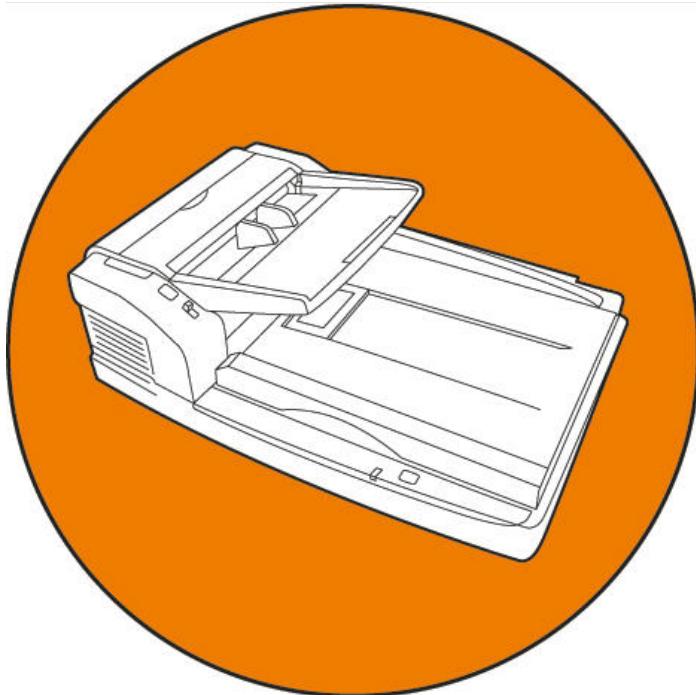




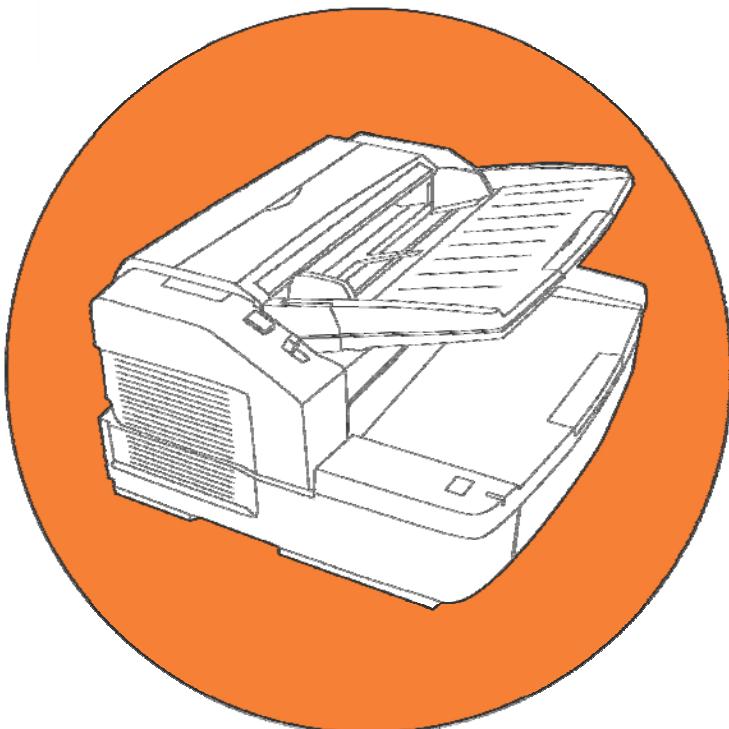
BÖWE BELL+HOWELL

ISIS Driver Specifications



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Revision Record

Rev	Date	Description
A0	7-Feb-06	Draft
A1	2-May-06	2 nd Revision. Correct dependency. (Dither, X, Y, Width, Height, Sub Area, Dither Download) Remove. (B8 selection in Page Size) Margin default to OFF.
A2	19-July-06	Tag list updated.
A3	15-Sept-06	Tag list updated.
A4	10-Oct-06	Tag list updated.
A5	18-Oct-06	Tag list updated.

1 Introduction

1.1 Purpose

The purpose of this document is to define and describe the graphical user interface (GUI) and the application program interface (API) of an imaging scanner ISIS driver.

1.2 Scope

This document applies to the ISIS drivers developed for the following document imaging scanner(s):

- Bowe Bell+Howell 3200
- Bowe Bell+Howell 3600

1.3 Related Documents

The following documents used to develop this driver may be referenced in this specification:

- | | |
|---|---------------|
| • Panasonic High Speed Scanner KV-S7065C Interface Specifications | Revision 1.07 |
| • PixTools® / Scan Programmers Reference Manual | |

1.4 Specification

This driver was developed for use with the Microsoft Windows ("Windows") family of operating systems. Its user interface ("UI") consists of multiple standard Windows dialog boxes ("dialogs") each of which is described in detail below.

1.4.1 Dialog Descriptions

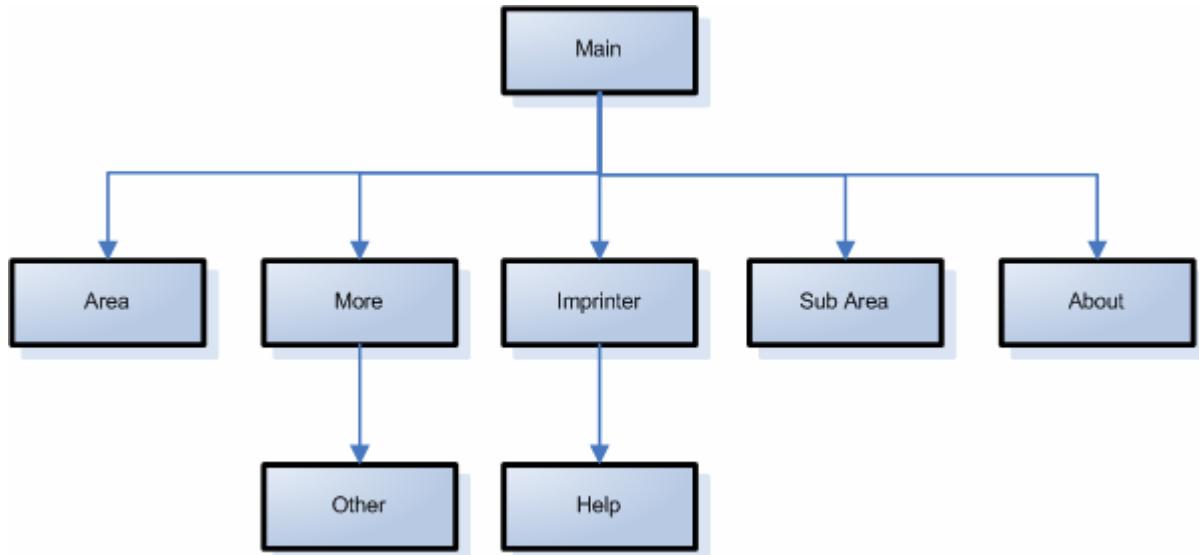
The controls used to operate the scanner are grouped into dialogs as follows:

Set Dialog	Also known as the "main dialog", this dialog contains controls for "standard" scanner functionality such as resolution, page size, contrast/threshold, simple/duplex, etc. This is the dialog that is displayed in response to the ISIS standard PixDrvSetDialog() command.
More Settings Dialog	This dialog contains controls that are specific to the scanner for which it was designed. In this instance, this dialog contains Drop Out, Feeding Features, Manual Feed Mode and more. Access to the other settings dialogs are through this dialog.
Other Settings Dialog	This dialog contains controls that affect the operation of the scanner. Types of controls contained in this dialog are Extra Features, Image Processing, Image Features and Feeding Features.
Imprinter Dialog	This dialog contains controls that manipulate and configure the imprinter device attached to the scanner (if available).
Area Dialog	This dialog contains controls to save area region settings as defined selection.
Sub Area Dialog	This dialog contains controls to save area region settings as defined selection. Also 3 defined area are saved as froliling.

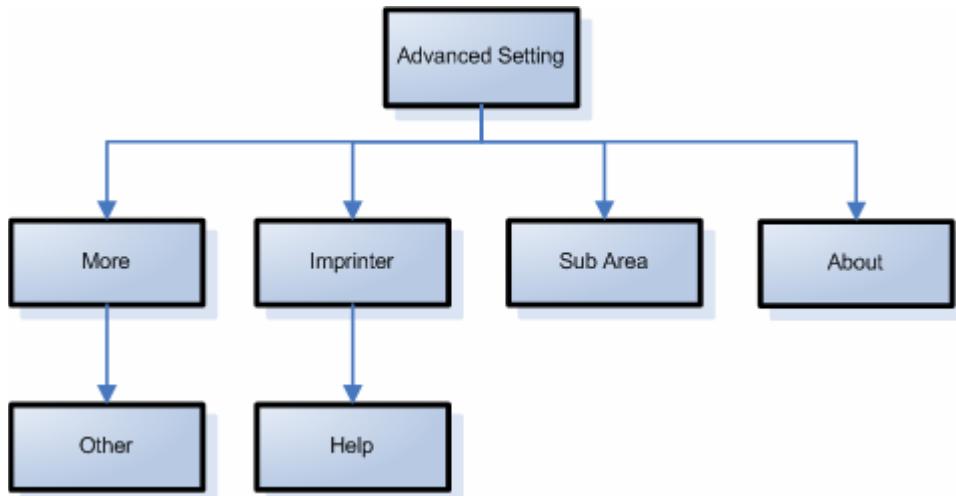
1.5 Hierarchy

There are two (2) separate dialog trees employed within this driver.

- One with an entry point into the Main dialog.



- One with an entry point into the Advanced Settings dialog



1.6 Conventions

The specification for each control contains the following elements:

Type	The Windows control type used to represent the element.
Values	Possible values associated with this control
Persistent	Indicates whether the value is saved and restored when the host application uses the PixTools / Scan PixTagSaveFile(...) and PixTagRestoreFile(...) function calls.
Default	The default value. This is the value that is set when the Default... button is clicked in the UI or the PixTagSetDefault() API is used.
Tag Type	The type of tag associated with this element. Possible values are ISIS and Meta. An ISIS tag indicates that a TAG_... will be associated with this value, which can be controlled via the ISIS API. A Meta tag indicates that this control is used internally by the UI and is a possible modifier of another control.
Tag Value	The associated ISIS tag value if tag type is ISIS.
Dependencies	Lists the conditions in which this control is valid.
Description	A description of this control, along with possible control specific data.

1.7 Initialization

1.7.1 Model Detection

When loading, the driver shall detect the device model. This information shall be used to verify that the driver matches the device and, if a match is found, configure the ISIS tags based on feature support of that model. If the device does not match the driver, the driver shall not finalize the load.

The driver shall use the INQUIRY command to recognize the device by checking the 16-byte value stored in the Product Identification member of the inquiry data block and comparing it to the following table of known devices:

Product Identification	Device Model
BBH 3200	Bowe Bell+Howell 3200
BBH 3600	Bowe Bell+Howell 3600

* Bowe Bell+Howell 3600FDX scanner works as BBH3600 product identification.

2 Set Dialog

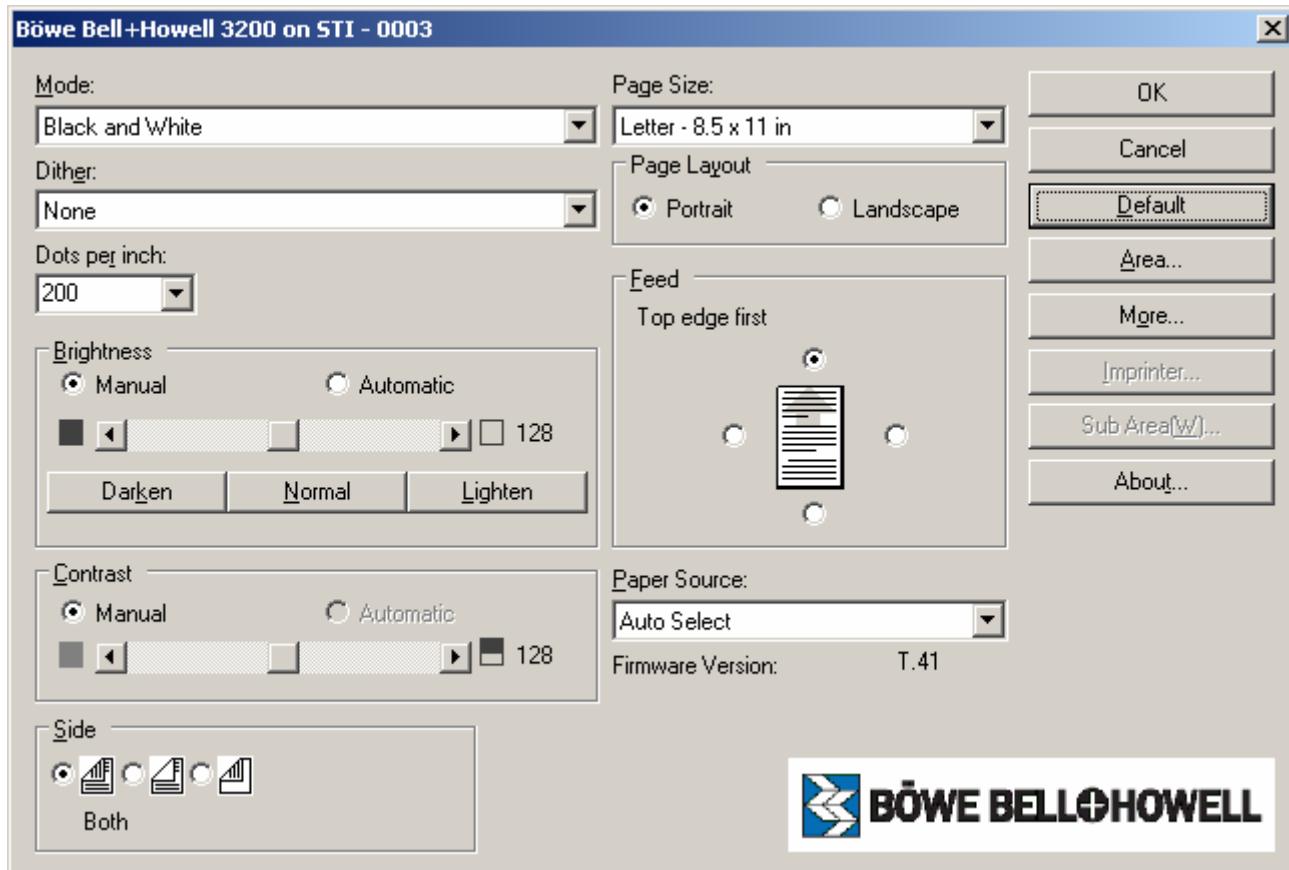


Figure 1

2.1.1 Mode

Control Type	Tag Type	Tag	Persistent																														
Dropdown List	Meta	N/A	Yes																														
Description:	Used to choose image mode to scan with either binary, grayscale, color or multistream. This setting affect to following ISIS TAG. TAG_BITSPERSAMPLE and TAG_SAMPLESPERPIXEL																																
Values:	Black and White 256-Level Gray 24-bit Color Binary&Color Binary&Gray																																
Default:	Black and White																																
Note:	Dependencies: Disabled when Front or Back is set in Side setting. Associated ISIS TAG detail by Mode choice: Each choice sets ISIS TAG value as follows. <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>TAG_SAMPLESPERPIXEL</th> <th>TAG_BITSPERSAMPLE</th> <th>Note</th> </tr> </thead> <tbody> <tr> <td>Black and White</td> <td>1</td> <td>1</td> <td></td> </tr> <tr> <td>256-Level Gray</td> <td>1</td> <td>8</td> <td></td> </tr> <tr> <td>24-bit Color</td> <td>3</td> <td>8</td> <td></td> </tr> <tr> <td rowspan="2">Binary&Color*¹</td> <td>3</td> <td>8</td> <td>Primary data</td> </tr> <tr> <td>1</td> <td>1</td> <td>Secondary data</td> </tr> <tr> <td rowspan="2">Binary&Gray*¹</td> <td>1</td> <td>8</td> <td>Primary data</td> </tr> <tr> <td>1</td> <td>1</td> <td>Secondary data</td> </tr> </tbody> </table> <p>*¹ Multistream output order is also same in duplex scanning. Follows above order as primary and secondary.</p>				TAG_SAMPLESPERPIXEL	TAG_BITSPERSAMPLE	Note	Black and White	1	1		256-Level Gray	1	8		24-bit Color	3	8		Binary&Color* ¹	3	8	Primary data	1	1	Secondary data	Binary&Gray* ¹	1	8	Primary data	1	1	Secondary data
	TAG_SAMPLESPERPIXEL	TAG_BITSPERSAMPLE	Note																														
Black and White	1	1																															
256-Level Gray	1	8																															
24-bit Color	3	8																															
Binary&Color* ¹	3	8	Primary data																														
	1	1	Secondary data																														
Binary&Gray* ¹	1	8	Primary data																														
	1	1	Secondary data																														

2.1.2 Paper Source

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_SCANTYPE	Yes
Description:	Selects the scan source. Make back side cameras available for selection/configuration. Indirectly modifies TAG_SCANTYPE.		
Values:	TAG_SCANTYPE_AUTOMATIC "Auto Select" TAG_SCANTYPE_FLATBED "Flatbed" TAG_SCANTYPE_FEEDER "ADF Simplex" TAG_SCANTYPE_DUPLEX "ADF Duplex"		
Default:	TAG_SCANTYPE_AUTOMATIC "Auto Select"		
Dependencies:	Flatbed is available only for BBH 3200 scanner. BBH 3600 does not support FB selection.		

