## **Speedup and deflection**

Some users prefer alternative extreme-wind estimation methods. This calculates speedup and deflection from a reference mast and height to turbine positions, possibly with a different height. The idea is that the users can uses these corrections to translate mast observations to turbine site conditions and make their preferred extreme-wind analysis.

## Input

First select a set of turbine sites and their (common) hub height. The script will then prompt for

- The number of calculated reference-site directions
- Reference-site height
- Reference-site velocity
- Reference-site coordinates

## Result

An Excel table like this... (If you need many columns, you may have to use Excel 2007)

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1	Wind speedup and deflection at turbine sites compared to reference site														
2															
3	Resolution [Deg]	10													
4	Reference site X	577025													
5	Reference site Y	4524884													
	Reference site H	40													
7	Reference site U	35													
8			Reference Direc												
9					0		10		20		30		40		5
10				Site H			Speedup		Speedup	Deflection	Speedup	Deflection	Speedup	Deflection	Speedu
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	Turbine site 4		4525302	55			1.22241	-7.3169			1.09111	-7.0321	1.0519		1.0216
	Turbine site 5		4525257	55				-8.2158		-9.7657		-9.8859			0.9986
	Turbine site 6		4525241	55							1.11641	-11.969			0.9752
	Turbine site 7		4525221	55		353.156		-8.9757		-10.439		-10.535		-9.509	
	Turbine site 8		4525194	55			1.25994	-8.4376		-9.3909		-9.1694			1.0267
	Turbine site 9	576040	4525181	55	1.30167	354.202	1.25692	-7.0666	1.21635	-7.5326	1.14419	-7.0181	1.11978	-5.7241	1.083
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