JSON Specifications Sheet

M00141201
Rev.B

JSON Specifications

This explains the JSON format specifications used in the following APIs for Epson ePOS SDK for Android and Epson ePOS SDK for iOS.

- setPrinterSettingEx
- setGetPrinterSettingExListener/setGetPrinterSettingExDelegate

RW: Read Write (settings can be acquired and changed)
RO: Read Only (settings can only be acquired)

Key Info			Value Info			Remarks
1	2	3	Description	Attri-bute	List and explanation of set values	
FormatName			Format name	RW	TM genre printer information format "TM-Form"	
Rev			Information format management number (data structure changes managed as Rev)	RW	TM genre printer information format revision number "1"	
PrinterSpec			Printer specifications information			
	Product		Product information			
		SerialNo	Serial number	RO	Serial number (values that can be acquired with the GS I 68 command)	
	Spec		Specifications information			
		Language	Multilingual font name	RO	Currently selected multilingual font name (Values that can be acquired with the GS I 69 command)	
		PaperWidth	Paper width (mm)	RO	"80": 80 mm Paper width setting	
					"58": 58 mm Paper width setting	
					"40": 40 mm Paper width setting	
		HeadDpi	Head specifications (dpi)	RO	Mechanical resolution of the thermal print head	
Setting			Setting			
	AutoCut		Cutter-related			
		CutAfterPaperset	Paper automatic cut at cover close (GS (E fn = 5, a = 100)	RW	"Invalid": Does not cut, "Valid": Cuts	
	Buzzer		Buzzer function			
		Select	Buzzer functionSelection of valid buzzer (GS (E fn = 5, a = 119)	RW	"Invalid": Invalid, "Valid": Valid	
	Command		Command-related functions			
		AutoCR	Automatic line feeding (MSW1-5 or DSW1-1) Cannot be changed if parallel interface is installed. [Related items] PrinterSpec/Interface/UIB	RW	"Invalid": Normally disabled (MSW1-5 OFF) "Valid": Normally enabled (MSW1-5 ON)	
	Print		Print-related settings			

Key Info			Value Info			Remarks
1	2	3	Description	Attri-bute	List and explanation of set values	
		Density	Print density (GS (E fn = 5, a = 5)	RW	"DIPSW": In accordance with DIP switch settings	
					"70%": 70%	
					"75%": 75%	
					"80%": 80%	
					"85%": 85%	
					"90%": 90%	
					"95%": 95%	
					"100%": 100%	
					"105%": 105%	
					"110%": 110%	
					"115%": 115%	
					"120%": 120%	
					"125%": 125%	
					"130%": 130%	
		Speed	Print speed (GS (E fn = 5, a = 6)	RW	"Level1": Print speed level 1	
					"Level2": Print speed level 2	
					"Level3": Print speed level 3	
					"Level4": Print speed level 4	
					"Level5": Print speed level 5	
					"Level6": Print speed level 6	
					"Level7": Print speed level 7	
					"Level8": Print speed level 8	
					"Level9": Print speed level 9	
					"Level10": Print speed level 10	
					"Level11": Print speed level 11	
					"Level12": Print speed level 12	
					"Level13": Print speed level 13	
					"Level14": Print speed level 14	
					"Level15": Print speed level 15	
					"Level16": Print speed level 16	
					"Level17": Print speed level 17	

