

Direction-Distance Coordinate Entry (For DataCAD 9.03 and later)

Direction-Distance coordinate entry provides a fast and immediate way of creating drawing elements in DataCAD. Unlike the other forms of entry that require two fields of input, this mode allows you to simply point the mouse in the direction you wish to draw and enter a distance.

Setting the Input Mode

Once you have installed the DataCAD 9.03 update, you are ready to take advantage of this new feature. There are two ways to set your input mode to Direction, Distance:

- Click on Direction Distance in the Tools/Input Mode sub-menu, as in the following

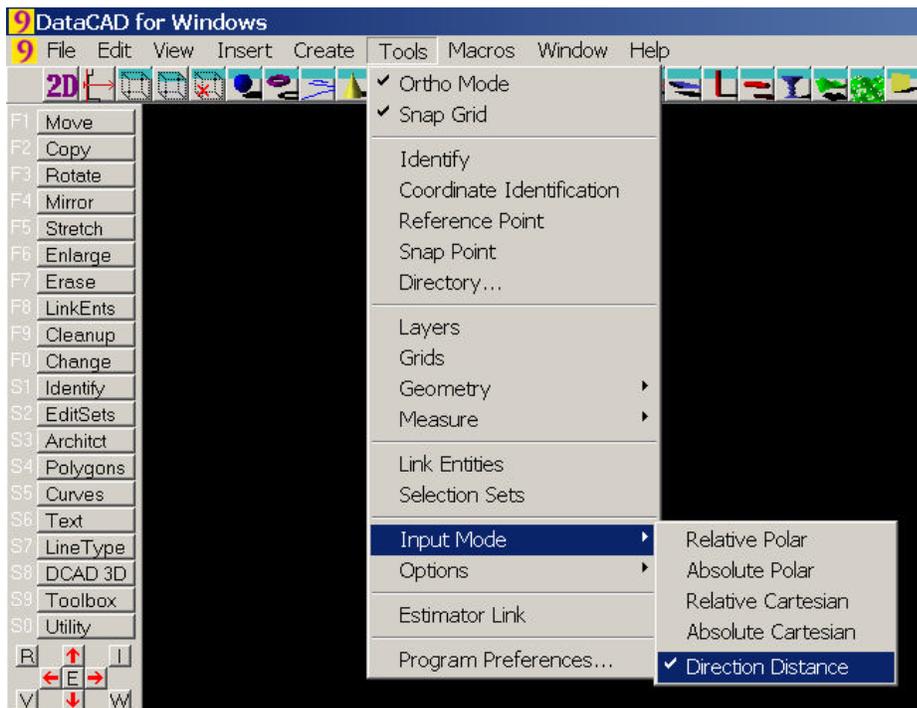


Figure 1: Activating Direction-Distance mode from the Tools pull-down menu

- Or, press [Insert] on your keyboard until the message line reads “Current input mode = Direction, Distance”.

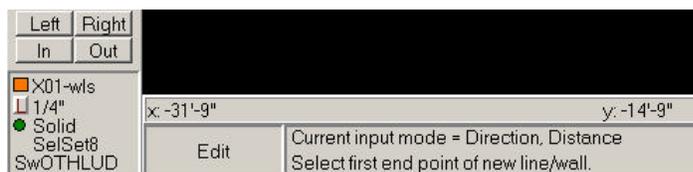


Figure 2: Activating Direction-Distance mode using [Insert]

Using Direction-Distance Mode to Draw Walls

1. Open a new file.
2. Press [Insert] until your current input mode is Direction-Distance.
3. Press [=] to enable walls mode, and enter a wall thickness of 6”.
4. Press [O] until the message line reads “Ortho Mode is ON”.

With Ortho mode turned off, Direction-Distance mode will use any arbitrary cursor angle.

