



Quick Start Tutorial

Imperial version

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Welcome

Welcome to **Envisioneer Express**, a quick and easy modeling tool that helps you create home plans smoothly and efficiently, with the added versatility of 3D viewing and navigation.

Envisioneer Express contains many of the basic design and viewing features found in the full version of *Envisioneer*. Since most features are automated, it is very easy to learn and use. You can complete most tasks with a few clicks of the mouse. And with the built-in power of Cadsoft's advanced design technology, you can count on fast, accurate drawings.

About the Quick Start Tutorial

This guide is designed to get you up and running as quickly as possible. The step-by-step exercises will help you understand how the program works and give you the foundation you need to start your own design projects.

For more detailed information on each of the tools used, select Program Help from the Help menu.

Quick Start Tutorial

The following quick-start tutorial steps you through creating an actual model in **Envisioneer Express**. You will also learn how to view and navigate in 3D.

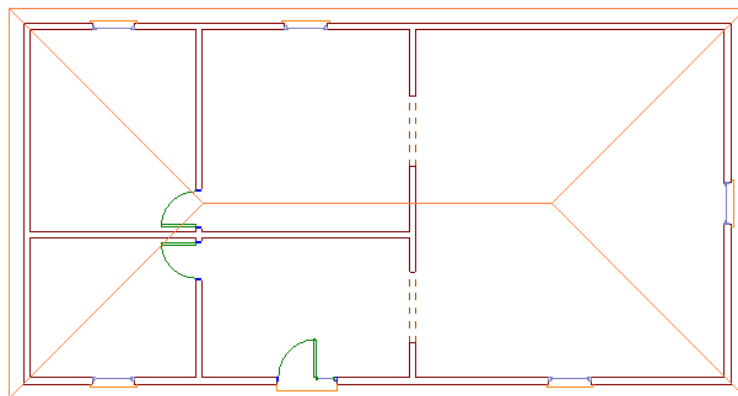
Getting Started

Follow these basic steps to prepare for the tutorial:

1. Start the program by double-clicking the Envisioneer Express 5.0 icon on your desktop, or by selecting **Start > All Programs > Cadsoft > Envisioneer Express 5.0**.
2. On the Startup screen, click **Create New**.
If you have already opened the program, make sure you start with a new, blank project (**File > New**).

Creating a Model

In the tutorial we will create the following single-story model:



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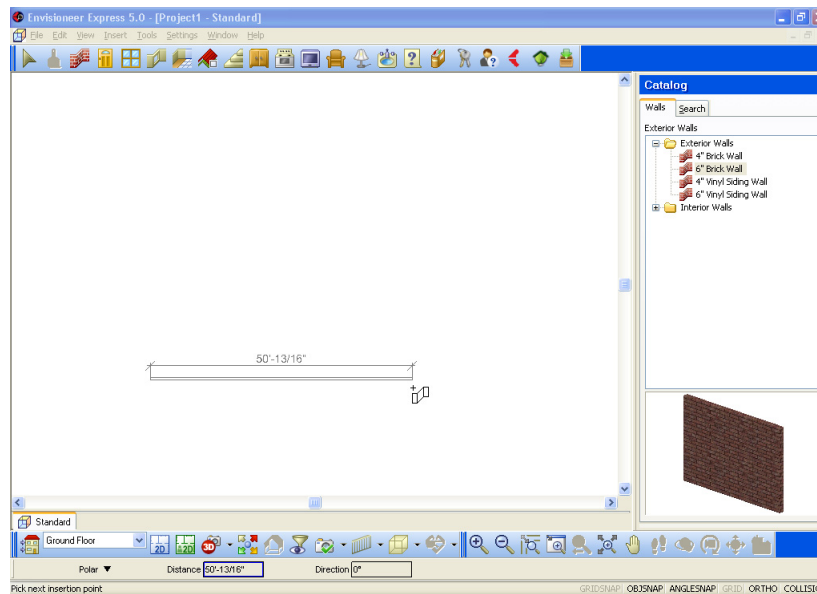
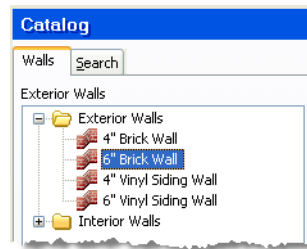
Drawing Exterior Walls

Let's start by drawing the exterior walls. The result will be a 50' x 25' layout.

