



KIP Certified AutoCAD Driver User Guide

KIP Certified AutoCAD Driver



Contents

Introduction.....	4
Recommended PC Specifications:.....	5
Overview	6
▪	7
Installation	8
Connection	11
Options	11
KIP Print Link – Advanced Features	11
Configuration.....	12
Media	13
Graphics.....	13
Custom Properties	15
Custom Settings.....	17
Printer Connection.....	18
Link to KIP Print Software	18
Put Pen and Media Info into File	18
Prompt at plot time.....	18
Machine	18
Status	19
Plot Identification	19
User Name	20
Job Number	20
Description	20
Stamp	20
Media Options.....	21
Media Type.....	21
Fold.....	21
Save Paper	21
Header	22
Raster Image Control	22
Gamma.....	22
Density.....	22
Raster Photo Mode	23
Adjustments – Monochrome Systems	23

KIP Certified AutoCAD Driver



- Line Width Compensation 23
- Vector Line Dither 23
- RTL Image Dither 23

- Adjustments – Color Systems 24
 - Color Options 24
 - Simple Mode 24
 - Advanced Mode 25
 - Line Width Compensation 25
 - Color Filter 25
 - Color Quality 25
 - Color Management 25
 - Color Trapping 26
 - Black Trapping 26

- Driver - Removal 27

- Appendix 28
 - KIP Track Features - Variables 28

KIP Certified AutoCAD Driver



Introduction

The KIP Autodesk AutoCAD driver (HDI) has been designed to quickly and effectively print to the KIP printer directly from the AutoCAD application installed on supported Microsoft Windows operating system. Features within the driver include real-time printer status, KIP Track, stamps, headers, media type selection and advanced vector and raster dither controls. KIP Color printers permit color print mode selection.

Features

- Displays current media information and real time system status
- Controls to adjust gamma and density levels for embedded raster data
- Job accounting data includes user name, job number, and description fields
- User and job number passwords may be required before printing
- Select bond, vellum, film or custom media
- Image stamping of text and/or images anywhere on the document

The KIP HDI driver is compatible with the following versions of AutoCAD:

- 2007 / 2008 / 2009 / 2010 / 2011/2012
- KIP9.hif is used for 2007/ 2008/ 2009
- KIP10.hif is used for 2010, 2011 and 2012

KIP Certified AutoCAD Driver



Recommended PC Specifications:

- Microsoft® Windows® 7 Enterprise, Ultimate, Professional, or Home Premium (compare Windows 7 versions); Microsoft® Windows Vista® Enterprise, Business, Ultimate, or Home Premium (SP1 or later) (compare Windows Vista versions); or Microsoft® Windows® XP Professional or Home edition (SP2 or later)
- For Windows Vista or Windows 7: Intel® Pentium® 4 or AMD Athlon® dual-core processor, 3.0 GHz or higher with SSE2 technology; for Windows XP: Intel Pentium 4 or AMD Athlon dual-core processor, 1.6 GHz or higher with SSE2 technology
- 2 GB RAM
- 1.8 GB free disk space for installation
- 1,280 x 1,024 true color video display adapter 128 MB or greater, Microsoft® Direct3D®-capable workstation-class graphics card
- Microsoft® Internet Explorer® 7.0 or later

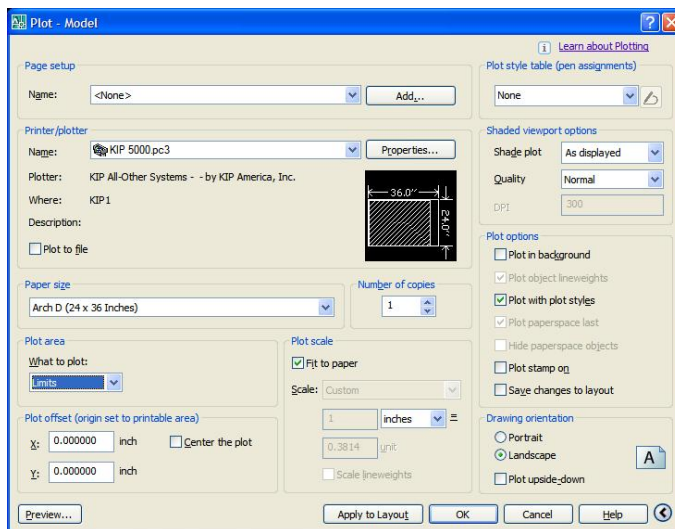
KIP Certified AutoCAD Driver



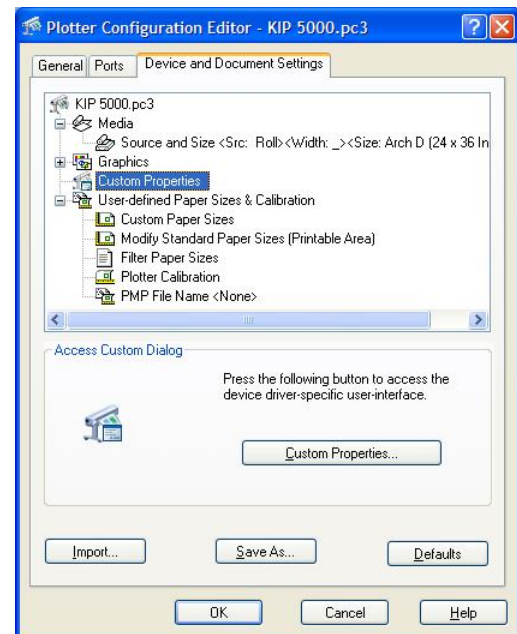
Overview

The following two screens are general to AutoCAD and are not detailed within this User Guide. They select the print to device, media size, pen configurations, and shading to list a few of their functions. Please refer to the AutoCAD User Guides for more details on these screens features and functions.

Plot Screen



Plotter Configuration



KIP Certified AutoCAD Driver



Features within the driver include real-time printer status, KIP Track, stamps, header, media type selection and vector line and raster dither controls.