Key Info			Value Info			Remarks
1	2	3	Description	Attri-bute	List and explanation of set values	
		ColumnEmulation	Number of columns emulation (GS (E fn = 5, a = 11)	RW	"Standard": Standard column mode	
					"48/36": 48/36 column mode "48¥¥/36": 48/36 column mode (with ¥ symbol)	"X/Y" refer to the following: X: Number of columns when paper width is 80 mm Y: Number of columns when paper width is 50 mm
					"46/32": 46/32 column mode "46¥¥/32": 46/32 column mode (with ¥ symbol, supports escape character)	
					"42/42": 42 column mode	
					"42/32": 42/32 column mode "42¥¥/32": 42/32 column mode (with ¥ symbol, supports escape character)	
					"42": 42 column mode	
		RollPaperWidth	Paper width (GS (E fn = 5, a = 3)	RW	"58mm": 58 mm	
					"80mm": 80 mm	
		NearEndSetting	NearEnd sensor enabled/disabled (MemSW5-6)	RW	"Disable": Disabled, "Enable": Enabled	
		PaperWidthWithGuide	Paper width when a paper guide has been attached (MSW6-8)	RW	"40mm": Switching between 40 mm/80 mm	
					"58mm": Switching between 58 mm/80 mm	
Maintenance						
	ThermalHead					
		NumberOfWarningDot	Returns the number of dots exceeding the Warning threshold value (dots that may soon be cut off)	RO	"-1": Failed to detect missing dots "0": No dots exceeding the Warning threshold value "1" to "512": Number of dots exceeding the Warning threshold value	
		PositionOfWarningDot	Position of the dots exceeding the Warning threshold value The position of the left-end dots on the print surface is treated as 1, and this returns all the positions of the dots exceeding the Warning threshold value.	RO	"" (blank character): Failed to detect missing dots. Alternatively, there are no dots exceeding the Warning threshold value. "Hexadecimal string": Dots exceeding the Warning threshold value.	
		NumberOfBrokenDot	Returns the number of dots exceeding the Fault threshold value (broken dots).	RO	"-1": Failed to detect missing dots "0": No dots exceeding the Fault threshold value "1" to "512": Number of dots exceeding the Fault threshold value	
		PositionOfBrokenDot	Position of the dots exceeding the Fault threshold value The position of the left-end dots on the print surface is treated as 1, and this returns all the positions of the dots exceeding the Fault threshold value.	RO	"" (blank character): Failed to detect missing dots. Alternatively, there are no dots exceeding the Fault threshold value. "Hexadecimal string": Dots exceeding the Fault threshold value.	
	Counter		Maintenance counter (total)			
		RollPaper_FeedLines	Number of paper feed lines [lines]	RO	"" to "": 4-byte decimal maximum value	
		RollPaper_CutterDrives	Auto cutter drive count [times]	RO	"" to "": 4-byte decimal maximum value	

jsonString Acquisition Example


```
{
   "PrinterSpec": {
      "Product": {
         "SerialNo": "ABCD000002"
      },
      "Spec": {
         "Language": "KANJI JAPANESE"
      }
   },
   "Setting": {
      "AutoCut": {
         "CutAfterPaperset": "Invalid"
      },
      "Buzzer": {
         "Select": "Valid"
      },
      "Command": {
         "AutoCR": "Invalid"
      },
      "Print": {
         "Density": "100%",
         "Speed": "Level13",
         "ColumnEmulation": "Standard",
         "RollPaperWidth": "80mm",
         "NearEndSetting": "Disable"
      }
   },
   "Maintenance": {
      "ThermalHead": {
         "NumberOfWarningDot": "0",
         "PositionOfWarningDot": "",
         "NumberOfBrokenDot": "0",
         "PositionOfBrokenDot": ""
      },
      "Counter": {
         "RollPaper_FeedLines": "53408",
         "RollPaper_CutterDrives": "5647"
      }
   },
   "FormatName": "TM-Form",
   "Rev": "1"
}
```


Corresponding Models

Key Info			Value	EU-m30	TM-m30II	TM-m30II-H	TM-L100
1	2	3					
FormatName			"TM-Form"	✔	✔	✔	✔
Rev			"1"	✔	✔	✔	✔
PrinterSpec				✔	✔	✔	✔
	Product			✔	✔	✔	✔
		SerialNo		✔	✔	✔	✔
	Spec			✔	✔	✔	✔
		Language		✔	✔	✔	✔
		PaperWidth	"80"	✔	✔	✔	✔
			"58"	✔	✔	✔	✔
			"40"	-	-	-	✔
		HeadDpi		✔	✔	✔	✔
Setting				✔	✔	✔	✔
	AutoCut			✔	✔	✔	✔
		CutAfterPaperset	"Invalid" , "Valid"	✔	✔	✔	✔
	Buzzer			✔	✔	✔	✔
		Select	"Invalid" , "Valid"	✔	✔	✔	✔
	Command			✔	✔	✔	✔
		AutoCR	"Invalid" , "Valid"	✔	✔	✔	✔
	Print			✔	✔	✔	✔

