

Print Bar Code

“Barcode is a machine-readable code in the form of numbers and a pattern of parallel lines of varying widths, printed on a commodity and used especially for stock control.” – This definition was taken from Google and it explains to most of the people out there what actually barcode is.

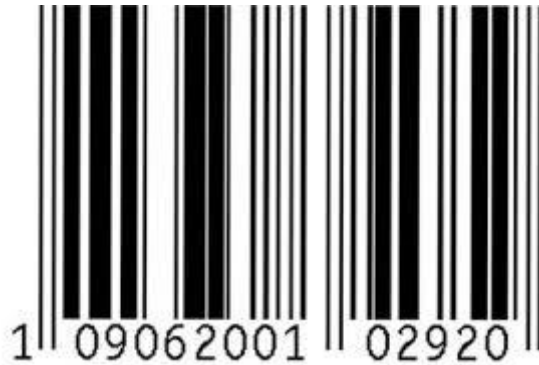


Image above shows a sample of barcode

There are cases where users try to print their item barcode but getting disappointed result where the barcode did not input into the system or computer after being scanned. In order to avoid this, AutoCount produced a Print Bar Code plugin in order to overcome this. But today, AutoCount had discovered the secret to set this Barcode at report designer level, which means users will not need to install Print Bar Code plugin anymore.

What User Need To Know

There will be certain things that a person will need to know in order to set this Barcode at report designer level:

- Barcode Printer DPI (Dot Per Inch)
- Report Measurement Unit
- How to calculate Barcode Module
- Character Set

Other than the above, users will need to aware that it is best to keep their barcode character to be less than 13 characters. This is because user might face some scanning barcode failure if the number of character is too long.

Barcode Printer DPI

Generally, DPI means that how many dots are there per inch, referring to the output resolution of a printer. It is quite similar to the screen resolution of a PC where the higher the value means the clearer the image will be.

In order to know how to set the barcode module, the very first thing that users have to know is their Barcode Printer DPI. This information can be found by going into your Device and Printers, select your Barcode Printer and then right click, choose Printer Properties. A dialog box will prompt and there will be some information about this printer.

