User Manual
For
PrinterManager ™

Beijing BYHX Technology Co. Ltd

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Contents

1 Perface

PrinterManager^{TM} is an effective printing control and management software used for professional Industry Inkjet printing works, which developed by Beijing BYHX Technology Co.Ltd, it is based on MicroSoft Windows operating system。

This article is to describe the detail usage of the software and operation principle，so that the System integraters and the end users of the equipment can use this tool conveniently。

2 Installation

Before you install the PrintManager，You should first install Microsoft .Net Software package, at least Ver4.0 or later version。You can search and download the installation package from Microsoft website, or you can contact with BYHX for support.

And then, Unpackaged the PrinterManager installation bag which provided by BYHX，Click the setup.exe file，then the installation of PrinterManager is started up like following shows:

During the process of the installation, you can define the operate directory for the PrinterManager, and other steps can all follows the indication of the software's reminding，untill the installation is completed.

Note: We strongly recommend u to create another folder to run PrinterManager, for example，create an folder like c:\my applications, and install all applications which you installed by yourself manually to here. It will be convenient to maintain the applications by yourself clearly.

After the installation is finished, there is an icon established on the desktop, and in the operation folder of the PrinterManager, there are usually three executive files in it:：

PrintManager.exe：　This file is the main program of the software tool, when you click the icons of PrinterManager on the desktop, this file will run。This article will mainly introduce all the functions of this file;

Factorywrite.exe：　This file is used to setup some basic parameters of the printer, detail description refer to the following texts。

ClearEnv.exe：　This file is used to clean the running environment of your PC to ensure that the Printmanager can be run correctly。Some uncertain mistakes can be covered by this way。It is recommended that you can regularly run it to keep your PC environment clean enough just like some Anit-Virus tools。

3　Factory Configuration----FactoryWrite

Factory Configuration is done by running the FactoryWrite.exe file, which is located in the operating folder of PrinterManager。Usually, the factory configuration should be done as an necessary step for initial the printer system, and all the parameters which are set by FactoryWrite.exe should be based on the real configuration of the printer。

When click the factorywrite.exe, the popup window is show as following:
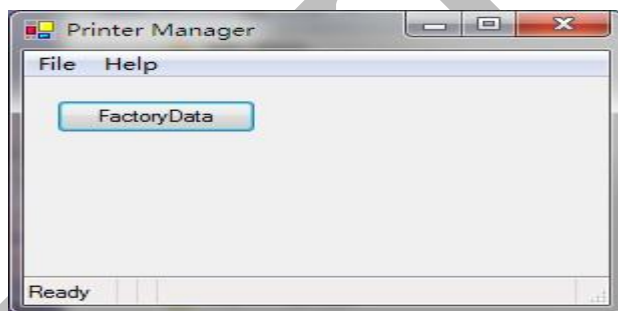
Press the "Factory Date" Button，you will see：
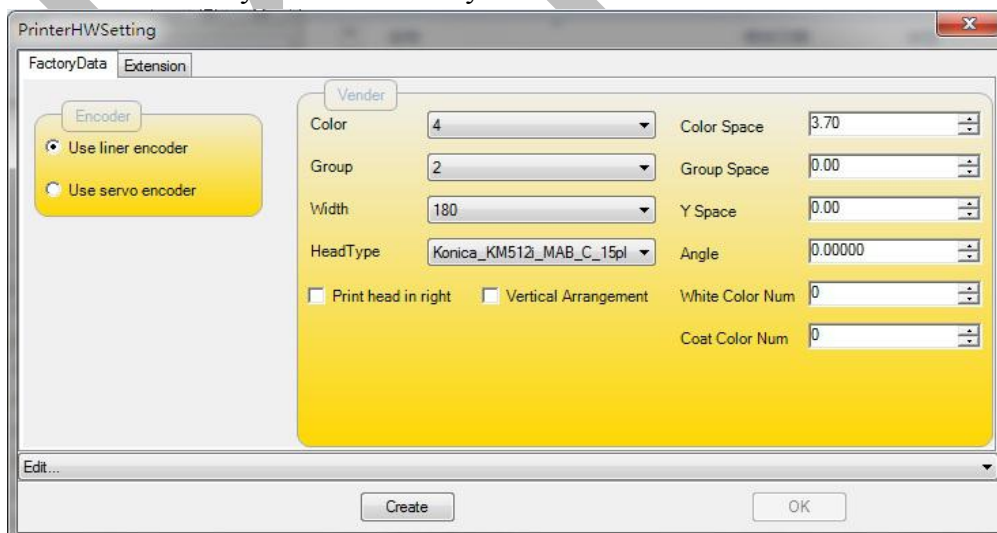
For the option items such as "Width"、"Color Space"、"Group Space"，the unit are all CM。

"Print head in right"，this option should be choiced if the original position of the carriage is arranged at the right side of the printer。

"Vertical Arrangement", this option should be choiced if ………………..

