

About Entering 3D Coordinates — GstarCAD 2027

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About Entering 3D Coordinates

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When you create objects in 3D, Cartesian, cylindrical or spherical coordinates are used to locate points.

Enter X.Y.Z coordinates

3D Cartesian coordinates determine a precise location by using three coordinate values: X , Y , and Z .

Entering 3D Cartesian coordinate values (X,Y,Z) is similar to entering 2D coordinate values (X,Y). In addition to specifying X and Y values, you also specify a Z value using the following format: X,Y,Z

Enter Spherical Coordinates

3D spherical coordinates specify a location by a distance from the origin of the current UCS, an angle from the X axis in the XY plane and an angle from the XY plane.

You specify a point using *absolute* spherical coordinates with the following syntax:

$X<[angle\ from\ X\ axis]<[angle\ from\ XY\ plane]$

Enter the @ sign followed by the relative spherical coordinate values, if you need to define a point based on a previous point.

Enter Cylindrical Coordinates

3D cylindrical coordinates describe a precise location by a distance from the UCS origin on the *XY* plane, an angle from the *X* axis in the *XY* plane, and a *Z* value.

You specify a point using *absolute* cylindrical coordinates with the following syntax:

$X<[angle\ from\ X\ axis],Z$

When you need to define a point based on a previous point , you can enter *relative* cylindrical coordinate values with the @ prefix. For example, @5<30,3 specifies a point 5 units on the *XY* plane from the last point entered, at an angle of 30 degrees from the positive *X* direction, and extending 3units in the positive *Z* direction.

Other versions with matching text

[2023](#) · [2024](#) · [2025](#) · [2026](#)

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