Key Info			Value	EU-m30	TM-m30II	TM-m30II-H	TM-L100
1	2	3					
		Density	"DIPSW"	-	-	-	-
			"70%"	✔	✔	✔	✔
			"75%"	✔	✔	✔	✔
			"80%"	✔	✔	✔	✔
			"85%"	✔	✔	✔	✔
			"90%"	✔	✔	✔	✔
			"95%"	✔	✔	✔	✔
			"100%"	✔	✔	✔	✔
			"105%"	✔	✔	✔	✔
			"110%"	✔	✔	✔	✔
			"115%"	✔	✔	✔	✔
			"120%"	✔	✔	✔	✔
			"125%"	✔	✔	-	✔
			"130%"	✔	✔	-	✔
		Speed	"Level1"	✔	✔	✔	✔
			"Level2"	✔	✔	✔	✔
			"Level3"	✔	✔	✔	✔
			"Level4"	✔	✔	✔	✔
			"Level5"	✔	✔	✔	✔
			"Level6"	✔	✔	✔	✔
			"Level7"	✔	✔	✔	✔
			"Level8"	✔	✔	✔	✔
			"Level9"	✔	✔	✔	✔
			"Level10"	✔	✔	✔	✔
			"Level11"	✔	✔	✔	✔
			"Level12"	✔	✔	✔	-
			"Level13"	✔	✔	✔	-
			"Level14"	✔	-	-	-
			"Level15"	-	-	-	-
			"Level16"	-	-	-	-
			"Level17"	-	-	-	-

Key Info			Value	EU-m30	TM-m30II	TM-m30II-H	TM-L100
1	2	3					
		ColumnEmulation	"Standard"	✔	✔	✔	✔
			"48/36" , "48¥¥/36"	-	-	-	-
			"46/32" , "46¥¥/32"	-	-	-	-
			"42/42"	-	-	-	-
			"42/32" , "42¥¥/32"	-	✔	✔	-
			"42"	-	-	-	✔
		RollPaperWidth	"58mm"	✔	✔	✔	-
			"80mm"	✔	✔	✔	-
		NearEndSetting	"Disable" , "Enable"	✔	✔	✔	-
		PaperWidthWithGuide	"40mm"	-	-	-	✔
			"58mm"	-	-	-	✔
Maintenance				✔	✔	✔	✔
	ThermalHead			-	✔	✔	✔
		NumberOfWarningDot		-	-	✔	-
		PositionOfWarningDot		-	-	✔	-
		NumberOfBrokenDot		-	-	✔	-
		PositionOfBrokenDot		-	-	✔	-
	Counter			✔	✔	✔	✔
		RollPaper_FeedLines		✔	✔	✔	✔
		RollPaper_CutterDrives		✔	✔	✔	✔

JSON 仕様シート

JSON仕様

Epson ePOS SDK for Android と Epson ePOS SDK for iOS の下記 API で使用する JSON フォーマットの仕様を解説します。

- setPrinterSettingEx
- setGetPrinterSettingExListener/setGetPrinterSettingExDelegate

RW: Read Write(設定の取得及び変更可能)
RO: Read Only(設定の取得のみ可能)

Key Info			Value Info			備考
1	2	3	説明	属性	設定値の一覧、説明	
FormatName			フォーマット名	RW	TM ジャンルのプリンター情報フォーマット "TM-Form"	
Rev			情報フォーマットの管理番号（データ構造変更を Rev で管理する）	RW	TM ジャンルのプリンター情報フォーマットのリビジョン番号 "1"	
PrinterSpec			プリンター仕様情報			
	Product		製品情報			
		SerialNo	シリアル番号	RO	シリアル番号（GS I 68 コマンドで取得できる値）	
	Spec		仕様情報			
		Language	多国語フォント名	RO	現在選択されている多国語フォント名（GS I 69 コマンドで取得できる値）	
		PaperWidth	用紙幅 (mm)	RO	"80" : 80mm 用紙幅設定	
					"58" : 58mm 用紙幅設定	
					"40" : 40mm 用紙幅設定	
		HeadDpi	ヘッド仕様 (dpi)	RO	サーマルプリントヘッドのメカ解像度	
Setting			設定			
	AutoCut		カッター関連			
		CutAfterPaperset	カバークローズ時の用紙自動カット (GS (E fn=5 a=100)	RW	"Invalid": カットしない、"Valid": カットする	
	Buzzer		Buzzer 機能			
		Select	ブザー機能 有効なブザーの選択 (GS (E fn=5 a=119)	RW	"Invalid": 無効、"Valid": 有効	
	Command		コマンド関連機能			
		AutoCR	自動改行 (MSW1-5 or DSW1-1) Parallel インターフェイスを搭載している場合、変更不可。 Primula-iHub では、DSW1-1。 【関連項目】 PrinterSpec/Interface/UIB	RW	"Invalid": 常時無効 (MSW1-5 OFF) "Valid": 常時有効 (MSW1-5 ON)	
	Print		印刷関連設定			