After the two pages above mentioned has setup finished, you should press "Create" button, and then press "edit" bar, and you can see that there is an new item appeared at the bottom of the list, choice it and restart the printer, then the all parameter will take effective。

4 Operate introduction
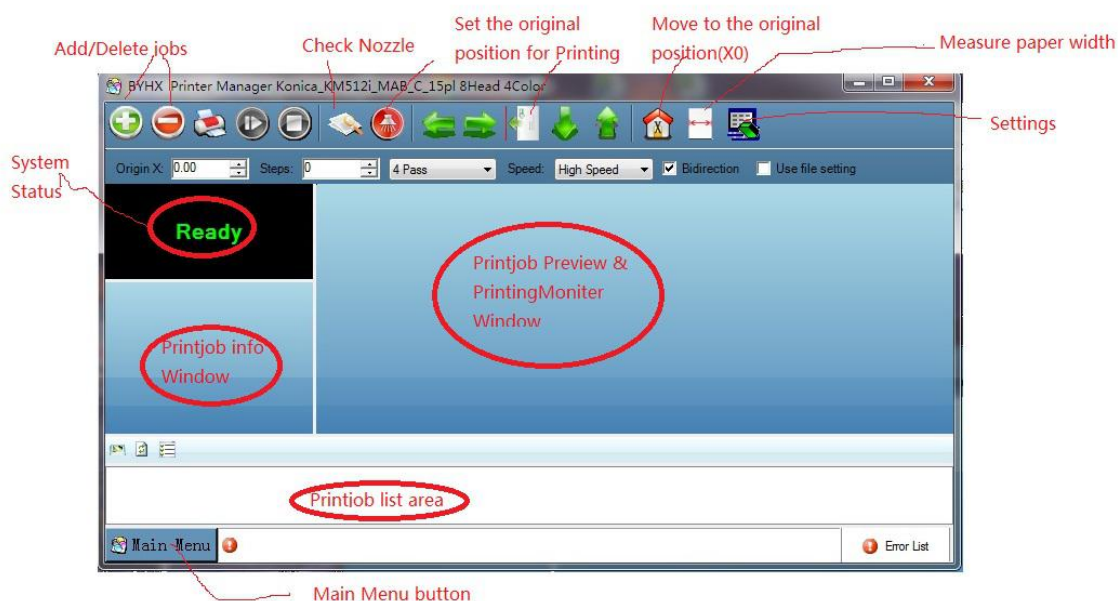
◆ Main Window and Basic operate

Click the icon of Printermanager listed on the desktop, then the Printermanager will start to run and the following windows will be popup:(if the system in powered on and status is ok)
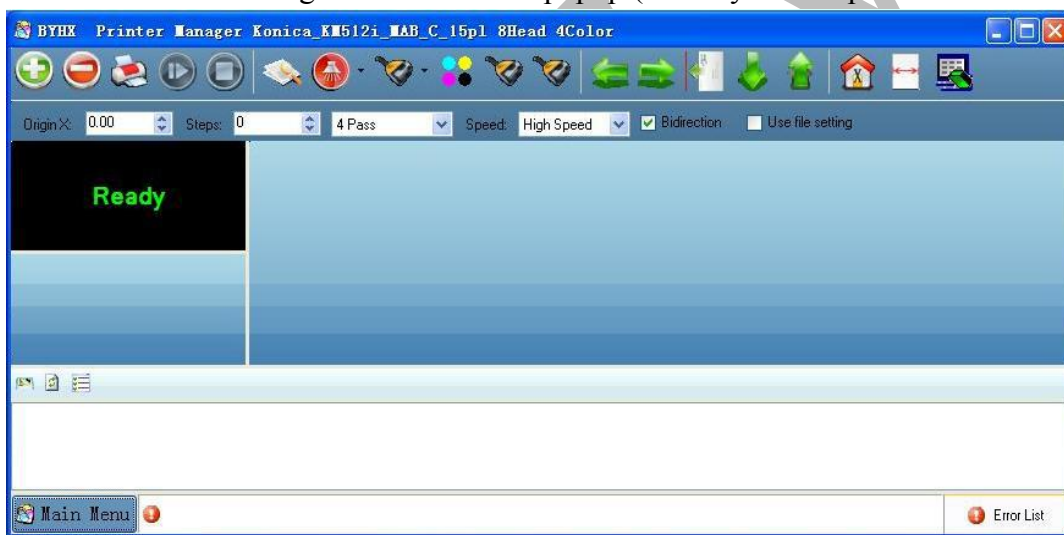
Each button and each area in the popup windows' usage are showed as this:

In this status, you can just try to press the motion button to check the motion status：

move the carriage from left to right or reverse，move the roller forward or backward，press "home" Button to move the carriage to the original position。

You can press "Spray" button，and then check if there are any inks injected out from the printhead，if not, maybe its necessary to check the voltage setup for the printhead。

You can press "Check Nozzle" button，then the carriage will move and print out an Nozzle checking pattern，so that you can check that if there is any nozzles can not inject ink out。