Using Plotter Configuration - Custom Properties, users can make their printer selection

KIP Custom Properties

Printer Connection

Printer: 7100

Status:
Roll 1: Bond, 24 Inches: 50%
Roll 2: Bond, 36 Inches: 100%

Plot Identification

Requester: Please Enter
Distribution:
Description:
Stamp:

Prompt at plot time

Media Options

Type:
Folder: Off

Header
 Save Paper
 Put pen and media info into plot file

Adjustments

Vector line dither: fine/medium
RTL image dither: fine/medium

Line width compensation

Raster Image Controls

Gamma: 1 Density, %: 100 Raster Photo Mode

OK Cancel Help About

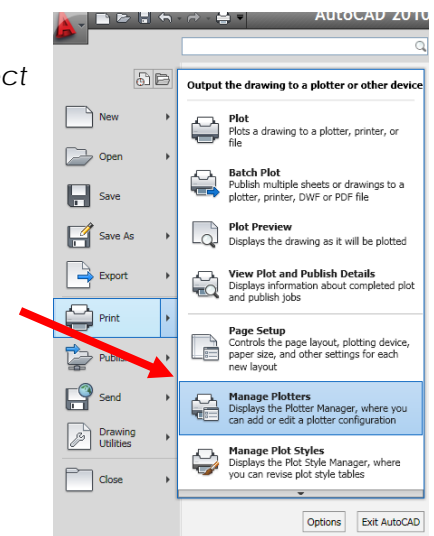
KIP Certified AutoCAD Driver



Installation

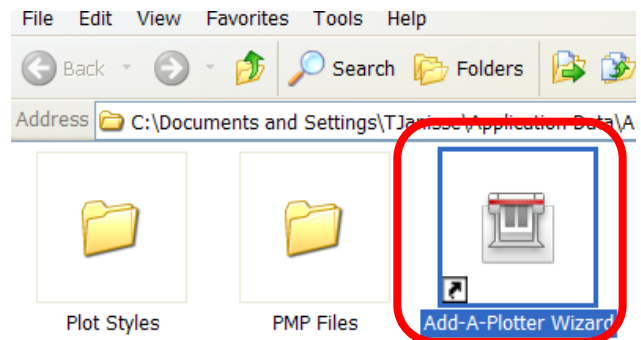
Note: Installation and screenshots were done using AutoCAD 2010 and will vary depending on the version being used. However the installation procedure for AutoCAD 2004 to 2010 is very similar.

1. Within AutoCAD, click on the  in the top left corner and select *Print* and then select *Manage Plotters*



2. Under *Plotter Manager* double Click the *Add-A-Plotter Wizard* Icon.

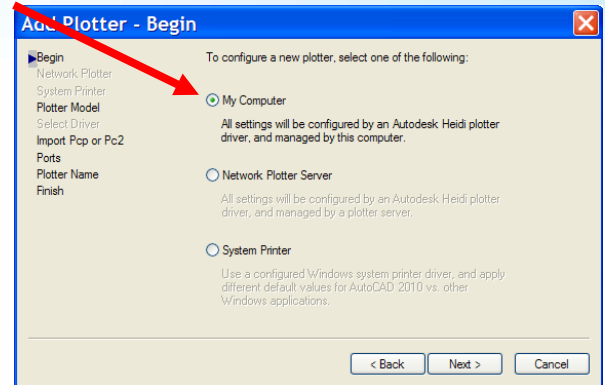
Note: For Windows Vista and Windows 7 operating systems, it may be necessary to right-click the "Add-A-Plotter Wizard" and select **Run as Administrator**...This is due to security measures for User Access Control (UAC). This is controlled by your administrator.



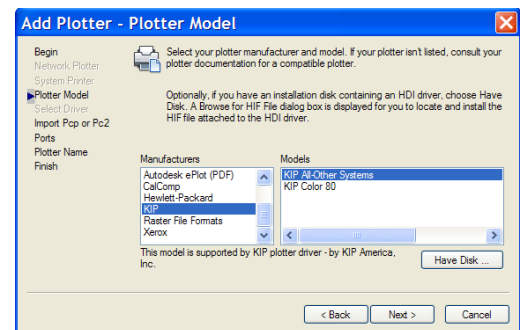
KIP Certified AutoCAD Driver



3. Select **My Computer** to install the driver to your local computer.



4. Identify your plotter / printer model.
 - a. If KIP is in the list, simply select KIP from your list of manufacturers and click "Next."
 - b. If KIP is not in the list, click the "Have Disk" button and you will be able to browse for the plotter driver from your **KIP Software CD**. The file you are searching for is located in the Drivers\KIP HDI folder and should appear as KIPx.hif.



NOTE

KIP9.hif is the driver file for AutoCAD 2007, 2008 and 2009
KIP10.hif is the driver file for AutoCAD 2010, 2011 and 2012

5. Once you have selected this file KIP will appear in the list. Select it from your list of manufacturers and click "Next."
6. The next screen is the PCP and PC2 importation screen. This screen allows users of previous AutoCAD versions to import their PCP and PC2 files to the AutoCAD 2000 family PC3 file format.

KIP Certified AutoCAD Driver

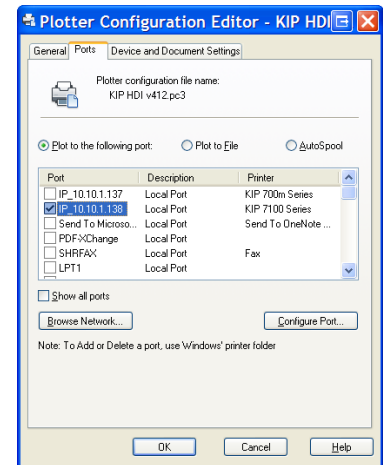


If the user does not wish to migrate or does not have any PCP or PC2 files, click the “Next” button and proceed with the installation.

7. Output Port Selection: select **the IP connection**, which is created at the time the KIP Windows driver is installed.