2.1.3 Dots per inch

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_XRESOLUTION TAG_YRESOLUTION	Yes
Description:	Sets scan resolution.		
Values:	Minimum 100 dpi Maximum 600 dpi Step 1dpi		
Default:	200		

Dependencies:	Single stream & multi stream, both support same range of resolution. Each Mode needs to be the same when multi stream is selected. For example, when "Binary&Color" and 200dpi is selected the output (BW and Color) is 200 dpi.
----------------------	--

2.1.4 Dither

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_DITHER	Yes
Description:	Selects from available dither patterns.		
Values:	"None" "Bayer Dither 64" "Bayer Dither 16" "45 Deg. Halftone" "0 deg. Halftone" "Error Diffusion" "User Downloaded" * ¹		
Default:	"None"		
Dependencies:	Only available in binary mode. If multistream is selected, it is also available for binary scanning mode. Brightness needs to be set to manual. <small>*¹ Need to download dither pattern in ISIS driver UI. [Dither Download] button is in Other Settings dialog. Otherwise error message occurs. "Dither file is not downloaded. ISIS driver Version (60791)".</small>		

2.1.5 Page Size, Page Layout, Feed

Control Type	Tag Type	Tag	Persistent								
Dropdown List	ISIS	TAG_PAGESIZE	Yes								
Description: Page size. Selects from a predefined set of page sizes. Used to define the scan area.											
Values: <ul style="list-style-type: none"> A3 - 297 x 420 mm A4 - 210 x 297 mm A5 - 148 x 210 mm A6 - 105 x 148 mm B4 (ISO) - 250 x 353 mm B4 (JIS) - 257 x 364 mm B5 (ISO) - 176 x 250 mm B5 (JIS) - 182 x 257 mm B6 (ISO) - 125 x 176 mm B6 (JIS) - 128 x 182 mm Business Card - 55 x 91 mm Double Letter - 11 x 17 in Legal - 8.5 x 14 in Letter - 8.5 x 11 in Scanner's Maximum 											
Default: Regional dependent: Letter for US, A4 for metric											
Dependencies: The maximum scan size is as follows. 11.89 x 25 inches. If [Length Control] is enabled in Other Settings dialog, scan size depends on actual paper length. If make page size and scanning position set by ISIS TAG, [Length Control] needs to be disabled. Starting position: TAG_XPOSITION, TAG_YPOSITION Scan size: TAG_IMAGELENGTH, TAG_IMAGEWIDTH											
Control Type	Tag Type	Tag	Persistent								
Radio Button	ISIS	TAG_DATAORIENTATION	Yes								
Description: Selects the orientation of the image after the page is scanned.											
Values: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1 TAG_DATAORIENTATION_PORT</td> <td style="width: 50%;">“Portrait”</td> </tr> <tr> <td>2 TAG_DATAORIENTATION_LAND</td> <td>“Landscape”</td> </tr> </table>			1 TAG_DATAORIENTATION_PORT	“Portrait”	2 TAG_DATAORIENTATION_LAND	“Landscape”					
1 TAG_DATAORIENTATION_PORT	“Portrait”										
2 TAG_DATAORIENTATION_LAND	“Landscape”										
Default: 1 TAG_DATAORIENTATION_PORT “Portrait”											
Dependencies:											
Control Type	Tag Type	Tag	Persistent								
Radio Button	ISIS	TAG_SCANORIENTATION	Yes								
Description: This collection of radio buttons determines the orthogonal rotation of the image. Used in conjunction with the page graphic, it indicates to the user which edge of the page should be fed to achieve the orientation of the image. When any of these radio buttons are selected, the arrow contained within the page graphic shall point to the edge to be fed. Used in conjunction with TAG_DATAORIENTATION to define rotation based on the orientation of the page.											
Values: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">1 TAG_SCANORIENTATION_PORT</td> <td style="width: 50%;">“Top edge first”</td> </tr> <tr> <td>2 TAG_SCANORIENTATION_LAND</td> <td>“Right edge first”</td> </tr> <tr> <td>3 TAG_SCANORIENTATION_180</td> <td>“Bottom edge first”</td> </tr> <tr> <td>4 TAG_SCANORIENTATION_270</td> <td>“Left edge first”</td> </tr> </table>			1 TAG_SCANORIENTATION_PORT	“Top edge first”	2 TAG_SCANORIENTATION_LAND	“Right edge first”	3 TAG_SCANORIENTATION_180	“Bottom edge first”	4 TAG_SCANORIENTATION_270	“Left edge first”	
1 TAG_SCANORIENTATION_PORT	“Top edge first”										
2 TAG_SCANORIENTATION_LAND	“Right edge first”										
3 TAG_SCANORIENTATION_180	“Bottom edge first”										
4 TAG_SCANORIENTATION_270	“Left edge first”										
Default: 1 TAG_SCANORIENTATION_PORT “Top edge first”											
Dependencies: Two static controls shall be used to textually indicate the feed edge and rotation angle. Tooltips shall be used to indicate to the user the purpose of each of the radio buttons.											

2.1.6 Contrast

Control Type	Tag Type	Tag	Persistent
Radio Button	Meta	N/A	Yes
Description: Selects mode of contrast control in binary mode.			
Values: 0 "Manual"			
Default: 0 "Manual"			
Dependencies: Automatic is to be permanently disabled since this device does not support auto-contrast.			
Control Type	Tag Type	Tag	Persistent
Horizontal Scroll Bar	ISIS	TAG_CONTRAST	Yes
Description: Sets contrast value.			
Values: Minimum 1 Maximum 255 Step 1			
Default: 128			
Dependencies: None.			

2.1.7 Brightness

Control Type	Tag Type	Tag	Persistent
Radio Button	Meta	N/A	Yes
Description: Selects mode of brightness control in binary mode.			
Values: 0 "Manual" 1 "Automatic"			
Default: 0 "Manual"			
Dependencies: [Automatic] is available when Black and White or Multistream is selected. It works for only binary data. If Automatic is selected in binary or multistream, Dither setting changes to None and disabled			
Control Type	Tag Type	Tag	Persistent
Horizontal Scroll Bar	ISIS	TAG_BRIGHTNESS	Yes
Description: Sets threshold value. The ISIS driver maps the value set to the TAG_BRIGHTNESS tag to this threshold control.			
Values: Minimum 1 Maximum 255 Step 1			
Default: 128			
Dependencies: None.			
Control Type	Tag Type	Tag	Persistent
Buttons	Meta	N/A	No
Description: Used as quick-sets to adjust the brightness. Modifies TAG_BRIGHTNESS.			
Values: 205 "Lighten" 128 "Normal" 51 "Darken"			
Default: N/A			
Dependencies: None			

2.1.8 Side

Control Type	Tag Type	Tag	Persistent
Radio Button	ISIS	TAG_WINDOW	Yes
Description:	Selects side to setup driver settings independently.		
Values:	0	Both	
	1	Front primary	
	2	Front secondary	
	-1	Back primary	
	-2	Back secondary	
Default:	0	Both	
Dependencies:	<p>Default is "Both" when the UI is opened. However, rest of the values can be set by API. For example, if different brightness values need to be set for front and back, just simply set TAG_WINDOW=1 & TAG_BRIGHTNESS="value A" and TAG_WINDOW=-1 & TAG_BRIGHTNESS="value B". It applies to each mode in multistream too.</p> <p>Following functions can be set independently by TAG_WINDOW.</p> <ul style="list-style-type: none"> [Main Dialog] <ul style="list-style-type: none"> Dither, Brightness, Contrast [More Dialog] <ul style="list-style-type: none"> Dropout [Other Dialog] <ul style="list-style-type: none"> Gamma, Image Emphasis 		

2.1.9 Ok

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	No
Description:	Closes the dialog and notifies caller that the user accepts the changes made within the dialog.		
Dependencies:	N/A		

2.1.10 Cancel

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	No
Description:	Closes the dialog and notifies caller that the user does not accept the changes made within the dialog.		
Dependencies:	N/A		

2.1.11 More...

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	N/A
Description:	Opens the More Dialog.		
Dependencies:	None		

2.1.12 Area...

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	N/A
Description:	Opens the Area dialog.		
Dependencies:	Disabled if Cropping is set to Auto Cropping.		

2.1.13 Default

<i>Control Type</i>	<i>Tag Type</i>	<i>Tag</i>	<i>Persistent</i>
Button	N/A	N/A	N/A
Description: Resets all tags to their default values. This affects tags on all other dialogs.			
Dependencies: None			

2.1.14 About...

<i>Control Type</i>	<i>Tag Type</i>	<i>Tag</i>	<i>Persistent</i>
Button	N/A	N/A	N/A
Description: Opens the About box.			
Dependencies: None			

2.1.15 Imprinter...

<i>Control Type</i>	<i>Tag Type</i>	<i>Tag</i>	<i>Persistent</i>
Button	N/A	N/A	N/A
Description: Opens the Imprinter dialog box.			
Dependencies: Needs to attach actual imprinter kit to scanner to enable this button.			

2.1.16 Sub Area...

<i>Control Type</i>	<i>Tag Type</i>	<i>Tag</i>	<i>Persistent</i>
Button	N/A	N/A	N/A
Description: Opens the Sub Area dialog box.			
Dependencies: Sub Area dialog is available when Black and White is selected, plus Margin and Length Control is OFF in Other Settings dialog.			

3 More Settings Dialog

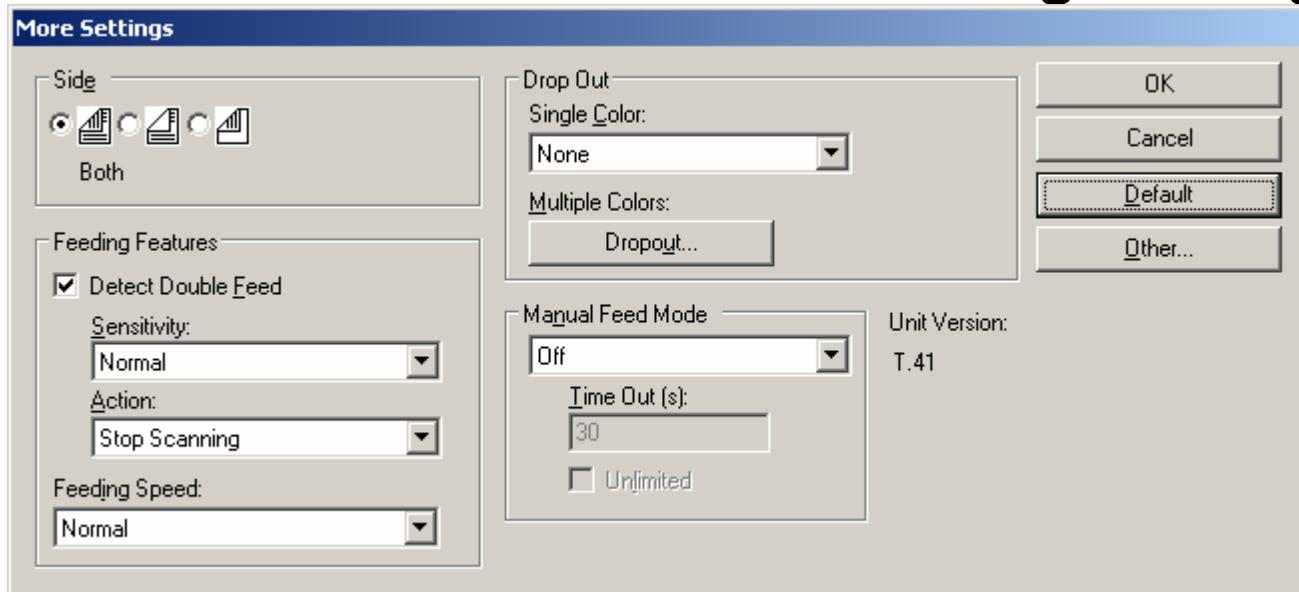


Figure 2

3.1.1 Side

Control Type	Tag Type	Tag	Persistent
Radio Button	ISIS	TAG_WINDOW	Yes
Description:	Selects side to setup driver settings independently.		
Values:	0	Both	
	1	Front primary	
	2	Front secondary	
	-1	Back primary	
	-2	Back secondary	
Default:	0	Both	
Dependencies:	<p>Default is "Both" when the UI is opened. However, the rest of values can be set by API. For example, if different brightness values need to be set for front and back, just simply set TAG_WINDOW=1 & TAG_DROPOUT="value A" and TAG_WINDOW=-1 & TAG_DROPOUT ="value B". It applies to each mode for multistrem too.</p> <p>Following functions can be set independently by TAG_WINDOW.</p> <p>[Main Dialog]</p> <ul style="list-style-type: none"> Dither, Brightness, Contrast <p>[More Dialog]</p> <ul style="list-style-type: none"> Dropout <p>[Other Dialog]</p> <ul style="list-style-type: none"> Gamma, Image Emphasis 		

3.1.2 Feeding Features, Detect Double Feed

Control Type	Tag Type	Tag	Persistent
Check Box	ISIS	TAG_FEEDER_DOUBLEDETECT	Yes
Description:	Check to enable double feed detection ON or OFF.		
Values:	0	OFF	
	1	ON	
Default:	1	ON	
Dependencies:	This function enables [Sensitivity] and [Action] in Feeding Features.		

3.1.3 Feeding Features, Sensitivity

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_FEEDER_DOUBLEDETECT_SENSITIVITY	Yes
Description:	Select sensitivity for Double Feed.		
Values:	0	TAG_FEEDER_DOUBLEDETECT_SENSITIVITY_LOW	“Low”
	1	TAG_FEEDER_DOUBLEDETECT_SENSITIVITY_NORMAL	“Normal”
	2	TAG_FEEDER_DOUBLEDETECT_SENSITIVITY_HIGH	“High”
Default:	1	TAG_FEEDER_DOUBLEDETECT_SENSITIVITY_NORMAL	“Normal”
Dependencies:	This function is available if [Detect Double Feed] is enabled.		

3.1.4 Feeding Features, Action

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_FEEDER_DOUBLEDETECT_ACTION	Yes
Description:	Select Action for Double Feed.		
Values:	0	TAG_FEEDER_DOUBLEDETECT_CONTINUE	“Beep”
	1	TAG_FEEDER_DOUBLEDETECT_STOP	“Stop Scanning”
Default:	1	TAG_FEEDER_DOUBLEDETECT_STOP	“Stop Scanning”
Dependencies:	This function is available if [Detect Double Feed] is enabled.		

3.1.5 Feeding Speed

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_SCANNINGSPEED	Yes
Description:	Select feeding speed for ADF.		
Values:	0	TAG_SCANNINGSPEED_SLOW	“Slow”
	1	TAG_SCANNINGSPEED_FAST	“Normal”
Default:	1	TAG_SCANNINGSPEED_FAST	“Normal”
Dependencies:	None		

3.1.6 Drop Out, Single Color

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_DROPOUT	Yes
Description:	Select single dropout color		
Values:	0	TAG_DROPOUT_NONE	"None"
	1	TAG_DROPOUT_RED	"Red"
	2	TAG_DROPOUT_GREEN	"Green"
	3	TAG_DROPOUT_BLUE	"Blue"
Default:	0	TAG_DROPOUT_NONE	"None"
Dependencies:	This function is available for Black and White and Gray even multistream selected. If multistream(Binary&Gray) is selected, dropout color value should be same as side dependent, not as image mode dependent.		

3.1.7 Drop Out, Multiple Colors, Dropout...

Control Type	Tag Type	Tag	Persistent
Button	ISIS	TAG_MCD_ENABLE	Yes
Description:	Display Multicolor Dropout dialog box to select colors.		
Values:	0	TAG_MCD_ENABLE_OFF	
	1	TAG_MCD_ENABLE_ON	
Default:	0	TAG_MCD_ENABLE_OFF	
Dependencies:	See dependencies in Drop Out, Single Color.		

3.1.8 Manual Feed Mode

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_MANUALFEED	Yes
Description:			
Values:	0	TAG_MANUALFEED_OFF	"Off"
	1	TAG_MANUALFEED_ON	"On"
	2	TAG_MANUALFEED_BUTTON	"Start Button"
	3	TAG_MANUALFEED_AUTOSTART	"Automatic"
Default:	0	TAG_MANUALFEED_OFF	"Off"
Dependencies:	It can be used if manual feed required.		

3.1.9 Time Out

Control Type	Tag Type	Tag	Persistent
Edit Field	ISIS	TAG_MANUALTIMEOUT	Yes
Description:	Sets timeout for manual feed.		
Values:	Minimum	1	
	Maximum	300	
	Step	1	
Default:	30		
Dependencies:	This function is available when Manual Feed Mode is either On, Start Button or Automatic selected. If Unlimited check is ON, it will be also disabled.		

3.1.10 Unlimited

Control Type	Tag Type	Tag	Persistent
Check Box	ISIS	TAG_PCC_TIMEOUT_UNLIMITED	Yes
Description: Select if unlimited timeout required.			
Values: 0 "Check box OFF" 1 "Check box ON"			
Default: 0 "Check box OFF"			
Dependencies: This function is available when Start Button or Automatic is selected in Manual Feed Mode.			

