SG300 & SG540

Technote

RIP SOFTWARE - VERSION 11 - CALDERA 2017

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License Agreement

Drivers:

- Roland-SG300: CMYK
- Roland-SG540: CMYK

Driver History

Supported since **Version 10.2**

Version 11 History

Release	Date	Comments
A (V11.1)	09/2017	*Support of TrueVIS Element ink added.*
A (V11.0)	01/2017	*Beta expired message was displayed on Linux and the driver refused to operate.*

Printer settings

Print module interface
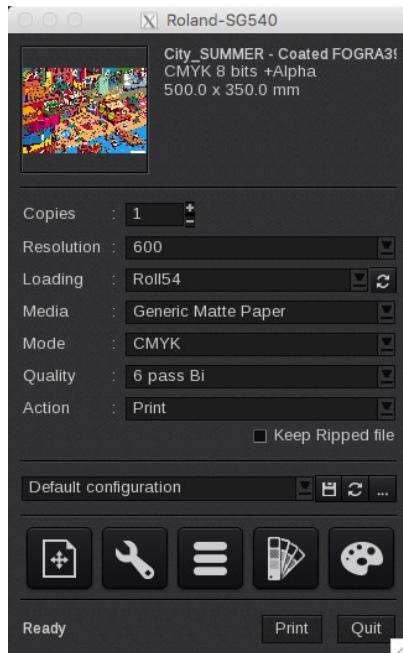
Resolutions

List of the available resolutions:
- 600
- 900x600
- 900

Loading

The roll maximum size for the SG300 is 29" and 53" for the SG540.

Modes

List of the available modes:
- Gray
- CMYK

Qualities

Qualities are built on the following model: <**number of pass**> pass <**Uni/Bi-directionnal**>.

Please refer to the Print mode section to see the Resolutions / Qualities settings.

EasySelect

EasySelect is the capability for **Caldera RIP** to use the size and type of loaded media in the printer. This printer supports 2 levels of selection:

- **CustomLoading**: uses a **custom size** (sheet or roll) defined at last moment in the **Print** module interface.

More information about CustomLoading on CalderaDesk
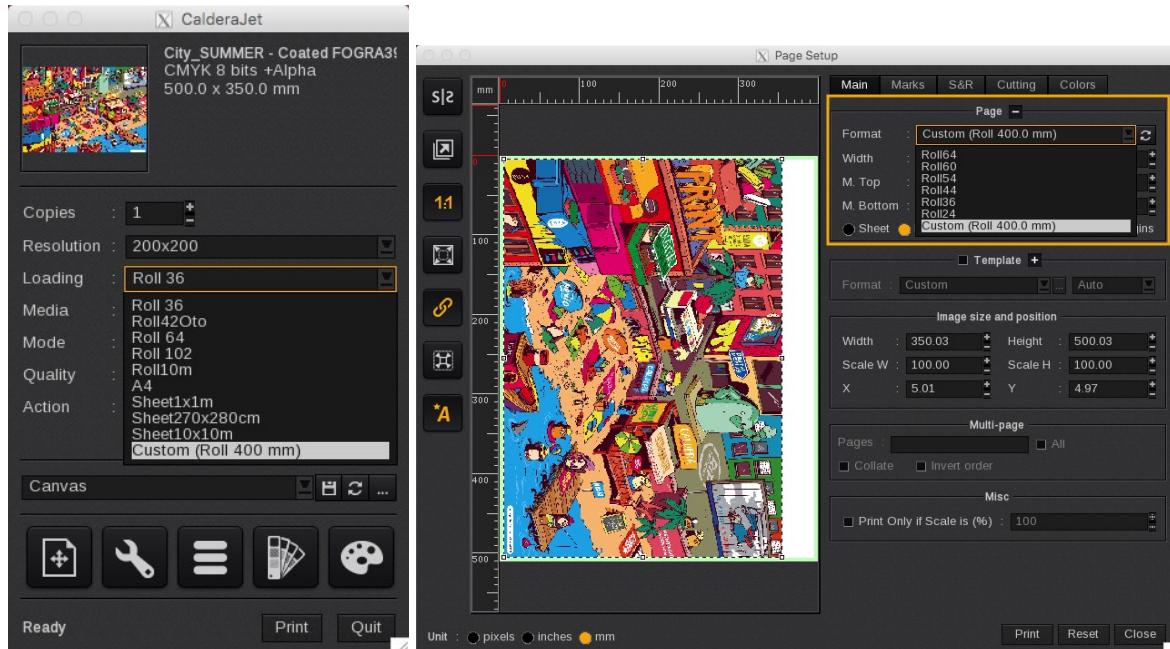
- **AutoLoading**: uses the **size** of the media actually loaded in the printer.