5. Click anywhere in the Drawing Area to start drawing your walls.
6. Drag the cursor horizontally to the right. (See Figure 3)

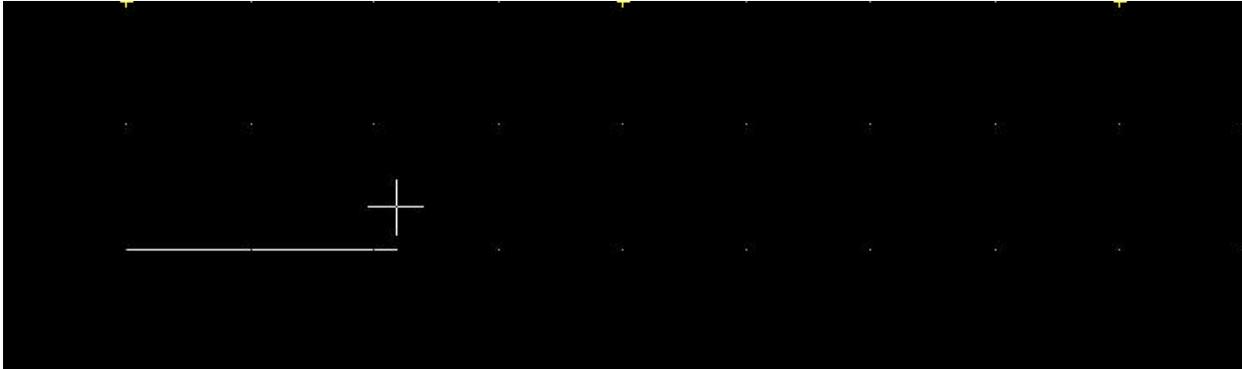


Figure 3: Beginning to draw walls

7. We'll draw the wall 6'-4" in this direction. Press the [Spacebar], type **6.4**, and press [Enter]. The walls are drawn 6'-4" to the right, with your cursor still attached to the end point of the wall. (See Figure 4)

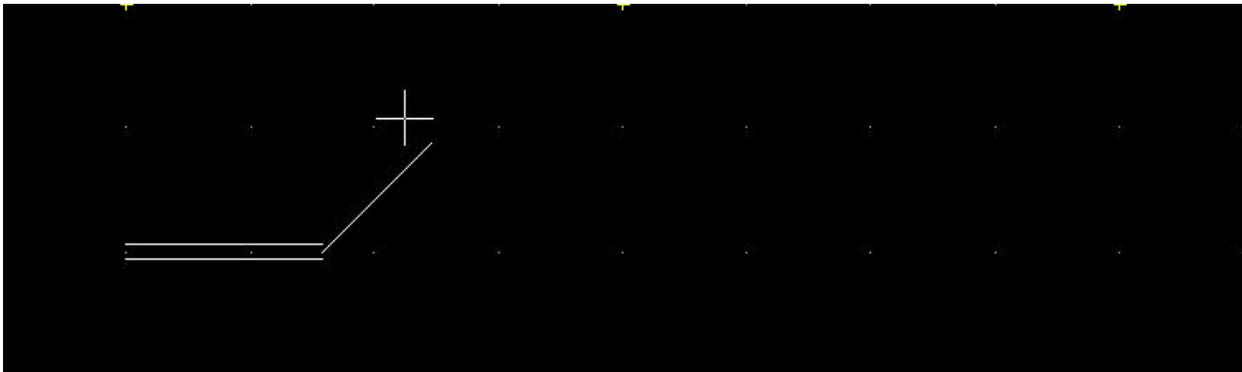


Figure 4: Drawing the first wall using Direction-Distance coordinate entry

8. To create an angled bay, drag your cursor diagonally towards the upper-right corner of the screen at a 45-degree angle.
9. Press the [Spacebar], type **3** and press[Enter]. The first wall of the angled bay is drawn. (See Figure 5)

