 Change text object with UTF-8

bl2unitxt3d.py

2007.01.14 Manda

1. What is “bl2unitxt3d.py”?

“bl2unitxt3d.py” is a helper script for input unicode text to text3d object.

Blender 2.40 (or higher version) supports unicode text (text object), but there is no relation to input method like M\$-IME.

Before, a way to input Japanese, it uses saved textfile(utf-8 encoded) and "insert text" button. Just like this;

<http://blenderartists.org/forum/showthread.php?t=80247&highlight=Japanese>

I want to edit a text more directly, so I written it.

python supports unicode text too (2.4x) and ready to use Tk widget set(also Tk supports Unicode input/edit).

2. How to install

2.0. Check your system

This script works on

- Blender 2.40 or higher (To manage unicode text and Truetype fonts)
- Python 2.42 or higher (If you use Blender 2.42a release binary, use Python 2.4x package)
- Tkinter (Tk widget set for Python)

If you Python installed by windows installer with “full-install” option, Tkinter was installed too.

2.1. Copy files

Copy two files to these directory:

- bl2unitxt3d.py
 - Windows - %blenderdir%\blender\scripts
 - %blenderdir% = “C:\Program Files\Blender Foundation\Blender”
 - My setting , %blenderdir% = ”C:\blender”
 - PC-UNIX - \${HOME}/.blender/scripts
 - example. ” /home/yourname/.blender/scripts”
- sitecustomize.py
 - Windows – C:\Python24\Lib\site-packages
 - ” sitecustomize.py” is a script that to set the default encoding to "UTF-8”
 - PC-UNIX – \${python-installed-dir}/Lib/site-packages

3.Do you have Font and IME(Input Method Editor)?

Do you have font and IME(Input Method Editor)? What Language do you want? Kanji or Hiragana? Or other Language/Character set?

If you use windows, and have windows installation CD, check “input support”.

4.Operation

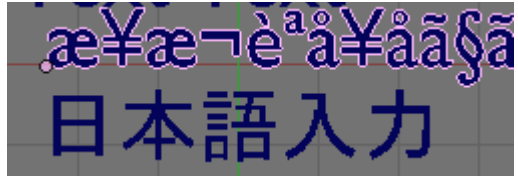
4.1.Select a Text object

First, Select a text object, And use this script.

To use this script, select the menu in Scripts window,

Scripts-> Objects-> Change text object with UTF-8

*If you select no object, It creates new text object.



4.2.Tkinter window

Button pressed, this script opens Tk window.

1. Textbox – Edit area ;
 - You can use IME to input.
 - You can use cut & paste from/to other application.
2. Help button – Display help dialog.
3. Cancel button – Cancel Operation
4. Apply Text button – Apply the text to Text3d Object

5.Limitation , Bugs

- OS and settings
This script runs or not, It depends on your OS and settings. I can't take care of all.
- Black Rectangles
While Tk window was opened, Blender window can't redraw.
- Default encoding = “utf-8”
Yeah, Don't forget this :-)
- Font file
In Japanese(or some languages), it uses Kanji(Chinese character) .To display, you need a correct font. Before run this script, Download those fonts.
- BUGS
Many :-)

6.It works on...

Windows 2000/XP. But other OS (Mac, PC-UNIX) is no Report . Also Other Languages.
Could you try this?

7.Thanks to

Thanks to yamyam-san, morita-san.

8. Links

8.1. Blender

- about this - Blender Artists forum
<http://blenderartists.org/forum/showthread.php?t=86545>
- about this - Blender.jp forum (in Japanese page)
http://blender.jp/modules/newbb/viewtopic.php?topic_id=691&forum=3&post_id=3309
- about download fonts – Blendernation
Font Library <http://www.blendernation.com/2006/11/02/font-library/>
- You can input Japanese another way.
<http://blenderartists.org/forum/showthread.php?t=80247&highlight=Japanese>


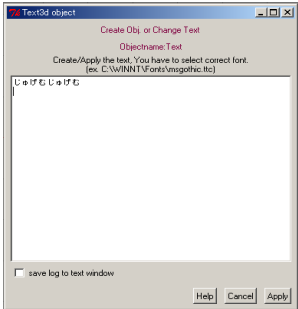
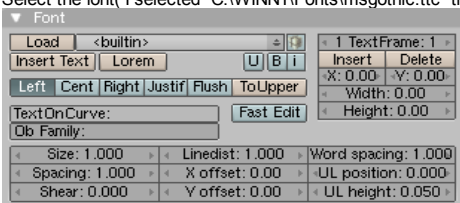
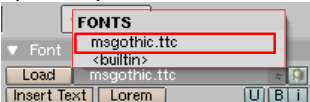
8.2. Other information

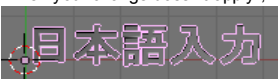
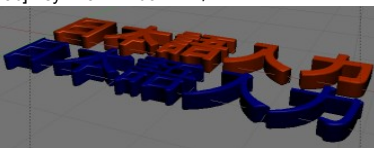
When you have to use **multi-byte** character...


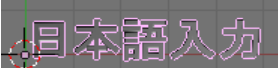
- About I18N and Localization
http://en.wikipedia.org/wiki/Internationalization_and_localization
- Character encoding
http://en.wikipedia.org/wiki/Character_encoding
- IME (Windows?)
http://en.wikipedia.org/wiki/Input_method


Bl2unitxt3d.py

How to Input Japanese Character to text object
With Using blender python script ; "bl2unitxt3d.py"

- 1. Create TextObject**

And select this.
(It allows View mode. If you in edit mode, Hit Tab key)
- 2. Launch the script**
If you select object correctly, It open a window like this;

You can Input there with IME, cut & paste from other applications (windows)
- 3. Input text**
You can input text to the field.
And click "Apply".
- 4. Load Font**
Select the font(I selected "C:\WINNT\FONTS\msgothic.ttc" this time)

If you already load fonts, use this.


File selector	Size
msgothic.ttc	8 272 028
msmincho.ttc	9 135 960
OCRB.TTF	42 844
- 5. Complete!!**
When your change doesn't apply, Hit [Tab] key in 3D window : -)

When you reate fonts by this script, It appears (0,0,0)


 → 

 Lab1092
<http://www.rock.sannet.ne.jp/lab1092/>
2007.01 Manda

9. Sample code & more

9.1. Tkinter

To check if installed Tkinter your computer, Try this code(save “test.py” and run it):

```
# coding: utf-8
from Tkinter import *

# it needs python 2.4 or higher

class App(Frame):
    def init(self):
        self.master.title("Sample")
        a = Label(self, text="Hello, World", fg="#800040")
        b = Button(text="exit")
        b.config(command=self.cmd_clicked)
        a.pack(side=TOP, padx=5, pady=5)
        b.pack(side=RIGHT, padx=5, pady=5)

    def cmd_clicked(self):
        self.master.destroy()

    def __init__(self, master=None):
        Frame.__init__(self, master)
        self.pack(); self.init()

if __name__ == "__main__":
    app = App(); app.mainloop()
    print "!!!!"
# end.
```



(note) it run also on Blender.

1. Load test.py into text window
2. Hit [Alt+P]
3. enjoy :-)

9.2. Check default encode on blender - Interactive python console -

(“Scripts” window) ->Scripts->Systems->interactive console

```
import sys
print getdefaultencoding()
```

9.3. How to get the version blender/Python

To get version number about blender

```
$ blender -v
Blender 2.42
```

and python;

```
$ python -V
Python 2.4.3
```

- I made this document with Free software; OpenOffice.org , Irfanview and Blender!! -

Happy blending!!