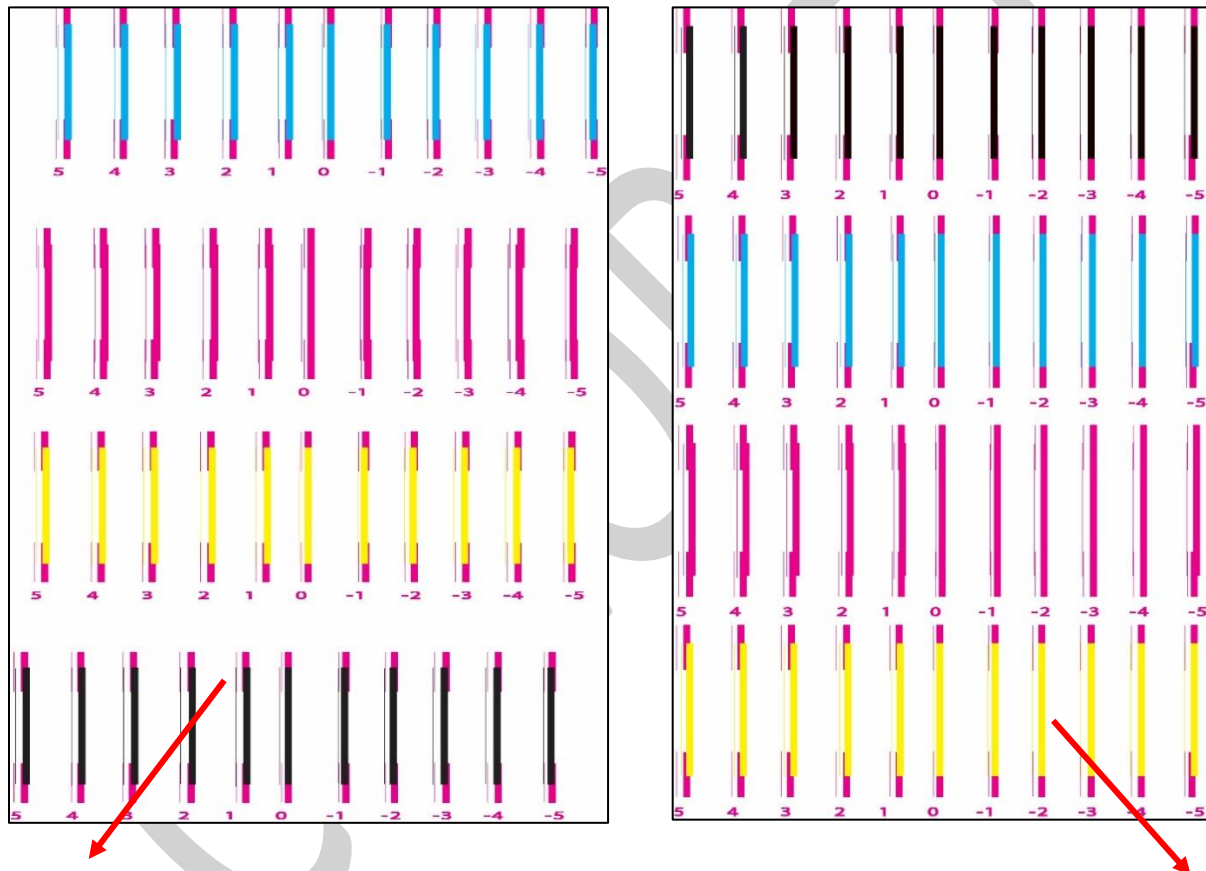
**Left Check**

Right Check

Fig 28: The Horizontal Right Check

Step Calibration

The printer step calibration is performed to verify and correct media feeding. The printer prints a complete image pass by pass. A pass is the horizontal carriage sweep perpendicular to the media movement. After each pass the printer moves the media forward for the next pass. This movement of media is called a step. The distance by which the media is moved is called the step size and it has to be accurate. Step size errors cause horizontal white or dark bands to appear in the print output.

Step size needs to be adjusted for multiple factors like thickness and roughness of the print media etc. Step calibration should be used to fine adjust the step size and has to be done for each desired pass.

