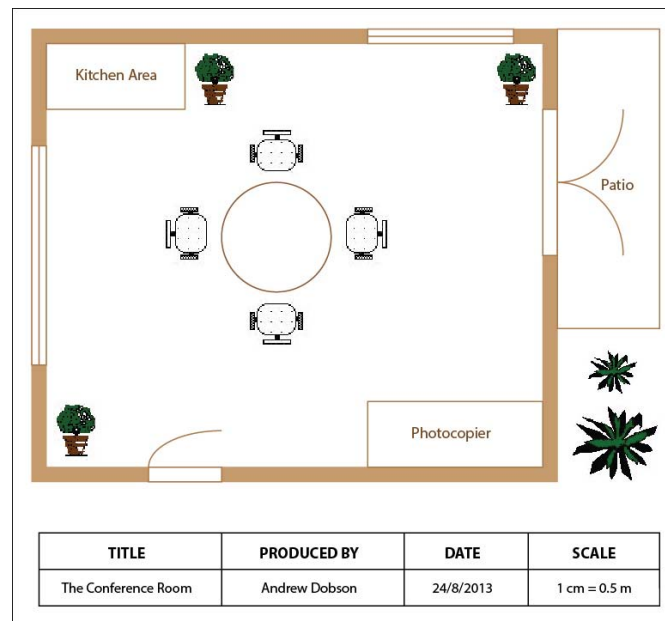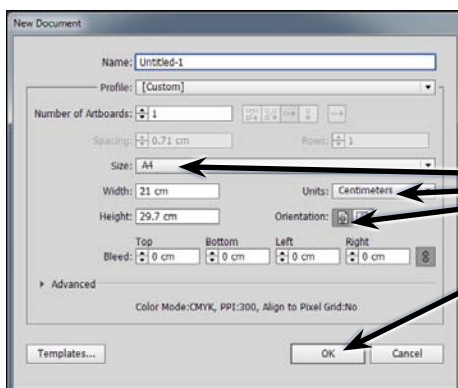# Creating Accurate Designs

Adobe Illustrator provides tools to create highly accurate designs, some of which in the past have required a dedicated and expensive Computer Aided Design program. To illustrate how to produce an accurate design, the following Conference Room diagram will be created.

TITLE	PRODUCED BY	DATE	SCALE
The Conference Room	Andrew Dobson	24/8/2013	1 cm = 0.5 m

Starting a New Document

1   Load Adobe Illustrator CS6 or close the current file and select NEW from the FILE menu to start a new document.
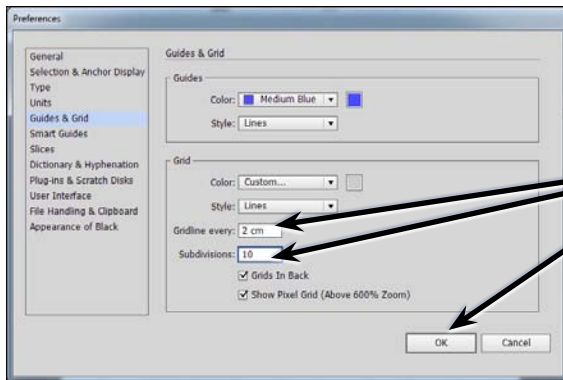

2 Set the SIZE to A4 (or the paper size your printer uses), the UNITS to CENTIMETRES, the ORIENTATION to PORTRAIT and select OK.

