

Creating Beach Profiles in Excel 2007

Save a copy of the **Beach Profile Spreadsheet** (find it at the web address in the header – go to the Geography section) and use this to work through the instructions.

Enter the data you have for angles and distances. It's easiest to start from the shoreline and work up the beach for this.

You should end up with something like the spreadsheet on the right. Just ignore any blank rows underneath – they're there in case you have a really wide beach.

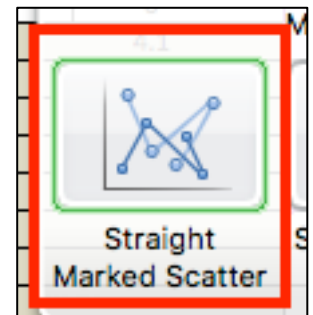
Use this version if you laid your measuring tape along the beach

Point	Angle	Dist along beach	Distance from shore	Actual Vertical Change
1 (Sea)	0	0	0	0
2	15	4.1	3.96	1.06
3	-4	4.5	8.45	0.75
4	15	4.7	12.99	1.96
5	1	7.9	20.89	2.10
6	5	8.1	28.96	2.81
7				
8				
9				
10				
11				
12				
13				
14				

STOP!
Don't press delete on these cells. They contain interesting formulae in the background you don't want to delete.

Now, draw the beach profile:

- Highlight** the cells in columns **J** and **K** with numbers in. Don't forget the zeros in row 6. In the screenshot I highlighted from J6 to K11.
- Click **Insert** on the ribbon > **Chart**
- Choose a **Scatter chart** – the **Straight Marked Scatter** one
This will draw a basic profile, but it looks a bit odd
- Right click** on one of the vertical (up/down) axis numbers > choose **Format Axis**.
- Set the **Maximum** value to something like 15. Make sure the **Minimum** value is set to 0.
- Delete the legend from the chart – it doesn't add anything
- Move** the chart to a new sheet. **Unlock** the sheet first (**Review** tab on the ribbon and press the locked **Sheet** button) then click the **Design** tab > choose **Move Chart** on the right and select a **New Sheet** > **OK**
- Add **axis titles** – click **Layout** > **Axis Titles**:
 - Vertical axis: Height of beach (metres)
 - Horizontal axis: Distance from shoreline (metres)
 - Don't add a chart title as well (**Layout** > **Chart Title**)



You can now add labels (using text boxes) or photos to the chart. You may want to adjust gridlines (**Layout** > **Gridlines**) – try adding minor gridlines to the vertical axis.