# AC3D
ACE Skill Builder Series

Worksheet 1: Using the views

AC3D has three 2D orthographic views: Front, Top, Side, and one 3D view.
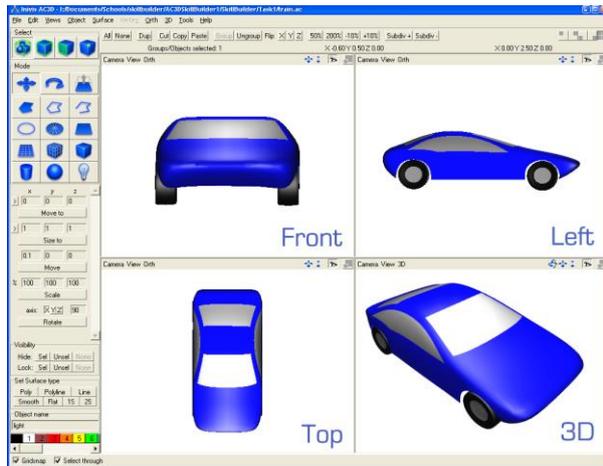
Glossary

Orthographic projection - A 2D view of a 3D object from a particular angle

Task 1a

From the File menu, select 'Open' and load in 'models/SkillBuilder/Task1/house.ac'.

Describe what you see in each of the three orthographic windows:

Front
Top
Left
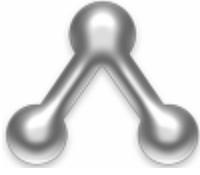
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Worksheet 4: Revolving lines to create new shapes

The Revolve function is in the Object menu. It creates 3D shapes by 'sweeping' a 2D profile around an axis.

By drawing and revolving lines, a whole range of new objects can be created.

Task 4a

Work in the Front (XY) window. Make sure the select panel is set to either 'Object' or 'Group' mode.

Set the mode to 'Line' by clicking on the line button in the control panel.

Draw a line similar to this picture. Note the position of the line in relation to the axis lines.

Click the left mouse button to add each vertex and press the right mouse button to finish.

With the line selected, select the menu 'Object->Revolve'.

Select the settings shown here (axis set to 'X') and then click on the Revolve button.
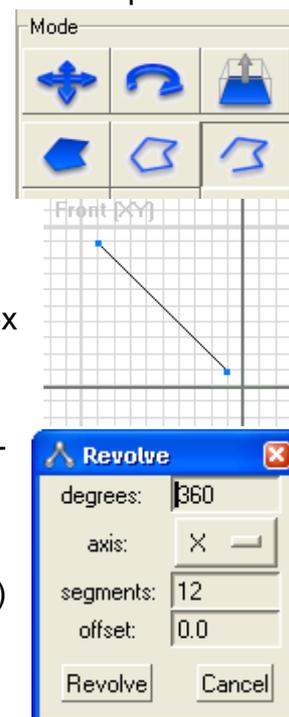
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Worksheet 6: Virtual Reality

In addition to viewing your model by spinning the 3D view, AC3D allows you to 'walk' around inside your 3D models. This is done by switching the 3D view into 'walk' mode and using the cursor keys on the keyboard to move around.

Task 6a

Maximise the 3D view by moving the mouse pointer inside the 3D window and pressing the space key (you can press space again to return to the four views). You can also press ⬚ to do the same.

Use 'File->Open' to load 'SkillBuilder/Task6/estate.ac'.

After loading the model, unselect everything by pressing the 'None' button on AC3D's toolbar.
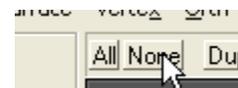
AC3D starts with the 3D view in 'spin' mode. Switch it to 'walk' mode by selecting the menu (at the top of the 3D window) 3D->Walk (you can also do this by pressing the '2' key when the mousepointer is over the 3D window). Make sure that the Eye button is pressed down.