

Planting Plans

VectorWorks Landmark has a flexible system for creating planting plans and automated plant lists. This chapter examines the different components of the system, as well as some of the different approaches for the creation of planting plans. Landmark has a selection of predefined plant graphics and also provides tools for creating plant objects from customized 2D and 3D symbols.

Plant information is another component of the system. Plant information consists of both a database provided with Landmark that includes over 1100 plant types, as well as associated information that you'll add, such as specified size, cost, schedule notes and plant ID codes.

When a plant is chosen and placed on the drawing using the *Place Plant Tool*, a parametric object is created that combines the graphic of the symbol with the plant information. Because the data is attached to the plant object, a plant list can be automatically generated from the drawing.

Within the parts of this system, there's a great deal of flexibility in how a planting plan can be created.

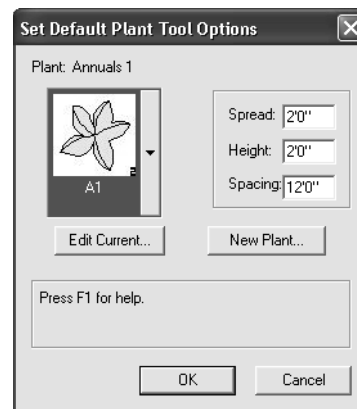
PLACE PLANT TOOL

The *Place Plant* tool is used to define as well as add plants to the drawing. Choose the tool, then click on the page to open the *Set Default Plant Tool Options* dialog box. If this is not the first time this tool has been used in this drawing, click the *Settings* button in the mode bar to access the dialog box. In this dialog box it is possible to choose a plant definition, as well as to set *Spread*, *Height* and *Spacing* for the active definition.

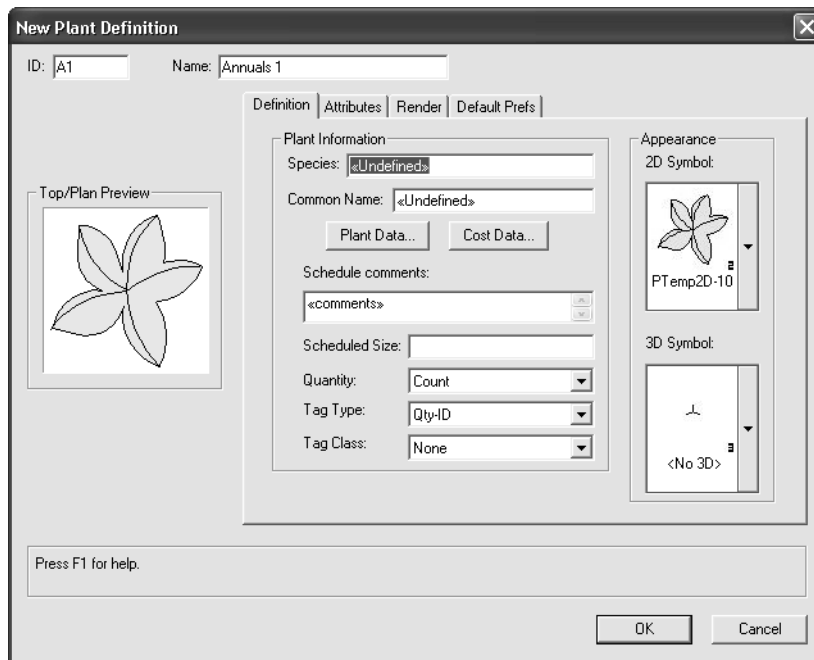
CREATING NEW PLANT DEFINITIONS

Use this process to create a new plant definition from the default graphics.

- Choose the *Place Plant Tool* from the Site Planning tool set in the Tool Sets palette.
- Click the *Place Plant Tool*'s Settings button in the mode bar.
- Select a plant that is close to the one that is to be created.
- Click the *New Plant* button in the *Set Default Plant Tool Options* dialog box, to open the New Plant Definition dialog box.



