

At some point in time and space, someone might need or want to 'scale' the trading chart for his or her own amusement or whatsoever. Following is described one way of doing it.

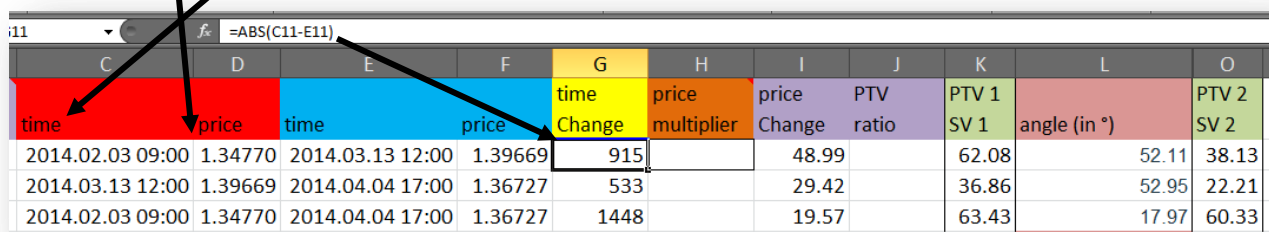
Tools needed:

- Trading/charting software (i.e. MT4)
- SketchUp 3D software (<http://www.sketchup.com/download> - you plan to use SketchUp (SU) for personal use, meaning you will get fully functional free version)
- Windows Alpha Blender software (<http://www.vaultmate.com/freewaregifts.php> - scroll to red heart; CTRL+F12 = blend, CTRL+F11 = unblend)
- Datasheet software, i.e. MS Office Excel or Open Office Calc (I think)

Download and install, completely on your own responsibility (Duh!).

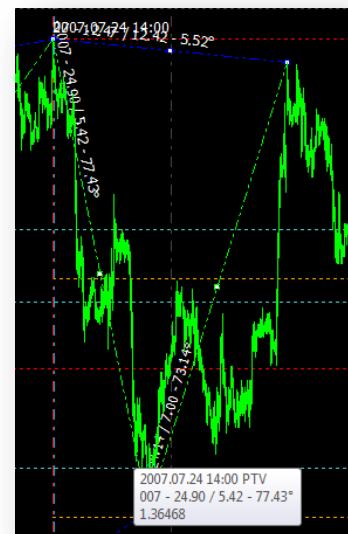
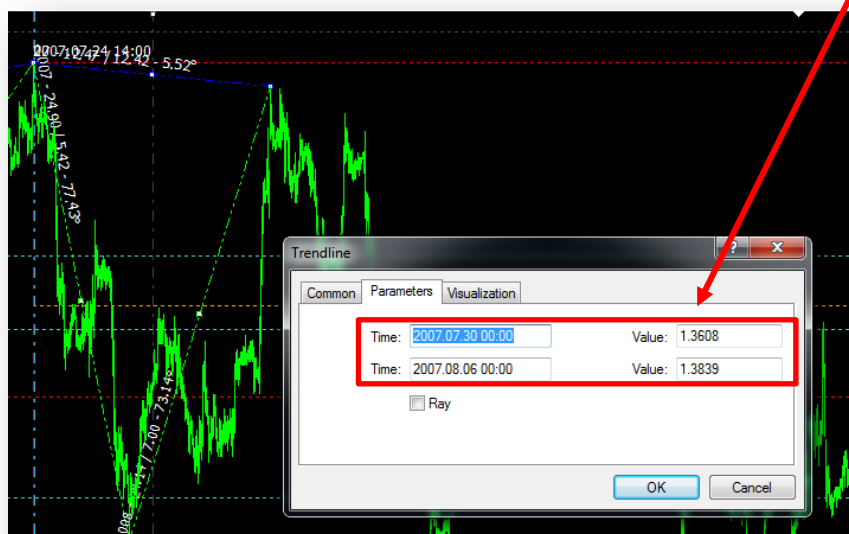
- 1) First we need to calculate SpaceVectors™ (SV™, called by Bradley Cowan a PTV™), which is incredibly simple. Spreadsheet software will do this for us:

$$SV^{\text{TM}} = \sqrt{\text{price}^2 + \text{time}^2}$$



time	price	time	price	time Change	price multiplier	price Change	PTV ratio	PTV 1 SV 1	angle (in °)	PTV 2 SV 2
2014.02.03 09:00	1.34770	2014.03.13 12:00	1.39669	915		48.99		62.08	52.11	38.13
2014.03.13 12:00	1.39669	2014.04.04 17:00	1.36727	533		29.42		36.86	52.95	22.21
2014.02.03 09:00	1.34770	2014.04.04 17:00	1.36727	1448		19.57		63.43	17.97	60.33

We use top/bottom price and time; simply enter manually (or copy-paste from MT4, see below). You will have to format cells in Excel, and use some other tricks to make Excel obey your orderly needs. He he he, naughty Excel. Spanky, spanky...



Formula: $=ABS(D11-F11)*1000$

D	E	F	G	H	I
price	time	price	time	price	price
			Change	multiplier	Change
1.34770	2014.03.13 12:00	1.39669	915		48.99

EUR USD responds well with factor 1000, which we use to multiply price with (i.e. (price1-price2)***1000**). See left image. To 'unmultiply' it, multiply with 0.001 (0.001 × 1000 = 1).

Formula: $=SQRT(G11*G11+I11*I11)$

D	E	F	G	H	I	J	K
price	time	price	time	price	price	PTV	PTV 1
			Change	multiplier	Change	ratio	SV 1
1.34770	2014.03.13 12:00	1.39669	915		48.99		62.08

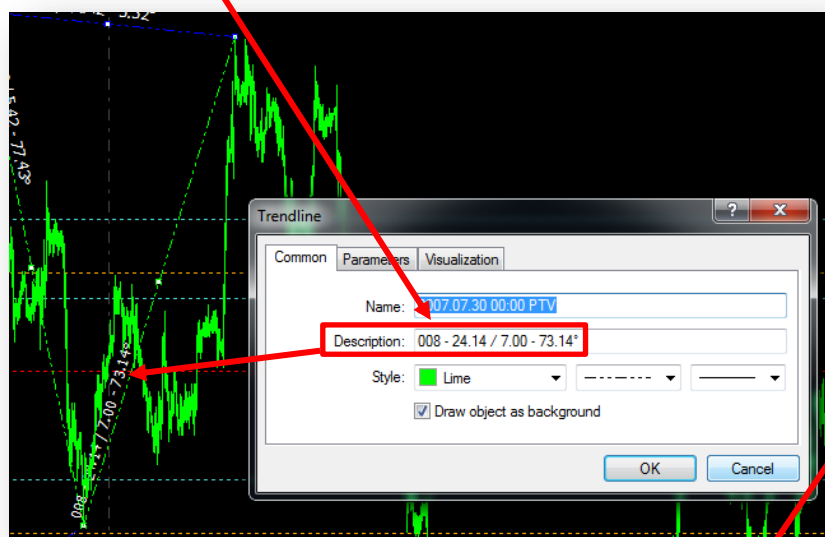
SV = ... which is not really needed for our ECSTTM adventure.

Last calculation - SVTM angle! Function of timeChange and priceChange - \tan^{-1} (price/time).

Formula: $=ATAN(I11/G11)*(180/PI())$

C	D	E	F	G	H	I	J	K	L
time	price	time	price	time	price	price	PTV	PTV 1	angle (in °)
				Change	multiplier	Change	ratio	SV 1	
2014.02.03 09:00	1.34770	2014.03.13 12:00	1.39669	915		48.99		62.08	52.11
2014.03.13 12:00	1.39669	2014.04.04 17:00	1.36727	533		29.42		36.86	52.95
2014.02.03 09:00	1.34770	2014.04.04 17:00	1.36727	1448		19.57		63.43	17.97

I usually write all above calculated data into SVTM on MT4 chart.

