

## **JAVELIN<sup>®</sup> FLX USER GUIDE**

### **Introduction**

The Javelin FLX printer is designed to connect to a network and print and encode plastic cards directly from host data.

It supports monochrome printing and magnetic stripe encoding.

The Javelin FLX printer has both USB and Ethernet connectivity.

The printer comes with *Javelin FLX Dashboard* software to enable dealers and end users to configure card layouts which are then stored on the Javelin FLX printer.

This software can also be used to load the same layout onto multiple Javelin FLX card printers.

### **Installing the software from the CD**

Open the CD and go to the FLX folder, Double click the **install.exe** icon. This will setup your *FLX Dashboard* program and place a shortcut on your desktop.

Refer to the Javelin J200i/J230i User Guide for loading consumables and cards.

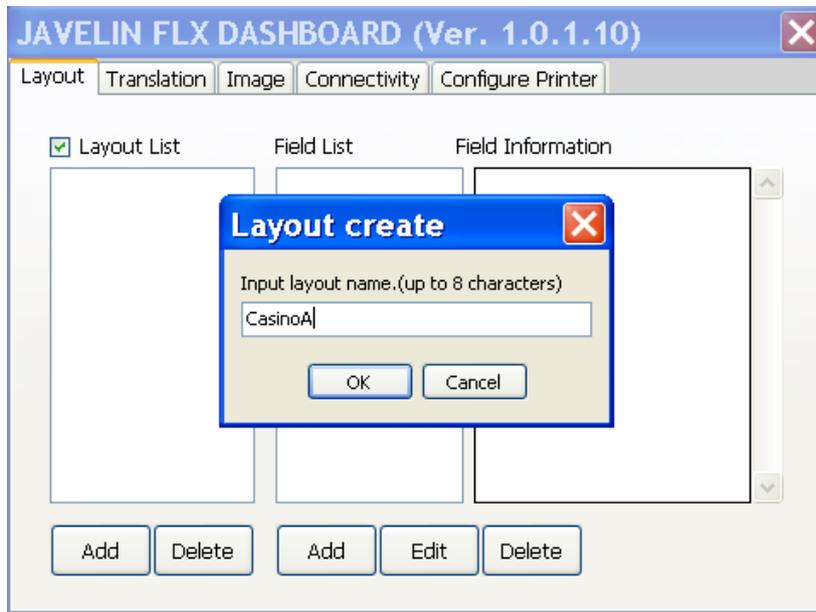
### **Using the Javelin FLX Dashboard Software**

#### **1. Creating layouts**

**Layout** is where all attributes are chosen for the desired personalized card. Printing fields, magnetic stripe data and barcode fields are defined with printing positioning, track location and barcode type.

Fonts, magnetic stripe and barcode parameters can all be selected as needed.

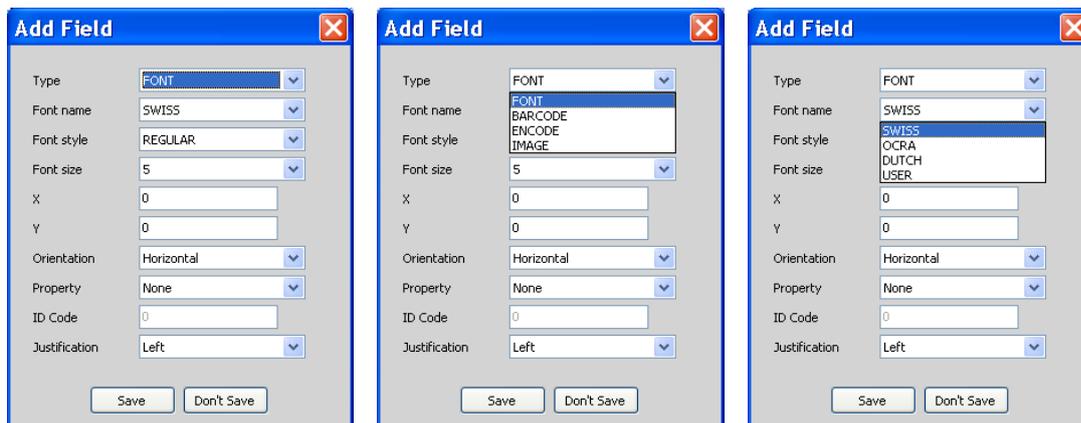
Open FLX Dashboard and Click the **Layout** tab:



Click **Add** under **Layout List**. Enter a new layout name then click **OK**

Click **Add** under **Field List** and name a new field

To define the parameters of the new field, first choose the type of field:



### 1.1 Adding a text field:

Select the desired font and enter X and Y positions measured in thousands of an inch. User font is for when you require a downloaded True Type Font.