3.1.11 Ok

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	No
Description: Closes the dialog and notifies caller that the user accepts the changes made within the dialog.			
Dependencies: N/A			

3.1.12 Cancel

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	No
Description: Closes the dialog and notifies caller that the user does not accept the changes made within the dialog.			
Dependencies: N/A			

3.1.13 Default

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	N/A
Description: Resets all tags to their default values. This affects tags on more dialogs.			
Dependencies: None			

3.1.14 Other...

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	N/A
Description: Opens the Other dialog box.			
Dependencies: None			

4 Other Settings Dialog

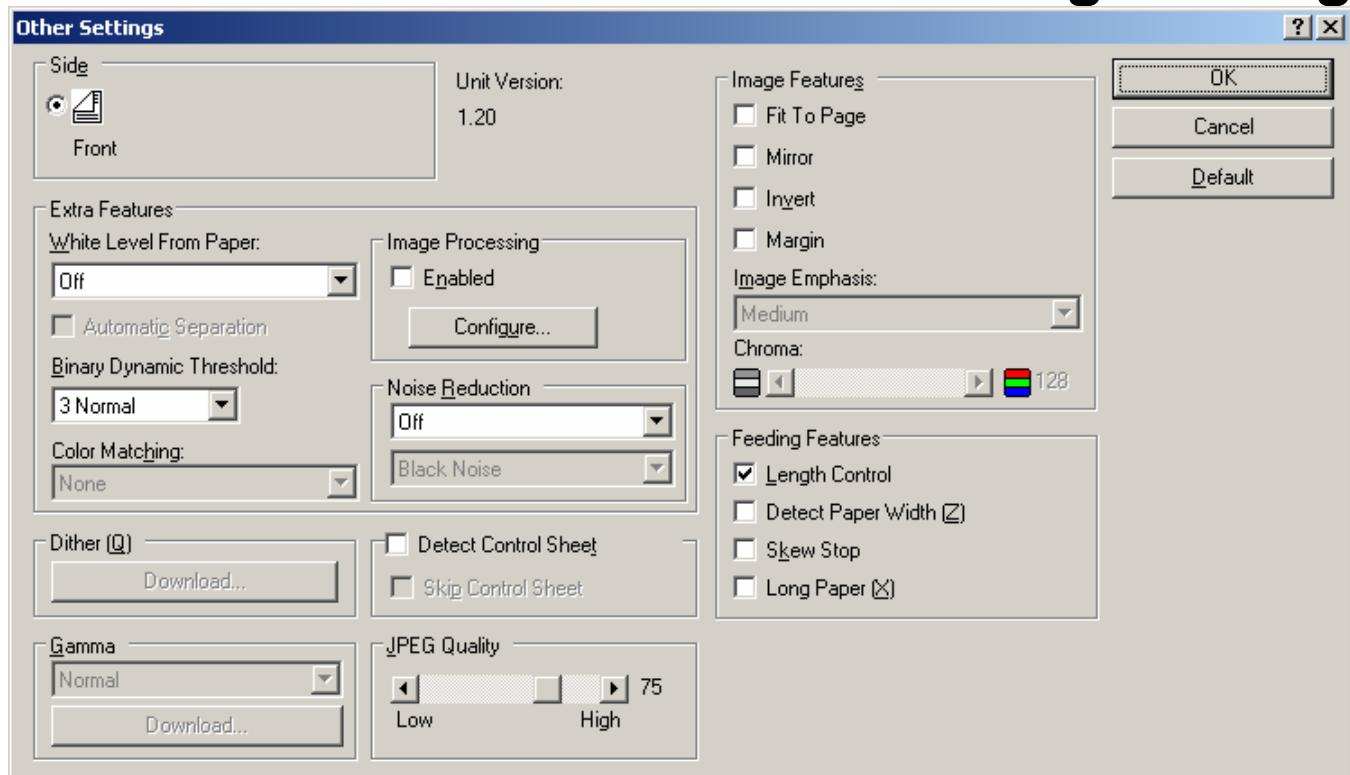


Figure 3

4.1.1 Side

Control Type	Tag Type	Tag	Persistent
Radio Button	ISIS	TAG_WINDOW	Yes
Description: Selects side to setup driver settings independently.			
Values:	0	Both	
	1	Front primary	
	2	Front secondary	
	-1	Back primary	
	-2	Back secondary	
Default:	0	Both	
Dependencies: Default is "Both" when the UI is opened. However, the rest of values can be set by API. For example, if different brightness values need to be set for front and back, just simply set TAG_WINDOW=1 & TAG_EMPHASIS="value A" and TAG_WINDOW=-1 & TAG_EMPHASIS="value B". It applies to each mode for multistream too.			
Following functions can be set independently by TAG_WINDOW. [Main Dialog] Dither, Brightness, Contrast [More Dialog] Dropout [Other Dialog] Gamma, Image Emphasis			

4.1.2 Extra Features, While Level From Paper

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_WHITEFOLLOW	Yes
Description: Choose white follow settings.			
Values:	0	TAG_WHITEFOLLOW_SCANNER	"Off"
	128	TAG_WHITEFOLLOW_PAPER	"On"
	129	TAG_WHITEFOLLOW_AUTO	"Automatic"
Default:	0	TAG_WHITEFOLLOW_SCANNER	"Off"
Dependencies:	This function is available when Margin is disabled in Other Settings dialog.		

4.1.3 Extra Features, Automatic Separation

Control Type	Tag Type	Tag	Persistent
Checkbox	ISIS	TAG_MIXEDSCAN	Yes
Description: Check if Automatic Separation support or not.			
Values:	0	TAG_MIXEDSCAN_OFF	"OFF"
	1	TAG_MIXEDSCAN_ON	"ON"
Default:	0	TAG_MIXEDSCAN_OFF	"OFF"
Dependencies:	This function is available only when Noise Reduction is Off in Other Settings dialog.		

4.1.4 Extra Features, Binary Dynamic Threshold

Control Type	Tag Type	Tag	Persistent
Dropdown List	Meta	N/A	Yes
Description: Select Dynamic Threshold value.			
Values:	1 Light 2 3 Normal 4 5 Dark		
Default:	3 Normal		
Dependencies:	This function is available only when Black and White in single or multistream selected with brightness Automatic.		

4.1.5 Extra Features, Color Matching

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_COLOR_SRGB	Yes
Description: Select Color matching for color output.			
Values:	0 "None" 1 "sRGB"		
Default:	0 "None"		
Dependencies:	This function is available only when Color in single or multistream selected.		

4.1.6 Extra Features, Image Processing, Enabled – Configure...

Control Type	Tag Type	Tag	Persistent
Checkbox, Button	Meta	N/A	No
Description: Select Image Processing in IP Configure Dialog.			
Values: 0 “OFF” 1 “ON”			
Default: 0 “OFF”			
Dependencies: This function is available only when Black and White in single or multistream selected. Image Processing selections are as follows. Barcode Detection, Border Removal, Dilation, Erosion, Halftone Removal, Hole Removal, Invert Image, Line Removal, Noise Removal, Patchcode Detection, Skeleton, Smoothing			

4.1.7 Extra Features, Noise Reduction

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_PIXELPATCH	Yes
Description: Select Noise Reduction size.			
Values: 0 TAG_PIXELPATCH_NONE “Off” 4 TAG_PIXELPATCH_MATRIX_1 “1x1” 5 TAG_PIXELPATCH_MATRIX_2 “2x2” 6 TAG_PIXELPATCH_MATRIX_3 “3x3” 7 TAG_PIXELPATCH_MATRIX_4 “4x4” 8 TAG_PIXELPATCH_MATRIX_5 “5x5” 9 TAG_PIXELPATCH_MATRIX_6 “6x6”			
Default: 0 TAG_PIXELPATCH_NONE “Off”			
Dependencies: This function is available only when Black and White in single or multistream selected with none as dither pattern.			
Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_FILTER_DOT_ERASE	Yes
Description: Select dot type to be reduced.			
Values: 1 TAG_FILTER_DOT_ERASE_BLACK “Black Noise” 2 TAG_FILTER_DOT_ERASE_WHITE “White Noise”			
Default: 1 TAG_FILTER_DOT_ERASE_BLACK “Black Noise”			
Dependencies: This function is disabled if none is selected in Noise Reduction.			

4.1.8 Dither, Download

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	No
Description: Download dither pattern.			
Values: None			
Default: None			
Dependencies: This function is available only when Black and White in single or multistream selected, plus brightness set to manual.			

4.1.9 Gamma

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_GAMMA	Yes
Description: Select Gamma Pattern or download user gamma pattern.			
Values:	0	TAG_GAMMA_NORMAL TAG_GAMMA_CRT TAG_GAMMA_DOWNLOAD1 PCC_TAG_GAMMA_LINEAR	"Normal" "For CRT" "User Download" "Linear"
Default:	0	TAG_GAMMA_NORMAL	"Normal"
Dependencies: This function is available only when Gray or Color selected in single or multistream.			

4.1.10 Detect Control Sheet, Skip Control Sheet

Control Type	Tag Type	Tag	Persistent
Checkbox	ISIS	TAG_CONTROLSHEET	Yes
Description: Enable control sheet detected or not.			
Values:	0	TAG_CONTROLSHEET_OFF TAG_CONTROLSHEET_NOSTOP_NOEJECT TAG_CONTROLSHEET_NOSTOP_EJECT	
Default:	Disabled		
Dependencies: This function is available only when Margin is OFF.			
		Detect Control Sheet	Skip Control Sheet
TAG_CONTROLSHEET_OFF		OFF	OFF
TAG_CONTROLSHEET_NOSTOP_NOEJECT		ON	OFF
TAG_CONTROLSHEET_NOSTOP_EJECT		ON	ON

4.1.11 JPEG Quality

Control Type	Tag Type	Tag	Persistent
Horizontal Slider Bar	ISIS	TAG_JPEGQFACTOR	Yes
Description: Choose JPEG quality.			
Values:	Minimum: 1 Maximum: 100 Step: 1		
Default:	75		
Dependencies: It works for gray and color data.			

4.1.12 Image Features, Fit To Page

Control Type	Tag Type	Tag	Persistent
Check Box	ISIS	TAG_FITTOPAGE	Yes
Description: Enable "fit to page" function.			
Values:	0	TAG_FITTOPAGE_OFF TAG_FITTOPAGE_ON	"OFF" "ON"
Default:	None		
Dependencies: None.			

4.1.13 Image Features, Mirror

Control Type	Tag Type	Tag	Persistent
Check Box	ISIS	TAG_MIRRORIMAGE	Yes
Description: Enable "Mirror" function.			
Values: 0 "OFF" 1 "ON"			
Default: 0 "OFF"			
Dependencies: None.			

4.1.14 Image Features, Invert

Control Type	Tag Type	Tag	Persistent
Check Box	ISIS	TAG_REVERSEIMAGEFORMAT	Yes
Description: Enable "Invert" function.			
Values: 0 "OFF" 1 "ON"			
Default: 0 "OFF"			
Dependencies: This function is available when Black and White selected in single or multistream.			

4.1.15 Image Features, Margin

Control Type	Tag Type	Tag	Persistent
Check Box	ISIS	TAG_MARGIN	Yes
Description: Enable "Margin" function.			
Values: 0 TAG_MARGIN_OFF "OFF" 1 TAG_MARGIN_ON "ON"			
Default: 0 TAG_MARGIN_OFF "OFF"			
Dependencies: This function makes Sub Area button disabled, also X, Y, Width and Height settings in Area section will be ignored.			

4.1.16 Image Features, Image Emphasis

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_EMPHASIS	Yes
Description: Selects image emphasis.			
Values: 0 TAG_EMPHASIS_OFF "None" 1 TAG_EMPHASIS_LOW "Low" 2 TAG_EMPHASIS_MEDIUM "Medium" 3 TAG_EMPHASIS_HIGH "High" 4 TAG_EMPHASIS_SMOOTH "Smooth"			
Default: 0 TAG_EMPHASIS_OFF "None"			
Dependencies: This function is side dependent for all of image mode. Different value can be set for each side settings.			

4.1.17 Image Features, Chroma

Control Type	Tag Type	Tag	Persistent
Horizontal Slider Bar	Meta	N/A	Yes
Description: Selects hue value.			
Values: Minimum: 1 Maximum: 255 Step: 1			
Default: 128			
Dependencies: This function is side dependent for color image mode in single or multistream.			

4.1.18 Feeding Features, Length Control

Control Type	Tag Type	Tag	Persistent
Check Box	ISIS	TAG_DETECTPAGELENGTH	Yes
Description: Enable detect page length function.			
Values: 0 TAG_DETECTPAGELENGTH_OFF "OFF" 1 TAG_DETECTPAGELENGTH_ON "ON"			
Default: 1 TAG_DETECTPAGELENGTH_ON "ON"			
Dependencies: None.			

4.1.19 Feeding Features, Detect Page Width

Control Type	Tag Type	Tag	Persistent
Check Box	ISIS	TAG_DETECTPAGESIZE	Yes
Description: Enable detect page width function.			
Values: 0 TAG_DETECTPAGESIZE_OFF "OFF" 1 TAG_DETECTPAGESIZE_ON "ON"			
Default: 0 TAG_DETECTPAGESIZE_OFF "OFF"			
Dependencies: None.			

4.1.20 Feeding Features, Skew Stop

Control Type	Tag Type	Tag	Persistent
Check Box	ISIS	TAG_DESKW_STOP	Yes
Description: Enable skew stop function.			
Values: 0 TAG_DESKW_STOP_OFF "OFF" 1 TAG_DESKW_STOP_ON "ON"			
Default: 0 TAG_DESKW_STOP_OFF "OFF"			
Dependencies: None.			

4.1.21 Feeding Features, Long Paper

Control Type	Tag Type	Tag	Persistent
Check Box	ISIS	TAG_SPLITLONGPAPER	Yes
Description: Enable splitting long page into selected length.			
Values: 0 TAG_SPLITLONGPAPER_OFF "OFF" 1 TAG_SPLITLONGPAPER_ON "ON"			
Default: 0 TAG_SPLITLONGPAPER_OFF "OFF"			
Dependencies: None.			

4.1.22 Ok

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	No
Description: Closes the dialog and notifies caller that the user accepts the changes made within the dialog.			
Dependencies: N/A			

4.1.23 Cancel

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	No
Description: Closes the dialog and notifies caller that the user does not accept the changes made within the dialog.			
Dependencies: N/A			

4.1.24 Default

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	N/A
Description: Resets all tags to their default values. This affects tags on other settings dialogs.			
Dependencies: None			

5 Imprinter

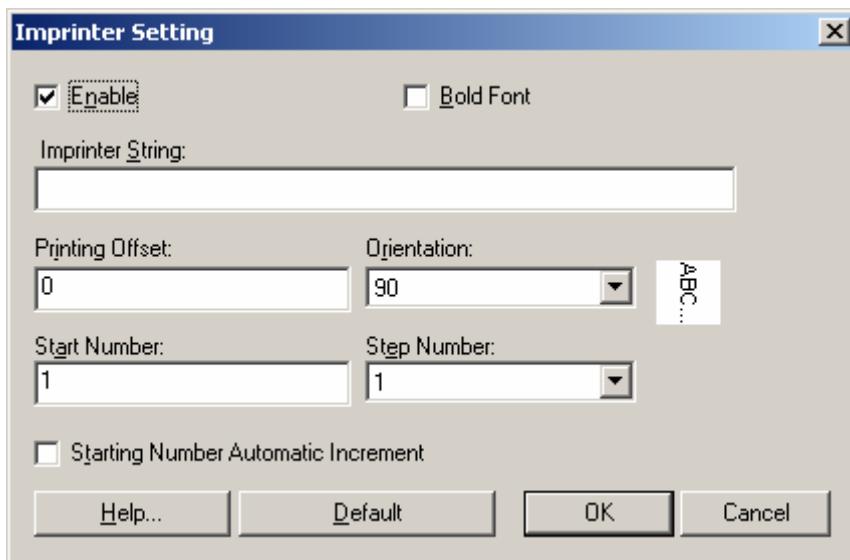


Figure 4

5.1.1 Enable

Control Type	Tag Type	Tag	Persistent
Check Box	Meta	N/A	Yes
Description: Enable imprinter functions.			
Values: 0 "OFF" 1 "ON"			
Default: 0 "OFF"			
Dependencies: None.			

5.1.2 Bold Font

Control Type	Tag Type	Tag	Persistent
Check Box	Meta	N/A	Yes
Description: Print bold font.			
Values: 0 "OFF" 1 "ON"			
Default: 0 "OFF"			
Dependencies: None.			

5.1.3 Imprinter String

Control Type	Tag Type	Tag	Persistent
Edit Box	ISIS	TAG_ENDORSER_STRING	Yes
Description: This string can be printed as imprinter string.			
Values: None			
Default: None			
Dependencies: Maximum string is 72 characters.			

5.1.4 Printing Offset

Control Type	Tag Type	Tag	Persistent
Edit Box	ISIS	TAG_ENDORSER_YOFFSET	Yes
Description:	Defines the Y-offset of the start of the printed text. Is entered and displayed by column.		
Values:	Minimum Maximum Step	0 99 1	
Default:	0		
Dependencies:	None.		

5.1.5 Orientation

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_ENDORSER_ORIENTATION	Yes
Description:	Selects direction of the printed text.		
Values:	1 2 3 4	TAG_ENDORSER_ORIENTATION_PORT TAG_ENDORSER_ORIENTATION_LAND TAG_ENDORSER_ORIENTATION_180 TAG_ENDORSER_ORIENTATION_270	“0” “90” “180” “270”
Default:	2	TAG_ENDORSER_ORIENTATION_LAND	“90”
Dependencies:	None.		

5.1.6 Start Number

Control Type	Tag Type	Tag	Persistent
Edit Box	ISIS	TAG_ENDORSER_INSTART	Yes
Description:	Set starting number of imprinting count.		
Values:	Minimum Maximum Step	0 9999999 1	
Default:	1		
Dependencies:	None.		

5.1.7 Step Number

Control Type	Tag Type	Tag	Persistent
Dropdown List	ISIS	TAG_ENDORSER_INSTEP	Yes
Description:	Set steps of imprinting count.		
Values:	Minimum Maximum Step	1 9 1	
Default:	1		
Dependencies:	None.		

5.1.8 Starting Number Automatic Increment

Control Type	Tag Type	Tag	Persistent
Check box	ISIS	TAG_ENDORSER_WHICHCOUNTER	Yes
Description: Set counter number is based on scanner settings or Imprinter dialog settings.			
Values:	0	TAG_ENDORSER_WHICHCOUNTER_SCANNER	"ON"
	1	TAG_ENDORSER_WHICHCOUNTER_USER	"OFF"
Default:	1	TAG_ENDORSER_WHICHCOUNTER_USER	"OFF"
Dependencies:	None.		