You can press "+" or "—" buttons to add or delete print jobs on the list。

◆ **Check System Version**

Following the steps : Main Menu → Help-→ About, you will see a small window appears which list out all version information about the system, just like the following:
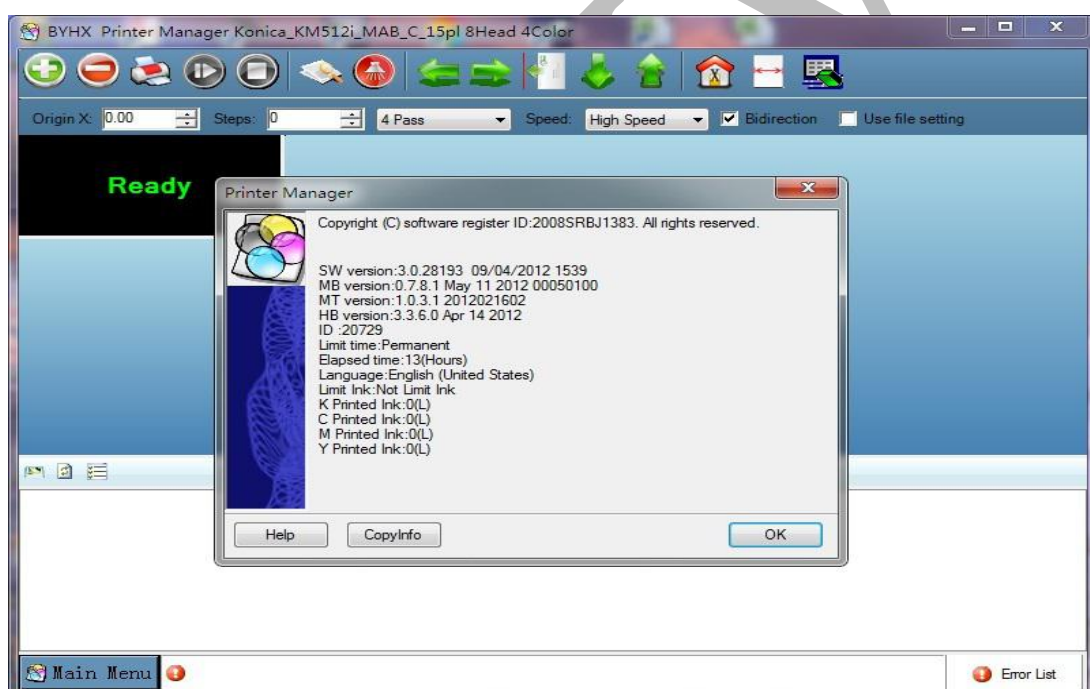
SW version: indicate the version number of the Printermanager;
MB & MT version: indicate the version number of the Mainboard;
HB version: indicate the version number of the Headboard.

This system version information is important during system debug and printer status management, BYHX recommend integrators to check it and record the information instantly.

The operator can preserve the version information by click the "Copyinfo" button, so that the information can be preserved as an .txt file。

◆ **About factory Debug**

Factory Debug is an special function that BYHX only provide for Printer System Integrators to do debug test for the printer。The item of "debug" can only be appeared after a file named as factory.usr is placed in the operating folder of PrinterManager。

This special file is provided by BYHX. And we recommend Printer Manufacturers should not provide this file and tell this function to the end user to avoid uncessary confuse about operation.
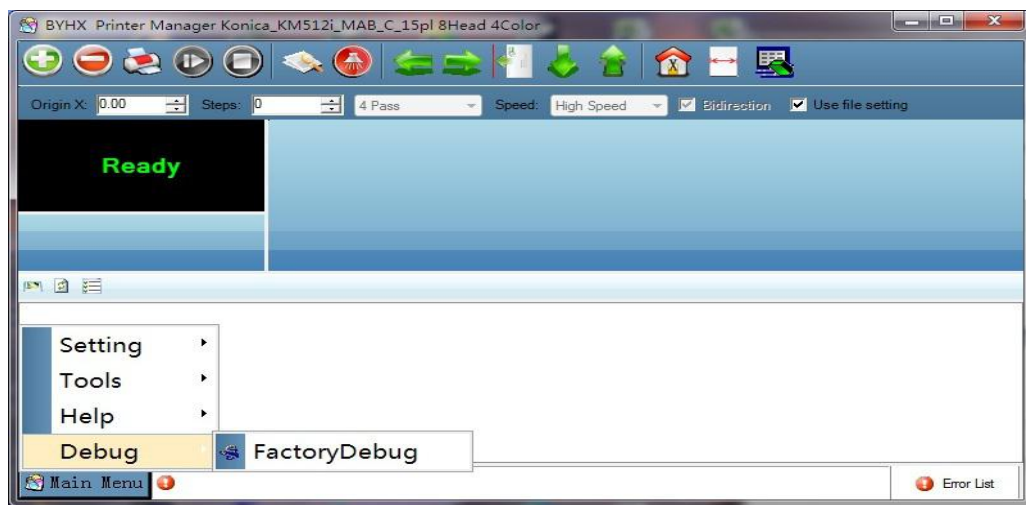
The Factory Debug window was like this:
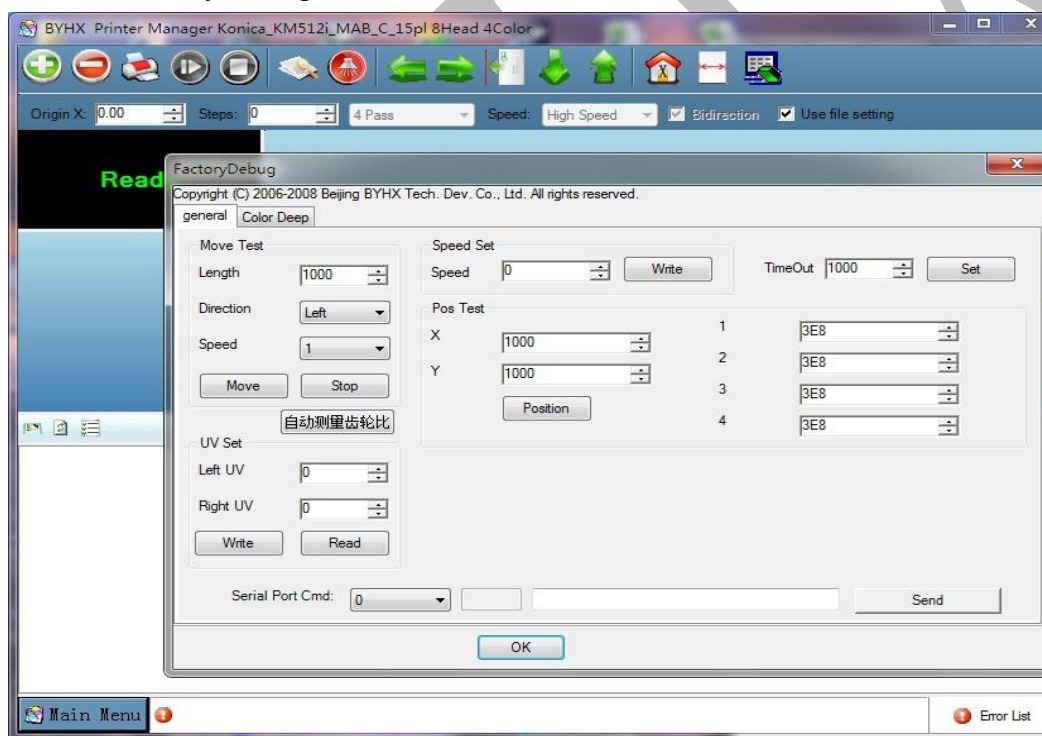
When you click the "Position" Button, the software will report current position information of the carriage, for 2 Axis application, it report X, Y position, for 3 Axis application, it report X、Y、Z position. Normally, if the feedback model is chociend as raster feedback, then the X value is actually get from the raster sensor.