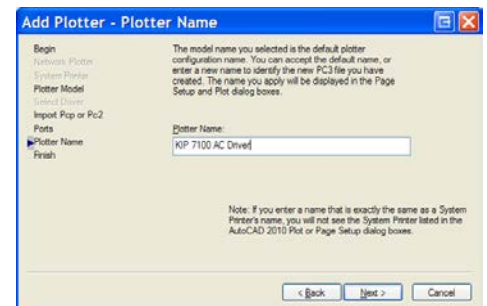
NOTE

The KIP Port Monitor should be installed prior to the AutoCAD driver to use this port. If the user chooses not to use this method, select Plot to File.

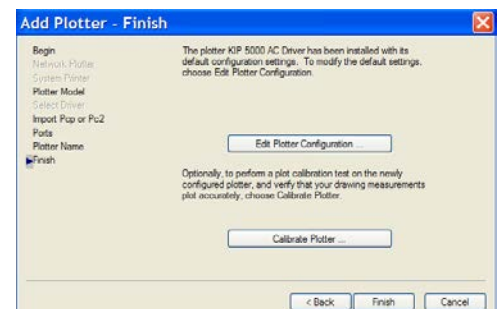


8. Specify the printer’s name. Since all of the KIP printers use the same driver, the user could set up a name for each KIP device. We recommend you use the nomenclature of your KIP machine to identify the printer’s name.

Example: KIP5000



9. To complete the installation, click the *Finish* button. Printer configuration will be done later and there is no need to “Calibrate Plotter” as the KIP printer was calibrated during installation by the technician.

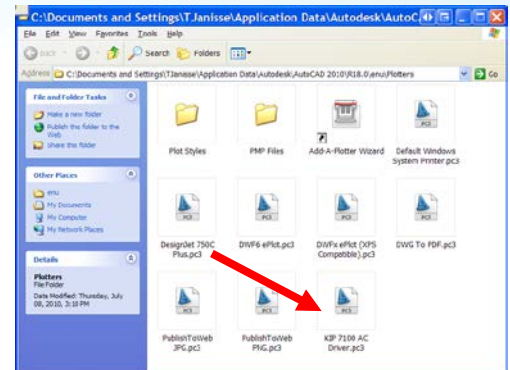


KIP Certified AutoCAD Driver



10. Once the installation is complete, please note the creation of the KIP05000.pc3 file in the ACAD/Plotters folder.

Connection



Options

There are two basic methods to print from the KIP HDI driver to the KIP Printer:

1. Printer Port monitor
 - a) Standard TCP/IP port (preferred method)
 - b) LPR port

Each of the methods listed above are explained in detail in the 'KIP Windows driver' guide.

2. Plot to File

The output file must be manually submitted to the printer using KIP Request or KIP PrintNET software. Please refer to the KIP Request or KIP PrintNET guides for further information.

KIP Print Link – Advanced Features

Although KIP Track is the preferred method of retrieving Accounting information, Users have the choice of linking to KIP Request to access advanced functions and features. KIP Print is a document submission tool that allows for complete and comprehensive control over printing / plotting.


This KIP Print can operate on several remote workstations simultaneously. The KIP HDI driver was designed to take advantage of, and dynamically link to, KIP Print, bringing many key features to the AutoCAD interface. Installation instructions and further documentation for KIP Print are found in the KIP Print Section of this guide.

KIP Certified AutoCAD Driver

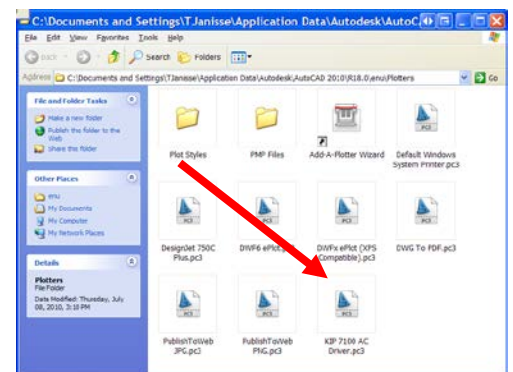
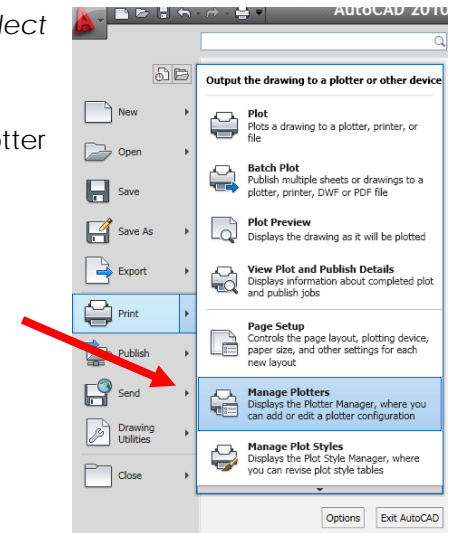


Configuration



Click on  in the top left corner and select *Print* and then select *Manage Plotters*

1. Double-click on the .PC3 file of the KIP printer to open the Plotter Configuration Editor.



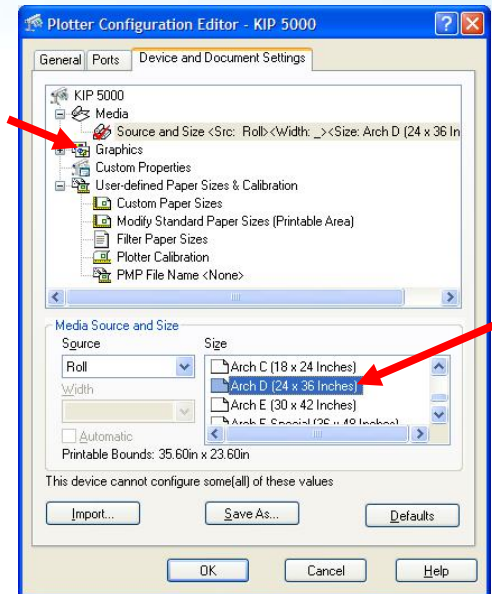
Navigate to the "Device and Document Settings" tab at the top.

