



HARLEQUIN® multiRIP™

CIP3 output plugin

Version 1.5r1

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CIP3 Output Plugin

This document describes the use of the CIP3 output plugin with the Harlequin MultiRIP.

Note to OEMs:

This document is presented for inclusion in end-user documentation such as a manual based upon the *OEM Manual* or for use as a supplement to that manual. You may wish to change the introduction to this document to suit the presentation you choose. (Notes like this one are not meant for onward publication to end-users. They give information of interest only to staff at GGSL and its OEMs.)

This document describes the CIP3 plugin version 1.5, for use with the Harlequin MultiRIP. The plugin is available for the RIP running under the Windows 32-bit and 64-bit. The operating system support is the same as for the Harlequin MultiRIP. See the Harlequin MultiRIP release notes for the latest information.

I Introduction

Plugins are a way of extending the capabilities of the Harlequin MultiRIP in a way that does not require any programming or other technical skills from the person installing the plugin. Typical plugins allow the RIP to accept jobs from various sources of input, to process the data in various ways, to report on the progress of rasterizing the image, and to provide page images in new formats, and to send the final image to output devices or interface systems.

The CIP3 plugin allows the RIP to produce Print Production Format (PPF) files as specified by a group called International Cooperation for Integration of Processes in Pre-press, Press, and Post-press (CIP4). PPF files contain information about print jobs including administrative data, information about inks and register marks, comments, and preview images.

- The PPF specification is available on the internet, as described in [Section 5, page 16](#). Briefly, the group wish to provide enabling standards for applying Computer Integrated Manufacturing (CIM) techniques to printing workflows by avoiding the need for recalculation or re-entry of information. The result of this work is the Print Production Format (PPF) file specification.

In the Harlequin MultiRIP, you can use the same RIP that generates your film or plates to create PPF files enabling ink-keys to be set quickly and easily on press. PPF file generation is just as easy and automatic as generating the plates and films themselves, and using those files with your press can bring you to color far faster, reducing make-ready times and wastage, and removing the need for plate scanners.

I.1 Requirements

The CIP3 plugin has no special requirements; its output is to file only, typically at a low resolution.

1.2 Capabilities of the plugin

The plugin has the following options:

- CMYK color preview images, 8 bits per pixel, separated or unseparated. Spot colors are supported, but only for separated output files. (The preview image is the starting point for calculating the ink-keys in the software that reads PPF files.)
- Uncompressed or run length encoded compressed files.
- A choice of resolution for the preview image.
- A choice of work styles for single and double-sided sheets.

Version 1.4r11 and later of the plugin supports the version 2.0, version 2.1 and version 3.0 PPF specifications.

1.3 Using Migrate with the CIP3 plugin

The v1.5r0 of the CIP3 plugin was made available for use with HMR v10.0.0 because previous versions are not compatible with this RIP version. Because of this incompatibility migrating CIP3 settings from earlier versions to HMR v10.0rx (or later) can cause problems. To successfully migrate CIP3 to HMR v10.0rx (or later) from an earlier RIP, such as v9.0rx, use one of the following procedures.

- Before using Migrate, ensure you create a CIP3 page setup in the target RIP using the newer v1.5rx CIP3 plugin. This ensures that, even after migration, the color setup styles for CIP3 called `CMYK Composite (Pixel)` and `CMYK Composite (Frame)` will be correct and will work.

However, after migration you will also see two color setup styles called `CMYK Composite (Pixel)_M00` and `CMYK Composite (Frame)_M00`. These have been migrated from the earlier RIP, and will be used by any page setups that were also migrated, but will not work in HMR 10.0rx.

Change the relevant “From” page setups to use the color setup styles without the `_M00` suffix, so that they work again. Once this is done for all the old page setups you can delete the broken `_M00` color setup styles using the Separations Manager.

- Before using Migrate, apply the following procedure to the “From” RIP. That is, the HSR v9.0rx RIP when migrating from v9.0rx to v10.0rx, or the v10.0r0 RIP when migrating from v10.0r0 to v10.0r1:

Carefully edit the file: **SW\Config\Devices\DevCSS\CIP3.X00** replacing each occurrence of `/Screened true` with `/Screened false`.

Proceed with the migration, and afterwards the CIP3 plugin should have normal, working color setup styles in both the “From” and “To” RIPs.

The same procedures can be used when migrating from v10.0r0 to v10.0r1 (or later) if your v10.0r0 RIP contains an older CIP3 plugin (earlier than v1.5rx) for whatever reason, or if it contains CIP3 setups that were migrated from an earlier RIP without following one of the above procedures.