On the fly, Step value can be adjusted using the Steps field, as shown below:
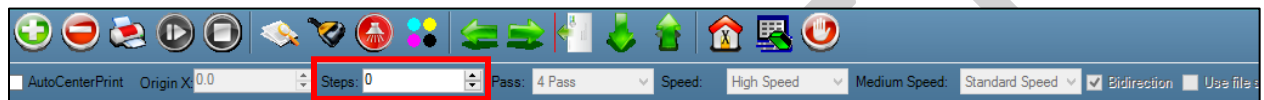
The **Step Calibration Result** image is shown as below:
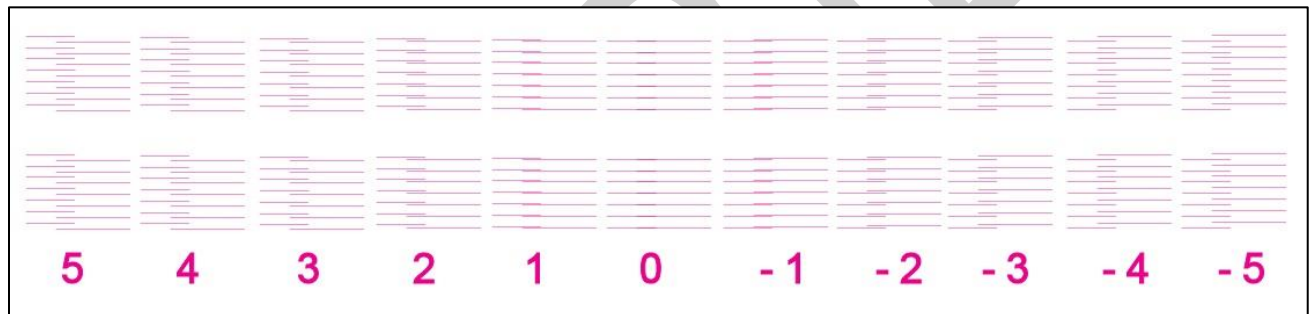
Fig 29: Displaying the Output of the Step Calibration

From the above figure, you get the accurate step adjust correction value. The correction value is either positive or negative. If the value is positive, then add it in the current step adjust value for the Print Head calibration. On the other hand, if the value is negative, then subtract the value from the current step adjust value. From the above, you can conclude that the pattern is corrected at **"0"** position.

The **Step Calibration** and its parameters are shown in the image below:

Fig 30: The Step Calibration Parameters

Follow these steps to perform step calibration:

Step 1: Select the desired pass from the list and click on the **Print** button (Refer to Fig 30).

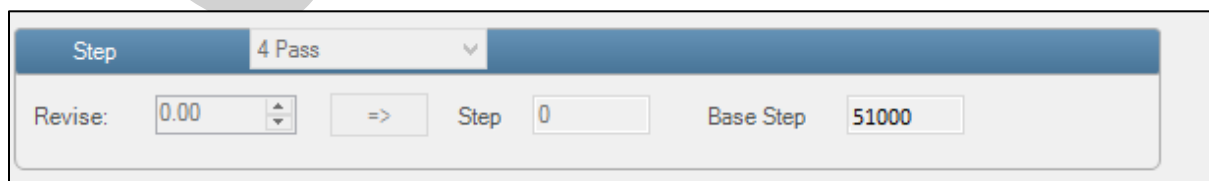**Step 2:** Feed the correction value in the **Revise** field (the correction value up to two decimal places) (Refer to Fig 30).

Step 3: Click on the **=>** icon (Refer to Fig 30) on the Step Calibration window. The correction value result will be reflected in the **Step** field (Refer to Fig 30). The same step value will also be displayed in the **Steps** field on the **Quick Access Toolbar**.

Setting Print Origin

Print origin sets the print starting point with right most print head position as the reference point. It can be set by two ways; moving and positioning the carriage and typing the offset value directly in the given field.

Follow these steps to change the print origin:

Step 1: *Move* the carriage at the position from where you want to start the printing by *clicking* on the left and right buttons on the **Quick Access Toolbar**, as shown below:
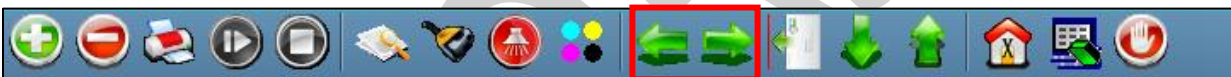
Fig 31: Adjusting the Carriage Position

Step 2: After positioning the carriage, *click* on the **Set print origin** icon on the **Quick Access Toolbar**, as shown below:

Fig 32: Selecting the Set Print Origin Option

On clicking the **Set print origin** icon, the current position of the carriage gets updated in the **Origin X** text box, as shown below:
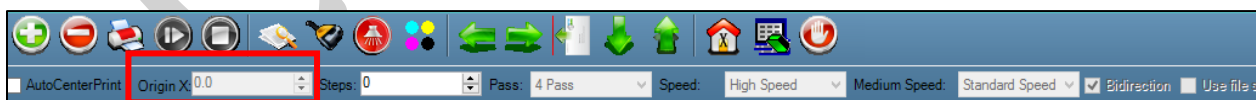
Fig 33: Displaying the Origin Value

Now, the printing origin gets set. Additionally, you can also enter the print origin value manually in the Origin X field under the Print Parameter section.

Setting Print Parameters

Using the Printer Manager, you can manually change print preferences as per the printing requirements such as print origin, printing speed, no of steps, and more as shown below:
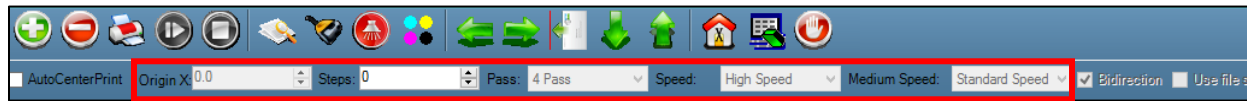
Fig 34: Setting Printing Parameters

The description of printing parameters is given as follows:

- **Origin X**: Directly enter the print origin value.
- **Steps**: Remove step size errors in the current print job by specifying number of steps.
- **Pass**: Choose the number of passes with which the print job should be printed. Passes selected should be compatible with the Y DPI of the image selected. Increasing the number of passes improves the print quality but at the cost of printing time.
- **Speed**: Choose the printing speed like High Speed, Medium, and Low.
- **Medium Speed**: Set the Y printing speed viz. Standard Speed and Low.

Adding Jobs

There are two ways to add jobs in the Job List area viz. the Add Job button and right click on the Job List area.

Follow these steps to add jobs in the Job List area:

Step 1: *Click* on the **Add Job** button on the **Quick Access Toolbar**, as shown below:
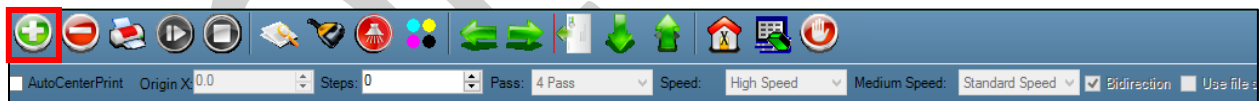
Fig 35: Clicking on the Add Job Button

The **Open** window appears on the screen.

Step 2: *Navigate* to the location where the image file with extension "**.prt**" and "**.prn**" is stored (Refer to Fig 36).

Step 3: *Click* on the **Open** button to add the file into the **Job List** area, as shown below:
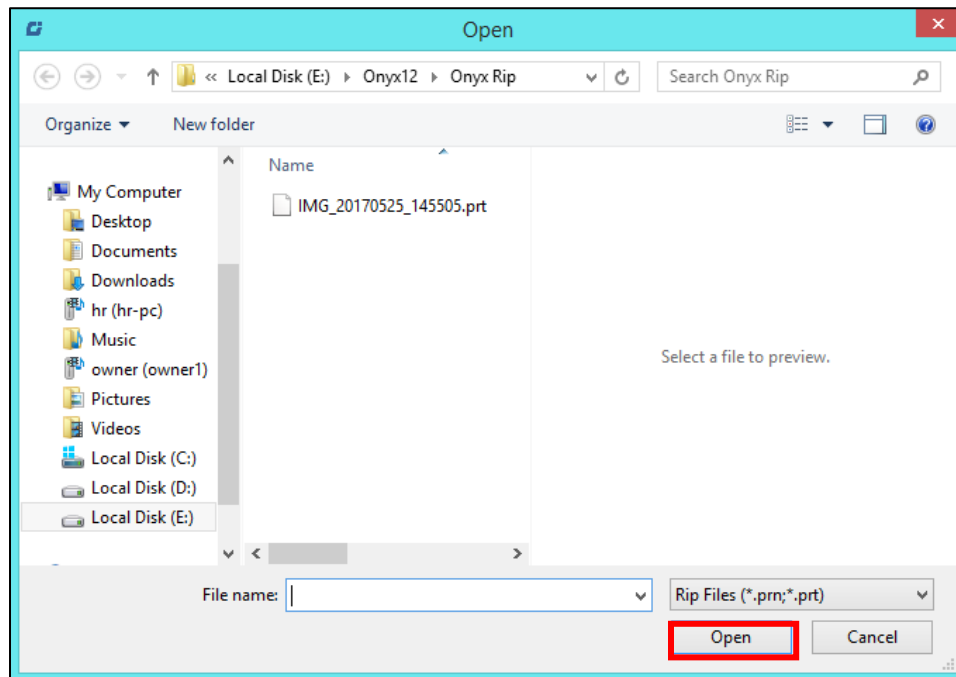
Fig 36: Adding the Job

