ConfigurationFileSyntax

From; https://code.google.com/p/serialchart/wiki/ConfigurationFileSyntax

Updated Mar 18, 2010 by sergiubaluta

#Describes Configuration file syntax for SerialChart application (.scc files)

Introduction

SerialChart configuration is done through a text file. The general format of the file is as follows:

```
[section1]
param1 = value
param2 = value
...

[section2]
param1 = value
param2 = value
```

Setup Section

Each configuration file starts with the `[_setup_]` section, here you can setup global parameters. For example:

```
[_setup_]
port=COM3
baudrate=57600

width=1000
height=201
background_color = white

grid_h_origin = 100
grid_h_step = 10
grid_h_color = #EEE
grid_h_origin_color = #CCC

grid_v_origin = 0
grid_v_step = 10
grid_v_color = #EEE
grid_v_origin_color = transparent
```

Below are the parameters that can be used in the `[_setup_]` section:

port

Specifies the communication port to which the software connects. For ex: COM1,COM2,..

baudrate

Baudrate in bps (bits per second). Only certain values are currently supported: 110,300,600,1200,2400,9600,19200,38400,57600,115200.

Please note that currently no flow control parameters are supported, and parity will default to "none", stop bits defaults to 1, as these are most common values.

width, height

width and height of the chart area in pixels

background_color

Background color of the chart.

Note about color formats Please note that colors in .SCC files can be specified in hex format (for ex: #FFF, or #FFFFFF) or named color (white,blue,magenta,pink,gray) see:http://www.w3.org/TR/SVG/types.html#ColorKeywords . Please note the special value *transparent* which means "no color". You can use it if you don't want some elements to be drawn at all.

grid_h_origin, grid_v_origin

Both horizontal and vertical grids will have an origin axis line, usually of different color from the regular grid lines. These parameters specifies the shift of this line from top/left borders of chart in pixels.

grid_h_origin_color, grid_v_origin_color

Color of the grid origin (axis) line.

grid_h_step, grid_v_step

Draw a grid line at each step of pixels from the origin line.

grid_h_color, grid_v_color

Color of regular grid lines.

Default and Field Sections

SerialChart accepts packets in CSV format (other formats might be supported in the future). Each packet comes on a separate line and each field value is separated by comma. Here is an example of sample data that SerialChart would receive:

```
100, 0. 50, 0. 70
101, 0. 30, 0. 50
102, 0. 25, 0. 35
```

The purpose of the following sections in the configuration file is to specify parameters for each field in the packet. For example:

```
[_default_]
min=-1
max=1

[Field1]
color=gray
min=0
max=255

[Field2]
color=blue

[Field3]
color=red
```

You can specify parameters that would apply by default to all fields in the [_default_] section.

These parameters will apply to all field sections unless they will be overridden in the field section by parameters with the same name.

In the example above note that Field2 and Field3 will inherit min=-1 and max=1 from

the [_default_] section. However Field1 will override these values with min=0 and max=255

After you have defined the default parameters, you should define one section for each field that will be received in a packet. Field sections should be in the order in which they are received in the packet.

The name of field sections can be chosen randomly but should be distinct from the reserved section

names _setup_, _default_. For that matter avoid any names that start and end with _.

Below is an explanation of the parameters accepted in the [_default_] and field sections:

min,max

These are the field values that correspond to the top and bottom lines of the chart. In other words if you specify min = -1 and max = 1. A value of -1 will be plotted at the top border of the chart , and a value of 1 will be plotted at the bottom border of the chart. A value of 0 (which is is the midpoint between -1 and 1) will be plotted at the middle of the chart. Field values are linearly mapped

from $[min, max]$ range to $[0, height]$ range where *height* is the chart height in pixels, specified in the

setup section.

color

This is the color used to plot a field value. Use *transparent* color value if you don't want a specific field to be plotted.

dash

Creates an interrupted line. For example: dash = 3 will render 3 samples then will not render the next 3 samples, then render 3 samples, then again pause for 3 samples and so on...