3   Use the VIEW menu to turn on SHOW RULERS, SHOW GRID and SNAP TO GRID.

Setting the Scale

You should select an appropriate scale for a design such as this. A scale might be 1 cm = 1 m or 1 cm = 1 km, etc. So that the conference room will fit neatly on the page we will use a scale of 1 cm = 0.5 m. To do this a slightly more accurate grid will be used.
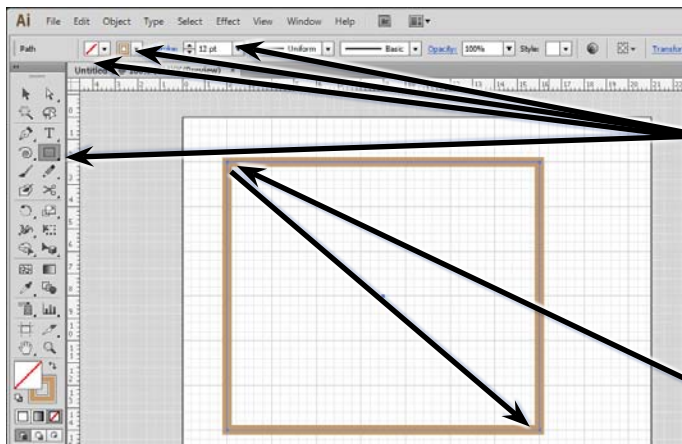
1   Display the EDIT menu on the Windows system or the ILLUSTRATOR menu on the Macintosh system, highlight PREFERENCES and select GUIDES & GRID.

2   Leave the GRIDLINES EVERY as 2 cm, enter 10 in the SUBDIVISIONS box and select OK.

Entering the Walls of the Room

We will use thick shaded lines to produce the outline of the room.