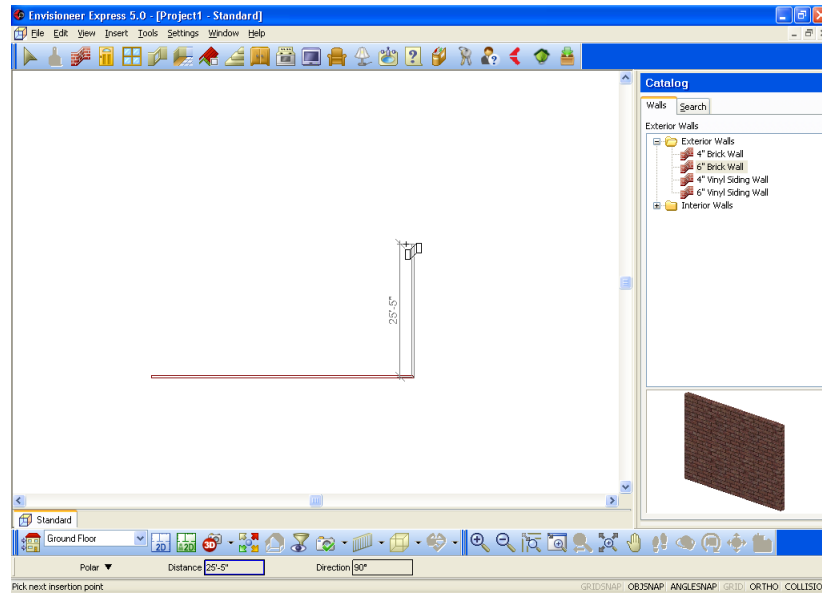
1. Select **Insert > Walls**, or click the Walls button on the Building toolbar.



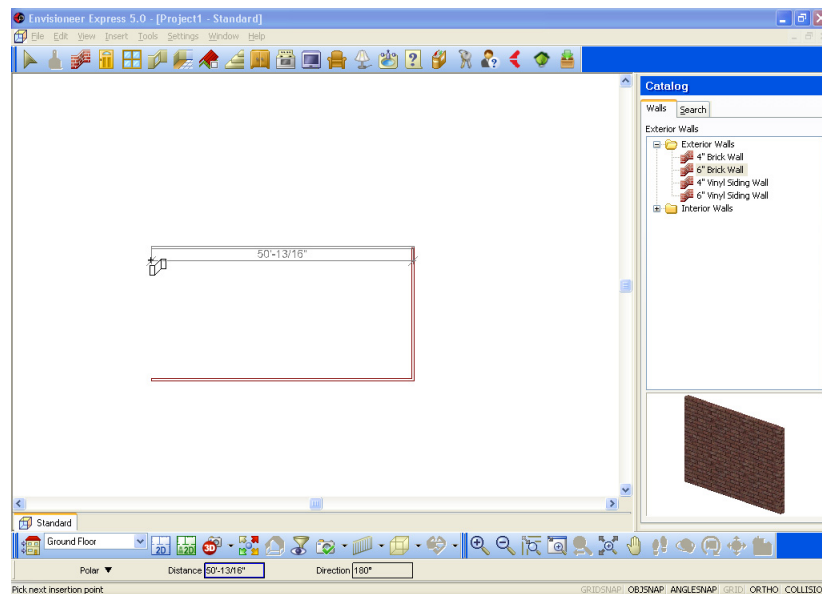
2. In the catalog panel on the right side of the screen, select the **6" Brick Wall** in the **Exterior Walls** folder.
3. Move your pointer into the drawing area.
4. Click in the lower left corner of the drawing area.
5. Without dragging, move your pointer to the right to stretch the wall to the right.
6. When the on-screen dimension reads approximately **50'**, click to select the wall's end point.



7. Move your pointer upward to start creating the next wall. Stretch the wall until it is approximately **25'**, then click to select its end point.