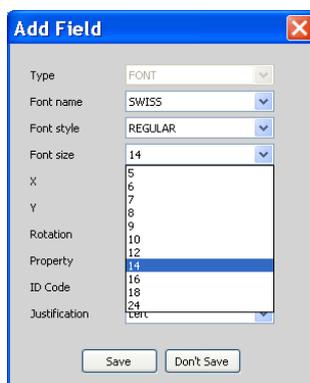
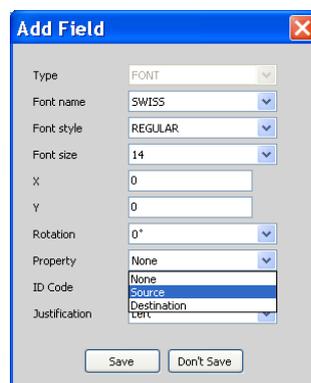
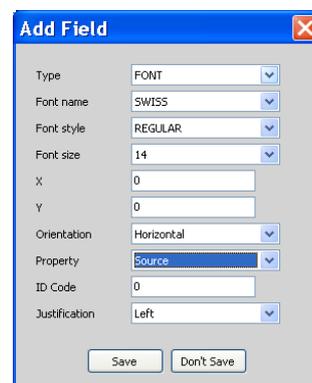
**1.2** Choose the Font name, Justification, Rotation and Size.

X = position of first character from the LEFT hand side of the card

Y = position of first character from TOP of the card

Each X and Y value entered is equal to .001”

A field printed 0.25” from the left edge of the card should have a “X” value of 250. If this same field is 1.50” from the top edge of the card, it should have a “Y” value of 1500.

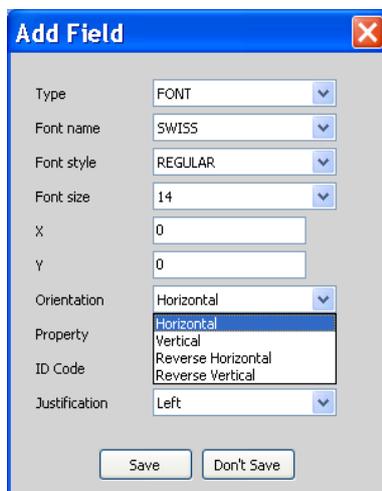




The **Property** option allows you to define source or destination if needed.

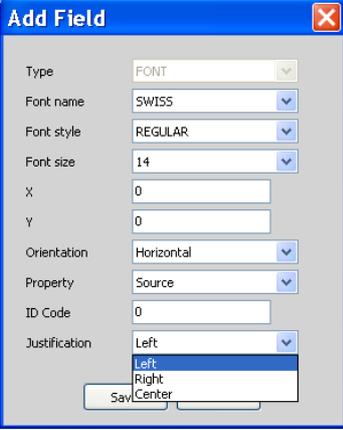
A source data field sent can be used in more than one destination field

The **ID Code** allows you to attribute a number to an individual source field and identify it in a destination field.

The field can also be rotated in any of four ways:



The printing Justification can also be chosen: Left, Centre or Right:

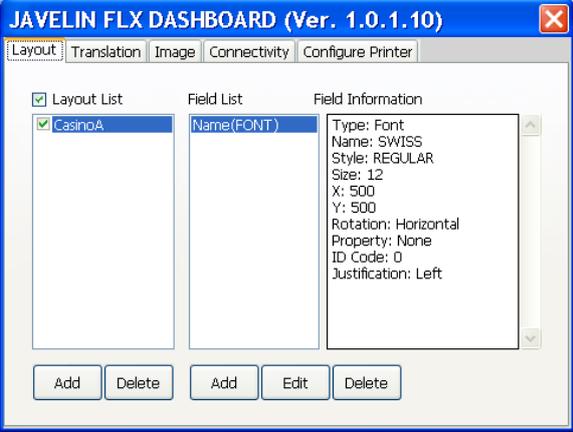


The 'Add Field' dialog box contains the following fields:

- Type: FONT
- Font name: SWISS
- Font style: REGULAR
- Font size: 14
- X: 0
- Y: 0
- Orientation: Horizontal
- Property: Source
- ID Code: 0
- Justification: Left (with a dropdown menu open showing Left, Right, and Center)

The 'Save' button is highlighted at the bottom of the dialog.

