

KIP WINDOWS DRIVER  
USER GUIDE



# KIP Windows Driver Guide



## Introduction

The KIP Windows® driver is WHQL certified for 64 and 32 Bit Windows Vista, Windows 7, Windows 8, as well as for Windows 2003 Server 32 bit and 64 bit, Windows 2008 Server 32 bit and 64 bit, Windows Server 2012, meaning the KIP Windows driver meets explicit standards of reliability and quality. The KIP Windows driver enables direct printing from Windows based applications and supports advanced features including set collation, fast spooling for multiple copies or sets, data tracking for job accounting and media selection.

### Features:

- 2-way communication with KIP systems
- Displays current media information and real time system status
- 64 & 32 Bit operating system compatibility
- Label documents with user name, job number and data tracking information
- Job accounting and data tracking information
- Windows 7 Experience





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## *Requirements*

The **KIP Unified Windows Printer Driver (KUWPD)** allows printing from Microsoft Windows 8, Windows 7, Vista as well as 2003, 2008 and 2008 R2 , 2012 Server operating systems. (Windows 2000, 9x , XP and NT are not supported)

### **Microsoft .Net Framework 3.5 is required on all operating systems**

Windows 2008 Server R2 requires installation of additional features. These features are not installed by default with the Windows 2008 Server R2 OS.

- Desktop Experience
- Ink and Handwriting Services
  - Ink Support
- Windows Process Activation Service
  - Process Model
  - .NET Environment
  - Configuration APIs
- .NET Framework 3.5.1 Features
  - .NET Framework 3.5.1
  - WCF Activation
    - HTTP Activation
    - Non-HTTP Activation

Please ensure that client applications and operating systems are up-to-date as possible, in terms of version, available service packs and Microsoft hot fixes. The driver can be downloaded from KIP website. It is included on all KIP software & operation guide CD's. The driver may also be obtained using KIP PrintNet. Please see the PrintNet documentation for more information.



## *Installation of the Microsoft Certified KIP Windows Driver*

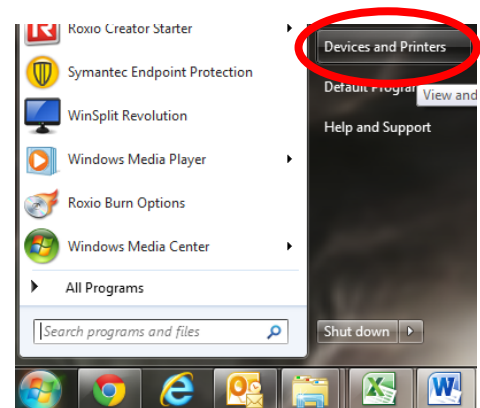
### *Uninstall Previous Windows Driver Version*

When installing the KIP Windows driver it is sometimes necessary to manually remove the existing version so that there are no version conflicts. It may also be necessary to manually remove the driver if the driver is not working properly.

These steps should be followed to manually remove the KIP Windows Driver:

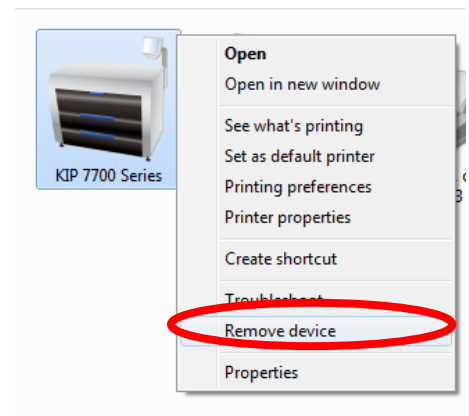
#### Step 1

go to Start > Devices and Printers



#### Step 2

Remove the printer by right-clicking the printer object and selecting REMOVE DEVICE



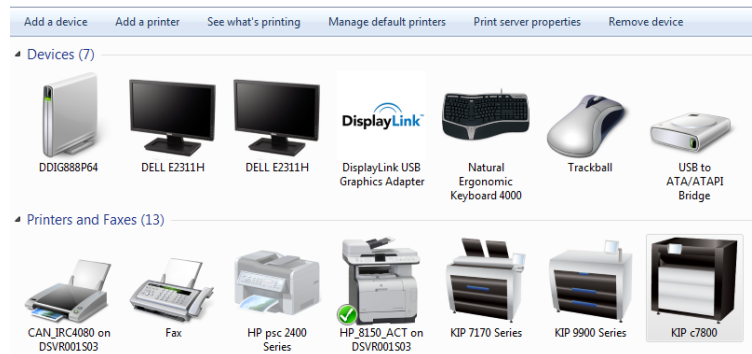
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## Step 3

Open the PRINT SERVER PROPERTIES and select the DRIVERS tab at the top.

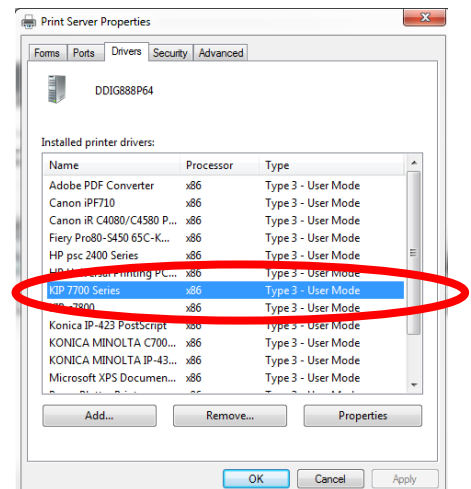
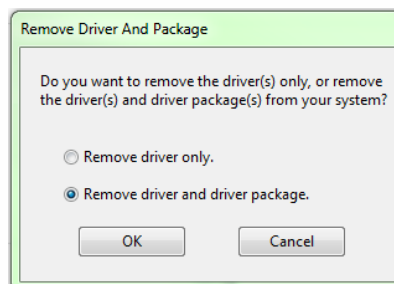
Note: If “Print Server Properties” does not appear at the top of the screen it is necessary to select a printer to get this option to appear.



## Step 4

Remove all KIP related printer drivers

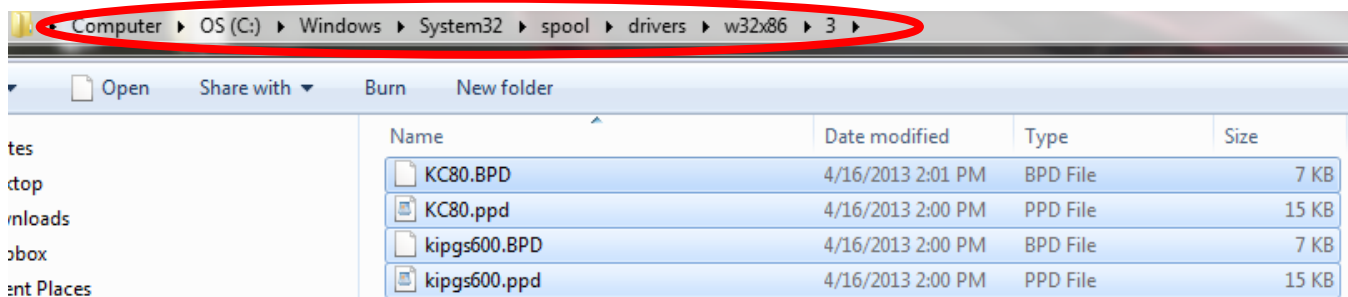
After selecting the driver to be removed and then selecting the Remove button the following window will open. Select Remove Driver only or Remove Driver and driver package.



## FOR x86

Browse to C:\Windows\System32\Spool\Drivers\w32x86\3

- Delete the KIPGS600.BPD and KC80.BPD if necessary



Browse to C:\Windows\System32\Spool\Drivers\w32x86\3\temp

- Delete all \*.TMP files. Rename the extension if they cannot be deleted

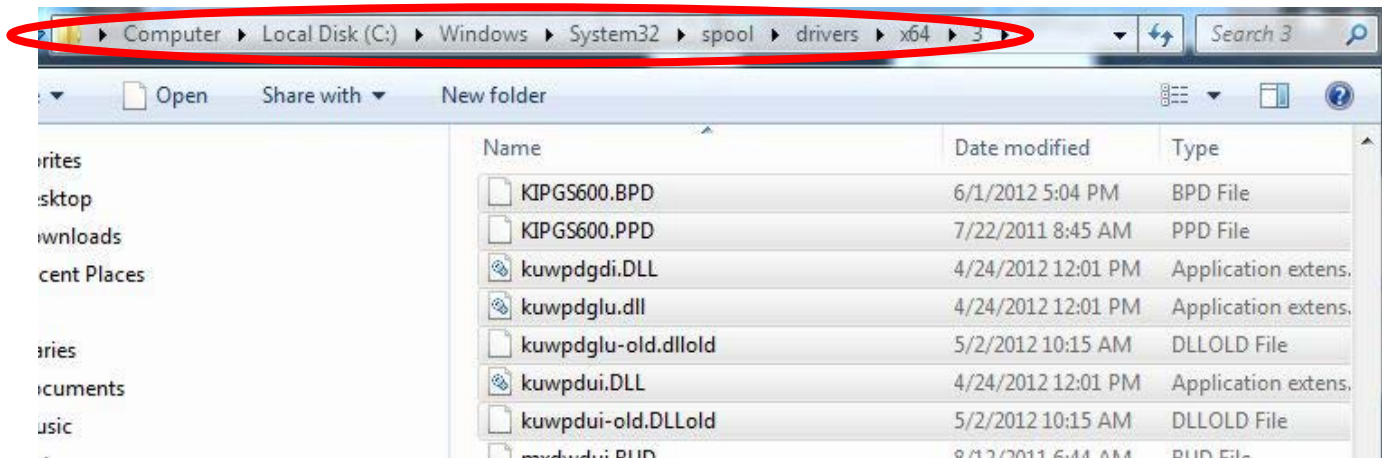
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## **FOR x64**