1   Set the view to 100%, select the RECTANGLE TOOL, set the FILL COLOUR to NONE, the STROKE COLOUR to LIGHT BROWN and the STROKE WEIGHT to 12 pt.
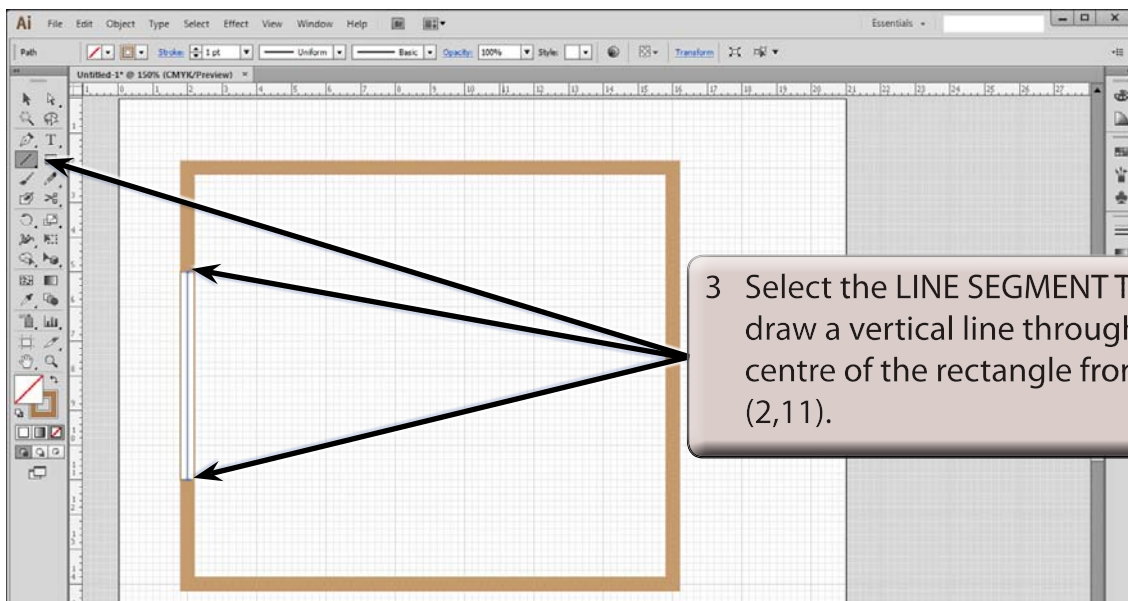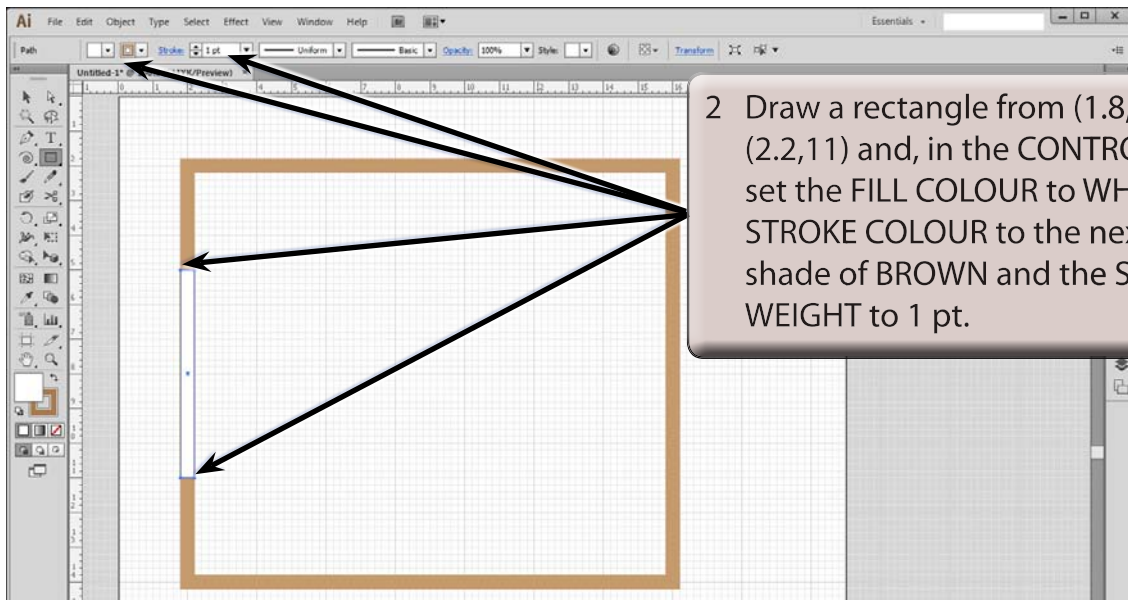
2   Drag a rectangle from 2 cm in the top Ruler and 2 cm in the left Ruler (2,2) to 16 cm in the top Ruler and 14 cm in the left Ruler (16,14).
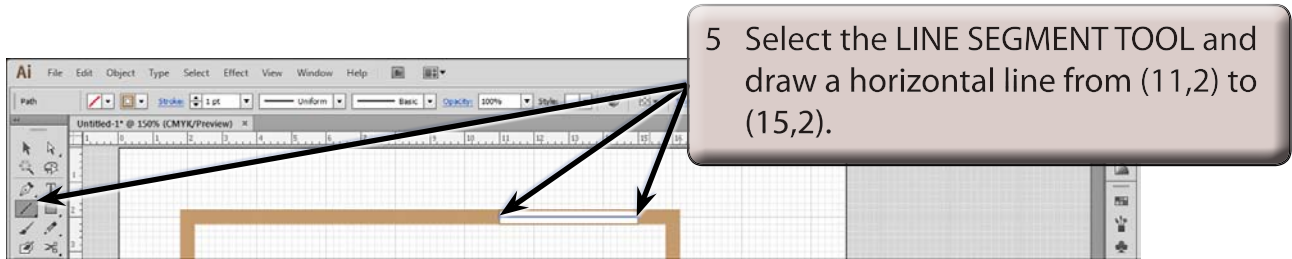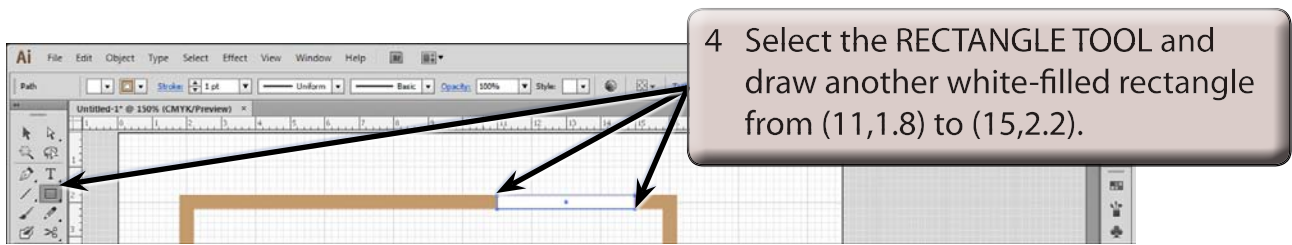
NOTE: This has drawn a rectangle that represents 7 m across (14 cm on the screen) and 6 m down (12 cm on the screen).

