Using Barcode control in Intellicus

Intellicus Enterprise Reporting and BI Platform

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Acknowledgements

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For details, visit: http://www.intellicus.com/acknowledgements.htm .

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Barcode in Intellicus

Intellicus has introduced control called, 'Barcode'. Barcode control can have a numeric value or string value as per the style selected.

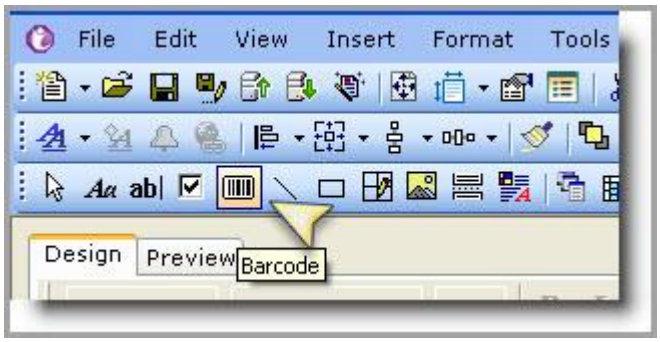

Figure 1: Barcode Control in menu

Barcode is a control which can be placed anywhere on the canvas. i.e. it can be placed at any of the sections, Report Header/Footer, Page Header/Footer, Group Header/Footer or Detail.

Steps to place it on canvas

A report may have one or more sections. The way Intellicus Report Server treats report components depends on the section where they are placed.

Here are the steps, to place a Barcode control on report using toolbar button. Beforehand decide the place where the Barcode is to be placed.

1. Expand the section where you want to place a Barcode
2. Barcode icon is placed on the toolbar, click .

Figure 2: Inserting Barcode control

(You can also insert the Barcode from Menu Item, Insert>Barcode).

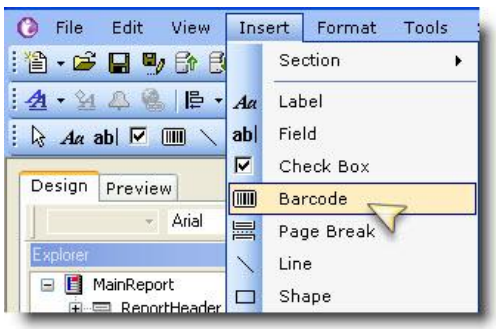

Figure 3: Inserting Barcode control from 'Insert' Menu item

3. Go to the section you want to place the Barcode.
4. Click on the place where control is to be placed. A crosshair is formed.
5. Now, drag the mouse towards right and downwards.
6. Release the mouse click when the height and Width are, as desired.

The Barcode has been placed.

NOTE: You can change the Height and Width of the Barcode from Property also.

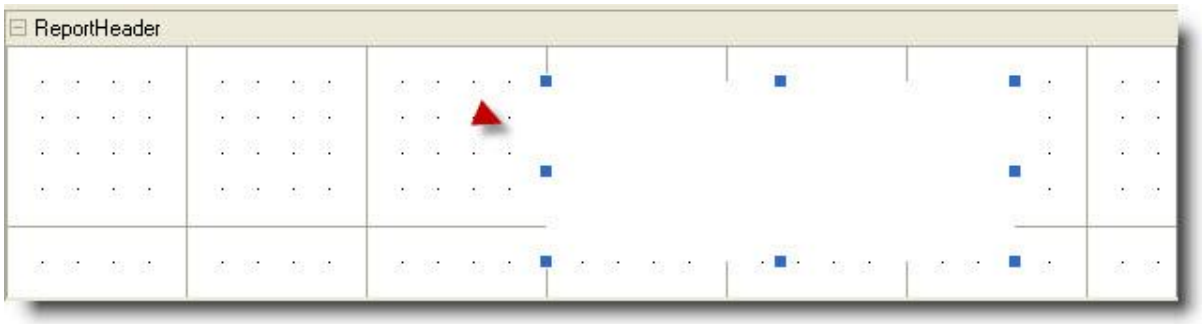

Figure 4: Barcode control on Report Header

Properties of Barcode

The properties associated with Barcode control are as follows:

- (Name)
- Alignment
- BackColor
- BarWidth
- Caption
- CaptionPosition
- DataField
- EnableCheckSum

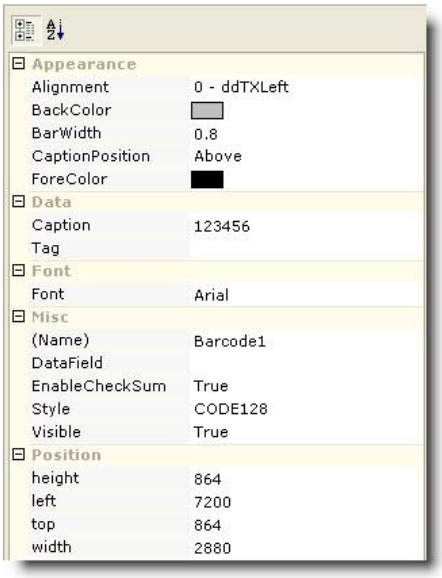

Figure 5: Property Menu

- Font
- ForeColor
- Height
- Left
- Style
- Tag
- Top
- Visible
- Width

Name

You can utilize this option only through the Script Editor. It sets or returns the name of the control.

Alignment

This property sets the alignment of the caption of the barcode.

Value	Description
0-ddTXLeft	To left-align the caption. This is default alignment for character type fields.
1-ddTXRight	To right-align the caption in the barcode.
2-ddTXCenter	To center-align the caption in the barcode.

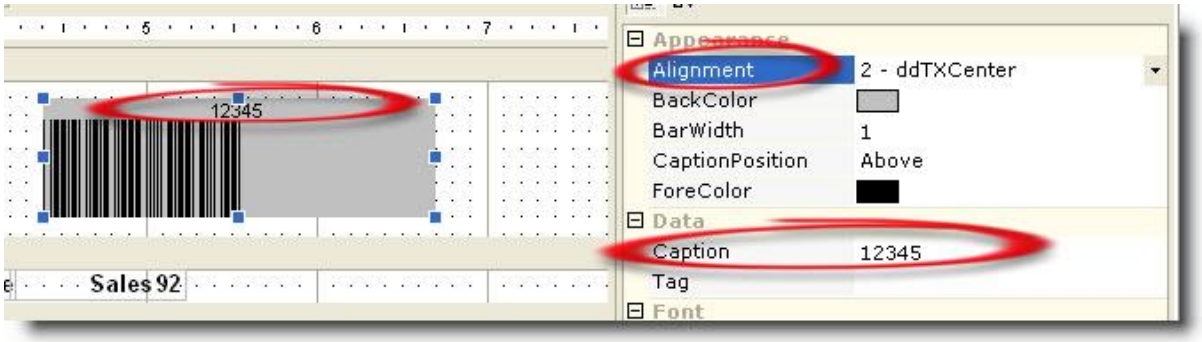

Figure 6: Alignment

BackColor

This property sets the background color of the Barcode.

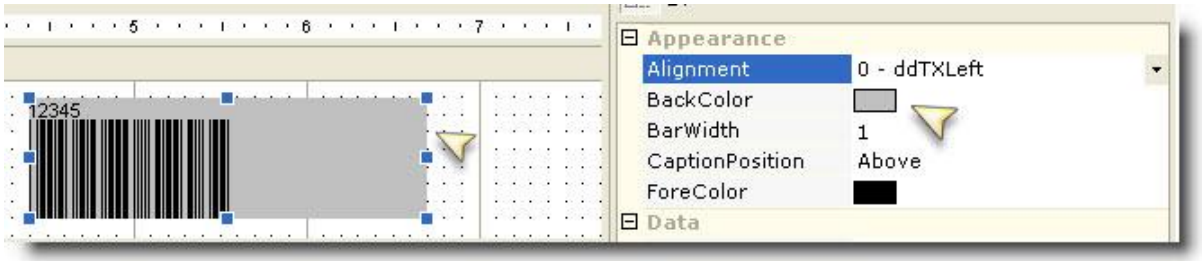

Figure 7: BackColor in Barcode

Figure 8: Showing BackColor in report using BackColor

BarWidth

It determines the width of the bars of the barcode. It accepts decimal values. The valid range can be between 1-2.

