

DP-DS620/DP-DS620 (A)

DP-DS820/DP-DS820 (A)

Continuous Panoramic Prints
Color Sample Creation Tool Manual

Ver. 1.10

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Introduction



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We cannot guarantee operation of this sample program when used with the system in your company. We do not accept liability for any damage that may be caused directly or indirectly by the use of this sample program.



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You cannot resale/use the DP-DS620 and the DP-DS820 without destination number (A) in the U.S.

Application Scope

This document is a continuous panoramic prints color sample creation tool manual for the DP-DS620/DP-DS620 (A) and the DP-DS820/DP-DS820 (A).

1. Overview

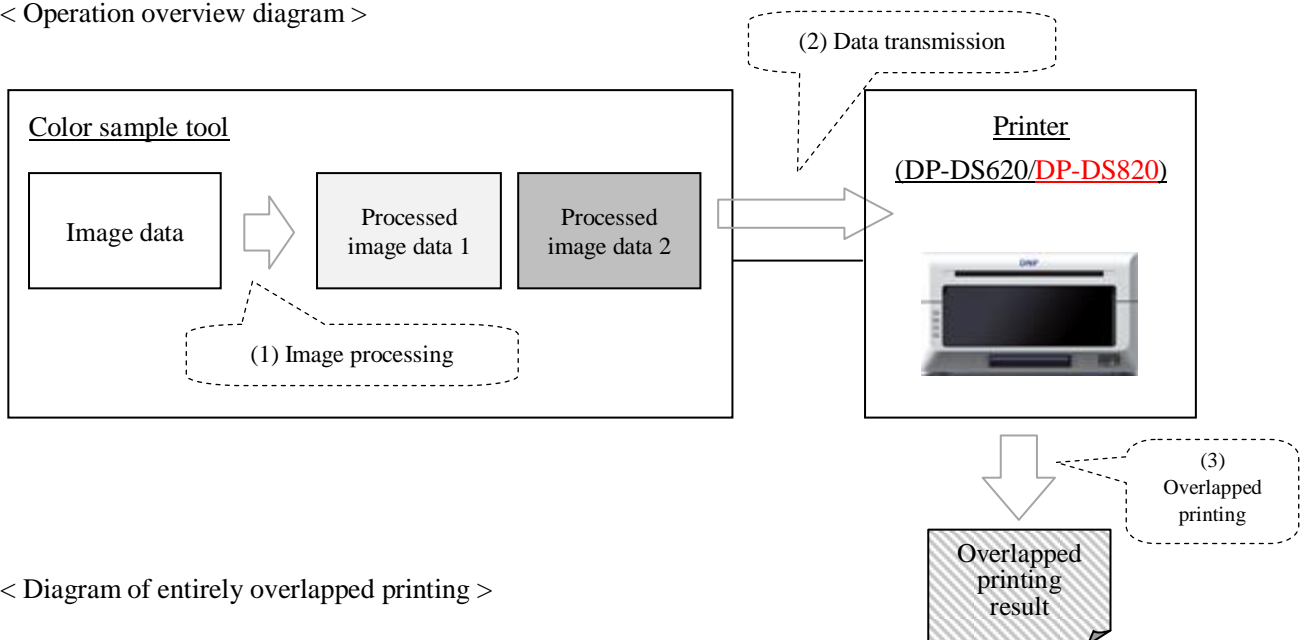
This application is used to output the color sample necessary to create the Color Conversion Data used in the image data processing for the Continuous Panoramic Prints function on the DP-DS620/DP-DS620 (A) and the DP-DS820/DP-DS820 (A).

The designated image is processed with 2 types of density ratios (hereinafter referred to as Duty), which are then printed completely overlapped on one sheet.