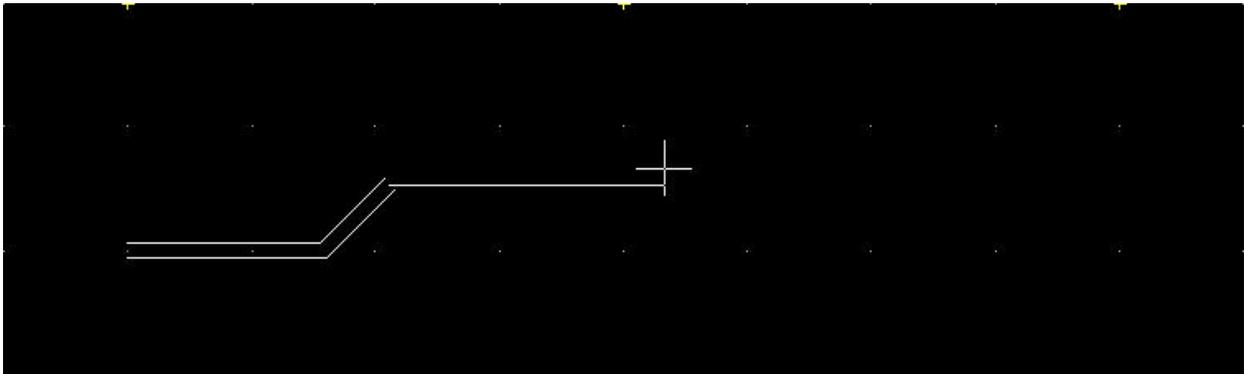


Figure 5: Starting to draw the bay

10. To create a four-foot, horizontal section of the bay, drag your cursor horizontally again, press the [Spacebar], type **5**, and press [Enter]. A five-foot wall segment is drawn.
11. We can complete the bay by angling the cursor down and to the right, pressing the [Spacebar], typing **3**, and then pressing [Enter]. (See Figure 6)

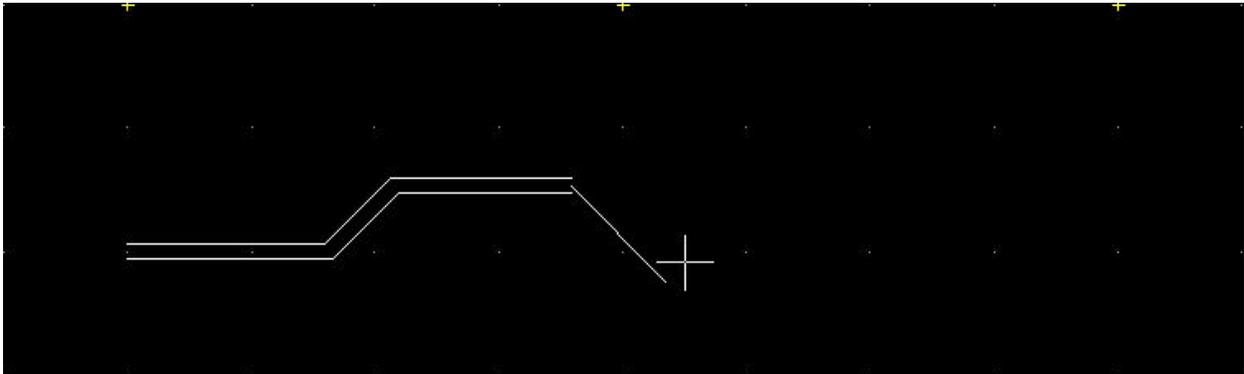


Figure 6: Completing the bay

12. Finish the wall by dragging your cursor to the right, pressing the [Spacebar], typing **6.4**, and then pressing [Enter]. (See Figure 7) That's all there is to it! You've just drawn a wall using Direction-Distance coordinate entry.