KIP Certified AutoCAD Driver



Media

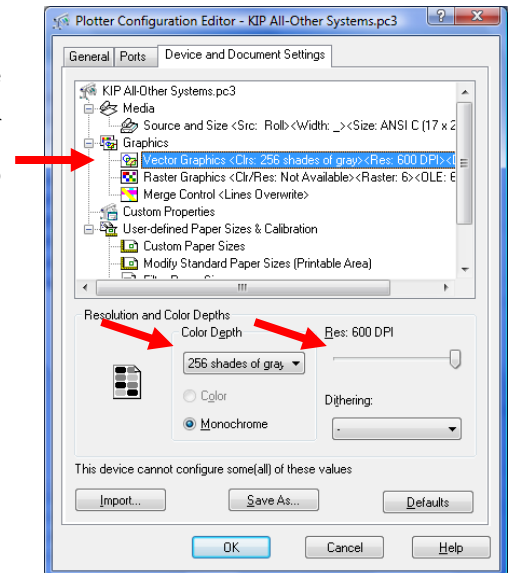
1. Click the "+" sign next to "Media". This will open up the Media Options and allows selection of the Media Source (which is "Roll") and Media Size.
2. Select your media size to suit your image.



Graphics

Vector Graphics

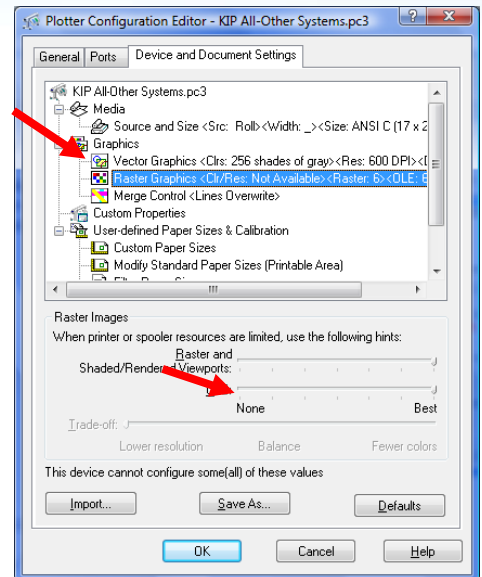
1. Click the "+" sign next to "Graphics". This will open up the Graphics options and allows Modification of Vector Graphics. Selection of the Color Depth (in this case "256 shades of gray") and the resolution.





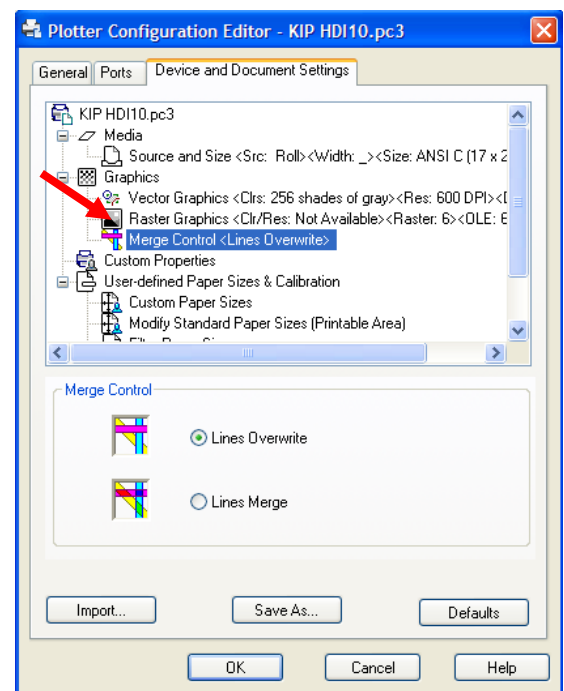
Raster Graphics

2. Raster Graphics allows the user to change the quality of embedded raster images. If the slider bar is moved to the right "Best" the image quality will increase and the file size will also increase. This may increase overall file processing times within AutoCAD.



Merge Control

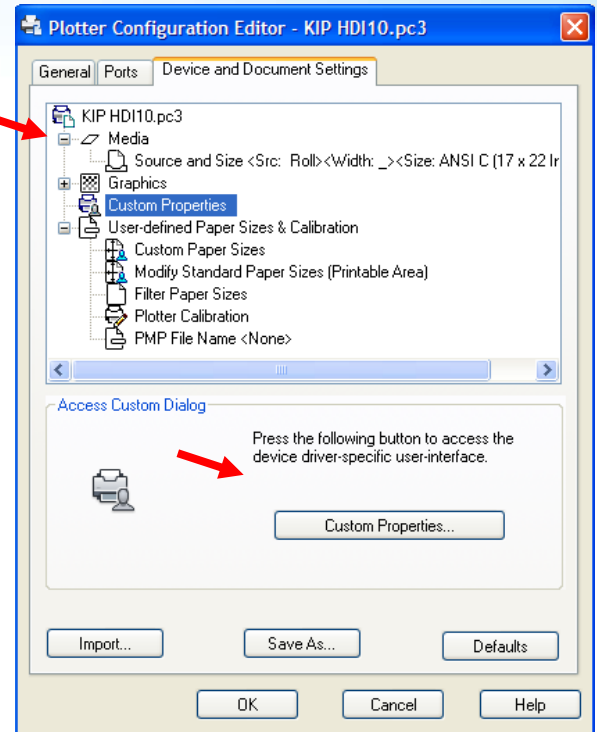
3. Merge Control will allow a user to control how lighter and darker image entities are set. It is possible to have lighter entities overwrite darker entities and vice versa. Lines Overwrite will have all darker entities overwrite lighter entities. Lines Merge will allow lighter entities overwrite darker entities.



