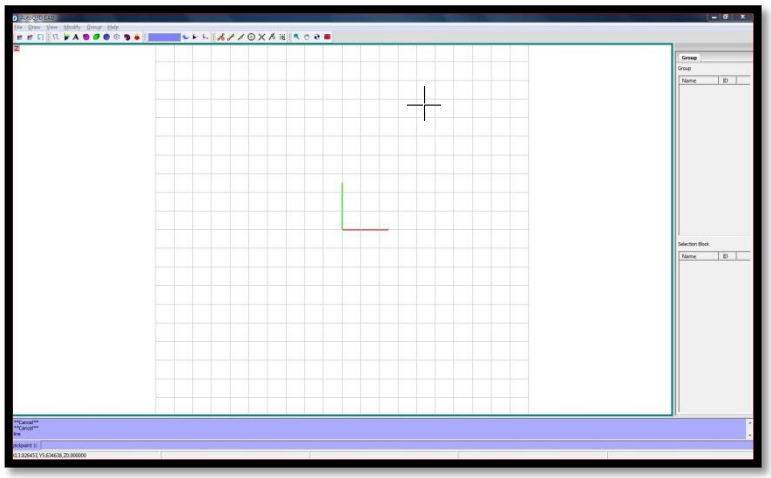
How to set specific points

In AutoQ3D CAD, specific points can be introduced or captured in the following ways:

1. Using the mouse in desktops systems
2. Using touch in mobile devices
3. Typing values directly with the keyboard

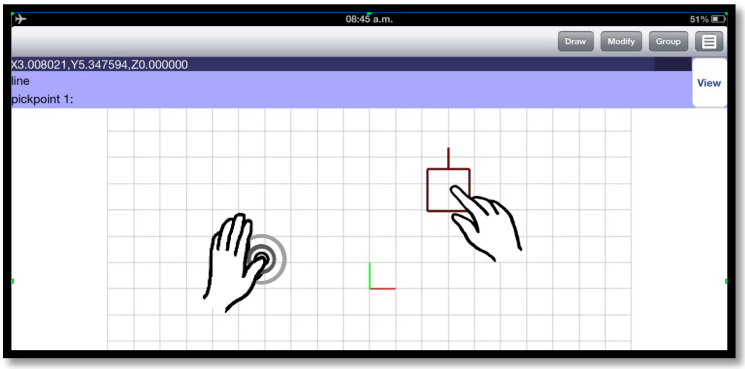
Using the mouse in desktop systems

You can select a point using the mouse, just move your mouse cursor at the selected point (you can see in the status bar how the coordinates change), then click left button over the drawing area to select the point.



Using touch in mobile devices

You can select a point using the touch in your mobile device just moving the cursor with one finger and then without releasing your finger from the drawing area, tap the screen with another finger to select a point (second touch feature).



Typing values directly with the keyboard

Desktops systems

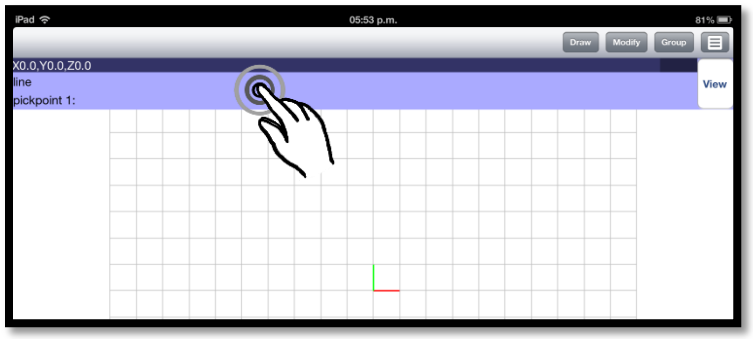
In desktops systems there is a command line area where you can type commands and values for the command parameters.