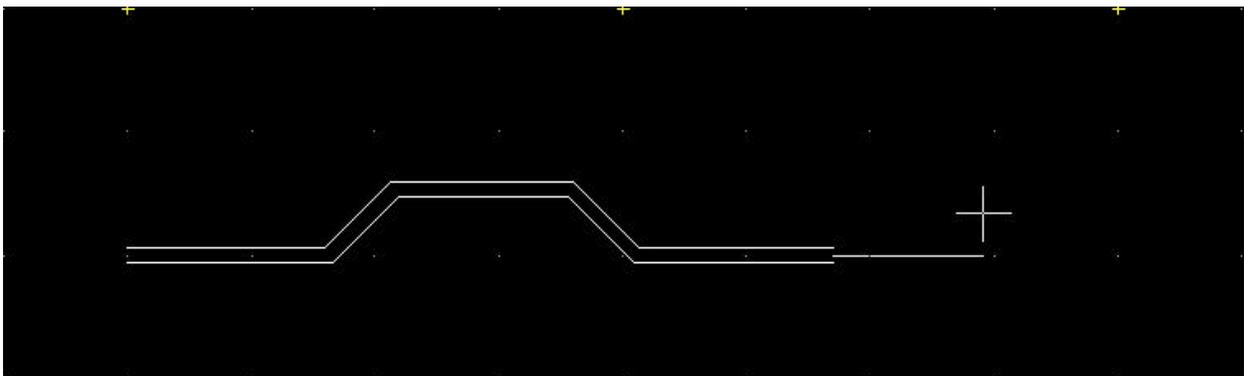


Figure 7: Finishing the wall

To use Direction-Distance mode to move or copy objects, just click to define the start point of the move, drag the cursor in the desired direction, press the [Spacebar], type the distance you want to move or copy, press [Enter], and finally select the objects to move or copy.

Tip

Setting your Snap Angle divisions to different values will give you greater flexibility in working with angles:

4 = 90 degree increments

6 = 60 degree increments

8 = 45 degree increments

12 = 30 degree increments

16 = 22 ½ degree increments

24 = 15 degree increments

36 = 10 degree increments (maximum allowed)

Using Reference Point with Direction-Distance Mode

Reference points let you specify a distance from which to draw something. The following example uses reference points to place windows and doors within the bay window. Figure 8 below shows you the end result.

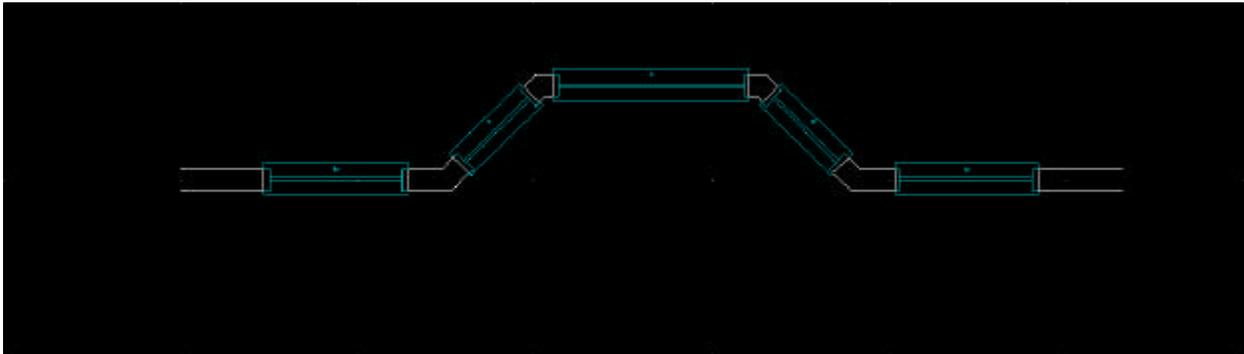


Figure 8: Inserting windows in the bay window

1. We will now insert a 3-foot wide window 2 feet from the end of the wall on the left. Click on **Architct** in the **Edit** menu.
2. Click on **Windows** in the **Architct** menu.
3. Toggle **Sides** on in the **Windows** menu. You are prompted to “Select first jamb of window”.
4. Press [`] (just below [Esc] on most keyboards). You are prompted to enter a reference point.
5. Middle-button snap to the extreme left end of the wall line (reference point shown as red circle in Figure 9). You are prompted to “Indicate the reference angle”, or the direction that will be used in the following steps.