Browse to C:\Windows\System32\Spool\Drivers\x64\3

- Delete the KIPGS600.BPD and KC80.BPD if necessary



Browse to C:\Windows\System32\Spool\Drivers\x64\3\temp

- Delete all \*.TMP files. Rename the extension if they cannot be deleted

Start > Run > net stop spooler > net start spooler

**OPTIONAL:** Start > Run > %temp%

Delete all \*.TMPAI and \*.TMPPS files

Also check C:\windows\Temp (version 8.112 and higher)



## *Manual Windows Driver Removal*

Please Note: the above steps in the section Uninstall Previous Windows Driver Version Pages 4 to 6 automatically remove the necessary files. If for some reason this is not working or being blocked manually removing the drivers may be necessary.

Please do the following steps:

1. Remove Printer Object
2. Remove Drivers from the Print Server Properties
  - o *If you are unable to remove the drivers, a reboot maybe necessary at this point*
3. Delete KIP file references from C:\Windows\System32\spool\drivers\%WindowsOS%\3\temp
  - o This includes all files that are kip\*.\*
  - o This includes all files that are kuw\*.dll
  - o *If you are unable to remove the drivers, a reboot maybe necessary at this point*

**Note:** There should be no KIP .dll files here only .TMP

4. Delete KIP file references from C:\Windows\System32\spool\drivers\%WindowsOS%\3
  - o This includes a file labeled ipprintdrvui.dll
  - o This includes all files that are kip\*.dll
  - o This includes all files that are kuw\*.dll

**Note:** If driver is removed through "Print Server Properties" only KIPGS600.bpd should be here.

5. Delete KIP file references from C:\Windows\System32
  - o This includes all files that are kip\*.\*
  - o This includes all files that are ku\*.dll

**Note:** These files will only be present if previous driver used KIP0 port was used (v. 3.165 and lower)

6. Open the Registry
7. Goto HKEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\Control\Print
  - o Expand Environments\%WindowsOS%\Drivers\Version-3
    - Delete KIP printer references
  - o Expand Monitors
    - Delete KIP printer references
  - o Expand Printers
    - Delete KIP printer references

**Note:** These Entries are removed when Driver and Queue are removed.

8. Do a file Search for %temp%
  - o Delete all temp files (note: Version 8.112 and higher location C:\Windows\Temp

**Note:** If you have not rebooted up to this point, reboot before installing new drivers

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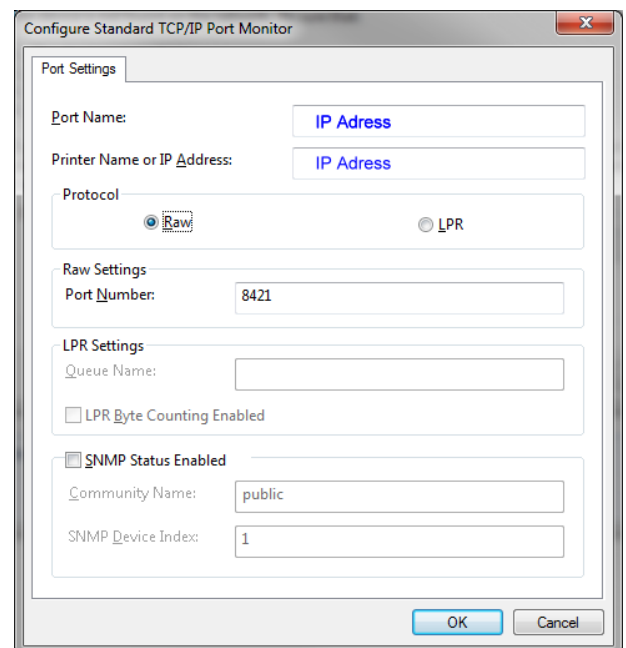
## *Installing - Automatic*

1. Download KUWPD directory to a local PC drive location for ease of use. This is found either on the KIP Software Installation CD or from KIP PrintNet or KIP Website.
2. Unzip to a temporary location on the Workstation / Server
3. Double-click on WPD.exe to begin the installation process
4. WPD.exe automatically will try to find installed KIP Printers on the network. If printers are found, please select the appropriate model from the list.
5. If no printers are found, please enter the IP address of the printer, select the appropriate model and type in a printer name that will be visible to the user
6. Click **Install** to continue
7. During installation the routine will automatically:
  - a. Create the Standard TCP / IP Port
  - b. Modify the port with the proper port number (8421) and IP address
  - c. Create the Windows printer driver object (visible to the user)
  - d. Install the necessary printer driver files
  - e. Bind the printer driver to the proper Standard TCP / IP port



## Installing - Manual

1. Download KUWPD directory to a local PC drive location for ease of use. This is found either on the KIP Software Installation CD or from KIP PrintNet.
2. Unzip to a temporary location on the Workstation / Server
3. Go to **Start→Devices and Printers**
4. Click **Add a Printer**
5. Click **Add a local printer**
6. Select **Create a new port – Standard TCP / IP Port**
7. Type the **Hostname or IP address** of the KIP Printer. This may be found on the '?' screen of the printer touch screen software.
8. Select **Custom → Settings** from **Device Type**
9. Modify the **Port Settings** as follows:
  - a. **Protocol – Raw**
  - b. **Raw Settings – Port Number – 8421**
10. Click **Have Disk** and browse for *kip.inf* from the appropriate OS version directory
11. Select the correct **KIP Printer** model from the list
12. Follow the prompts to complete the installation of the printer driver.



**WINDOWS 7 and VISTA NOTE:** It may be necessary to install the printer driver using elevated administrative privileges depending on the security level of UAC (User Access Control) settings.

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## *In Place Upgrade of Existing Driver*

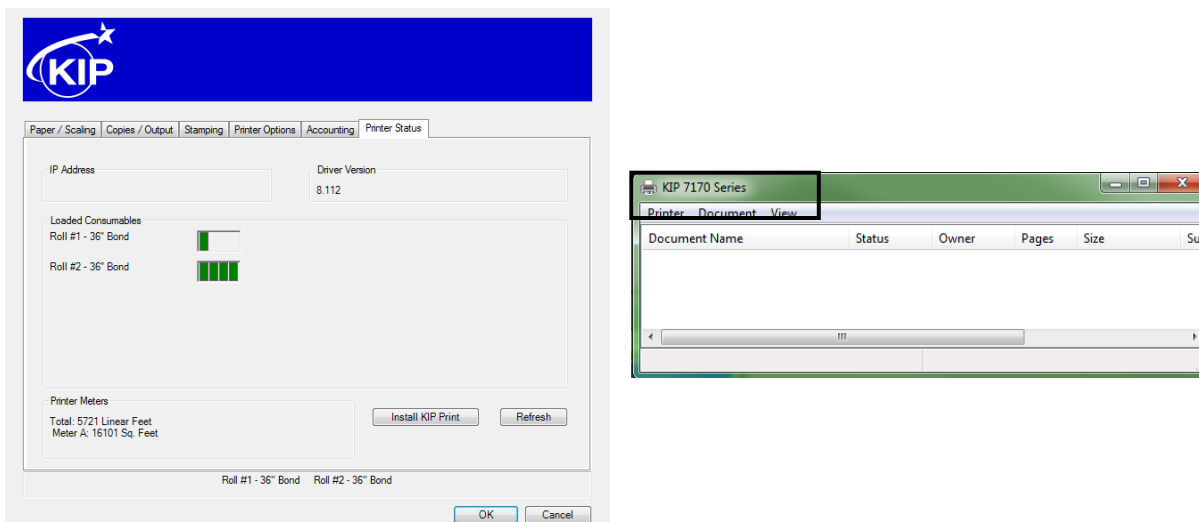
This document outlines best practices for updating KUWPD in place on a production/existing server. The examples contained within are comprised of the following server/workstation combination/configuration

- Windows 2008 R2 Server x64 Platform – Current Driver Installed for x86/x64: KIP 7100 Series, KUWPD 5.397, Server name: DSVR001S08

- Windows 7 x64 Client – Connected to server shared driver instance: KIP 7100 Series, KUWPD 5.397

Goal: In this example, we will update KIP 7100 Series, KUWPD 5.397 in place to KIP7100 Series, KUWPD 8.122 as an example), while providing both x86 and x64 client support.