Example Configure

```
[_setup_]
port=COM3
baudrate=115200
width=1000
height=201
background_color = white
grid_h_origin = 100
grid_h_step = 10
grid_h_color = #EEE
grid_h_origin_color = #CCC
grid_v_origin = 0
grid_v_step = 10
grid_v_color = #EEE
grid_v_origin_color = transparent
[_default_]
min=-1
max=1

[interval]
color=transparent
min=0
max=100000

[RxAcc]
color=darkred

[RxEst]
color=darkblue

[RyAcc]
color=lawngreen

[RyEst]
color=red

[RzEst]
color=blue

[RzAcc]
color=green


Code:
printf("%f,%f,%f,%f,%f,%f\n",Racc[0],Racc[1],Racc[2],Rest[0],Rest[1],Rest[2]);
```

Recognized color keyword names

The following is the list of recognized color keywords that can be used as a keyword value for data type <color>:

Name	Value	Name	Value
aliceblue	rgb(240, 248, 255)	lightpink	rgb(255, 182, 193)
antiquewhite	rgb(250, 235, 215)	lightsalmon	rgb(255, 160, 122)
aqua	rgb(0, 255, 255)	lightseagreen	rgb(32, 178, 170)
aquamarine	rgb(127, 255, 212)	lightskyblue	rgb(135, 206, 250)
azure	rgb(240, 255, 255)	lightslategray	rgb(119, 136, 153)
beige	rgb(245, 245, 220)	lightslategrey	rgb(119, 136, 153)
bisque	rgb(255, 228, 196)	lightsteelblue	rgb(176, 196, 222)
black	rgb(0, 0, 0)	lightyellow	rgb(255, 255, 224)
blanchedalmond	rgb(255, 235, 205)	lime	rgb(0, 255, 0)
blue	rgb(0, 0, 255)	limegreen	rgb(50, 205, 50)
blueviolet	rgb(138, 43, 226)	linen	rgb(250, 240, 230)
brown	rgb(165, 42, 42)	magenta	rgb(255, 0, 255)
burlywood	rgb(222, 184, 135)	maroon	rgb(128, 0, 0)
cadetblue	rgb(95, 158, 160)	mediumaquamarine	rgb(102, 205, 170)
chartreuse	rgb(127, 255, 0)	mediumblue	rgb(0, 0, 205)
chocolate	rgb(210, 105, 30)	mediumorchid	rgb(186, 85, 211)
coral	rgb(255, 127, 80)	mediumpurple	rgb(147, 112, 219)
cornflowerblue	rgb(100, 149, 237)	mediumseagreen	rgb(60, 179, 113)
cornsilk	rgb(255, 248, 220)	mediumslateblue	rgb(123, 104, 238)
crimson	rgb(220, 20, 60)	mediumspringgreen	rgb(0, 250, 154)
cyan	rgb(0, 255, 255)	mediumturquoise	rgb(72, 209, 204)
darkblue	rgb(0, 0, 139)	mediumvioletred	rgb(199, 21, 133)
darkblue	rgb(0, 0, 139)	mediumvioletred	rgb(199, 21, 133)
darkcyan	rgb(0, 139, 139)	midnightblue	rgb(25, 25, 112)
darkgoldenrod	rgb(184, 134, 11)	mintcream	rgb(245, 255, 250)
darkgray	rgb(169, 169, 169)	mistyrose	rgb(255, 228, 225)
darkgreen	rgb(0, 100, 0)	moccasin	rgb(255, 228, 181)
darkgrey	rgb(169, 169, 169)	navajowhite	rgb(255, 222, 173)
darkkhaki	rgb(189, 183, 107)	navy	rgb(0, 0, 128)
darkmagenta	rgb(139, 0, 139)	oldlace	rgb(253, 245, 230)
darkolivegreen	rgb(85, 107, 47)	olive	rgb(128, 128, 0)
darkorange	rgb(255, 140, 0)	olivedrab	rgb(107, 142, 35)
darkorchid	rgb(153, 50, 204)	orange	rgb(255, 165, 0)
darkred	rgb(139, 0, 0)	orangered	rgb(255, 69, 0)
darksalmon	rgb(233, 150, 122)	orchid	rgb(218, 112, 214)
darkseagreen	rgb(143, 188, 143)	palegoldenrod	rgb(238, 232, 170)
darkslateblue	rgb(72, 61, 139)	palegreen	rgb(152, 251, 152)
darkslategray	rgb(47, 79, 79)	paleturquoise	rgb(175, 238, 238)
darkslategrey	rgb(47, 79, 79)	palevioletred	rgb(219, 112, 147)
darkturquoise	rgb(0, 206, 209)	papayawhip	rgb(255, 239, 213)
darkviolet	rgb(148, 0, 211)	peachpuff	rgb(255, 218, 185)
deeppink	rgb(255, 20, 147)	peru	rgb(205, 133, 63)
deepskyblue	rgb(0, 191, 255)	pink	rgb(255, 192, 203)
dimgray	rgb(105, 105, 105)	plum	rgb(221, 160, 221)
dimgrey	rgb(105, 105, 105)	powderblue	rgb(176, 224, 230)
dodgerblue	rgb(30, 144, 255)	purple	rgb(128, 0, 128)