Figure 9: BarWidth is one

Figure 10: BarWidth as 1.5

CaptionPosition

It determines the positioning of the numeric value/caption within the barcode. It can either be placed above ('Above') the barcode or at the Bottom ('Below') of the barcode. There is a value which is 'Blank' which means even though caption is there the bars would show but caption will not be visible.

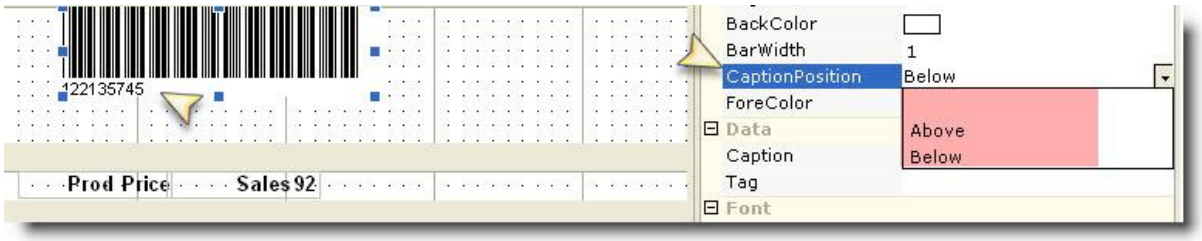

Figure 11: CaptionPosition in Barcode

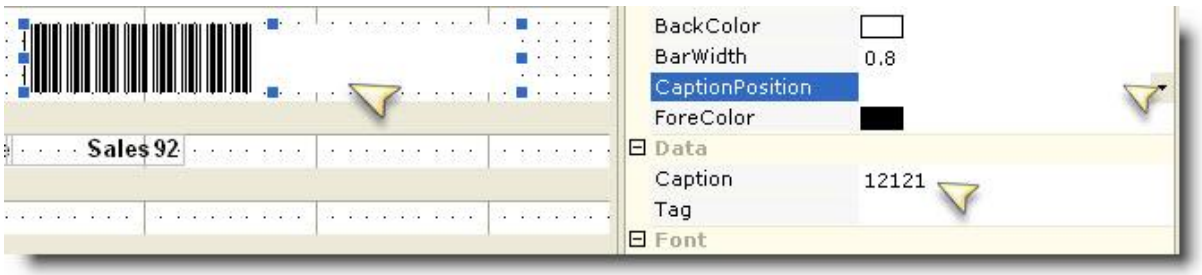

Figure 12: Caption as Blank

Forecolor

This will set the fore color of the bars in the barcode. You can choose this option from color palette which is available in ForeColor property.