Now, the selected image appears in the Job List area, as shown below:
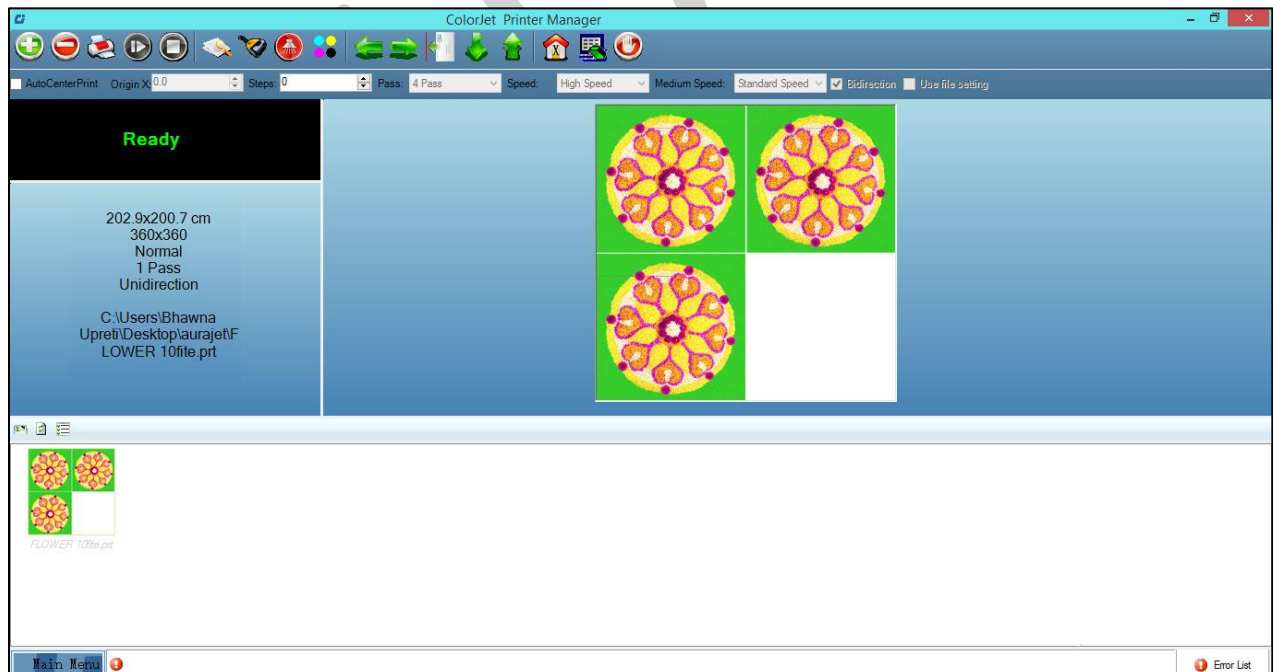
Fig 37: Displaying the Added Job and Their Details

Once a file has been added its information such as file path, size, resolution, and number of passes can be viewed in the Job Information area. User can also add a job simply by right clicking on the Job List area and selecting the **Add Job** option from the context menu, as shown below:
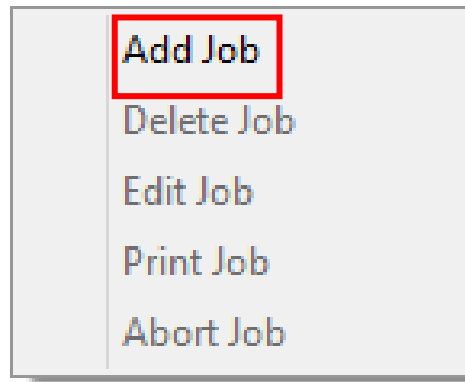
Fig 38: Displaying the Context Menu

On selecting the **Add Job** option, the **Open** window appears and follow the above-mentioned steps to add more jobs.

