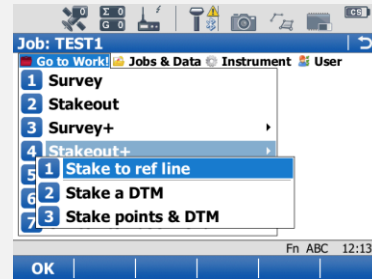


## Reference Line Stakeout

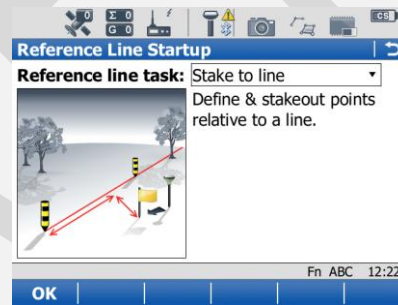
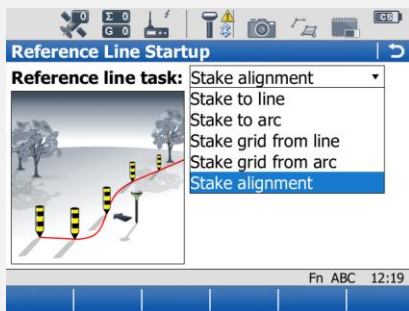
There are various methods and programs to stake lines in Smartworx.

We will concentrate on simple line segments and single polylines in this guide.

Select Stake to ref line from the “Stakeout+” menu.



You will be presented with choices

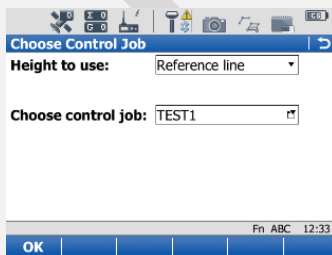


Note how the picture changes to show you the selected task.

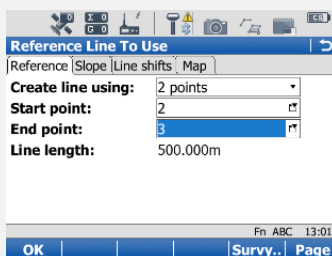
We will just do a simple Line first. Select “Stake to Line”.

Select how you want your heights computed.

Select which control job to use that contains the points and/or lines to be staked.





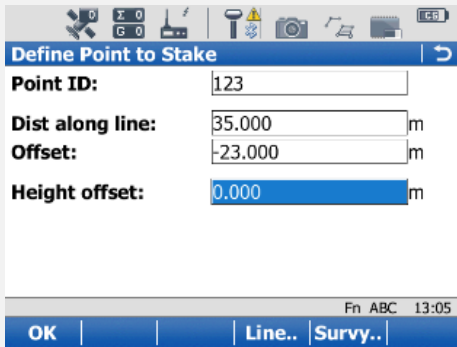
Select  **OK**.



You can create a line using 2 points or Pt, brng, dist etc. You can also select an existing line here. In this example we will create the reference line using 2 points.

You can select the points via the drop down point lists or graphically via the Map page.

Once you have the points you want selected press  .

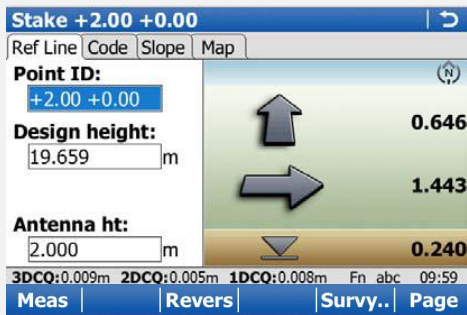


Define the point to be staked.

Key in a point ID of the point to stake.

Key in distance along the line.

Key in the offset value. Positive = right of line, Negative = left of line.





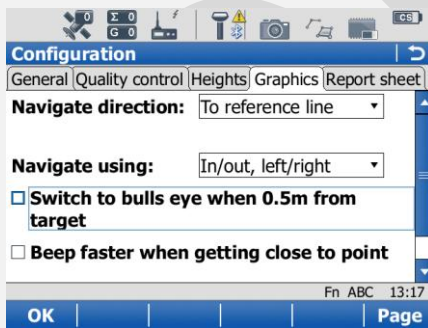
You will then be in the Stakeout screen being guided to the previously defined point.



The main thing to note here is how the navigation is configured.

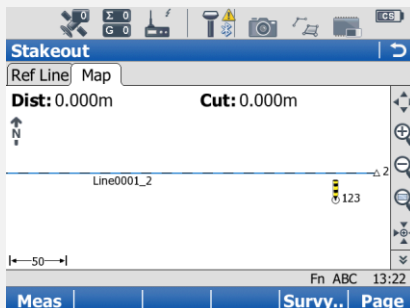


Press  to access the second function options.

Press   and then the configuration page is displayed. *Note this key combination is consistent throughout Smartworx to access configuration options.*



On the Graphics page select your navigate direction. I believe "To reference line" makes sense but you can select your preference. When using the reference line for navigation it also makes sense to Navigate using "In/out, left/right". Select   and you will be back in the stakeout page.

