Adding a New Printer Barcode in SAP® ECC 6.0

The SAP system only contains the commonly used barcodes and therefore the Zebra printer actually supports many more than the SAP system details as available.
In some industries or customer applications newer barcodes are becoming more commonly used.
This guide will detail what you need to make sure it has been added into the SAP system.

This process details how to add a new printer barcode called Data Matrix.
The barcode is built-into the firmware as standard on your Zebra ZPL printer and allocated to barcode identifier BX for recall.

Once you have logged into your SAP system you need to check what Device Type Driver the Output Device (Printer) uses.
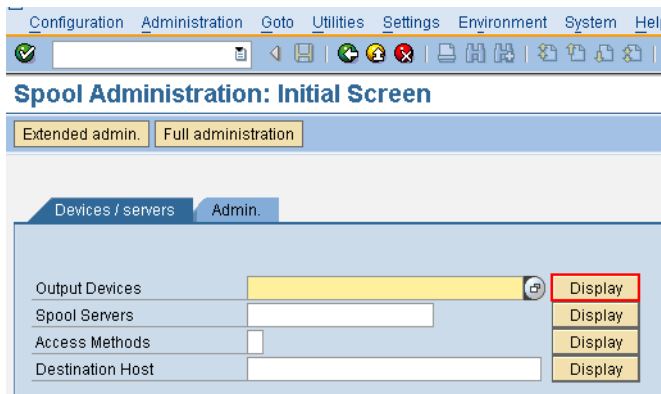
1. Checking Device Type Driver

- In the Transaction Quick Access field at the top left of the screen, enter SPAD then Enter.
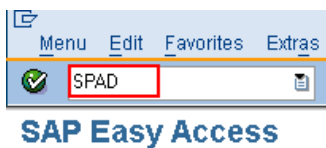
- This will take you to the Spool Administration: Initial screen

- Select the Display button for a list of all the Output Devices (Printers) already setup
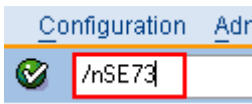

- Here is a list of the printers I have available, I am interested in using ZM600 TS.
  This is using the Device Type Driver of YZB200F

- We now have the information that the additional barcode I am using needs to be added into the YZB200F Device Type Driver.

2. **Adding System Bar Codes**

- In the Transaction Quick Access field at the top left of the screen, enter /nSE73 then Enter.

- This will take you to the SAPscript Font Maintenance: Initial screen

- Select the System Bar Codes check box and Select the Change button

- This will display a list of all the Barcodes on the SAP system
  Note: Your list may be different