More information about AutoLoading on CalderaDesk
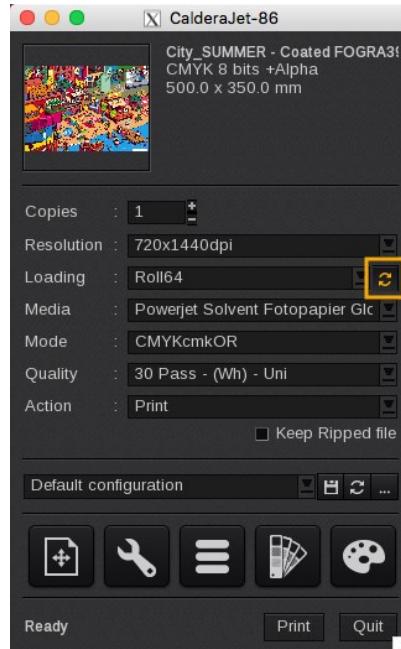
Printer settings

Settings windows

These settings can be found by clicking on the **Settings** button from the **P**rint module main window.
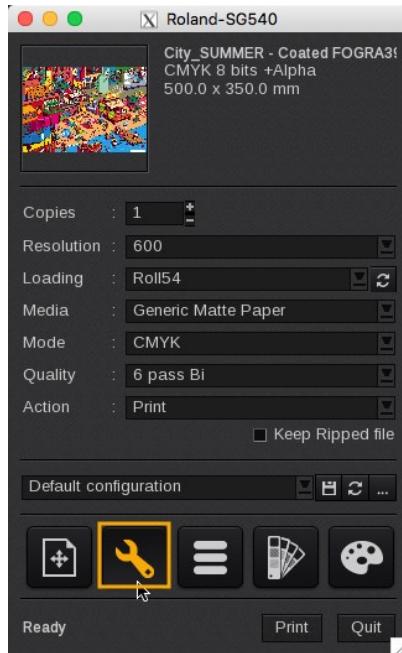
Printer
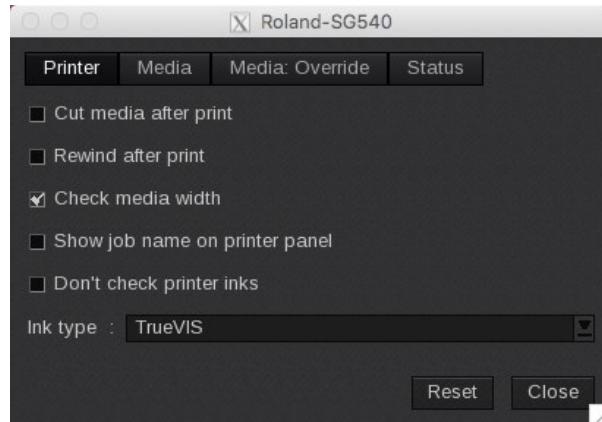
- **Cut media after print**: it enables the embedded cutter and automatically cuts the job after the print.
- **Rewind after print**: rewinds the media to its initial position after printing.
- **Check media width**: a warning is shown if the media width is smaller than the printed document.
- **Show job name on printer panel**: if enabled, it displays the job name on the printer panel screen. When disabled, the printer panel shows the current print mode.
- **Don't check printer inks**: doesn't display a warning if the printer inks do not match the selected print mode. When disabled, a warning is shown when a required ink is missing in the printer.
- **Ink type**: By default it is set to TrueVIS, must be changed to "TrueVIS Element" when using that ink.