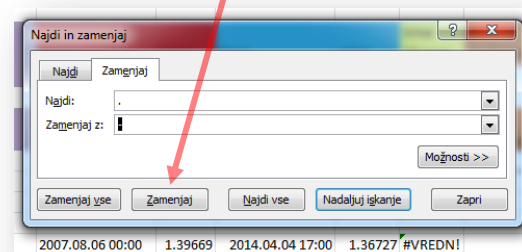


If Excel gives you trouble time when you copy-paste i.e. Time field from MT4 (Parameters tab in Trendline properties - ex. 2007.08.06 00:00), you can get this... (tu-du du-du, tu-du du-du);

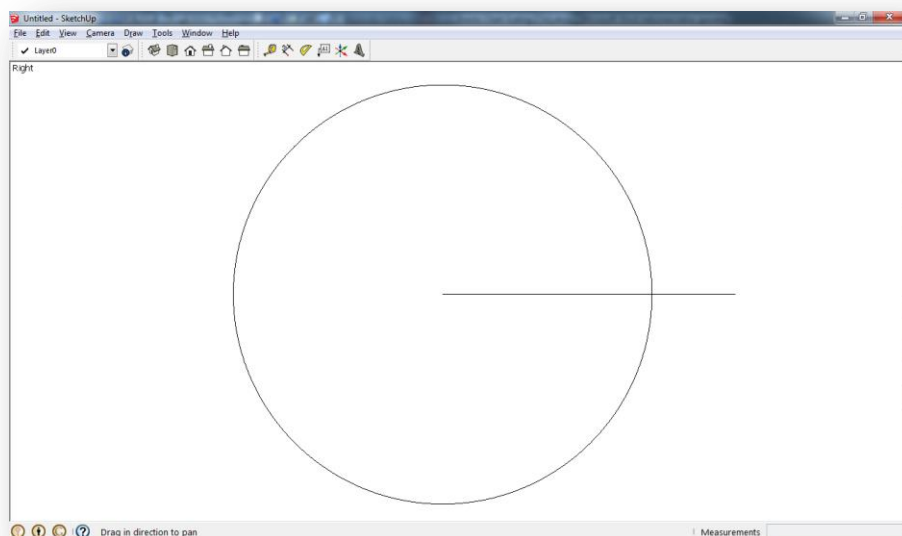
<https://www.youtube.com/watch?v=XVSRm80WzZk> - LOL).

I do this (find & replace; . with -; dot with hyphen). You might have to abracadabra some other »Excel, do this!« magic. Format cells...

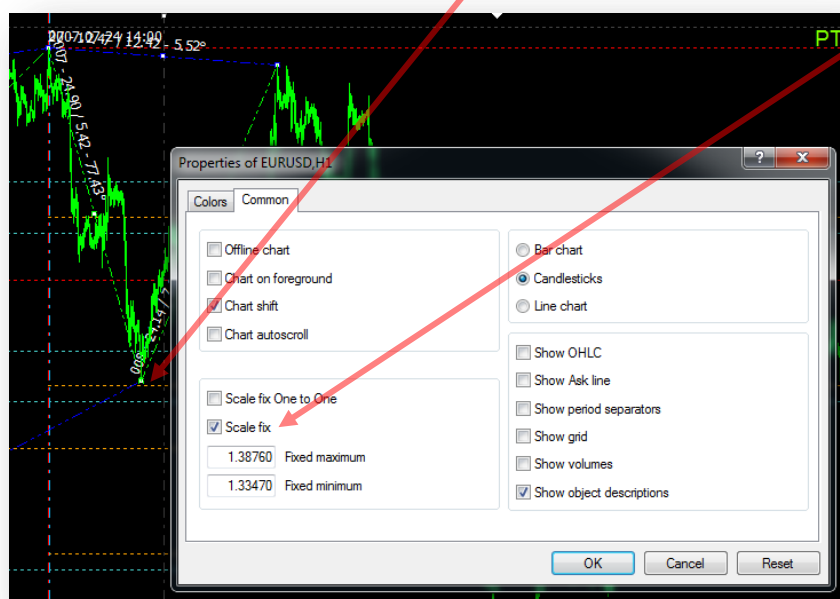
2007.08.06 00:00	1.39669	2014.04.04 17:00	1.36727	#VREDN!
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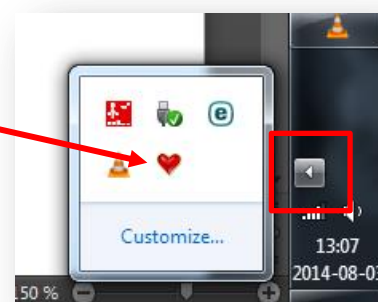
- 2) Next step is drawing circle (hotkey C) in SketchUp (SU); select (hotkey Spacebar) the circle (double-click it), right-click and **make it a group** (Make Group). Draw also a line (hotkey L). Use Hand tool to move drawing around (hotkey H). Make sure line starts at the center of the circle.