5.1.9 Ok

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	No
Description: Closes the dialog and notifies caller that the user accepts the changes made within the dialog.			
Dependencies: N/A			

5.1.10 Cancel

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	No
Description: Closes the dialog and notifies caller that the user does not accept the changes made within the dialog.			
Dependencies: N/A			

5.1.11 Default

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	N/A
Description: Resets all tags to their default values. This affects tags on Imprinter Setting dialog.			
Dependencies: None			

5.1.12 Help...

Control Type	Tag Type	Tag	Persistent
Button	N/A	N/A	N/A
Description: Displays help dialog box.			
Dependencies: None			

6 Area Dialog

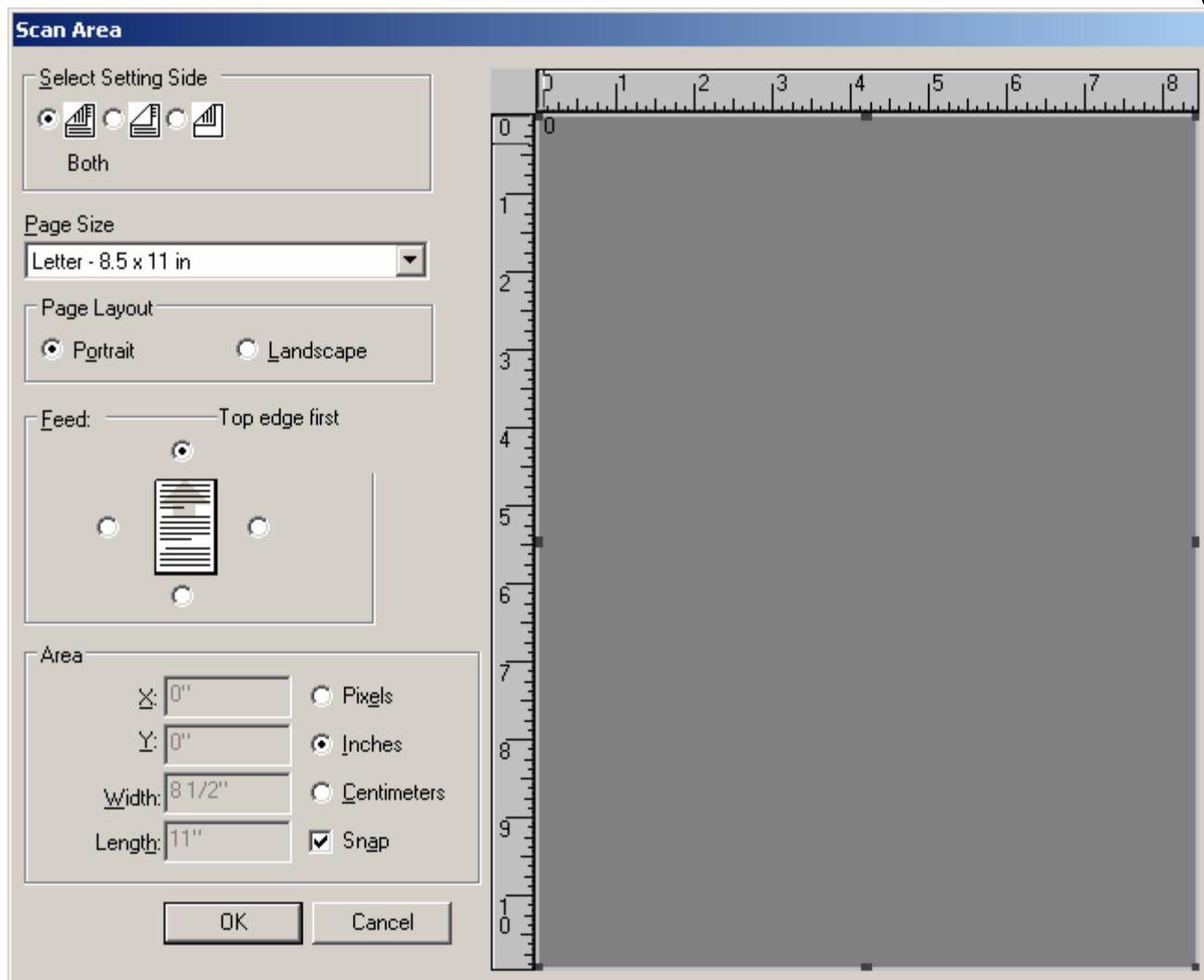


Figure 5

6.1.1 Page Size

See 4.5.5 Page Size, Page Layout, Feed

6.1.2 Page Layout

See 4.5.5 Page Size, Page Layout, Feed

6.1.3 Feed

See 4.5.5 Page Size, Page Layout, Feed

6.1.4 Select Setting Side

None of settings are side dependent in Scan Area dialog.

6.1.5 X, Y, Width, and Height

Control Type	Tag Type	Tag	Persistent
Edit Controls (4)	ISIS	TAG_XPOSITION TAG_YPOSITION TAG_IMAGEWIDTH TAG_IMAGELENGTH	Yes
Description: Defines the area to read from the scanner.			
Values: Limits are based on the currently selected page size. Values larger than the page size will be modified to match the page size.			
Default: N/A			
Dependencies: This function is not available when Length Control is checked in Other Settings dialog. When margin is enabled, this function is ignored..			

6.1.6 Pixels, Inches, and Centimeters

Control Type	Tag Type	Tag	Persistent
Radio Button	ISIS	TAG_RESUNIT	Yes
Description: Defines units for settings in Area.			
Values: 0 "Pixels" 1 "Inches" 2 "Centimeters"			
Default: 1 "Inches"			
Dependencies: None.			

6.1.7 Snap

Control Type	Tag Type	Tag	Persistent
Check Box	Meta	N/A	Yes
Description: Enables/disables the snap feature when modifying the image size. When enabled, image coordinates are automatically set to the nearest 1/8".			
Values: 0 Cleared 1 Checked			
Default: 1 Checked			
Dependencies: Disabled if Units is set to Pixels.			

7 Sub Area Dialog

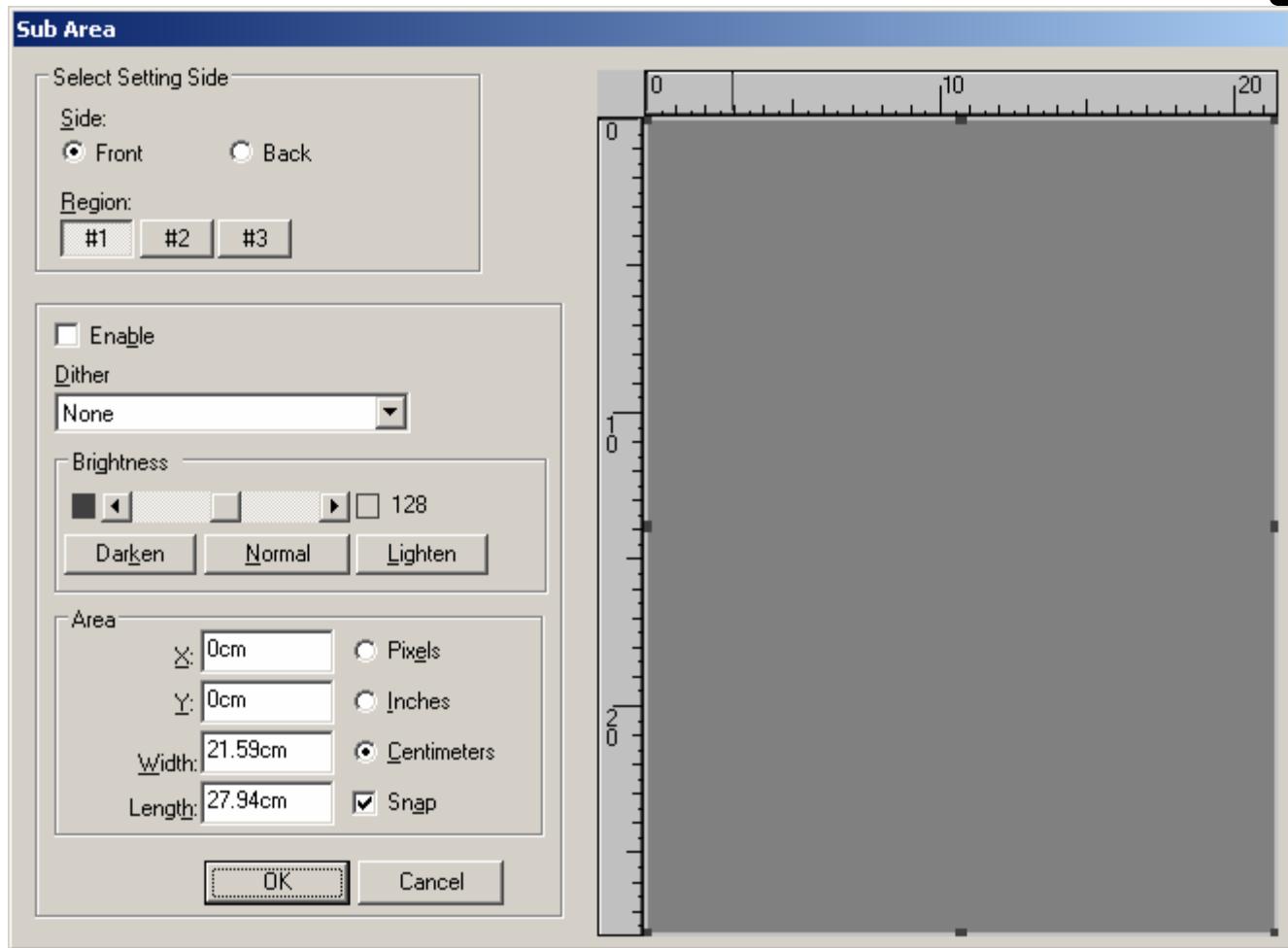


Figure 6

7.1.1 Select Setting Side

Control Type	Tag Type	Tag	Persistent
Radio Button, Buttons	Meta	N/A	No
Description: Enables side dependent settings.			
Values: Front Checked Back Unchecked			
Default: Front Checked (Region #1)			
Dependencies: Sub Area dialog is available when Margin and Length Control is OFF in Other Settings dialog.			

7.1.2 Enable

Control Type	Tag Type	Tag	Persistent
Check Box	Meta	N/A	No
Description: Enables/disables the Dither feature for front and back independent.			
Values: 0 Cleared 1 Checked			
Default: 1 Checked			
Dependencies: Sub Area dialog is available when Margin and Length Control is OFF in Other Settings dialog.			

7.1.3 Dither

See 4.5.4 Dither

7.1.4 Brightness

See 4.5.7 Brightness.

7.1.5 X, Y, Width, and Height

See 4.9.5 X, Y, Width, and Height

7.1.6 Pixels, Inches, and Centimeters

See 4.9.6 Pixels, Inches, and Centimeters

7.1.7 Snap

See 4.9.7 Snap

8 About Dialog

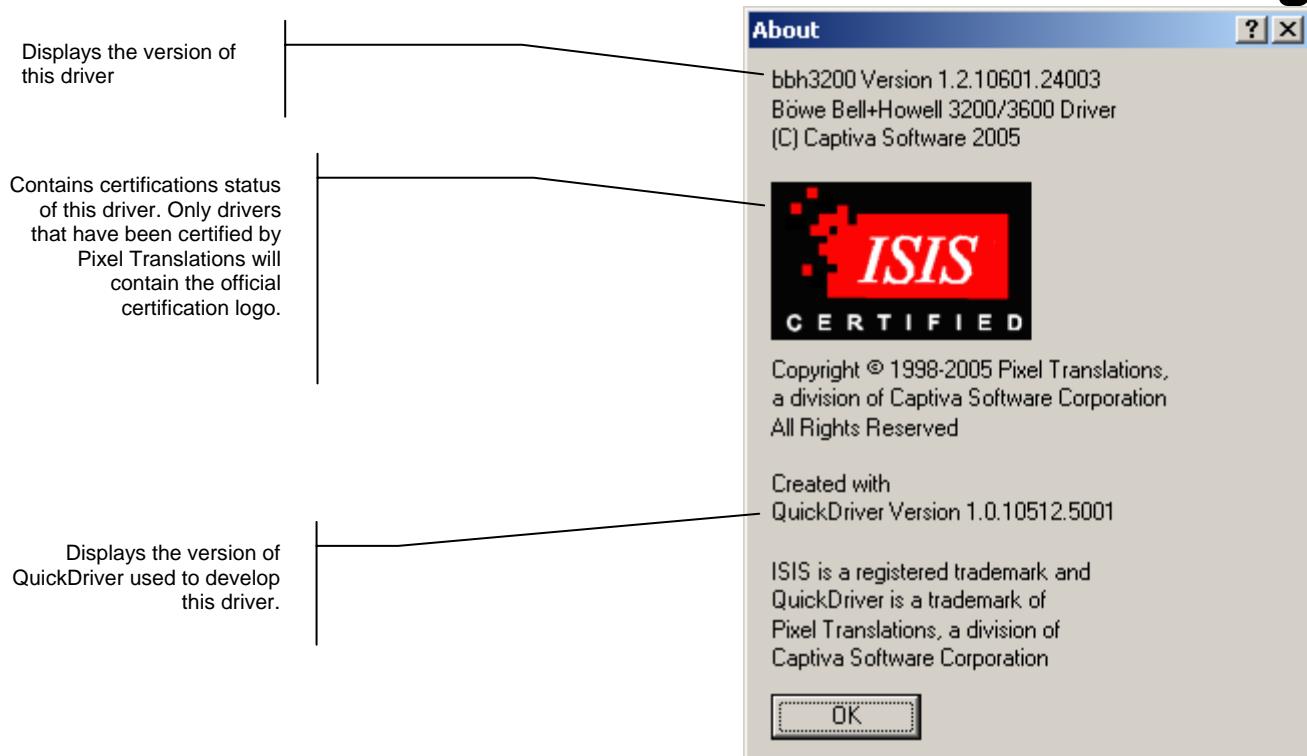


Figure 7

9 API

This section details elements that are related to the API functions of this driver.

9.1 Tags

9.1.1 TAG_COMPRESSION

Valid values are:

Bitonal: TAG_COMPRESSION_NONE
 TAG_COMPRESSION_G3
 TAG_COMPRESSION_G4

Gray/Color TAG_COMPRESSION_JPEG
 TAG_COMPRESSION_NONE

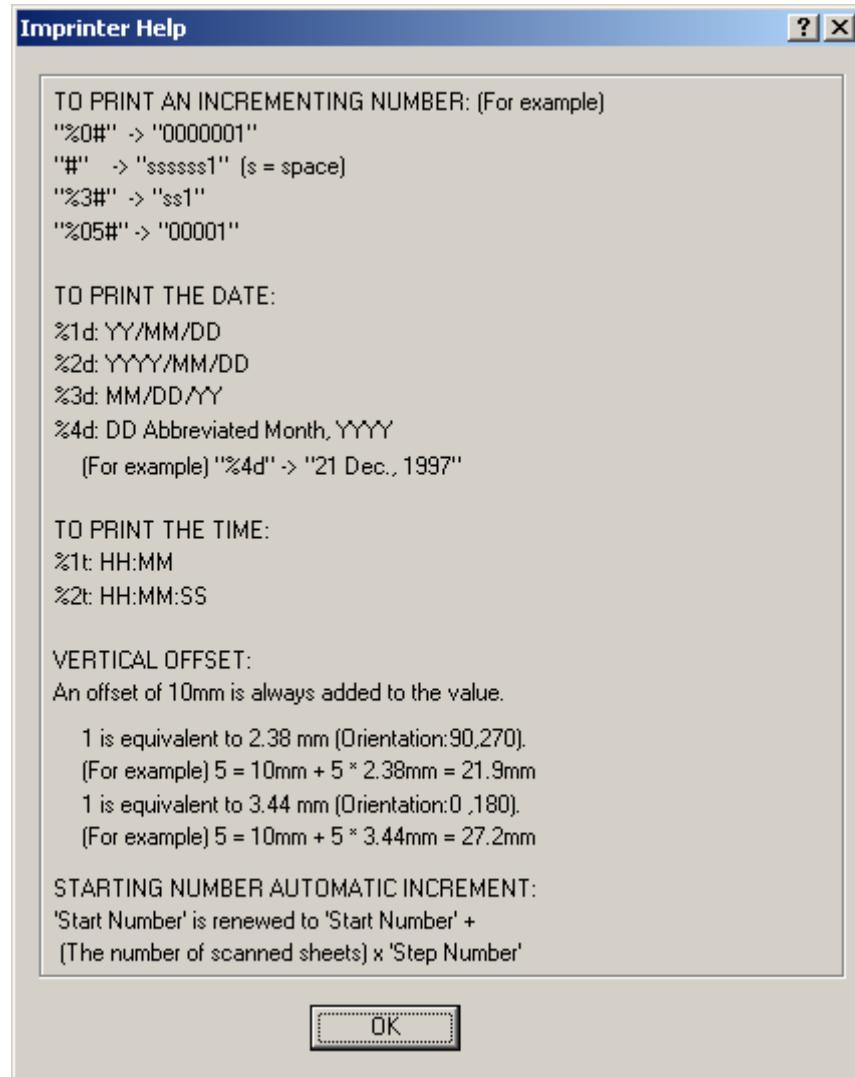
9.1.2 Settings of multistream

Stream order is fixed as grayscale/color as 1st stream, binary is 2nd stream.

	TAG_SAMPLESPERPIXEL	TAG_BITSPERSAMPLE	TAG_WINDOW	Note
Black and White	1	1	0	
256-Level Gray	1	8	0	
24-bit Color	3	8	0	
Binary&Color* ¹	3	8	1 or -1	Primary data (negative: back side)
	1	1	2 or -2	Secondary data (negative: back side)
Binary&Gray* ¹	1	8	1 or -1	Primary data (negative: back side)
	1	1	2 or -2	Secondary data (negative: back side)

9.1.3 Settings of imprinter

The format string can include a combination of format specifiers (with modifiers) and messages. Here is help content ISIS driver support.



10 Code Samples

10.1.1 Multi-streaming

/* this sample is meant to document the capability known as multi-stream. if a driver supports multi-stream, that means that it can transfer both a binary and a color image for at least one side of a page. some scanners may only support multi-stream on one side of the paper, some will support it on both sides independently, some may require that multi-stream be enabled for both sides at once to work, and some (most) may not support it at all.

these sources are written to be as general as possible and should work for those scanner devices and ISIS drivers that support multi-streaming.

*/

```
#include <pixdflt.h>

bool CheckIfScannerSupportsMultiStream(
    PixDrvHandlePtr lpDriver,
    bool bFront);

bool WindowSupportsMode(
    PixDrvHandlePtr lpDriver,
    int iWindow,
    INT32 ISamplesPerPixel,
    INT32 IBitsPerSample);

bool WindowIsLegal(
    PixDrvHandlePtr lpDriver,
    int iWindow);

void SetWindowMode(
    PixDrvHandlePtr lpDriver,
    int iWindow,
    INT32 ISamplesPerPixel,
    INT32 IBitsPerSample);

bool WindowIsMode(
    PixDrvHandlePtr lpDriver,
    int iWindow,
    INT32 ISamplesPerPixel,
    INT32 IBitsPerSample);

struct WindowInfo {
    INT32 ISamplesPerPixel;
    INT32 IBitsPerSample;
    bool bFront;
    bool bSkip;
};

int CreateWindowList(
    PixDrvHandlePtr lpDriver,
    struct WindowInfo *pWindowList,
    INT32 ISkipSamps,
    INT32 ISkipBits);

/*
TAG_WINDOW is used to refer to the scan regions that are being
requested.
Positive values of TAG_WINDOW refer to the front side
Negative values of TAG_WINDOW refer to the back side
A zero value of TAG_WINDOW refers to both front & back main regions
(1 and -1) at the same time

The legal values for particular tags may change for different
values of TAG_WINDOW. i.e. although color scanning is available
on the front main window (1), it may not be available for the
```

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back main window (-1).