Click **Save** and you will see the details of your new Layout and new Field:



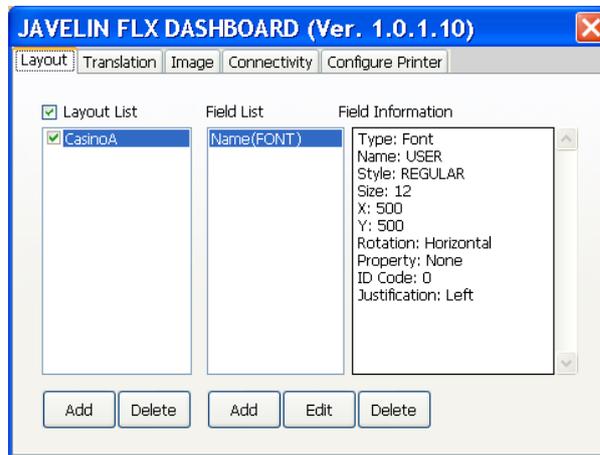
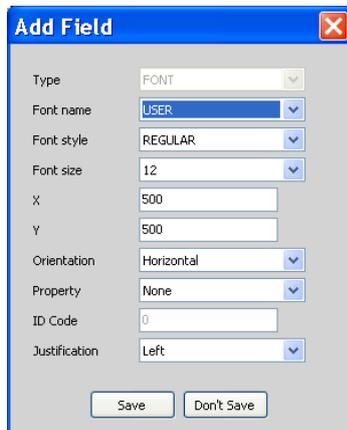
The 'JAVELIN FLX DASHBOARD (Ver. 1.0.1.10)' window shows the following details:

- Layout List: CasinoA (checked)
- Field List: Name(FONT)
- Field Information:
  - Type: Font
  - Name: SWISS
  - Style: REGULAR
  - Size: 12
  - X: 500
  - Y: 500
  - Rotation: Horizontal
  - Property: None
  - ID Code: 0
  - Justification: Left

Buttons at the bottom: Add, Delete, Add, Edit, Delete.

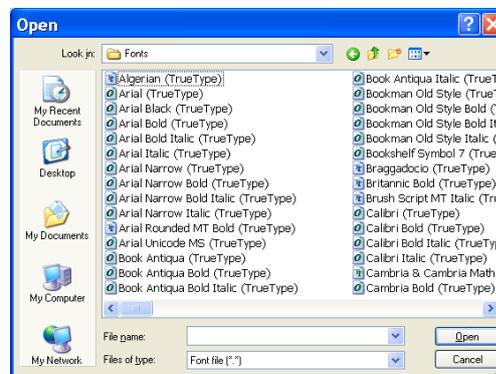
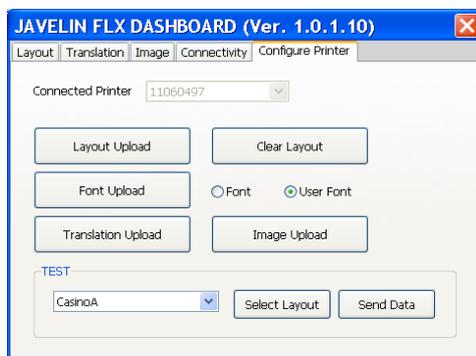
Note: A selection of fonts is resident on the printer. Additional fonts can be uploaded as follows:

Choose **User Font** in the Font name drop down list then define font size and X and Y positions.



Go to the configure tab and click **User Font** radio button then click **Font Upload** and browse for your True Type Font and copy into your FLX folder and click open to upload the font to the printer.

Please note only one .ttf can be uploaded to the FLX printer at any one time.

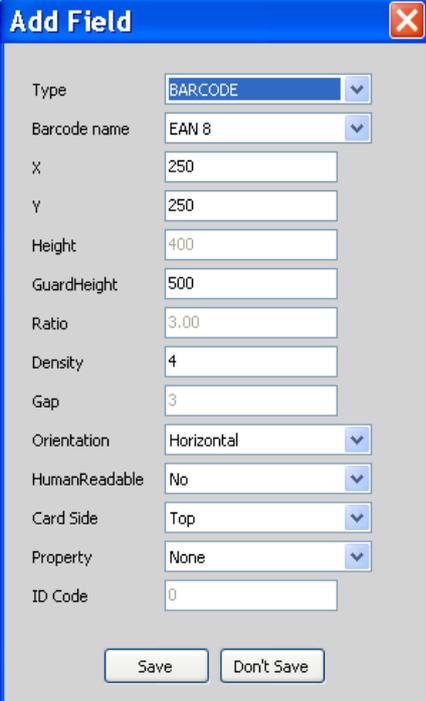


## 1.2 Adding a Barcode field:

Choose **Barcode** from the add Field Type drop down box options.

Select a Barcode name; the default values will be filled in for you.