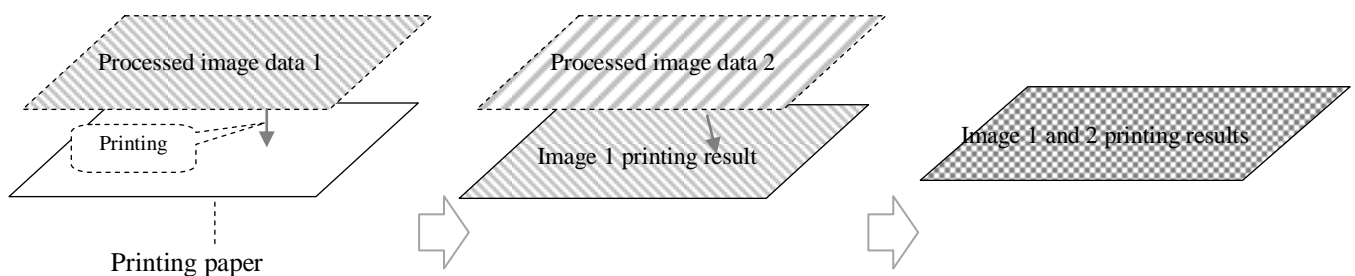
This print result is used for example to visualize the characteristics of the colors printed on the overlapped section during Continuous Panorama printing to create ICC profile, etc.

- ① Two image data files with two different density proportion patterns are created from a specified image data file.
- ② Image data files are sent as a pair to the printer.
- ③ The printer receives the two image data files and then prints both files on the same piece of paper using two ribbon panels. (Entirely overlapped printing)

< Operation overview diagram >



< Diagram of entirely overlapped printing >



2. Operating Environment

Supported OS:	Windows7 and Windows8 (32-bit/64-bit versions)
System requirements (recommended)	CPU : 1.5GHz or faster
	RAM: 2.0GB or more
	Resolution : WXGA(1280x768) or better
Runtime software	.Net Framework 3.5
	Microsoft Visual C++ 2008 SP1 runtime ^{*1}

^{*1}:Refer to the following URL's for the Windows runtime component installation patches.
(current as of February 2016)

<https://www.microsoft.com/ja-jp/download/details.aspx?id=5582> (Japanese 32-bit version)

<https://www.microsoft.com/en-US/download/details.aspx?id=5582> (English 32-bit version)

<http://www.microsoft.com/ja-jp/download/details.aspx?id=2092> (Japanese 64-bit version)

<http://www.microsoft.com/en-US/download/details.aspx?id=2092> (English 64-bit version)

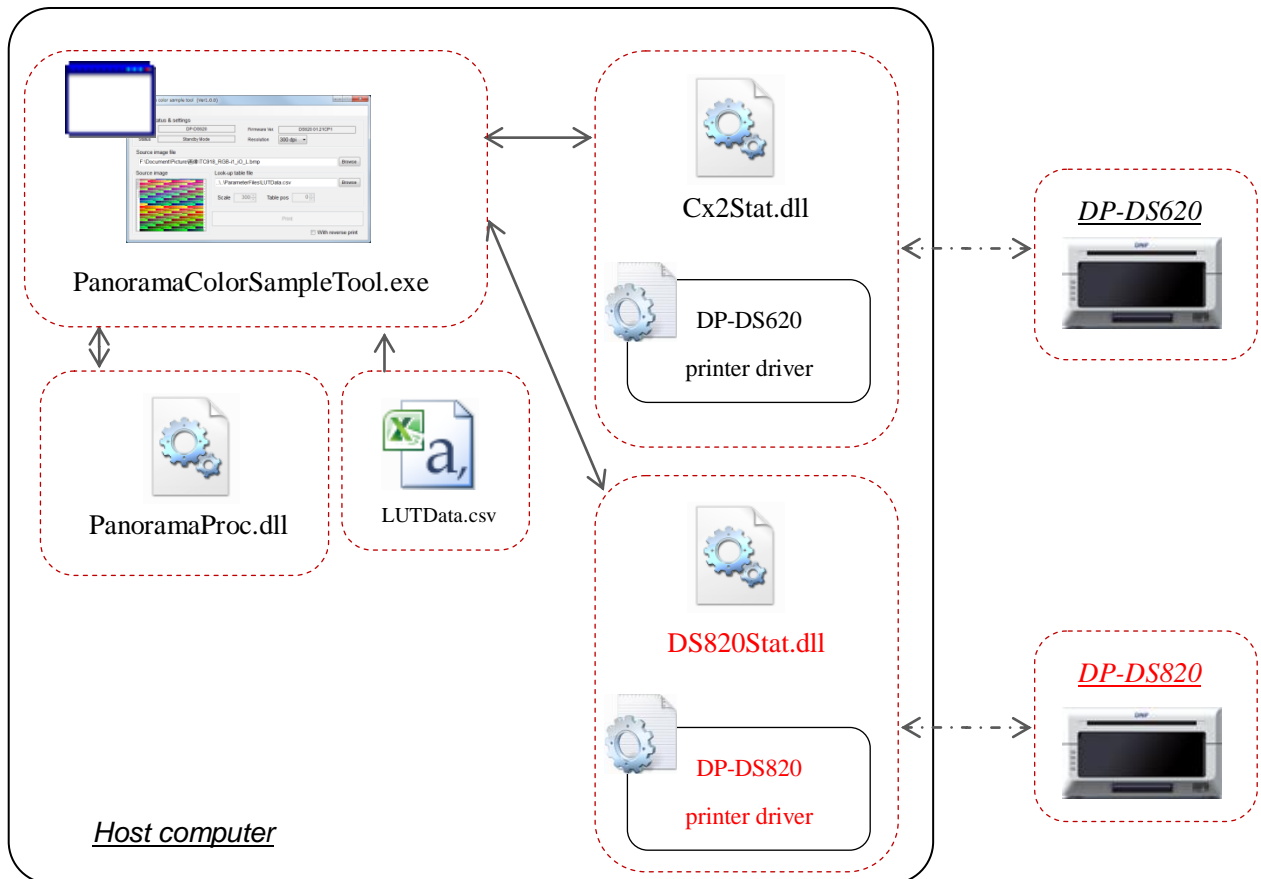
These installation patches are attached in the folder "MS_WindowsPatches".