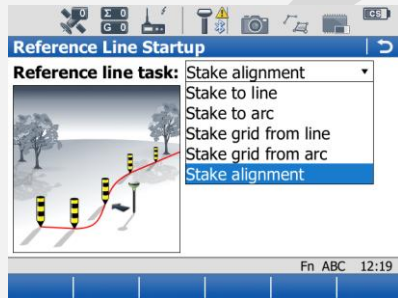
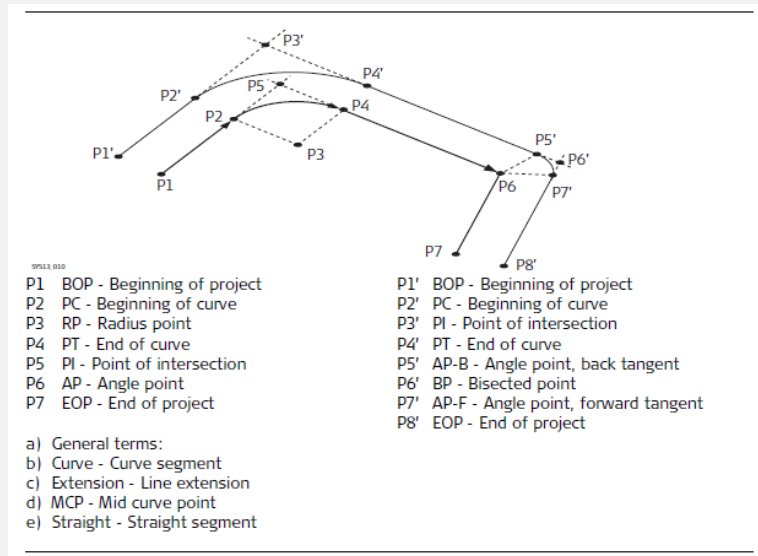


If you select the Map tab you can see all the points and lines in your job along with the point to be staked.

That's it for simple line segments. Staking points relative to an Arc is basically the same.

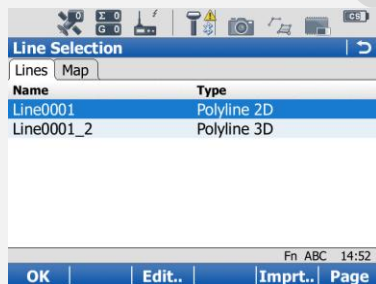
## Staking a polyline or alignment

Sometimes we may want to stake a line that has more than one section. This will enable us to also stake the elements of the the lines or arc . These lines can be imported “dxf” files or lines created in the field. This guide assumes that the lines are already imported or created. I will cover the creation of lines later.



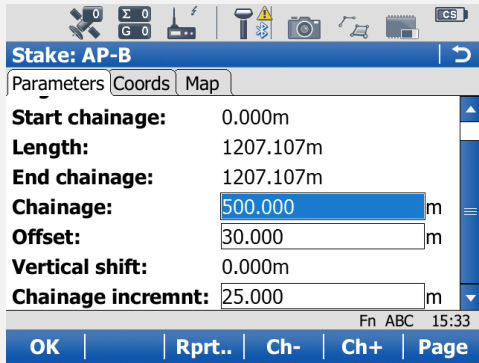
This time we will select Stake alignment from the task list. Press .

You will be prompted for the alignment and height to use.

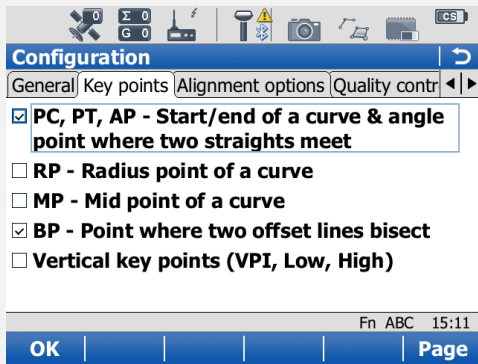


For alignment you can select a line from an existing job or F4 Import from another survey job or Road job. (I will cover creating your own polylines separately.)

Press twice.

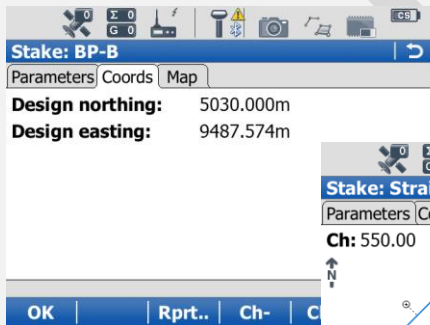


You are now prompted for the parameters.  
 Enter your chainage(distance along line).  
 Enter offset right or left.  
 Enter your chainage(station) increment.

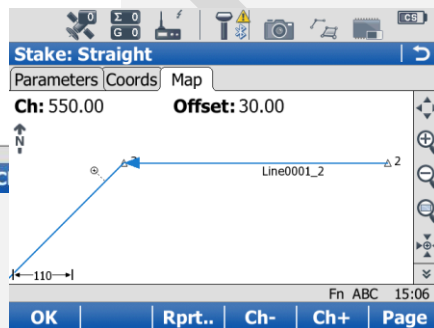


From the Parameters page select **Fn1** **Fn2** **Config..**. Under the key points tab make sure the appropriate key points are checked. Press **Fn1** **OK**.

*If there are certain elements you want to stake, be sure they are turned on by checking this page. As you press the **Ch-** **Ch+** keys to move through the polyline in your stakeout, Smartworx will stop at any of the elements you have defined here.*



At this point you can view the coordinates of the current point you are about to stake or view the map graphically by paging over to the next tab.



When ready press **Fn1** **OK** to proceed to the stakeout page.

