

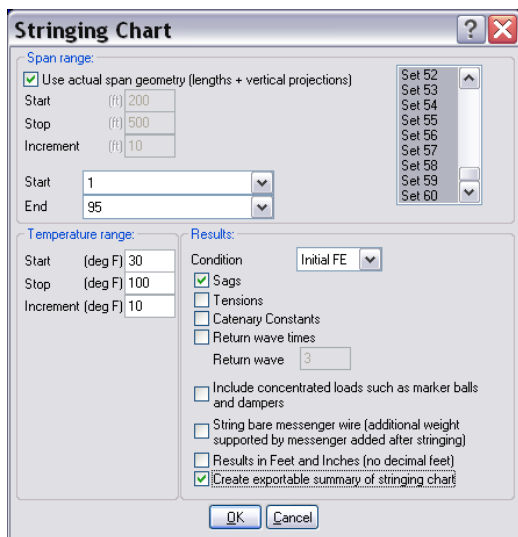
# Output Reformatted Sag-Tension Stringing Charts

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## Process:

When using this or any tool run your own checks to ensure that the tool is behaving as expected. When I run this report I print out the sheets, highlight several cells per sheet and check them against the numbers in PLS CADD under *Sections / Sag-Tension...*

1) From PLS CADD select *Sections / Stringing Chart / Multiple Sections...*



2) Set Temperatures (i.e. 30 - 100 by 10) -  
- Set start and End Structures -- Use Initial RS or FE\* -- Check **Sags** and **Create Exportable Summary of Stringing Chart** and press OK

3) Right Click and select Table View of Stringing Chart Summary -- left click the upper left box and select copy

Structure	Span (ft)	Span (m)	Condition	Initial FE	Initial RS	Sag (ft)	Sag (m)	Tension (lb)	Tension (kN)	Return Wave	Other Values
43	87	1	2	88	1	2	Initial FE	90.00	179.38	196.49	4.87 1.54 3130.06 41
43	87	1	2	88	1	2	Initial FE	100.00	179.38	196.49	4.87 1.74 2771.13 40
43	87	1	3	88	1	3	Initial FE	30.00	179.38	196.20	8.87 0.80 6049.18 87
43	87	1	3	88	1	3	Initial FE	40.00	179.38	196.20	8.87 0.87 5524.25 80
43	87	1	3	88	1	3	Initial FE	50.00	179.38	196.20	8.87 0.96 5003.23 72
43	87	1	3	88	1	3	Initial FE	60.00	179.38	196.20	8.87 1.07 4493.06 65
43	87	1	3	88	1	3	Initial FE	70.00	179.38	196.20	8.87 1.20 4004.87 58
43	87	1	3	88	1	3	Initial FE	80.00	179.38	196.20	8.87 1.26 3580.51 51
43	87	1	3	88	1	3	Initial FE	90.00	179.38	196.20	8.87 1.31 3190.06 44
43	87	1	3	88	1	3	Initial FE	100.00	179.38	196.20	8.87 1.36 2830.06 37
44	86	3	1	87	6	1	Initial FE	30.00	153.50	196.20	8.87 0.80 6049.18 87
44	86	3	1	87	6	1	Initial FE	40.00	153.50	196.20	8.87 0.87 5524.25 80
44	86	3	1	87	6	1	Initial FE	50.00	153.50	196.20	8.87 0.96 5003.23 72
44	86	3	1	87	6	1	Initial FE	60.00	153.50	196.20	8.87 1.07 4493.06 65
44	86	3	1	87	6	1	Initial FE	70.00	153.50	196.20	8.87 1.20 4004.87 58
44	86	3	1	87	6	1	Initial FE	80.00	153.50	196.20	8.87 1.26 3580.51 51
44	86	3	1	87	6	1	Initial FE	90.00	153.50	196.20	8.87 1.31 3190.06 44
44	86	3	1	87	6	1	Initial FE	100.00	153.50	196.20	8.87 1.36 2830.06 37
44	86	3	1	87	6	1	Initial FE	30.00	153.50	196.20	8.87 0.80 6049.18 87
44	86	3	1	87	6	1	Initial FE	40.00	153.50	196.20	8.87 0.87 5524.25 80
45	87	4	1	88	7	1	Initial FE	30.00	196.14	196.14	8.87 0.80 6049.18 87
45	87	4	1	88	7	1	Initial FE	40.00	196.14	196.14	8.87 0.87 5524.25 80
45	87	4	1	88	7	1	Initial FE	50.00	196.14	196.14	8.87 0.96 5003.23 72
45	87	4	1	88	7	1	Initial FE	60.00	196.14	196.14	8.87 1.07 4493.06 65
45	87	4	1	88	7	1	Initial FE	70.00	196.14	196.14	8.87 1.20 4004.87 58
45	87	4	1	88	7	1	Initial FE	80.00	196.14	196.14	8.87 1.26 3580.51 51
45	87	4	1	88	7	1	Initial FE	90.00	196.14	196.14	8.87 1.31 3190.06 44
45	87	4	1	88	7	1	Initial FE	100.00	196.14	196.14	8.87 1.36 2830.06 37
46	87	5	1	88	9	1	Initial FE	30.00	195.64	195.64	8.87 0.80 6049.18 87
46	87	5	1	88	9	1	Initial FE	40.00	195.64	195.64	8.87 0.87 5524.25 80
46	87	5	1	88	9	1	Initial FE	50.00	195.64	195.64	8.87 0.96 5003.23 72
46	87	5	1	88	9	1	Initial FE	60.00	195.64	195.64	8.87 1.07 4493.06 65
46	87	5	1	88	9	1	Initial FE	70.00	195.64	195.64	8.87 1.20 4004.87 58
46	87	5	1	88	9	1	Initial FE	80.00	195.64	195.64	8.87 1.26 3580.51 51
46	87	5	1	88	9	1	Initial FE	90.00	195.64	195.64	8.87 1.31 3190.06 44
46	87	5	1	88	9	1	Initial FE	100.00	195.64	195.64	8.87 1.36 2830.06 37