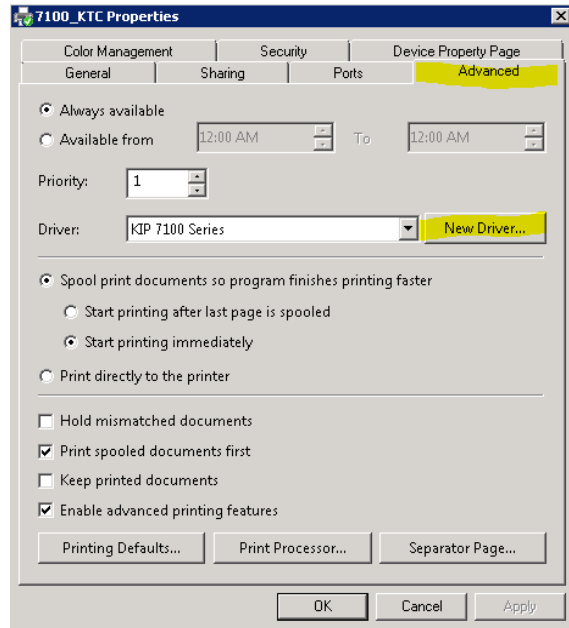
**Fig A - KUWPD version from client and server perspectives. Current queue status from client perspective.**



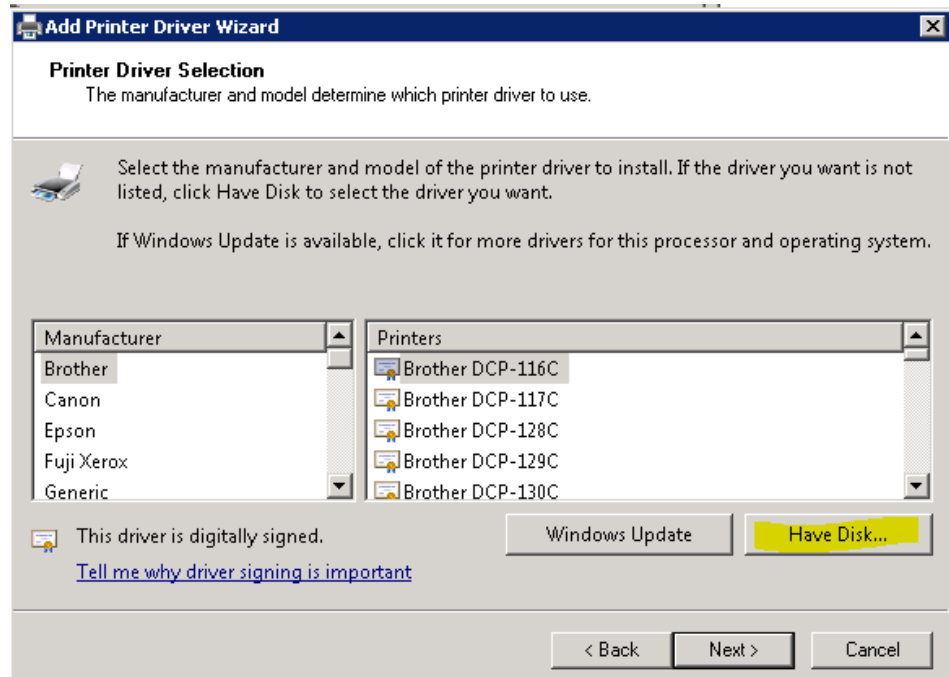
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1. From 'Printer Properties' on server, select 'Advanced' tab, then 'New Driver' button



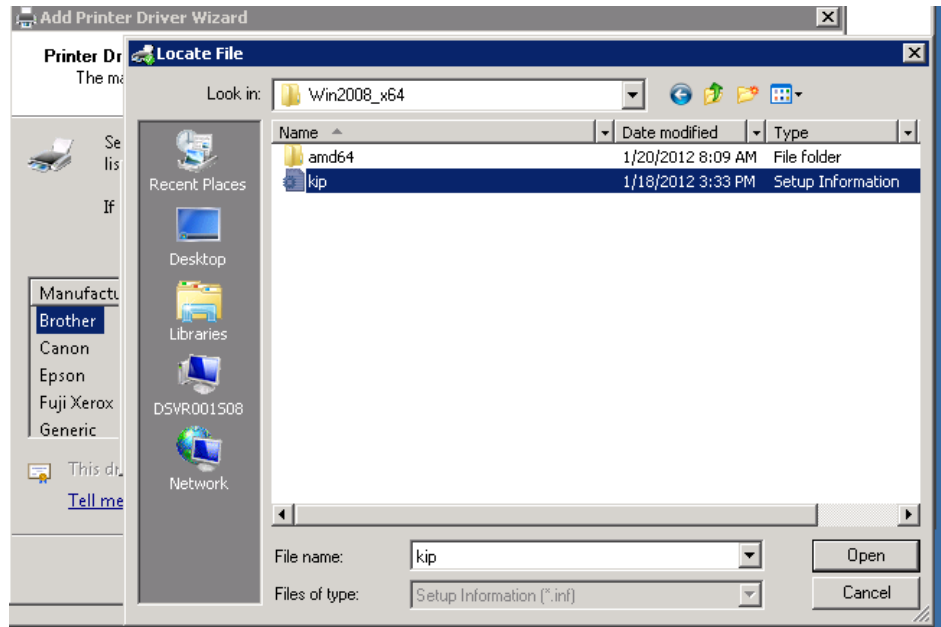
2. Select 'Have Disk' when prompted



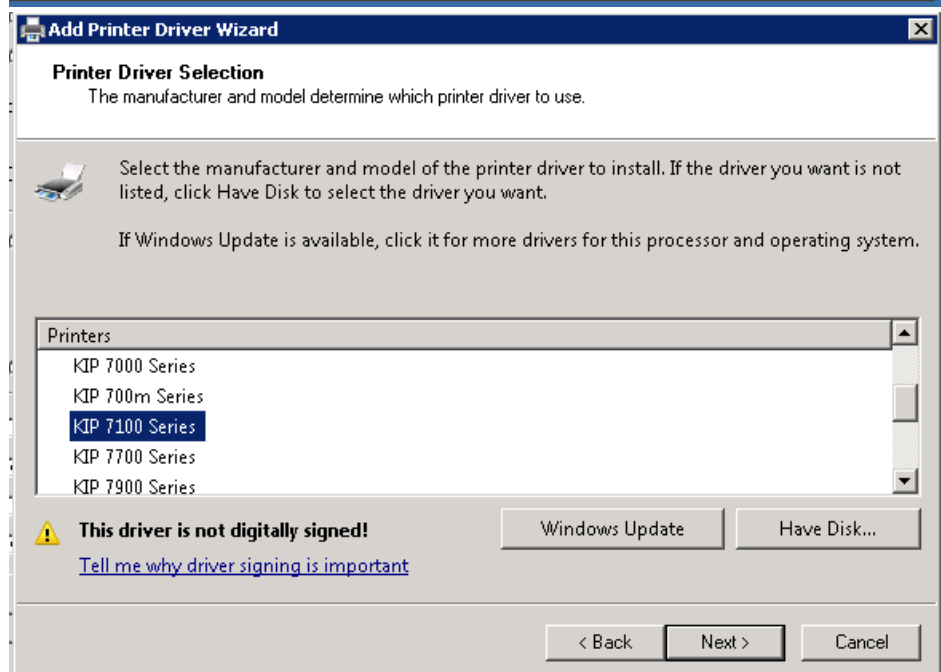
# KIP Windows Driver Guide



3. Select .inf file from new x64 distribution.



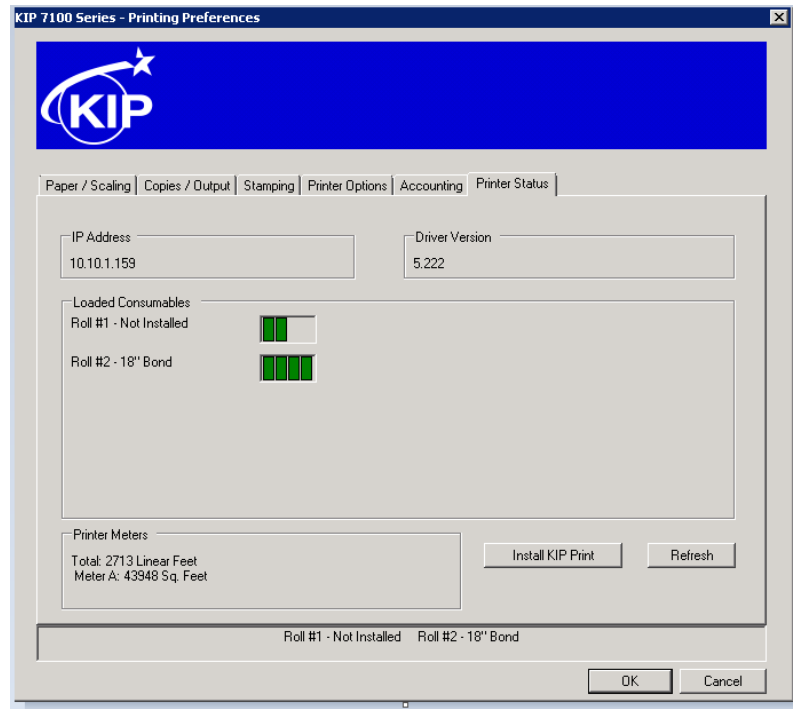
4. Select corresponding model from list.