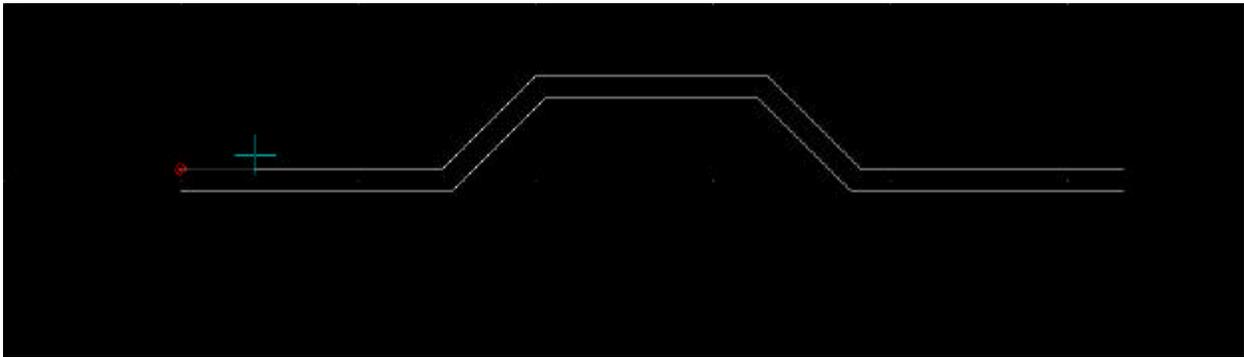


Figure 9: Entering a reference point

6. With Ortho mode on, drag your cursor to the right and click. You are prompted to “Enter one jamb of window”.
7. Press the spacebar, type **2**, and press [Enter]. You are prompted to “Select second jamb of window”.
8. Again, drag your cursor to the right. Press the [Spacebar], type **3**, and press [Enter]. You are prompted to “Select any point on the outside of the wall”.