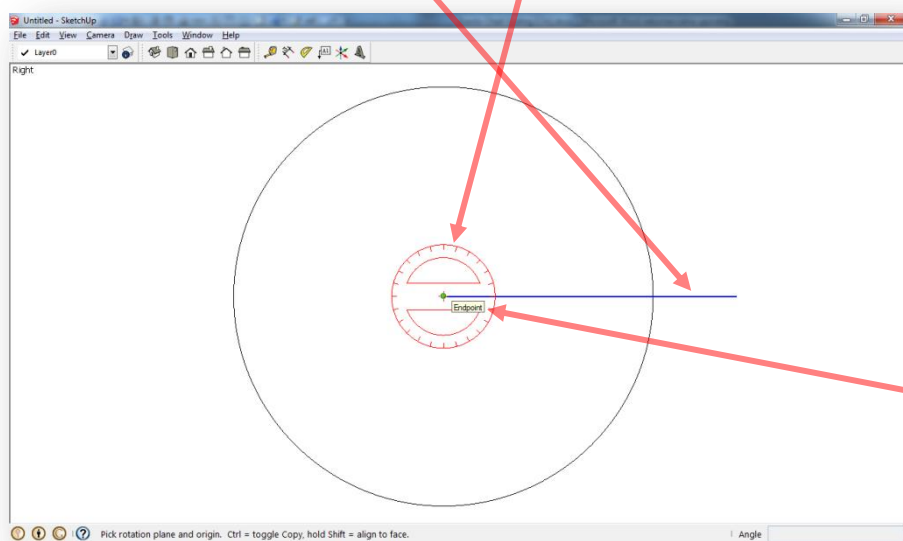
- 3) Next – put MT4 (trading chart) SVTM start in the middle of your screen (if you select it, you will get visual orientation point). Use chart properties and set scale to fixed (see image below). It does not matter which scale is currently set, just confirm. You will have to realign few time.



Now put this SVTM orientation (start) point in the middle of screen. Enable (start) Windows Alpha Blender software.



- 4) Select SU, select line and copy-rotate (hotkey Q, then hit the CTRL key, you will get micro '+' sign on cursor) line at wanted angle/degree. In my case, SV™ angle is 73.14° (see black picture at the bottom of page 2). Next select MT4 (trading chart), so SU will be under MT4.