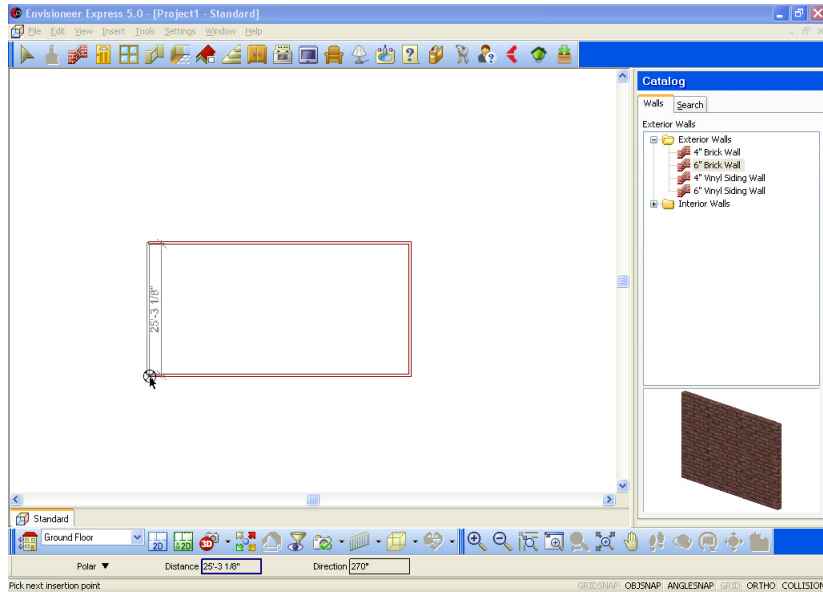
8. Move your pointer to the left to create the next wall. Stretch the wall until it is approximately **50'**, then click to select its end point.



9. Move your pointer downward.

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10. Hover over the original start point until you feel the wall snap into place.

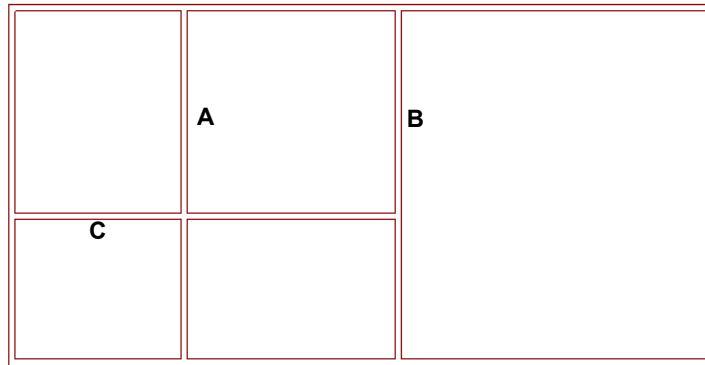


11. Click to close the layout.
12. Right-click and select **Finish**.
13. Select **File > Save**.
14. In the **Save As** dialog box, type **Quick Start Tutorial** in the *File name* edit box, then click **Save**.

Drawing Interior Walls

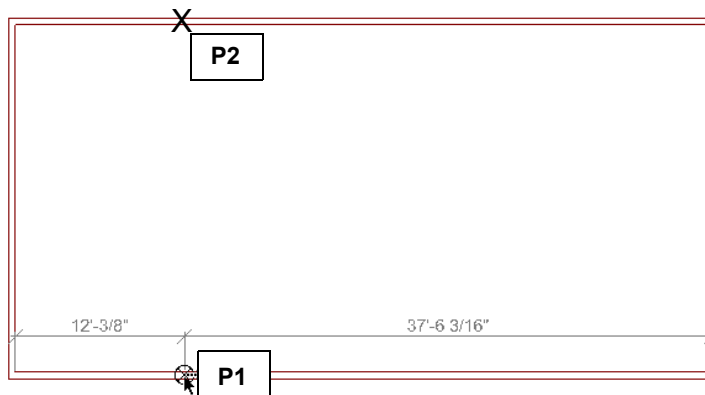
With the exterior walls in place we can start drawing the interior walls. On-screen dimensions help you position walls easily.

We will create the interior wall layout shown below.