For more information see the Migrate manual v7.1r0 or later.

1.4 Typical workflow

Because the purpose of the PPF specification is to provide PPF files that accurately predict the characteristics of a film or plate, you can expect to have pairs of page setups. In each pair, one page setup should produce the high resolution data required by your actual output device and the one for CIP3 should mimic all settings of that page setup except that it should have **Calibration** set to `(None)` and produce a lower resolution version of the image on film or plate.

In use, you should send a job twice: once to the page setup for the real device and once to the page setup using the CIP3 plugin. (Jobs sent to the CIP3 plugin run quickly because the resolution used in a PPF file is typically very low compared to the real device.)

2 Software installation

The plugin may be supplied as part of your standard Harlequin MultiRIP installation media. If so, installing the RIP is sufficient to install the plugin.

If you receive separate installation media, or an updated plugin, install it using this procedure.

1. The CIP3 plugin requires the Harlequin MultiRIP to be installed on the target machine. Install the RIP, if this is a new installation.
2. Run the setup program for the operating system you are running. Click **Next** to move onto the next screen. Use **Previous** to go back to the previous screen.

Note: Ensure you run the installer appropriate for 32-bit or 64-bit machines.

3. In the “Choose Install Folder” window you must specify the Harlequin MultiRIP installation folder as the destination for the plugin files. Click **Next**.
If you select an invalid or incorrect RIP folder an error message will appear. Use the browser to select the correct RIP folder and click **Next**.
4. In the “Choose Plugins” window choose CIP Plugin X.Xrx plugin along with any other plugins you want to install. Click **Next**.
5. Read the agreement displayed in the “Plugin License Agreement” window. You must click the I accept... option to continue. Click **Next**.
6. In the “Pre-installation Summary” window, check that your selections are correct and then click **Install**.
7. When the “Install Complete” window appears click **Done**.
8. After installing the plugin start the Harlequin MultiRIP.
If you have correctly installed the plugin the following message will appear in the RIP monitor when you next start up the RIP:

CIP3 plugin: Version 1.5 - Copyright (C) 1997-2010 Global Graphics Software Ltd. All Rights Reserved.

To use the plugin, choose CIP3 in the **Device** list in the Page Setup dialog box. Configure the device as described in [Section 3, page 7](#) and choose options in the Page Setup dialog box as described in [Section 4, page 15](#).

Note: If CIP3 does not appear as an option in the Device list in the Page Setup dialog, see [Section 2.1](#).

2.1 Plugin security

If you are using Sentinel LDK security you may be required to use a new product key. For information on how to use the Sentinel LDK see the *Sentinel LDK security* document.

if you are using HLS you may be required to enter a password before you can use a plugin or other options such as color management. If the CIP3 option does not appear as an option in the Device list in the Page Setup dialog box, follow this procedure.

When requesting the password from your supplier you may be asked to give the *serial number* of your RIP. The RIP displays this number in the main Harlequin MultiRIP window when starting up, in the form:

