

Support for EU Regulation 1169/2011 – Food Ingredient Labeling

Introduction

European Union Regulation 1169/2011 imposes new standards for food ingredient labels that require certain words or phrases to appear in a distinctly different manner than the other ingredients. In response to this, Honeywell has implemented new functionality in its Fingerprint/Direct Protocol label layout language that allows text to be bolded and/or italicized by use of a simple modifier within a text string and minimal, if any, impact on printing performance.

This document describes the technical details of the new capability and how to modify your data streams to take advantage it.

This new capability is available for the PC Series desktop printers and PM Series industrial printers in firmware version x10.07 and above.

In code samples here, indented lines indicate the continuation of the line immediately above.

Overview

We created a very simple pair of inline text modifiers in the PRTXT (print text) and PRBOX (print box with optional multi-line text) commands to enable emphasis as fine-grained as single characters. At its simplest, this is like a mini-HTML tag implementation within a string:

This word is `bold`.

This word is bold.

We created two new SYSVARs (system variables) that store the beginning (i.e.: "<") and ending (">") character delimiters for the modifiers.

The rest of this document describes how this capability works at a technical level, and provides several examples.

Command additions and changes

This section describes the specific language changes to enable this new capability.

New SYSVARs

Two new SYSVARs indicate the ASCII value of start and end characters that delimit the inline modifiers.

SYSVAR(84) – the *StartModifier* delimiter character
defaults to -1 (disabled)

SYSVAR(85) – the *EndModifier* delimiter character
defaults to -1 (disabled)

Any two values may be specified. The start and end modifiers must be different. We **strongly** recommend that ASCII 0 not be used as either modifier.

The modifier characters may be present in your data stream as long as the stream does not contain data that is identical to the entire modifier – see below.

Notes

All SYSVARs in Fingerprint return to their default values when the printer is restarted.

The value of either SYSVAR may be changed at any time. Changes to a value have immediate effect.

SYSVARs always take integer arguments.

APPLICATION BRIEF

New text modifiers in PRTXT and PRBOX

Text modifiers will cause either bold or italic attributes to be applied to following text, according to the following syntax:

StartModifier[/]*b*|*i**EndModifier*

Where:

- *StartModifier* is the character previously assigned to SYSVAR(84).
- An optional forward slash character ("/") turns off an active modifier.
- *b* – bold-face the following text, OR
- *i* – italicize the following text
- *EndModifier* is the character previously assigned to SYSVAR(85).

Notes

Only one modifier may be specified between *StartModifier* and *EndModifier* pairs.

Modifiers must be specified in lower case.

A forward-slash character ("/") immediately following *StartModifier* "turns off" a previously-assigned modifier, returning following text to the immediately preceding rendering. Turning off a non-existent modifier is ignored.

Modifiers can appear anywhere in the text string, and may be nested in either order to create bold & italicized text.

Once a modifier is specified, all following text renders according to the modifier until one of the following occurs:

- The end of the text string is encountered, or
- A second modifier is specified (in which case all following text is modified with any modifiers currently in effect), or
- The modifier is turned off.

Modifiers have effect only within the current DP command. Text returns to normal once the command is complete.

The syntax must be followed explicitly or no modification occurs. Thus (indented lines are continuations):

```
PT "This <prints normally> including the  
<>."  
PT "This <b prints normally>; the bold  
modifier has no closing >."  
PT "This < b>prints normally</b>; there is  
a space between < and b."  
PT "This <B>prints normally</B>; the  
modifiers are uppercase."  
PT "This is normal, <b>this is bold,"  
PT "and again normal because modifiers do  
not span commands."
```

```
This <prints normally> including the <>.  
This <b prints normally>; the bold modifier has no closing >.  
This < b>prints normally; there is a space between < and b.  
This <B>prints normally</B>; the modifiers are uppercase.  
This is normal, this is bold,  
and again normal because modifiers do not span commands.
```

Examples

This example specifies STX (ASCII 2) for *StartModifier* and ETX (ASCII 3) for *EndModifier*:

```
SYSVAR(84)=2  
SYSVAR(85)=3  
PRTXT "HELLO "+CHR$(2)+"b"+CHR$(3)+"WORLD"+  
CHR$(2)+"/b"+CHR$(3)
```

This example specifies '<' for *StartModifier* and '>' for *EndModifier*:

```
SYSVAR(84)=60  
SYSVAR(85)=62  
PRTXT "HELLO <b>WORLD</b>"
```

Both of the above examples produce an identical result:

```
HELLO WORLD
```

Example of both bold and italics applied:

```
SYSVAR(84)=60  
SYSVAR(85)=62  
PRTXT "HELLO <b><i>WORLD</i></b>"
```

```
HELLO WORLD
```

APPLICATION BRIEF

Example using PRBOX and a variable:

```
FONT "Univers",8
qIng$ = "Ingredients: <b>peanuts</b>, flour, "
qIng$ = qIng$ + "soy sauce (<b><i>wheat</i></b> "
qIng$ = qIng$ + "flour</b>, salt, enzymes, "
qIng$ = qIng$ + "coloring), sugar"
PRBOX 10,390, 0, qIng$
```

Result:

```
Ingredients: peanuts, flour, soy
sauce (wheat flour, salt, enzymes,
coloring), sugar
```

Both bold and italics combined:

```
SYSVAR(84)=60
SYSVAR(85)=62
FONT "Univers",12
PRTXT "This is normal, <i>slanted, </i> and
normal again."
PRTXT "This is normal, <i><b>slanted bold,
</b></i> and normal again."
FONT "Univers",12,17
PRTXT "This is slanted, <i>italicized, </i>
and slanted again."
FONT "Univers Bold",12
PRTXT "This is bold, <b>bolded, </b> and
bold again."
```

Considerations

XML-Ready™ printing

When using this feature with XML-Ready™ printing, do not use "<" and ">" as your text modifiers. If you do, the XML parser in the printer will process your modifiers as XML text and strip them out of the data stream before passing them to the Direct Protocol parser. Use characters like "{}" or "[]" instead.

For more information:

www.honeywellaidc.com

Honeywell Scanning & Mobility

9680 Old Bailes Road
Fort Mill, SC 29707
800.582.4263
www.honeywell.com

Use with PRBOX

Modified text in a PRBOX renders approximately two (2) dots above the baseline of non-modified text, regardless of the text point size. We are working with our font vendor to correct this. You can see this in the PRBOX example above.

Using ALIGN

Modified text only renders correctly if using ALIGN values of 1, 4 or 7.

With ALIGN values of 2, 5 or 8, the first word of a string centers on the insertion point and following text renders to the right and is not correctly spaced.

With ALIGN values of 3, 6 or 9, every word of a string right-aligns on the insertion point, rendering each word on top of the others.

Font considerations

The way this capability works with fonts prescribes the fonts with which it can be used.

For italics, the capability will not further italicize already-slanted text.

For bold, the capability only works with fonts where names as reported by the FONT command report two fonts, one identically named but with the English word "bold" appended:

```
FONT
...
Univers    <- this font will bold
Univers Bold
Letter Gothic    <- this font will not
OCR B
...
ok
```

Conclusion

With firmware version x10.07 and above on the PC Series desktop and PM Series industrial printers, Honeywell brings easy compliance for the new EU Food Ingredients Labeling directive.

Downloading firmware

To download the x10.07 firmware supporting this new feature, visit the Downloads page for your printer at: <http://www.intermec.com/printers>

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