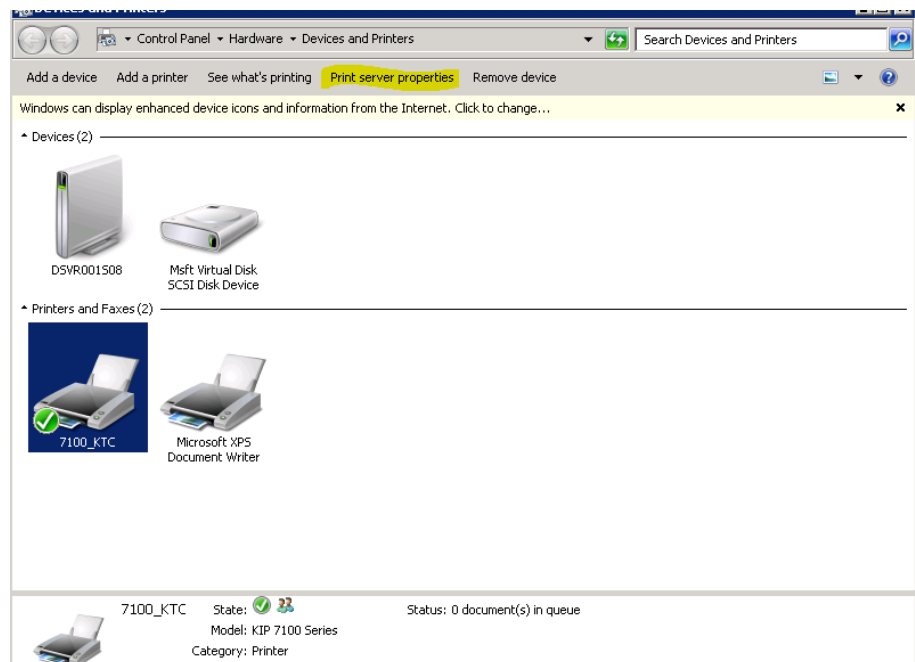
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- Once completed, verify new driver version on server. This completes x64 driver migration on server.

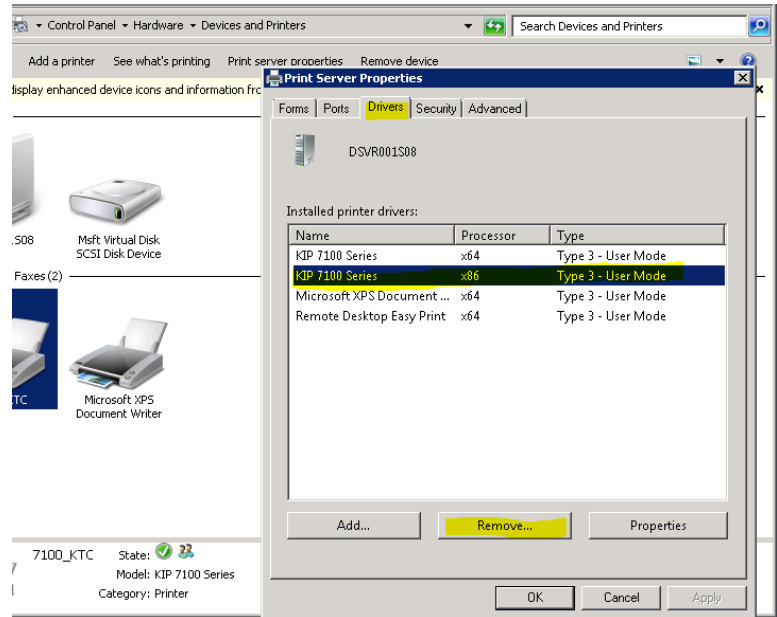


- Now, we need to update x86 support on the server. Select 'Print server properties' from 'Devices and Printers' on server