Interior Wall Layout

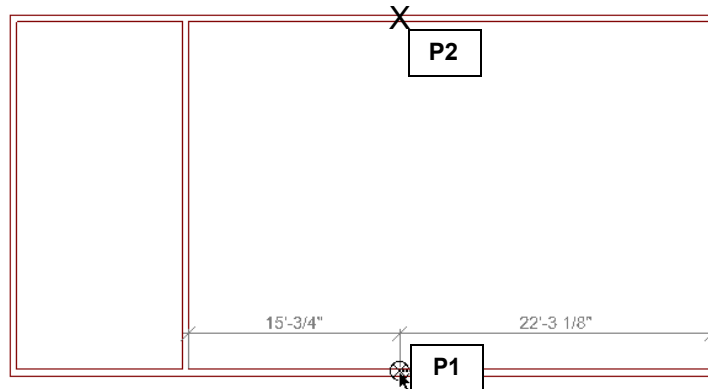
1. Select **Insert > Walls**, or click the Walls button on the Building toolbar.
2. In the catalog panel, double-click the **Interior Walls** folder to expand it, then select the **4" Wood Framed Wall**.
3. Referring to the diagram below, hover your cursor over the bottom exterior wall. When the left on-screen dimension reads approximately **12'**, click inside the bottom wall to specify the start point of the first interior wall (**P1** in the diagram).



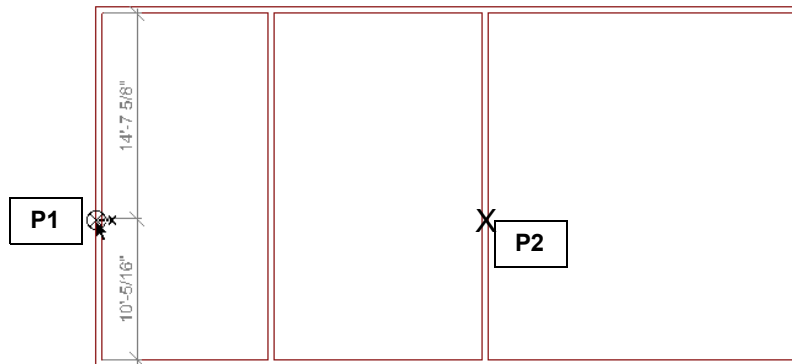
4. Move your mouse toward the top exterior wall, then click inside that wall to specify the wall's endpoint (**P2** in the diagram). The first interior wall is inserted and automatically forms clean intersections with the exterior walls.

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- Wall B is another vertical wall positioned 15' to the right of the wall you just drew. Referring to the following diagram, hover over the bottom exterior wall and watch the on-screen dimensions. When the left dimension reads approximately **15'**, click to select **P1**.



- Move your mouse toward the top exterior wall and select **P2**.
- Wall C is a horizontal wall positioned 10' from the bottom exterior wall. Referring to the following diagram, hover over the left exterior wall. When the bottom dimension reads approximately **10'**, click to select **P1**.



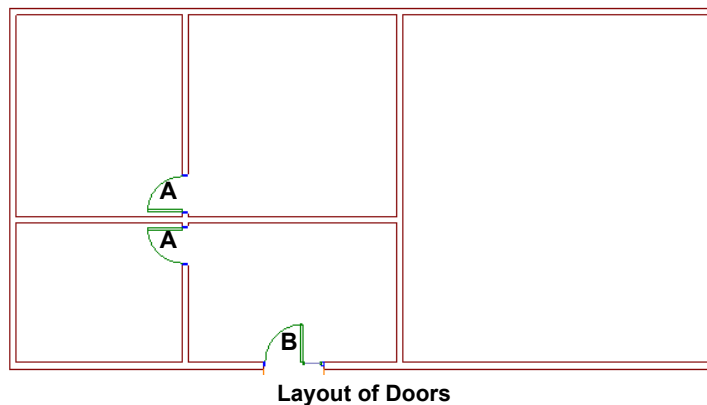
- Move your cursor to the right and click inside Wall B (**P2** in the diagram).
- Right-click and select **Finish**.
- Select **File > Save**.

Inserting Doors

The catalog includes a wide variety of door types that you can insert by pointing and clicking. Once you have selected a door, all you have to do is click in a wall to insert it. As you position the door, running dimensions appear on either side.

Because doors are intelligent elements, they fit themselves into walls and become part of them automatically. However, you can edit doors separately from the walls that contain them.