With factorydebug，you can check or calibrate electric gear ratio。

Detail information about check X motion using this function, please contact our technical support engineer.

◆ **Setup the Voltage of the Printhead**

To setup the voltage of the printhead，Press "Main Menu"-→"Tools"→"Real Setting"，then you can see an popup window which help you to setup different driving voltage for each printhead：
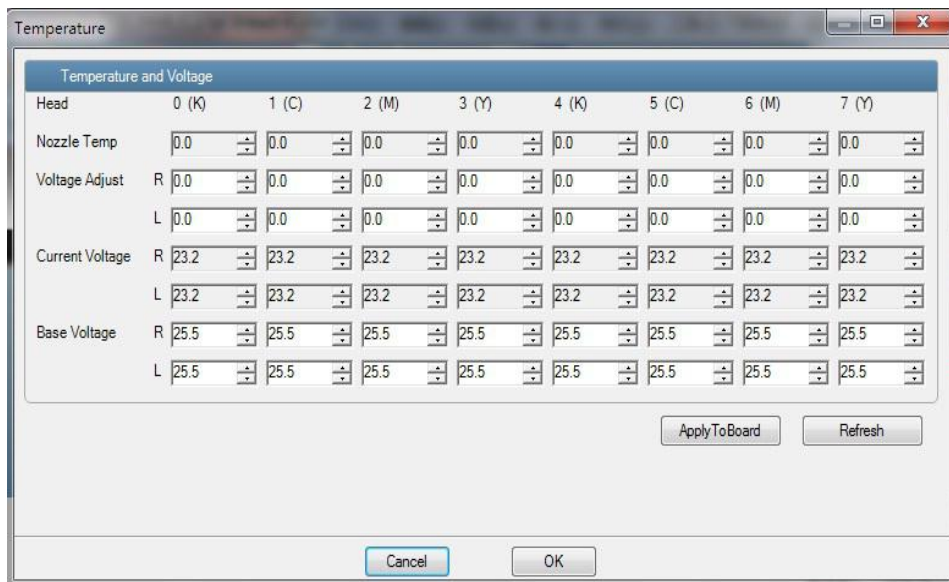
The "Base Voltage" value are usually set according to the marked value on the surface of each printhead。When the set values of "Base Voltage" are take effected，the "Current Voltage" will show their value automatically。Operator can change the values of the "Voltage Adjust" to achieve the highest print quality。

Note：

1）Generally，the default value of the "Voltage Adjust" should be zero， if it is found not zero，that means the firmware of the board maybe have bugs，customers can contact with BYHX and ask for repair for it。