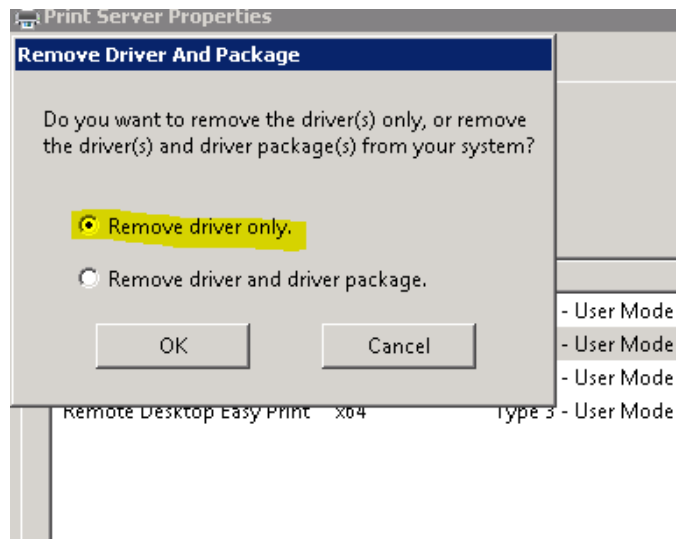




7. Select 'Drivers' tab, and select KIP 7100 series instance for x86. Click 'Remove' button

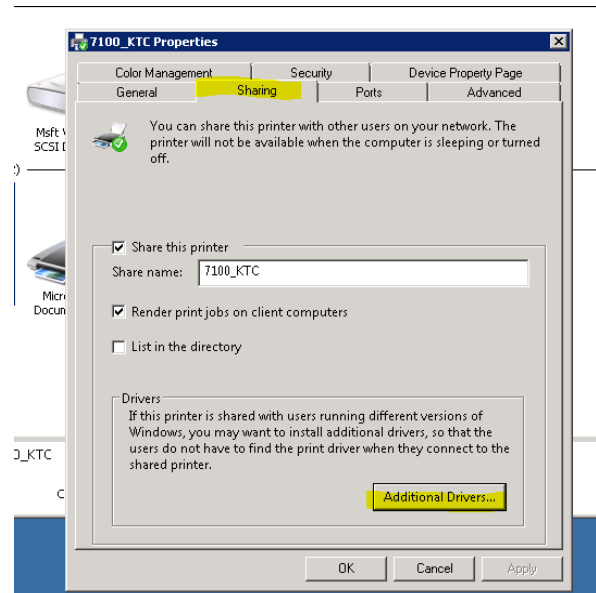


8. Select 'Remove driver only' radio button when prompted

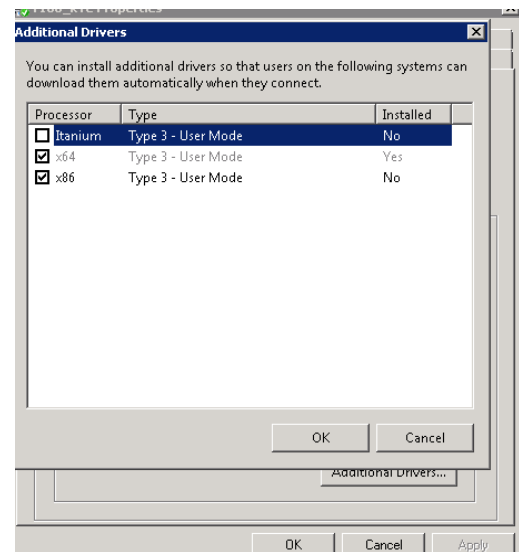




9. Select 'Sharing' tab and click 'Additional Drivers' button



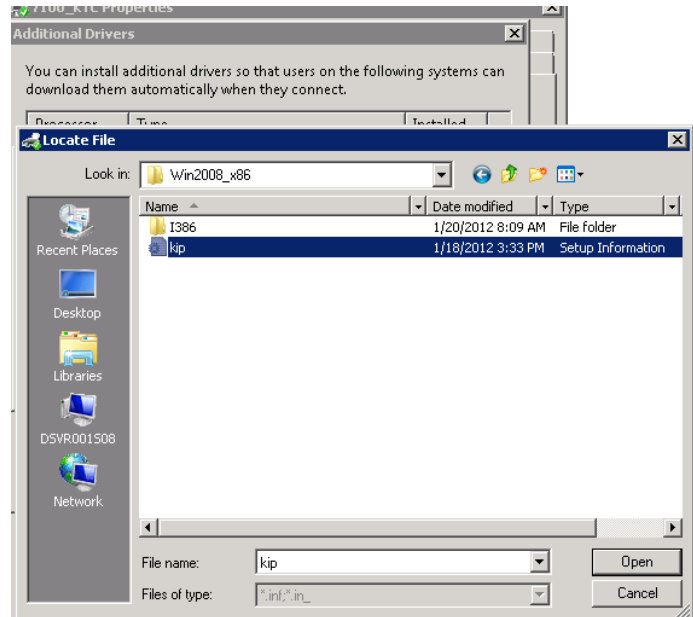
10. Select 'x86' checkbox



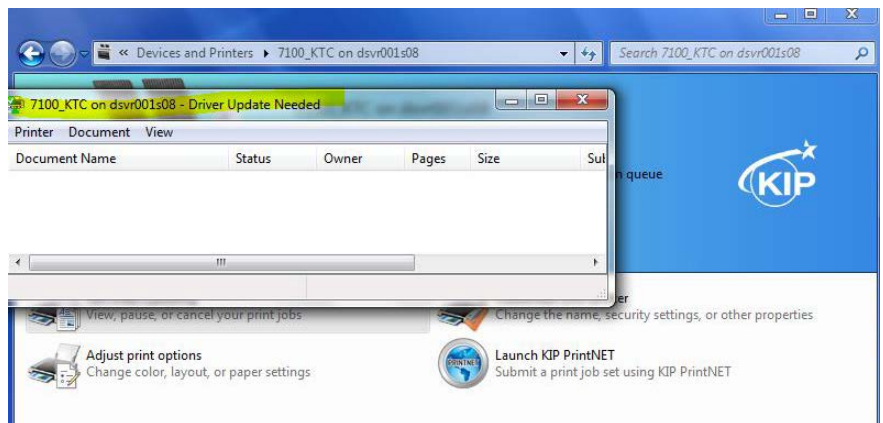
# KIP Windows Driver Guide



11. Select .inf file from new **x86** distribution. This completes x86 driver migration on server



12. From Windows 7 x64 client workstation, examining the queue now indicates: 'Driver Update Needed' \*\*\*

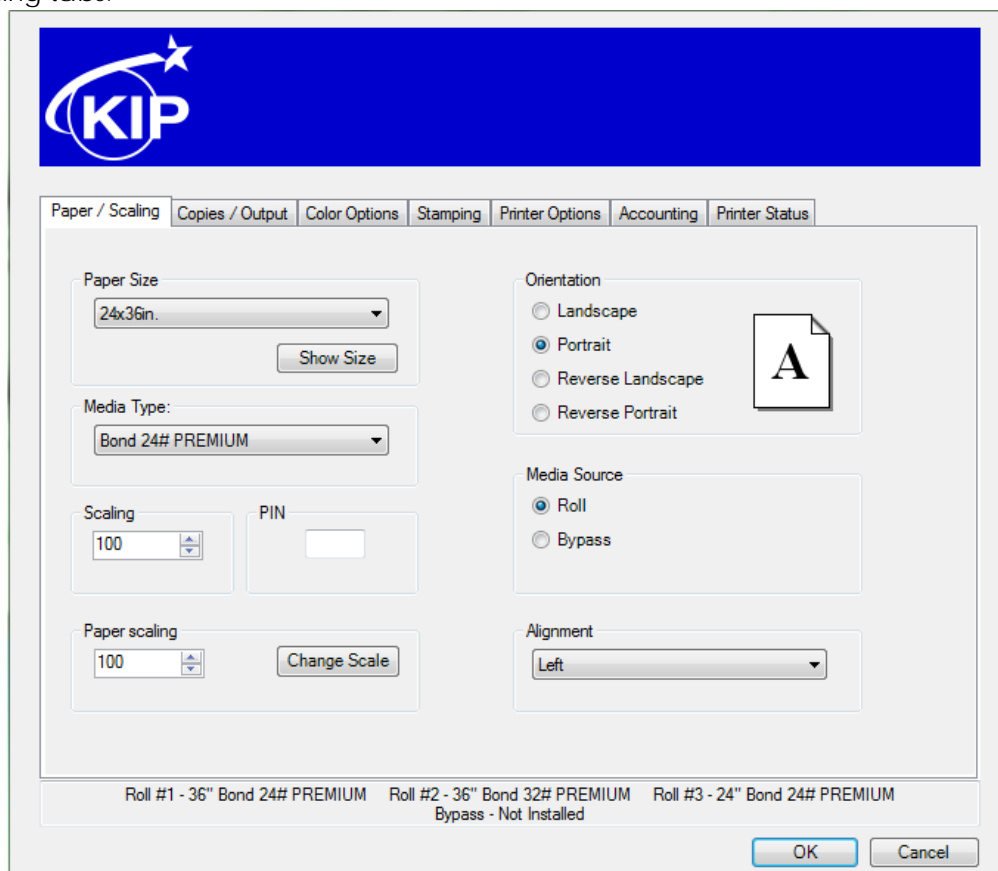


\*\*\* Note: This notification appears for Windows 7 x86/x64 and Windows Vista x86/x64 platforms.



## Printing Preferences – Overview

KIP Windows Driver for version 7.2 software has been redesigned allowing users to quickly identify features and functions to be adjusted at print times. These functions are categorized along the top of the driver using tabs.



Tab Name	Features / Functions
Paper / Scaling	Control paper size, orientation scaling, media source and alignment
Copies / Output	Number of copies, collation, page order, mirror or invert
Stamping	Add digital stamps, headers or job / set separators
Printer Options	Control folding, output format and stacking (7100 printer only)
KIP Track	Input Username, Job number or description where required
Printer Status	View IP address, version number, consumables, meters and install KIP Request
Management	Allows KIP Track to be used from windows applications.
Pin Printing	Used for Secure Pin Printing.



## *Paper / Scaling*

### **Paper Size**

Select the output page size. Please note that the KIP printer may have a roll installed that may be larger than the selection.

This feature is very important in wide format printing from CAD applications and MS Excel. This is a feature that is required in CAD applications where the image size may vary from one image to the next such as: 36" x 60" for the first document then 24" x 80" for the next.

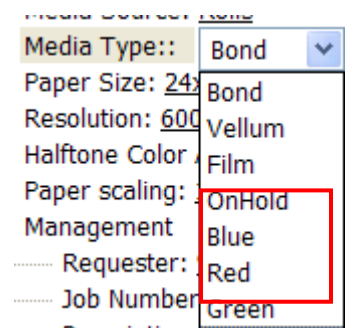
The Custom Size feature allows the users much simpler access for several capabilities:

- Choose any paper size "on-the-fly" without adding new paper sizes to the operating system (Printers and Faxes→Server Properties→Forms).
- Choose different and non-standard paper sizes for each and every document.
- Choose very long paper sizes.

It is not necessary to exactly match the document length to the output length; the users can intentionally choose a longer length for the media size. For example, if the image is meant to fit on 36" wide media, but the user isn't sure about the length of the media required, the user can set a very long length (up to 200 feet) and the "white" space (extra paper) at the end of the document will automatically be removed. This prevents any waste of media without an image (using KIPGL format)

### **Media Type**

The KIP printer may have more than one media type installed. These types may include bond, vellum and film. This feature allows printing onto a media type of your choice if the media has been installed. Custom Media will also be read and available if installed in the printer. Custom media types are configurable via KIP PrintNet.



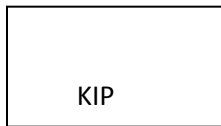


## Scaling

Many Windows applications have their own scaling capabilities built into the "print menu". For example: Adobe Acrobat or Photoshop and MS PowerPoint allow for some form of "Scale to Page" type feature. Some Windows applications such as MS Word and MS Excel do not allow for scaling to engineering and architectural wide format paper sizes. The Scaling feature in KUWPD allows the user to set a percentage to enlarge the document to fit the paper size desired when scaling is not included in the application.

### Example:

No scale used



scale applied to enlarge image



## Paper Scaling

Many Windows applications have their own scaling capabilities built into the "print menu". For example: Adobe Acrobat or Photoshop and MS PowerPoint allow for some form of "Scale to Page" type feature. Some Windows applications such as MS Word and MS Excel do not allow for scaling to engineering and architectural wide format paper sizes. The Paper Scaling feature in KUWPD allows the user to set an output length and width to enlarge the document to fit the paper size desired when scaling is not included in the application; this might include non-standard page sizes. Note: if a non-standard page size is selected, the KIP printer may print on the closest size roll, however scale will not be affected.