Edit the parameters as needed:



**Add Field**

Type:

Barcode name:

X:

Y:

Height:

GuardHeight:

Ratio:

Density:

Gap:

Orientation:

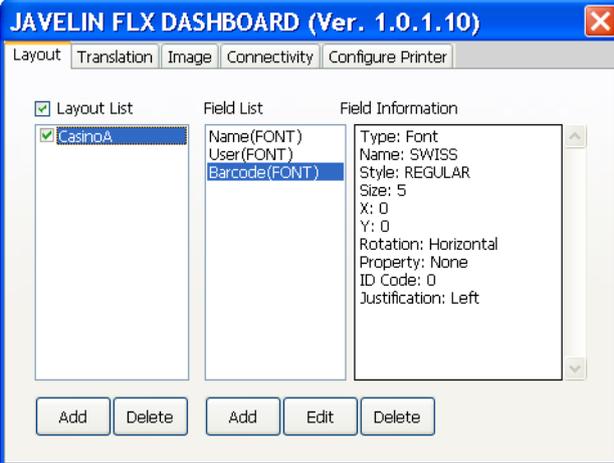
HumanReadable:

Card Side:

Property:

ID Code:

Click **Save**



**JAVELIN FLX DASHBOARD (Ver. 1.0.1.10)**

Layout | Translation | Image | Connectivity | Configure Printer

Layout List

Field List	Field Information
<input checked="" type="checkbox"/> CasinoA	
Name(FONT)	Type: Font
User(FONT)	Name: SWISS
Barcode(FONT)	Style: REGULAR
	Size: 5
	X: 0
	Y: 0
	Rotation: Horizontal
	Property: None
	ID Code: 0
	Justification: Left

### 1.3 Adding a Magnetic Stripe Encoding field:

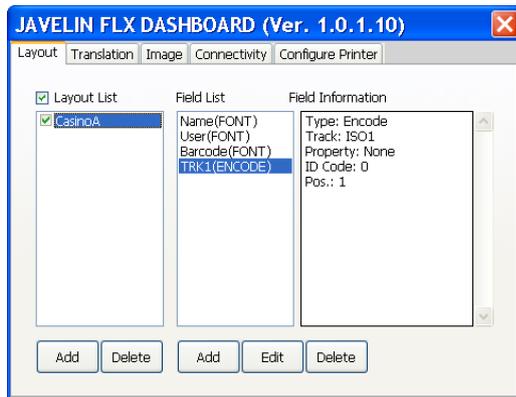
Click **Add**, name the Encode field. Choose which track to encode then click **Save**.



The 'Add Field' dialog box contains the following fields and options:

- Type: ENCODE (dropdown)
- Track: ISO1 (dropdown)
- Property: None (dropdown)
- ID Code: 0 (text input)
- Pos.: 0 (text input)
- Buttons: Save, Don't Save

You can choose either tracks ISO1, ISO2 or ISO3.



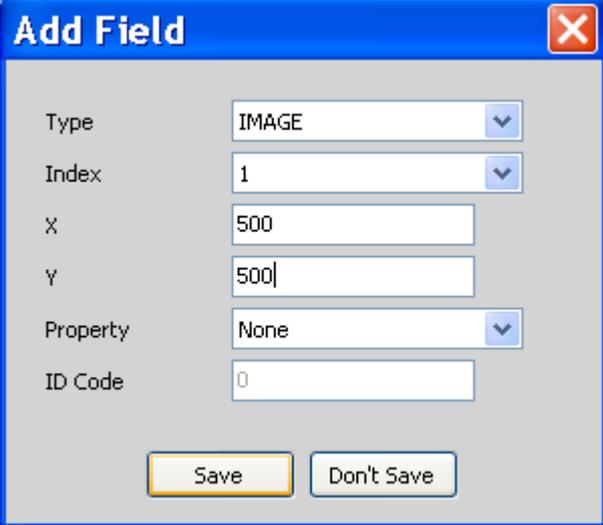
The dashboard shows the following configuration:

Layout List	Field List	Field Information
<input checked="" type="checkbox"/> CasinoA	Name(FONT) User(FONT) Barcode(FONT) TRK1(ENCODE)	Type: Encode Track: ISO1 Property: None ID Code: 0 Pos.: 1

Buttons: Add, Delete, Add, Edit, Delete

You can add as many Text, Barcode and Encode fields as desired.

## 1.4 Adding an Image field



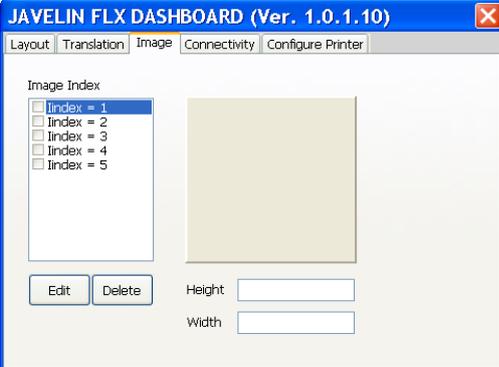
The 'Add Field' dialog box contains the following fields:

- Type: IMAGE (dropdown)
- Index: 1 (dropdown)
- X: 500 (text input)
- Y: 500 (text input)
- Property: None (dropdown)
- ID Code: 0 (text input)

Buttons: Save, Don't Save

Choose Field Type as Image and choose desired X and Y values:

Click on the **Image** tab and click **Edit**



The 'JAVELIN FLX DASHBOARD (Ver. 1.0.1.10)' window shows the 'Image' tab. It includes an 'Image Index' list with checkboxes for Index = 1 through 5. Below the list are 'Edit' and 'Delete' buttons. To the right of the list is a large square image placeholder. Below the placeholder are 'Height' and 'Width' text input fields.