2）This picture of the voltage setup window is just for KM512/KM1024, for other different Print head, the detail table has some difference with each other, it is based on different characteristics of the the print heads. When it happens, please contact our technical support engineer and ask for detail explaination.
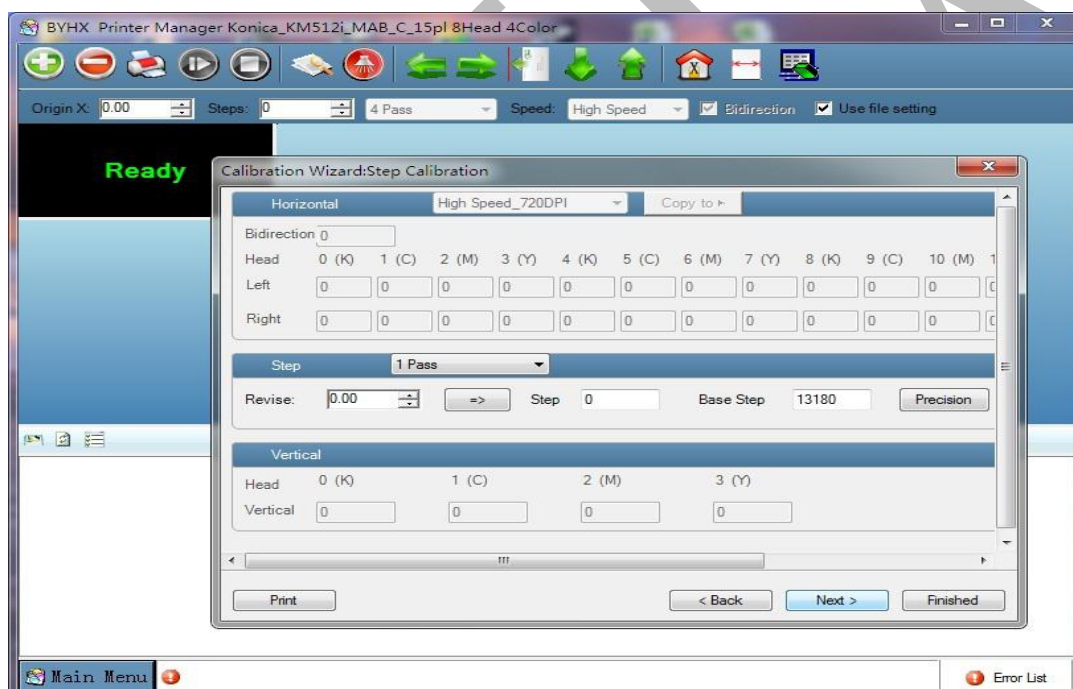

◆ **Print Calibration**

To do Print Calibration，Press "Main Menu" -→ "Tools" → "Calibration Wizard"，then you can see the following popup window,
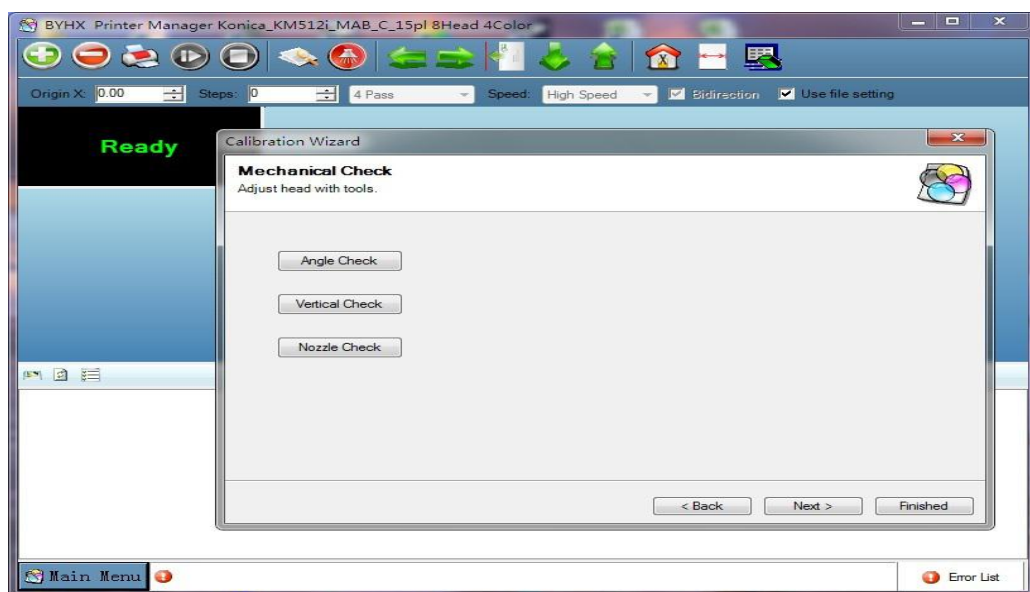
Then press "Next" button, the following window will appears:

So that as you see in the above two page, you can do those calibrations step by step: Angle check，Vertical Check，Bidirection (Calibration)，Left (Direction Calibration)，Right（Direction Calibration），Step（Calibration）。For each kind of calibration, just press "Next" or "Back" to choice，and then press "Print" button，so that the printer will print out the calibration pattern，you can read out the pattern and fulfill the right parameter numbers.

It is necessary to do bidirection, left, right and step calibration for each kind of resolution and different print speed。

PrinterManager can preserve the calibration parameters for each different resolutions and speeds。