## SAPscript Font Maintenance: Change System Bar Codes

Bar Code	Description	Min.	Max.	Width	Unit	Height	Unit	BCode Type	Rotatn.
ARTNR	Artikelnummer	01	10	4,80	CM	1,20	CM		000
AUFNR	Auftragsnummer	01	08	4,80	CM	1,20	CM		000
BARCLVS	Test Barcode im LVS	01	20	5,00	CM	2,00	CM		000
BC_93	Code 93	01	40	7,00	CM	1,30	CM	C93	000
BC_C128B	Code 128 B, n.txt,h=13mm	01	40	9,00	CM	1,30	CM		000
BC_CD39	Code 39 no chk, n.txt,h=13mm	01	40	5,00	CM	1,30	CM		000
BC_CD39C	Code 39 w.chk, n.txt,h=13mm	01	40	9,00	CM	1,30	CM		000
BC_EAN13	EAN 13, n.txt,h=13mm	12	12	5,00	CM	1,30	CM		000
BC_EAN8	EAN 8, n.txt,h=13mm	07	07	3,00	CM	1,30	CM		000
BC_EANH	EAN 128, n.txt,h=13mm	01	40	9,00	CM	1,30	CM		000
BC_ESC	ESC character (hex 1B)	01	01	0,00	TW	0,00	TW		000
BC_I25	Int.2of5 no chk, n.txt,h=13mm	02	26	5,00	CM	1,30	CM		000
BC_I25C	Int.2of5 w.chk, n.txt,h=13mm	01	25	5,00	CM	1,30	CM		000
BC_JAN	JAN Barcode (Japan)	01	10	4,00	CM	1,20	CM		000
BC_MRN	Barcode für MRN-Nummer	Code 128					ModW07	H00200Mode A Chk N	Normal
BC_MSI	MSI no chk, n.txt,h=13mm	01	14	9,00	CM	1,30	CM		000
BC_MSIC	MSI mod-10 chk, n.txt,h=13mm	01	14	9,00	CM	1,30	CM		000
BC_MSIC1	MSImod10 mod10chk,n.txt,h=13mm	01	14	9,00	CM	1,30	CM		000
BC_MSIC2	MSImod11 mod10chk,n.txt,h=13mm	01	14	9,00	CM	1,30	CM		000
BC_PSN11	USPS POSTNET 11	11	11	7,00	CM	3,00	MM	POSTNET	000
BC_PSN5	USPS POSTNET 5 n.txt,h= 3mm	05	05	4,00	CM	0,30	CM		000
BC_PSN9	USPS POSTNET 9 n.txt,h= 3mm	09	09	6,50	CM	0,30	CM		000
C128A6	Code 128A Narrow width 6	Code 128					ModW06	H00150Mode A Chk Y	Normal
C128A8	Code 128A Narrow width 8	Code 128					ModW06	H00150Mode A Chk Y	Normal
C128A_00	Code 128A, n.txt,h= 5mm	01	15	4,00	CM	0,50	CM	C128_A	000
C128A_01	Code 128A, r=090, n.txt,h= 5mm	01	15	4,00	CM	0,50	CM	C128_A	090
C128B_00	Code 128B, n.txt,h= 5mm	01	15	4,00	CM	0,50	CM	C128_B	000
C128B_01	Code 128B, r=090, n.txt,h= 5mm	01	15	4,00	CM	0,50	CM	C128_B	180
C2	Barcode 128 Rotated Wide Bar	Code 128					ModW08	H00150Mode A Chk Y	Rotated
C4	Code 128 Rotated 270	Code 128					ModW08	H00150Mode A Chk Y	Inverted
CD39C_00	Code39 w.chk, n.txt,h= 5mm	01	15	4,00	CM	0,50	CM	C39	000
CD39C_01	Code39 w.chk,r=090,n.txt,h=5mm	01	15	4,00	CM	0,50	CM	C39	090
CD39__00	Code39 n.chk, n.txt,h= 5mm	01	15	4,00	CM	0,50	CM	C39	000
CD39__01	Code39 n.chk,r=090,n.txt,h=5mm	01	15	4,00	CM	0,50	CM	C39	090
EAN8	Barcode EAN8 für Schulung	07	07	5,00	CM	2,00	CM		000
KUNAUNR	Kundenauftragsnummer	10	10	4,80	CM	1,20	CM		000
KUNAUPS	Kundenauftragsposition	06	06	4,80	CM	1,20	CM		000
LAW_BC	Barcode Lohnausweis CH(PDF417)	PDF 417					ModW06	H00000SecLv 2RowH 00020	Normal
MBBARC	Test Barcode Bestandsführung	10	10	5,00	CM	2,00	CM		000
MBBARC1	Test Barcode 1 Bestandsführung	10	14	5,00	CM	1,20	CM		000
PDF417	PDF417 Barcode	PDF 417					ModW06	H00150SecLv 3RowH 00015	Normal
PDF417R	PDF417 Rotate	PDF 417					ModW04	H00150SecLv 3RowH 00010	Rotated
RSNUM	Reservierungsnummer	10	10	4,80	CM	1,20	CM		000
RSPOS	Reservierungsposition	04	04	4,80	CM	1,20	CM		000
RUECKNR	Rueckmeldenummer	08	14	4,80	CM	1,20	CM		000
TYPNR	Typennummer	10	10	8,00	CM	1,20	CM		000
ZFERRARI	bar code for output type HULB	Code 128					ModW06	H00150Mode A Chk Y	Normal

- Select the Create button (Paper icon) at the top of the screen

SAPscript Font Maintenance: Change System Bar Codes

| Bar Code	Description	Min.	Max.	Width	Unit	Height	Unit	BCode Type	Rotatn.
ARTNR	Artikelnummer	01	10	4,80	CM	1,20	CM		000
AUFNR	Auftragsnummer	01	08	4,80	CM	1,20	CM		000
BARCLVS	Test Barcode im LVS	01	20	5,00	CM	2,00	CM		000
BC_93	Code 93	01	40	7,00	CM	1,30	CM	C93	000
BC_C128B	Code 128 B, n.txt,h=13mm	01	40	9,00	CM	1,30	CM		000