This tool uses the dedicated firmware in order to create the color sample .

3. Configuration

The color sample application runs with the file configuration shown below.

< File configuration >



4. File List

The color sample creation tool is included in the color sample creation tool package " PanoramaColorSample " folder (SDK/PanoramaColorSample). Also, various kinds parameter files are included in "ParameterFiles" folder (SDK/ ParameterFiles).

4.1. HOST-PC folder

Sub folder name	File name	Content
bin/	PanoramaColorSmapleTool.exe	Executable file for the color sample creation tool
	PanoramaProc.dll	File for the continuous panorama image segmentation and processing library for 32bit OS
	PanoramaProc64.dll	File for the continuous panorama image segmentation and processing library for 64bit OS
	Cx2Stat.dll	File for the DP-DS620 interface library for 32bit OS
	Cx2Stat64.dll	File for the DP-DS620 interface library for 64bit OS
	DS820Stat.dll	File for the DP-DS820 interface library for 32bit OS
	DS820Stat64.dll	File for the DP-DS820 interface library for 64bit OS

4.2. ParameterFiles Folder

Sub folder name	File name	Content
—	LUTData_0010.csv	Look-up Table data for DP-DS620
	LUTData820_0010.csv	Look-up Table data for DP-DS820

5. Installation Procedure

■ DP-DS620

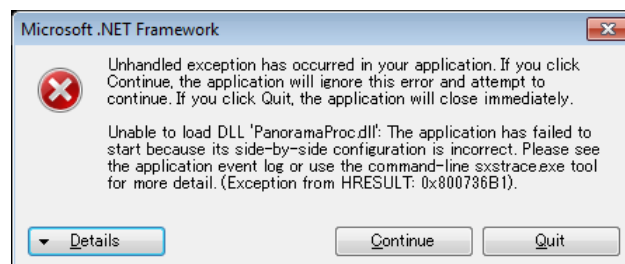
- (1) Install the DP-DS620 printer driver.
- (2) Check that the firmware of the connected DP-DS620/DP-DS620 (A) is “DS620 01.32CSC”.
- (3) Copy the content of the SDK folder to a folder of your choosing on your computer.

■ DP-DS820

- (1) Install the DP-DS820 printer driver.
- (2) Check that the firmware of the connected DP-DS820/DP-DS820 (A) is “DS820 00.55CSC”.
- (3) Copy the content of the SDK folder to a folder of your choosing on your computer.

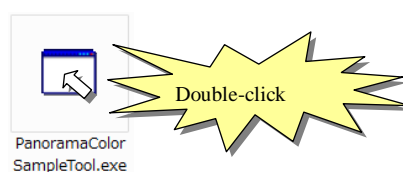
6. How to Use Color Sample Creation Tool

1. If the following message is displayed in the application, install Microsoft Visual C++ 2008 SP1 runtime components on your system. (Refer to 3. Operating Environment)



6.1. Launch Procedure

Double-click on the “PanoramaColorSampleTool.exe” icon to launch the Color Sample Tool.