The 'Image Upload' dialog box features a large image placeholder on the left. On the right, there are 'Height' and 'Width' text input fields, a checked 'Ratio' checkbox, and 'Save' and 'Don't Save' buttons. A '<- Click here' link is located at the bottom of the dialog.

Click in the left hand box and browse for the desired image file:



Set the desired height and width you need for the printed image on the card.

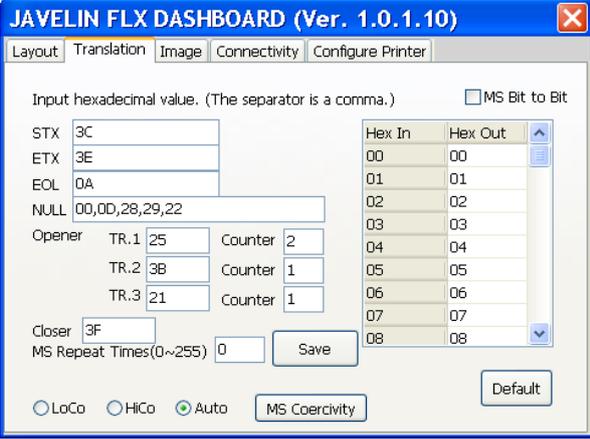
If Ratio is ticked the height/width ratio will be kept as original.

Click **Save** and then go to the **Configure** tab and click image upload.

The Image will be then printed on the card when host data is sent.

## 2. Setting the Translation table

Click the **Translation** tab:



The screenshot shows the 'Translation' tab in the JAVELIN FLX DASHBOARD. It includes fields for STX (3C), ETX (3E), EOL (0A), and NULL (00,0D,28,29,22). There are also fields for Opener (TR.1: 25, Counter: 2; TR.2: 3B, Counter: 1; TR.3: 21, Counter: 1) and Closer (3F). A table on the right lists Hex In (00-08) and Hex Out (00-08). At the bottom, there are radio buttons for LoCo, HiCo, and Auto (selected), and a checkbox for MS Coercivity.

From the data string being sent to the printer you can define the following Hex values:

STX	Start of data
ETX	End of data
EOL	End of line or field
NULL	Set characters to ignore
Opener	Set encode data opening character for each track
Closer	Set encode closing character

Encoding openers and closers allow encoding information to be sent to the machine without requiring unique encode fields to be present in the layout.

The Counter option allows for more than one opening character to be encoded

Set to 2 to encode %% on track one for example.

MS Repeat Times sets how many times the printer will repeat track data along the magnetic strip.

MS Coercivity can be manually selected at the bottom of the translation tab.

A full Translation table 00 to FF is also included.

This gives the printer the ability to change or nullify any character it receives from the Host system.

Full translation allows the printer to adapt to a variety of different Host environments.

### **Please Note:**

**Do not change the Hex values in the range 00 to 20 as these are reserved for communication protocol codes.**

Enter the desired Hex values in the corresponding boxes (see **Appendix 2 - ASCII Table**).

### 3. Connecting the FLX Printer via Ethernet

Connect to your network via a conventional network cable to the back of the printer.

Open the Javelin FLX Dashboard program and select the **Connectivity** tab and click TCP/IP

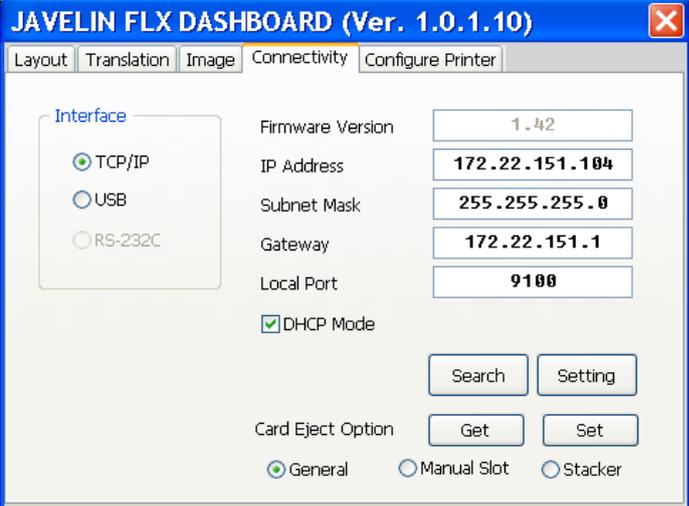
Use the following procedure if you have a DHCP supported network server:

1. Search the connected Network board by clicking the **Search** button
2. IP address, Subnet mask, Gateway are automatically assigned from the DHCP server
3. Port set to 9100
4. Select DHCP mode
5. Click the **Setting** button; when the printer has stopped flashing, reboot the printer to establish the IP address
6. Click the **Search** button to confirm the presence of the FLX printer on your network.