For example, write *line* in the command line, then press <*Enter*> key. The command will ask you for your *pickpoint1*, you can type directly the coordinates: *2,2* then the command will ask you for *pickpoint2*. You can type here: *4,4*

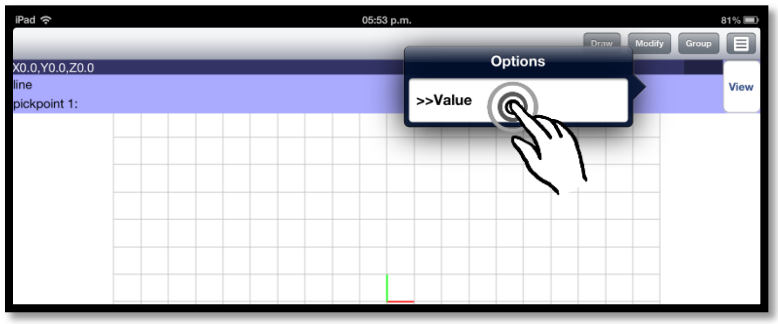
Mobile devices

In mobile devices, there is also an information area where the commands and its parameters appear. You can touch the information area when some tool is asking for an input. Let´s see an example:

Select *Draw* > *Line* option and then watch the information area where you can see that the command line is asking for the parameter *pickpoint1*.



Touch the information area and then you will see a dialog that says *value*.



Touch this option and it will appear numeric keyboard. Here you can type values directly, in this case we have typed de *2,2* coordinates. From here you can press *OK* button to set the point.

Typing values

Here you can see some of different type of values examples:

Example Value	Description
10	An integer value. This type of value is used in tools when they are asking for example number of copies, number of sides, etc.
54.6	A decimal value. This type of value can be used for example specify angles, height of text, circle radius, etc.
1.50r	A value expressing an angle in radians.
23r30'7"	A value expressing an angle in radians, minutes and seconds.
90d	A value expressing an angle in degrees.
32d20'8"	A value expressing an angle in degrees, minutes and seconds.

Typing absolute coordinates

When you know the exact coordinates of your point or its distance and angle from the *0,0* drawing origin, you can simply type in the coordinates in one of several formats as the following:

Example Value	Description
1,0	If you are working in Z plane, then 1 is the value for the X axis and the 0 is the Y axis value
2,4.6	If you are working in Z plane, then 2 is the value for the X axis and the 4.6 is the Y axis value
0,2,0.3	Here 0 is the X axis value, 2 is the Y axis value and 0.3 is the Z axis value

You can also specify magnitude and angle

Example Value	Description
1<90	A polar coordinate that specify 1 unit of distance and 90 degrees (default) from origin (0,0)
3.5<45	A polar coordinate that specify 3.5 units of distance and 45 degrees from origin (0,0)
5<1.7r	A polar coordinate that specify 5 units of distance and 1.7 radians from origin (0,0)
74<40d	A polar coordinate that specify 74 units of distance and 40 degrees from origin (0,0)

10<2.2r34'36.5"	A polar coordinate that specify 10 units of distance and 2.2 radians, 34 minutes and 36.5” from origin (0,0)
20<12d23'30.67"	A polar coordinate that specify 20 units of distance and 12 degrees, 23 minutes and 30.67” from origin (0,0)

Typing relative coordinates

These types of coordinates are relative to the last previous point.

You can type directly the coordinates that is relative to the last point, just typing the @ symbol before the first number, as the following:

Example Value	Description
@0.97,16	Here the value for X axis is 0.97 and for Y axis is 16, but relative to the last point.
@3,5.6	Here the value for X axis is 3 and for Y axis is 5.6, but relative to the last point.
@0,2,1	Here the value for X axis is 0, Y axis is 2 and Z axis is 1, but relative to the last point.

You can also specify magnitude and angle

Example Value	Description
@1<90	A polar coordinate that specifies 1 unit of distance and 90 degrees from the last point.
@3.5<45	A polar coordinate that specifies 3.5 units of distance and 45 degrees from the last point.
@12<2.1r	A polar coordinate that specifies 12 units of distance and 2.1 radians from the last point.
@52<32d	A polar coordinate that specifies 52 units of distance and 32 degrees from the last point.
@13<1.1r5'43.2"	A polar coordinate that specifies 13 units of distance and 1.1 radians, 5 minutes and 43.2 seconds from the last point.