PRINTER SETTINGS

Media
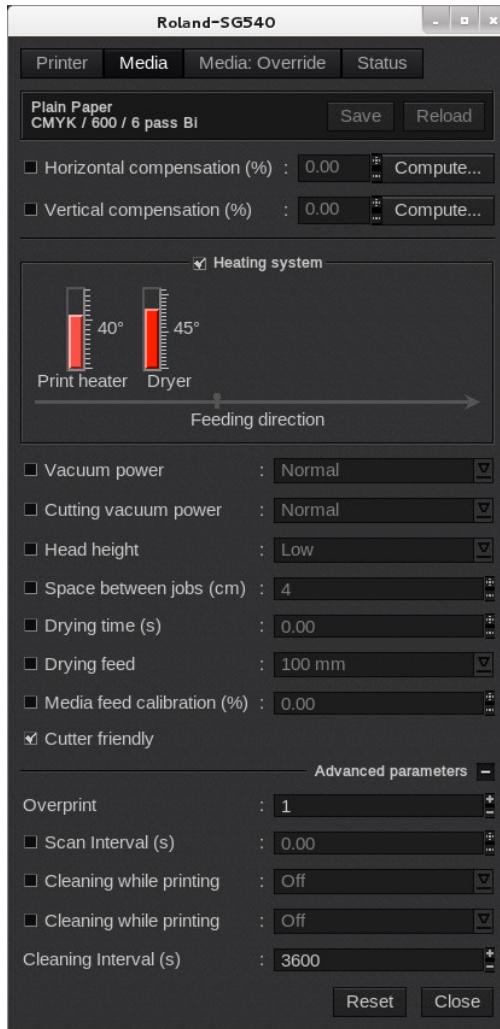
- **Information**: at the top of the window, you are able to see information about your media. There you have access to two actions:
  - *Save*: when you click on this button, the current media settings are saved with the selected media profile (printer, media, resolution, mode) so there will apply for any new job using the same print configuration. If you don't save, the changes you made are only applied to the current job.
  - *Reload*: will revert back to default as set during profiling or to the last saved changes.
- **Horizontal compensation** (%): we recommend not to modify this. Any deviation is likely to be mechanical on the printer's side.
- **Vertical compensation** (%): this can be useful if you detect an increase or decrease in the length due to heating or media tension which is common when printing on vinyl or textiles for example. To calculate the compensation, click *Compute* and follow the software's instructions.
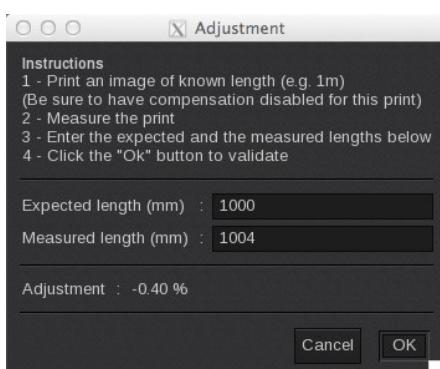
Disabling the checkbox of any of the following options will cause to use parameter value as set on the printer panel.

- **Heating system**: set the **Print heater** and the **Dryer** temperature levels in Celsius Degrees. The range goes from *30°* to *.45°* for the **Print heater** and *30°* to *50°* for the **Dryer**. You can turn it off by taking the temperature below *30°* to *OFF*.
- **Vacuum power**: you can choose the vacuum power. Use a predefine state: *normal*, *strong* or *off*; or select a percentage.
- **Cutting vacuum power**: you can choose the vacuum power of the cutter. Use a predefine state: *normal*, *strong*, *weak* or *off*; or select a percentage.
- **Head height**: Select *Low* or *High* to adjust the gap between the head and the plate.
- **Space between jobs**: Space is expressed in centimeters.
- **Drying time (s)**: Duration allowed to the drying after the print (in seconds).
- **Drying feed**: function that performs feed to the top of the dryer to promote drying after printing has finished.
- **Media feed calibration (%): this specifies the distance-correction value in the media-feed direction.**.
- **Cutter friendly**: indicates if the media supports cutting or not.

Advanced parameters

- **Overprint**: this performs overprinting or the number of passes specified by the parameter.
- **Scan interval (s)**: specifies the minimum time to pause the head movement between passes (slows down the print and improves drying).
- **Cleaning while printing**: performing cleaning during printing, indicate the degree of cleaning to perform. It can remove potential clogging or condensation on the head during print.
- **Cleaning Interval (s)**: time interval of **Cleaning while printing** (from *0* to *60000 seconds*).

Media: Override

The driver allows to override some of the print mode parameters. This is an advanced feature without any foolproof mechanisms. If you force values that are out of range, the printer will reject the job with *Data Error* message.

Changing some parameters can be useful when the default print mode setting gives unsatisfactory results, like misaligned dots or apparition of patterns between head passes.

Concerned parameters can be overwritten in Media Override tab. Each parameter override must be enabled first. When disabled, the print modes use their own predefined default value. Please note that the predefined value is never displayed anywhere in the interface. However, all currently used values are printed in the annotations, with "**More details**" option enabled.
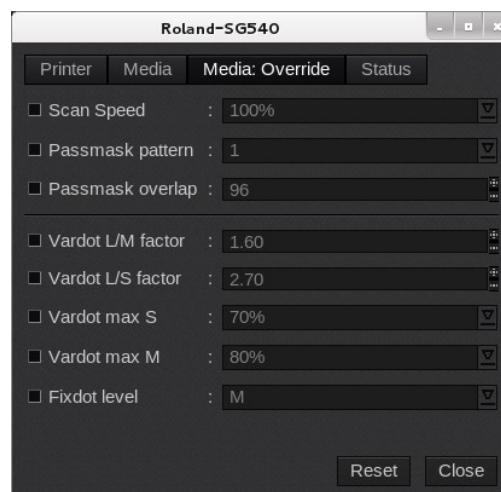
- **Scan Speed**: scan speed can only be reduced by specifying the amount in % (in steps of 10%). The value 100% corresponds to the predefined value of selected print mode.