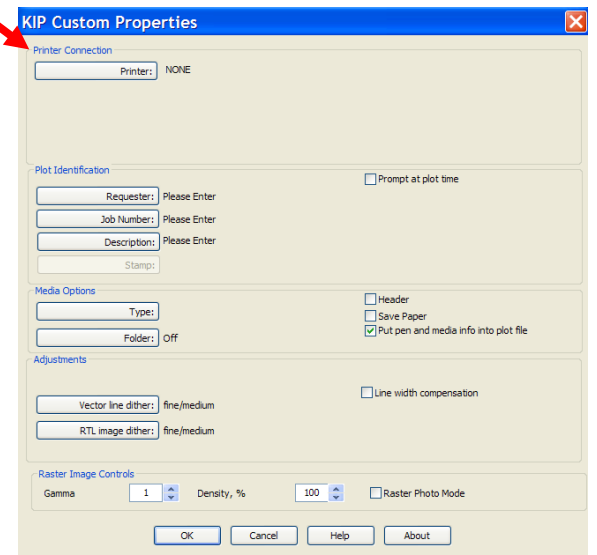


Custom Properties

1. Click on *Custom Properties*
2. Then click on the button to see the KIP Custom Settings dialog box.
3. A number of the features of the KIP Request software have been directly integrated into the KIP HDI driver; these features are enabled by "linking" the HDI driver to the KIP Request software.



4. By clicking the "Printer Button" the driver will search the network for existing KIP printer and display all available printers.



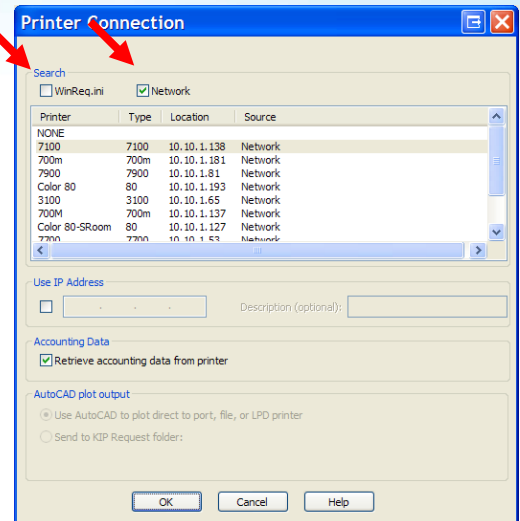
NOTE

KIP Print must be installed and configured to link these features to this HDI driver. Please see this section of the User Guide.

KIP Certified AutoCAD Driver

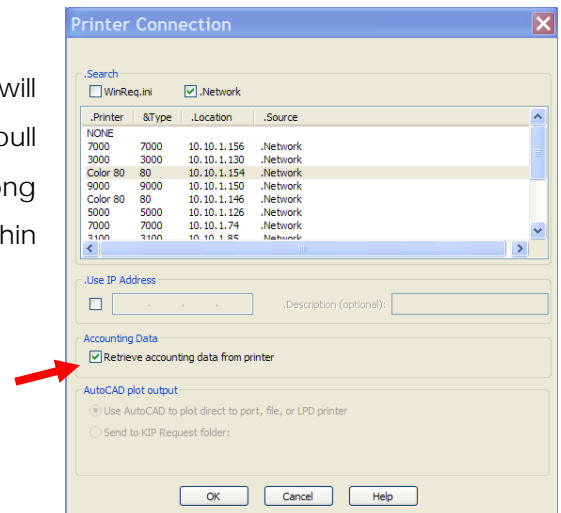


- The following dialog boxes allow the user to locate and connect to a KIP Printer by selecting it from the list and clicking "OK." The winreq.ini dialog box will only show the printers that are checked in the list of printers in KIP Request. By checking the Network dialog box the list will contain all KIP printers available on the network. If the KIP printer does not show up in this list it can be added by checking the "Use IP Address" dialog box and entering the IP address of the printer.



- Select "OK" to finish linking the HDI driver to Request.

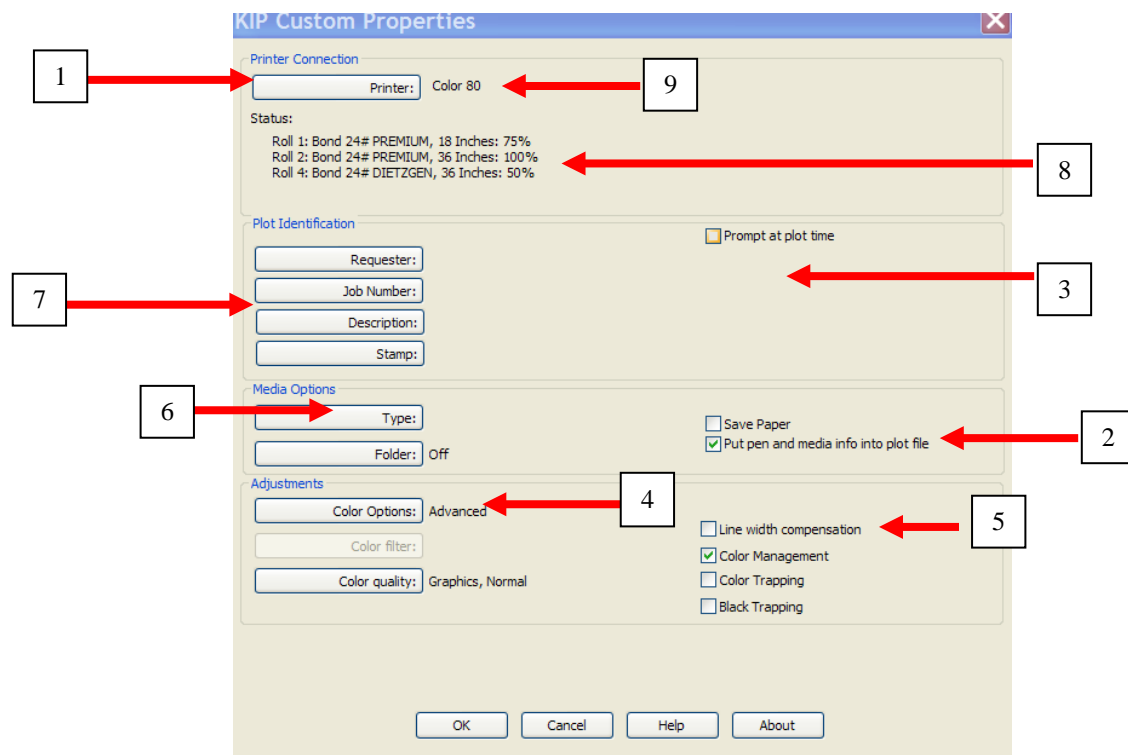
- Checking the Retrieve Accounting data from printer will activate the KIP Track for the AutoCAD driver. This will pull in any information that has been sent to the printer along with requirements for printing and use them within AutoCAD.