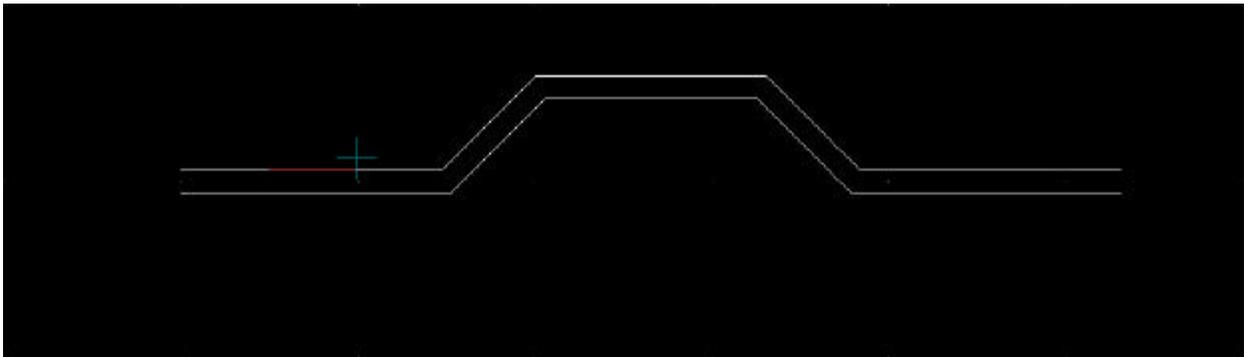


Figure 10: Entering the jambs of the window

9. Click anywhere on the exterior side. The window is inserted in the wall.

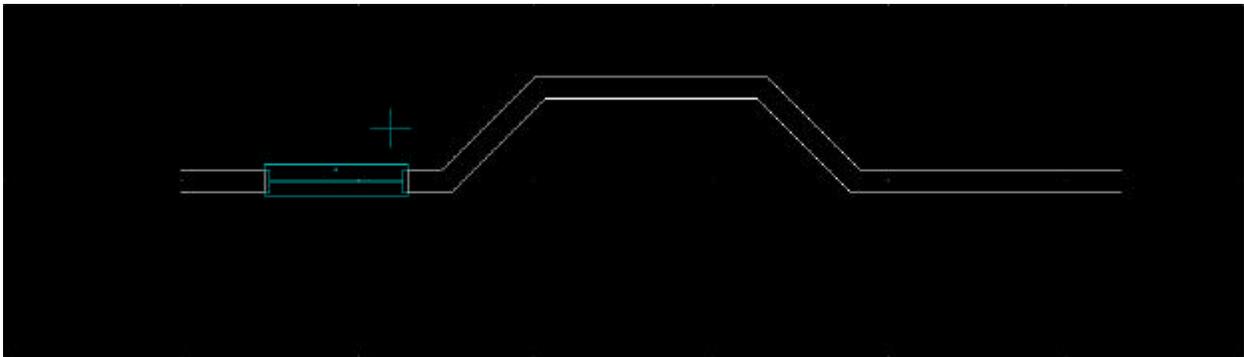


Figure 11: The first window is drawn

10. Now we will insert a window on the angled wall of the bay. You are prompted to “Select one jamb of window”.
11. To set a reference point, press ['] and middle-button snap to the lower-left outside corner of the bay (reference point shown in Figure 12 as red circle). You are prompted to “Indicate the reference angle”.

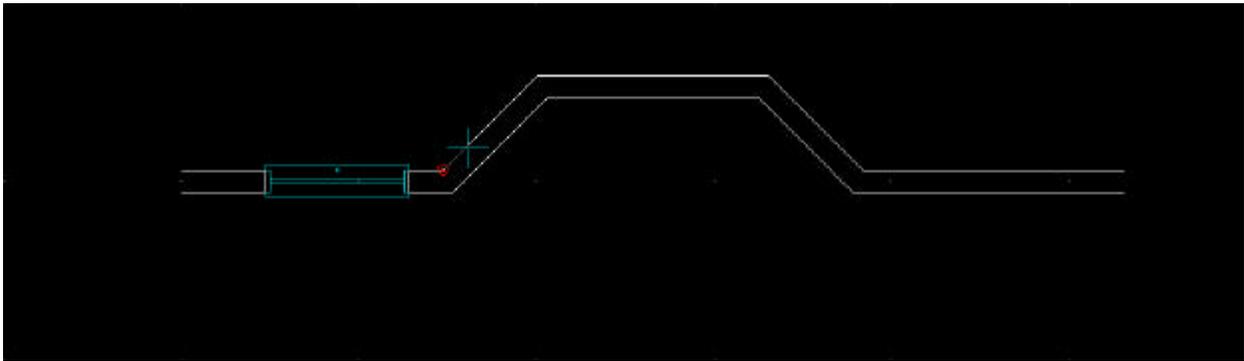


Figure 12:

12. To set the reference angle, drag your cursor (make sure Ortho mode is on) 45 degrees towards the upper-right corner of the screen and click.
13. Press the spacebar, type `.6`, and press [Enter]. You are prompted to “Select second jamb of window”.
14. Again, drag your cursor towards the upper-right corner of the screen.
15. Press the [Spacebar], type `2`, and press [Enter]. You are prompted to “Select any point on the outside of the wall”.

