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Evolis SDK

API mode Print settings guide

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Scope

Printers compliance

- Zenius, Primacy, Elypso, Apteo, KC200, KC200/B, KM500B, KM2000B (Managed by **Evolis Premium Suite**).
- Edikio Access, Flex, Duplex (managed by the **Edikio Printer Suite**).
- Badgy 100 et Badgy 200 (Managed by the **Badgy Premium Suite**)



For **Primacy 2 (Evolis Premium Suite 2)**, please refer to [this section](#), pay attention that the way to access the settings is different but the settings remain fully compatible.

Limitations

Settings described in this documentation may differ from one printer's model from another (ex: Advanced smoothing is not available for Badgy). This means most common printer settings are described in this document, but values may not be available or different.

A non-existing setting on a specific printer will return an error when sending the request. To get all printing parameters and their possible values for each printer model, read the settings.xml file available from:

- **%EPS_DIR%\Evolis Premium Suite\Model\{printer model}**
- **%EPS_DIR%** is either the installation directory for the software suite

Or directory in which the installation of the suite (Evolis Premium Suite, Edikio Printer Suite, Badgy Premium Suite...) has been performed.

Initials used in this documentation

I : Invisible (e.g. : **IShortPanelShift**)

G : Global (e.g.: **GInputTray**)

F : Front (e.g.: **FColorContrast**)

B : Back (e.g.: **BPageRotate180**)

This document applies to the PRINT and SETTING services available in the API MODE with the **Evolis Services Provider Framework**.

General settings

Setting	Description	Allowed value
FpageRotate180	Front side rotation (180°)	ON OFF
BPageRotate180	Back side rotation (180°)	ON OFF
GInputTray	Card insertion mode	FEEDER AUTO MANUAL PRINTER
GoutputTray	Card ejection mode	HOPPER REAR PRINTER
GRejectBox	On error ejection mode	DEFAULT REJECTHOPPER PRINTER
GRibbonType	Ribbon type *BlackFlex ribbon = RM_KWAX	RC_YMCKO RC_YMCKOO RC_YMCKOS RC_YMCKOK RC_YMCKOKOS RM_KO RM_KBLACK RM_KWHITE RM_KRED RM_KGREEN RM_KBLUE RM_KSCRATCH RM_KMETALSILVER RM_KMETALGOLD RM_KSIGNATURE RM_KWAX RM_PREMIUM RM_HOLO RM_SOKO
Duplex	Dual side print management NONE = Disabled HORIZONTAL = Enabled	NONE HORIZONTAL
GDuplexType	Front side and Back side settings C = Color M = Monochrome Ex: CC = Front C olor, Back C olor	DUPLEX_CC DUPLEX_CM DUPLEX_MC DUPLEX_MM

Sample request for general settings:

```
{
  "id": "1",
  "jsonrpc": "2.0",
  "method":
  "PRINT.Set",
  "params": {
    "session": "JOB000001",
    "data": "GRibbonType=RC_YMCKO"
  }
}
```

Settings could be sent one by one or combined in the same request.

Print settings

Settings for both sides of the card follow this syntax:

- **F** prefix is for **F**ront Side (ex : **F**ColorContrast : contrast for Color **F**ront Side)
- **B** prefix is for **B**ack Side (ex: **B**ColorContrast : contrast for Color **B**ack Side)

Setting	Description	Allowed value
Resolution	Define print resolution	DPI300 DPI600300 DPI1200300
F ColorContrast B ColorContrast	Contrast adjustment for color panel	VAL1 to VAL20
F colorBrightness B ColorBrightness	Brightness adjustment for color panel	VAL1 to VAL20
F BlackManagement B BlackManagement	Black panel management mode	NOBLACKPOINT ALLBLACKPOINT TEXTINBLACK
F Halftoning B Halftoning	Grayscale adjustment for black panel	THRESHOLD FLOYD DITHERING CLUSTERED_DITHERING
F MonochromeContrast B MonochromeContrast	Monochrome resin adjustment	VAL1 to VAL20
F OverlayContrast B OverlayContrast	Front and back Overlay contrast	VAL1 to VAL20
F Overlaymanagement B Overlaymanagement	Varnish /Overlay type	NOVARNISH FULLVARNISH BMPVARNISH