Note: To delete the selected job, *click* on the **Delete job** icon on the **Quick Access Toolbar**.

Editing Job

Follow these steps to edit the selected job:

Step 1: *Select* the job for which details you want to edit from the **Job List** area and right click.

Step 2: *Select* on the **Edit** option from the context menu, as shown below:
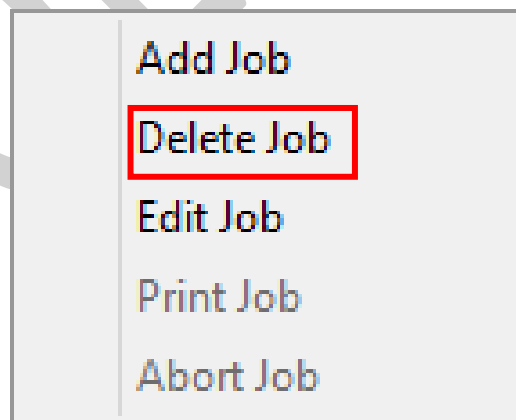
Fig 39: Selecting the Edit Job Option

Step 3: *Select* the desired checkbox in front of the Clip, Reverse Print, and Tile options. Clicking on any option will enable its related parameters on the right pane and you can edit them as per the requirements. In our case, we have selected the **Clip** checkbox
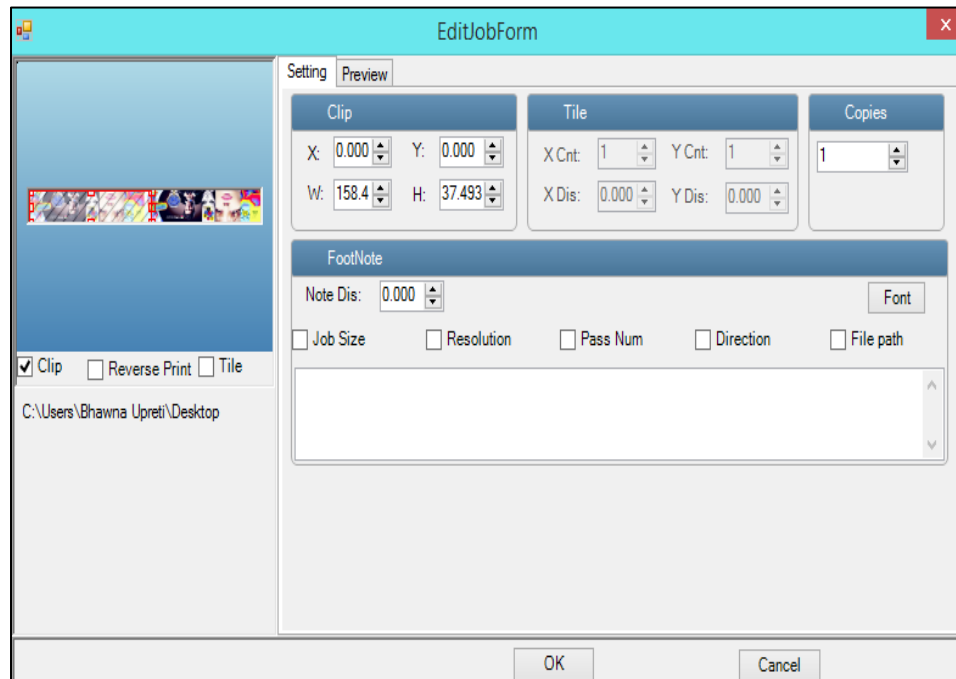
Fig 40: Displaying the Edit Job Form Window

Clip: By enabling this, a portion of the image can be selected by dragging the image preview. And its height and width can be adjusted. Also the crop margins can be adjusted in x and y direction.

Tile: By enabling this, desired number of counts in x and y directions can be printed. Also the distance between each count can be adjusted.

Copies: Feeding any number of copies will repeat the prints in Y direction. Careful, the Print will stop and restart after each copy.

Foot note: You can add footnote printing with each printed image. Parameters required can be selected.

Step 5: After making the desired changes, *click* on the **OK** button to apply the settings (Refer to Fig 40).