firebrick	rgb(178, 34, 34)	red	rgb(255, 0, 0)
floralwhite	rgb(255, 250, 240)	rosybrown	rgb(188, 143, 143)
forestgreen	rgb(34, 139, 34)	royalblue	rgb(65, 105, 225)
fuchsia	rgb(255, 0, 255)	saddlebrown	rgb(139, 69, 19)
gainsboro	rgb(220, 220, 220)	salmon	rgb(250, 128, 114)
ghostwhite	rgb(248, 248, 255)	sandybrown	rgb(244, 164, 96)
gold	rgb(255, 215, 0)	seagreen	rgb(46, 139, 87)
goldenrod	rgb(218, 165, 32)	seashell	rgb(255, 245, 238)
gray	rgb(128, 128, 128)	sienna	rgb(160, 82, 45)
grey	rgb(128, 128, 128)	silver	rgb(192, 192, 192)
green	rgb(0, 128, 0)	skyblue	rgb(135, 206, 235)
greenyellow	rgb(173, 255, 47)	slateblue	rgb(106, 90, 205)
honeydew	rgb(240, 255, 240)	slategray	rgb(112, 128, 144)
hotpink	rgb(255, 105, 180)	slategrey	rgb(112, 128, 144)
indianred	rgb(205, 92, 92)	snow	rgb(255, 250, 250)
indigo	rgb(75, 0, 130)	springgreen	rgb(0, 255, 127)
ivory	rgb(255, 255, 240)	steelblue	rgb(70, 130, 180)
khaki	rgb(240, 230, 140)	tan	rgb(210, 180, 140)
lavender	rgb(230, 230, 250)	teal	rgb(0, 128, 128)
lavenderblush	rgb(255, 240, 245)	thistle	rgb(216, 191, 216)
lawngreen	rgb(124, 252, 0)	tomato	rgb(255, 99, 71)
lemonchiffon	rgb(255, 250, 205)	turquoise	rgb(64, 224, 208)
lightblue	rgb(173, 216, 230)	violet	rgb(238, 130, 238)
lightcoral	rgb(240, 128, 128)	wheat	rgb(245, 222, 179)
lightcyan	rgb(224, 255, 255)	white	rgb(255, 255, 255)
lightgoldenrodyellow	rgb(250, 250, 210)	whitesmoke	rgb(245, 245, 245)
lightgray	rgb(211, 211, 211)	yellow	rgb(255, 255, 0)
lightgreen	rgb(144, 238, 144)	yellowgreen	rgb(154, 205, 50)
lightgrey	rgb(211, 211, 211)		