The driver supports up to two windows for each side (i.e. the range for TAG_WINDOW will extend from -2 to 2).

As with other drivers that support TAG_WINDOW, there are two additional tags (one for the front and one for the back) which specify how many windows are currently active. if one window is active for the front side then one image will be transferred for the front side.

The device will have a complicated relationship between window (front main or front secondary), scan mode (binary or color), and window_count_front (1 or 2). The same relationships will exist for negative values of window and window_count_back, so for the remainder of this document I will refer only to the front side.

The overview of these relationships is fairly straightforward. The user can select from the following choices:

- a)
 - main (1): Binary
 - secondary (2): nothing
- b)
 - main (1): Color
 - secondary (2): nothing
- c)
 - main (1): Color
 - secondary (2): Binary
- d)
 - main (1): Binary
 - secondary (2): Color

They cannot select:

- e)
 - main (1): nothing
 - secondary (2): nothing

Again, these relationships are the same for both the front and back sides.

Essentially, they can pick binary-only, color-only, color-then-binary, or binary-then-color order.

In regards to side order, the following rules apply:

- i) at least one image front side must be transferred (therefore, window_count_front cannot be zero (0))
- ii) the front side image(s) must be transferred first. A back-front image order is not allowed.

When the images get transferred from the driver, they are transferred just like a normal stream of images. i.e. if the user has selected

front main: Color
front secondary: Binary
(tag_window_count_front == 2)
back main: Binary
back secondary: nothing
(tag_window_count_back == 1)

and they wish to transfer all images for a single page then they will need to do three PixRunZone's. The first zone will receive the front color image, the 2nd zone will receive the front binary image and the third zone will receive the back side binary image. So, just like a duplex scan where two PixRunZone's are required in series to scan all images for a single page, this quantity can be determined by adding values of tag_window_count_front and tag_window_count_back. For the example above, 2+1==3, so 3 PixRunZone's are necessary for each physical page.

In practice, this all starts looking fairly complicated in the application source code, so I've written some examples to help you along your way. The functions at the top of this list are probably those that you would typically call from your application.

The functions at the bottom of the list are just helper functions to make the code more readable. This source code is available for your use, subject to the same restrictions of sample code within your toolkit.

I have attempted to make these functions as generic as possible. More scanners will be introduced with multi-stream functionality, so I've done what I can to make these sourcecode examples work with all existing drivers, plus (I hope) all multi-stream capable scanners to come.

```
*/  
  
bool CheckIfScannerSupportsMultiStream(  
    PixDrvHandlePtr lpDriver,  
    bool bFront)  
{  
    bool bRet = false;  
  
    /* if they're asking about the front side, then all window values  
     * are positive, else they're negative */  
    int iFactor = bFront ? 1 : -1 ;  
  
    /* lots of tags get changed by this function. let's save at the start  
     * and restore at the end */  
    PixTagSaveValue(lpDriver, 0);  
  
    /* if front main scan allows color, then check for binary on  
     * window #2 */  
    if (WindowSupportsMode(lpDriver, iFactor, 3, 8)) {  
        SetWindowMode(lpDriver, iFactor, 3, 8);  
        bRet |= WindowSupportsMode(lpDriver, 2*iFactor, 1, 1);  
    }  
  
    /* if front main scan allowed binary, then check for color on  
     * window #2 */  
    if (WindowSupportsMode(lpDriver, iFactor, 1, 1)) {  
        SetWindowMode(lpDriver, iFactor, 1, 1);  
        bRet |= WindowSupportsMode(lpDriver, 2*iFactor, 3, 8);  
    }  
  
    /* restore the tags */  
    PixTagRestoreValue(lpDriver, 0);  
  
    return bRet ;  
}  
  
/* returns true if multi stream is enabled for the particular side, false  
 * otherwise. I expect that an application might want to call this  
 * function after the ISIS U.I. has been displayed to determine if  
 * the user requested multistream or not */  
  
bool CheckIfMultiStreamIsEnabled(  
    PixDrvHandlePtr lpDriver,  
    bool bFront)  
{  
    bool bRet = false;  
  
    /* if they're asking about the front side, then all window values  
     * are positive, else they're negative */  
    int iFactor = bFront ? 1 : -1 ;  
  
    /* lots of tags get changed by this function. let's save at the start  
     * and restore at the end */  
    PixTagSaveValue(lpDriver, 0);  
  
    /* if front main is color and front secondary is legal and binary then  
     * return true */  
    if (WindowIsMode(lpDriver, iFactor, 3, 8) &&  
        WindowIsMode(lpDriver, iFactor*2, 1, 1)) {  
        INT32 lValue;  
        PixTagGetLong(lpDriver, bFront?TAG_WINDOW_COUNT_FRONT:  
                     TAG_WINDOW_COUNT_BACK, 0, &lValue);  
        if (lValue>1)  
            bRet = true ;  
    }  
    else  
    if (WindowIsMode(lpDriver, iFactor, 1, 1) &&  
        WindowIsMode(lpDriver, iFactor*2, 3, 8)) {  
        INT32 lValue;  
        PixTagGetLong(lpDriver, bFront?TAG_WINDOW_COUNT_FRONT:
```

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```
    TAG_WINDOW_COUNT_BACK, 0, &lValue);
if (lValue>1)
    bRet = true ;
}

/* restore the tags */
PixTagRestoreValue(lpDriver, 0);

return bRet ;
}

/* Set the scanner to a particular set of modes. i.e. if you want to scan color
only from the front side of the page, call
    SetScannerParameters(lpDriver, true, true, false);
if you want to do multi-stream color and binary from the front side, call
    SetScannerParameters(lpDriver, true, true, true);
if you want to scan only binary from the front side, call
    SetScannerParameters(lpDriver, true, false, true);

the function will return true if it was successful, false otherwise.*/

bool SetScannerParameters(
    PixDrvHandlePtr lpDriver,
    bool bFront,
    bool bColor,
    bool bBinary)
{
    bool bTagWindowSupported;
    bool bRet = false;
    INT32 lValue;

    /* if they're asking about the front side, then all window values
     are positive, else they're negative */
    int iFactor = bFront ? 1 : -1;

    if (PixTagGetLong(lpDriver, TAG_WINDOW, 0, &lValue)<0)
        bTagWindowSupported = false ;
    else
        bTagWindowSupported = true ;

    /* save tags in case we fail */
    PixTagSaveValue(lpDriver, 0);

    if (bColor && bBinary) {
        /* they're turning on multi-stream */
        if (CheckIfScannerSupportsMultiStream(lpDriver, bFront)) {
            /* only do the work to turn on multi-stream if multistream is
             supported. (duh) */

            /* first, let's try window #1==color, window #2==binary */
            if (WindowSupportsMode(lpDriver, iFactor, 3, 8)) {
                SetWindowMode(lpDriver, iFactor, 3, 8);
                if (WindowIsLegal(lpDriver, iFactor * 2) &&
                    WindowSupportsMode(lpDriver, iFactor * 2, 1, 1)) {
                    SetWindowMode(lpDriver, iFactor * 2, 1, 1);
                    PixTagSetLong(lpDriver,
                        iFactor > 0 ? TAG_WINDOW_COUNT_FRONT :
                        TAG_WINDOW_COUNT_BACK, 0, 2);

                    bRet = true ;
                }
            }

            /* if #1color,#2binary didn't work, let's try it the other way */
            if (!bRet && WindowSupportsMode(lpDriver, iFactor, 1, 1)) {
                SetWindowMode(lpDriver, iFactor, 1, 1);
                if (WindowIsLegal(lpDriver, iFactor * 2) &&
                    WindowSupportsMode(lpDriver, iFactor * 2, 3, 8)) {
                    SetWindowMode(lpDriver, iFactor * 2, 3, 8);
                    PixTagSetLong(lpDriver,
                        iFactor > 0 ? TAG_WINDOW_COUNT_FRONT :
                        TAG_WINDOW_COUNT_BACK, 0, 2);
                }
            }
        }
    }
}
```

```

        bRet = true ;
    }
}
else {
/* they're just picking one window for a particular side and
choosing its scan mode - this is the easy case */
INT32 lSamplesPerPixel, lBitsPerSample;
if (bColor && !bBinary) {
    lSamplesPerPixel = 3;
    lBitsPerSample = 8;
}
else {
    lSamplesPerPixel = 1;
    lBitsPerSample = 1;
}

if (!bTagWindowSupported) {
/* if TAG_WINDOW isn't supported, we should just set the tags
as long as the selected mode is legal */

if (WindowSupportsMode(lpDriver, iFactor,
    lSamplesPerPixel, lBitsPerSample)) {
    SetWindowMode(lpDriver, iFactor,
        lSamplesPerPixel, lBitsPerSample);
    bRet = true ;
}
}
else {
if (WindowIsLegal(lpDriver, iFactor) &&
    WindowSupportsMode(lpDriver, iFactor,
        lSamplesPerPixel, lBitsPerSample)) {
/* if the selected window is legal and it supports
the selected mode, then succeed */
    SetWindowMode(lpDriver, iFactor,
        lSamplesPerPixel, lBitsPerSample);
    PixTagSetLong(lpDriver,
        iFactor > 0 ? TAG_WINDOW_COUNT_FRONT :
                    TAG_WINDOW_COUNT_BACK, 0, 1);
    bRet = true ;
}
}
}

if (bRet) {
/* if we're successful, then flush the saved tags */
    PixTagFlushValue(lpDriver, 0);
}
else {
/* if we're unsuccessful, then restore the saved tags */
    PixTagRestoreValue(lpDriver, 0);
}

return bRet ;
}

/*
* returns true if the specified window supports the specified values of
SamplesPerPixel and BitsPerPixel. i.e. if Window #1 supports color
then
    WindowSupportsMode(1,3,8) == true
if iWindow==0, that means don't bother with the tag_window tag
*/
bool WindowSupportsMode(
    PixDrvHandlePtr lpDriver,
    int iWindow,
    INT32 lSamplesPerPixel,
    INT32 lBitsPerSample)
{
if (iWindow && !WindowIsLegal(lpDriver, iWindow))
    return false;
if (iWindow)
    PixTagSetLong(lpDriver, TAG_WINDOW, 0, iWindow);
}

```

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```
INT16 wCount;
INT32 lValue;
int i;
/* iterate through the choices for samplesperpixel to see if we find a
match */
PixChoiceGetCount(lpDriver, TAG_SAMPLESPERPIXEL, &wCount);
for (i=0; i<wCount; i++) {
    PixChoiceGetLong(lpDriver, TAG_SAMPLESPERPIXEL, i, &lValue);
    if (lValue == lSamplesPerPixel)
        break;
}
if (i==wCount)
    return false;

/* set samplesperpixel to the right value, then iterate through
bitspersample the same way */
PixTagSetLong(lpDriver, TAG_SAMPLESPERPIXEL, 0, lValue);
PixChoiceGetCount(lpDriver, TAG_BITSPERSAMPLE, &wCount);
for (i=0; i<wCount; i++) {
    PixChoiceGetLong(lpDriver, TAG_BITSPERSAMPLE, i, &lValue);
    if (lValue == lBitsPerSample)
        break;
}
if (i==wCount)
    return false;

return true;
}

/* returns true if the specific value of tag_window is currently legal.
needs to check the range of tag_window, but also the range
of tag_window_count_front or tag_window_count_back to know if it
can be enabled or not */
bool WindowIsLegal(
    PixDrvHandlePtr lpDriver,
    int iWindow)
{
    INT16 wCount;
    INT32 lValue;
    int i;
    /* if TAG_WINDOW itself is not supported, then return false */
    if (PixChoiceGetCount(lpDriver, TAG_WINDOW, &wCount)<0)
        return false;

    for (i=0; i<wCount; i++) {
        PixChoiceGetLong(lpDriver, TAG_WINDOW, i, &lValue);
        if (lValue == iWindow)
            break;
    }
    if (i == wCount)
        return false;

    if (!iWindow)
        return true;

    /* check if it's legal to 'activate' the specified window */
    if (iWindow > 0) {
        PixChoiceGetLong(lpDriver, TAG_WINDOW_COUNT_FRONT,
                        PIXCHOICE_HIGH, &lValue);
        return iWindow <= lValue ;
    }
    else {
        PixChoiceGetLong(lpDriver, TAG_WINDOW_COUNT_BACK,
                        PIXCHOICE_HIGH, &lValue);
        return (-iWindow) <= lValue ;
    }
}

void SetWindowMode(
    PixDrvHandlePtr lpDriver,
    int iWindow,
    INT32 lSamplesPerPixel,
    INT32 lBitsPerSample)
{
```

```

PixTagSetLong(lpDriver, TAG_WINDOW, 0, iWindow);
PixTagSetLong(lpDriver, TAG_SAMPLESPERPIXEL, 0, lSamplesPerPixel);
PixTagSetLong(lpDriver, TAG_BITSPERSAMPLE, 0, lBitsPerSample);
}

bool WindowIsMode(
    PixDrvHandlePtr lpDriver,
    int iWindow,
    INT32 lSamplesPerPixel,
    INT32 lBitsPerSample)
{
    INT32 lValue;

    if (!WindowIsLegal(lpDriver, iWindow))
        return false;
    PixTagSetLong(lpDriver, TAG_WINDOW, 0, iWindow);
    PixTagGetLong(lpDriver, TAG_SAMPLESPERPIXEL, 0, &lValue);
    if (lValue != lSamplesPerPixel)
        return false;
    PixTagGetLong(lpDriver, TAG_BITSPERSAMPLE, 0, &lValue);
    if (lValue != lBitsPerSample)
        return false;
    return true;
}

int CreateWindowList(
    PixDrvHandlePtr lpDriver,
    struct WindowInfo *pWindowList,
    INT32 lSkipSamps,
    INT32 lSkipBits)
{
    INT32 lTotalWindowCount;
    INT32 lWindowCountFront, lWindowCountBack;
    INT32 lScantype;
    int iIndex, i;

    if (PixTagGetLong(lpDriver, TAG_SCANTYPE, 0, &lScantype))
        lScantype=TAG_SCANTYPE_AUTOMATIC;
    if (PixTagGetLong(lpDriver, TAG_WINDOW_COUNT_FRONT, 0, &lWindowCountFront))
        lWindowCountFront=1;
    if (PixTagGetLong(lpDriver, TAG_WINDOW_COUNT_BACK, 0, &lWindowCountBack))
        lWindowCountBack=1;

    lTotalWindowCount = 0;
    iIndex=0;

    if (lScantype==TAG_SCANTYPE_BACKFRONT)
        iIndex=lWindowCountBack;

    switch (lScantype) {
        case TAG_SCANTYPE_FEEDER:
        case TAG_SCANTYPE_AUTOMATIC:
        case TAG_SCANTYPE_FLATBED:
        case TAG_SCANTYPE_BACKFRONT:
        case TAG_SCANTYPE_FONTRBACK:
        case TAG_SCANTYPE_TRANSPARENCY:
            lTotalWindowCount += lWindowCountFront;

            if (pWindowList)
                for (i=1; i<=lWindowCountFront; i++) {
                    PixTagSetLong(lpDriver, TAG_WINDOW, 0, i);
                    PixTagGetLong(lpDriver, TAG_SAMPLESPERPIXEL, 0, &pWindowList[iIndex].lSamplesPerPixel);
                    PixTagGetLong(lpDriver, TAG_BITSPERSAMPLE, 0, &pWindowList[iIndex].lBitsPerSample);
                    pWindowList[iIndex].bFront=true;
                    if (pWindowList[iIndex].lSamplesPerPixel==lSkipSamps &&
                        pWindowList[iIndex].lBitsPerSample==lSkipBits &&
                        lWindowCountFront>1)
                        pWindowList[iIndex].bSkip=true;
                    iIndex++;
                }
            }

        if (lScantype==TAG_SCANTYPE_BACKFRONT)
            iIndex=0;
    }
}

```

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```
switch (lScantype) {
    case TAG_SCANTYPE_DUPLEX:
    case TAG_SCANTYPE_BACKONLY:
    case TAG_SCANTYPE_BACKFRONT:
        lTotalWindowCount += lWindowCountBack;
        if (pWindowList)
            for (i=1; i<=lWindowCountBack; i++) {
                PixTagSetLong(lpDriver, TAG_WINDOW, 0, -i);
                PixTagGetLong(lpDriver, TAG_SAMPLESPERPIXEL, 0, &pWindowList[i].lSamplesPerPixel);
                PixTagGetLong(lpDriver, TAG_BITSPERSAMPLE, 0, &pWindowList[i].lBitsPerSample);
                pWindowList[i].bFront=true;
                if (pWindowList[i].lSamplesPerPixel==lSkipSamps &&
                    pWindowList[i].lBitsPerSample==lSkipBits &&
                    lWindowCountFront>1)
                    pWindowList[i].bSkip=true;
                iIndex++;
            }
        }

        return lTotalWindowCount ? lTotalWindowCount : 1;
    }

void PrintWindowList(PixDrvHandlePtr lpDriver)
{
    int iWindowCount;
    struct WindowInfo *WindowList;
    char szBuffer[256];
    iWindowCount = CreateWindowList(lpDriver, NULL, 3, 8);
    WindowList = new struct WindowInfo[iWindowCount];
    CreateWindowList(lpDriver, WindowList, 3, 8);

    szBuffer[0]=0;
    for (int i=0; i<iWindowCount; i++) {
        wsprintf(szBuffer+strlen(szBuffer),"Samps:%d/Bits:%d/Front:%d/Skip:%d ",
            WindowList[i].lSamplesPerPixel,WindowList[i].lBitsPerSample,
            (int)WindowList[i].bFront,(int)WindowList[i].bSkip);
    }

    MessageBox(0, szBuffer,
        "Window List", MB_OK);
}

main()
{
    INT32 lStatus;
    PixDrvHandle hScanner;
    bool bRet ;

    PixdfltInit();

    lStatus = PixDrvLoad(0, "TWINSTR", &hScanner, 0);
    if (lStatus < 0)
        return 0;

    lStatus = PixDrvInitialize(&hScanner, 0, 0);
    if (lStatus < 0)
        return 0;

    bRet = CheckIfScannerSupportsMultiStream(&hScanner, true);
    // should return true for 4500
    // should return false for any other currently shipping drivers
    MessageBox(0,
        bRet?
            "Scanner supports front side multi-stream":
            "Scanner does not support front side multi-stream",
        "Status:",
        MB_OK);

    bRet = CheckIfScannerSupportsMultiStream(&hScanner, false);
    // should return true for duplex 4500, false for a simplex scanner
    // should return false for any other currently shipping drivers
    MessageBox(0,
        bRet?
            "Scanner supports back side multi-stream":
```