### Example:

No scale used



scale applied to enlarge image





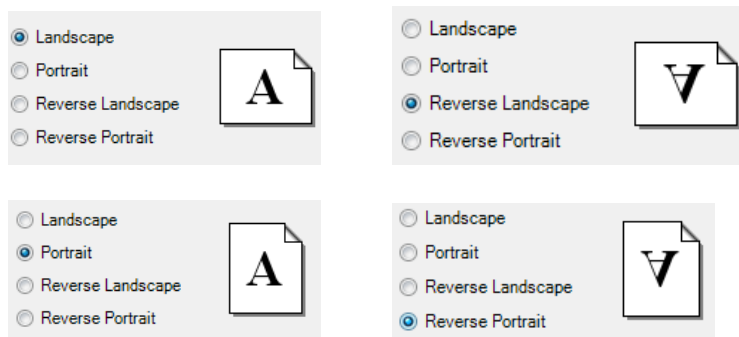
## Secure Pin Printing

Pin Printing allows a user to enter a 4 digit code so that the job will then need to be released with this code for printing (see Appendix 2 on pg. 25)

## Orientation

There are four types of orientation in the KIP driver: Landscape, Reverse Landscape, Portrait and Reverse Portrait. This ensures that any document may be rotated properly for folding or stacking purposes.

Examples:



Selection of the orientation should take into account the design or layout from within the application. If an incorrect orientation is selected the page size can be “rotated” incorrectly and image may be lost in the final printed output.

## Media Source

Select output media source from roll media, cut sheet media and paper tray media (available only in KIP 700m Q4 2010).

Cut sheet media is available up to sizes 36x48 and is only available in standard architectural or engineering sizes. Paper may be required to be inserted into the printer prior to printing.

## Alignment

Change alignment (image position) on the printed output from the left, center or right placement.



## *Copies / Output*

### **Copies**

Select the total number of copies you wish to print. The range is from 1 to 999.

### **Collation**

If the document to be printed contains more than one page, collation may be important. Collation may be enabled or disabled per user requirements.

Collation ON – Printed output order: 1, 2, 3, ..., 1, 2, 3, ..., 1, 2, 3, .... etc. for each print set (copies)

Collation OFF – Printed output order: 1, 1, 1, ..., 2, 2, 2, ..., 3, 3, 3, ....etc. for each print set (copies)

### **Page Order**

If the document to be printed contains more than one page, collation order may be important. To allow the pages to be reversed printed (last page first), user can select this function. Please note that the application must also support multiple page printing.

### **Mirroring**

Select Mirror ON to print a mirrored print of the image on the printed page.

### **Invert**

Select Invert ON to reverse black versus white colors on a monochrome printer.

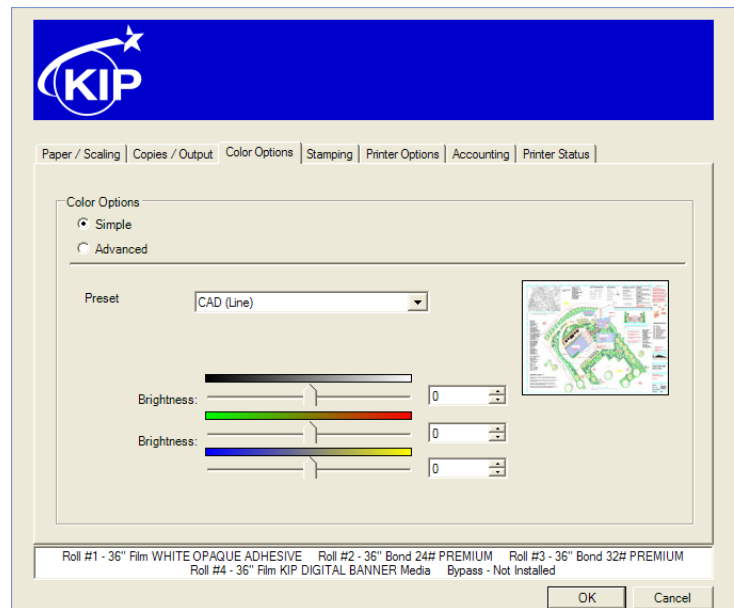


## Color Options – KIP Color Systems

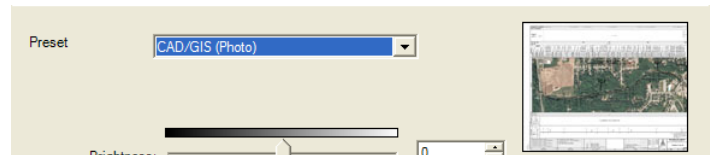
### Color Options

There are two modes to choose from when using the KIP Windows driver to print to a KIP Color system  
Simple and Advanced.

#### Simple Settings:



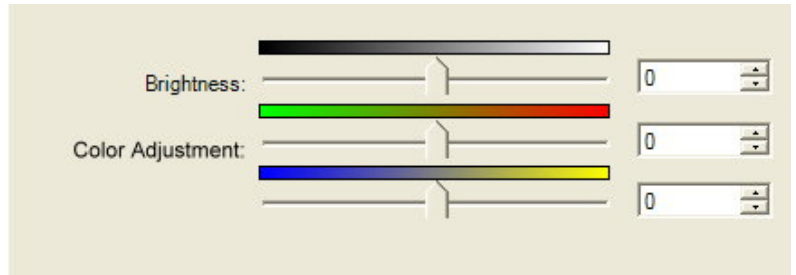
Preset – Choose from multiple color Preset settings. Image will be displayed showing the file type selected.



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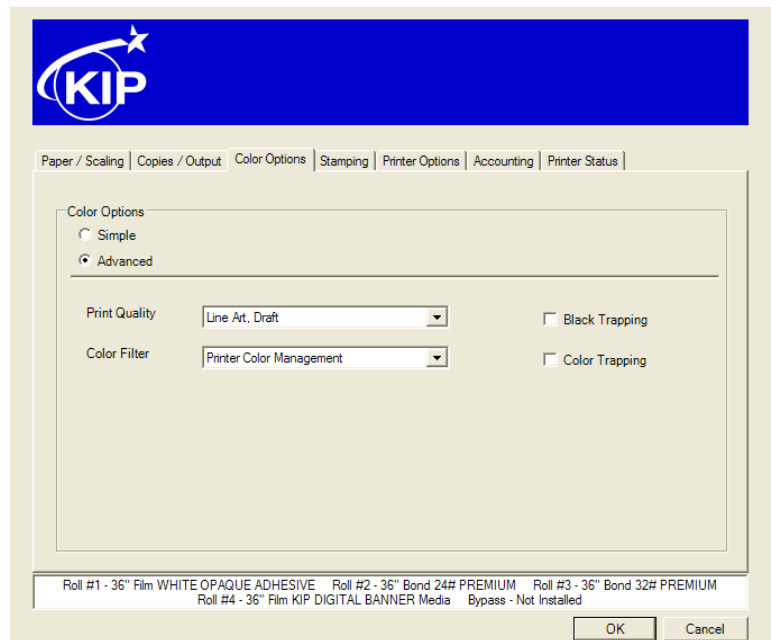


Brightness – Users have the ability to adjust the brightness with a positive value making the output brighter and a negative value making the output darker.

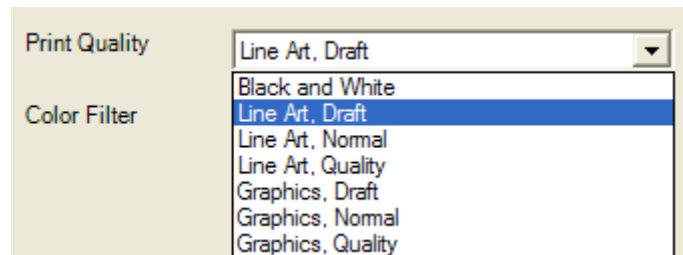


Color Adjustment - allows the user to make adjustments to the Red/Green and Blue/Yellow of the files that are being printed.

## Advanced Settings:



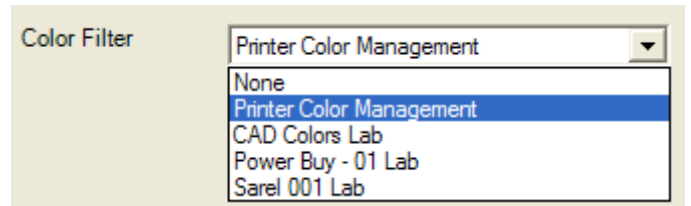
Print Quality – Choose from Multiple print Quality settings



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Color Filter – Choose from Multiple Color Filters to apply to the color output.