To set the IP address manually:

1. Search the connected Network Board by clicking the **Search** Button
2. Input the desired IP address, Subnet Mask and Gateway
3. Port set to 9100
4. DHCP should NOT be selected
5. Click the **Setting** button to send the IP address to the printer
6. Reboot the printer to save the IP address
7. Click on **Search** to check the new settings.



JAVELIN FLX DASHBOARD (Ver. 1.0.1.10)

Layout Translation Image Connectivity Configure Printer

Interface

- TCP/IP
- USB
- RS-232C

Firmware Version: 1.42

IP Address: 172.22.151.104

Subnet Mask: 255.255.255.0

Gateway: 172.22.151.1

Local Port: 9100

DHCP Mode

Search Setting

Card Eject Option: Get Set

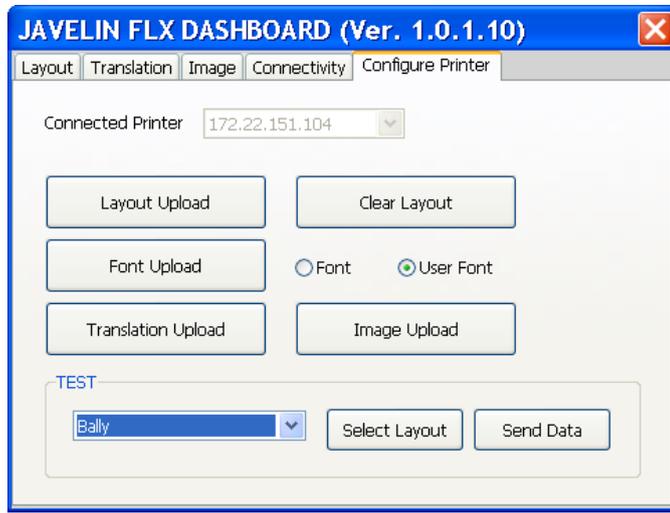
General  Manual Slot  Stacker

If you require a USB connection, click **USB** on the **Connectivity** tab.

The card eject position can also be chosen here

Click Get chose your desired option then click Set.

#### 4. Printer Configuration



Here you can upload Layouts, Translation Tables and Fonts to the printer's memory.

You can select the current Layout and send a file of Test Data.

The Clear Layout button clears the printer's memory of all resident layouts.

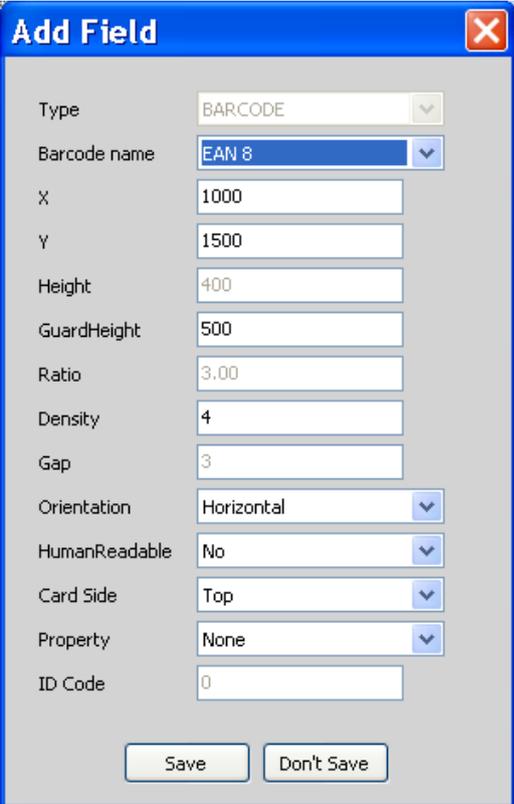
### Appendix 1 - Worked Example

Required printing on the card:

- Customer name
- Customer number
- Customer number (barcode)



For the Barcode set the parameters using the layout tab.



**Add Field** [X]

Type	BARCODE
Barcode name	EAN 8
X	1000
Y	1500
Height	400
GuardHeight	500
Ratio	3.00
Density	4
Gap	3
Orientation	Horizontal
HumanReadable	No
Card Side	Top
Property	None
ID Code	0

Save Don't Save

Also, Customer Number to be encoded on Track 1 of the magnetic stripe.