The following diagram illustrates the doors we will be inserting:



1. Select **Insert > Doors**, or click the Doors button on the Building toolbar.
2. In the catalog panel, select the **30" Hinged Door** in the **Hinged** folder. The door is attached to your cursor.



We will insert two 30" hinged doors in the drawing, marked 'A' in the diagram.

3. Referring to the diagram, position the first door **A** in the wall where it is to be inserted. When the door is approximately **3"** from the horizontal interior wall, click to insert the door. Don't worry if the door is swinging the wrong way. We'll flip it later.
4. Insert the other hinged door as shown in the diagram.
5. In the catalog panel, open the **Entry** folder, then select the **32" Solid Wood Door w/ Sidelite**. This is door **B** in the diagram.
6. Insert the door in the approximate center of the wall that is between the two vertical interior walls. While you are positioning the door, you may need to pull upward slightly to get the door to swing to the inside of the model.
7. Right-click and select **Finish**.

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Flipping Door Swings

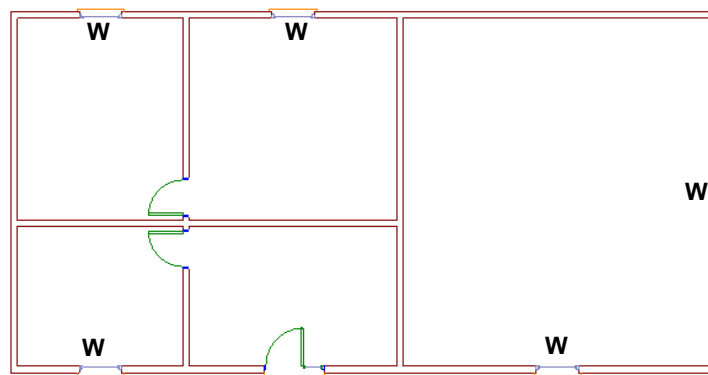
The **Flip Swing** command lets you instantly flip a door's hinge side. Let's do this now.

1. Click on a door whose swing needs to be flipped (refer to the previous diagram).
2. Right-click in the drawing area and select **Flip Swing**. The swing is flipped. If you need to flip another door's swing (so the door matches the diagram), go ahead and do so now.
3. Save the drawing.

Inserting Windows

The catalog contains a wide variety of window types and sizes. You can insert windows just like doors — just point and click.

1. Select **Insert > Windows**, or click the Windows button on the Building toolbar.
2. In the catalog panel, open the **Casement** folder, then select the **3' x 5' Casement Window**. 
3. Right-click in the drawing area and select **Center on wall**. Note that this option is also available for doors and openings.
4. Insert the five windows shown in the diagram below. Each will automatically snap to the center of the wall as you position it. When positioning each window, you may need to pull slightly to the inside of the model to get it to snap to the center.



Window Layout

5. Right-click and select **Finish**.
6. Save the drawing.

Inserting Openings

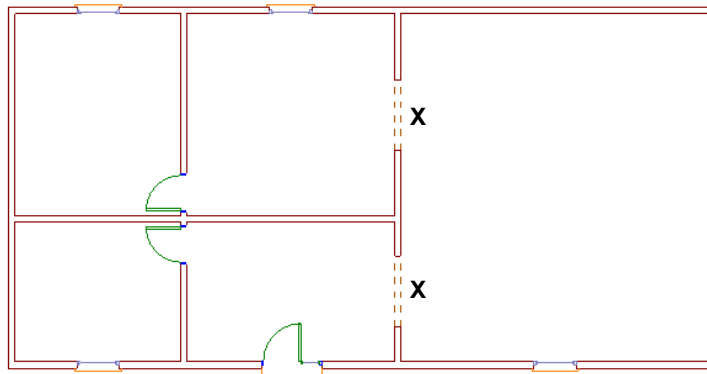
An opening is a cutout in a wall of a specific shape, width and height.

Once you have selected an opening from the catalog, all you have to do is click in a wall to insert it. As you position the opening, running dimensions appear on either side.

Because openings are intelligent elements, they fit themselves into walls and become part of them automatically. However, you can edit openings separately from the walls that contain them.