Choose from Black Trapping On/Off

In general, trapping is the overlapping of colors to prevent mis-registration and the resulting gaps of paper showing through (The image bellow is exaggerated to show the mis-registration).

**Without Black Trapping**

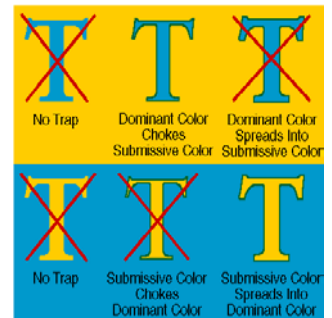


**With Black Trapping**



Choose from Color Trapping On/Off

When one color totally surrounds another, they must have either a choke or spread relationship. The examples below illustrate applications of choking and spreading. Notice that when a dominant color is surrounded by a submissive color, the dominant color chokes the submissive color (it draws the submissive color underneath its edges). Conversely, when a submissive color is surrounded by a dominant color, it spreads into the dominant color (bottom example, at right).





## *Stamping*

### **Stamps**

Apply a digital stamp to the printed output. The KIP Windows driver will load the list of available stamps that are configured using either KIP Request or KIP PrintNET. It is not possible to modify these stamps using the driver. For information on configuring stamps or placing them on the KIP, please see the KIP Request or KIP PrintNET documentation.

### **Job / Set Separator**

Enable a Job or Set separator to be printed that outlines the name of the printed sheet, number of copies and square footage per sheet and total.

Job Separator prints after the entire job has finished

Set Separator prints after the completion of each set

### **Header – Monochrome Only**

A text header can be placed on lead edge or trail edge of the printed document. The text header includes KIP Track information such as username and job number information as well as the file name.

Text here
-----------



## *Printer Options*

### **Folding**

If the KIP printing system is configured with an optional folding device, users may select the output folding packet per print job. Folding packets are configured via KIP PrintNET.

### **Output Feeder (KIP 7100 Only)**

The KIP 7100 MFP allows for the selection of print stacking. Print stacking may be selectable to the front stacker or the optional rear stacker.

Stacking options may be configured using the KIP 7100 touch screen user interface.

### **Output Format**

Based on requirement, the KUWPD allows users to select their preferred method of creating hard copy output using 2 different output formats, also known as dual output printer language selection. Using 'Printing Preferences' in the driver, users can select either 'KIPScript' or 'KIPGL'.

### **KIP Script Output Format**

KIPScript (emulates Postscript output) when printing from applications that function best when outputting Postscript data. For example: Adobe Acrobat functions best when using Postscript output. Other graphics applications including Adobe Photoshop, Microsoft PowerPoint and Excel work well with KIPScript output.

### **KIP GL Output Format**

KIPGL (emulates HP-RTL) when printing from CAD applications that may not have a pre-built compatible driver. The KIPGL output can be further enhanced by making changes to the pen table on the KIP via KIP PrintNET. Features like line width compensation and RTL dither allow users to achieve exceptional quality when using the KIPGL output format.



## Special Options – Maintain Driver Preferences

When the **Maintain Driver Preferences** box is **checked** (turned ON); the document to be printed will utilize the printing preferences set from the application being used which will then become the default for this application and other applications as well.

This function has benefits for applications that may utilize batch printing such as:

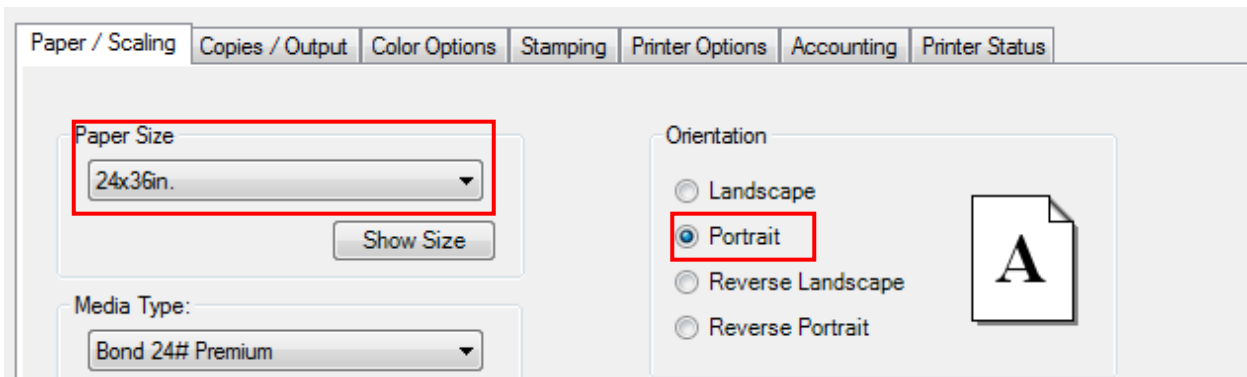
- Autodesk Revit
- Adobe
- Photoshop
- Microstation

### Example of Functionality:

With Maintain Driver Preferences **not checked** (turned OFF)

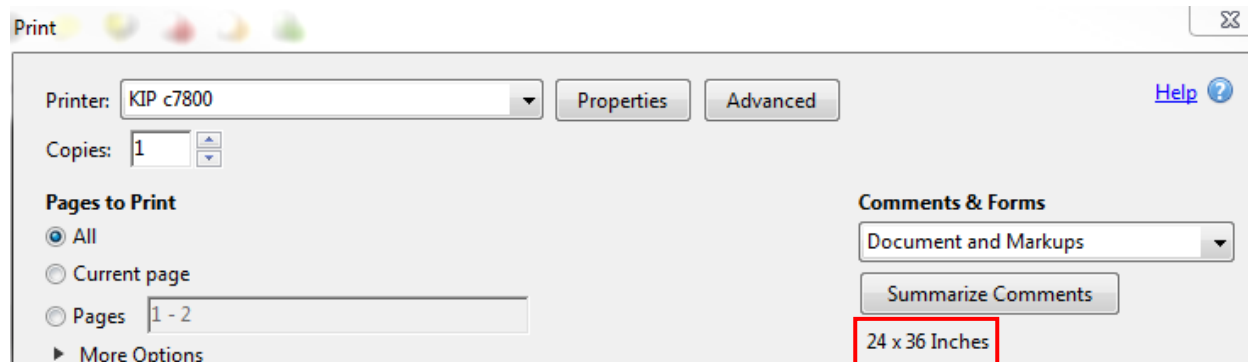
The KIP Window Driver was installed and the default settings were set to the following ...

- Paper Size set to **24x36in.**
- Orientation set to **Portrait.**



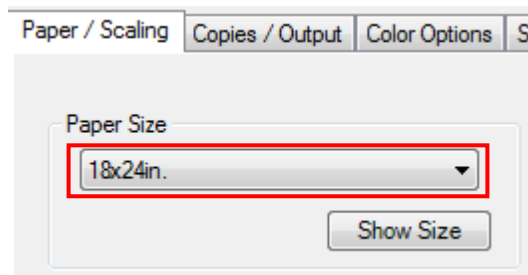
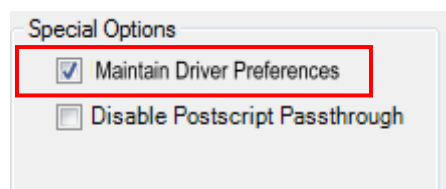
The print options in Adobe will reflect the KIP Driver defaults set during the install even if the Paper size and Orientation is changed for any instance of printing.

# KIP Windows Driver Guide



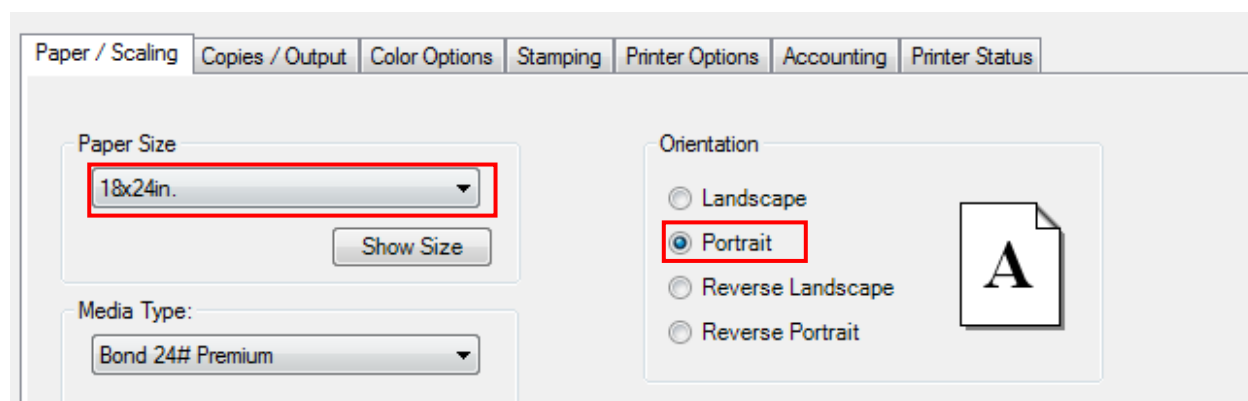
With Maintain Driver Preferences **checked** (turned **ON**)

The print options in Adobe will now reflect the settings set during the last instance of printing. In this case the last page size in the Adobe application was set to 18X24.