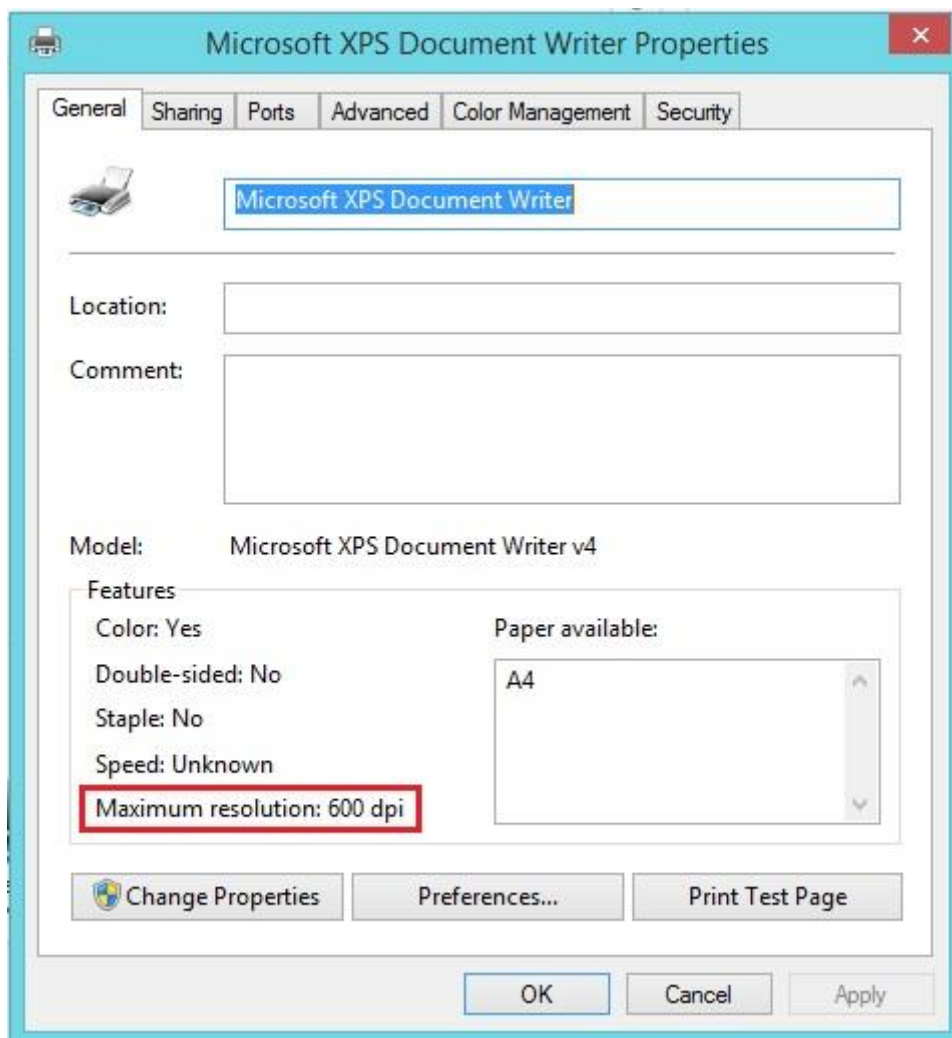


Image above shows the maximum resolution of DPI that the current printer has

Report Measurement Unit

After knowing the Barcode Printer DPI, next will be Report Measurement Unit. This can only be found at Report Designer level. After entering into Report Designer, click on the “Report” at the Report Explorer where it list out the structure of the report. Then look at the Property grid for a property call Measurement Units under Behaviour. This Measurement Units indicate that current report is running under what measurement units which will be useful for calculating the barcode module after that. Currently the supported measurement units are Hundreds of Inch and Tenth of Millimetres.

**Please do not use the Pixel as measurement unit as the calculation of this measurement unit is not discovered yet.*

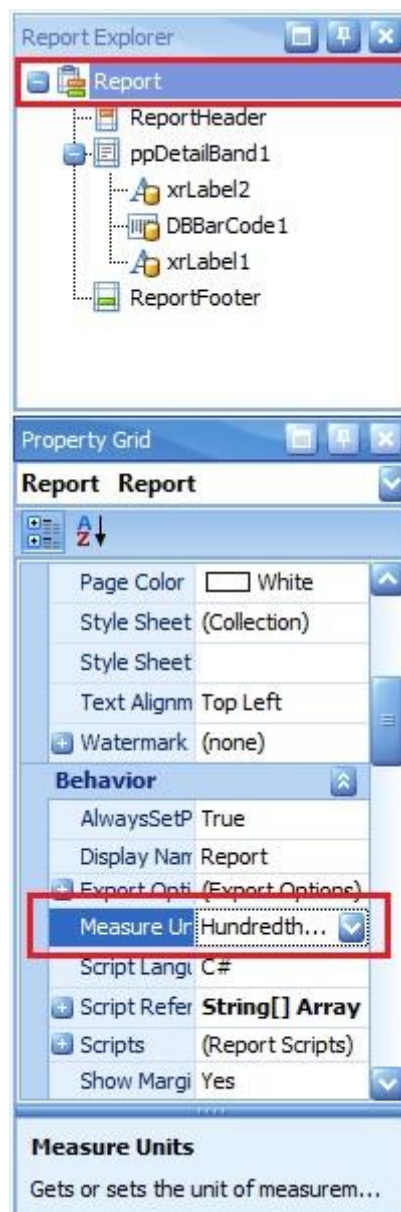


Image above shows where to access the Report Properties and get the Measurement Units

How to calculate Barcode Module

With the information such as Barcode Printer and Report Measurement Unit in hand, user able to perform this Barcode Module calculation in order to set the barcode module value for printing later on. This is the main factor that causes scanning of barcode to fail if it was not set properly.

There are 2 types of calculation, one will be based on Hundreds of Inch and another will be Tenth of Millimetres.

Calculate Barcode Module

<u>Tenth of a Millimetre</u>	<u>Hundredths of an inch</u>
<ul style="list-style-type: none">• $254 / \text{DPI}$	<ul style="list-style-type: none">• $100 / \text{DPI}$
<ul style="list-style-type: none">• Example: If set for 203 DPI Barcode Printer	<ul style="list-style-type: none">• Example: If set for 203 DPI Barcode Printer
<ul style="list-style-type: none">• $254 / 203 = 1.2512315$	<ul style="list-style-type: none">• $100 / 203 = 0.4926108$

*Remember to turn off Auto-Module

The image above shows the formula for the calculation of barcode module

After you're able to calculate this barcode module, user is required to insert this value into their barcode setting.