Under the **Definition** tab both **Plant Information** and the **Appearance** of the 2D and 3D Symbols can be changed. The available 2D and 3D graphics come with Landmark by default when the program is installed. Plants can also be created from custom symbols that suit a particular graphic standard or personal preference. For more info on how to create your own plant 2D and 3D graphics and symbols, see the section on Creating Custom Plant Graphics later in this chapter.



The Definition tab of the New Plant Definition dialog box

The **ID** is a code used when plant tags are added, and can be used to cross-reference plants on the drawing with the plant schedule. The **Name** is used during the plant selection process, but does not need to match the common or botanical name.

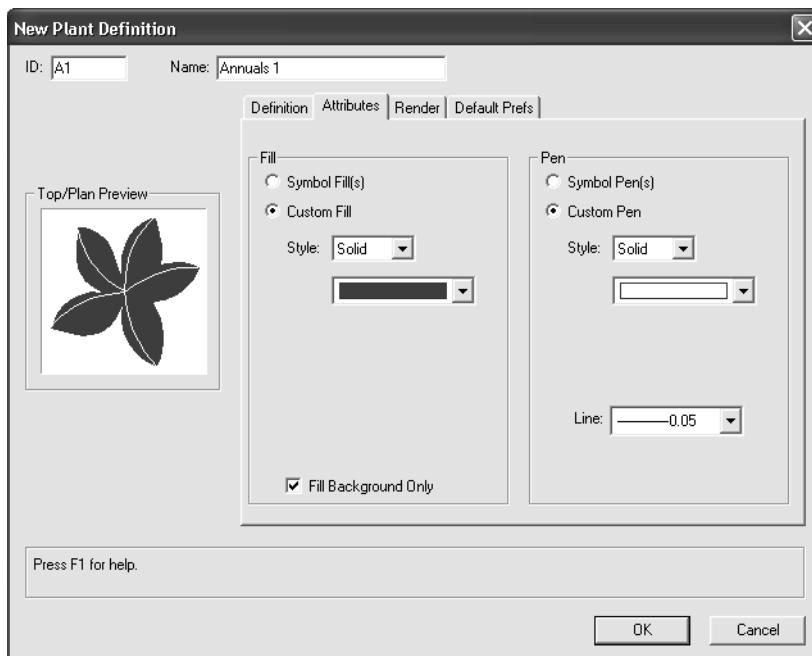
Plant information can be added either directly in the **Species** and **Common Name** fields or by clicking the **Plant Data** button which links to the **Plant Reference Database**. Further information on accessing and editing this database is provided in the section on the Landmark Plant Reference Database. Click the **Cost Data** button to enter a **Price Code (SKU)** as well as a **Unit Price**. These values, together with **Schedule Comments** and **Scheduled Size** are important when generating planting schedules and are discussed further in the section on Plant Lists.

A tag in Landmark is a graphical label which is displayed on the drawing and allows quick and easy cross referencing between individual plant objects and the final planting schedule.

In the first popup menu, choose what **Quantity** information should show up on the tag, such as a count of plants or a measurement of the planting area's dripline area or boundary area.

In the **Tag Type** popup menu, it's possible to specify how the information will be displayed. A typical combination may be **Qty-Species**, indicating that the **Quantity** of plants being labeled and the botanical name of the plants will be displayed. Setting a **Tag Class** gives added control over the graphical appearance and visibility of plant tags.