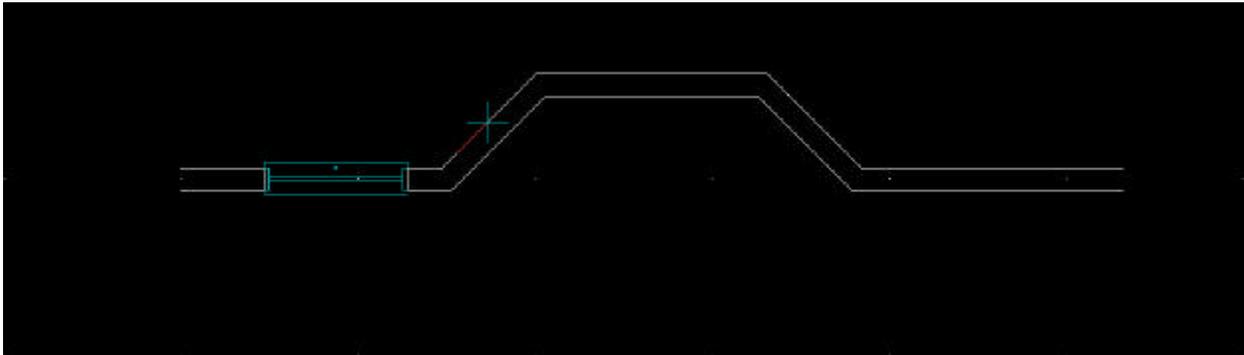


Figure 13: Entering the jambs for the second window

16. Click anywhere on the exterior side of the wall. The window is inserted in the angled wall.

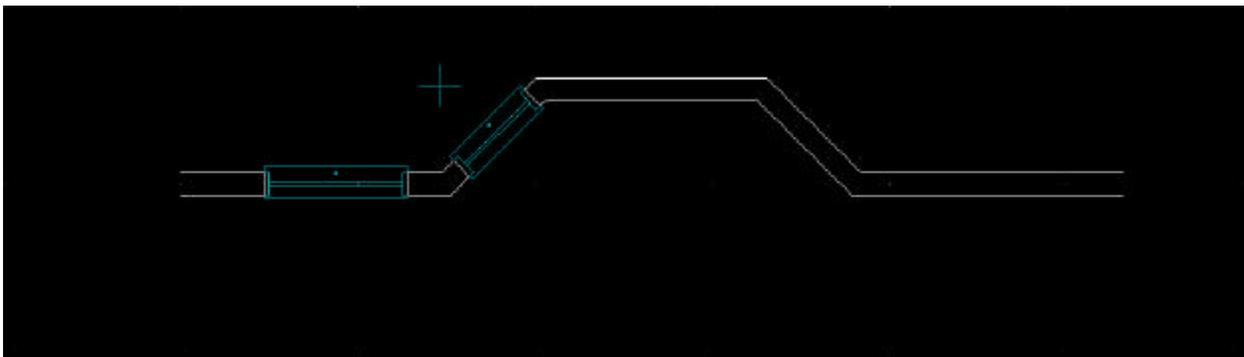


Figure 14: The second window is drawn

17. We will draw the middle bay window using two reference points, one from either corner of the bay. You are prompted to “Select one jamb of window”.
18. To set a reference point, press [] and middle-button snap to the upper-left outside corner of the bay (reference point shown as a red dot in Figure 15). You are prompted to “Indicate the reference angle”.