By going to the installed printers (Windows 7 Icon\Devices and printers) printing preferences you can verify the new default settings. The new default settings are now set to the following...

- Paper Size set to **18x24in.**
- Orientation set to **Portrait.**



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With the Maintain Driver Preferences turned ON, the change made in the application has become the new global default for the driver.

## Special Options – Disable Postscript Passthrough

"Disable Postscript Passthrough" when checked, forces the Windows Driver to render PostScript data directly, preventing the application(s) in question from simply generating its own PS data. Some programs, such as Corel Draw, Word, Excel etc. put PS data in the header itself which conflicts with the Windows driver data. Checking "Disable Postscript Passthrough" strips this data out and uses the KUWPD PS info.

### NOTE

The KIP PDF option is required for printing KIPScript data. Please contact your local KIP dealer for details.

### NOTE

When using the KIPGL output format, the default.PEN - Pen Table at the KIP Controller will also control some of the printing features. Features such as Vector Line Dither Pattern, RTL Raster Dither, RTL Density, and Line Width Compensation are used during conversion for printing. After making changes to the default.pen, it is advisable to restart the KIP.



## NOTE

Certain applications work better depending on the *Output Format*.

- Applications using heavy raster or photographic data work best with KIPScript type output. Examples: Adobe Acrobat products, Adobe Illustrator Products, Adobe Photoshop Products and Corel Draw based products.
- Microsoft applications generally work well with either output format. Examples: Microsoft Word, Excel, Project.



## *KIP Track*

The KIP has the ability to account for each print produced. This allows for job/department costing. Three fields exist in the driver to allow the user to include this information.

These fields are:

User Name

Job Number

Description

Automated Accounting – The Windows Driver fully supports KIP Track if configured in KIP PrintNET, KIP Request or KIP Print. For information on how to set up KIP Track please see the KIP Request, KIP PrintNet, KIP Print or KIP Track documentation.

The screenshot shows a dialog box titled "Job Owner" with three input fields. The first field is labeled "User Name:" and contains the text "JSmith". The second field is labeled "Job Number:" and contains the text "Job ABC - 123". The third field is labeled "Description:" and contains the text "For Production".

The User Name, Job Number and Description fields under "Printing Preferences" can be set to use operating system environment variables. **These are enabled by default.**

Examples: The *User Name* field can be set to %Username% to automatically determine the login name of the user currently accessing the PC.

The Description field can be set to %Computername% to automatically determine the computer name of the host PC sending the print job data.

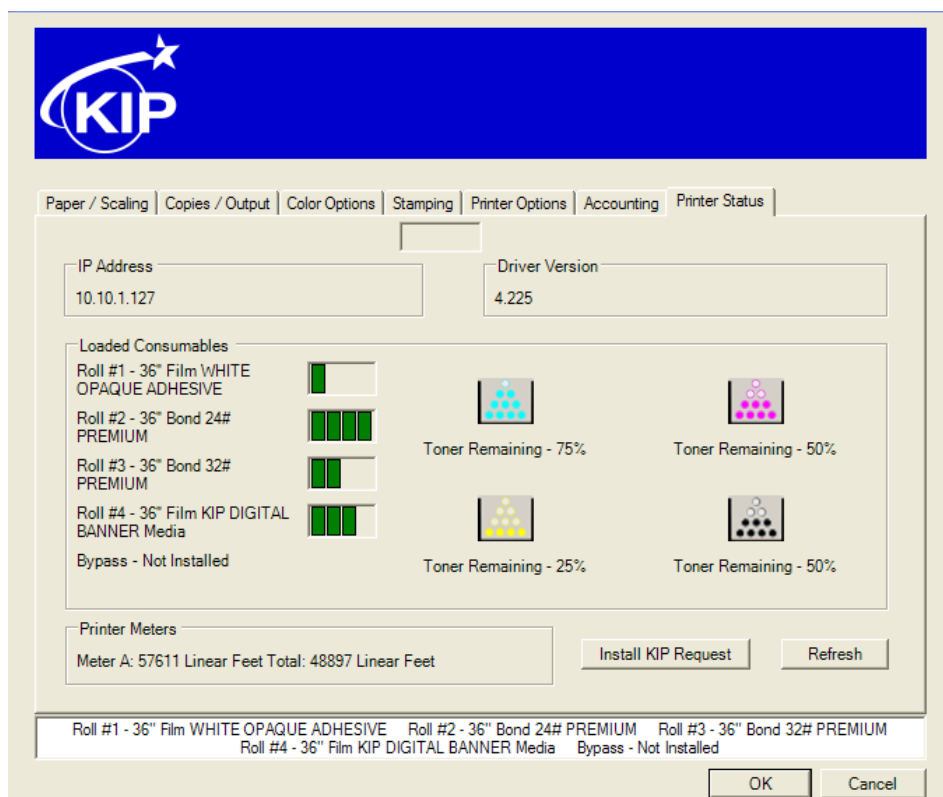


## Printer Status

Printer Status shows the current status information of the attached printer. View loaded consumables such as paper type, size and amount remaining, toner status (if available), printer meters and driver version.

Installation of the PC based job submittal application KIP Request is possible from Printer Status. For more information on KIP Request, please view the KIP Request documentation.

At the bottom of each tab is listed the current printer status. Any error conditions will be reported in this area. This information is refreshed each time the printer driver is accessed or if a user clicks on the Refresh button from the Printer Status tab.



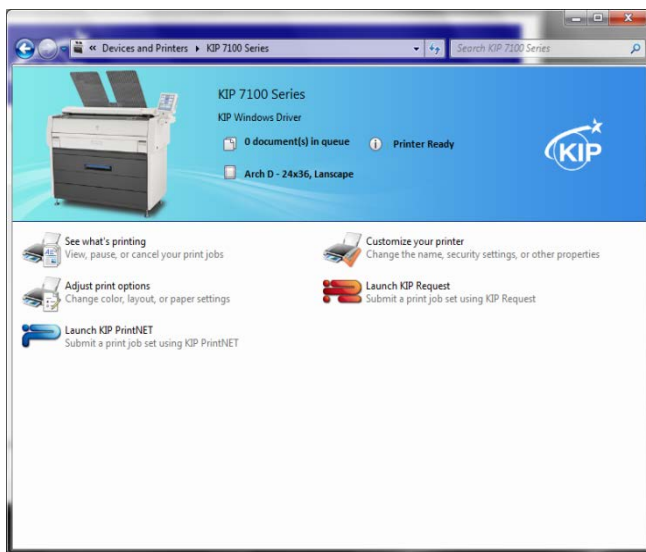


## *KIP Windows 7 Device Experience*

KIP 7.2 software utilizes a collection of new Windows 7 features to improve how users of KIP systems can access printer status and submit print jobs utilizing KIP print submission applications.

The KIP Windows 7 Device Experience is automatically installed when a PC is connected to the internet. Once installed, a user is presented with a KIP system icon depicting their installed KIP system. Double-clicking on the graphic will load the Windows Device Experience.

By selecting Windows 7 Devices and Printers KIP users can view and select the KIP systems that are connected their network.



KIP printer icon makes it easy to identify your installed printer

Identifies KIP printer status and the number of jobs in the print queue

Identifies KIP printer settings relating to print size and orientation

Launch KIP Request to submit print jobs via PC based application

Launch KIP PrintNET to submit print jobs via web interface application



## *Appendix*

### **Printing Hints**

**Issue:** Adobe Acrobat 6.X products, when printing with KIPGL output language and large size (E-Size or larger) documents has potential to miss or clip off data prematurely.

**Solution:** Adobe Acrobat 7.X products correct this issue. Acrobat 6.X requires the use of KIP Script output to solve this issue (choose KIP Script in the drivers **Printing Preferences** prior to opening Acrobat 6)

**Issue:** Printing from Adobe products such as Acrobat Reader requires Postscript output.

**Solution:** Default the "Printing Preferences" of the KIP driver to KIP Script prior to opening the Adobe application. Printing of KIPScript data also requires the Powerscript option on the KIP Controller.

**Issue:** The **output format** for driver MUST be chosen before entering an application to ensure proper output format.

**Solution:** Ensure **output format** is set in Printing Preferences before launching an application.

**Issue:** Printing from AutoCAD products with large and/or complex amounts of embedded raster objects will cause a very large output file / spool file size.

**Solution:** It is suggested to use dedicated KIP ADI/HDI for complex raster printing from AutoCAD products.