To check current calibration parameters, you can press "Edit job" button，then choice calibration page；or：press "Main Menu" -→ "Setting" → "Edit"，then choice calibration page；then you can view all the current calibration parameters。
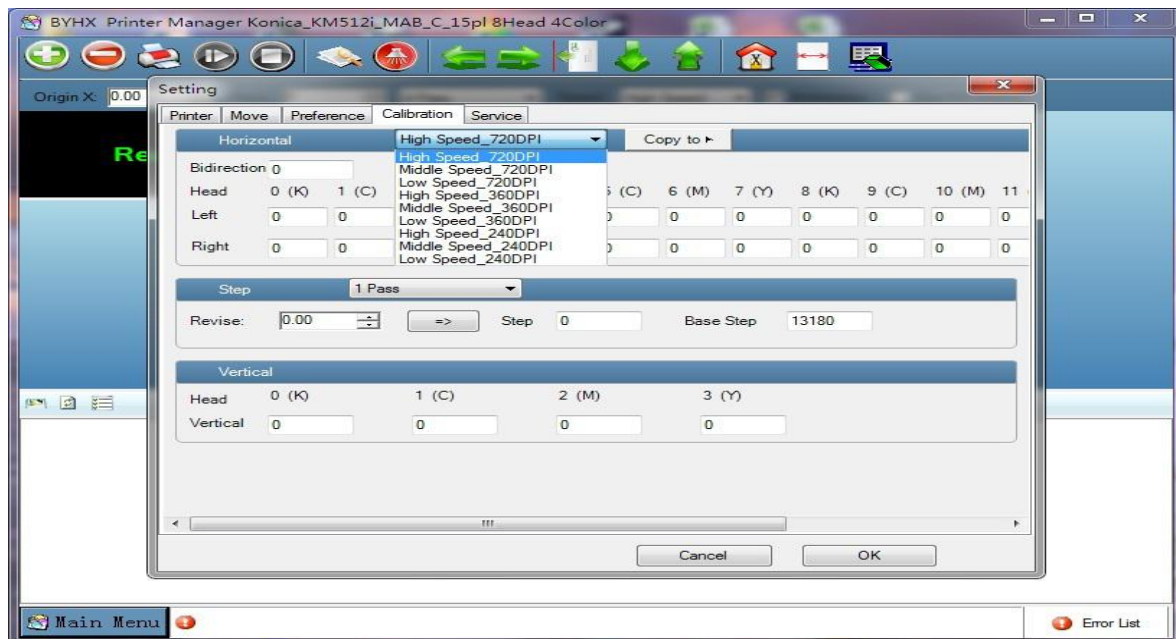
Note: Those two windows mentioned above are different with each other。

◆ **Print setup**

Press "Edit Job", or press "Main Menu""Setting""Edit", then choice "Printer" page，one can setup lots parameters about printing，just like autospray, feather type, color bar size, clean setting etc.
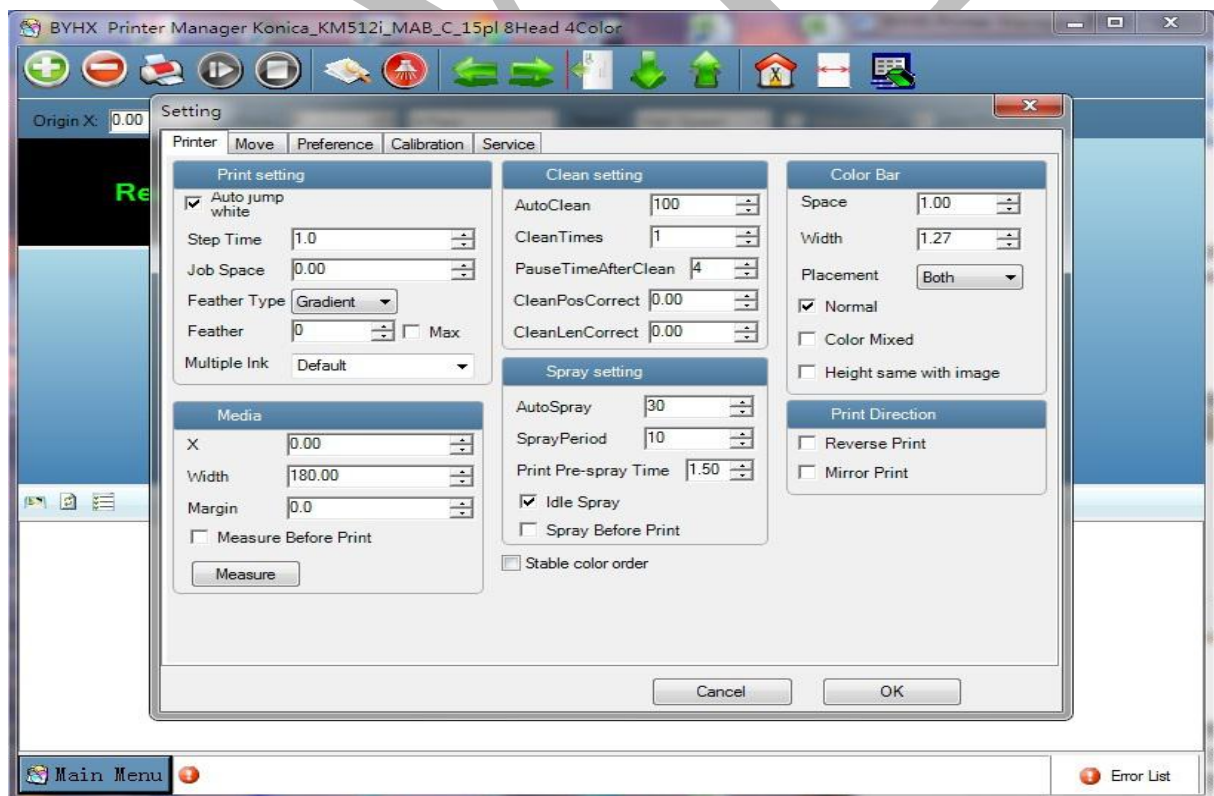
◆ **Parameter Preserve and Reload**

All the parameters which are setup in Printmanager can be reserved.