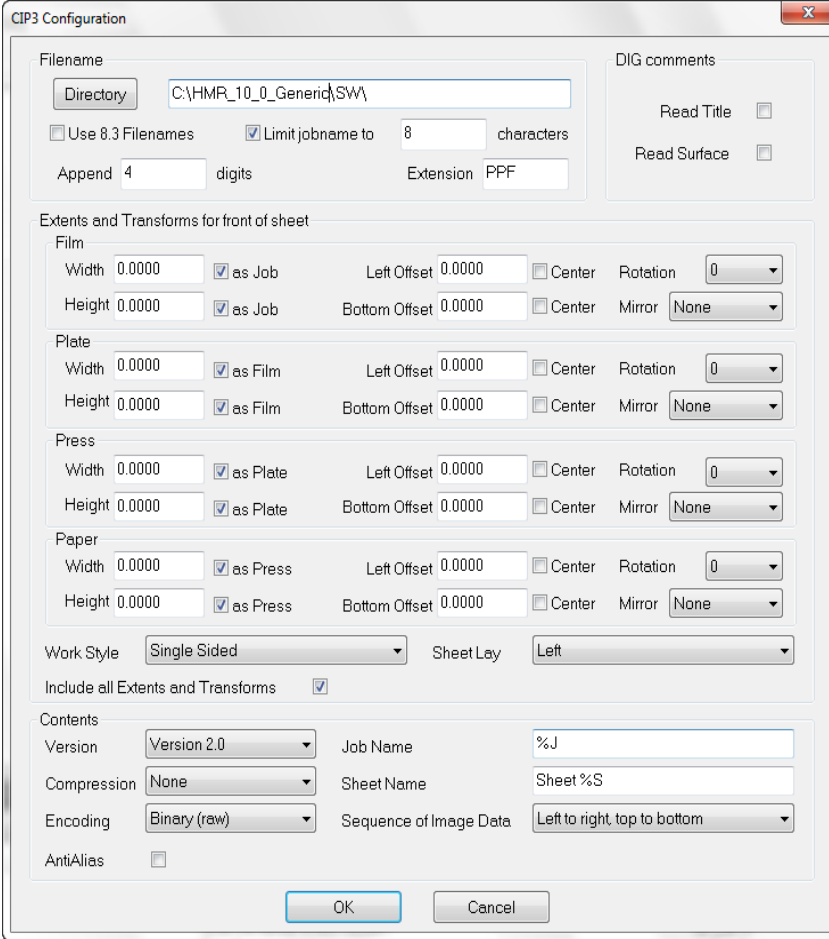
```
Serial number: 1234-56
```

You must also tell your supplier the *platform* for which you require the password. The platform is the combination of operating system and processor type. For example, you might specify Windows 7, and Intel processor.

1. Once you have a password, use the **File > Configure RIP** menu option to display the Configure RIP dialog box.
2. Click the **Extras** button in the Configure RIP dialog box to display the Extras dialog box.
3. Select the platform-dependent entry for CIP3, and click **Add**. (For example, the entry for Windows 32-bit machines, and Intel processor is `cip3.i32, CIP3`.)
4. Enter the password for this option given to you by your supplier, and click **OK**.
5. Click **OK** in each of the Extras and Configure RIP dialog boxes.

Once the plugin is installed fully, you can choose it as an entry in the **Device** list in the Page Setup dialog box. Once you have chosen the device, you can click **Configure Device** to see the configuration dialog box shown in [Figure 1](#).

3 Device configuration



The CIP3 Configuration dialog box is divided into several sections for setting up the output file and its content.

- Filename:** Includes a 'Directory' button and a text field showing 'C:\HMR_10_0_Generic\SW\'. Below this are checkboxes for 'Use 8.3 Filenames' (unchecked), 'Limit jobname to' (8 characters), 'Append' (4 digits), and 'Extension' (PPF).
- DIG comments:** Contains checkboxes for 'Read Title' and 'Read Surface', both of which are unchecked.
- Extents and Transforms for front of sheet:** This section contains four sub-sections for 'Film', 'Plate', 'Press', and 'Paper'. Each sub-section has:
 - Width and Height input fields (all set to 0.0000) with 'as Job' or 'as Film'/'as Plate'/'as Press' checkboxes.
 - Left Offset and Bottom Offset input fields (all set to 0.0000) with 'Center' checkboxes.
 - Rotation and Mirror dropdown menus (all set to 0 and None respectively).
- Work Style:** A dropdown menu set to 'Single Sided'.
- Sheet Lay:** A dropdown menu set to 'Left'.
- Include all Extents and Transforms:** A checked checkbox.
- Contents:** Includes dropdowns for 'Version' (Version 2.0), 'Compression' (None), and 'Encoding' (Binary (raw)). It also has text fields for 'Job Name' (%J), 'Sheet Name' (Sheet %S), and a dropdown for 'Sequence of Image Data' (Left to right, top to bottom). An 'AntiAlias' checkbox is present and unchecked.

At the bottom of the dialog are 'OK' and 'Cancel' buttons.

Figure 1 CIP3 file converter configuration dialog box

The controls in this dialog box fall into categories:

- Output filename setup
- Inclusion of Digital Imposition Geometry (DIG) comments
- Inclusion of extents and transforms
- Format of the output file contents

Make the settings you wish then click **OK**.

Note: Not all CIP3 consuming applications can read all combinations of options in a PPF file. Choose a combination of device configuration in this dialog box and a **Style** in the Page Setup dialog box that matches the capabilities of the consuming application that you intend to use.

3.1 Filename setup

The settings in this section allow you to name the PPF files simply and uniquely. In all cases, the file name is based on the PostScript-language jobname, but you have control over the length of the name, an optional numerical sequence, and the file extension.

Directory

Click the button to use a file browser to choose the directory to hold the output file.

