KIP Windows® Driver

User Guide

Introduction

The KIP Windows® driver is WHQL certified for 64 and 32 Bit Windows Vista, XP and XP Server, 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.

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

KIP Windows® Driver

KIP Windows® Driver

Contents

Requirements

The **K**IP **U**nified **W**indows **P**rinter **D**river (KUWPD) allows printing from Microsoft Windows 7, Vista and XP (Service Pack 3) in both 32 and 64 bit editions as well as 2003, 2008 and 2008 R2 Server operating systems. (Windows 2000, 9x and NT is 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 Widows 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

1. Go **Start→Settings→Printers and Faxes**

2. Remove the installed KIP Printer Object and any other printer objects connected using available KIP port(s)

3. Go to **File→Server Properties→Ports**

4. Remove any KIP Ports in this list

    a. This includes any KIPx port

5. Go to **File→Server Properties→Drivers** and remove any KIP Printers in this list

6. Go to **Start→Run** and type **Net Stop Spooler**

7. Go to C:\Windows\System32\Spool\Drivers\W32x86

8. Delete anything that starts with a KA, KI or KU

9. Go to the folder named "2" and remove anything KA, KI or KU

    a. Within W32x86\2\temp please remove any a KA, KI or KU .tmp files

10. Go to the folder named "3" and remove anything KA, KI or KU

    a. Within W32x86\3\temp please remove any KA, KI or KU .tmp files

11. Go back to C:\Windows\System32 and remove the kaw2kppm.dll and kuwxppm.dll (if present)

12. Go to **Start→Run** and type **Net Start Spooler**

13. To remove System Registry entries:

    a. Navigate to HKLM\System\CurrentControlSet\Control\Print\Printers

    b. Remove any KIP Printer object keys

    c. Navigate to HKLM\System\CurrentControlSet\Control\Print\Monitors

    d. Remove KIP Monitor or KIP Printer Port Monitor(s)

14. Reboot the Server if any files or registry keys could not be removed from the previous procedure (or an Access Denied error message is seen).

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.

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

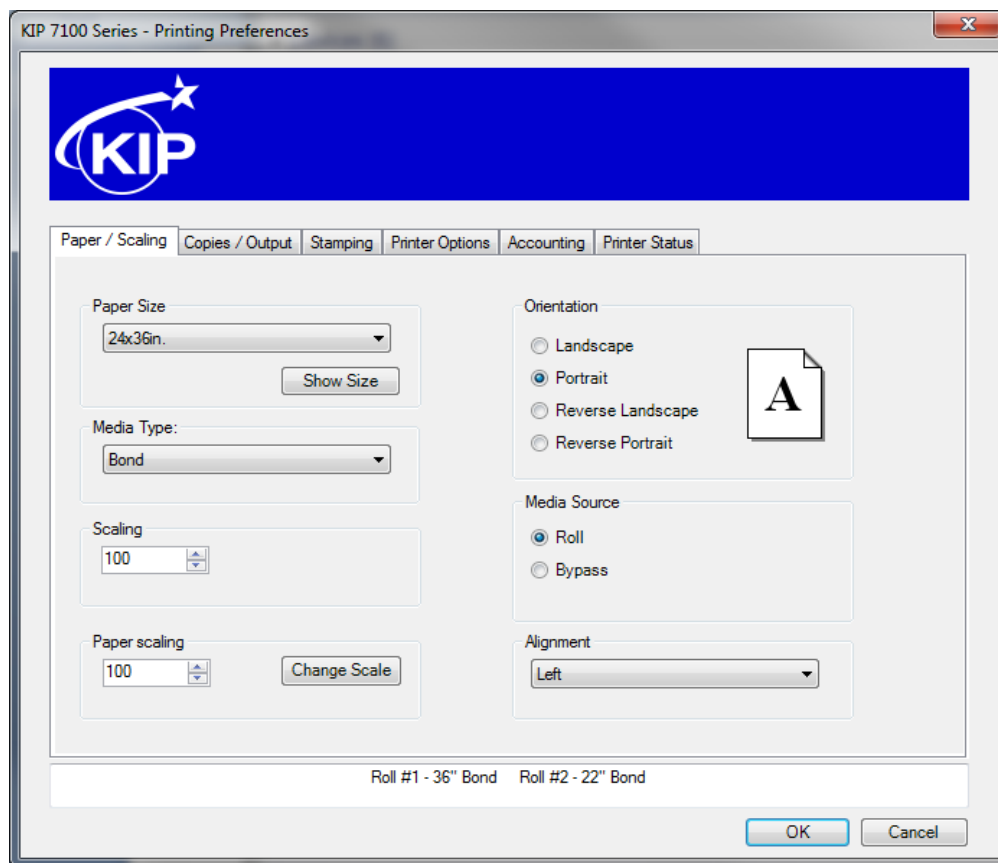   b. **Raw Settings – Port Number –** 8421

10. Click **Have Disk** and browse for *plotter.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.

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.