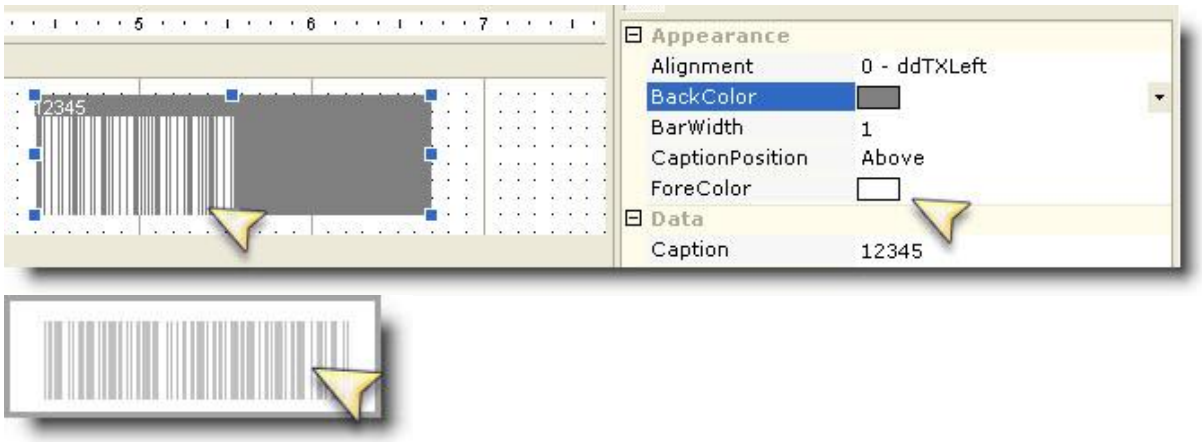

Figure 13: ForeColor in Barcode

Caption

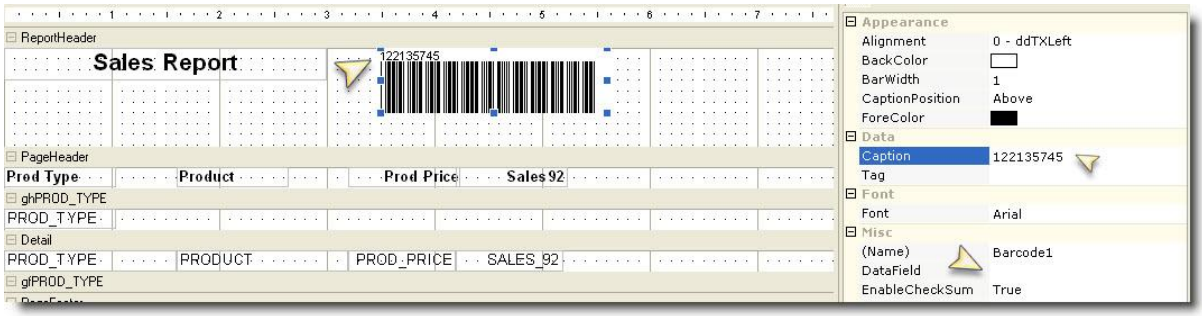

Figure 14: Caption on Barcode

Caption is text that is displayed along with barcode. The caption needs to be used if Barcode is not bound with any DataField.

If the caption is too long for barcode width to adjust, then in the barcode itself the report designer can see a message. Here the length needs to be increased so that the bars can be adjusted in the barcode area.

Figure 15:Bars in Barcode not fitting

Tag

It sets or returns a user defined value associated with the field object.

Font

This property sets the font of the caption on the barcode. The 'Font' property allows you to set font name, size, styles, and effects. When you select this

option from the Properties list, **Font** dialog box will be displayed for you to select from various options.

You can also change the font settings for a control at runtime, depending on conditions applied on the same.

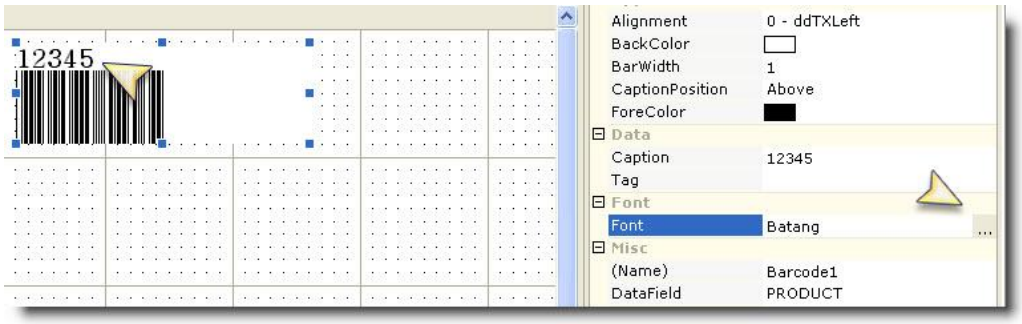

Figure 16: Font on Barcode

Barcode DataField

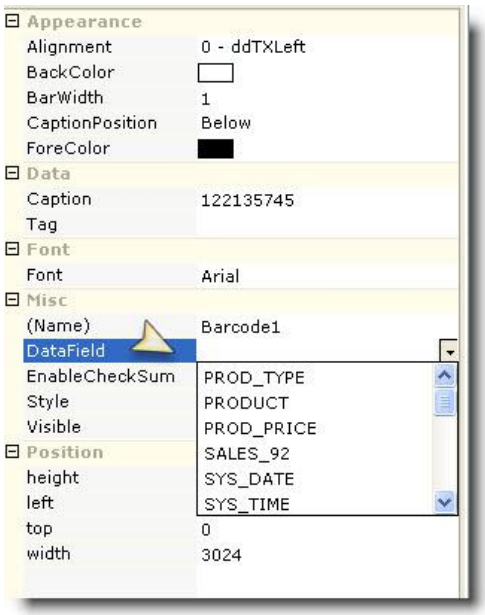

Figure 17: DataField in Barcode

It determines the value for which barcode is to be generated. If the value in Datafield is blank or is no mapped then caption used in 'Caption' shall be shown.