**Remember to turn off Auto-Module in order to insert it manually.*

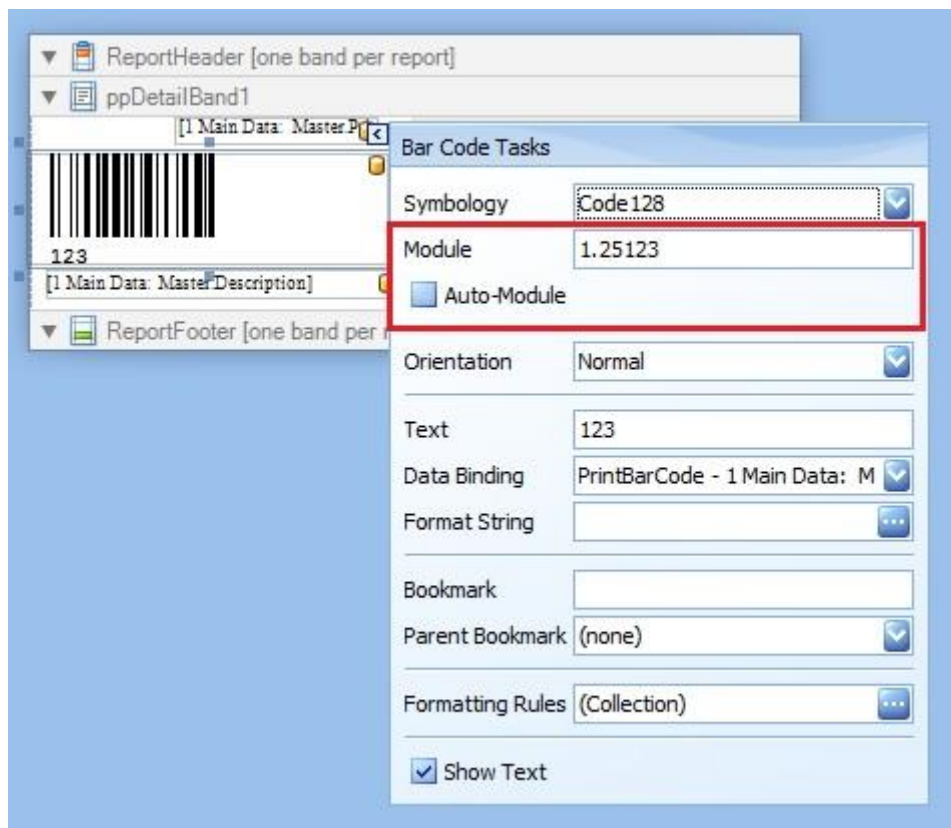


Image above show the value 1.25123 is being inserted into the barcode properties

Character Set

The last thing that is needed to know will be setting the character set of the barcode. By default AutoCount uses the symbology of Code 128 and AutoCount will use this as an example. Code 128 consists of 3 set of character set – Charset A, Charset B and Charset C. The differences of each character set are as below:

Charset A – Supports ASCII characters 00 to 95 (0-9, A-Z, Control Codes), Special Characters and FNC 1-4.

Charset B – Supports ASCII characters 32 to 127 (0-9, A-Z, a-z,), Special Characters and FNC 1-4.

Charset C – Supports “00-99” and certain Special Characters.

Depending on your Barcode characters, it must be set to the proper charset in order for the Barcode Printer to print correctly. In order to set character set, select the barcode and look for the properties Symbology, expand it and you can see there is a properties called Character set over there.