- The KIP custom settings dialog box should display "Real Time Status" from the KIP printer. Users have the ability to track printing from the AutoCAD application by Requester, Job Number, and Description. Users also have the ability to add a stamp to their document from the KIP HDI driver.



Custom Settings



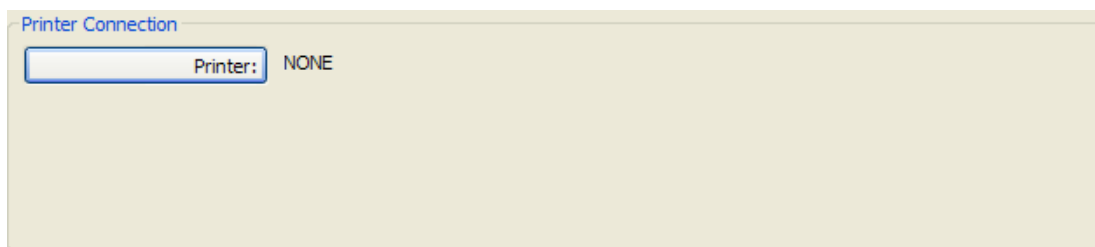
No.	Name	Function
1	Link to KIP Print	Enables advanced features on <i>Custom Properties</i>
2	Put Pen and Media info in plot file	Places all media and advanced pen information inside the file to overwrite default settings.
3	Raster Image Control	Adjustment for raster embedded images. Gamma and density controls.
4	Dither Patterns	Controls dither patterns for vector lines and raster embedded images
5	Line Width Compensation	Controls overall line thickness or thinness
6	Media Options	Selects the type of media, folded output (optional, media save and printed header).
7	Plot Identification	Used for accounting / job tracking and header information. Preset stamps from KIP Request can also be selected.
8	Status	"Real-Time" printer status. Includes installed media.
9	Machine	Displays currently select printer model



Printer Connection

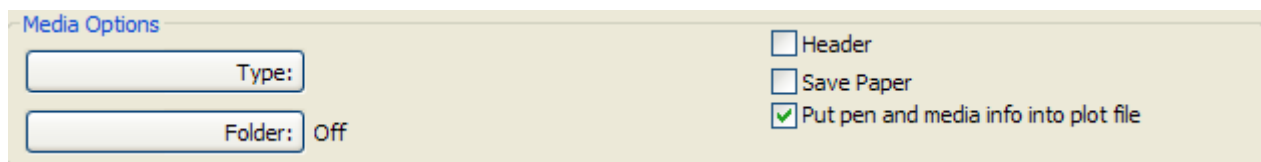
Link to KIP Print Software

This button should be selected to utilize the advanced features of the Custom Properties screen. It links the AutoCAD Driver to networked KIP Printer either by Ipaddress or KIP Print's .ini.



Put Pen and Media Info into File

Includes all print file header information necessary for proper processing on the KIP controller. This includes the media types and sizes, merge control and the Raster Image control to override the default settings in the printer.



Prompt at plot time

Forces the KIP Track prompts to be displayed with each print job submission.

Machine

Displays currently installed printing devices.

Installations with multiple printers can select the specific printer as noted in the installation section.

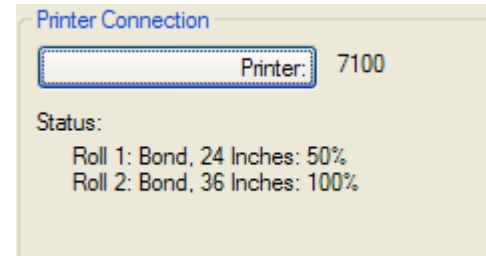


Status

This region shows the current:

- roll width and type
- any misfeeds
- toner requirements (If available)
- standby mode of the printer

This is an active communication with the printer. The status is shown at the desktop of the user rather than requiring the user to visit the printer.

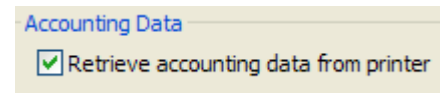


Plot Identification

The following features can be used in environments where job costing or department allocations are required for prints on the KIP. They can also be useful for print identification and print distribution as this information can be placed in a header.

KIP Track – The AutoCAD Driver points to a central location. i.e. A KIP that has a centralized list and rules for KIP Track. For information on how to set up KIP Track please see the Request or Print NET sections.

NOTE: KIP Track is on by default.

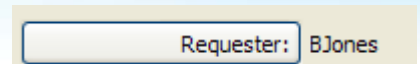


Please see the Appendix for advanced naming variables.





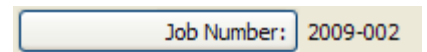
User Name



Requester: BJones

This button allows the user to select a predetermined User Name from a drop down list or manually type a name. This field may be configured to be mandatory and password protected (see KIP Request Software Guide). The drop down variables and passwords themselves are also configured in the Request Software. %Username may be used as an environment variable.

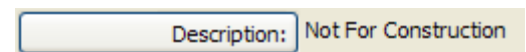
Job Number



Job Number: 2009-002

This button allows the user to select a predetermined Job Number from a drop down list or manually type the job number. This field may be configured to be mandatory and password protected (see KIP Request Software Guide). The drop down variables and passwords themselves are also configured in the Request Software.