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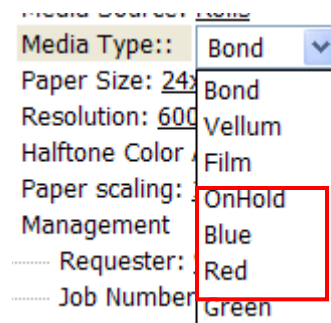
The Custom Size feature allows the users much simpler access for several capabilities:

- 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 it 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.
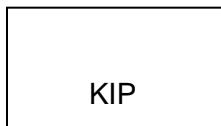
KIP Windows® Driver

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

KIP

KIP

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
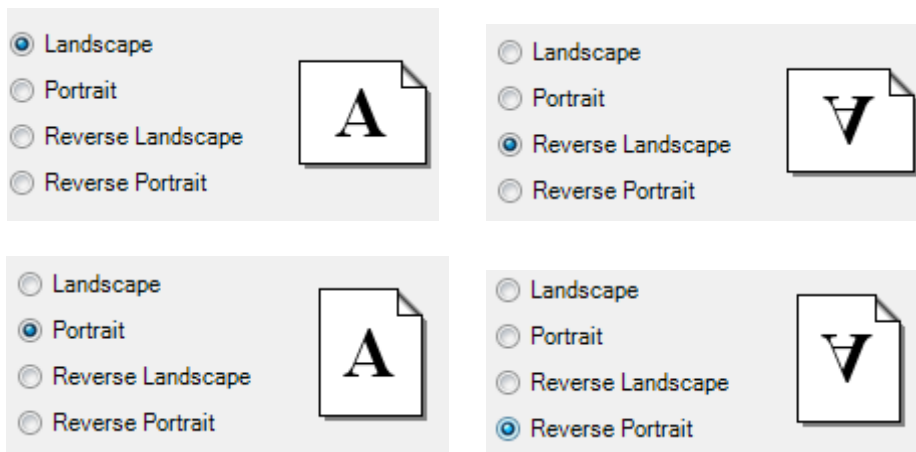
KIP

KIP

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

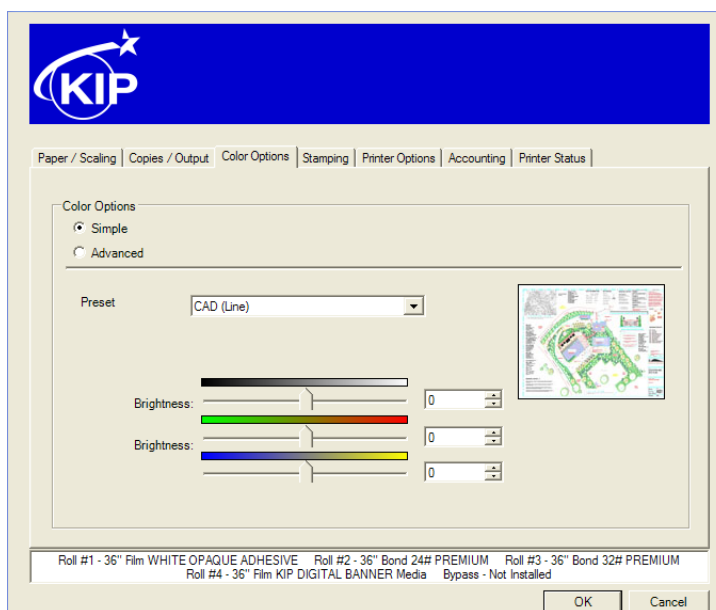Select Invert ON to reverse black versus white colors on a monochrome printer.
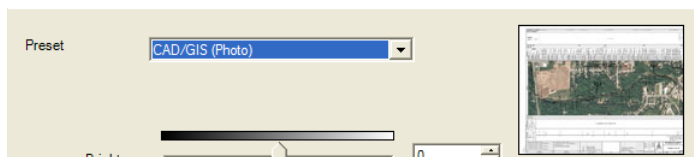
Color Options – KIP Color Systems