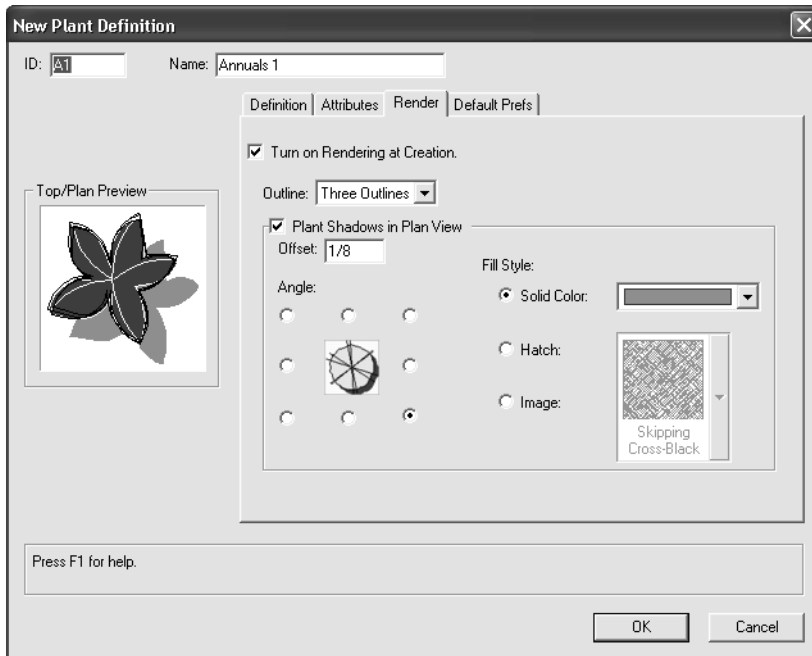
In the **Attributes** pane, it's possible to set the **Fill** and **Pen** styles much like with the **Attributes Palette**. Selecting **Custom Fill** provides access to the **Fill Background Only** setting. This limits the fill to only the background portion of the plant symbol, allowing more detailed control of the appearance of the overall plant graphic.



The Attributes tab of the New Plant Definition dialog box

Additionally, a **Fill** setting of **None** allows objects behind the plant graphic to be seen clearly. Using fill styles of hatches, gradients or images allows for extremely varied and interesting graphics. Bear in mind that these settings will override the graphic attributes of the base symbol, including where objects are assigned to classes that are set to use class styles.

Under the **Render** tab, shadow offset and angle can be set. Each plant object's shadow can have its own fill style, made from a solid color, hatch or image. **Turn on Rendering at Creation** toggles the rendering for each plant object on or off. For added stylistic effect, anywhere from one to three outlines can be chosen in the **Outline** pulldown menu. While the settings for 2D rendering can be set here, it's often desirable to leave the 2D plant rendering off until after the plants have been placed as the 2D rendering can negatively affect performance during placement.



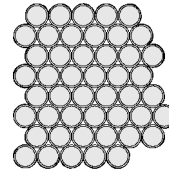
The Render tab of the New Plant Definition dialog box

To create a plant grouping showing only the overall outline rather than individual plants:

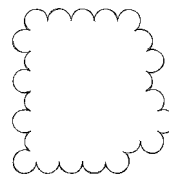
- Choose **1, 2** or **3 Outlines**.
- With **Turn on Rendering for selected plant(s)** enabled, switch to the **Attributes** tab.
- Choose a **Custom Fill** and **Custom Pen** of **None**.

Note how when returning to the drawing, the individual plant outlines meld together into a single continuous line around the perimeter of the plant grouping. The individual plants are still counted properly and the tag displays the quantity as it would normally.