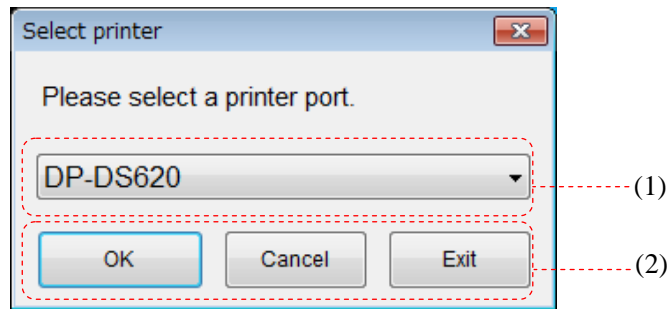


6.2. Screen Explanation

The contents that displays on the color sample creation tool window and the operation areas are following.

< Printer selection screen >

Select the printer you want to connect.



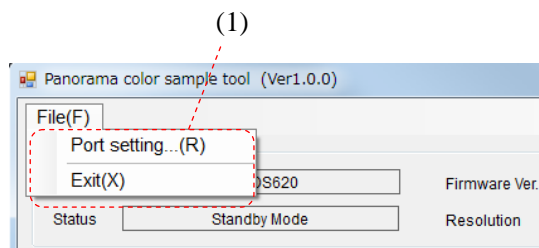
(1) Printer selection

A list of the connected printers is displayed in a combo box. Select the printer you want to use to print the entire overlapped image.

(2) OK and Cancel buttons

- OK: Connects to the selected printer and closes the printer selection screen.
- Cancel: Closes the printer selection screen without connecting to the printer.
- Exit: Closes the Tool.

< Menu on the main screen >

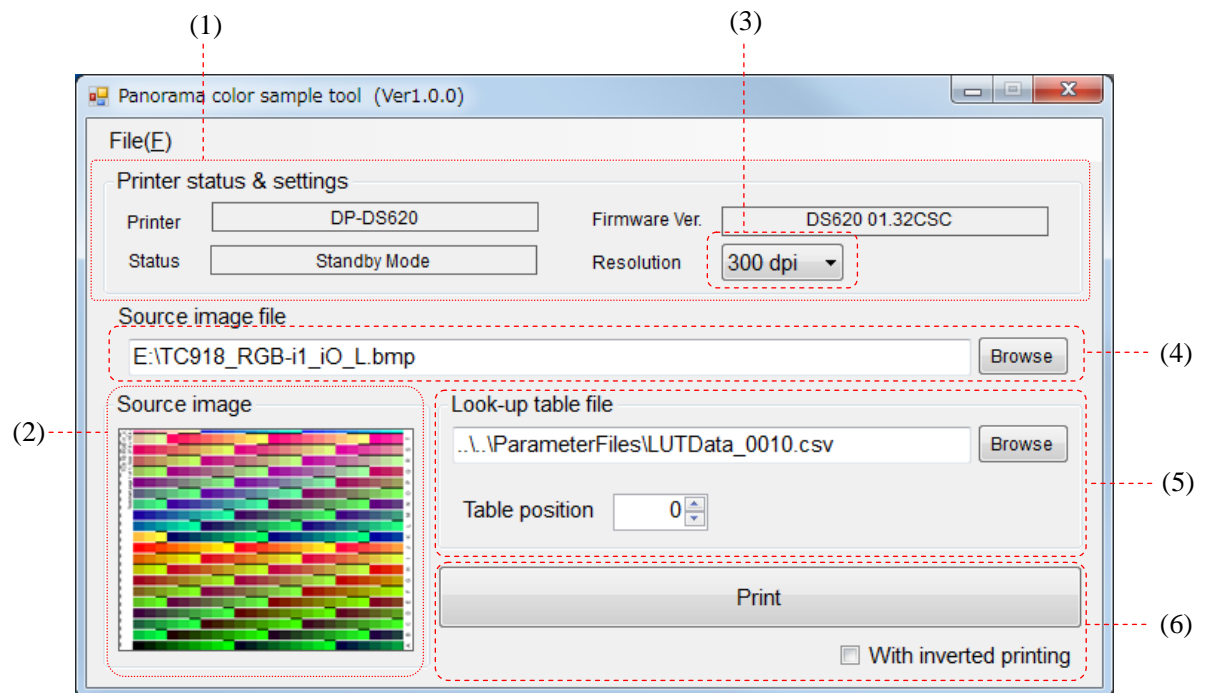


(1) File menu

- Port setting: Displays the printer selection screen.
- Exit: After displaying a confirmation dialog box, this closes the color sample tool.