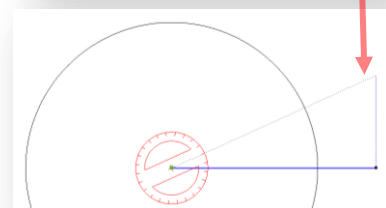
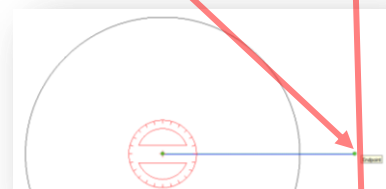
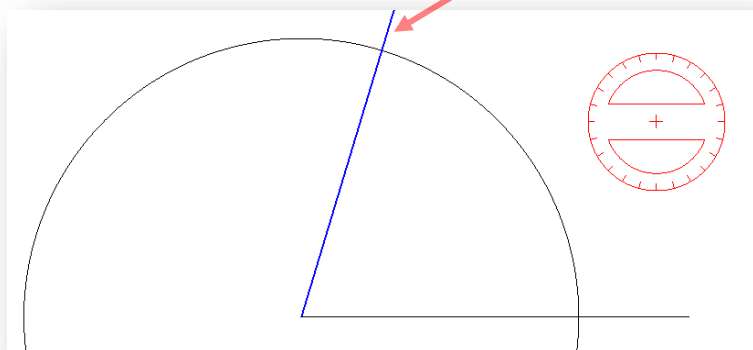


Step-by-step SU copy-rotate line:

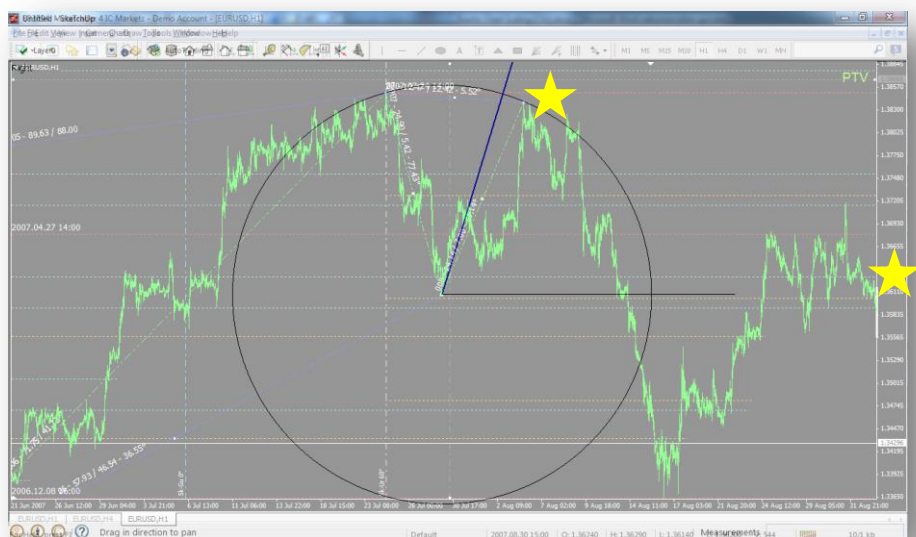
- Hit Spacebar, you get Select tool (arrow)
- Select line
- Hit 'Q' key, you get Rotate tool (red circle on left image)
- Put Rotate tool at the line start, click first point
- Click second point, and move cursor up, then let go of little

mouse

- Just type desired angle, in my case: '73.14'; hit enter
- Voila, you have second line at desired angle. What do you mean, not! Do it again!