Ripping and Printing

Ripping is an independent process which converts a raw image file into the machine-readable format and get the file ready for printing. The Rip software supports the tiff, jpeg, eps, psd, bmp file formats. After ripping the image file, the output file will be in **".prt"** or **".prn"** file format. Thus, you should first rip the image file before printing and then issue the Print command. While ripping, the color profiles are used to automatically perform the color corrections in the image. Now, you can print an image on the selected media simply by clicking on the **Print Job** button available on the **Quick Access Toolbar,** as shown below:
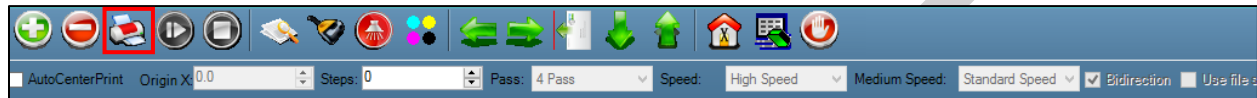
Fig 41: Issuing the Print Job Command

After issuing the Print command, the printing gets started and its progress details displays in the Job Information area, as shown below:
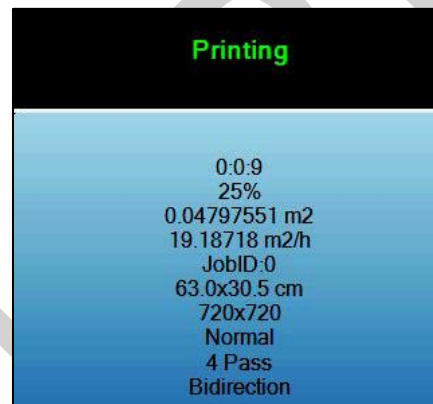
Fig 42: Displaying the Printing Details

DPI and Print Mode

Table 3: Displaying the DPI and Print Mode

Print Mode	DPI
Mode 1	360 X 360
Mode 2	360 X 540
Mode 3	360 X 720
Mode 4	720 X 360
Mode 5	720 X 540
Mode 6	720 X 720

Pausing and Canceling Printing

If you find any defect during the printing process, you can immediately pause or cancel the current printing job using the Pause or resume and Abort Job buttons available on the **Quick Access Toolbar** as shown below:
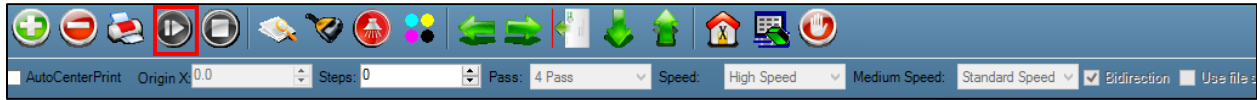
Fig 43: Issuing the Pause or resume Command

Similarly, you can abort the process by right clicking on the selected Job in the Job List area and select the **Abort Job** option from the context menu.

Note: Keyboard shortcut for pausing and resuming is **Ctrl+TAB.**

9. Head Cleaning

Print Head is a delicate part which needs to be cleaned as per the recommended methods to have long life and to ensure consistent print quality. Below sections give recommended steps to clean the Print Heads.

Head Blotting

Head blotting refers to the process in which the head surface area is cleaned with the help of tissue paper or cloth. Blotting removes ink drops adhering to the Print Head nozzle surface. Gently touch with a clean recommended head cleaning tissue on the head's nozzle plate. One should make sure that the tissue is clean, soft, and also does not have any chemicals on it.

The Head Blotting process is shown in the image below:

Fig 44: Displaying the Head Blotting Process

Perform these steps to clean the Print Head:

Step 1: Spread the cloth tissue on the open palms and insert hands below the print head position, without touching the Nozzle Plate.

Step2: Gently touch the nozzle plate using the clean and fresh cloth tissue at two different positions.

Fig 45: Displaying the Head

Now, print head is cleaned and blotted, you can give the test print command to verify the nozzle status.

Repeat above steps, if required.

Note: Please strictly follow the below mentioned instructions:

- Avoid using the same tissue paper to clean the Print Head.
- Blotting with dry and inferior quality tissue paper will damage the nozzle film by making scars (see image in next page).
- Strictly use recommended tissue paper (Contact your dealer for tissue paper).
- Always use wet tissue paper to absorb the residue ink.
- Don't wipe hard, just absorb the residue inks on nozzle plate.

  Note: Scratches created on nozzle surface will damage the head. Sometimes the damage is not visible to naked eye and nozzle check is clear, but nozzles gets blocked after printing for some time. Scratches changes the firing angle of drops and causes inks to pile up near nozzles during printing and it blocks the head firing after sometime.

