

The hibLib formats

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Introduction

About this document

This document will describe the formats supported by hibLib. First there is a recall of every TxtRider formats as hibLib is compatible with TxtRider. Then there are the specific hibLib tags definitions.

There are two notions of lines in this document. There are the lines of the source text, and the lines drawn on the screen. The source text being a variable of the operating system, these lines are lines defined by the Ti TEXT format. By shortcut, these lines are called Ti-OS line during this document, by opposition to the text lines drawn in hibLib.

Note : for most users of you, hibLib is just a library, and the real viewer is hibView. So, in this document, don't be surprised if it is said that it is hibLib that supports tags or not. In fact, hibLib is the real engine, hibView is just the graphical front-end of it.

1 The TxtRider formats

The goal of hibLib is to be compatible with TxtRider written by Marc Teyssier. So every format defined for TxtRider will be supported by hibLib. Here is the presentation of these formats.

1.1 The font size

In TxtRider, the only font available is the Ti-OS font. Then, you can only choose the size of the font. The tags are the following ones:

- #1 for the little font
- #2 for the normal font
- #3 for the big font

At the beginning of the text, the default font is the normal font. Then to change the font size, just put the wanted tag. Note that these tags set the font size, they are 3 open tags, their's no "close tags".



The little font
The normal font
The big font

Figure 1: The Ti-OS fonts

1.2 Text formatting

The text drawing can be improved by adding some following tags:

- **#U**: underline the text
- **#N**: make an dotted underline
- **#V**: make a vector
- **#S**: strike the text
- **#I**: inverse the color of the text (draw white on black)
- **#E**: make the text an exponent

Every tag code described here should be used two times. The first tag would set the format and the second one would close it. For instance, to underline a part of text:

here some **#Underlined#U** text!

underlined
 dotted underlined
 $\overrightarrow{\text{vector}}$
~~strike~~
 inversed
 text^{exponent}

Figure 2: The text formats

1.3 Line formatting

1.3.1 Alignement

The line can be defined as centered (**&C**), aligned to the right (**&R**) or aligned to the left (**&L**), which is the default position Every of these tags have to be at the beginning of a Ti-OS line.

1.3.2 The margin

The space of the margin can be specified for the text. The following space definitions are available:

- **&** margin of 0 pixel
- **&**, margin of 10 pixels
- **&;** margin of 20 pixels

- `&.` margin of 30 pixels

These tags have to be at the beginning of a Ti-OS line too.

1.3.3 Word warping

A useful function is to forbid cutting words at an end of line. To enable a such mode, the tag `#W` have to be inserted. By default, there is no word warping. If the tag reappears, the word-warping mode will be disabled. Note that this code can be inserted everywhere in the source text.

1.4 The objects

You can include some objects in your text. The objects will take an entire line of the screen and will be centered in the middle of the screen. Because it takes an entire line, the tag that declares the position of object has to always start a Ti-OS line, and the following text should start at the following Ti-OS line. In fact, the declaration of the object have to be on an entire Ti-OS line.

1.4.1 picture

A picture can be included in a text. To insert it, the syntax is:

```
&Pmyfolder\mypic
```

The picture should be in the folder named `myfolder` and be a PIC variable named `mypic`.

1.4.2 expression

You could also include a pretty-print expression. In fact, you write your mathematical expression, and the `hibLib` engine will use the Ti-OS routine which draws the mathematical expression in a pretty-print way. The syntax to use is the following one:

```
&E3+x=y
```

The allowed expression are every allowed expression by the Ti-OS, as it could be written in the home screen of the calculator. So derivative function, integrals, etc..., can be used but the Ti-OS syntax have be respected. The consequence is that no format tags are allowed in the expression.

1.4.3 The line separators

Some line separators can be inserted in the text. For a single one, the tag is `&-`. For a double one, it is `&=`.

1.5 The bookmarks

To mark some important points in a text (as sections), you can define bookmarks. A bookmark is defined by the Ti-OS page-break command. When editing the text with the Ti, the page break command is drawn with the character `^|` in the margin. Nothing special will be drawn by the engine, but a menu will propose every available bookmarks of the text, and you will be able to "jump" to the selected bookmark.

2 The hibLib additionnal formats

The hibLib provides some additionnal formats upon the TxtRider ones.

2.1 The formats

The conjugate format has been added. It is similar of the vector format: the only difference is that there isn't the final arrow. The tag of this format is the **#J**.

The suffix format is added too. The tag to use is the **#D**.

The bold face and the italic face are available. Their tags are respectively **#B** and **#i**.

2.2 The links

hibLib supports hypertext links. In a text, a link which point on another file can be added. Everywhere you want in the text, you have to add the following syntax:

```
#Lmyfolder\mytext#Lmy link#L
```

The text you want to link to should be in the folder named `myfolder` and be a supported format of hibLib. Then the engine will only draw the link title ("my link" in the example) with a special underline.

2.3 The hierarchical bookmarks

The bookmark notion has been extended. Now, you can specify the level of the bookmarks. A short definition of the bookmark can also be specified: this short definition will be used in the bookmark menu. The following syntax have to be used :

```
^|:&T3short def&TMy really and longer bookmark title
```

This exemple defines a bookmark of level 3 with the short definition "`short_def`". If no levels is defined, the default level will be applied.

Important note: these tags have to be at the beginning of a Ti-OS line, but further more, before every line format. In fact, `&T` have to be the two first characters of the Ti-OS line.

2.4 Custom margin

You can define a margin with the size he wants. The size will be in pixels:

```
&M123
```

The previous tag defines a margin of 123 pixels.

Notes :

- the custom margin will be normalized to $(size_screen - 10)$: no bigger margin are allowed.
- the size definition have to be in 3 characters, even if the wanted size is 1 or 12 : the correct tags would be `&M001` and `&M012`.
- as every line format definition, the tags have to be at the beginning of the Ti-OS line.

2.5 Special characters

Some special characters can be inserted in the text, even if the wanted codes aren't "writable" in the Ti-OS editor. For instance, in the Ti-OS font, the user can be interested by drawing the ^| character. The corresponding Ti-OS character code is 12. So you have to insert in his text the following tag:

```
#C012
```

So every character of the font can be drawn with this tag. The only forbidden character to draw are the characters with the Ti-OS character code 0 and 10. So #C000 and #C010 are forbidden.

Some additionnal characters can be inserted in the text. #Cxxx with xxx;256. Not available yet.

2.6 Text alignment

hibLib add the support of the justified alignment. The corresponding tag is &J. This tag have to be inserted as the other alignment tags.

2.7 A header

At the begining of a TEXT file can be defined a header to put some meta informations on the text and general format definition. The header, if it exists, must began the first Ti-OS line of the text. The defined line as header have to begin with the character ©. So the end of the header is the first line of the text which doesn't began by ©.

2.7.1 Meta datas

You can define some information on the text: the name of the author, the title of the text, the date and some comment.

To define the name of the author, the syntax is the folowing one:

```
(C)AUTHOR=name of the author
```

The definition will take an entire Ti-OS line. You can also define the title of the text, the date and a comment by the same way:

```
(C)DATE=12/15/2008
(C)TITLE=the title of the text
(C)COMMENT=here is a commentary
```

2.7.2 Font definition

You can specify to use your custom fonts. The fonts will be defined in the header. Every definition of font have the folowing syntax:

```
#n=fontname
```

"n" have to be a number between 0 and 9.

For exemple : ©#1=tiosfont2: the text written after a #1 will be drawn as the middle font.

Then, the classic tags #1, #2, ..., #9 can be inserted in the text to change the current font.