Adding the Windows

Windows are usually represented by a thin rectangle with a line through it.

1   Increase the zoom to 150% using CTRL+ or COMMAND+ and scroll to the rectangle.

2   Draw a rectangle from (1.8,5) to (2.2,11) and, in the CONTROL panel, set the FILL COLOUR to WHITE, the STROKE COLOUR to the next darker shade of BROWN and the STROKE WEIGHT to 1 pt.

3   Select the LINE SEGMENT TOOL and draw a vertical line through the centre of the rectangle from (2,5) to (2,11).

4 Select the RECTANGLE TOOL and draw another white-filled rectangle from (11,1.8) to (15,2.2).

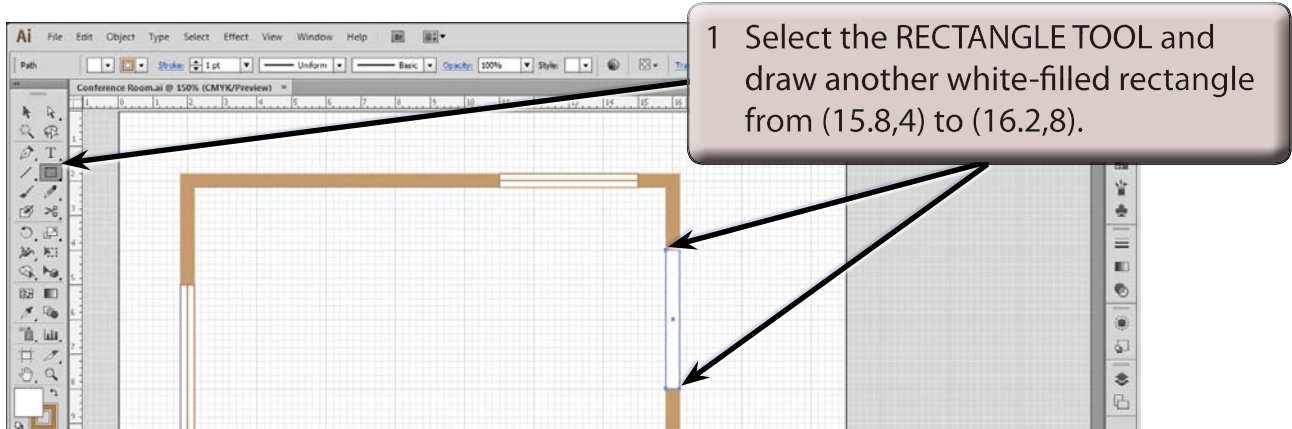5 Select the LINE SEGMENT TOOL and draw a horizontal line from (11,2) to (15,2).

6 Save the document in your STORAGE folder as:

Conference Room

Adding the Doors

We will represent the doors with a rectangle and an arc attached to it. There are two sets of doors required, one set of double doors and one single door.

1 Select the RECTANGLE TOOL and draw another white-filled rectangle from (15.8,4) to (16.2,8).

2 Select DESELECT from the SELECT menu (or press SHIFT+CTRL+A or SHIFT+COMMAND+A) to deselect the rectangle.