< Main screen >

In the main screen, you can operate and configure entirely overlapped image printing.

Display areas

(1) Printer name and status display

- Printer:
Displays the name of the connected printer. "Not connected" is displayed if no printer is connected.
- Firmware Ver.:
Displays the firmware version of the connected printer. "N/A" is displayed if no printer is connected.
- Status:
Displays the status of the connected printer. "N/A" is displayed if no printer is connected.

(2) Source image display

- Source image:
Displays the source image that will be printed entirely overlapped.

Operation areas

(3) Basic print settings

Select the following basic settings for entirely overlapped image printing.

- Resolution:
Select the resolution. (300/600 dpi)

(4) Source image data setting

- Source image file:
Specify the data file of the source image that will be printed entirely overlapped.
Click the “Browse” button and then select a file in the dialog box.

(5) Look-up Table (LUT) data file (optional)

You can set density proportions in this program from the density proportion of any dot defined in the LUT data file used during continuous panorama image processing.

- Browse button:
Specify the reference LUT file.
Click the “Browse” button and then select a file in the dialog box.
- Table position:
Specify a dot (position number) in the reference LUT.
If a number exceeding the number of defined location in the LUT, the last recorded position is selected.

(6) Print

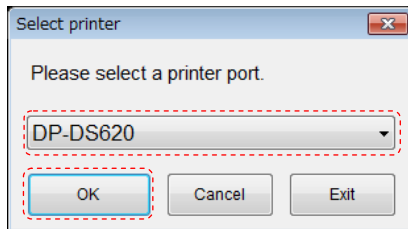
This command print a color sample.

- Print:
Send the image data displayed in (②) “Source image” to the printer.
The printer prints the entirely overlapped image after the image data has been received.
- With inverted printing:
The printer performs two types outputs of the normal printing and the 180 ° inverted printing.
This option is used to check printed color differences caused by print direction.

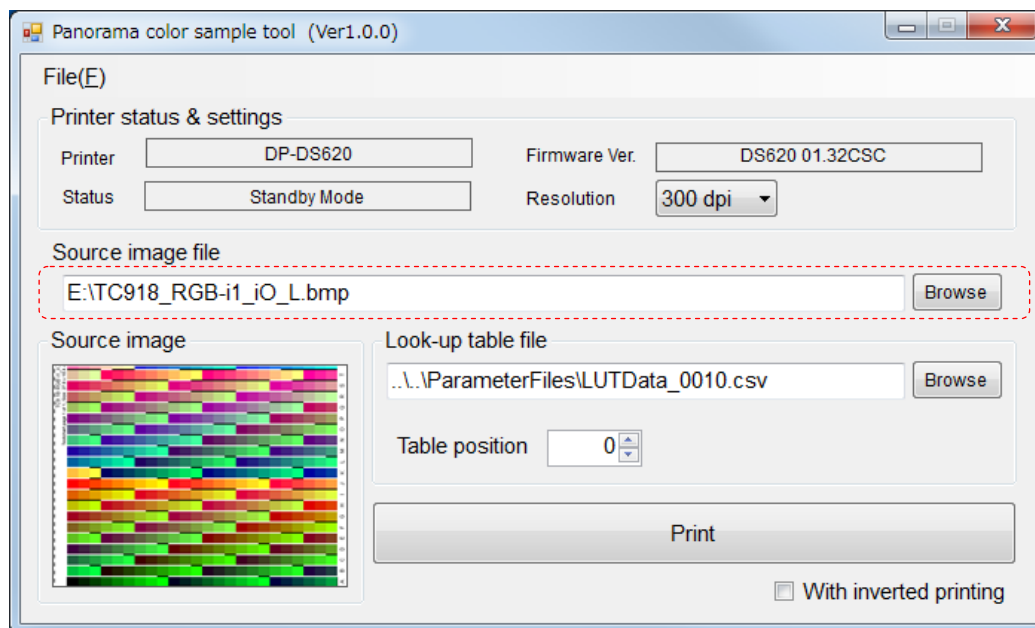
6.3. Operations

The following shows the operations procedure of the color sample tool.