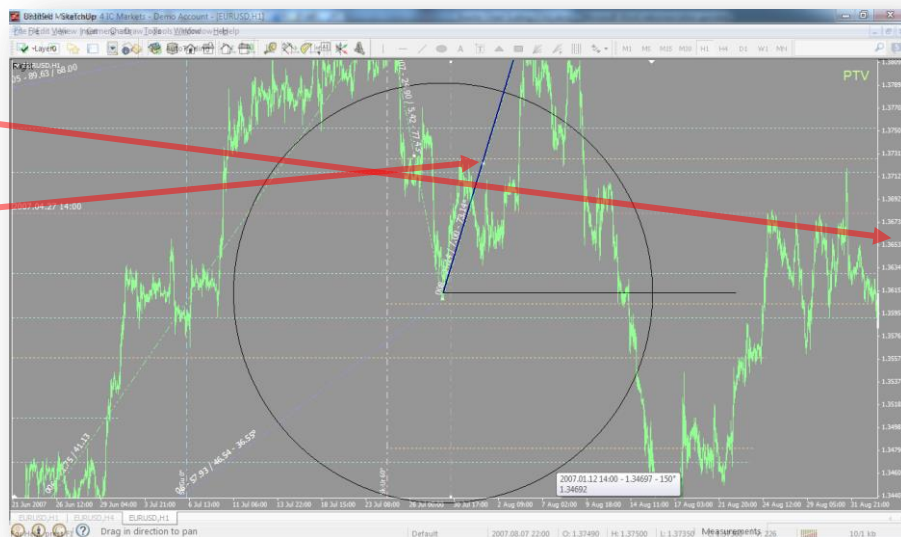


- 5) Next step – select MT4 and blend (CTRL-F12) over SU. Move chart and align SV™ start point and SU line start (= circle center). Move either SU image (hotkey H) or MT4 chart around, until you are satisfied.



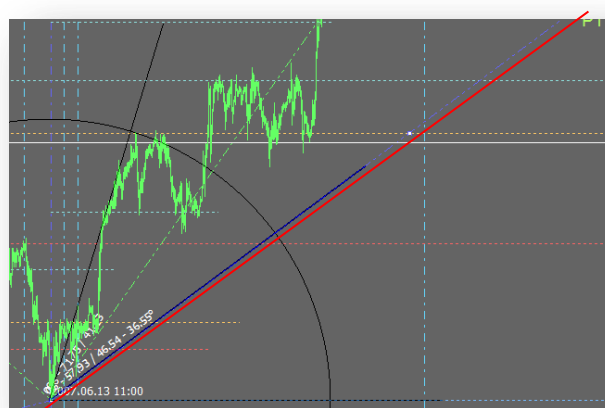
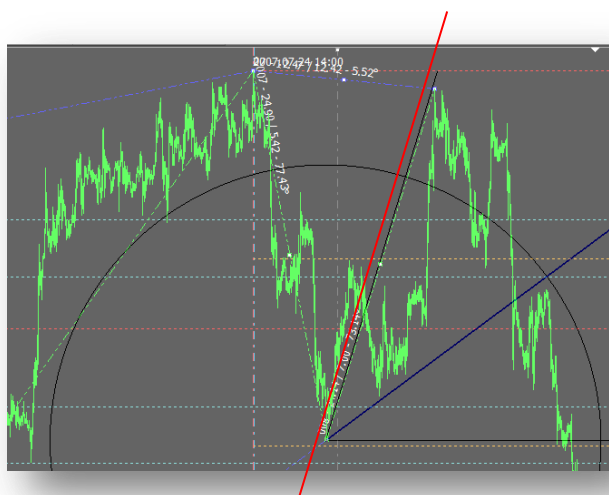
- 6) Time to Exacto-Scale-ChartTM! Click-hold MT4 **scale axis** and move (up/down) until you get a match – SVTM should **line up** with SU 73.14° line. You might need to re-align center, either of SU circle, or MT4 SVTM start point.

Guess what, you have just Exacto-Scaled-ChartTM!
Huraaiii! LOL!



- 7) You might want to re-check and fine-tune with any one of other SVTMs on trading chart. Hold CTRL-F11 to unblend MT4.

- Copy-rotate original SU line to 36.55°.
- Fine-tune the chart.



This is as much as I have been able (out of boredom only) to Exacto-Scale-ChartTM.

I guess you do realize that by doing almost anything, MT4 will not-exacto-re-scale the chart. I.e. if you change time frame. Or extend time scale (vertically zoom in).

This ECSTTM technique is useful for many other things or techniques you might want to check, i.e. have 2 MT4 windows open, put one behind the other, blend top MT4 window and search for chart patterns/lines repeating...

Above all, have fun. Life is quite short, you know.