

# Chief Architect®

# X4

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## Displaying Terrain



The display of terrain objects in 2D and 3D views is controlled in the **Layer Display Options** dialog. See [Layer Display Options Dialog](#).

You can customize appearance of Terrain Features, Roads and other terrain objects in floor plan view by changing their line and fill styles. See [Terrain Object Specification Dialogs](#).

Plant images are represented in floor plan view by 2D CAD symbols. You can select a plant's symbol in the **Plant Image Specification** dialog. See [Image Tab](#).

### Contour Lines

When elevation data has been drawn or imported into a plan, contour lines will display in floor plan view. See [Elevation Data Tools](#).

Chief Architect can produce both primary and secondary contours. They are on two different layers so you can control their display separately. Contour line labels use the Text Styles assigned to the "Terrain, Primary Contours" and "Terrain, Secondary Contours" layers.

By default, all contour lines are set to be primary, but you can specify secondary contours, frequency and other attributes of contour lines in the **Terrain Specification** dialog. See [Contours Tab](#).

### In 3D Views

In order for objects such as Terrain Features and Roads to be visible in 3D views, the Terrain Perimeter layer must also display. In addition, only the portions of these objects that are drawn within the Terrain Perimeter will be seen in 3D views. See [Terrain Feature Tools](#).

A variety of tools are available to help you adjust the perspective of your 3D views. See [Editing 3D Views](#).

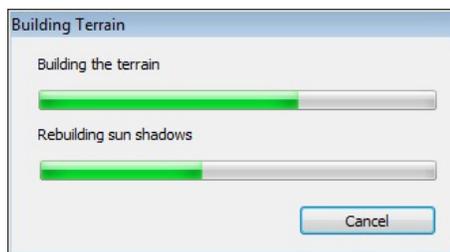
### Building the Terrain



When terrain is generated, Chief Architect gathers all elevation data that has been added to the model and creates a terrain surface. The program interpolates the data to produce smooth contours.

A terrain perimeter with no additional elevation data drawn within it generates terrain that is flat at the elevation 0' - 0", or sea level.

By default, the terrain is automatically built before a 3D view is generated and when a sun shadow is created. This process takes a variable amount of time, depending on the amount of elevation data and number of terrain features in the plan. The **Building Terrain** progress dialog displays as terrain is generated, sometimes only briefly, indicating the progress.



You can turn off **Auto Rebuild Terrain** in the **3D Settings** dialog for 3D views and in the **Sun Angle Specification** dialog for sun shadows, and rebuild the terrain

manually only when needed by selecting **Terrain > Build Terrain** . When **Auto Rebuild Terrain** is turned off and the terrain is not up to date, the Rebuild Terrain  icon displays near your mouse pointer. See [Options Tab](#) and [Earth Data Tab](#).

### Terrain & 3D Drawing Time

Terrain is typically large with many surface triangles, which often increases the drawing time of 3D views. The time required is affected by the quality of the terrain, the amount of elevation data and number of terrain features present. For information about surface triangles and how they influence terrain quality, see [General Tab](#).

Lights and symbols can be placed outdoors and included in 3D views when the terrain is generated. These objects can also contribute to the time needed to generate 3D views. See [Rendering Tips](#).