EnableCheckSum

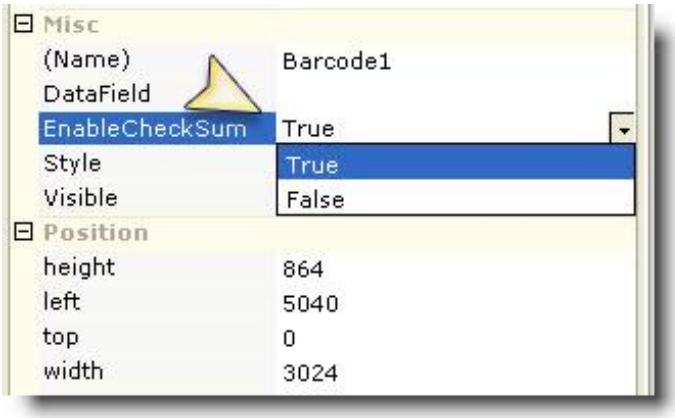

Figure 18: EnableCheckSum in Barcode

It is used to determine if CheckSum is used when the barcode is rendered. The values can be Either True or False. Checksum is encrypted value which will help in knowing if the barcode was tampered.

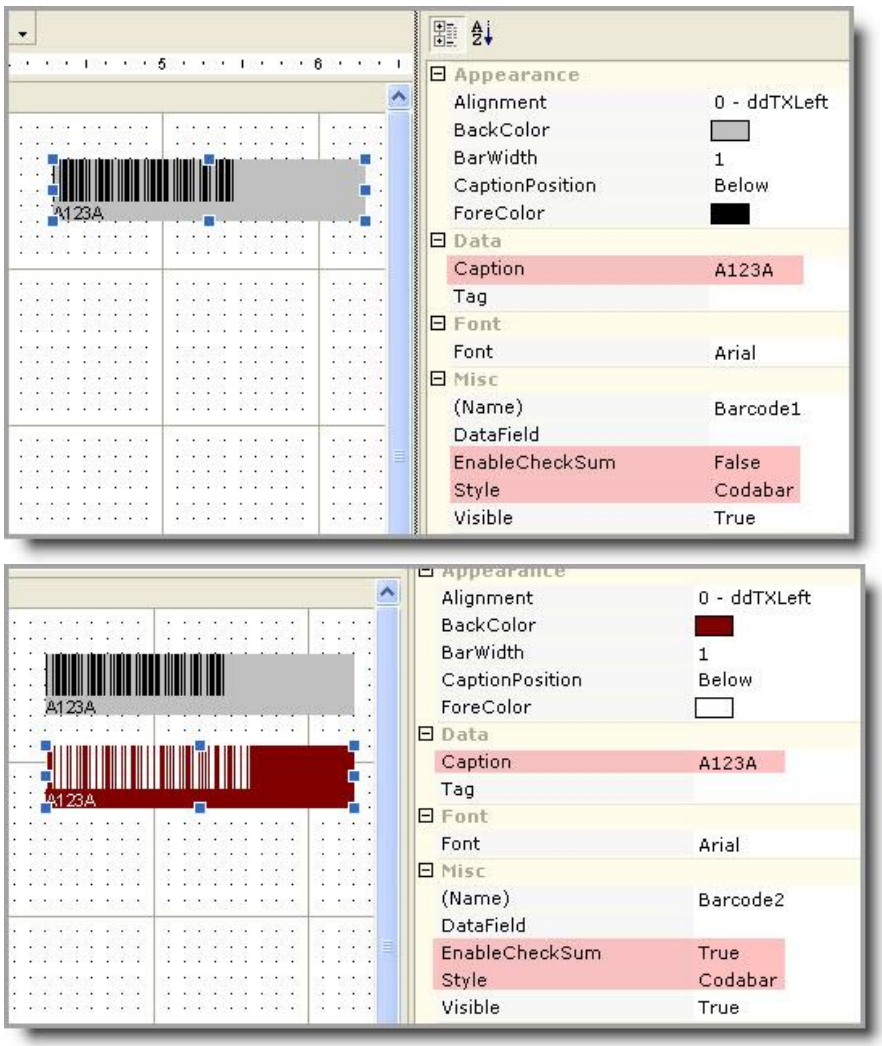

Figure 19: Enable Check Sum

Figure 20: Preview of EnableCheckSum

NOTE: EnableCheckSum property is available for Codabar, 3of9, 3of9X and Interleaved2of9 Styles.

Style

It determines the style of the barcode.

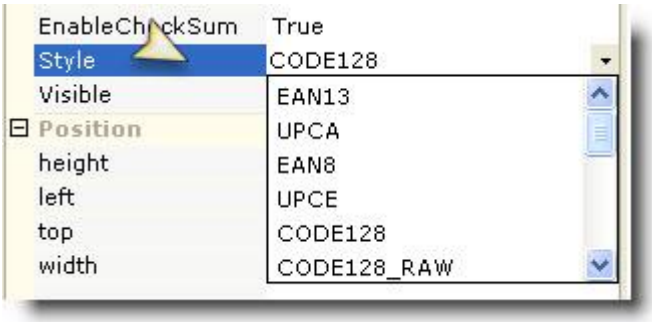

Figure 21: Style in Barcode

The styles that Intellicus supports are:

- 3Of9
- 3Of9X
- Codabar
- CODE128
- CODE128_RAW
- CODE128_UCC
- Datamatrix
- EAN8
- EAN13
- Interleaved2Of5
- PDF417
- Planet
- PostnetZIP
- PostnetZIP4
- PostnetZIP4DP
- SUPP5
- UPCA
- UPCE

NOTE: There are certain requirements with some of the styles. It is suggested that report designers should know the styles that they are using in the report.

Examples:

The EAN13 style requires a minimum of 13 characters in data field.
The EAN8 style requires a minimum of 8 characters in data field.
The EAN13 style requires numeric value in data field. It won't work if barcode is set on String value.

EnableCheckSum in Intellicus can be set as True or False for, Codabar, 3Of9, 3OF9X and Interleaved2Of5 styles.

EnableCheckSum in Intellicus will be True for, EAN13, EAN8, UPCE, UPCA, PostnetZIP, PostnetZIP4, PostnetZIP4DP, and Planet styles.

EnableCheckSum in Intellicus will be unavailable for CODE128 , CODE128_RAW , CODE128_UCC, PDF417 , Datamatrix , SUPP5 styles.

Visible

This property defines if the Barcode would appear at run time or not.

Value	Description
True	The control would appear at run time.
False	The control would not appear at run time.

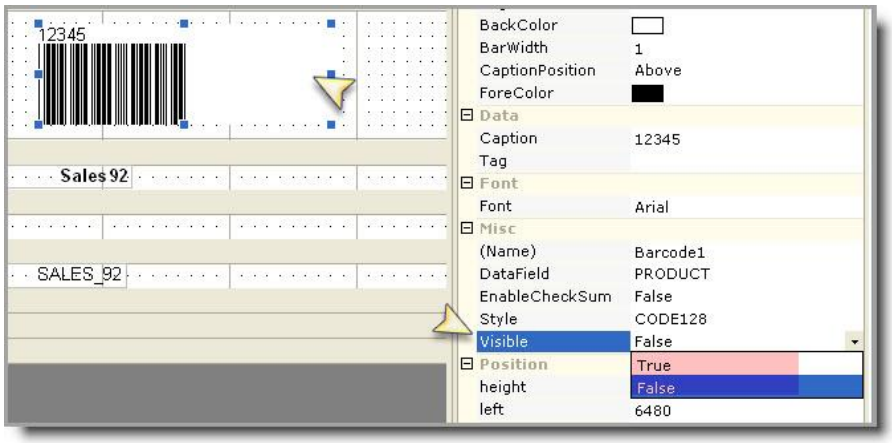

Figure 22: Barcode needs to be Visible or not

Height

Using the Height property you can set the height of the barcode. The height is the complete height of the barcode control. It defines the section's height in twips.