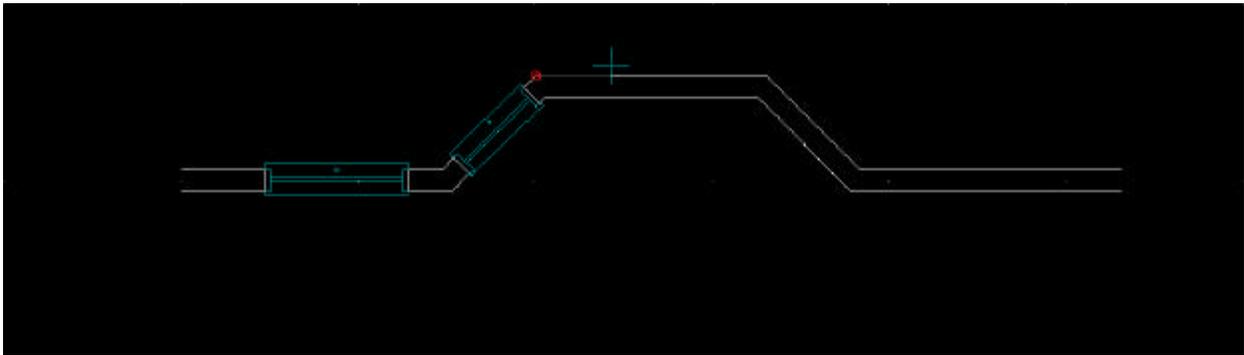


Figure 15: Setting a reference point for the third window

19. To set the reference angle, drag your cursor to the right of the screen and click.
20. Press the [Spacebar], type **.6**, and press [Enter]. You are prompted to “Select second jamb of window”.
21. To set a reference point from the other corner of the bay, press ['] and middle-button snap to the upper-left outside corner of the bay (reference point shown as red dot in Figure 16). You are prompted to “Indicate the reference angle”.

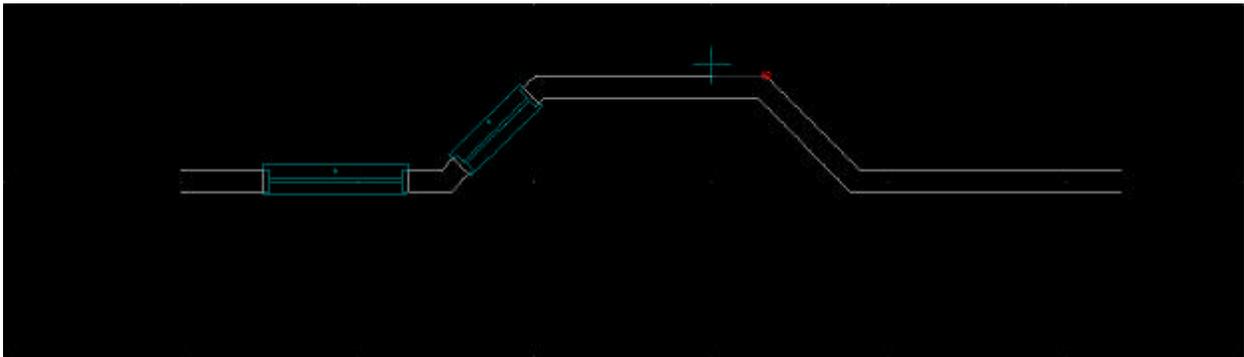


Figure 16: Setting the second reference point for the middle bay window

22. To set the reference angle, drag your cursor to the left of the screen and click. Press the [Spacebar], type **.6**, and press [Enter]. You are prompted to “Select any point on the outside of the wall”.
23. Click anywhere on the exterior side. The window is inserted in the wall.

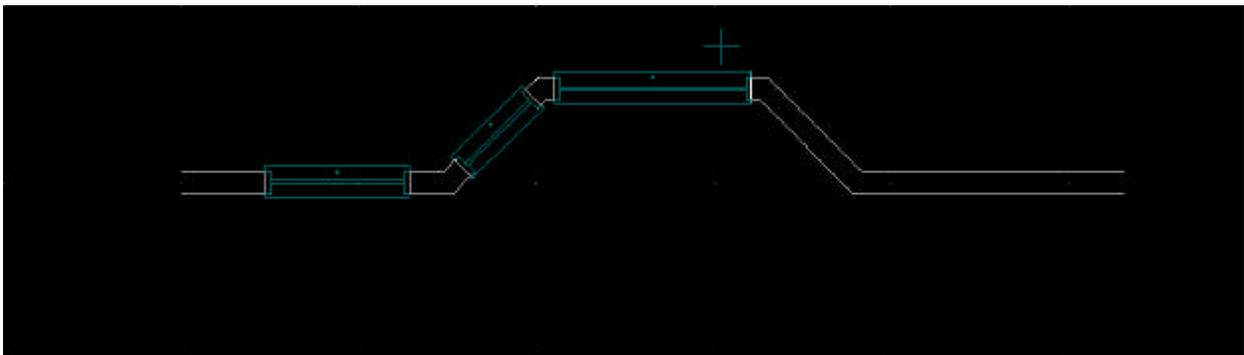


Figure 17: The center bay window is drawn