  We do not recommend you to change the Vardot settings. It is reserved for an advanced usage only.

- **Vardot L/M factor**: factor between *Large* and *Medium* dots
- **Vardot L/S factor**: factor between *Large* and *Small* dots

- **Vardot max S**: maximum percentage of *Small* dots
- **Vardot max M**: maximum percentage of *Medium* dots
- **Fixdot level**: choice of the fixdot level between *Small*, *Medium* or *Large*

Status
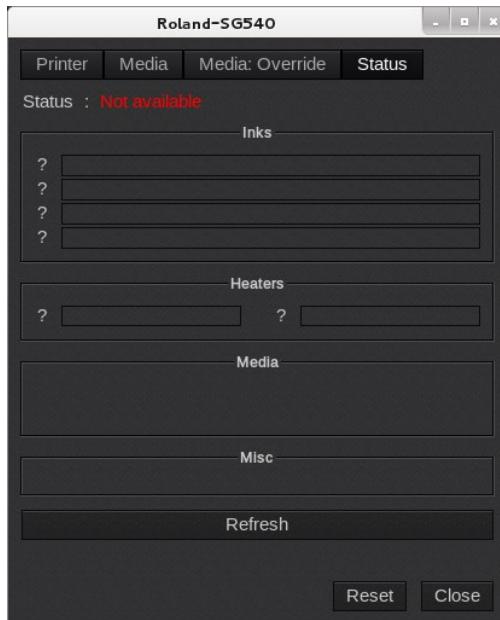
- **Status**: Global state of the printer: *Ready*, *Not available*, *Printing*. All data are coming from the printer, if it is *not available*, nothing can be displayed.
- **Inks**: *Ink* levels
- **Heaters**: temperature level of the *Print heater* and the *Dryer*.
- **Media**: Info about the media loaded on the printer
- **Misc**: complementary info about the printer (*model*, *serial number*, *firmware version*)
- *Refresh*: button to refresh the tab.

Printer properties

Print modes
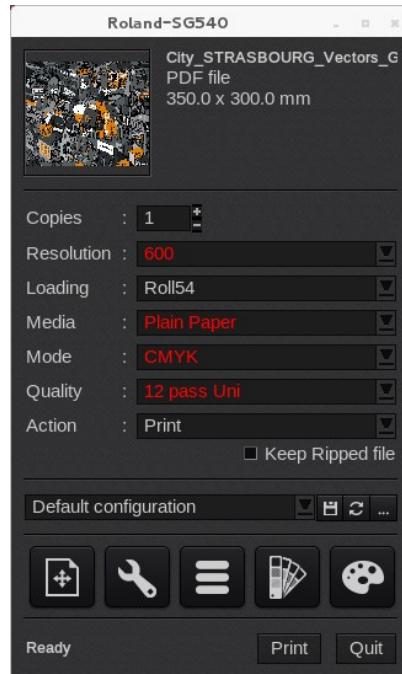
Print mode tables are specified below for reference.

Roland-SG300:

Resolution	Passes	Scan Speed	Feed Speed	Passes/Line	Passmask	DotType
600	7	889	16	1	1,83	1
	8	889	16	1	1,96	1
	10	1185	16	2	1,39	1
	12	1185	16	2	1,64	1
900x600	10	1185	16	2	1,39	1
	12	1185	16	2	1,64	1
	16	1185	16	2	1,96	1
900	14	1185	16	2	1,28	1
	16	1185	16	2	1,48	1
	20	1185	16	2	1,77	1

Printer properties

Roland-SG540:

Resolution	Passes	Scan Speed	Feed Speed	Passes/Line	Passmask	DotType
600	6	889	30	1	1,64	1
	7	889	16	1	1,83	1
	8	889	16	1	1,96	1
	10	1185	16	2	1,39	1
	12	1185	16	2	1,64	1
900x600	10	1185	16	2	1,39	1
	12	1185	16	2	1,64	1
	16	1185	16	2	1,96	1
900	14	1185	16	2	1,28	1
	16	1185	16	2	1,48	1
	20	1185	16	2	1,77	1

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