Alternatively, type in the text field to enter the full path to the directory you want to use. This path must specify the disk name and all directories to an *existing* directory.

If you do not choose a directory, the plugin creates the files in the `sw` folder of the RIP installation that you are using.

Use 8.3 Filenames

Select this check box to use DOS-compatible short file names. Leave this check box unselected to use long file names, upon which you can make some restrictions by selecting the remaining controls in this section.

Limit jobname to ... characters

Select this check box to base the name of the file created on an initial substring of the jobname set in the PostScript-language file which describes the page. Use the text field to specify the maximum number of characters you want to take from the jobname, starting from the beginning of the name.

Leave this check box unselected to use all the alphabetic and numeric characters in the jobname.

Append ... digits

Enter a number here to append a known length of numerical string to the job name in order to create a unique name for each file produced. The number is an integer starting at 0 (zero). For example, enter 3 in this field to generate numbers of the form: 000, 001, 002, and so on.

Extension

Enter a text string to act as an extension to the file name. The default is `PPF`, but you can choose another extension if it is required by your workflow.

3.2 DIG comments

If Digital Imposition Geometry (DIG) comments are present in incoming jobs, the controls in this section allow you to use some of the names included in these comments as parts of CIP3 comments specified in the **Contents** section of this dialog box.

DIG comments follow a specification created and maintained by ScenicSoft, Inc. The comments are included in PostScript-language files produced by Preps from ScenicSoft and ImpoStrip from Ultimate Technographics Inc. The comments provide enhanced support for large format imagesetters using more than one imaging head.

It is safe to select these check boxes for jobs that do not contain the relevant DIG comments.

Read Title

Select this check box to read the title given in any `%SSiDIGTitle:` comment from the incoming job. (This title may be used to set the file name for use in the **Job Name** or **Sheet Name** fields lower in this dialog box.)

Leave this check box unselected if you wish to ignore any `%SSiDIGTitle:` comment.

Read Surface

Select this check box to read the surface given in any %SSiDIGSurface: comment from the incoming job. (This title may be used to set the file name for use in the **Job Name** or **Sheet Name** fields.)

Leave this check box unselected if you wish to ignore any %SSiDIGSurface: comment.

3.3 Extents and Transforms

There are several very similar subsections under this heading, one each for **Film**, **Plate**, **Press**, and **Paper**. You can set all of these values or leave some at the default values.

Extents refer to the physical area of the image. *Transforms* are the offsets, rotation, and mirroring that it is possible to apply. Depending on the choice that you make for **Work Style**, also in this section of the dialog box, there may be a back to the sheets requiring different but related transforms.

The transforms are cumulative and executed in the top to bottom order used in this dialog box. The transforms defined for **Film** are applied in moving from the raster data to the film image, the transforms for **Plate** are applied in moving from the film image to the plate, and so on.

A sufficiently large offset or inappropriate rotation can cause loss of image data, as [Figure 2](#) shows. In each of the cases, the bold outline represents the total area of the film, and the light outline represents the image area. The shaded (gray) areas show where parts of the image are not imaged because of a transform.

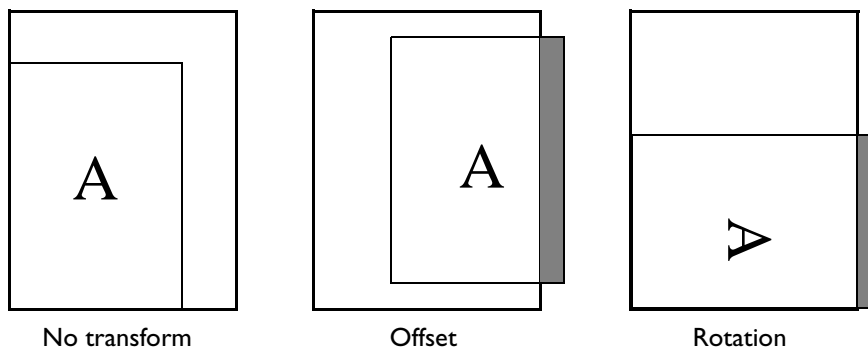


Figure 2 Transforms and possible image clipping

Note: The extents and transforms do not affect the raster that you can view in Roam. They are a record of how the following stages of the printing workflow should handle the raster and the physical images in order to achieve a correct product after printing, cutting, and folding.

The CIP3 PPF specification defines all geometry with respect to an origin at bottom left of the relevant coordinate system. However, the specification does not clearly define what is the “bottom left” of a plate, what is the imageable area of a press, and so on. You may encounter some conventions that are specific to the way in which various vendors have interpreted the specification.