Sample JSON request corresponding to a print setting:

```
{
  "id": "1",
  "jsonrpc": "2.0",
  "method":
  "PRINT.Set",
  "params":{
    "session": "JOB000002",
    "data": "FColorBrightness=VAL12"
  }
}
```

Other setting

Settings	Description	Allowed value
Gsmoothing	Smoothing mode	STDSMOOTH ADVSMOOTH NOSMOOTH
GShortPanelManagement	Short panel management mode	AUTO CUSTOM OFF
IShortPanelShift	Short panel management shift	Shift in pixel
IGStrictPageSetup	Strict page setup mode	ON OFF
Passthrough / RawData	Send raw data to printer	Data in text format

Short panel management (GShortPanelManagement) requires to be set on CUSTOM first to set a shiftvalue (IShortPanelShift).

```
{
  "id": "1",
  "jsonrpc": "2.0",
  "method":
  "PRINT.Set",
  "params": {
    "session": "JOB000002",
    "data": "GShortPanelManagement=CUSTOM;IShortPanelShift=450"
  }
}
```

Magnetic settings

Settings	Description	Allowed value
GMagT1Encoding GMagT2Encoding GMagT3Encoding	Smoothing mode	ISO1 ISO2 ISO3 SIPASS C2 JIS2 C4 NONE
Track1Data Track2Data Track3Data	Magnetic track 1 data Magnetic track 2 data Magnetic track 3 data	AUTO CUSTOM OFF
GMagCoercivity	Magnetic coercivity	OFF LOCO HICO

Combined settings

The parameters can be sent either individually or combined.

Each Setting will be separated by semicolons and passed through the data parameter (via the PRINT.Set method), e.g.:

"data": "FColorBrightness=VAL12; GRibbonType=RC_YMCKO;
Resolution=DPI600300".

Sample JSON request:

```
{
  "id": "1",
  "jsonrpc": "2.0",
  "method": "PRINT.Set",
  "params": {
    "session": "JOB000002",
    "data": "FColorBrightness=VAL12;GRibbonType=RC_YMCKO;Resolution=DPI600300"
  }
}
```

Rewrite settings

Settings	Description	Allowed value
GPrintingMode	Define printing mode	D2T2 RW_2IN1
FRwManagement BRwManagement	Printing mode parameters	WRITEONLY FULLREWRITE BMPREWRITE
GRwCard	Choosing the card type	MBLACK MBLUE CUSTOM_FRONT CUSTOM_DUPLEX
GRibbonType	Choosing the ribbon type	RM_KO RM_KBLACK RM_KRED RM_KWHITE RM_KGREEN RM_KBLUE RM_KSCRATCH RM_KMETALSILVER RM_KMETALGOLD RM_KSIGNATURE RM_KWAX RM_KPREMIUM RM_HOLO RM_SOKO
IFRwCustomBitmap IBRwCustomBitmap	Buffer containing the BITMAP to be printed	Similar to the overlay or black. Example shown in the JSON request: 10_color_print_one_side - 14-setBitmapBlack.json
FRwErasingSpeed BRwErasingSpeed	Erasing speed value	VAL1 to VAL20
FRwErasingTemperature BRwErasingTemperature	Heating speed when erasing	VAL1 to VAL20
FRwPrintingSpeed BRwPrintingSpeed	Movement speed when printing	VAL1 to VAL10
FRwPrintingTemperature BRwPrintingTemperature	Heating speed during printing	VAL1 to VAL20

Primacy 2

Evosettings to manage printer's settings

Primacy 2 works with the new **Evolis Premium Suite 2** (release superior to 7.0.0.0)

To get the available settings for Primacy 2, pay attention to use the new **evosettings.exe** tool (settings are no longer available via the xml file).