- Softly touch with a lint free bloating tissue paper (duly wet by cleaning solvent) by changing the tissue paper position with respect to nozzle plate.
- Do not apply force while absorbing residue inks with tissue paper after purging.
- Leaving head plate uncapped while printer off, will block nozzles permanently due to ink solidification.
- Color bar should always be enabled while printing and idle spray should always be enabled for long life of the Print Head.

Head Purging

Head purging refers to the method in which heads are cleaned by forcing pressurized ink through the nozzles. In the **IRISJET PRO** printer, The **Head Purging** button for each color is available on the carriage, as shown in the below figure:

Fig 46: Head Purging Buttons

Note: If nozzles are found blocked even after normal purging, then try the powerful purging ("P" switch in purging board has to be kept pressed for few seconds and then required color switch has to be pressed).

Head Spraying

Head spraying clears the mixing of colors during blotting, may also clear few dry nozzles. When heads are sprayed, all the nozzles are actuated at a high rate which helps in opening up few dry nozzles of the printer. To perform head spraying, *click* on the **Spray** button available under the **Quick Access Toolbar**, as shown below:

Fig 47: Displaying the Spray Button

10. Shutdown & Capping the Print Head

Capping refers to the process of protecting the Print Head to become dry.

Perform the following steps to cap the Print Head:

Step 1: Move the Carriage manually toward the home position.

Step 2: Clean the Print Head using different head cleaning methods viz. head wiping, head purging, and more.

Step 3: Switch OFF the printer from the main power button.

Step 4: Wet the tissue with the head cleaning solvent.

Step 5: Put the wet tissue on the Night Plate. The Night Plate is shown in the image below:
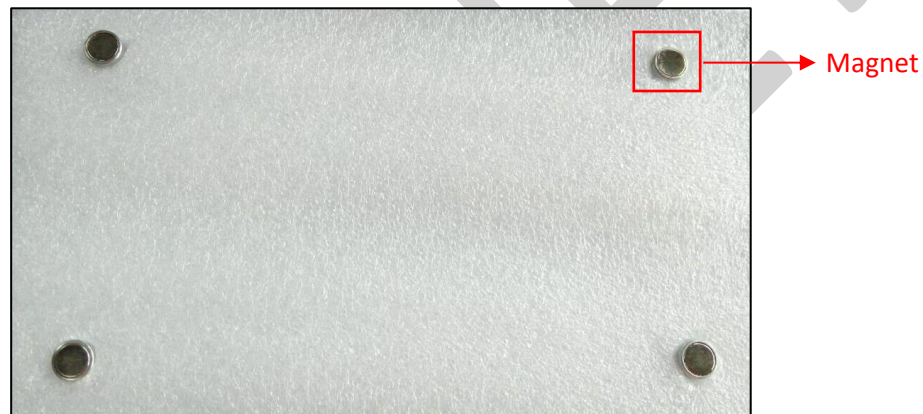
Fig 48: Displaying the Night Plate

The Night Plate has four magnetic points on the corners of it. The **Night Plate** with wet tissue is shown as follow:

Fig 49: Putting the Wet Tissue on the Night Plate

Step 6: Engage the Night Plate with the Head plate by aligning the magnets below the head plate screws, as shown below:

Note: Careful while doing this process. the nozzles must not be touched/scratched during this process.

Fig 50: Engaging the Night Plate with Head Plate

Now, Print Heads are capped properly and protected from being dried.

Print Head Maintenance

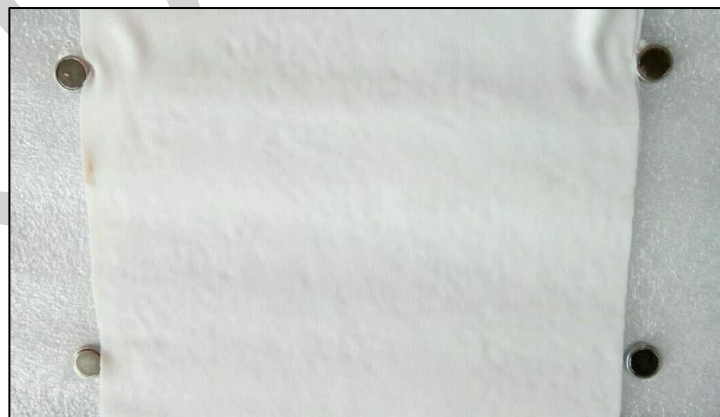Print Head is an important and delicate part of the printer. Thus, it must be handled with care to ensure the long life of the machine. Pay attention to potential problems caused by environment, heat and moisture, collision, cleaning etc. For print head maintenance, the following instructions should be taken care:

- Perform the nozzle test daily 2-3 times before printing to monitor the blockage in the head nozzles.
- Use the print head in specified environmental conditions viz. Temperature 20-25 degree Celsius with humidity 55%, dust-free and exhaust condition.
- Avoid ink spilling on the print head and head cables and if there is ink in the print head, it must be wiped dry with clean cloth, and inform engineer
- Avoid head damage due to media and Print Head confliction.
- Color bar should be ON.
- Don't use expiry ink and store the ink at favorable environment.
- Prevent the object or human body with static contact to the print head.
- Print head nozzles should be kept clean, dust free, and also prevent from oxidation.

Maintenance of Machine Motion Parts

- Clean and lubricate guide rail at least once a month and lubricate if required.

Equipment Cleaning

- Turn OFF all power switches to machine while cleaning the machine equipment.
- Avoid splashing liquid and dropping on/in the circuit board or the power line.
- Careful while cleaning the sensitive devices, like sensors and raster.
- Use clean cloth to clean up the dust and residual oil on the tracks.
- Should keep water, ink, oil away from the Encoder scale.

Power System Maintenance

- Ground wire should always be checked whether loose or disconnection.

Control System Maintenance

Static discharge

- The operator must discharge his own electrostatic charge before touching the electronic components and parts.
- Don't touch the pin connectors and welded joints on circuit boards, integrated circuit boards.

Ink Supply System Maintenance

- Check for leakage between joint & ink tank and joint & valve settings.
- Check for damages on ink tubes.
- Check Ink impurities in the ink tanks as this will affect the ink supplying.

12. Troubleshooting

PRINTER NOT INITIALIZING

- Encoder scale is having ink stains (print shows vertical color bands)
- Encoder sensor is not cleaned
- Emergency button is pressed

PRINTER MANAGER NOT SHOWING "READY"

- USB cable is not connected to the computer or loose
- USB cable is faulty

PRINT STOPS IN BETWEEN PRINTING

- USB cable is loose or faulty
- Open heavy file that can slow down the data transfer
- Ground wire is disconnected
- Encoder scale is having ink stains
- Pulley or belt is slipping
- Ripped file is having error

PRINT MARGIN IS SHIFTING, OR JUNK PRINTING

- Encoder scale is having ink stains
- Encoder sensor is not clean
- Pulley or belt is slipping
- Data cable is faulty

PRINT IS BLUR (NOT SHARP)

- Improper printer calibration – bi-directional and step
- Improper head mounting and calibration
- Selection of incorrect resolution (dpi)

LINES IN PRINT

- Head nozzles are blocked
- Incorrect step calibration

HEATERS NOT WORKING

- Check if inlet power cord is connected
- Check the set temperature in the controller

HEAD NOZZLES NOT FIRING

- Clean heads using head cleaning techniques and verify by performing nozzle testing
- Check if any air lock or no ink in the ink pipes
- Check the ink and air pipe for any cuts or loose connection

TAKE – UP NOT WORKING

- Take-up switch is not ON or not in Auto mode

MEDIA SUPPLY NOT WORKING

- Supply switch is not ON
- Media is not in sensor range

13. Error Code Specifications

Error Code	Error Description	Remedial Action
04020008	Wrong input or forbidden character in the Time Limit Password field.	Re-input the Correct Time Limit Password Field
04020009	Illegal Time Limit Password.	Re-input the Correct Time Limit Password Field
0402000A	Time Limit Password and Manufacturer ID doesn't match.	Re-input the Correct Time Limit Password Field
0402000B	Time Limit Password and Board ID doesn't match.	Re-input the Correct Time Limit Password Field
0402000C	First Warning: 100 hours left in the completion of the current Time Limit Password.	Please request a new password from the dealer
0402000D	Second Warning: 50 hours left in the completion of the current Time Limit Password.	Please request a new password from the dealer
0402000E	Last Warning: 1 hours left in the completion of the current Time Limit Password. After 1 hour, the printing process gets stopped.	Please request a new password from the dealer

India's largest manufacturer of Digital Inkjet Printers

For Any Query
Please Contact Us
www.colorjetgroup.com
Call on +91-120-4548195
Email on info@colorjetgroup.com