Note: All Width, Height and Offset values *must* be entered in **points**.

Width and as Job

Select the **as Job** check box to use the width set in the job.

Alternatively, to set a fixed value, deselect the check box and enter a value in the **Width** text field. The value set here is ignored if you select the **as Job** check box.

Height and as Job

Select the **as Job** check box to use the height set in the job.

Alternatively, to set a fixed value, deselect the check box and enter a value in the **Height** text field. The value set here is ignored if you select the **as Job** check box.

Left Offset and Center

Select this **Center** check box to center the image horizontally on the film.

Alternatively, to set a fixed offset, deselect the check box and enter a value in the **Left Offset** text field. A positive value moves the image to the right. The value set here is ignored if you select the **Center** check box.

Note: Figure 2, page 9, shows the effect of positive values for left and bottom offsets. You can also enter negative values.

Bottom Offset and Center

Select this **Center** check box to center the image vertically on the film.

Alternatively, to set a fixed offset, deselect the check box and enter a value in the **Bottom Offset** text field. A positive value moves the image upwards. The value set here is ignored if you select the **Center** check box.

Rotation

Select one of the rotations available in this list. The default is 0 (zero) degrees for no rotation.

Mirror

Select one of the choices available in this list. The default is **None** for no mirroring, but you can choose **Horizontal** or **Vertical** for cases that require it. For example, you may require mirroring where outputting the image emulsion-down.

These controls re-occur in each of the following subsections. In each case, the process the controls are describing is the one that places the image on the item that is the title of the subsection. For example, the settings in the **Plate** subsection control how the film is treated in arriving at a position on the plate.

At the end of the **Film**, **Plate**, **Press**, and **Paper** sections, there are some controls that are more general.

Work Style

This control sets the production of single or double-sided sheets, and the relationship between the front and back of double-sided sheets. (See [Section 3.6, page 14](#) for more details.) Choose one of the entries in this list, to match the choice made during imposition and be careful of some imposition terms that have two possible meanings.

Work style	Comments
Single Sided	These jobs do not have backs.
Sheetwise	Invert paper transform left/right for the back. Swap sheet lay for back.
Work & Turn	These jobs do not have backs. (The same plate is used for the back with the sheet turned over to maintain the same gripper or leading edge.) Also known as: <i>Work and Flop</i> (but this name is sometimes used for other styles).

Table I Work styles

Work style	Comments
Work & Tumble	These jobs do not have backs. (The same plate is used for the back with the sheet tumbled over to use a different gripper or leading edge.) Also known as: <i>Work and Flop</i> , <i>Work and Roll</i> .
Perfecting Sheetwise	Invert paper transform top/bottom for the back. The sheet lay is the same on the back as on the front. Similar to: <i>Work and Twist</i>
Perfecting Work & Turn	These jobs do not have backs. (There are two identical plates with the plate for the back rotated by 180° on the press, relative to the plate for the front.)
Perfecting Work & Tumble	These jobs do not have backs. Also known as: <i>Perfecting Work and Roll</i> .
Double Sided Web	Invert paper transform left/right for the back. The sheet lay is the same on the back as on the front. (For a web, it is more common to use the terms <i>top form</i> and <i>bottom form</i> , rather than front and back.)

Table 1 Work styles

Sheet Lay

Choose **Left** or **Right** from this list. This choice sets the lay for the front of a double-sided sheet. The lay for the back of the sheet, if it is required, and different from the front, is determined by the **Work Style**. (The lay is the guiding edge of the paper in the press, viewed in the direction of paper flow.)

Include all Extents and Transforms

Select this check box to include values in the PPF file for all settings in the **Extents and Transforms** section, even if they are at their default values. The default values have no effect, but the software reading the PPF files may require the settings to be present in the PPF file.

If you leave this box unselected, the PPF file includes only the values for controls that you have set explicitly. For example, if you have set values only for the **Film** and **Plate** subsections then only those values (and any defaults displayed higher in this section of the dialog box) appear in the PPF file.

3.4 Output file contents

Note: Several options in the Page Setup dialog box also affect the contents of the file.

Version

This setting controls the CIP3 version number included in the PPF file.

The options are `Version 2.0`, `Version 2.1`, and `Version 3.0`.

Compression

The options are `None` and `Run length`.

`None` produces an uncompressed file. `Run length` produces a compressed file. (The compression technique is lossless so there is no effect on image quality.)