Color Options

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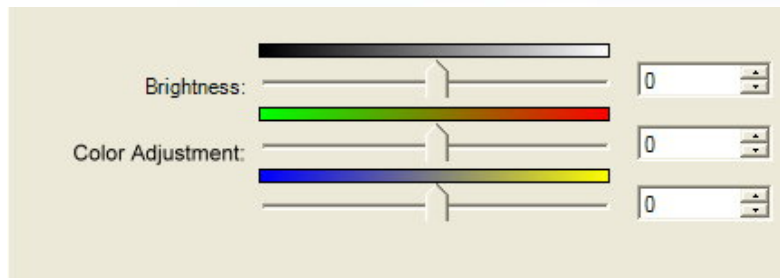
Simple and Advanced.

Simple Settings:

Preset – Choose from multiple color Preset settings. Image will be displayed showing the file type selected.
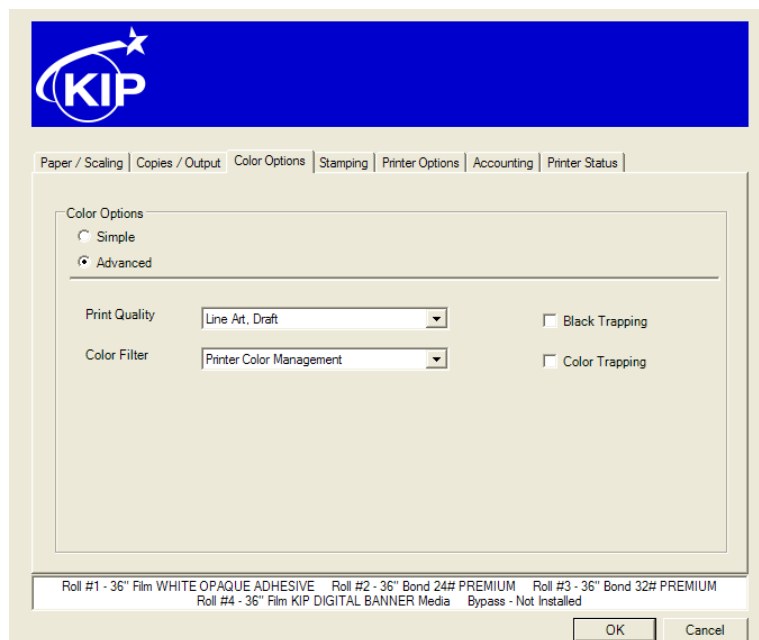
Brightness – Users have the ability to adjust the brightness with a positive value making the output brighter and a negative value making the output darker.
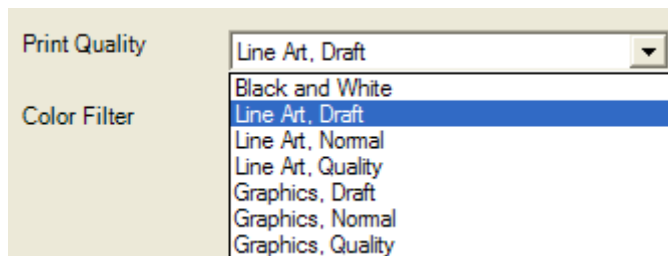
Color Adjustment - allows the user to make adjustments to the Red/Green and Blue/Yellow of the files that are being printed.

Advanced Settings:

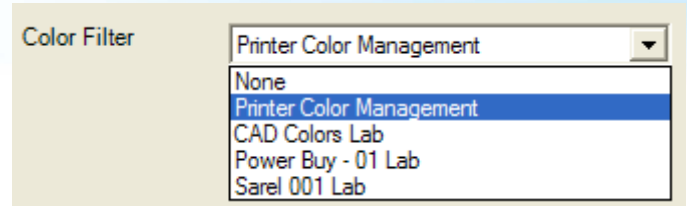Print Quality – Choose from Multiple print Quality settings

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.
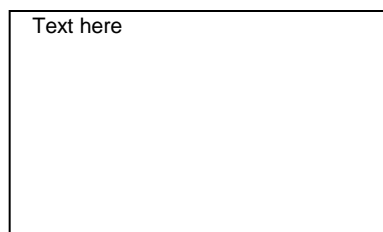
Job / Set Separator

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 – Revit Compatibility

When Revit Compatibility is selected any changes to the printer settings within the application (Revit) are passed on to the Printer Default settings. Revit Requires this compatibility between the Windows driver and the application to ensure the correct output will be obtained.

