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## [Solved] About Rainlendar\_SetItemValue()

Posted by anoob - 2011/02/04 00:06

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There is a small problem, I have a .lua file use the following code:

```
sTime = os.date("%x %a")
Rainlendar_SetItemValue("LunarCal", "LunarCal.info", "text", "ÅÅ1 " .. sTime .. "\n" .. todaymsg1)
```

If the file is set to ANSI, it works fine(a),

If the file is set to UTF-8, it will not show(b), but Rainlendar\_Message (sTime, 0) is normal display(c)

[http://www.rainlendar.net/cms/images/fbfiles/images/2011\\_02\\_04.png](http://www.rainlendar.net/cms/images/fbfiles/images/2011_02_04.png)

I found all the time-format that display with local language can not be showed.

How can I display properly using the UTF-8 encoded file??

Thank!!

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## Re:About Rainlendar\_SetItemValue()

Posted by Jorge\_Luis - 2011/02/04 05:58

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When i was making a Maya calendar from a Maya font, i need to use Unicode values above 63000. Finding on the web i finally found this:

"The proper way to convert between UCS-4 and UTF-8 is to use bitmask (and, or) and bitshift operations. But if you would like to convert only a couple of characters by hand or if your program development environment (scripting language) does not support bit operations, then integer division and multiplication can be used as follows."

Because i didn't want to lose time searching for how to do the bitshift operations i use the mathematical way:

This will be valid if the dec value is between 2048 and 65535 (UTF-8 is 3 bytes long)

```
function UCS4_UTF8(dec)
  a = 224 + (math.floor(dec / 4096))
  b = 128 + (math.floor(dec / 64) % 64)
  c = 128 + (dec % 64)
  return string.char(a, b, c)
end
```

EDIT: This would be the full converter code from UTF-32 to UTF-8:

```
function UTF32_UTF8(dec)
  if (dec < 128) then
    a = dec
    return string.char(a)
  elseif (dec >= 128 and dec =2048 and dec = 65536 and dec = 2097152 and dec = 67108864 and dec
```

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## Re: About Rainlendar\_SetItemValue()

Posted by Rainy - 2011/02/04 07:00

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I at least can use the Rainlendar\_SetItemValue() to display some Chinese characters in a text element. Can you attach a full example of this?

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## Re:About Rainlendar\_SetItemValue()

Posted by anoob - 2011/02/04 12:56

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To Jorge\_Luis:

Sorry, i can not understand what you say.

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To all guys:  
i think the real question is about the code `os.date("%x %a")`  
in English OS it display "4/2/2011 Fri"(maybe),  
in my pc(Chinese OS) it display "2011/2/4 ""  
if i only write `sTime = os.date("%x")`, it work fine  
but if i write `sTime = "Å1 " .. os.date("%x %a")`, it can not show.  
this issue happen on `Rainlendar_Message()` too.

i posted the skin that include this issue on <http://customize.org/rainlendar/skins/79993>  
you can download it to try.  
thank!!

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## Re:About Rainlendar\_SetItemValue()

Posted by Jorge\_Luis - 2011/02/04 15:35

EDIT/UPDATE: I'm not sure of the next text. Is writed before this. I got totally confused because in the forum i can't see the Unicode fonts, only the Unicode values. My native language is Spanish, with ISO-8859-1 i've got all i need. So i don't know if the problem are the Unicode values or... well... i'm speechless.

```
sTime = "Å1 " .. os.date("%x %a")
```

Did you try to remove " " from the string? I see some CJK glyphs without this last character, but strange letters with it.

Oh my god!, i been watching this a few days ago and i completely forget it.

This code is from `RSS.lua` file on `Shadow4`. Is the same as the `laaaaaarge` function i wrote before. I was thinking of the Lua function to search and replace using regular expression, but then i thought... why reinvent the wheel:

```
function DecodeString(s)
  s = string.gsub(s, "&#(%d+);",
    function (d)
      val = tonumber(d, 10)
      if (val < 128) then
        return string.char(val)
      elseif (val < 2048) then
        return string.char(192 + val / 64) .. string.char(128 + (val % 64))
      elseif (val < 65536) then
        return string.char(224 + val / 4096) .. string.char(128 + ((val / 64) % 64)) .. string.char(128 + (val % 64))
      end
    end)
end
```

This code take a numerical value `&26143;` for example and convert it to UTF-8.  
I think all you need to do is:

```
sTime = DecodeString(os.date("%x %a"))
```

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## Re:About Rainlendar\_SetItemValue()

Posted by anoob - 2011/02/05 03:25

Did you try to remove " " from the string?yes, i did. it does not affect.

Code:

```
sTime = DecodeString(os.date("%x %a"))
```

```
function DecodeString(s)
```

---

```
s = string.gsub(s, "&#(%d+);", .....  
i can not to get the "&#NNN;" of os.date("%x %a").
```

Anyway thank you Jorge\_Luis.  
Probably because I can not understand how it works, so I did not solve the problem.  
I decided to not directly display ,  
but are independent display and

I hope someone can help solve.

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## Re:About Rainlendar\_SetItemValue()

Posted by Rainy - 2011/02/05 04:40

The problem probably is that the lua function os.date() returns the value always encoded with your current code page.  
So, if you concatenate that with the utf-8 encoded string there are two different encodings in the same strings and  
Rainlendar doesn't know how to decode it (ain't text encoding fun :-).

I tried to change my locale settings to Traditional Chinese but I can't make the "%a" to return anything else but English  
and Finnish for some reason. But you can try to solve the problem like this:

```
sTime = "Chinese characters go here" .. Rainlendar_ConvertString(os.date("%x %a"), "big5")
```

The "big5" should be the code page for your current locale. If the "big5" doesn't work you can also try "950" as the code  
page as that's what Windows calls it.

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## Re:About Rainlendar\_SetItemValue()

Posted by anoob - 2011/02/05 06:24

Thank you Rainy, this problem is solved on my pc.  
But, if i want the .lua file can applicable to all languages OS,  
How can i do?

This is my current method:  
In lua file only write s = "Chinese language strings"  
And add in my\_skin.xml

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## Re:About Rainlendar\_SetItemValue()

Posted by Rainy - 2011/02/06 04:29

Rainlendar will try to convert the string with the user's current codepage if the utf-8 conversion fails so something like this  
should change the encoding from local to utf-8:

```
sTime = os.date("%x %a")  
Rainlendar_SetItemValue("LunarCal", "LunarCal.info", "text", sTime)  
sTime = Rainlendar_GetItemValue("LunarCal", "LunarCal.info", "text")  
Rainlendar_SetItemValue("LunarCal", "LunarCal.info", "text", "Chinese text" .. sTime)
```

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## Re:About Rainlendar\_SetItemValue()

Posted by anoob - 2011/02/06 11:18

It's working correctly.  
Thanks!