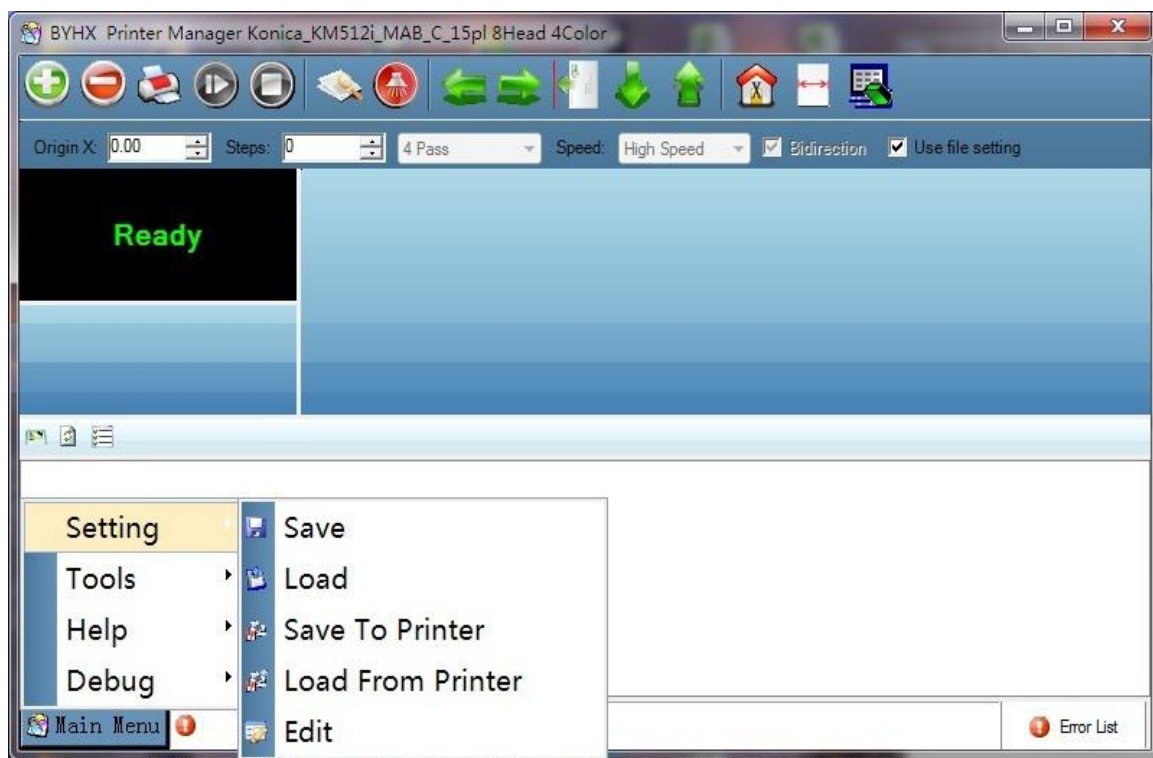There are Two way to reserve the parameter, one is to reserve them to an file in your PC, another is to reserve them directly to the Mainboard of the system.

The manual option: "Main Menu ---- Setting ---- Save ", and " Main Menu ---- Setting ---- Load" are used command to save /reload the parameters to/from file.

The manual option: "Main Menu ---- Setting ---- Save to Printer ", and " Main Menu ---- Setting ---- Load from Printer" are used command to save /reload the parameters to/from the Mainboard of the System.

◆ **Time and Language Password setup**

BYHX provide the password protection for different Language version, and limited total printing time. Limiting the total printing time is a good function to support the printer makers sell their printers by rent model.

"Main Menu"--→"Tools"--→"Password", to set password about language and aviable time。

Usually, the password was provided by BYHX for each mainboard.
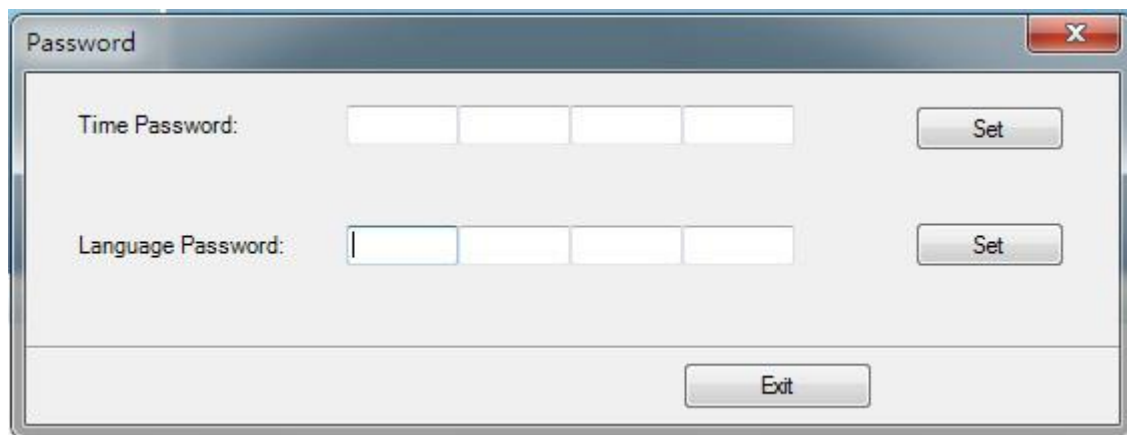
5 Diversity Features of different PM versions

◆ Diversity of 3 Axis Control Version

For some Flat applications, the PM will support 3 Axis motion Control, so some inter face will be shown difference, as the following pictures：