```
        "Scanner does not support back side multi-stream",
        "Status:",
        MB_OK);

for (int i=0;i<3;i++) {
    MessageBox(0,"When the parameter dialog displays, pick a setting "
              "for multi-stream and hit OK", "Status:", MB_OK);

    // display dialog, user should try picking different settings
    // to verify that they're all working correctly
    PixDrvSetDialog(&hScanner, 0, 0, 0);
    bRet = CheckIfMultiStreamIsEnabled(&hScanner, true);
    MessageBox(0,
              bRet?
                  "After the dialog selection, front side multi-stream is on":
                  "After the dialog selection, front side multi-stream is off",
              "Status:",
              MB_OK);
    bRet = CheckIfMultiStreamIsEnabled(&hScanner, false);
    MessageBox(0,
              bRet?
                  "After the dialog selection, back side multi-stream is on":
                  "After the dialog selection, back side multi-stream is off",
              "Status:",
              MB_OK);
    PrintWindowList(&hScanner);
}

bRet = SetScannerParameters(&hScanner, true, true, true);
if (bRet) {
    MessageBox(0, "Front side parameters were successfully set to "
              "multi-stream. please verify in the following dialog and hit "
              "cancel.", "Status:", MB_OK);
    PixDrvSetDialog(&hScanner, 0, 0, 0);
}
else
    MessageBox(0, "Could not set front-side parameters to multi-stream",
              "Status:", MB_OK);

bRet = SetScannerParameters(&hScanner, false, true, true);
if (bRet) {
    MessageBox(0, "Back side parameters were successfully set to "
              "multi-stream. please verify in the following dialog and hit "
              "cancel.", "Status:", MB_OK);
    PixDrvSetDialog(&hScanner, 0, 0, 0);
}
else
    MessageBox(0, "Could not set back-side parameters to multi-stream",
              "Status:", MB_OK);

bRet = SetScannerParameters(&hScanner, true, true, false);
if (bRet) {
    MessageBox(0, "Front side parameters were successfully set to "
              "color-only. please verify in the following dialog and hit "
              "cancel.", "Status:", MB_OK);
    PixDrvSetDialog(&hScanner, 0, 0, 0);
}
else
    MessageBox(0, "Could not set front-side parameters to color-only",
              "Status:", MB_OK);

bRet = SetScannerParameters(&hScanner, true, false, true);
if (bRet) {
    MessageBox(0, "Front side parameters were successfully set to "
              "binary-only. please verify in the following dialog and hit "
              "cancel.", "Status:", MB_OK);
    PixDrvSetDialog(&hScanner, 0, 0, 0);
}
else
    MessageBox(0, "Could not set front-side parameters to binary-only",
              "Status:", MB_OK);

MessageBox(0, "Tests complete", "Status:", MB_OK);
PixDrvUnload(&hScanner);
PixdfltDone();
```

