History of BOP, IBS and ELP

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- 1994 Font based **B**arcode & **O**CR **P**roduct on HP Germany price list

- 1996 Intelligent Barcode engine developed for Unix

- 2001 first communication with Ricoh Europe

- 2001 further development of Barcode Engine to **E**nhanced **L**aser **P**rinting for Win, Unix, Linux, AIX ….

- early 2002 development start for BOP

- first shipment early 2003

- Mid 2003 start integration of ELP into the Ricoh GW firmware -> **I**ntelligent **B**arcode **S**ystem

- 2004 first deliveries of IBS

- 2005 SDK developer

- Developed to have a solution against HP and Lexmark, but in a time where

   Ricoh printers did not have the possibility for embedded filters

-> the solution: A font based product

1-D Barcodes

Alpha-numeric   Code 39 (3of9) 0-9 A-Z ./, space*
Code 93;   (Full ASCII)
Code 128; EAN 128   (Full ASCII)

Numeric only   2of5 matrix / industry / interleaved
Codabar
EAN 8 / 13, UPC A / E, MSI

Special   KIX, FIM, Postnet

* (Full ASCII) possible

Version 1.x: DIMM or SD Card Type A and C based

Version 2.x: Hard disk. Currently an unofficial extension of 1.x .
Comes with ALL(!) HP bitmaped fonts, sold in the US by HP,
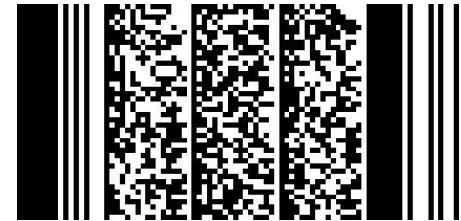tested by Chris Story over a year ago.

We hope to release version 2.x for SD card products soon. (depends on Ricoh EU)

Disadvantage:
- No X-Y independent scaling in PCL 5 only in GL
- Check sums, interleaving needs to be calculated in application
- For SAP an ABAP utility is provided, but client needs to change
  his SAP forms ☹

Advantage:
- Pricing, cheap!
- Easy to install, plug or upload and play
- full compatibility to HP [ex]sold font based products:
  http://www.hp.com/sbso/product/printing/laserjetfonts/font_list.html
  http://sos8026.stethos.com

Benefits over BOP:

- Independent scaling X and Y
- Check sum calculation
- Barcode information is verified against specs
- 2 dimensional barcodes. PDF 417 + Maxicode + Datamatrix
- Automatic readable text positioning

- Compatible to Industry standard, Jetmobile BarDIMM
- Full SAP integration

Best kept Ricoh secret:
IBS is much more then just barcode printing it is ELP

Software version of IBS is ELP:

- Windows, Linux, Unix, AIX, Solaris, VMS, (AS/400)

- Latest Barcodes support (European sos8026 fonts and
  also all HP US fonts, including Tax, MICR etc)

- Complete Output Management for a cheap pricing

- A lot of barcode and data stream emulations

- Sales hit: Unicode and Double Byte printing with NO extra hardware in printers

- Quick install, scalable, no hardware needed

- Also available as an external printer box

Product overview, Bar code (BC) specific

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	BOP Dimm	BOP SD	BOP HDD	IBS	ELP	Appliance
Price	☺	☺	☺☺	fair	☺ to ☺☺☺	☺
HP US BC fonts	-	-	☺	V9.51	Since 2011	Since 2011
sos8026 supp.	-	-	?	V9.51	Since 2011	Since 2011
BC Check sum	1*	1*	1*	auto	auto	auto
x-y scaling	1*	1*	1*	easy	easy	easy
Data check	-	-	-	yes	yes	yes
Installation	plug&play	plug&play	copy&play	IBS CC	Install&license	install&play
Support	Ricoh	Ricoh	2*	Ricoh / stethos	PCL 5 printer	PCL 5 printer
Emulations	-	-	-	3*	4*	4*
Additional ELP functionality	-	-	-	Yes ☺	Yes ☺☺☺	Yes ☺

1* If needed must be done by client application or with SAP ABAP solution
2* As softfont in printer memory all manufacturers, HP also on harddisk
3* Depends on the version: Postscript, Oki, Kyocera Prescribe, VGL, PGL, Brother, HP, Cobra box, Printronix.
4* All listed under 3*

Product Overview, additional ELP functions

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	BOP	IBS	Appliance	ELP
Search & Replace / Add / Insert / Erase	-	☺		☺
Search / Find and Trigger, rule based functions	-	☺		☺
Support of new MS Windows drivers		-		☺
Reprint documents, add pages (T&Cs etc) K#-Command most ELP Commands R#-Command	-	< 4MB | 10 MB ☺ | ☺		☺
Stapling, Punching, Tray selection, printer handling	-	☺		☺
Data stream distribution and spliting (single document or work load balancing)	-	☺ | -		☺
Archiving, data stream collection, sorting, printing	-	☺ | ☺		☺
Archiving in Tiff / PDF format and index files	-	-		☺
Emulations: PPDS,Epson,VGL,PGL,Prescribe	-	Old | actual		☺
Handle Canon / Océ Windows streams	-	-		☺
Unicode + Asian Double byte printing (no extra hardware)	-	☺		☺
Data stream encryption / decryption	-	decryption		☺
Data stream compression / decompression	-	decompression		☺

Product Overview, **additional ELP functions**

	BOP	IBS	|Appliance	ELP
MICR Fonts	only HDD	V9.51	☺	☺
VDMA Warenanhänger / Odette label	-	V9.51	☺	☺
OCR A (A1) / OCR B	☺	☺	☺	☺
US Tax fonts	only HDD	V9.51	☺	☺
Some Canon Barcode fonts	Request	V9.51	☺	☺
HP Barcode & more fonts	☺	☺	☺	☺
Capture data streams	-	V9.51	☺	☺
Quick Sets	-	V9.51	☺	☺
Forms- and Printer Management	-	V9.51 + HDD	☺	☺
And much much more …			IBS	ELP