（补充贴图！---PM 主界面，XYZ 都有的）
（补充贴图！---设置界面，XYZ 都有的）

◆ Diversity of UV Control Version

AADGAGASG

（这个贴图最好换成英文版本的界面）

◆ Diversity of Factorywrite

Some special version of Printmanager, especially for the Textile application ，the Fatorywrite have an sheet named as extension:

As you see, you can set color sequence on this page, and the numbers of the color is equal what you set print head numbers on the basic sheet。And the sequence should be set as the real print head color sequence from left to right。
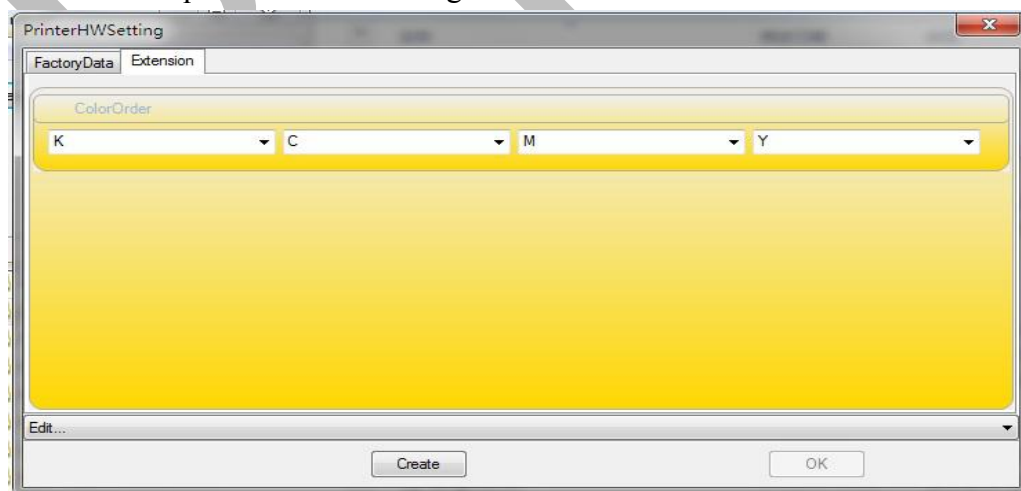
After the two pages above mentioned has setup finished ， you should press "Create" button，and then press "edit" bar, and you can see that there is an new item appeared at the bottom of the list，choice it and restart the printer，then the all parameter will take effective。

◆ Diversity of XAAR382 Printhead

If you are using XAAR print head, the Printmanager
（补充贴图！----XAAR 版 PM 的电压设置画面。。）
（补充贴图！----XAAR 版 PM 的加热设置画面。。）

Write382.exe

（补充贴图！----Write382.exe 的运行界面。。）

◆ Diversity of Gray Applications

For some gray application, (such as KM1024S etc.), it is need to set a colordeep value in factorydebug:
（补充贴图！）

6 Maintenance and Update

Since for the continuously progress about the printing control technology, we suggest Printer System Integrators to keep touch with us，so that you can use the updated version of print control and management software。

When you want to update the Printmanager to new version, we suggest you according to the following process to do it:

First, record the current version information, and make sure that you have the installation package of the current version of Printmanager. This step ensure that you can restore back to the old version if the update is failure.

Second, reserve printer's parameters you had stable used in current PM version. You can reserve them as an file or reserve them to the board, according to the description in charter "Parameter reserve and reload".

Then, uninstall the application by Windows process, like this（for WinXP System）:

（此界面最好用英文版替换）

Finally, install the new version of the PrintManager and reload printing parameters。Then

you can go on enjoy your print work and the new features of the new version。

7 Appendix：Error code information and solutions

04020008	Time-limit password input mistake, contains the forbidden character. The password is ignored, please input again.	Re-input correct password
04020009	Illegal time-limit password. The password is ignored, please input again.	Re-input correct password
0402000A	Time-limit password and manufacturer ID mismatch. The password is ignored, please input again.	Re-input correct password
0402000B	Time-limit password and board ID mismatch. The password is ignored, please input again.	Re-input correct password
0402000C	First warning: 100 hours left against current time-limit password, please request a new password from the producer.	please request a new password from the producer.
0402000D	Second warning: 50 hours left against current time-limit password, please request a new password from the producer.	please request a new password from the producer.
0402000E	Last warning: After 1 hour, any printing will be stopped! Request a new password from the producer immediately!	Request a new password from the producer immediately!
40020011	EEPROM read failed.	Re-update the FW. if the problem is still, replacement the mainboard
40020012	EEPROM write failed.	Re-update the FW. if the problem is still, replacement the mainboard
40020013	Not initialized by factory.	Re-setting the factorywrite
40020014	Head board is reset.	Check the carriage board powersupply and the data cable
40020016	Head board mismatch with factory data set. Please reset factory data or change a new head board.	Re-setting the factorywrite
40020017	Board manufactory ID mismatch with FW. Please update FW.	Re-update or replacement the mainboard
40020018	Serious Error: Exceeds the time against the time-limit password, please input a new password.	Time password expiration
4002000E	LVDS error.	Check the datacable and powersupply
20020002	CoreBoard_Err_UART1_TXTIMEOUT	Motion COM timeout.re-update

20020003	CoreBoard_Err_UART2_TXTIMEOUT	Head board COM timeout. check the datacable and powersupply
20020005	CoreBoard_Err_FPGA_LESSDATA	Check the encoder and encoder reader position
20020006	CoreBoard_Err_FPGA_ULTRADATA	Print data is more than fire number.