

VISKAR BIM – SNAP

1. SNAP

Snap option is used to pick a particular point from the guide line, grids, objects and the bars. Viskar has four types of snap options. They are the,

- Guide line snap
- Grid snap
- Object snap
- Bar snap



2.1 GUIDELINE SNAP

Guideline snap allows to pick the intersection point, near point, mid point, end points on guides. Parallel and perpendicular lines can also be drawn using the guideline snap. The following are the different snap options available in the guideline snap,

- Snap near point
- Snap end point
- Snap mid point
- Snap intersection point
- Snap parallel
- Snap perpendicular



2.1.1 SNAP NEAR POINT

Snap near point indicates, near point on the guides when the cursor is moved along to the guides. This option allows the user to pick a point anywhere on the guides.



- Select the SNAP tab → SNAP NEAR POINT from guideline snap
- Move the cursor anywhere on a poly line.
- The near point is indicated by the word “near” when the cursor is placed on the near points of the guides.
- Just click to select the required point.

2.1.2 SNAP END POINT

Snap end point indicates end points on the guides when the cursor is moved to the end points of a guides. This option allows the user to pick an end point.



- Select the SNAP tab → SNAP END POINT from guideline snap
- place the cursor on the end points of the poly line.
- The end point is indicated by the word “end” when the cursor is placed on the end points of the guides.
- Just click to select the required end point.

2.1.3 SNAP MID POINT

Snap midpoint indicates midpoint on a guides when the cursor is moved closer to the midpoint of a guides. This option allows the user to pick a mid point from the guides.



- Select the SNAP tab → *SNAP MID POINT* from guideline snap
- Place the cursor to the mid point of a polyline.
- The mid point is indicated by the word “mid” when the cursor is placed on the mid points of the guides.
- Just click to select the mid point.

2.1.4 SNAP INTERSECTION

Snap intersection indicates intersection point between two or more guides, when the cursor is moved closer to the intersection of the guides. This option allows the user to pick an intersection points from the guides.



- Select the SNAP tab → SNAP INTERSECTION from guideline snap
- Place the cursor on the intersection points of any two poly lines.
- The intersection point is indicated by the word “intersection” when the cursor is placed on the intersection point of the guides.
- Just click to select the intersection.

2.1.5 SNAP PARALLEL

Snap parallel option allows the user to draw a parallel line to an already existing line.



- Select the SNAP tab → SNAP PARALLEL from guideline snap
- Pick a point to draw a parallel line to an existing line.
- Now, Move the cursor anywhere to the already existing line and pick a point for the desired length of the parallel line
- A line is now drawn parallel to the existing line.

2.1.6 SNAP PERPENDICULAR

Snap perpendicular option allows the user to draw a perpendicular line to an already existing. line.



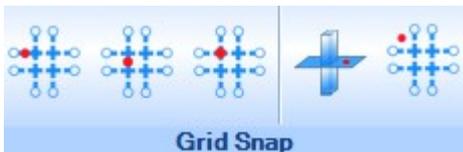
- Select the SNAP tab → snap perpendicular from guideline snap.
- Pick a point to draw a perpendicular line to an existing line.
- Now, Move the cursor anywhere to the already existing line and pick a point for the desired length of the perpendicular line
- A line is now drawn perpendicular to the existing line.

NOTE: Snap parallel and snap perpendicular should not be activated together.

2.2 GRID SNAP

Grid snap option allows the user to pick points on the grid lines and the work plane. Some of the grid snap available in viskar bim are,

- Grid snap near point
- Grid snap mid point
- Grid snap intersection point
- Snap on work plane
- Snap freehand



2.2.1 GRID SNAP NEAR POINT

Grid snap near point enables the user to pick the nearest point along the grid lines.



- Select SNAP tab → GRID SNAP NEAR POINT from grid snap.
- Place the cursor anywhere on the grid.
- The user can now snap on the near points of the grids.
- When the cursor is placed on the near points of the grids, it shows the near point along with the name of the grid.

2.2.2 GRID SNAP MID POINT

Grid snap mid point enables the user to pick the midpoints of the grid lines.



- Select SNAP tab → GRID SNAP MID POINT from grid snap.
- Place the cursor on any mid point of the grid.
- The user can now snap on the mid points of the grids.
- When the cursor is placed on the mid points of the grids, the mid point is indicated along with the name of the grid.

2.2.3 GRID SNAP INTERSECTION POINT

Grid snap intersection point enables the user to pick the intersection points of the grid lines.