Encoding

The options are `Binary (raw)`, `Hexadecimal`, and `ASCII 85`.

Note: ASCII 85 is an encoding using 85 printable characters of the ASCII set from character 33 (!) with limited line length and EOD markers

This controls the storage format of the preview images, giving various compromises between portability and file size but does not affect the image. If you want to transfer the PPF file over networks where conversion of the line-end characters within the file is possible, then you should use `ASCII 85` or `Hexadecimal`. If this is not the case, use the more compact `Binary` format.

Job Name

Enter fixed text or a code sequence (or both) to set a value for the `CIP3AdmJobName` comment in the PPF files. [Section 3.5, page 12](#) describes the possible codes and their meanings. The default value is the code `%J` which inserts the job name taken from the PostScript-language job or a DIG comment if present.

Note: Together with the setting for **Sheet Name** the settings you make here allow the CIP3 plugin to pass information to the PPF reader software that associates the sheets with a job and to identify sheets in a double-sided job as being front or back sides.

Sheet Name

Enter fixed text or a code sequence (or both) to set a value for the `CIP3AdmSheetName` comment in a PPF file. The default value is the code `Sheet %S` which inserts the strings: `Sheet 1`, `Sheet 2`, and so on. [Section 3.5, page 12](#) describes the possible codes and their meanings. See also the note for **Job Name**.

Sequence of Image Data

Allows the sequence of image data to be changed to match the expectation of a downstream CIP3 reader.

The default setting of `Left to right, top to bottom` matches the behavior of earlier plugins.

AntiAlias

Select this box to antialias the preview image.

3.5 Coding text entries for Job Name and Sheet Name

Both of these text fields are coded in exactly the same way. They may include: plain text, which appears exactly as entered; with or without control sequences, which are replaced by variable text specific to the job or sheet as the job is processed.

Use the default values if you are in doubt about what you should include in these fields. The default values have been selected to be compatible with many CIP3 PPF readers. If you have problems with the defaults, please check for recommendations from the supplier of your PPF reader.

Control sequences must start with a percent character (%). This must be followed immediately with either of:

- A character taken from the list below
- An integer and then a character taken from the list below

There must be no spaces between the percent character, the integer (if present), and the control character itself.

The recognized control characters are:

%F	Inserts <code>Front</code> for the front of a two-sided sheet and <code>Back</code> for the back. All single-sided sheets are regarded as front sides.
%G	Inserts the signature number of the imposition. This number is always 1 unless the job contains <code>%SSiDIGSignature:</code> comments.
%J	Inserts the job name. This name is usually set by a PostScript-language or PDF job. If a job does not set the name, this sequence inserts the input filename instead.
%N	Inserts the file name of the job being processed. If <code>Read Title</code> comments has been checked in the <code>DIG comments</code> section and the job contains a <code>%SSiDIGTitle:</code> comment then this sequence inserts the value of that comment.
%P	Inserts the plate (surface) number, starting at 1 for the first plate in the job.
%S	Inserts the sheet number within the signature, starting at 1 for the first sheet in the job.
%T	Inserts the title description set by <code>%%Title</code> in the PostScript language job.
%%	Inserts a single percent character.

If you give the sequences as shown, the text inserted is the full length of a string or the required (variable) number of digits for an integer.

If you include an integer in the control sequence — for example, `%3S` — it is used to specify the length or precision of the value entered into the final string. If the result of the control sequence is a string, and that string is longer than the precision, then it is truncated after the specified number of characters. If the result of the control sequence is an integer that has fewer digits than the precision then it will be left-padded with zeros to equal the precision.

3.5.1 Examples

The exact strings to enter in these fields may vary both with your workflow and with the PPF reader or readers that you intend to use.

In the following examples, the job name defined in the job is:

8476065 Master Document

In Job Name	In the PPF file	Notes
%J	8476065 Master Document	Default
%7J	8476065	
%J SIG%3G	8476065 Master Document SIG001	
%P. %J	1. 8476065 Master Document	Matches CIP3 plugin v1.18 and earlier

Table 2 Useful Job Name values

In Sheet Name	In the PPF file	Notes
Sheet %S	Sheet 1	Default
%S/%G	1/1	
%P. %J	1. 8476065 Master Document	Matches plugin v1.18 and earlier

Table 3 Useful Sheet Name values

3.6 Double-sided styles

There are several ways to achieve a double-sided sheet, involving various imposition styles that may require one or two plates. The **Work Style** control allows you to set up the CIP3 plugin to suit these styles.