- (1) Launch the color sample creation tool.
- (2) Select the printer you want to use to print the entirely overlapped image on the printer selection screen.
Click the “OK” button after the printer has been selected.



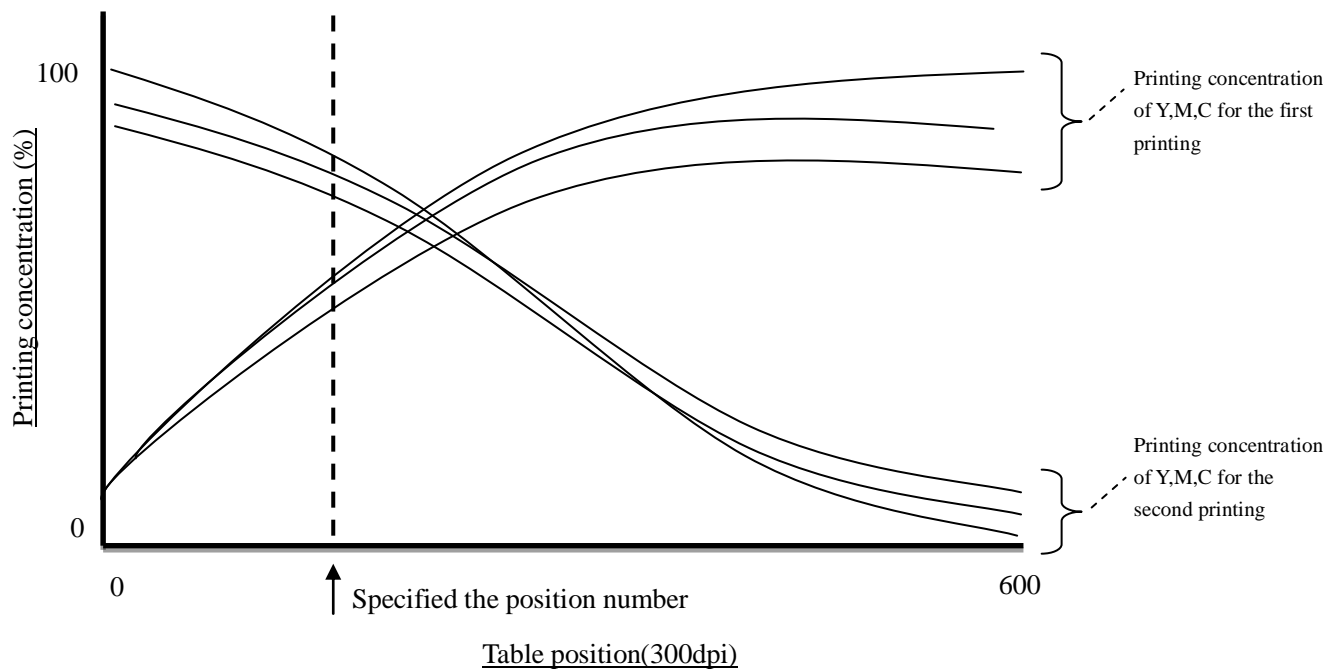
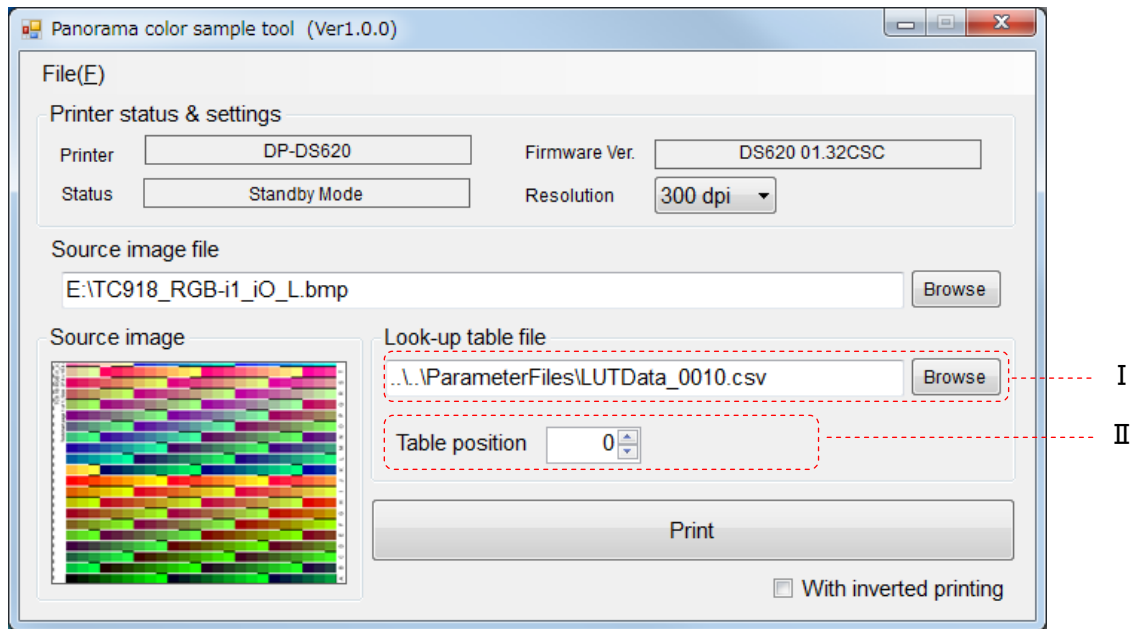
- (3) Select the Color Patch image file to print on the main screen.
You can select the image file using the dialog box.
The selected image is displayed in Source image.