Let's insert a couple of openings in the model. We'll use the handy **Center on wall** option to center the openings on the wall.

1. Select **Insert > Openings**, or click the Openings button on the Building toolbar.
2. In the catalog panel, open the **Arched (Doorways)** folder, then select the **5' Arched top Doorway**.
3. Move your cursor into the drawing area, then right-click and select **Center on wall**.
4. Insert the two openings marked with an 'X' in the diagram below. Each will be automatically centered on the wall.



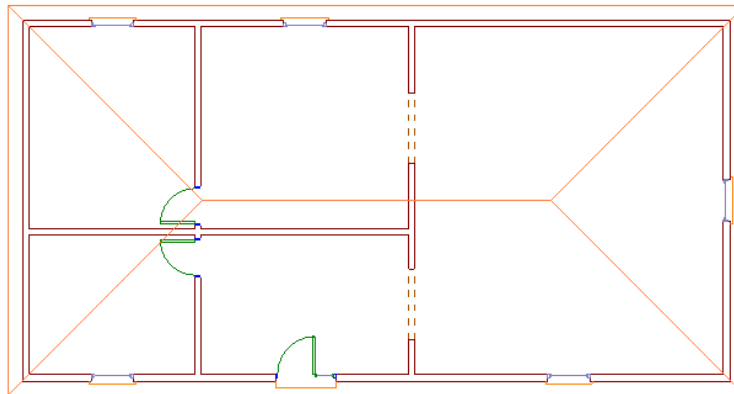
5. Right-click and select **Finish**.
6. Save the drawing.

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Inserting a Roof

Now let's finish off the model with an automatic roof.

1. Select **Insert > Roof by Perimeter**, or click the Roof by Perimeter button on the Building toolbar.
2. In the catalog panel, select the **4/12 Asphalt Shingle Roof**.
3. Click anywhere inside the model. A roof is inserted.



Completed Model

Viewing the Model

Envisioneer Express provides a variety of options for viewing your design. You can easily switch between 2D plan view and 3D view as often as you like while working.

3D views are controlled by a camera which you can move or adjust to change the view. You can also add more cameras for additional 3D views of the model. While in a 3D view you can also use the dynamic navigation commands, such as **Walk Around** and **Fly Around**, to view your model in an animated state.

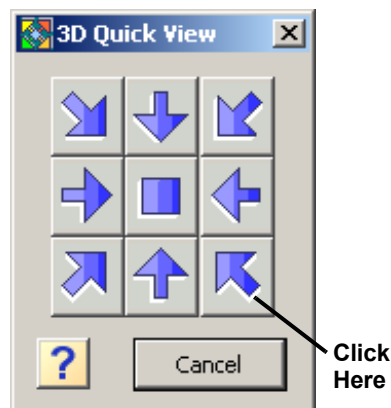
Let's switch to 3D view now and learn how to use some navigation commands.

Switching to 3D View

You can instantly switch to 3D view by selecting either the 3D QuickView or 3D Camera View tool. The 3D Quick View tool lets you choose a preset viewing angle for quick 3D viewing. The 3D Camera View tool displays a 3D perspective view of your model which you can adjust by controlling the view's camera.

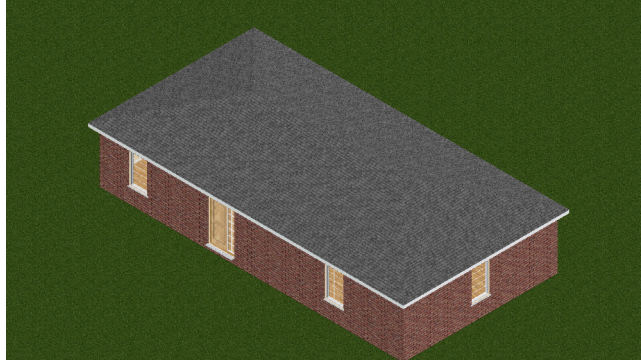
To view a 3D Quick View:

1. Select **View > 3D Quick View**, or click the 3D Quick View button on the View Control toolbar.
2. In the **3D Quick View** dialog, click the lower right arrow.



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The model is displayed in 3D from a Southeast viewpoint.