- Select SNAP tab → GRID SNAP INTERSECTION POINT from grid snap.
- Place the cursor on any intersection points of the grid
- The user can now snap on the intersection points of the grids.
- When the cursor is placed on the intersection points of the grids, the intersection point is indicated along with the name of the grid.

2.2.4 SNAP ON WORK PLANE

Snap on work plane enables the user draw and pick a model on a single plane/two coordinate system. It allows the user to pick the points only on the face of the objects which is in contact with the work plane.



- Select SNAP tab → SNAP ON WORK PLANE from grid snap.
- Pick a midpoint from the edges of an object which lies on the selected work plane.

NOTE: The face snap is mandatory on the other faces that are not in contact with the work plane.

2.2.5 SNAP FREE HAND

Snap free hand allows the user to draw anywhere on the work space.



- Select the SNAP tab → SNAP FREE HAND from grid snap.
- Select the poly line option. Now, pick a start point and next point anywhere on the workspace

2.3 OBJECT SNAP

Object snap enables the user to pick points on a three dimensional object. Viskar BIM includes the following object snap options,



2.3.1 OBJECT SNAP ON VERTEX

Object snap on vertex enables the user to pick a point on the vertex of the objects.



- Select SNAP tab → OBJECT SNAP ON VERTEX from object snap
- Place the cursor on the vertex points of the object. The vertex snap will be indicated by the word “On vertex”
- The user can now snap on the vertex points of the object.

2.3.2 OBJECT SNAP ON MID EDGE

Object snap on mid edge options enables the user to pick midpoint on the edges of the objects.



- Select SNAP tab → OBJECT SNAP ON MID EDGE from object snap
- Place the cursor on the edge mid of the object. The mid edge snap will be indicated by the

- word “mid edge”
- The user can now snap on the mid edge of the object.

2.3.3 OBJECT SNAP ON EDGE

Object snap on edge options enables the user to pick a point on the edges of the objects.



- Select SNAP tab → OBJECT SNAP ON EDGE from object snap
- Place the cursor on the edges of the object. The edge snap will be indicated by the word “On Edge”
- The user can now snap on the edges of the object.

2.3.4 OBJECT SNAP ON FACE

Object snap on face options enables the user to pick a point on the face of the objects.



- Select SNAP tab → OBJECT SNAP ON FACE from object snap
- Place the cursor on the faces of the object. The face snap will be indicated by the word “On Face”
- The user can now snap on the faces of the object.

2.3.5 FACE MID SNAP

Face mid snap options enables the user to pick the midpoint of the face of the objects.



- Select SNAP tab → FACE MID SNAP from object snap
- Place the cursor on the face mid of the object. The face mid snap will be indicated by the word “Face Mid”
- The user can now snap on the face mid of the object.

2.3.6 ORTHO SNAP

Ortho snap options enables the user to draw a poly line in a linear axis (x- axis, y- axis, and z- axis).



- Select SNAP tab → ORTHO SNAP from object snap

2.3.7 ORTHO TRACK

The ortho track option allows the user to track any line orthogonally. A reference line is shown to indicate the tracking.



- Select the SNAP tab → ORTHO TRACK from object snap.
- Move the cursor to a point on the first object.
- Move the cursor to a point on the second object.
- Now, a reference line is shown to indicate the point the two objects coincides.

2.3.8 SNAP DIMENSION

Snap dimension shows an angular and linear reference scale to draw 2d sections.



- Select SNAP tab → SNAP DIMENSION from object snap.
- While picking the first point of a poly line, the angular and linear reference scale to draw poly lines. Just select the next point to draw to the required scale.

2.4 BAR SNAP

Bar snap enables the user to pick points on the rebars.



- Select SNAP tab → BAR SNAP

Note: Bar snap works only when the object is converted into wire frame.

EXERCISE

1. Draw a line of 5'-0 and model a rectangular footing, try to move the rectangular footing to the nearest point of the line. Similarly, move it to the end points and mid point of the line. Also move the rectangular footing parallel and perpendicular to the line drawn.
2. Draw two lines such that it intersects each other, model a circular footing and try placing the centre of the bottom face of the circular at the intersection of the two lines
3. Model a square footing and a rectangular footing. Use all the object snap options on these elements.
4. Model an object with rebars in it and snap the rebars using the bar snap option.
5. Model a rectangular column, and snap the model using the snap on workplane option.
6. Draw a parallel and perpendicular line using the snap parallel and snap perpendicular option.
7. Use the ortho track option to track two lines.
8. Draw a polyline of length 20'-00 and angle of 65°.