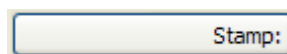
Description



Description: Not For Construction

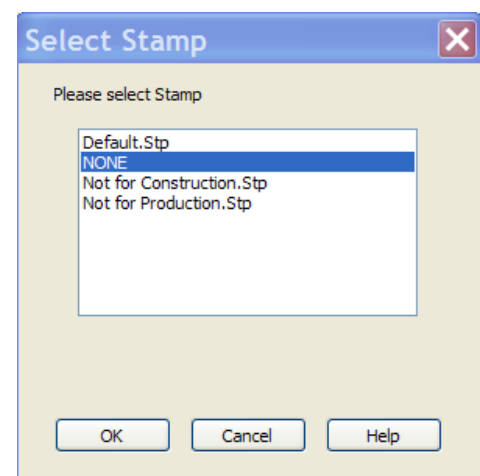
This button allows the user to select a predetermined Description from a drop down or manually type a description. This field may be configured to be mandatory and password protected (see KIP Request Software Guide). The drop down variables and passwords themselves are also configured in the Request Software.

Stamp



Stamp:

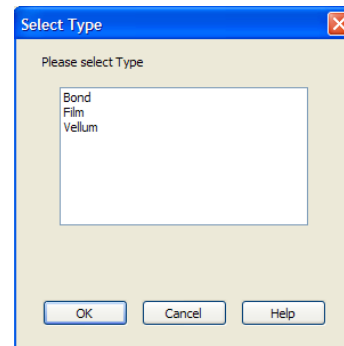
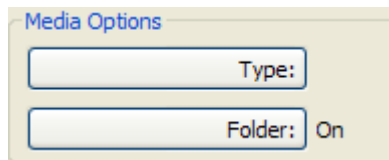
This button allows a stamp (predetermined in the Request Software) to be placed on the print(s). The creation and placement of the stamp is performed in the request application. (see KIP Request Software Guide)



Media Options

Media Type

This list has the media types that may be installed in the KIP printer. They include **Bond, Vellum and Film**. Please note the *Status* region to confirm the media currently installed. If media selected for a print is not currently installed, the printer will "hold the job" and wait for the media type to be satisfied prior printing the job.



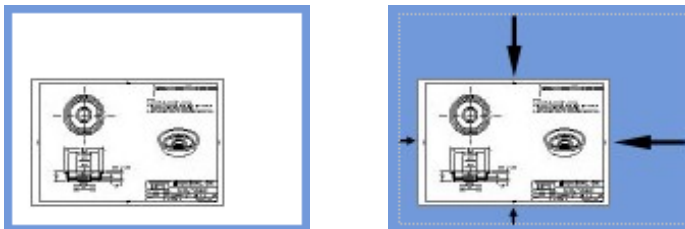
Fold

Folds the print according to the fold patterns. Please note that the optional folder must be configured on the KIP.

installed for this action to occur.

Save Paper

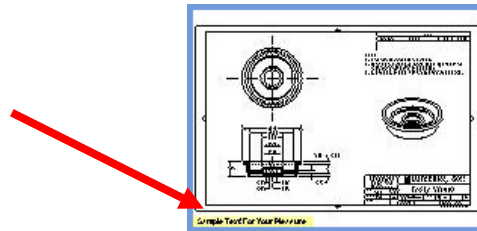
If the media size selected is larger than the image size, this button will prevent excess media (waste) from being consumed in the print process. This occurs in the length of the print. This does not affect image output.



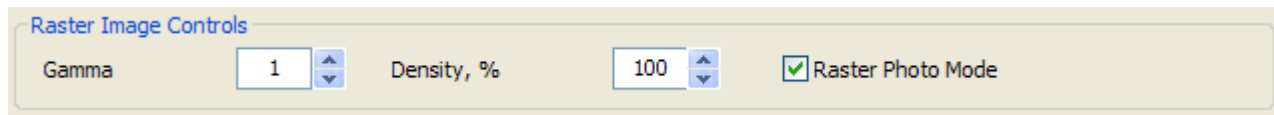
Note: If the Printer is set to "Closest," the nearest roll width installed will be used to even further reduce media waste (more than one roll width must be installed of the same media type).

Header

A text header can be placed on the paper for print identification. The information placed in the **Plot Identification** will be printed on the print (not an available function when connected to a KIP Color System)



Raster Image Control

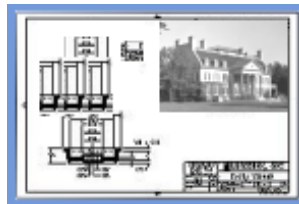


Gamma

This value sets the gamma level of embedded raster images on the print file. Gamma is the overall contrast of the image.

Density

This value sets the density of the image without affecting lines or shades in a print (the vector data). This can be used to enhance photos or other raster images placed within a drawing. A higher value will have a greater density.

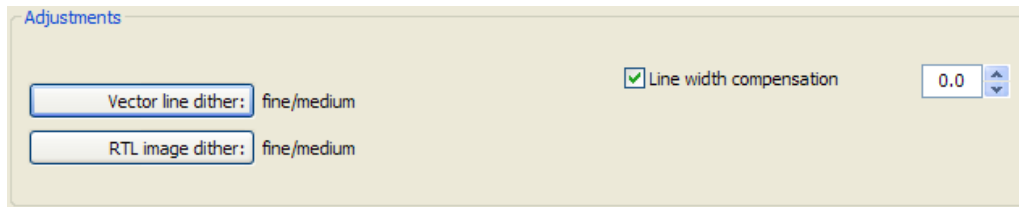




Raster Photo Mode

This button is used to print the shading effects of a raster image. Some raster images are meant to be 100% solid (no tones such as a line). Others are pictures or drawings where shades are required. Select Photo Mode to print the raster image as shades rather than 100% solid. Embedded Excel or Word documents should have this un-selected for optimum output.

Adjustments – Monochrome Systems



Line Width Compensation

Controls line weights on a global basis. Values can be from -4.0 to +4.0. A higher value will result in all lines increasing in thickness. A lower value will result in all lines decreasing in thickness.

Vector Line Dither

Controls dithering patterns for grayscale line entities. Values are from Fine (Tight) to Coarse (Wide) dither patterns.



