

# LCD DISPLAY – Number of Decimals displayed

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Function Block 145 (Display FP32 on LCD) will display floating point values using 11 character positions, of which the last 4 will be the digits after the decimal point. For many applications the 4 digits is not required. VPS\_P18 offer a mechanism whereby you can select 1, 2, or 3 digits. Note that this selection will then apply to all FB145 instances of the application, and the decimal digits are truncated without using rounding.

The screenshot shows a variable declaration area with the following text:

```
For 1 decimal use name: LCD_1DEC  
For 2 decimals use name: LCD_2DEC  
For 3 decimals use name: LCD_3DEC
```

Below this, there are two variable declarations:

```
LCD_1DEC  
Type: BIT
```

```
UDFB  
CONFIG01L  
FB160 2
```

A yellow callout box points to the `LCD_1DEC` variable with the text: "This variable name determine the number of decimals displayed".

The main part of the screenshot is a dialog box titled "frmPopup14" for configuring a "User Defined FB for Task code FB160".

**Parameters**

- Source file ( Project directory): SingleNOP.UDF
- Description: CONFIG01L
- Number of Inputs: 1
- Number of Outputs: 0
- Execution Sequence Nr. Current: 2, New: 0

	Input data type	Output data type
1	BIT	BIT
2	BIT	BIT
3	BIT	BIT
4	BIT	BIT
5	BIT	BIT
6	BIT	BIT
7	BIT	BIT
8	BIT	BIT

Buttons: Cancel, Accept, Write data

The above screenshot shows what is required to configure the LCD display for displaying 1, 2, or 3 decimals. First generate a text file with any name and extension .UDF (I used SingleNOP.UDF) and place it in your project directory. Use the following text as contents of your source file:

```
;-----  
NOP  
;-----
```

Place a FB160 (User Defined Function) on any code page of either a Cyclic or Time task. Open the popup for this FB160 (with a double click on the block) and do the following on the popup:

1. Select the name of the source file (SingleNOP.UDF) generated above.
2. Select Number of Inputs = 1
3. Select Number of Outputs = 0
4. Make input 1 Data type = BIT
5. In the Description box enter CONFIG01L
6. Operate Accept button

Now add a Read Connector, make its data type BIT and give it the name LCD\_1DEC  
Your LCD display will now display floating point values with only one decimal. If you make the read connector name LCD\_2DEC you will have two decimals, and LCD\_3DEC will give you 3 decimal places.

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