Whether or not the same plate is used on both the front and back of a sheet, the front to back registration must be maintained and there is frequently a need to alter the orientation or offsets for use on the back. [Figure 3](#) shows the dimensions that can be affected by such changes. For example, left/right inversion means that the horizontal offset of the back is calculated from the values on the front as (Paper width - Plate width - Horizontal offset).

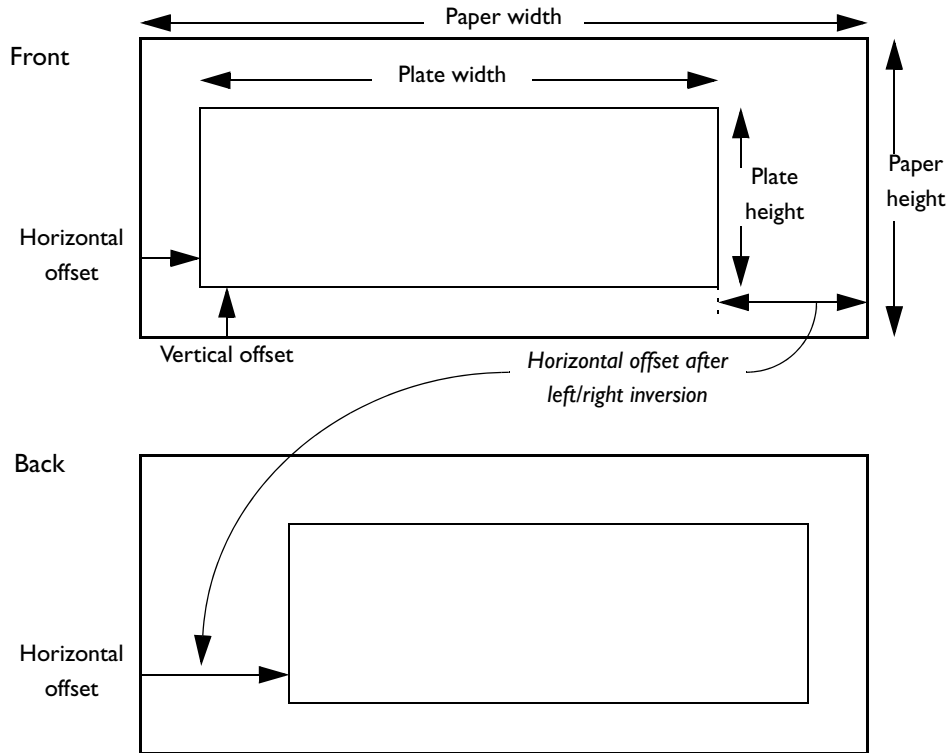


Figure 3 Left/right inversion of offsets

4 Routine use

The remaining controls that you need to consider are in the Page Setup dialog box. In general, you should make the settings that you would when producing real output.

4.1 Page Setup settings

The default value for **Resolution** is 50.8 dpi (or the equivalent 20 dpcm and 2 dpmm). This resolution is the value suggested in the CIP3 specification referenced in [Section 5, page 16](#).

Note: Version 1.1r8 of the CIP3 plugin applied a special interpretation to resolution which is no longer used.

When producing the CIP3 file, the margins and alignment may need to match the films or plates exactly; you need to be aware of this when switching PostScript Printer Descriptions (PPDs) to generate composite color PostScript-language jobs because margins and orientation may change also. Instead you could use the **Recombine pre-separated jobs** check box (in the Edit Style dialog box) so that you can use the same jobs for film or plates and CIP3 generation.

Style (Color generation)

The options are in the **Style** list in the **Separations, Screening & Color** section of the Page Setup dialog box:

- CMYK Composite (Pixel)
- CMYK Composite (Frame)

These choices control the layout of the data inside the CIP3 file. The CIP3 plugin will always create files with CMYK data in them, even if you send only a single separation. (The unused separations are empty, so with run length compression enabled they are very small.)

The `CMYK Composite (Frame)` setting is readable by more applications that read PPF files.

Note: If you use the Separations Manager (by clicking the button alongside the `Style` list), you can copy the `CMYK Composite (Frame)` style and edit it to include spot colors either by name for specific colors or by using the existing setting (`Other colors in job`) to include all spot colors found and not named elsewhere in the list. However you choose to add spot colors, set the `Print?` column for your colors to `Yes Or Not Blank`. Take care when you do this to properly duplicate the settings in the separations style for the page setup that sends output to your real imagesetter, or you may find different separations in the real output and in the PPF file.