Sample data file

```
<A SAMPLE  
0123456789  
(0123456789)  
%012345679?>
```

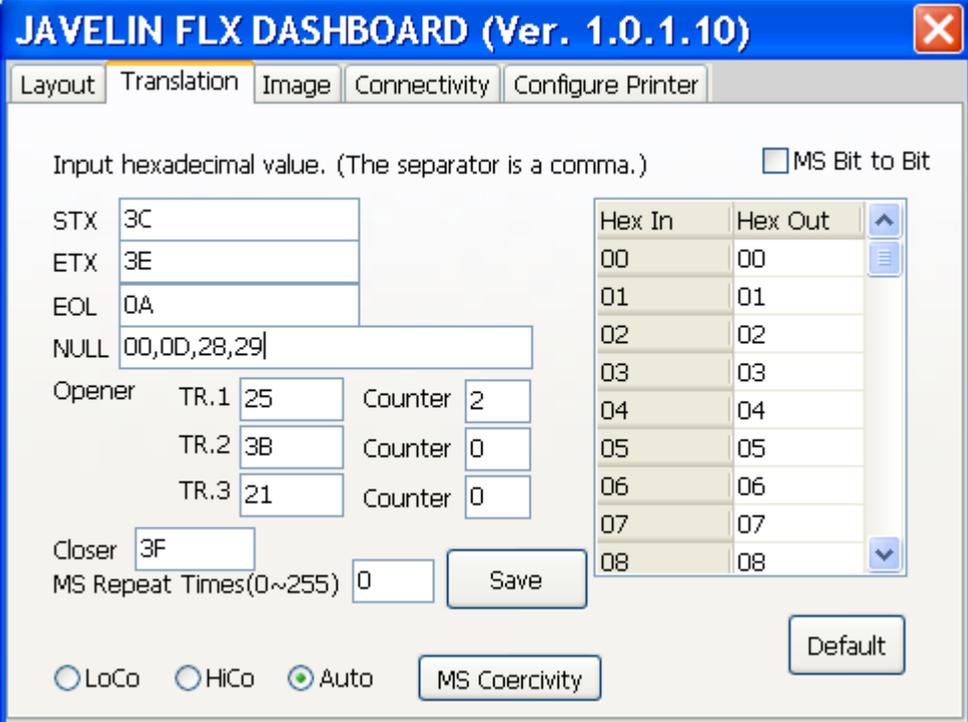
Name a new layout and define two text fields and a barcode field.

Choose the X and Y values, and the fonts for each field.

Set an encode field defined for Track 1.

It's also possible to use the track opener 25 hex (%) set in the translation tab to write the data to track 1 in which case an additional encode field is not necessary.

Set the **Translation** tab to look like this:



Input hexadecimal value. (The separator is a comma.)  MS Bit to Bit

STX

ETX

EOL

NULL

Opener TR.1  Counter

TR.2  Counter

TR.3  Counter

Closer

MS Repeat Times(0~255)

LoCo  HiCo  Auto

Hex In	Hex Out
00	00
01	01
02	02
03	03
04	04
05	05
06	06
07	07
08	08

STX = <            HEX 3C  
 ETX = >            HEX 3E  
 EOL = CR         HEX 0A  
 NULL (LF)        HEX 28 0D 29

This data can then be sent to the printer directly from the host system.