```
    return 0;
}
```

11 Tag List (Defaults)

The list below shows the default values and states of the ISIS driver API tags. This list was generated after the Default button was pressed in the UI. The value and choice list for many tags is dynamic and will differ based on dependent tags.

ISIS Driver Tag List for the Böwe Bell+Howell 3200 in Binary mode
Böwe Bell+Howell 3200 version 1.2.10610.18002

Name: TAG_ADAPTIVETHRESHOLD	HIGH: 3
Tag: 0x0E0 / 1760	DEFAULT: 3
Type: LONG	CURRENT: 3
Style: LIST	-----
Count: 1	
Items: [0] 0 TAG_ADAPTIVETHRESHOLD_OFF	
LOW: 0 TAG_ADAPTIVETHRESHOLD_OFF	
HIGH: 0 TAG_ADAPTIVETHRESHOLD_OFF	
DEFAULT: 0 TAG_ADAPTIVETHRESHOLD_OFF	
CURRENT: 0 TAG_ADAPTIVETHRESHOLD_OFF	

Name: TAG_AUTODESKEW	
Tag: 0x0456 / 1110	
Type: LONG	
Style: LIST	
Count: 4	
Items: [0] 0 TAG_AUTODESKEW_OFF	
[1] 1 TAG_AUTODESKEW_ON	
[2] 3	
[3] 1124	
LOW: 0 TAG_AUTODESKEW_OFF	
HIGH: 1124	
DEFAULT: 0 TAG_AUTODESKEW_OFF	
CURRENT: 0 TAG_AUTODESKEW_OFF	

Name: TAG_BAR_AUTOREADBACK	
Tag: 0x06C1 / 1729	
Type: LONG	
Style: LIST	
Count: 1	
Items: [0] 1 TAG_BAR_AUTOREADBACK_ON	
LOW: 1 TAG_BAR_AUTOREADBACK_ON	
HIGH: 1 TAG_BAR_AUTOREADBACK_ON	
DEFAULT: 1 TAG_BAR_AUTOREADBACK_ON	
CURRENT: 1 TAG_BAR_AUTOREADBACK_ON	

Name: TAG_BAR_AUTOREADFRONT	
Tag: 0x06C0 / 1728	
Type: LONG	
Style: LIST	
Count: 1	
Items: [0] 1 TAG_BAR_AUTOREADFRONT_ON	
LOW: 1 TAG_BAR_AUTOREADFRONT_ON	
HIGH: 1 TAG_BAR_AUTOREADFRONT_ON	
DEFAULT: 1 TAG_BAR_AUTOREADFRONT_ON	
CURRENT: 1 TAG_BAR_AUTOREADFRONT_ON	

Name: TAG_BARDATA_XPOSITION	
Tag: 0x06C3 / 1731	
Type: LONG	
Style: ANY	
Value: 0	
DEFAULT: 0	
CURRENT: 0	

Name: TAG_BARDATA_YPOSITION	
Tag: 0x06C4 / 1732	
Type: LONG	
Style: ANY	
Value: 0	
DEFAULT: 0	
CURRENT: 0	

Name: TAG_MCD_ENABLE	
Tag: 0x16B5 / 5813	
Type: LONG	
Style: LIST	
Count: 2	
Items: [0] 0 TAG_MCD_ENABLE_OFF	
[1] 1 TAG_MCD_ENABLE_ON	
LOW: 0 TAG_MCD_ENABLE_OFF	
HIGH: 1 TAG_MCD_ENABLE_ON	
DEFAULT: 0 TAG_MCD_ENABLE_OFF	
CURRENT: 0 TAG_MCD_ENABLE_OFF	

Name: TAG_MCD_HUE	
Tag: 0x16B7 / 5815	
Type: LONG	
Style: LIST	
Count: 1	
Items: [0] 0	
LOW: 0	
HIGH: 0	
DEFAULT: 0	
CURRENT: 0	

Name: TAG_MCD_HUE_RANGE	
Tag: 0x16BA / 5818	
Type: LONG	
Style: LIST	
Count: 1	
Items: [0] 0	
LOW: 0	
HIGH: 0	
DEFAULT: 0	
CURRENT: 0	

Name: TAG_MCD_INDEX	
Tag: 0x16B6 / 5814	
Type: LONG	
Style: RANGE	
LOW: 0	
HIGH: 5	
STEP: 1	
DEFAULT: 0	
CURRENT: 0	

Name: TAG_MCD_SATURATION	
Tag: 0x16B8 / 5816	
Type: LONG	
Style: LIST	
Count: 1	
Items: [0] 0	
LOW: 0	
HIGH: 0	
DEFAULT: 0	
CURRENT: 0	

Name: TAG_MCD_SATURATION_RANGE	
Tag: 0x16BB / 5819	
Type: LONG	
Style: LIST	

Name: TAG_BELL	Count: 1
Tag: 0x0508 / 1288	Items: [0] 0
Type: LONG	LOW: 0
Style: LIST	HIGH: 0
Count: 1	DEFAULT: 0
Items: [0] 0	CURRENT: 0
-----	-----
Name: TAG_BITSPERSAMPLE	Name: TAG_MCD_VALUE
Tag: 0x0102 / 258	Tag: 0x16B9 / 5817
Type: LONG	Type: LONG
Style: LIST	Style: LIST
Count: 2	Count: 1
Items: [0] 1	Items: [0] 100
[1] 8	LOW: 100
LOW: 1	HIGH: 100
HIGH: 8	DEFAULT: 100
DEFAULT: 1	CURRENT: 100
CURRENT: 1	-----
-----	Name: TAG_MCD_VALUE_RANGE
Name: TAG_BRIGHTNESS	Tag: 0x16BC / 5820
Tag: 0x0502 / 1282	Type: LONG
Type: LONG	Style: LIST
Style: RANGE	Count: 1
LOW: -3 TAG_BRIGHTNESS_AUTO	Items: [0] 0
HIGH: 255	LOW: 0
STEP: 1	HIGH: 0
DEFAULT: 128	DEFAULT: 0
CURRENT: 128	CURRENT: 0
-----	-----
Name: TAG_BUFSIZE	Name: TAG_MCD_YVALUE
Tag: 0x0507 / 1287	Tag: 0x16BD / 5821
Type: LONG	Type: LONG
Style: LIST	Style: LIST
Count: 1	Count: 1
Items: [0] 8192	Items: [0] 0
LOW: 8192	LOW: 0
HIGH: 8192	HIGH: 0
DEFAULT: 8192	DEFAULT: 0
CURRENT: 8192	CURRENT: 0
-----	-----
Name: TAG_COLOR_SRGB	Name: TAG_MICR
Tag: 0x1586 / 5510	Tag: 0x069B / 1691
Type: LONG	Type: LONG
Style: LIST	Style: LIST
Count: 1	Count: 2
Items: [0] 0	Items: [0] 0 TAG_MICR_OFF
LOW: 0	[1] 1 TAG_MICR_ON
HIGH: 0	LOW: 0 TAG_MICR_OFF
DEFAULT: 0	HIGH: 1 TAG_MICR_ON
CURRENT: 0	DEFAULT: 0 TAG_MICR_OFF
-----	CURRENT: 0 TAG_MICR_OFF
Name: TAG_COLORMAP	-----
Tag: 0x0140 / 320	Name: TAG_MICR_TEXT
Type: LONG	Tag: 0x06C7 / 1735
Style: RANGE	Type: ASCII
LOW: 0	Style: ANY
HIGH: 65535	Value:
STEP: 1	DEFAULT:
DEFAULT: 0	CURRENT:
CURRENT: 0	-----
-----	Name: TAG_MICR_TYPE
Name: TAG_COLORREDUCTIONMETHOD	Tag: 0x069C / 1692
Tag: 0x103F / 4159	Type: LONG
Type: LONG	Style: LIST
Style: LIST	Count: 13
Count: 1	Items: [0] 0 TAG_BAR_TYPE_NONE
Items: [0] 0	[1] 4 TAG_BAR_TYPE_CODE25_INTERLEAVED
LOW: 0	[2] 3 TAG_BAR_TYPE_CODE39
HIGH: 0	[3] 15 TAG_BAR_TYPE_128
DEFAULT: 0	[4] 12 TAG_BAR_TYPE_CODABAR
CURRENT: 0	[5] 18 TAG_BAR_TYPE_UPC_A
-----	[6] 1 TAG_BAR_TYPE_EAN8
Name: TAG_COMPRESSION	[7] 14 TAG_BAR_TYPE_CODE93
Tag: 0x0103 / 259	[8] 13 TAG_BAR_TYPE_UPC_E
Type: LONG	[9] 2 TAG_BAR_TYPE_EAN13
Style: LIST	[10] 21 TAG_BAR_TYPE_ADDON2
Count: 3	[11] 22 TAG_BAR_TYPE_ADDON5
Items: [0] 1 TAG_COMPRESSION_NONE	[12] 8 TAG_BAR_TYPE_PATCHCODE
[1] 3 TAG_COMPRESSION_G3	LOW: 0 TAG_BAR_TYPE_NONE
[2] 4 TAG_COMPRESSION_G4	HIGH: 8 TAG_BAR_TYPE_PATCHCODE
LOW: 1 TAG_COMPRESSION_NONE	DEFAULT: 0 TAG_BAR_TYPE_NONE
HIGH: 4 TAG_COMPRESSION_G4	CURRENT: 0 TAG_BAR_TYPE_NONE
DEFAULT: 1 TAG_COMPRESSION_NONE	-----
-----	Name: TAG_MICRDATA_TYPE
	Tag: 0x06C2 / 1730
	Type: LONG
	Style: ANY

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CURRENT: 1 TAG_COMPRESSION_NONE	Value: 0 DEFAULT: 0 CURRENT: 0
Name: TAG_CONNECTION_INFO	
Tag: 0x1674 / 5748	
Type: ASCII	
Style: ANY	
Value:	
DEFAULT:	
CURRENT:	
Name: TAG_CONTEXTLINES	
Tag: 0x0720 / 1824	
Type: LONG	
Style: LIST	
Count: 1	
Items: [0] 3	
LOW: 3	
HIGH: 3	
DEFAULT: 3	
CURRENT: 3	
Name: TAG_CONTRAST	
Tag: 0x0501 / 1281	
Type: LONG	
Style: RANGE	
LOW: 1	
HIGH: 255	
STEP: 1	
DEFAULT: 128	
CURRENT: 128	
Name: TAG_CONTROLSHEET	
Tag: 0x1060 / 4192	
Type: LONG	
Style: LIST	
Count: 3	
Items: [0] 0 TAG_CONTROLSHEET_OFF [1] 1 TAG_CONTROLSHEET_NOSTOP_NOEJECT [2] 2 TAG_CONTROLSHEET_NOSTOP_EJECT	
LOW: 0 TAG_CONTROLSHEET_OFF	
HIGH: 2 TAG_CONTROLSHEET_NOSTOP_EJECT	
DEFAULT: 0 TAG_CONTROLSHEET_OFF	
CURRENT: 0 TAG_CONTROLSHEET_OFF	
Name: TAG_CUSTOMFILTER_CONFIGURE	
Tag: 0x1522 / 5410	
Type: LONG	
Style: LIST	
Count: 2	
Items: [0] 0 [1] 1	
LOW: 0	
HIGH: 1	
DEFAULT: 0	
CURRENT: 0	
Name: TAG_CUSTOMFILTER_ENABLED	
Tag: 0x1521 / 5409	
Type: LONG	
Style: LIST	
Count: 2	
Items: [0] 0 [1] 1	
LOW: 0	
HIGH: 1	
DEFAULT: 0	
CURRENT: 0	
Name: TAG_CUSTOMFILTER_PARAMETERS	
Tag: 0x1520 / 5408	
Type: ASCII	
Style: ANY	
Value:	
DEFAULT:	
CURRENT:	
Name: TAG_DATAORIENTATION	
Tag: 0x0114 / 276	
Type: LONG	
Style: LIST	
Count: 2	
Items: [0] 1 TAG_DATAORIENTATION_PORT [1] 2 TAG_DATAORIENTATION_LAND	
LOW: 1 TAG_DATAORIENTATION_PORT	
HIGH: 2 TAG_DATAORIENTATION_LAND	
DEFAULT: 1 TAG_DATAORIENTATION_PORT	
CURRENT: 1 TAG_DATAORIENTATION_PORT	
Name: TAG_MIRRORIMAGE	
Tag: 0x0579 / 1401	
Type: LONG	
Style: LIST	
Count: 2	
Items: [0] 0 [1] 1	
LOW: 0	
HIGH: 1	
DEFAULT: 0	
CURRENT: 0	
Name: TAG_MIXEDSCAN	
Tag: 0x0511 / 1297	
Type: LONG	
Style: LIST	
Count: 2	
Items: [0] 0 TAG_MIXEDSCAN_OFF [1] 1 TAG_MIXEDSCAN_ON	
LOW: 0 TAG_MIXEDSCAN_OFF	
HIGH: 1 TAG_MIXEDSCAN_ON	
DEFAULT: 0 TAG_MIXEDSCAN_OFF	
CURRENT: 0 TAG_MIXEDSCAN_OFF	
Name: TAG_MODELIMIT	
Tag: 0x14FB / 5371	
Type: LONG	
Style: ANY	
Value: 0	
DEFAULT: 0	
CURRENT: 0	
Name: TAG_MORE_SETTINGS	
Tag: 0x0512 / 1298	
Type: LONG	
Style: LIST	
Count: 1	
Items: [0] 1	
LOW: 1	
HIGH: 1	
DEFAULT: 1	
CURRENT: 1	
Name: TAG_NETWORK_ADDSERVER_COMPUTERNAME	
Tag: 0x16CC / 5836	
Type: ASCII	
Style: ANY	
Value:	
DEFAULT:	
CURRENT:	
Name: TAG_NETWORK_ADDSERVER_IP	
Tag: 0x16CD / 5837	
Type: ASCII	
Style: LIST	
Count: 1	
Items: [0]	
DEFAULT:	
CURRENT:	
Name: TAG_NETWORK_ADDSERVER_PORT	
Tag: 0x16CE / 5838	
Type: LONG	
Style: LIST	
Count: 1	
Items: [0] 0	
LOW: 0	
HIGH: 0	
DEFAULT: 0	
CURRENT: 0	
Name: TAG_NETWORK_ADDSERVER_TYPE	
Tag: 0x16CB / 5835	
Type: LONG	
Style: LIST	
Count: 2	
Items: [0] 0 TAG_NETWORK_ADDSERVER_TYPE_COMPUTER [1] 1 TAG_NETWORK_ADDSERVER_TYPE_IP_PORT	
LOW: 0 TAG_NETWORK_ADDSERVER_TYPE_COMPUTER	
HIGH: 1 TAG_NETWORK_ADDSERVER_TYPE_IP_PORT	
DEFAULT: 0 TAG_NETWORK_ADDSERVER_TYPE_COMPUTER	
CURRENT: 0 TAG_NETWORK_ADDSERVER_TYPE_COMPUTER	

<pre>Name: TAG_DESKEW_GRADIENT Tag: 0x0467 / 1127 Type: LONG Style: ANY Value: 0 DEFAULT: 0 CURRENT: 0</pre>	<pre>Name: TAG_NETWORK_ADDSHARENAME Tag: 0x16C5 / 5829 Type: ASCII Style: ANY Value: DEFAULT: CURRENT:</pre>
<pre>Name: TAG_DESKEW_PITCH Tag: 0x0465 / 1125 Type: LONG Style: ANY Value: 0 DEFAULT: 0 CURRENT: 0</pre>	<pre>Name: TAG_NETWORK_ADDTIMEOUT Tag: 0x16C7 / 5831 Type: LONG Style: RANGE LOW: 0 HIGH: 100000 STEP: 1 DEFAULT: 3600 CURRENT: 3600</pre>
<pre>Name: TAG_DESKEW_STOP Tag: 0x1529 / 5417 Type: LONG Style: LIST Count: 2 Items: [0] 0 TAG_DESKEW_STOP_OFF [1] 1 TAG_DESKEW_STOP_ON LOW: 0 TAG_DESKEW_STOP_OFF HIGH: 1 TAG_DESKEW_STOP_ON DEFAULT: 0 TAG_DESKEW_STOP_OFF CURRENT: 0 TAG_DESKEW_STOP_OFF</pre>	<pre>Name: TAG_NETWORK_ADDUSERNAME Tag: 0x16C6 / 5830 Type: ASCII Style: ANY Value: DEFAULT: CURRENT:</pre>
<pre>Name: TAG_DETECTJOBSEP Tag: 0x05A7 / 1447 Type: LONG Style: LIST Count: 5 Items: [0] 0 TAG_DETECTJOBSEP_OFF [1] 1 TAG_DETECTJOBSEP_NOSTOP_NOEJECT [2] 2 TAG_DETECTJOBSEP_NOSTOP_EJECT [3] 3 TAG_DETECTJOBSEP_STOP_NOEJECT [4] 4 TAG_DETECTJOBSEP_STOP_EJECT LOW: 0 TAG_DETECTJOBSEP_OFF HIGH: 4 TAG_DETECTJOBSEP_STOP_EJECT DEFAULT: 0 TAG_DETECTJOBSEP_OFF CURRENT: 0 TAG_DETECTJOBSEP_OFF</pre>	<pre>Name: TAG_NETWORK_LOCAL_CONFIG Tag: 0x16C3 / 5827 Type: ASCII Style: LIST Count: 1 Items: [0] Böwe Bell+Howell 3600 on STI - 0001 DEFAULT: Böwe Bell+Howell 3600 on STI - 0001 CURRENT: Böwe Bell+Howell 3600 on STI - 0001</pre>
<pre>Name: TAG_DETECTPAGESIZE Tag: 0x057B / 1403 Type: LONG Style: LIST Count: 2 Items: [0] 0 TAG_DETECTPAGESIZE_OFF [1] 1 TAG_DETECTPAGESIZE_ON LOW: 0 TAG_DETECTPAGESIZE_OFF HIGH: 1 TAG_DETECTPAGESIZE_ON DEFAULT: 0 TAG_DETECTPAGESIZE_OFF CURRENT: 0 TAG_DETECTPAGESIZE_OFF</pre>	<pre>Name: TAG_NETWORK_NETWORK_CONFIG Tag: 0x16C2 / 5826 Type: ASCII Style: LIST Count: 1 Items: [0] DEFAULT: CURRENT:</pre>
<pre>Name: TAG_DITHER Tag: 0x0500 / 1280 Type: ASCII Style: LIST Count: 7 Items: [0] None [1] Bayer Dither 64 [2] Bayer Dither 16 [3] 45 deg. Halftone [4] 0 deg. Halftone [5] Error Diffusion [6] User Downloaded DEFAULT: None CURRENT: None</pre>	<pre>Name: TAG_NETWORK_SHARED_CONFIG Tag: 0x16C4 / 5828 Type: ASCII Style: LIST Count: 1 Items: [0] None DEFAULT: None CURRENT: None</pre>
<pre>Name: TAG_DITHER_LENGTH1 Tag: 0x0518 / 1304 Type: LONG Style: LIST Count: 1 Items: [0] 8 LOW: 8 HIGH: 8 DEFAULT: 8 CURRENT: 8</pre>	<pre>Name: TAG_NETWORK_YIELDPROC Tag: 0x16C0 / 5824 Type: LONG Style: ANY Value: 0 DEFAULT: 0 CURRENT: 0</pre>
<pre>Name: TAG_DITHER_PATTERN1 Tag: 0x0548 / 1352 Type: LONG Style: RANGE LOW: 0</pre>	<pre>Name: TAG_NETWORK_YIELDPROC_PARAM Tag: 0x16C1 / 5825 Type: LONG Style: ANY Value: 0 DEFAULT: 0 CURRENT: 0</pre>
	<pre>Name: TAG_NETWORKING_DISABLE Tag: 0x16CA / 5834 Type: LONG Style: LIST Count: 2 Items: [0] 0 [1] 1 LOW: 0 HIGH: 1 DEFAULT: 0 CURRENT: 0</pre>
	<pre>Name: TAG_NOPAGE_TIMEOUT Tag: 0x14F1 / 5361 Type: LONG Style: RANGE LOW: 100 HIGH: 32000</pre>

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HIGH: 255 STEP: 1 DEFAULT: 0 CURRENT: 0	STEP: 1 DEFAULT: 250 CURRENT: 250
Name: TAG_DROPOUT Tag: 0x0582 / 1410 Type: LONG Style: LIST Count: 4 Items: [0] 0 TAG_DROPOUT_NONE [1] 1 TAG_DROPOUT_RED [2] 2 TAG_DROPOUT_GREEN [3] 3 TAG_DROPOUT_BLUE LOW: 0 TAG_DROPOUT_NONE HIGH: 3 TAG_DROPOUT_BLUE DEFAULT: 0 TAG_DROPOUT_NONE CURRENT: 0 TAG_DROPOUT_NONE	Name: TAG_PAGESIZE Tag: 0x050E / 1294 Type: ASCII Style: LIST Count: 15 Items: [0] A3 - 297 x 420 mm [1] A4 - 210 x 297 mm [2] A5 - 148 x 210 mm [3] A6 - 105 x 148 mm [4] B4 (ISO) - 250 x 353 mm [5] B4 (JIS) - 257 x 364 mm [6] B5 (ISO) - 176 x 250 mm [7] B5 (JIS) - 182 x 257 mm [8] B6 (ISO) - 125 x 176 mm [9] B6 (JIS) - 128 x 182 mm [10] Business Card - 55 x 91 mm [11] Double Letter - 11 x 17 in [12] Legal - 8.5 x 14 in [13] Letter - 8.5 x 11 in [14] Scanner's Maximum DEFAULT: Letter - 8.5 x 11 in CURRENT: Letter - 8.5 x 11 in
Name: TAG_DTCFILTER Tag: 0x05A4 / 1444 Type: LONG Style: LIST Count: 1 Items: [0] 1 DTCFILTER_NORMAL LOW: 1 DTCFILTER_NORMAL HIGH: 1 DTCFILTER_NORMAL DEFAULT: 1 DTCFILTER_NORMAL CURRENT: 1 DTCFILTER_NORMAL	Name: TAG_PHOTOMETRICINTERPRETATION Tag: 0x0106 / 262 Type: LONG Style: LIST Count: 1 Items: [0] 0 TAG_PHOTOMETRIC_WHITE0 LOW: 0 TAG_PHOTOMETRIC_WHITE0 HIGH: 0 TAG_PHOTOMETRIC_WHITE0 DEFAULT: 0 TAG_PHOTOMETRIC_WHITE0 CURRENT: 0 TAG_PHOTOMETRIC_WHITE0
Name: TAG_EMPHASIS Tag: 0x0510 / 1296 Type: LONG Style: LIST Count: 5 Items: [0] 0 TAG_EMPHASIS_OFF [1] 1 TAG_EMPHASIS_LOW [2] 2 TAG_EMPHASIS_MEDIUM [3] 3 TAG_EMPHASIS_HIGH [4] 4 TAG_EMPHASIS_SMOOTH LOW: 0 TAG_EMPHASIS_OFF HIGH: 4 TAG_EMPHASIS_SMOOTH DEFAULT: 2 TAG_EMPHASIS_MEDIUM CURRENT: 2 TAG_EMPHASIS_MEDIUM	Name: TAG_PIXELPATCH Tag: 0x0589 / 1417 Type: LONG Style: LIST Count: 7 Items: [0] 0 TAG_PIXELPATCH_NONE [1] 4 TAG_PIXELPATCH_MATRIX_1 [2] 5 TAG_PIXELPATCH_MATRIX_2 [3] 6 TAG_PIXELPATCH_MATRIX_3 [4] 7 TAG_PIXELPATCH_MATRIX_4 [5] 8 TAG_PIXELPATCH_MATRIX_5 [6] 9 TAG_PIXELPATCH_MATRIX_6 LOW: 0 TAG_PIXELPATCH_NONE HIGH: 9 TAG_PIXELPATCH_MATRIX_6 DEFAULT: 0 TAG_PIXELPATCH_NONE CURRENT: 0 TAG_PIXELPATCH_NONE
Name: TAGENDORSER_FONT Tag: 0x1068 / 4200 Type: ASCII Style: LIST Count: 2 Items: [0] Bold [1] Normal DEFAULT: Normal CURRENT: Normal	Name: TAG_PLANARCONFIGURATION Tag: 0x011C / 284 Type: LONG Style: LIST Count: 1 Items: [0] 1 LOW: 1 HIGH: 1 DEFAULT: 1 CURRENT: 1
Name: TAGENDORSER_INSTART Tag: 0x0584 / 1412 Type: LONG Style: LIST Count: 1 Items: [0] 1 LOW: 1 HIGH: 1 DEFAULT: 1 CURRENT: 1	Name: TAG_PREVIEW_CALLBACK Tag: 0x0691 / 1681 Type: LONG Style: ANY Value: 0 DEFAULT: 0 CURRENT: 0
Name: TAGENDORSER_INSTEP Tag: 0x1066 / 4198 Type: LONG Style: LIST Count: 1 Items: [0] 1 LOW: 1 HIGH: 1 DEFAULT: 1 CURRENT: 1	Name: TAG_PREVIEW_MODE Tag: 0x1523 / 5411 Type: LONG Style: LIST Count: 1 Items: [0] 0 LOW: 0 HIGH: 0 DEFAULT: 0 CURRENT: 0
Name: TAGENDORSER_ORIENTATION Tag: 0x1067 / 4199 Type: LONG Style: LIST Count: 1 Items: [0] 2 TAGENDORSER_ORIENTATION_LAND LOW: 2 TAGENDORSER_ORIENTATION_LAND HIGH: 2 TAGENDORSER_ORIENTATION_LAND DEFAULT: 2 TAGENDORSER_ORIENTATION_LAND CURRENT: 2 TAGENDORSER_ORIENTATION_LAND	Name: TAG_PREVIEW_RES Tag: 0x14FD / 5373