Using the CIP3 output plugin you are able to change the output order of separations. The standard order is CMYK, you can however change this to suit your requirements. For example, some customers like to produce KMCY output. To change the order, drag and drop the colorant names in the upper window of the Edit Style dialog. The separations are generated in list order.

If you are sending a preseparated job to the RIP, you can use the **Recombine preseparated jobs** option (in the Edit Style dialog box) to recombine the separations into a composite output, so that only one CIP3 file gets produced. The CIP3 option to produce separated or unseparated PPF files still applies.

Calibration

Choose `None` in the page setup used for CIP3. (Make your normal setting for linearization in the page setup used for output to film or plate.)

Intended Press and Actual Press

These controls are available so that you can accurately match the page setup used for output to film or plate. The settings for CIP3 output must be the same as ones in the page setup used for output to film or plate.

4.2 Producing acceptable input jobs

To produce composite color PostScript-language jobs correctly, you (or the customers supplying you with jobs) must use a PPD that supports color. You can check that you are getting composite color jobs by checking the page buffers in the Output Controller, using the **Roam** button.

Similarly, you can supply jobs as any other form of input acceptable to the RIP. Note that PostScript-language and PDF jobs can be preseparated rather than composite. Preseparated jobs will produce one PPF file for each separation, unless you select the **Recombine preseparated jobs** option in the Edit Style dialog box.

5 Related documentation

For more details about the CIP3 format, see:

- *Specification of the CIP3 Print Production Format*

This specification is available from:

<http://www.cip4.org/>

6 Example output

The bulk of the CIP3 output file is a preview image, included as raw binary data or in an encoded form, but the file does contain some header and trailer lines that are human readable.

Here is a simple example for a CMYK job, prepared using the CMYK Composite (Pixel) setting:

```
%!PS-Adobe-3.0
%%CIP3-File Version 2.0
% Generated by the Harlequin CIP3 plugin version 1.4r11
CIP3BeginSheet
  /CIP3AdmJobName (eDocument Library) def
  /CIP3AdmSheetName (Sheet 6) def
  /CIP3AdmSoftware (Harlequin CIP3 plugin version 1.4r11) def
  /CIP3AdmCreationTime (Fri Aug 20 13:02:54 2010) def
  /CIP3AdmSheetLay /Left def
  /CIP3AdmPSExtent [596.693 795.118] def
  /CIP3AdmFilmTrf [ 1 0 0 1 0 0 ] def
  /CIP3AdmFilmExtent [ 596.693 795.118 ] def
  /CIP3AdmPlateTrf [ 1 0 0 1 0 0 ] def
  /CIP3AdmPlateExtent [ 596.693 795.118 ] def
  /CIP3AdmPressTrf [ 1 0 0 1 0 0 ] def
  /CIP3AdmPressExtent [ 596.693 795.118 ] def
  /CIP3AdmPaperTrf [ 1 0 0 1 0 0 ] def
  /CIP3AdmPaperExtent [ 596.693 795.118 ] def
  /CIP3TransferFilmCurveData [ 0.0 0.0 1.0 1.0 ] def
  /CIP3TransferPlateCurveData [ 0.0 0.0 1.0 1.0 ] def
  /CIP3AdmSeparationNames
  .....[ (Cyan) (Magenta) (Yellow) (Black) ] def
CIP3BeginFront
  CIP3BeginPreviewImage
    /CIP3PreviewImageWidth 421 def
    /CIP3PreviewImageHeight 561 def
    /CIP3PreviewImageBitsPerComp 8 def
    /CIP3PreviewImageMatrix [ 421 0 0 -561 0 561 ] def
    /CIP3PreviewImageResolution [ 50.800000 50.800000 ] def
    /CIP3PreviewImageEncoding /Binary def
    /CIP3PreviewImageCompression /None def
    /CIP3PreviewImageByteAlign 1 def
    /CIP3PreviewImageComponents 4 def
  CIP3PreviewImage
  .....lines of data.....
  CIP3EndPreviewImage
CIP3EndFront
CIP3EndSheet
%%CIP3EndOfFile
```

Note: In this example, the entry for CIP3AdmSeparationNames is actually a single line but appears here on multiple lines for clarity. Also ... *lines of data* ... is used to represent large regions of data omitted from this listing.



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CIP3 Output plugin v1.5r1

For Harlequin MultiRIP v10.0 (or later)

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