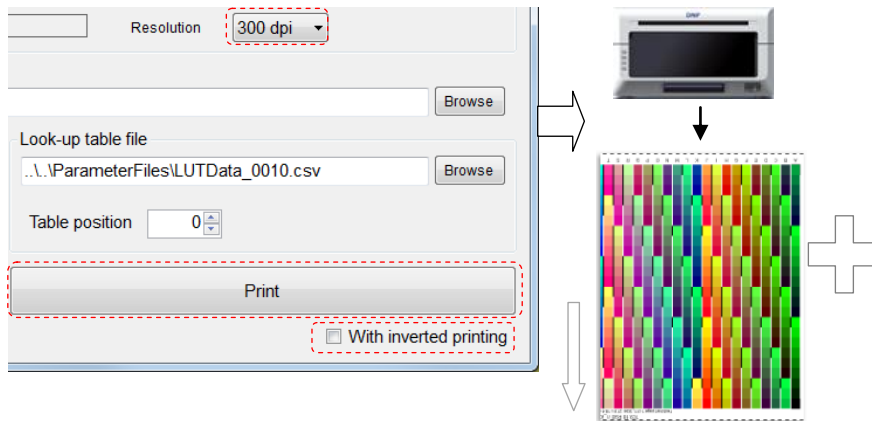
(4) Set the parameters to process the image data.

Set the printing concentration of both images that will be printed overlapped.

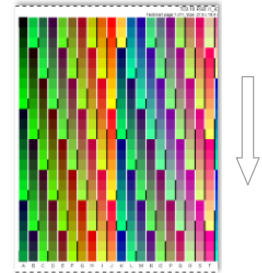
- I. Select the name of the LUT data file using the dialog box.
- II. Specify the total position and position number.



- (5) Configure the printing (resolution) and click the “Print” button to send the processed image data to the printer, and to print the entirely overlapped image.



Checking “With inverted printing” will rotate the print 180° and print it once more.



- ※ By printing 2 prints in different directions and measuring them, the average of their data can be used to make an ICC profile which is expected to improve the color conversion results.

6.4. Errors

The list of error codes displayed when an error occurs in the color sample creation tool program is shown below.