Figure 23: Height of the Barcode control

Figure 24: Height of Barcode control and caption

Left

This property will be available in property pane when a field control is selected. It sets the distance of left boundary of the control from the left edge of the report page. The unit of measure is pixels.

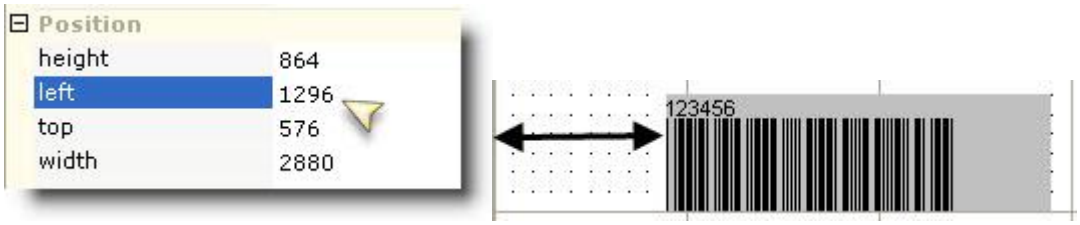

Figure 25: 'Left'from report Page

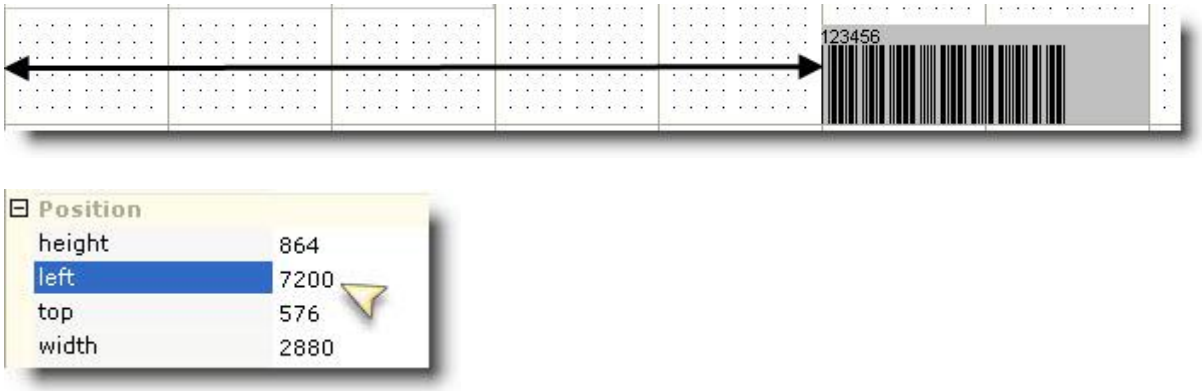

Figure 26: 'Left' from report Page

Top

This property is available for a field control. This sets the distance of the control from the top edge of the report page. The unit of measure is pixels.

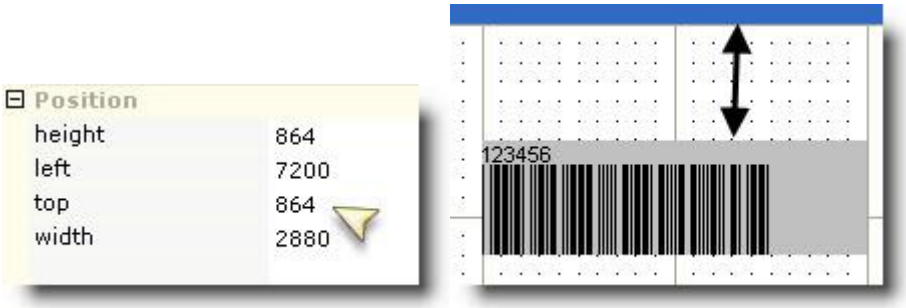

Figure 27: 'Top' Property

Width

This property is available for a field control. This sets the width (left to right) of the control. The unit of measure is pixels.