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 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.
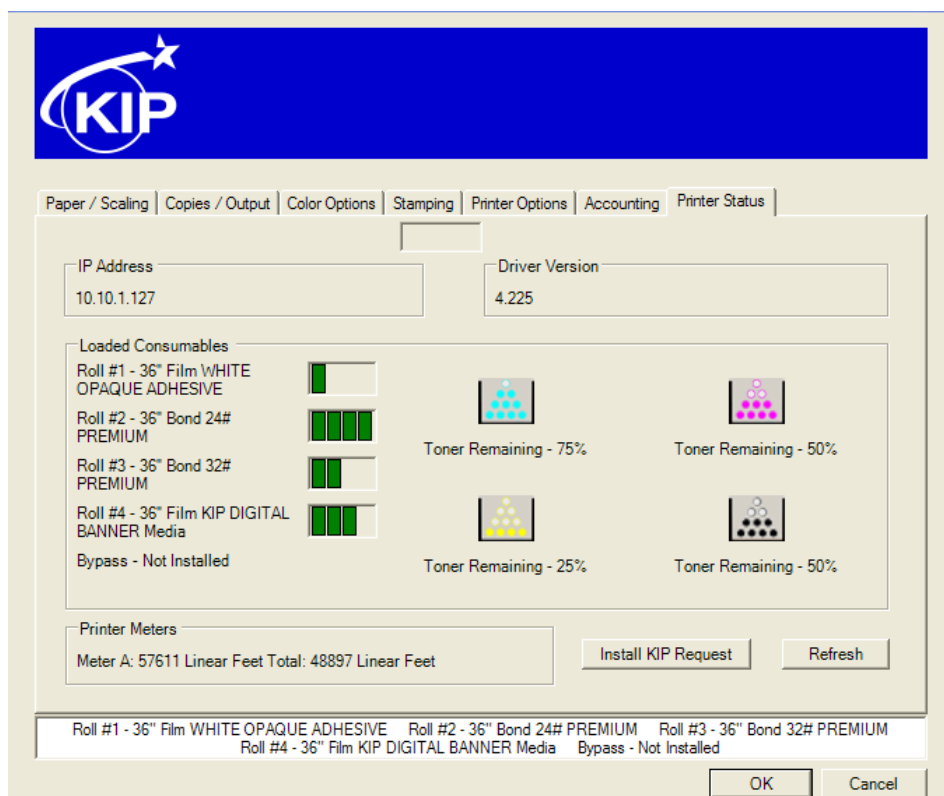
Printer Status

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.
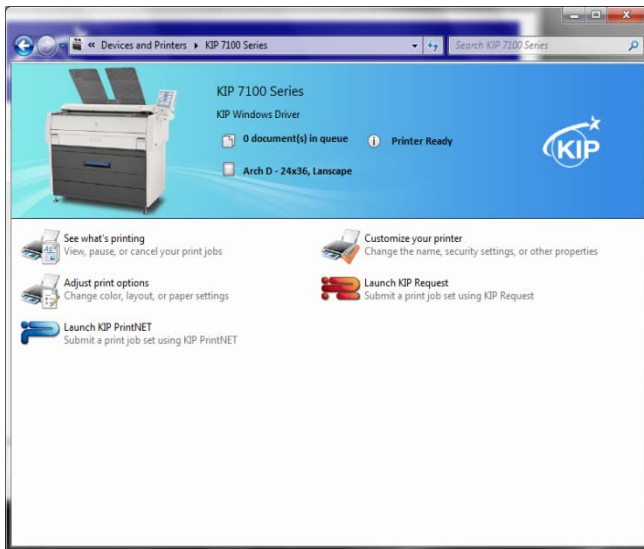
KIP Windows 7 Device Experience

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 700m Series   KIP 7100 Series   KIP 7700 Series   KIP 7900 Series   KIP 9900 Series

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.