Key Info			Value Info			備考
1	2	3	説明	属性	設定値の一覧、説明	
		Density	印字濃度 (GS (E fn=5 a=5)	RW	"DIPSW": ディップスイッチの設定に従う	
					"70%": 70%	
					"75%": 75%	
					"80%": 80%	
					"85%": 85%	
					"90%": 90%	
					"95%": 95%	
					"100%": 100%	
					"105%": 105%	
					"110%": 110%	
					"115%": 115%	
					"120%": 120%	
					"125%": 125%	
					"130%": 130%	
		Speed	印字速度 (GS (E fn=5 a=6)	RW	"Level1": 印字速度レベル 1	
					"Level2": 印字速度レベル 2	
					"Level3": 印字速度レベル 3	
					"Level4": 印字速度レベル 4	
					"Level5": 印字速度レベル 5	
					"Level6": 印字速度レベル 6	
					"Level7": 印字速度レベル 7	
					"Level8": 印字速度レベル 8	
					"Level9": 印字速度レベル 9	
					"Level10": 印字速度レベル 10	
					"Level11": 印字速度レベル 11	
					"Level12": 印字速度レベル 12	
					"Level13": 印字速度レベル 13	
					"Level14": 印字速度レベル 14	
					"Level15": 印字速度レベル 15	
					"Level16": 印字速度レベル 16	
					"Level17": 印字速度レベル 17	

Key Info			Value Info			備考
1	2	3	説明	属性	設定値の一覧、説明	
		ColumnEmulation	桁数エミュレーション (GS (E fn=5 a=11)	RW	"Standard": 標準桁モード	
					"48/36": 48/36 桁モード "48¥¥/36": 48/36 桁モード（¥ 記号あり）	"X/Y" は X: 紙幅 80 mm 時の桁数 Y: 紙幅 50 mm 時の桁数 を表す。
					"46/32": 46/32 桁モード "46¥¥/32": 46/32 桁モード（¥ 記号あり、エスケープ文字対応）	
					"42/42": 42 桁モード	
					"42/32": 42/32 桁モード "42¥¥/32": 42/32 桁モード（¥ 記号あり、エスケープ文字対応）	
					"42" : 42 桁モード	
		RollPaperWidth	用紙幅 (GS (E fn=5 a=3)	RW	"58mm": 58 mm	
					"80mm": 80 mm	
		NearEndSetting	NearEnd センサーの有効無効 (MemSW5-6)	RW	"Disable": 無効、"Enable": 有効	
		PaperWidthWithGuide	用紙ガイドをつけたときの紙幅 (MSW6-8)	RW	"40mm" : 40mm/80mm 切り替え	
					"58mm" : 58mm/80mm 切り替え	
Maintenance						
	ThermalHead					
		NumberOfWarningDot	Warning 閾値を超えたドット（もうすぐ壊れそうなドット）の数を返す。	RO	"-1": ドット抜けの検出に失敗した "0": Warning 閾値を超えたドットなし "1" ～ "512": Warning 閾値を超えたドットの数	
		PositionOfWarningDot	Warning 閾値を超えたドットの位置 印刷面左端ドットの位置を 1 とし、Warning 閾値を超えた全てのドット位置を返す。	RO	""（空文字）: ドット抜けの検出に失敗した。もしくは、Warning 閾値を超えたドットがない。 "16 進文字列 ": Warning 閾値を超えたドットがある。	
		NumberOfBrokenDot	故障閾値を超えたドット（故障したドット）の数を返す。	RO	"-1": ドット抜けの検出に失敗した "0": 故障閾値を超えたドットなし "1" ～ "512": 故障閾値を超えたドットの数	
		PositionOfBrokenDot	故障閾値を超えたドットの位置 印刷面左端ドットの位置を 1 とし、故障閾値を超えた全てのドット位置を返す。	RO	""（空文字）: ドット抜けの検出に失敗した。もしくは、故障閾値を超えたドットがない。 "16 進文字列 ": 故障閾値を超えたドットがある。	
	Counter		メンテナンスカウンター（積算）			
		RollPaper_FeedLines	紙送り行数［行］	RO	"" : ～ "": 4byte 10 進数最大値	
		RollPaper_CutterDrives	オートカッター駆動回数［回］	RO	"" : ～ "": 4byte 10 進数最大値	