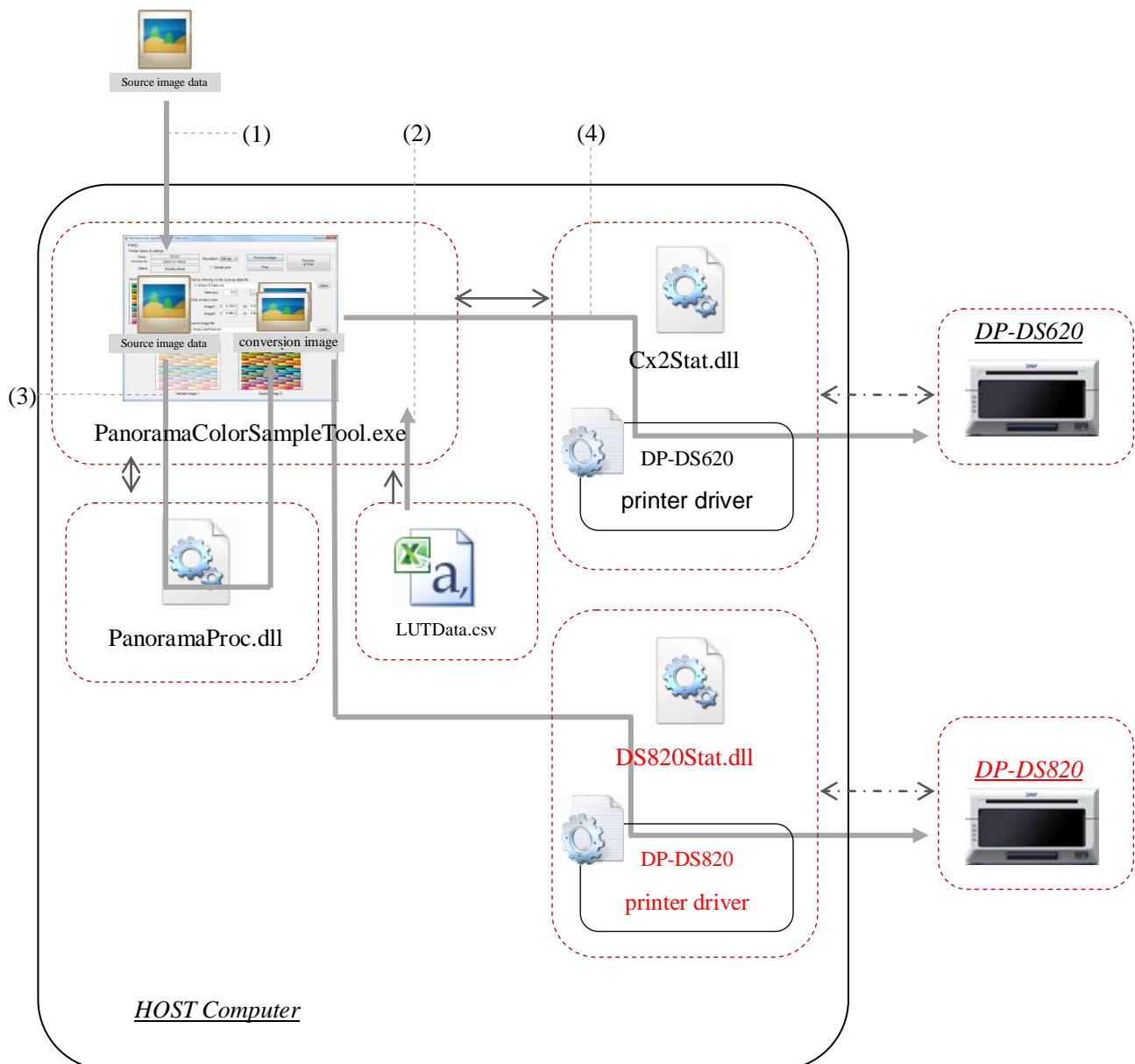
< Error code list >

Error code	Content	Cause/Solution
-1	File open error	Check that the setting file exists and that it can be accessed.
-2	Insufficient memory	Close any unnecessary applications to guarantee enough memory space.
-3	Parameter error	Program internal error
-4	Incorrect status	Program internal error
-5	No data	The setting file or image data is not valid.
-6	Internal parameter error	Program internal error
-7	Internal processing error	Error caused by the program internal operating environment.
-8	Not supported error	Program internal error
-9	No DUTY data for internal processing	Program internal error
-10	Invalid operating environment	The printable device has not connected.
-300	LUT File open error	Check the "Look-up table file" entry. Or check the Correction Duty Table File entered in the environmental correction table file. * ₁
-305	No data in LUT file	Check the correction Duty Table File entered in the LUT data file or the Environmental Correction table file. * ₁
-310	LUT file format error	Check the correction Duty Table File entered in the LUT data file or the Environmental Correction table file. * ₁
-311	Insufficient LUT file record count (min 4)	Check the correction Duty Table File entered in the LUT data file or the Environmental Correction table file. * ₁

7. Appendix

7.1. Diagram of processes

- (1) Load the source image file
- (2) Acquire the duty values from the LUT data file
- (3) Process the image
- (4) Print



7.2. Process flow