4) Copy the table (without titles) and Paste where specified in the "Initial Stringing" Sheet of the

“Sag-Tension Program.xls” workbook

5) Repeat 1-4 for Final conditions using two temperatures under Load RS or Creep RS or FE\* (i.e. 130°F and 250°F) – Max Sag RS and FE are not available for this feature...

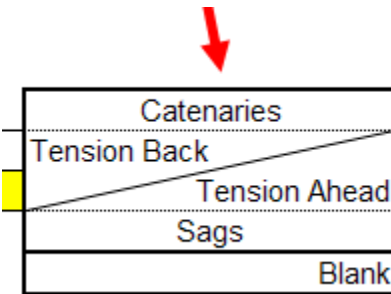
6) Under *Criteria/Cable Tensions...* make sure you have only one controlling load case. (for setting the max tensions that are reported on the stringing chart)

Cable Tension Criteria			
	Weather case	Cable condition	% of Ultimate
1	Extreme Wind on Ice	Initial RS	50.000
2			
3			

7) In PLS CADD select *Lines / Reports / Section Usage...*

8) Right click and select *Table View / Check Section Summary* -- copy and paste this table in the “Check Section Summary” Sheet of the “Sag-Tension Program.xls” workbook

9) Format the Initial Conditions Box Exactly (i.e. order of data, number of entries, borders, lines, alignment of data, color of text, color of fill, etc...) Some formatting will work others won't, use "blank" to indicate unused cells.



10) Now either print it out or insert into an title block in Auto CAD.

**\*NOTE: if reports are run using Ruling Span method the spreadsheet will only output catenaries. To get sags or tension run all reports in Finite Element Mode.**