- The Choose Bar Code Technology select box will now be displayed

- The barcode we are adding is a new barcode that is not listed therefore we are going to use Old
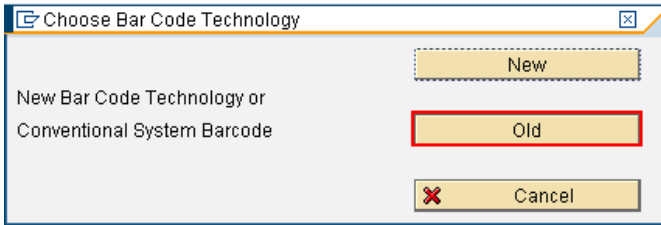
- Select the Old button

- The Create/Change System Bar Code settings screen will be displayed
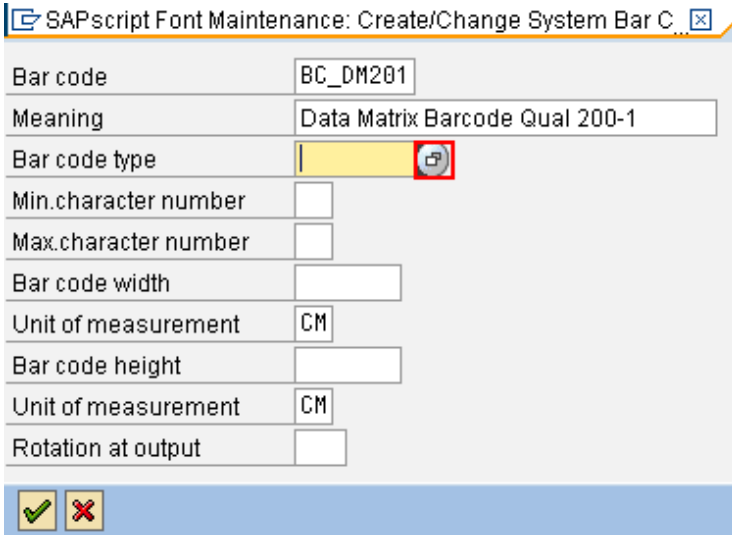
- Enter the Barcode name you want to use. I am using BC_DM201
- Enter the Longer name of the Barcode in the Meaning field
- Select the choices button on the Bar code type field for the available Bar code types setup
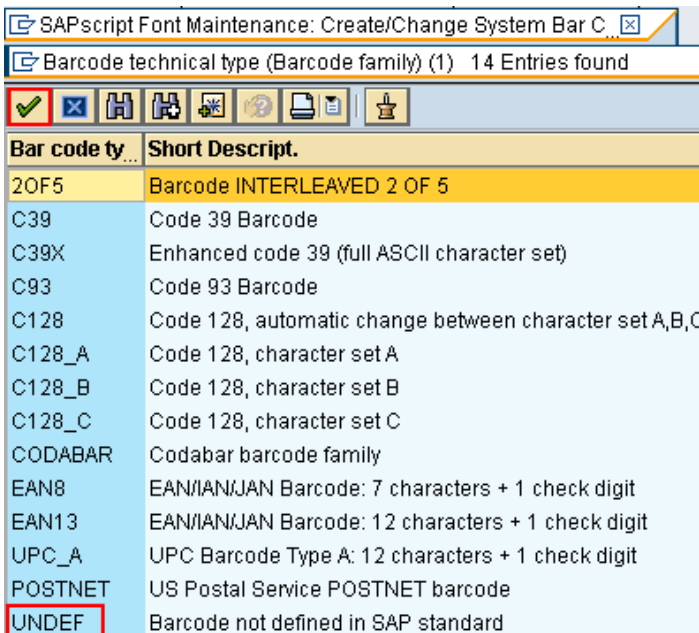
- The barcode is not listed so we will select UNDEF (Barcode not defined) and then the green tick button