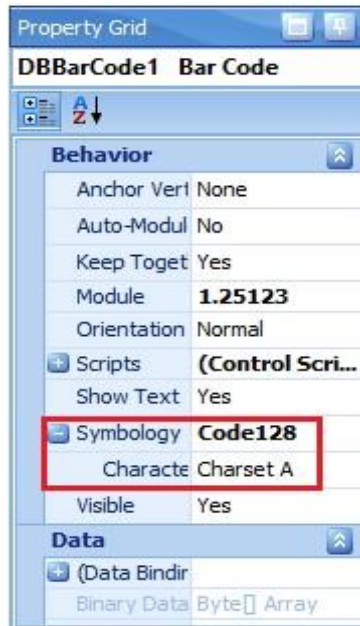


Image above shows where to set the Character set of the barcode

ASCII Table

ASCII control characters		ASCII printable characters				Extended ASCII characters									
00	NULL (Null character)	32	space	64	@	96	`	128	Ç	160	á	192	Ł	224	Ó
01	SOH (Start of Header)	33	!	65	A	97	a	129	ü	161	í	193	ł	225	ô
02	STX (Start of Text)	34	"	66	B	98	b	130	é	162	ó	194	ł	226	õ
03	ETX (End of Text)	35	#	67	C	99	c	131	â	163	ú	195	ł	227	ö
04	EOT (End of Trans.)	36	\$	68	D	100	d	132	ä	164	ü	196	ł	228	ø
05	ENQ (Enquiry)	37	%	69	E	101	e	133	à	165	ñ	197	ł	229	ù
06	ACK (Acknowledgement)	38	&	70	F	102	f	134	á	166	ª	198	ł	230	ú
07	BEL (Bell)	39	'	71	G	103	g	135	ç	167	º	199	ł	231	û
08	BS (Backspace)	40	(	72	H	104	h	136	ê	168	¿	200	ł	232	ü
09	HT (Horizontal Tab)	41	)	73	I	105	i	137	ë	169	®	201	ł	233	ý
10	LF (Line feed)	42	*	74	J	106	j	138	è	170	¬	202	ł	234	ÿ
11	VT (Vertical Tab)	43	+	75	K	107	k	139	í	171	½	203	ł	235	ÿ
12	FF (Form feed)	44	,	76	L	108	l	140	î	172	¾	204	ł	236	ÿ
13	CR (Carriage return)	45	-	77	M	109	m	141	ï	173	¿	205	ł	237	ÿ
14	SO (Shift Out)	46	.	78	N	110	n	142	Ā	174	«	206	ł	238	ÿ
15	SI (Shift In)	47	/	79	O	111	o	143	Ă	175	»	207	ł	239	ÿ
16	DLE (Data link escape)	48	0	80	P	112	p	144	Ą	176	⋮	208	ł	240	ÿ
17	DC1 (Device control 1)	49	1	81	Q	113	q	145	Æ	177	⋮	209	ł	241	ÿ
18	DC2 (Device control 2)	50	2	82	R	114	r	146	Œ	178	⋮	210	ł	242	ÿ
19	DC3 (Device control 3)	51	3	83	S	115	s	147	ø	179	⋮	211	ł	243	ÿ
20	DC4 (Device control 4)	52	4	84	T	116	t	148	ö	180	⋮	212	ł	244	ÿ
21	NAK (Negative acknowl.)	53	5	85	U	117	u	149	ò	181	⋮	213	ł	245	ÿ
22	SYN (Synchronous idle)	54	6	86	V	118	v	150	ú	182	⋮	214	ł	246	ÿ
23	ETB (End of trans. block)	55	7	87	W	119	w	151	ù	183	⋮	215	ł	247	ÿ
24	CAN (Cancel)	56	8	88	X	120	x	152	ÿ	184	⋮	216	ł	248	ÿ
25	EM (End of medium)	57	9	89	Y	121	y	153	Ö	185	⋮	217	ł	249	ÿ
26	SUB (Substitute)	58	:	90	Z	122	z	154	Ü	186	⋮	218	ł	250	ÿ
27	ESC (Escape)	59	;	91	[	123	{	155	ø	187	⋮	219	ł	251	ÿ
28	FS (File separator)	60	<	92	\	124	|	156	£	188	⋮	220	ł	252	ÿ
29	GS (Group separator)	61	=	93	^	125	}	157	Ø	189	⋮	221	ł	253	ÿ
30	RS (Record separator)	62	>	94	^	126	~	158	x	190	¥	222	ł	254	ÿ
31	US (Unit separator)	63	?	95	_			159	f	191	γ	223	ł	255	nbsp
127	DEL (Delete)														

Image above shows the ASCII table from <http://nerdywithchildren.com/teaching-your-kids-to-program-variables-data-types/>

This article only explains how to make barcode work in AutoCount Accounting. If anyone is interested to know how actually barcode works and explore for more Symbology, online is a great place to look for such resource. There will be no ending for such exploration as Symbology expands from time to time.

Date Created: 24/9/2014