3D Quick View

If you need to zoom out, select **View > Zoom and Navigate > Zoom Out**, or click the Zoom Out button on the Zoom and Navigate toolbar in the lower right corner of the screen.



Next let's try the 3D Camera View.

To view a 3D Camera View:

1. Select **View > 3D Camera Views > 3D Perspective**, or click the 3D Camera Views button on the View Control toolbar and select **3D Perspective**.



3D Perspective

In a 3D Perspective view, the scale of an element decreases according to its distance from the viewer, creating a real-world view.

Walking Around

The **Walk Around** tool lets you walk forward, backward, left or right while in a 3D camera view. You can even walk inside the model! Let's walk around and take a look at the model now.

1. Make sure you are still in the 3D Perspective camera view.
2. Select **View > Zoom and Navigate > Walk Around**, or click the Walk Around button on the Zoom and Navigate toolbar.
3. Click and hold down your left mouse button, then drag to walk around.
 - To walk forward, drag upward.
 - To walk backward, drag downward.
 - To walk left or right, drag left or right.



Flying Around

The **Fly Around** tool revolves the camera around the target, which by default is at the center of the model. This creates a spinning effect.

1. Select **View > Zoom and Navigate > Fly Around**, or click the Fly Around button on the Zoom and Navigate toolbar.
2. Click and hold down your left mouse button, then drag to fly around.
 - To rotate the model clockwise, drag to the right.
 - To rotate the model counterclockwise, drag to the left.
 - To make your model tilt downward (like a boat coming off a wave), drag toward the top of the screen.
 - To make your model tilt up (like a boat riding onto a wave), drag toward the bottom of the screen.



Resetting the Camera

If you have moved the camera or lost your orientation in your 3D view, you can use the **Reset Camera** tool to move the camera back to the position it was in before you started navigating around.

1. To reset the camera, select **View > Zoom and Navigate > Reset Camera**, or click the Reset Camera button on the Zoom and Navigate toolbar.



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Changing the Display Mode

By default, your design is displayed in Wireframe mode when you are in 2D plan view. When you switch to a 3D view, the default display mode is Rendered mode, which displays textures and colors. There are five display modes that you can choose from.

To change the display mode of the current view:

1. Select **View > Display Mode**, or click the Display Mode button on the View Control toolbar. Then, make a selection from the flyout.
2. Go ahead and experiment with the display modes now. Each one is described below.



Wireframe. Provides a skeletal representation of elements, creating a “see-through” view.



Hidden Line. Lines that you wouldn't normally see are hidden from view, creating a solid, non-color view.



Rendered. Applies textures and colors to element surfaces, creating a realistic view.



Rendered Outline. Same as the Rendered display mode, except surface edges are also outlined with a single, black line for high definition.



Patterned. Patterns of lines (hatching) are applied to the surfaces of elements. For example, brick walls will have a brick pattern displayed.

Switching Back to 2D Plan View

When you are in a 3D view, you can switch back to 2D plan view at any time using the **2D Plan View** tool. Let's do this now.

- Click the 2D Plan View button on the View Control toolbar.
or
- Select **View > 2D Plan View**.
or
- Right-click in the drawing area and select **2D Plan View**.



Congratulations!

You have successfully completed the *Quick Start Tutorial*. By completing the tutorial you have learned the basics of:

- Model building
- 3D viewing
- Navigation

You are ready to start your own projects!

Need help? Select **Customer Care** from the Help menu to access the Cadsoft support web site, or go to <http://www.cadsoft.com/support.php>.

Moving Up to Envisioneer

Envisioneer Express is a quick, compact version of *Envisioneer*, an award-winning, all-in-one design system for building and design professionals. In addition to modelling and viewing, *Envisioneer* offers the following features:

- More elements (HVAC, equipment, etc.)
- Terrain modeling (slopes, hills, etc.)
- Site design (fences, decks, patios, etc.)
- Landscaping
- Photorealistic rendering
- Animations
- Budget and materials list
- Schedules
- Element customization
- Import/export tools
- Drafting tools
- Text and dimensions

To purchase or get more information about *Envisioneer*, please contact Cadsoft at:

Telephone: 1-888-223-7638

E-mail: sales@cadsoft.com

Web: www.cadsoft.com