Name: TAGENDORSER_SIDE Tag: 0x0477 / 1143 Type: LONG Style: LIST Count: 1 Items: [0] 0 TAGENDORSER_SIDE_FRONT LOW: 0 TAGENDORSER_SIDE_FRONT HIGH: 0 TAGENDORSER_SIDE_FRONT DEFAULT: 0 TAGENDORSER_SIDE_FRONT CURRENT: 0 TAGENDORSER_SIDE_FRONT	Type: RATIONAL Style: LIST Count: 1 Items: [0] 200 LOW: 200 HIGH: 200 DEFAULT: 200 CURRENT: 200
Name: TAGENDORSER_STRING Tag: 0x0583 / 1411 Type: ASCII Style: ANY Value: DEFAULT: CURRENT:	Name: TAGRESUNIT Tag: 0x0128 / 296 Type: LONG Style: LIST Count: 4 Items: [0] 0 [1] 1 TAGRESUNIT_NONE [2] 2 TAGRESUNIT_INCH [3] 3 TAGRESUNIT_CENTIMETER LOW: 0 HIGH: 3 TAGRESUNIT_CENTIMETER DEFAULT: 1 TAGRESUNIT_NONE CURRENT: 1 TAGRESUNIT_NONE
Name: TAGENDORSER_TYPE Tag: 0x0476 / 1142 Type: LONG Style: LIST Count: 1 Items: [0] 0 TAGENDORSER_PRE_SCAN LOW: 0 TAGENDORSER_PRE_SCAN HIGH: 0 TAGENDORSER_PRE_SCAN DEFAULT: 0 TAGENDORSER_PRE_SCAN CURRENT: 0 TAGENDORSER_PRE_SCAN	Name: TAGREVERSEIMAGEFORMAT Tag: 0x057D / 1405 Type: LONG Style: LIST Count: 2 Items: [0] 0 [1] 1 LOW: 0 HIGH: 1 DEFAULT: 0 CURRENT: 0
Name: TAGENDORSER_WHICHCOUNTER Tag: 0x14FA / 5370 Type: LONG Style: LIST Count: 1 Items: [0] 0 TAGENDORSER_WHICHCOUNTER_SCANNER LOW: 0 TAGENDORSER_WHICHCOUNTER_SCANNER HIGH: 0 TAGENDORSER_WHICHCOUNTER_SCANNER DEFAULT: 0 TAGENDORSER_WHICHCOUNTER_SCANNER CURRENT: 0 TAGENDORSER_WHICHCOUNTER_SCANNER	Name: TAGSAMPLESPERPIXEL Tag: 0x0115 / 277 Type: LONG Style: LIST Count: 2 Items: [0] 1 [1] 3 LOW: 1 HIGH: 3 DEFAULT: 1 CURRENT: 1
Name: TAGENDORSER_YOFFSET Tag: 0x0585 / 1413 Type: LONG Style: LIST Count: 1 Items: [0] 0 LOW: 0 HIGH: 0 DEFAULT: 0 CURRENT: 0	Name: TAGSCANAHEAD Tag: 0x050D / 1293 Type: LONG Style: LIST Count: 2 Items: [0] 0 TAGSCANAHEAD_NO [1] 1 TAGSCANAHEAD_YES LOW: 0 TAGSCANAHEAD_NO HIGH: 1 TAGSCANAHEAD_YES DEFAULT: 0 TAGSCANAHEAD_NO CURRENT: 0 TAGSCANAHEAD_NO
Name: TAGENHANCED Tag: 0x0722 / 1826 Type: LONG Style: LIST Count: 1 Items: [0] 0 LOW: 0 HIGH: 0 DEFAULT: 0 CURRENT: 0	Name: TAGSCANAHEAD_MAXPAGES Tag: 0x057C / 1404 Type: LONG Style: RANGE LOW: 0 HIGH: 32767 STEP: 1 DEFAULT: 0 CURRENT: 0
Name: TAGEXTENDED_DIALOG Tag: 0x0690 / 1680 Type: LONG Style: LIST Count: 1 Items: [0] 1 LOW: 1 HIGH: 1 DEFAULT: 1 CURRENT: 1	Name: TAGSCANAHEAD_PAGES Tag: 0x0515 / 1301 Type: LONG Style: ANY Value: 0 DEFAULT: 0 CURRENT: 0
Name: TAGFEEDER Tag: 0x0503 / 1283 Type: LONG Style: LIST Count: 1 Items: [0] 136904709 LOW: 136904709 HIGH: 136904709 DEFAULT: 136904709 CURRENT: 136904709	Name: TAGSCANBITSPERPIXEL Tag: 0x1524 / 5412 Type: LONG Style: LIST Count: 1 Items: [0] 0 LOW: 0 HIGH: 0 DEFAULT: 0 CURRENT: 0
Name: TAGFEEDER_DOUBLEDETECT	

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Tag: 0x13B8 / 5048	Name: TAG_SCANNERID
Type: LONG	Tag: 0x050A / 1290
Style: LIST	Type: ASCII
Count: 2	Style: ANY
Items: [0] 0	Value: Böwe Bell+Howell 3600
[1] 1	DEFAULT: Böwe Bell+Howell 3600
LOW: 0	CURRENT: Böwe Bell+Howell 3600
HIGH: 1	
DEFAULT: 1	
CURRENT: 1	

Name: TAG_FEEDER_DOUBLEDETECT_ACTION	Name: TAG_SCANNINGSPEED
Tag: 0x152E / 5422	Tag: 0x0580 / 1408
Type: LONG	Type: LONG
Style: LIST	Style: LIST
Count: 2	Count: 2
Items: [0] 0 TAG_FEEDER_DOUBLEDETECT_CONTINUE	Items: [0] 0 TAG_SCANNINGSPEED_SLOW
[1] 1 TAG_FEEDER_DOUBLEDETECT_STOP	[1] 1 TAG_SCANNINGSPEED_FAST
LOW: 0 TAG_FEEDER_DOUBLEDETECT_CONTINUE	LOW: 0 TAG_SCANNINGSPEED_SLOW
HIGH: 1 TAG_FEEDER_DOUBLEDETECT_STOP	HIGH: 1 TAG_SCANNINGSPEED_FAST
DEFAULT: 1 TAG_FEEDER_DOUBLEDETECT_STOP	DEFAULT: 1 TAG_SCANNINGSPEED_FAST
CURRENT: 1 TAG_FEEDER_DOUBLEDETECT_STOP	CURRENT: 1 TAG_SCANNINGSPEED_FAST

Name: TAG_FEEDER_DOUBLEDETECT_SENSITIVITY	Name: TAG_SCANORIENTATION
Tag: 0x14F8 / 5368	Tag: 0x0113 / 275
Type: LONG	Type: LONG
Style: LIST	Style: LIST
Count: 3	Count: 4
Items: [0] 0 TAG_FEEDER_DOUBLEDETECT_SENSITIVITY_LOW	Items: [0] 1 TAG_SCANORIENTATION_PORT
[1] 1	[1] 2 TAG_SCANORIENTATION_LAND
TAG_FEEDER_DOUBLEDETECT_SENSITIVITY_NORMAL	[2] 3 TAG_SCANORIENTATION_180
[2] 2 TAG_FEEDER_DOUBLEDETECT_SENSITIVITY_HIGH	[3] 4 TAG_SCANORIENTATION_270
LOW: 0 TAG_FEEDER_DOUBLEDETECT_SENSITIVITY_LOW	LOW: 1 TAG_SCANORIENTATION_PORT
HIGH: 2 TAG_FEEDER_DOUBLEDETECT_SENSITIVITY_HIGH	HIGH: 4 TAG_SCANORIENTATION_270
DEFAULT: 1 TAG_FEEDER_DOUBLEDETECT_SENSITIVITY_NORMAL	DEFAULT: 1 TAG_SCANORIENTATION_PORT
CURRENT: 1 TAG_FEEDER_DOUBLEDETECT_SENSITIVITY_NORMAL	CURRENT: 1 TAG_SCANORIENTATION_PORT

Name: TAG_FEEDEROFFSET	Name: TAG_SCANTYPE
Tag: 0x06A7 / 1703	Tag: 0x0514 / 1300
Type: LONG	Type: LONG
Style: LIST	Style: LIST
Count: 1	Count: 3
Items: [0] 0	Items: [0] 0 TAG_SCANTYPE_AUTOMATIC
LOW: 0	[1] 3 TAG_SCANTYPE_FEEDER
HIGH: 0	[2] 4 TAG_SCANTYPE_DUPLEX
DEFAULT: 0	LOW: 0 TAG_SCANTYPE_AUTOMATIC
CURRENT: 0	HIGH: 4 TAG_SCANTYPE_DUPLEX
-----	DEFAULT: 0 TAG_SCANTYPE_AUTOMATIC
Name: TAG_FILLORDER	CURRENT: 0 TAG_SCANTYPE_AUTOMATIC
Tag: 0x010A / 266	-----
Type: LONG	Name: TAG_SOCKET_HANDLE
Style: LIST	Tag: 0x169E / 5790
Count: 1	Type: LONG
Items: [0] 1 TAG_FILLORDER_MSBLEFT	Style: ANY
LOW: 1 TAG_FILLORDER_MSBLEFT	Value: 0
HIGH: 1 TAG_FILLORDER_MSBLEFT	DEFAULT: 0
DEFAULT: 1 TAG_FILLORDER_MSBLEFT	CURRENT: 0
CURRENT: 1 TAG_FILLORDER_MSBLEFT	-----
-----	Name: TAG_SOCKET_TIMEOUT
Name: TAG_FILM_POLARITY	Tag: 0x169F / 5791
Tag: 0x13DC / 5084	Type: LONG
Type: LONG	Style: ANY
Style: LIST	Value: 0
Count: 2	DEFAULT: 0
Items: [0] 0 TAG_FILM_POLARITY_NEG	CURRENT: 0
[1] 1 TAG_FILM_POLARITY_POS	-----
LOW: 0 TAG_FILM_POLARITY_NEG	Name: TAG_SOFTWARE_FEATURES
HIGH: 1 TAG_FILM_POLARITY_POS	Tag: 0x14FF / 5375
DEFAULT: 1 TAG_FILM_POLARITY_POS	Type: LONG
CURRENT: 1 TAG_FILM_POLARITY_POS	Style: LIST
-----	Count: 1
Name: TAG_FILTER_CROP_DETECT	Items: [0] 3 TAG_SOFTWARE_FEATURES_THRESHOLD
Tag: 0x1656 / 5718	LOW: 3 TAG_SOFTWARE_FEATURES_THRESHOLD
Type: LONG	HIGH: 3 TAG_SOFTWARE_FEATURES_THRESHOLD
Style: LIST	DEFAULT: 3 TAG_SOFTWARE_FEATURES_THRESHOLD
Count: 2	CURRENT: 3 TAG_SOFTWARE_FEATURES_THRESHOLD
Items: [0] 0 TAG_FILTER_CROP_DETECT_OFF	-----
[1] 1 TAG_FILTER_CROP_DETECT_BORDER	Name: TAG_SPLITLONGPAPER
LOW: 0 TAG_FILTER_CROP_DETECT_OFF	Tag: 0x152A / 5418
HIGH: 1 TAG_FILTER_CROP_DETECT_BORDER	Type: LONG
DEFAULT: 0 TAG_FILTER_CROP_DETECT_OFF	Style: LIST
CURRENT: 0 TAG_FILTER_CROP_DETECT_OFF	Count: 2
-----	Items: [0] 0 TAG_SPLITLONGPAPER_OFF
Name: TAG_FILTER_DOT_ERASE	[1] 1 TAG_SPLITLONGPAPER_ON
Tag: 0x1418 / 5144	LOW: 0 TAG_SPLITLONGPAPER_OFF
Type: LONG	HIGH: 1 TAG_SPLITLONGPAPER_ON
Style: LIST	DEFAULT: 0 TAG_SPLITLONGPAPER_OFF
	CURRENT: 0 TAG_SPLITLONGPAPER_OFF

<pre> Count: 1 Items: [0] 1 TAG_FILTER_DOT_ERASE_BLACK LOW: 1 TAG_FILTER_DOT_ERASE_BLACK HIGH: 1 TAG_FILTER_DOT_ERASE_BLACK DEFAULT: 1 TAG_FILTER_DOT_ERASE_BLACK CURRENT: 1 TAG_FILTER_DOT_ERASE_BLACK ----- Name: TAG_FILTER_SHADING Tag: 0x105C / 4188 Type: LONG Style: LIST Count: 2 Items: [0] 0 TAG_FILTER_SHADING_OFF [1] 1 TAG_FILTER_SHADING_ON LOW: 0 TAG_FILTER_SHADING_OFF HIGH: 1 TAG_FILTER_SHADING_ON DEFAULT: 0 TAG_FILTER_SHADING_OFF CURRENT: 0 TAG_FILTER_SHADING_OFF ----- Name: TAG_FITTOPAGE Tag: 0x14F9 / 5369 Type: LONG Style: LIST Count: 2 Items: [0] 0 TAG_FITTOPAGE_OFF [1] 1 TAG_FITTOPAGE_ON LOW: 0 TAG_FITTOPAGE_OFF HIGH: 1 TAG_FITTOPAGE_ON DEFAULT: 0 TAG_FITTOPAGE_OFF CURRENT: 0 TAG_FITTOPAGE_OFF ----- Name: TAG_GAMMA Tag: 0x050F / 1295 Type: LONG Style: LIST Count: 1 Items: [0] 0 TAG_GAMMA_NORMAL LOW: 0 TAG_GAMMA_NORMAL HIGH: 0 TAG_GAMMA_NORMAL DEFAULT: 0 TAG_GAMMA_NORMAL CURRENT: 0 TAG_GAMMA_NORMAL ----- Name: TAG_GAMMA_LENGTH1 Tag: 0x0558 / 1368 Type: LONG Style: LIST Count: 1 Items: [0] 256 LOW: 256 HIGH: 256 DEFAULT: 256 CURRENT: 256 ----- Name: TAG_GAMMA_LENGTH2 Tag: 0x0559 / 1369 Type: LONG Style: LIST Count: 1 Items: [0] 256 LOW: 256 HIGH: 256 DEFAULT: 256 CURRENT: 256 ----- Name: TAG_GAMMA_LENGTH3 Tag: 0x055A / 1370 Type: LONG Style: LIST Count: 1 Items: [0] 256 LOW: 256 HIGH: 256 DEFAULT: 256 CURRENT: 256 ----- Name: TAG_GAMMA_LENGTH4 Tag: 0x055B / 1371 Type: LONG Style: LIST Count: 1 Items: [0] 256 LOW: 256 HIGH: 256 DEFAULT: 256 CURRENT: 256 ----- Name: TAG_GAMMA_TABLE1 </pre>	<pre> Name: TAG_STOP_MODE Tag: 0x14B1 / 5297 Type: LONG Style: LIST Count: 1 Items: [0] 0 LOW: 0 HIGH: 0 DEFAULT: 0 CURRENT: 0 ----- Name: TAG_SUBWINDOW Tag: 0x06AD / 1709 Type: LONG Style: LIST Count: 1 Items: [0] 0 LOW: 0 HIGH: 0 DEFAULT: 0 CURRENT: 0 ----- Name: TAG_SUBWINDOW_COUNT_FRONT Tag: 0x06AF / 1711 Type: LONG Style: LIST Count: 1 Items: [0] 0 LOW: 0 HIGH: 0 DEFAULT: 0 CURRENT: 0 ----- Name: TAG_THRESHOLDTYPE Tag: 0x1045 / 4165 Type: LONG Style: LIST Count: 1 Items: [0] 0 TAG_THRESHOLDTYPE_NORMAL LOW: 0 TAG_THRESHOLDTYPE_NORMAL HIGH: 0 TAG_THRESHOLDTYPE_NORMAL DEFAULT: 0 TAG_THRESHOLDTYPE_NORMAL CURRENT: 0 TAG_THRESHOLDTYPE_NORMAL ----- Name: TAG_TWAIN_MULTISTREAM Tag: 0x1696 / 5782 Type: LONG Style: LIST Count: 1 Items: [0] 1 LOW: 1 HIGH: 1 DEFAULT: 1 CURRENT: 1 ----- Name: TAG_TWAIN_SCANMODE Tag: 0x14F3 / 5363 Type: LONG Style: LIST Count: 2 Items: [0] 0 TAG_TWAIN_SCANMODE_BATCH [1] 1 TAG_TWAIN_SCANMODE_PAGE LOW: 0 TAG_TWAIN_SCANMODE_BATCH HIGH: 1 TAG_TWAIN_SCANMODE_PAGE DEFAULT: 0 TAG_TWAIN_SCANMODE_BATCH CURRENT: 0 TAG_TWAIN_SCANMODE_BATCH ----- Name: TAG_USEOLDAFFECTS Tag: 0x14FE / 5374 Type: LONG Style: LIST Count: 2 Items: [0] 0 TAG_USEOLDAFFECTS_OFF [1] 1 TAG_USEOLDAFFECTS_ON LOW: 0 TAG_USEOLDAFFECTS_OFF HIGH: 1 TAG_USEOLDAFFECTS_ON DEFAULT: 1 TAG_USEOLDAFFECTS_ON CURRENT: 1 TAG_USEOLDAFFECTS_ON ----- Name: TAG_USER11 Tag: 0x070B / 1803 Type: LONG Style: LIST Count: 1 Items: [0] 0 LOW: 0 HIGH: 0 </pre>
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Tag: 0x0568 / 1384	DEFAULT: 0
Type: LONG	CURRENT: 0
Style: RANGE	
LOW: 0	
HIGH: 255	
STEP: 1	
DEFAULT: 0	
CURRENT: 0	

Name: TAG_GAMMA_TABLE2	Name: TAG_USER4
Tag: 0x0569 / 1385	Tag: 0x0704 / 1796
Type: LONG	Type: LONG
Style: RANGE	Style: LIST
LOW: 0	Count: 2
HIGH: 255	Items: [0] 0
STEP: 1	[1] 1
DEFAULT: 0	LOW: 0
CURRENT: 0	HIGH: 1
-----	DEFAULT: 0
Name: TAG_GAMMA_TABLE3	CURRENT: 0
Tag: 0x056A / 1386	
Type: LONG	
Style: RANGE	
LOW: 0	
HIGH: 255	
STEP: 1	
DEFAULT: 0	
CURRENT: 0	

Name: TAG_GAMMA_TABLE4	Name: TAG_USER5
Tag: 0x056B / 1387	Tag: 0x0705 / 1797
Type: LONG	Type: LONG
Style: RANGE	Style: LIST
LOW: 0	Count: 1
HIGH: 255	Items: [0] 128
STEP: 1	LOW: 128
DEFAULT: 0	HIGH: 128
CURRENT: 0	DEFAULT: 128
-----	CURRENT: 128
Name: TAG_GROUP3OPTIONS	Name: TAG_USER6
Tag: 0x0124 / 292	Tag: 0x0706 / 1798
Type: LONG	Type: LONG
Style: LIST	Style: LIST
Count: 2	Count: 1
Items: [0] 0 TAG_GROUP3OPTIONS_1D	Items: [0] 128
[1] 1 TAG_GROUP3OPTIONS_2D	LOW: 128
LOW: 0 TAG_GROUP3OPTIONS_1D	HIGH: 128
HIGH: 1 TAG_GROUP3OPTIONS_2D	DEFAULT: 128
DEFAULT: 0 TAG_GROUP3OPTIONS_1D	CURRENT: 128
CURRENT: 0 TAG_GROUP3OPTIONS_1D	

Name: TAG_IMAGELENGTH	Name: TAG_USER7
Tag: 0x0101 / 257	Tag: 0x0707 / 1799
Type: LONG	Type: LONG
Style: RANGE	Style: LIST
LOW: 32	Count: 2
HIGH: 2200	Items: [0] 0
STEP: 1	[1] 1
DEFAULT: 2200	LOW: 0
CURRENT: 2200	HIGH: 1
-----	DEFAULT: 0
Name: TAG_IMAGewidth	CURRENT: 0
Tag: 0x0100 / 256	
Type: LONG	
Style: RANGE	
LOW: 32	
HIGH: 1696	
STEP: 16	
DEFAULT: 1696	
CURRENT: 1696	

Name: TAG_JOBSEPDETECTED	Name: TAG_USER8
Tag: 0x05A8 / 1448	Tag: 0x0708 / 1800
Type: LONG	Type: LONG
Style: ANY	Style: LIST
Value: 0	Count: 2
DEFAULT: 0	Items: [0] 0
CURRENT: 0	[1] 1
-----	LOW: 0
Name: TAG_JPEGQFACTOR	HIGH: 1
Tag: 0x138A / 5002	DEFAULT: 0
Type: LONG	CURRENT: 0
Style: RANGE	
LOW: 1	
HIGH: 100	
STEP: 1	
DEFAULT: 75	

Name: TAG_WINDOW	Name: TAG_WHITEFOLLOW
Tag: 0x069A / 1690	Tag: 0x05A5 / 1445
Type: LONG	Type: LONG
Style: RANGE	Style: LIST
LOW: -2	Count: 3
HIGH: 2	Items: [0] 0 TAG_WHITEFOLLOW_SCANNER
STEP: 1	[1] 128 TAG_WHITEFOLLOW_PAPER
DEFAULT: 0	[2] 129 TAG_WHITEFOLLOW_AUTO
CURRENT: 0 TAG_WHITEFOLLOW_SCANNER	LOW: 0 TAG_WHITEFOLLOW_SCANNER
-----	HIGH: 129 TAG_WHITEFOLLOW_AUTO
Name: TAG_WINDOW_COUNT_BACK	DEFAULT: 0 TAG_WHITEFOLLOW_SCANNER
Tag: 0x06AB / 1707	CURRENT: 0 TAG_WHITEFOLLOW_SCANNER
Type: LONG	

CURRENT: 75	Style: RANGE LOW: 1 HIGH: 1 STEP: 1 DEFAULT: 1 CURRENT: 1
Name: TAG_KFACTOR Tag: 0x050C / 1292 Type: LONG Style: LIST Count: 1 Items: [0] 4 LOW: 4 HIGH: 4 DEFAULT: 4 CURRENT: 4	Name: TAG_WINDOW_COUNT_FRONT Tag: 0x06AC / 1708 Type: LONG Style: RANGE LOW: 1 HIGH: 1 STEP: 1 DEFAULT: 1 CURRENT: 1
Name: TAG_LASTPAGEENDORSER Tag: 0x13DE / 5086 Type: ASCII Style: ANY Value: DEFAULT: CURRENT:	Name: TAG_XPOSITION Tag: 0x011E / 286 Type: LONG Style: RANGE LOW: 0 HIGH: 1664 STEP: 16 DEFAULT: 0 CURRENT: 0
Name: TAG_MANUALFEED Tag: 0x1061 / 4193 Type: LONG Style: LIST Count: 4 Items: [0] 0 TAG_MANUALFEED_OFF [1] 1 TAG_MANUALFEED_ON [2] 2 TAG_MANUALFEED_BUTTON [3] 3 TAG_MANUALFEED_AUTOSTART LOW: 0 TAG_MANUALFEED_OFF HIGH: 3 TAG_MANUALFEED_AUTOSTART DEFAULT: 0 TAG_MANUALFEED_OFF CURRENT: 0 TAG_MANUALFEED_OFF	Name: TAG_XRESOLUTION Tag: 0x011A / 282 Type: RATIONAL Style: RANGE LOW: 100 HIGH: 600 STEP: 1 DEFAULT: 200 CURRENT: 200
Name: TAG_MANUALTIMEOUT Tag: 0x06A6 / 1702 Type: LONG Style: LIST Count: 1 Items: [0] 30 LOW: 30 HIGH: 30 DEFAULT: 30 CURRENT: 30	Name: TAG_YCBCR_SUBSAMPLING Tag: 0x0212 / 530 Type: LONG Style: LIST Count: 3 Items: [0] 1 [1] 2 [2] 4 LOW: 1 HIGH: 4 DEFAULT: 4 CURRENT: 4
Name: TAG_MARGIN Tag: 0x14C4 / 5316 Type: LONG Style: LIST Count: 2 Items: [0] 0 TAG_MARGIN_OFF [1] 1 TAG_MARGIN_ON LOW: 0 TAG_MARGIN_OFF HIGH: 1 TAG_MARGIN_ON DEFAULT: 0 TAG_MARGIN_OFF CURRENT: 0 TAG_MARGIN_OFF	Name: TAG_YIELDPROC Tag: 0x0513 / 1299 Type: LONG Style: ANY Value: 0 DEFAULT: 0 CURRENT: 0
Name: TAG_MARGIN_MM Tag: 0x14C5 / 5317 Type: LONG Style: LIST Count: 2 Items: [0] 0 [1] 20 LOW: 0 HIGH: 20 DEFAULT: 0 CURRENT: 0	Name: TAG_YPOSITION Tag: 0x011F / 287 Type: LONG Style: RANGE LOW: 0 HIGH: 2168 STEP: 1 DEFAULT: 0 CURRENT: 0
Name: TAG_MAXPAGES Tag: 0x0504 / 1284 Type: LONG Style: LIST Count: 1 Items: [0] 32767 LOW: 32767 HIGH: 32767 DEFAULT: 32767 CURRENT: 32767	Name: TAG_YRESOLUTION Tag: 0x011B / 283 Type: RATIONAL Style: RANGE LOW: 100 HIGH: 600 STEP: 1 DEFAULT: 200 CURRENT: 200
Name: TAG_MAXTIME Tag: 0x0505 / 1285 Type: LONG Style: LIST Count: 1 Items: [0] 3	Name: unnamedtag_0x7F00 Tag: 0x7F00 / 32512 Type: LONG Style: LIST Count: 2 Items: [0] 0 [1] 1 LOW: 0 HIGH: 1

ISIS Driver Specifications

LOW: 3	DEFAULT: 0 CURRENT: 0
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