

UCS Command — GstarCAD 2027

2962 kbadmin September 25, 2026 [Command Reference](#) 0 8

UCS Command

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Function Description:

This command is used to set the origin and orientation of the current UCS.

The UCS is the active coordinate system, it is used to create the XY plane and Z axis direction. The XY plane is

a work plane that used to draw and model.

It is convenient to handle graph by controlling the UCS origin and orientation when specifying points, entering coordinates and using drawing aids, such as Ortho and the grid.

Specifying the USCVP system variable to 1, it saves the UCS with a viewport.

Command Access:

Icon: /

Menu: Tools > New UCS

> ...

Ribbon: View > Ordinate > UCS

Toolbar: UCS > ...

Command:

UCS

Alias: /

Shortcut: Right-click on the UCS icon and select one option

Command Prompts:

Specify origin of UCS or [Face/NAmed/OBject/Previous/View/World/X/Y/Z/ZAxis]
<World>:

Specify origin of UCS

Use one point, two points, or three points to define a new UCS:

- If specifying one point, the origin of the current UCS is moved to the specified point, but the X, Y, and Z axis direction is not changed.
- If specifying two points, the origin of the current UCS is moved to the first point and the UCS is rotated to make positive direction of the X axis from the first point to the second point.
- If specifying three points, the origin of the current UCS is moved to the first point and the UCS is rotated to make positive direction of the X axis from the first point to the second point, as well the positive direction of the Y axis from the first point to the third point.

These three points can specify an origin, a point on the positive direction of the X axis and a point on the positive direction of the XY plane.

Note: When entering the coordinate, if there is no specified Z coordinate, it uses the current Z value.

Face

Moves the cursor to a face of a solid and previews how the UCS aligned to the selected face.

- **Next:** Locates the UCS to the adjacent face or the back face to the selected face.
- **Xflip:**
Rotates the UCS 180 degrees around the X axis.
- **Yflip:**
Rotates the UCS 180 degrees around the Y axis.
- **Accept:**
Presses Enter to accept the current position. Otherwise it will not stop prompting until accept it.

NAmed

Restores or saves the named UCS definition.

- **Restore:**
Restores the saved UCS definition and makes it become the current UCS.
- **Name:**
Specifies the name of the UCS to restore.
- **?:**
Lists the detail information of the specified UCS definition.
- **Save:**
Saves the current UCS by a specified name.
- **Name:**
Specifies the name of the UCS to save.
- **?:**
Lists the UCS names.
- **Delete:**
Deletes the specified UCS definition from saved definition list.
If deleting the current active UCS definition, the current UCS is kept still and displayed as UNMANED.
- **?:**
Lists all UCS definitions and displays each saved UCS definition compared with the origin, X, Y and Z axes in the current UCS. Enter "*" and lists all UCS definitions.
If the current UCS is the same as the WCS, it is listed as the WCS. If it is customized without name, it is listed as UNMANED.

OBject

Aligns the UCS to a specified 2D or 3D object. The UCS can be aligned to any object type, except a reference line and 3D polyline.

Moves the cursor to an object and clicks to place the UCS.

Mostly, the origin of the UCS is located at the nearest endpoint of the selected point, the X axis will be aligned with the selected edge, or tangent with a selected curve and the Z axis will be perpendicular to the selected object.

Previous

Restores the last UCS.

Users can restore the last 10 UCS settings in the current operation. In the model space and paper space, the UCS settings are saved separately.

View

Aligns the XY plane of the UCS to the perpendicular direction of viewing direction. The origin keeps still, but the X axis becomes horizontal and the Y axis becomes vertical.

World

Aligns the UCS to the WCS.

X/Y/Z

Rotates the current UCS around a specified axis.

The thumb of right hand point to the positive direction of the X axis and other four fingers makes a fist. The direction of other four fingers is the positive direction of rotation.

ZAxis

Aligns the UCS to a specified Z axis.

Moves the origin of the UCS to the first point, the positive direction of the Z axis is from the first point to the second point.

- **Object:**

Moves the UCS to be tangent at the specified point of the selected object and align the origin to its endpoint. The positive direction of the Z axis is deviating from the selected object.

Related References?

- [Commands about Working with 3D Models](#)
- [Commands about Ordinate Dimensions](#)
- [Commands about Grid and Grid Snap](#)
- [Commands about the UCS](#)

Related Tasks?

- [To Move the UCS Origin](#)
- [To Rotate the UCS About the X , Y , or Z Axis](#)
- [To Specify a New UCS Orientation With Three Points](#)
- [To Change the Orientation of the Z Axis of the UCS](#)
- [To Restore the Previous UCS](#)

Other versions with matching text

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

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