# Surpass and XLWT Manual

#### Ana Nelson

March 18, 2009

#### 1 Hello World

Let's do a minimal "Hello World" script. We'll need to take care of any imports, initialize a Workbook object, create a Worksheet within the workbook, then write some text. Here's how.

### 1.1 Surpass

```
require 'rubygems'
require 'surpass'

book = Workbook.new
sheet = book.add_sheet

sheet.write(0, 0, "Hello World!")

book.save("output/examples/hello-world.xls")

1.2 XLWT

from xlwt import *

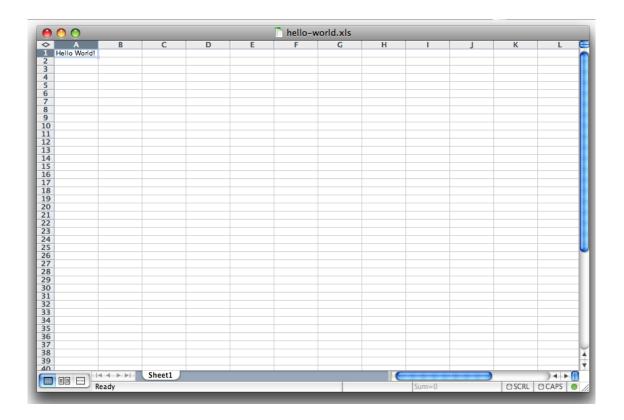
book = Workbook()
sheet = book.add_sheet("Sheet1")

sheet.write(0, 0, "Hello World!")

book.save("output/examples/hello-world-python.xls")
```

#### 1.3 Result

And, here's how it looks.



## 2 Formatting

The StyleFormat class is a wrapper for the various types of formatting you can apply to a cell. StyleFormat has attributes:

- $\bullet \ \, number\_format\_string \\$
- $\bullet$  font
- alignment
- borders
- pattern
- protection

Each of these attributes has a corresponding class, and you can look in lib/formatting.rb for the source.

There are two basic ways to set formatting options. You can pass a hash with formatting options when you initialize a new StyleFormat instance, or you can set individual attributes of the formatting classes. You can combine both approaches. Both of these are demonstrated in the examples in this section.

#### 2.1 Specifying Colours

Here is a list of available built-in colours:

- aqua
- black
- blue

- $\bullet \ \ blue\_grey$
- $\bullet \ bright\_green$
- $\bullet$  brown
- coral
- $\bullet \ \ cornflower\_blue$
- cyan
- $\bullet$  dark\_blue
- $\bullet$  dark\_green
- dark\_red
- $\bullet$  dark\_teal
- $\bullet$  dark\_yellow
- $\bullet$  fuchsia
- $\bullet$  gold
- gray
- green
- grey
- $\bullet \ grey\_25\_percent \\$
- $\bullet$  grey\_40\_percent
- $\bullet$  grey\_50\_percent
- $\bullet$  grey\_80\_percent
- $\bullet$  indigo
- lavender
- $\bullet$  lemon\_chiffon
- $\bullet \ \, \text{light\_blue}$
- $\bullet \ \, light\_cornflower\_blue$
- $\bullet$  light\_green
- $\bullet \ \, light\_orange$
- $\bullet \ \, light\_turquoise$
- $\bullet$  light\_yellow
- lime
- $\bullet$  magenta
- maroon
- navy
- $\bullet$  olive\_green

- $\bullet$  orange
- $\bullet$  orchid
- pale\_blue
- $\bullet$  pink
- plum
- purple
- $\bullet$  red
- rose
- $\bullet$  royal\_blue
- sea\_green
- $\bullet$  silver
- sky\_blue
- $\bullet$  tan
- teal
- turquoise
- violet
- $\bullet$  white
- yellow

You can refer to any of these colours by name. At this time, there is no support for custom colours.

#### 2.2 Border Formats

Here is a list of available border line types:

- none
- thin
- medium
- dashed
- $\bullet$  dotted
- thick
- $\bullet$  double
- hair
- medium-dashed
- $\bullet$  thin-dash-dotted
- medium-dash-dotted
- thin-dash-dot-dotted
- medium-dash-dot-dotted
- ullet slanted-medium-dash-dotted

#### 2.3 Surpass

```
require 'rubygems'
   require 'surpass'
   book = Workbook.new('output/examples/formatting.xls') # You can pass a filename here too.
   sheet = book.add_sheet("Demo Worksheet") # You can name your worksheets.
    # Let's set up some formatting.
    # Remember to use Excel-style formatting directives, not sprintf.
   date_format = StyleFormat.new(:number_format_string => "DDDD DD MMM YYYY")
10
11
   fancy_format = StyleFormat.new(
12
     :font_name => 'Times New Roman',
13
      :font_colour => 'green',
14
      :font_italic => true
15
   )
17
   sheet.write(0, 0, "Hello World!", fancy_format)
18
   sheet.write(0, 1, Date.today, date_format)
19
20
    # You can also set up formatting by passing attributes directly to the constituents of StyleFormat
21
22
    # Font colours.
23
   Formatting::COLOURS.keys.each_with_index do |c, i|
24
     format = StyleFormat.new
25
     format.font.name = 'Verdana'
26
     format.font.color = c
     format.font.size = i + 5
28
      sheet.write(i, 5, c, format)
29
30
   end
31
    # Font underlining.
32
33
    [:none, :single, :single_accounting, :double, :double_accounting, nil, true, false].each_with_index
34
     format = StyleFormat.new
      format.font.underline = u
36
      sheet.write(i, 7, u.to_s, format)
37
   end
38
    # Font bold, italic, strikethrough, outline are simple booleans.
40
    [:bold, :italic, :struck_out, :outline].each_with_index do |s, i|
41
     attribute = ("font_" + s.to_s).to_sym
42
      sheet.write(i, 8, s.to_s, StyleFormat.new(attribute => true))
43
44
45
   # Cell alignment.
46
   sheet.write(15, 2, "top left", :text_align => 'top left',
47
      :border_top => 'pink',
48
      :border_left => 'pink'
49
   )
   sheet.write(15, 3, "top center", :text_align => 'top center')
51
   sheet.write(15, 4, "top right", :text_align => 'top right')
52
   sheet.write(16, 2, "bottom left", :text_align => 'bottom left')
53
   sheet.write(16, 3, "bottom centre", :text_align => 'bottom centre')
```

```
sheet.write(16, 4, "bottom right", :text_align => 'bottom right',
55
      :border_bottom => 'pink',
56
      :border_right => 'pink'
   )
58
59
60
   # Borders
61
   sheet.write(3, 1, "borders",
62
      :border_right => 'medium blue',
63
      :border_left => 'yellow', # thin by default
      :border_top => 'dotted purple',
65
      :border_bottom => 'dashed' # black by default
66
67
   # Or the hash-free option.
69
   crazy_border_format = StyleFormat.new
70
   crazy_border_format.borders.all = 'slanted-medium-dash-dotted grey'
71
   sheet.write(5, 1, "borders", crazy_border_format)
73
   sheet.write(7, 1, "fill", :fill_color => 'yellow')
75
   book.save
```

And, here's how it looks.