## Appendix 2 - ASCII Table

Dec	Hx	Oct	Char	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr	Dec	Hx	Oct	Html	Chr
0	0	000	<b>NUL</b> (null)	32	20	040	&#32;	Space	64	40	100	&#64;	@	96	60	140	&#96;	`
1	1	001	<b>SOH</b> (start of heading)	33	21	041	&#33;	!	65	41	101	&#65;	A	97	61	141	&#97;	a
2	2	002	<b>STX</b> (start of text)	34	22	042	&#34;	"	66	42	102	&#66;	B	98	62	142	&#98;	b
3	3	003	<b>ETX</b> (end of text)	35	23	043	&#35;	#	67	43	103	&#67;	C	99	63	143	&#99;	c
4	4	004	<b>EOT</b> (end of transmission)	36	24	044	&#36;	\$	68	44	104	&#68;	D	100	64	144	&#100;	d
5	5	005	<b>ENQ</b> (enquiry)	37	25	045	&#37;	%	69	45	105	&#69;	E	101	65	145	&#101;	e
6	6	006	<b>ACK</b> (acknowledge)	38	26	046	&#38;	&	70	46	106	&#70;	F	102	66	146	&#102;	f
7	7	007	<b>BEL</b> (bell)	39	27	047	&#39;	'	71	47	107	&#71;	G	103	67	147	&#103;	g
8	8	010	<b>BS</b> (backspace)	40	28	050	&#40;	(	72	48	110	&#72;	H	104	68	150	&#104;	h
9	9	011	<b>TAB</b> (horizontal tab)	41	29	051	&#41;	)	73	49	111	&#73;	I	105	69	151	&#105;	i
10	A	012	<b>LF</b> (NL line feed, new line)	42	2A	052	&#42;	*	74	4A	112	&#74;	J	106	6A	152	&#106;	j
11	B	013	<b>VT</b> (vertical tab)	43	2B	053	&#43;	+	75	4B	113	&#75;	K	107	6B	153	&#107;	k
12	C	014	<b>FF</b> (NP form feed, new page)	44	2C	054	&#44;	,	76	4C	114	&#76;	L	108	6C	154	&#108;	l
13	D	015	<b>CR</b> (carriage return)	45	2D	055	&#45;	-	77	4D	115	&#77;	M	109	6D	155	&#109;	m
14	E	016	<b>SO</b> (shift out)	46	2E	056	&#46;	.	78	4E	116	&#78;	N	110	6E	156	&#110;	n
15	F	017	<b>SI</b> (shift in)	47	2F	057	&#47;	/	79	4F	117	&#79;	O	111	6F	157	&#111;	o
16	10	020	<b>DLE</b> (data link escape)	48	30	060	&#48;	0	80	50	120	&#80;	P	112	70	160	&#112;	p
17	11	021	<b>DC1</b> (device control 1)	49	31	061	&#49;	1	81	51	121	&#81;	Q	113	71	161	&#113;	q
18	12	022	<b>DC2</b> (device control 2)	50	32	062	&#50;	2	82	52	122	&#82;	R	114	72	162	&#114;	r
19	13	023	<b>DC3</b> (device control 3)	51	33	063	&#51;	3	83	53	123	&#83;	S	115	73	163	&#115;	s
20	14	024	<b>DC4</b> (device control 4)	52	34	064	&#52;	4	84	54	124	&#84;	T	116	74	164	&#116;	t
21	15	025	<b>NAK</b> (negative acknowledge)	53	35	065	&#53;	5	85	55	125	&#85;	U	117	75	165	&#117;	u
22	16	026	<b>SYN</b> (synchronous idle)	54	36	066	&#54;	6	86	56	126	&#86;	V	118	76	166	&#118;	v
23	17	027	<b>ETB</b> (end of trans. block)	55	37	067	&#55;	7	87	57	127	&#87;	W	119	77	167	&#119;	w
24	18	030	<b>CAN</b> (cancel)	56	38	070	&#56;	8	88	58	130	&#88;	X	120	78	170	&#120;	x
25	19	031	<b>EM</b> (end of medium)	57	39	071	&#57;	9	89	59	131	&#89;	Y	121	79	171	&#121;	y
26	1A	032	<b>SUB</b> (substitute)	58	3A	072	&#58;	:	90	5A	132	&#90;	Z	122	7A	172	&#122;	z
27	1B	033	<b>ESC</b> (escape)	59	3B	073	&#59;	;	91	5B	133	&#91;	[	123	7B	173	&#123;	{
28	1C	034	<b>FS</b> (file separator)	60	3C	074	&#60;	<	92	5C	134	&#92;	\	124	7C	174	&#124;	
29	1D	035	<b>GS</b> (group separator)	61	3D	075	&#61;	=	93	5D	135	&#93;	]	125	7D	175	&#125;	}
30	1E	036	<b>RS</b> (record separator)	62	3E	076	&#62;	>	94	5E	136	&#94;	^	126	7E	176	&#126;	~
31	1F	037	<b>US</b> (unit separator)	63	3F	077	&#63;	?	95	5F	137	&#95;	_	127	7F	177	&#127;	DEL

### Additional characters:

Char	á	é	í	ó	ú	ñ	ç	€	Ñ	Ç
<b>Dec</b>	<b>160</b>	<b>130</b>	<b>161</b>	<b>162</b>	<b>163</b>	<b>164</b>	<b>135</b>	<b>238</b>	<b>165</b>	<b>128</b>
<b>Hex</b>	<b>A0</b>	<b>82</b>	<b>A1</b>	<b>A2</b>	<b>A3</b>	<b>A4</b>	<b>87</b>	<b>EE</b>	<b>A5</b>	<b>80</b>

### Appendix 3 - Layout select from Host Data

A layout previously saved to the FLX printer can be selected by sending the following host data string:

01 4C 58 58 58 58 58 03 (HEX)

SOH L X X X X X X ETX

Where XXXXXX is the layout name

For example:

To Select **CASINOA** layout send the following string before the main data:

01 4C 43 41 53 49 4E 4F 41 03

SOHL C A S I N O A ETX