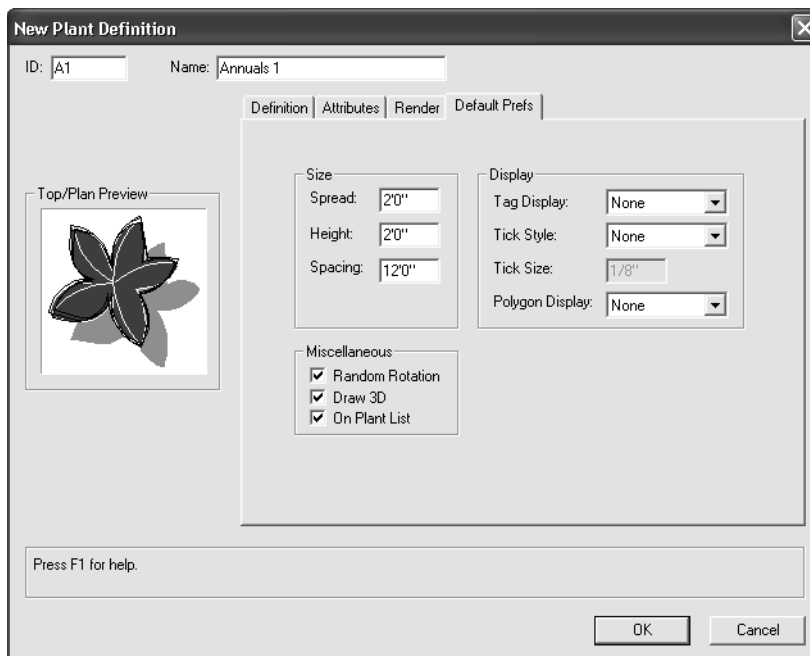
The **Default Prefs** pane gives access to the default **Size** and **Display Properties** for the plant. Selecting **Random Rotation** causes each plant object in a grouping to be rotated differently, giving a more organic look and feel. If **Draw 3D** is checked, the plant object can be displayed with its specified 3D symbol upon creation. While this is desirable in some situations, if there are a large number of plant instances in the drawing, this can reduce performance considerably. If this plant's data needs to be available for calculation as a part of a plant list or schedule, select **On Plant List**



A planting group shown as individual plants



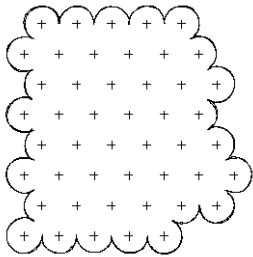
A planting group shown as a single outline



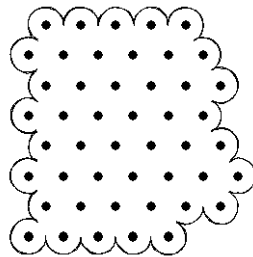
The Default Prefs tab of the New Plant Definition dialog

Plant Tags can also be set to either not be displayed or to be positioned to the left/right of a given plant object.

Tick marks in the form of crosses or dots can be shown at the center of each plant graphic. The **Tick Size** is in page dimensions, meaning the size on the printed page, not the size at the layer's scale.



Tick marks shown as Crosses



Tick marks shown as Dots

If desired, the polygon connecting multiple plants in a grouping can also be hidden by choosing **None** from the **Polygon Display** pop menu. The polygons can also be viewed by **Centers**, as a **Boundary** or **Gapped**. Each of these display modes can be viewed as **Dashed** or **Solid**.

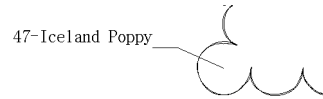
To duplicate a plant definition, select an existing plant that resembles the desired plant and click the **New Plant** button. Give the new plant a unique **ID** and make changes as required. Plants of the same species that have different characteristics should be created as unique plants within Landmark. This will help to clarify the plant schedules when they are summarized by **ID** later on.

PLACING PLANTS

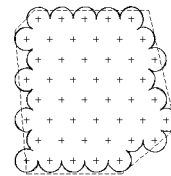
Once the settings of the default plant have been defined, use the **Place Plant Tool** in one of the five modes described below. Note that in some plant placement modes, the **Spacing** and **Spread** values are critical to the correct appearance of plant groupings.

Single Plant Placement

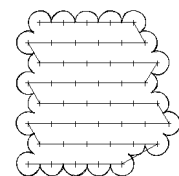
With this mode, single instances of a plant are placed with one click. Each plant will be displayed with its own tag. Single plants can be combined with others using the **Change Plant Grouping** command as discussed later in this chapter.



An example of a Plant Tag



A plant group's polygon shown as a Dashed Boundary



A plant group's polygon shown with Solid Centers