NOTE

This does not control vector fill areas. This should be set at the KIP

RTL Image Dither

Works in conjunction with *Raster Image Control*: if Raster Photo Mode is enabled, then RTL Image dither can be controlled. Values are from Fine (tight) to coarse (wide) dither patterns. Photographic images

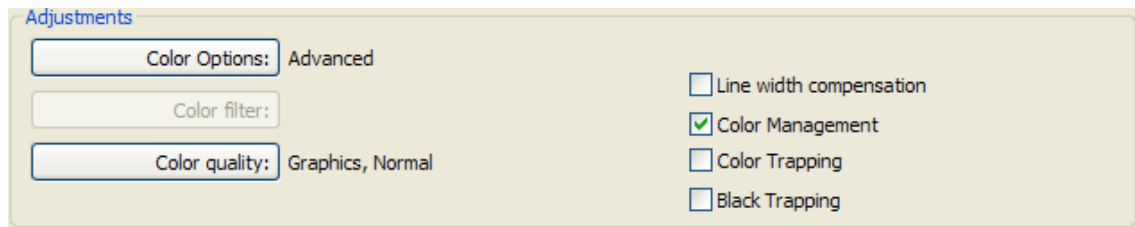
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work best with a more coarse setting while embedded text documents from Word or Excel work best with a Fine setting.

Adjustments – Color Systems

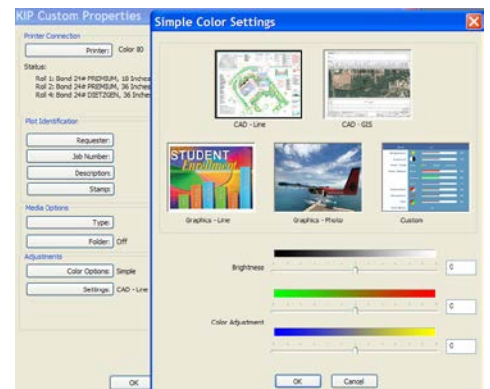


Color Options

Allows the user to select between Simple and Advanced printing modes giving more or less options to choose from.

Simple Mode

When Simple mode is chosen the user can select the Settings button and choose from five different pre-set printing modes (these are set up within KIP PrintNet)



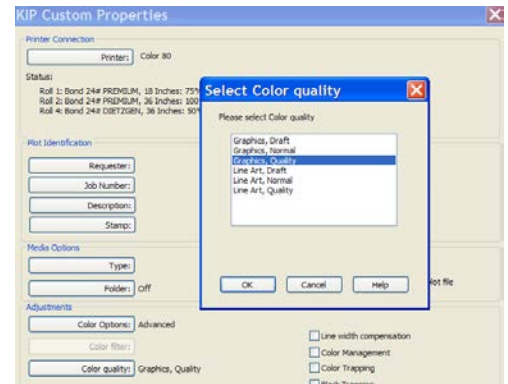
KIP Certified AutoCAD Driver



Advanced Mode

When Advanced mode is chosen the user can select from different Color Qualities along with setting Line Width Compensation, Color Line Art Draft – Reduced quality mode (300 DPI)

- Line Art Draft – Reduced Quality Modes (300DPI)
- Line Art Normal - for normal quality line output (600 DPI).
- Line Art Quality - for high quality line output (600 DPI).
- Graphics Draft - Reduced quality mode (300 DPI)
- Graphics Normal – for normal quality graphic output (600 DPI)
- Graphics High – for high quality graphic output (600 DPI).



Line Width Compensation

Controls line weights on a global basis. Values can be from -4.0 to +4.0. A higher value will result in all lines increasing in thickness. A lower value will result in all lines decreasing in thickness.

Color Filter

Selectable custom filters for color image data processing. Filters are created and uploaded using the KIP Color 80 RIP software.

Color Quality

Selectable quality settings for optimum output. Line Art, Normal is best used for CAD type documents with only line work. CAD documents with heavy coverage of images should choose Graphics, Quality as this will provide the optimum dither pattern.

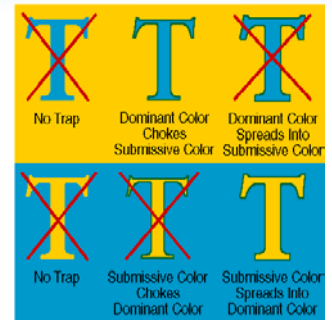
Color Management

Enables advanced color management options for increased color depth.



Color Trapping

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).



Black Trapping

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





Driver - Removal

To install the driver, please ensure that you have completely removed all instances of any previous version from AutoCAD.

1. From File / Plotter Manager, delete the KIP Color 80.pc3 file or the installed .pc3 file associated with the KIP printer
2. Close the AutoCAD application
3. Browse to the installation location of AutoCAD and find the \drv folder then remove the following files:
 - a. Kip9.drc
 - b. Kip9.hdi
 - c. Kip9res.dll



Appendix

KIP Track Features - Variables

Specialized names or masks can be used for the KIP Track data fields in the Custom Properties of the KIP AutoCAD Driver (Requester, Job Number, and Description)

Both the Requester and Job Number fields by default are recorded into the KIP Track log. The Job Number field can then be the key field used to query Production Reports directly from the KIP Unattend software. The KIP Controller log can also be imported into any program that can read ASCII data.

Specialized Mask Names and Rules

These customized names can be assigned to the mask elements using all normal methods.

Dwgname and dwgpath are the only two variables that can be set.

Example:

AutoCAD reports original file path of drawing named "R300-20.DWG" and the path that the file is stored in as:

```
C:\Program Files\AutoCAD 2006\drawings\R300-20.DWG
```

If mask item is set to:

Dwgname logged is "R300-20"

Dwgpath logged is 'C:\Program Files\AutoCAD 2006\drawings\R300-20.DWG'

dwgpath=x\x\x\x\x where = sign and following is optional mask to select path elements.

x replaced by # includes that element of path to be used in accounting data.

```
dwgpath=x\#\x\x      logged is 'Program Files'
```

```
dwgpath=x\#\#      logged is "Program Files\AutoCAD 2006"
```




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