Figure 28: Width of Barcode

More about Styles

The styles that Intellicus supports are:

- **CODE128 (Default)** It can encode the complete ASCII-character set. It is calculated according to Modulo 103.
- **CODE128_UCC** It is calculated according to Modulo 103. It is generally used more for goods and palettes in commerce and industry. The valid characters are 01234567890.
- **EAN13** The standard product code has 13 digits. When the code is of 12 digits then Intellicus will generate the checksum, else Intellicus will validate the checksum & if checksum in the code is invalid then the control will not be rendered. If length is less than 12 or more than 13 then, the control will not be rendered. It is calculated according to Modulo 10.
- **EAN8** In EAN8, when length is less than 7 or more than 8 then the control will not be rendered. If code is of 7 digits then Intellicus will generate the checksum, else Intellicus will validate the checksum & if checksum in the code is invalid then the control will not be rendered.

- **UPCA** In UPCA, if length is less than 11 or more than 12 then the control will not be rendered. If code is of 11 digits then Intellicus will generate the checksum, else Intellicus will validate the checksum & if checksum in the code is invalid then the control will not be rendered. The valid characters are 01234567890.
- **UPCE** In UPCE, when length is less than 6 or more than 8 then the control will not be rendered. If code is of 6 digits, then Intellicus will prefix "0", & generate checksum, else Intellicus will validate whether code starts with 0, if not then control will not be rendered. If code is of 7 digits then Intellicus will generate the checksum, else Intellicus will validate the checksum & if checksum in the code is invalid then the control will not be rendered.
- **Interleaved2Of5** In Interleaved2Of5, when enable check sum is true & code length is even then engine will validate the checksum & if code length is odd then engine will generate the checksum. If checksum disabled & code length is odd then control will not be rendered.
- **Planet** In PLANET, when length is other 11 or 13, then the control will not be rendered.
- **PostnetZIP** (Postal Numeric Encoding Technique) When the code is Postnetzip, then its length should be 5 else control will not be rendered. (Postal Numeric Encoding Technique). Valid values are 01234567890.

  PostnetZIP4 When the code is POSTNETZIP4, then its length should be 9 else control will not be rendered. Valid values are 01234567890.
- **PostnetZIP4DP** Its length should be 11 else control will not be rendered. Valid values are 01234567890.
- **3Of9** It is an alphanumeric code. Valid values are 0123456789[Space]ABCDEFGHIJKLMNOPQRSTUVWXYZ-.$/+%.
- **3Of9X** It is an extended version of 3Of9 that supports the ASCII character set.
- **Codabar** Codabar is a numeric code with some additional special characters (0..9 and - $: / . +). There are four different start and stop signs defined. It is calculated according to Modulo 16.
- **PDF417** It is a 2D barcode. It is based on stacked barcodes. A code word consists of 17 modules, which consist respectively of 4 strokes and 4 spaces.
- **Datamatrix** It can encode up to 3116 numbers or up to 2335 characters. Different symbol sizes are used depending on the amount of data to be encoded. It is calculated according to Reed-Solomon-Error correction.
- **SUPP5** When the length is not 5 then the control will not be rendered.

Report with Barcode

A example of a report Which has a Barcode control placed in it is shown below.

New World Company

Floor 100, 100 Main Street,
G.P.O Box 100, Globecity Globeland, 1000
Telephone: (01) 9999 9999
Fax: (01) 9999 8888

Order No:	200
Order Date	OrderDate
Total Amount	$130.00

PURCHASE ORDER

TO: **Jon**
3761 N. 14th St,
Hervey Bay,
USA

123456789

Product Category	Product	Order Quantity
Labels & Stickers Products	Coverall Permanent	90.00
Labels & Stickers Products	GP 3400 Gloss White	150.00
Labels & Stickers Products	Greenline Gloss White	200.00
Screen Printing Products	180 Solid Foil	80.00
Screen Printing Products	1800 Screen White	70.00
	Total	**590.00**

1. Two packing sheets must accompany each shipment.

2.Protection of Material in Transit. All articles delivered on this order to be packed adequately to prevent any damage in shipment and storage. Use of newsprint and glassine bags prohibited. All packages to be properly identified.