jsonStringの取得例


```
{
   "PrinterSpec": {
      "Product": {
         "SerialNo": "ABCD000002"
      },
      "Spec": {
         "Language": "KANJI JAPANESE"
      }
   },
   "Setting": {
      "AutoCut": {
         "CutAfterPaperset": "Invalid"
      },
      "Buzzer": {
         "Select": "Valid"
      },
      "Command": {
         "AutoCR": "Invalid"
      },
      "Print": {
         "Density": "100%",
         "Speed": "Level13",
         "ColumnEmulation": "Standard",
         "RollPaperWidth": "80mm",
         "NearEndSetting": "Disable"
      }
   },
   "Maintenance": {
      "ThermalHead": {
         "NumberOfWarningDot": "0",
         "PositionOfWarningDot": "",
         "NumberOfBrokenDot": "0",
         "PositionOfBrokenDot": ""
      },
      "Counter": {
         "RollPaper_FeedLines": "53408",
         "RollPaper_CutterDrives": "5647"
      }
   },
   "FormatName": "TM-Form",
   "Rev": "1"
}
```


対応機種

Key Info			Value	TM-m30II	TM-m30II-H	TM-L100
1	2	3				
FormatName			"TM-Form"	✔	✔	✔
Rev			"1"	✔	✔	✔
PrinterSpec				✔	✔	✔
	Product			✔	✔	✔
		SerialNo		✔	✔	✔
	Spec			✔	✔	✔
		Language		✔	✔	✔
		PaperWidth	"80"	✔	✔	✔
			"58"	✔	✔	✔
			"40"	-	-	✔
		HeadDpi		✔	✔	✔
Setting				✔	✔	✔
	AutoCut			✔	✔	✔
		CutAfterPaperset	"Invalid"、"Valid"	✔	✔	✔
	Buzzer			✔	✔	✔
		Select	"Invalid"、"Valid"	✔	✔	✔
	Command			✔	✔	✔
		AutoCR	"Invalid"、"Valid"	✔	✔	✔
	Print			✔	✔	✔

Key Info			Value	TM-m30II	TM-m30II-H	TM-L100
1	2	3				
		Density	"DIPSW"	-	-	-
			"70%"	✔	✔	✔
			"75%"	✔	✔	✔
			"80%"	✔	✔	✔
			"85%"	✔	✔	✔
			"90%"	✔	✔	✔
			"95%"	✔	✔	✔
			"100%"	✔	✔	✔
			"105%"	✔	✔	✔
			"110%"	✔	✔	✔
			"115%"	✔	✔	✔
			"120%"	✔	✔	✔
			"125%"	✔	-	✔
			"130%"	✔	-	✔
		Speed	"Level1"	✔	✔	✔
			"Level2"	✔	✔	✔
			"Level3"	✔	✔	✔
			"Level4"	✔	✔	✔
			"Level5"	✔	✔	✔
			"Level6"	✔	✔	✔
			"Level7"	✔	✔	✔
			"Level8"	✔	✔	✔
			"Level9"	✔	✔	✔
			"Level10"	✔	✔	✔
			"Level11"	✔	✔	✔
			"Level12"	✔	✔	-
			"Level13"	✔	✔	-
			"Level14"	-	-	-
			"Level15"	-	-	-
			"Level16"	-	-	-
			"Level17"	-	-	-

Key Info			Value	TM-m30II	TM-m30II-H	TM-L100
1	2	3				
		ColumnEmulation	"Standard"	✔	✔	✔
			"48/36"、"48¥¥/36"	-	-	-
			"46/32"、"46¥¥/32"	-	-	-
			"42/42"	-	-	-
			"42/32"、"42¥¥/32"	✔	✔	-
			"42"	-	-	✔
		RollPaperWidth	"58mm"	✔	✔	-
			"80mm"	✔	✔	-
		NearEndSetting	"Disable"、"Enable"	✔	✔	-
		PaperWidthWithGuide	"40mm"	-	-	✔
			"58mm"	-	-	✔
Maintenance				✔	✔	✔
	ThermalHead		""(空文字)、"16 進文字列 "	✔	✔	✔
		NumberOfWarningDot	"-1"、"0"、"1" ～ "512"	-	✔	-
		PositionOfWarningDot	""(空文字)、"16 進文字列 "	-	✔	-
		NumberOfBrokenDot	"-1"、"0"、"1" ～ "512"	-	✔	-
		PositionOfBrokenDot		-	✔	-
	Counter			✔	✔	✔
		RollPaper_FeedLines	"" : ～ ""	✔	✔	✔
		RollPaper_CutterDrives	"" : ～ ""	✔	✔	✔