This tool is available here (default installation path) once you have installed Evolis Premium Suite 2:

C:\Program Files\Evolis Card Printer 2\Evolis Premium Suite 2\tools\evosettings.exe

The full help/manual of the **evosettings** utility is available by invoking **- help** argument, see below:

```
PS C:\Program Files\Evolis Card Printer 2\Evolis Premium Suite 2\tools> ./evosettings.exe --help
VERSION: 7.0.0.0
Usage: C:\Program Files\Evolis Card Printer 2\Evolis Premium Suite 2\tools\evosettings.exe DEVICE [CONNECTORS] OPTIONS

Device:
  --printer,-p NAME      The printer to request.
  --driver,-drv NAME     Will request first printer found with driver NAME.
```

Get the current settings for a Primacy 2 thanks to evosettings

Use the following command to get the current setting for a printer:

evosettings -p "Evolis Primacy 2" -l

or

evosettings -p "Evolis Primacy 2" --list

```
Administrator: Windows PowerShell
PS C:\Program Files\Evolis Card Printer 2\Evolis Premium Suite 2\tools> ./evosettings -p "Evolis Primacy 2" -l
BBlackManagement = ALLBLACKPOINT
BColorBrightness = 10
BColorContrast = 10
BHalftoning = THRESHOLD
BMonochromeContrast = 10
BOverlayContrast = 10
BOverlayManagement = FULLVARNISH
BOverlayManagement = FULLVARNISH
BPageRotate180 = OFF
BRWErasingSpeed = 10
BRWErasingTemperature = 10
BRWManagement = FULLREWRITE
BRWPrintingSpeed = 10
BRWPrintingTemperature = 10
Duplex = NONE
FBlackManagement = ALLBLACKPOINT
```

Get all available settings for a Primacy 2 thanks to evosettings

To get all available settings and their possible values for a printer, please use following command:

Evosettings.exe -p "Evolis Primacy 2" --list-key

```

Administrator: Windows PowerShell
PS C:\Program Files\Evolis Card Printer 2\Evolis Premium Suite 2\tools> ./evosettings -p "Evolis Primacy 2" --list-key
BBlackManagement connectors:DRV type:LIST default:ALLBLACKPOINT range:NOBLACKPOINT,ALLBLACKPOINT,TEXTINBLACK
BColorBrightness connectors:PRN,DRV type:INT default:10 range:1,20
BColorContrast connectors:PRN,DRV type:INT default:10 range:1,20
BHalfToning connectors:DRV type:LIST default:THRESHOLD range:THRESHOLD,FLOYD,DITHERING,CLUSTERED_DITHERING
BMonochromeContrast connectors:PRN,DRV type:INT default:10 range:1,20
BOverlayContrast connectors:PRN,DRV type:INT default:10 range:1,20
BOverlayManagement connectors:DRV type:LIST default:FULLVARNISH range:NOVARNISH,FULLVARNISH,BMPVARNISH
BPageRotate180 connectors:DRV type:LIST default:OFF range:ON,OFF
BRwErasingSpeed connectors:DRV type:INT default:10 range:1,10
BRwErasingTemperature connectors:DRV type:INT default:10 range:1,20
BRwManagement connectors:DRV type:LIST default:FULLREWRITE range:WRITEONLY,FULLREWRITE,BMPREWRITE
BRwPrintingSpeed connectors:DRV type:INT default:10 range:1,10
BRwPrintingTemperature connectors:DRV type:INT default:10 range:1,20
Duplex connectors:DEV,DEVG type:LIST default:NONE range:NONE,HORIZONTAL
FBlackManagement connectors:DRV type:LIST default:ALLBLACKPOINT range:NOBLACKPOINT,ALLBLACKPOINT,TEXTINBLACK
  
```

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