- This will place UNDEF in the field

- I am not placing any other details except the Bar code height of 2 CM's (20mm) and the Rotation at output of 000 (Normal Rotation)
- Then select the green tick to select the changes

- You will then receive a warning advising of the name ranges and what has been used
- Select the green tick to accept
- The Prompt for Workbench request (TF005 – Table) should then be displayed.
  Note: If you have previously added a font or barcode you can select the green tick

  Note: If you have not previously added a font or barcode you will need to select the Create button (Paper icon)

- This will display the Create Request screen

- In the Short Description type Add Barcode and select the Save (Disk) icon

- This will create a Workbench request reference for Table TF005

- Select the green tick button to continue and submit the request

- You should receive confirmation the Table entry was included with the task

- Select the green tick button to continue

- The screen will now show a refreshed list of Barcodes which should include BC_DM201 barcode

SAPscript Font Maintenance: Change System Bar Codes

| Bar Code	Description		Min.	Max.	Width	Unit	Height	Unit	BCode Type	Rotatn.
ARTNR	Artikelnummer		01	10	4,80	CM	1,20	CM		000
AUFNR	Auftragsnummer		01	08	4,80	CM	1,20	CM		000
BARCLVS	Test Barcode im LVS		01	20	5,00	CM	2,00	CM		000
BC_93	Code 93		01	40	7,00	CM	1,30	CM C93		000
BC_C128B	Code 128 B,	n.txt,h=13mm	01	40	9,00	CM	1,30	CM		000
BC_CD39	Code 39 no chk,	n.txt,h=13mm	01	40	5,00	CM	1,30	CM		000
BC_CD39C	Code 39 w.chk,	n.txt,h=13mm	01	40	9,00	CM	1,30	CM		000
BC_DM201	Data Matrix Barcode Qual 200-1		00	00	0,00	CM	2,00	CM UNDEF		000
BC_EAN13	EAN 13,	n.txt,h=13mm	12	12	5,00	CM	1,30	CM		000
BC_EAN8	EAN 8,	n.txt,h=13mm	07	07	3,00	CM	1,30	CM		000
BC_EANH	EAN 128,	n.txt,h=13mm	01	40	9,00	CM	1,30	CM		000

3. Adding Printer Bar Codes

- In the Transaction Quick Access field at the top left of the screen, enter /nSE73 then Enter.
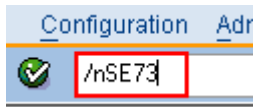
- This will take you to the SAPscript Font Maintenance: Initial screen
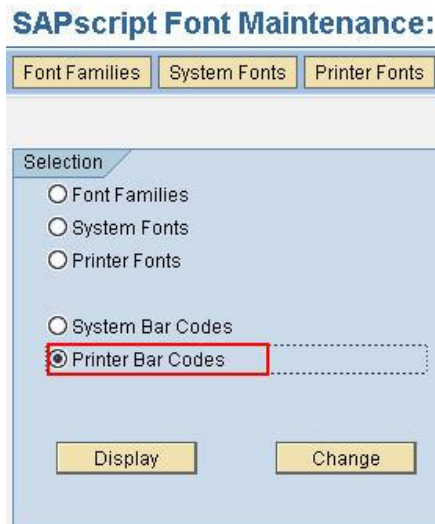
- Select the Printer Bar Codes check box and Select the Change button
- This will display the list of Device Types available on the SAP system
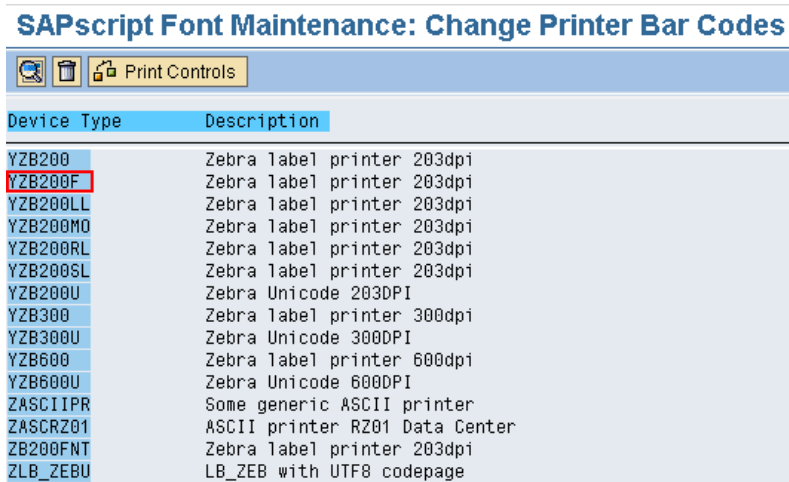
- I am using Device Type YZB200F (which is a modified version of YZB200)
  To display the barcodes available in this Device Type double click on the Device Type name

SAPscript Font Maintenance: Change Printer Bar Codes

Device Type	Bar Code	Prefix	Suffix	Baseline Alignment
YZB200F	BC_93	SBP03	SBS00	☐
YZB200F	BC_C128B	SBP08	SBS00	☐
YZB200F	BC_CD39	SBP01	SBS00	☐
YZB200F	BC_CD39C	SBP02	SBS00	☐
YZB200F	BC_EAN13	SBP05	SBS00	☐
YZB200F	BC_EAN8	SBP04	SBS00	☐
YZB200F	BC_EANH	SBP16	SBS00	☐
YZB200F	BC_I25	SBP07	SBS00	☐
YZB200F	BC_I25C	SBP06	SBS00	☐
YZB200F	BC_PSN11	SBP15	SBS00	☐
YZB200F	BC_PSN5	SBP09	SBS00	☐
YZB200F	BC_PSN9	SBP10	SBS00	☐
YZB200F	C128A_00	SBP11	SBS00	☐
YZB200F	C128A_01	SBP19	SBS00	☐
YZB200F	C128B_00	SBP12	SBS00	☐
YZB200F	C128B_01	SBP20	SBS00	☐
YZB200F	CD39C_00	SBP14	SBS00	☐
YZB200F	CD39C_01	SBP18	SBS00	☐
YZB200F	CD39__00	SBP13	SBS00	☐
YZB200F	CD39__01	SBP17	SBS00	☐

- Note the Prefix and Suffix value range used for the barcodes
- To add a new barcode select the Create button (Paper icon) at the top of the screen

- This will show the barcode creation dialog box
- In the Bar code field enter the Bar code you will be using, I am using BC_DM201

- In the Bar code prefix field enter a new unused value, I have values up to SBP30 so I am using SBP77

- In the Bar code suffix field I am using SBS00 which is used on all the suffixes for my other settings
- Once the prefix and suffix have been entered select the green tick to accept the values
- As we have selected a new print control value as an item you will get a warning message

- Select New entry

- Select the Green Tick to accept the new entry
- This will show the Bar Code has an accepted Prefix entered

- Highlight the Bar Code line in the Prefix field and then select the Maint. Print Control button at the top of the screen
- This will show the Maintain Print Control screen to enable you to setup what special settings the SAP system will send to the printer to print this barcode in the ZPL programming language.

- Ensure the Hexadecimal switch is removed
- You will need to enter the ZPL for this command into the Control Char. Seq. field
  I am using ^BXN,2,200,20,20,6,~,1^FD

  This means:
  ^BX   - The Data Matrix command
  N   - The orientation is normal
  2   - Dimensional height in dots of the individual symbol elements
  200   - Quality ECC level (ECC 200)
  20   - Columns to encode
  20   - Rows to encode
  6   - Data to be used (6 means full 256 ISO 8-bit data is used)
  ~   - Escape sequence for control characters
  1   - Square aspect ratio, if you required rectangle this will be 2
  ^FD   - This is the start of the field data command

- Select the green tick to set
- Highlight the Bar Code line in the Suffix field and then select the Maint. Print Control button at the top of the screen

- This will show the Maintain Print Control screen to enable you to setup what special settings the SAP system will send to the printer to print this barcode in the ZPL programming language.
- Ensure the Hexadecimal switch is removed
- You will need to enter the ZPL for this suffix of this command into the Control Char. Seq. field
  I am using ^FS

  <u>This means:</u>
  ^FS   - Field Separator (end of field)

- Select the green tick to set

- The barcode should now be available from your SAP application and should print using the selected barcode on the Zebra printer.