



Autodesk *Skill Builders*

A *Skill-building Exercise*

> Drawing Styles - Objects

Understanding the drawing object and object mapping

This Skill Builder defines the term **object** and describes how to understand and use object mapping in the context of the Autodesk Inventor drawing environment.

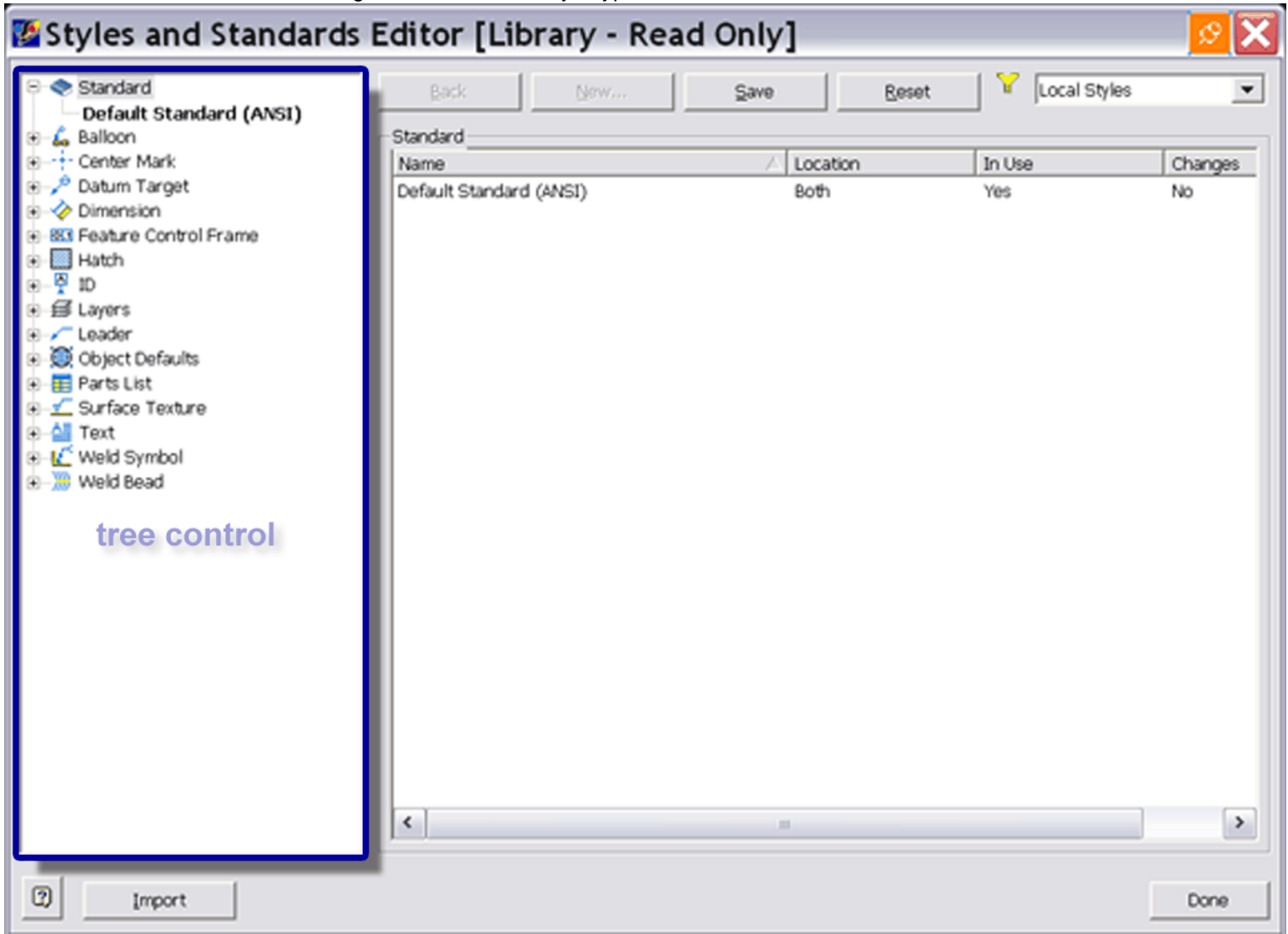
What is an object?

In the context of styles for drawings, an object is nothing more than an annotation or model geometry, in other words, any item that can be controlled by a style. For example, work points, radial dimensions, section view lines, visible view edges, and revision tags are all objects. All objects are assigned to, and subject to, a controlling style.

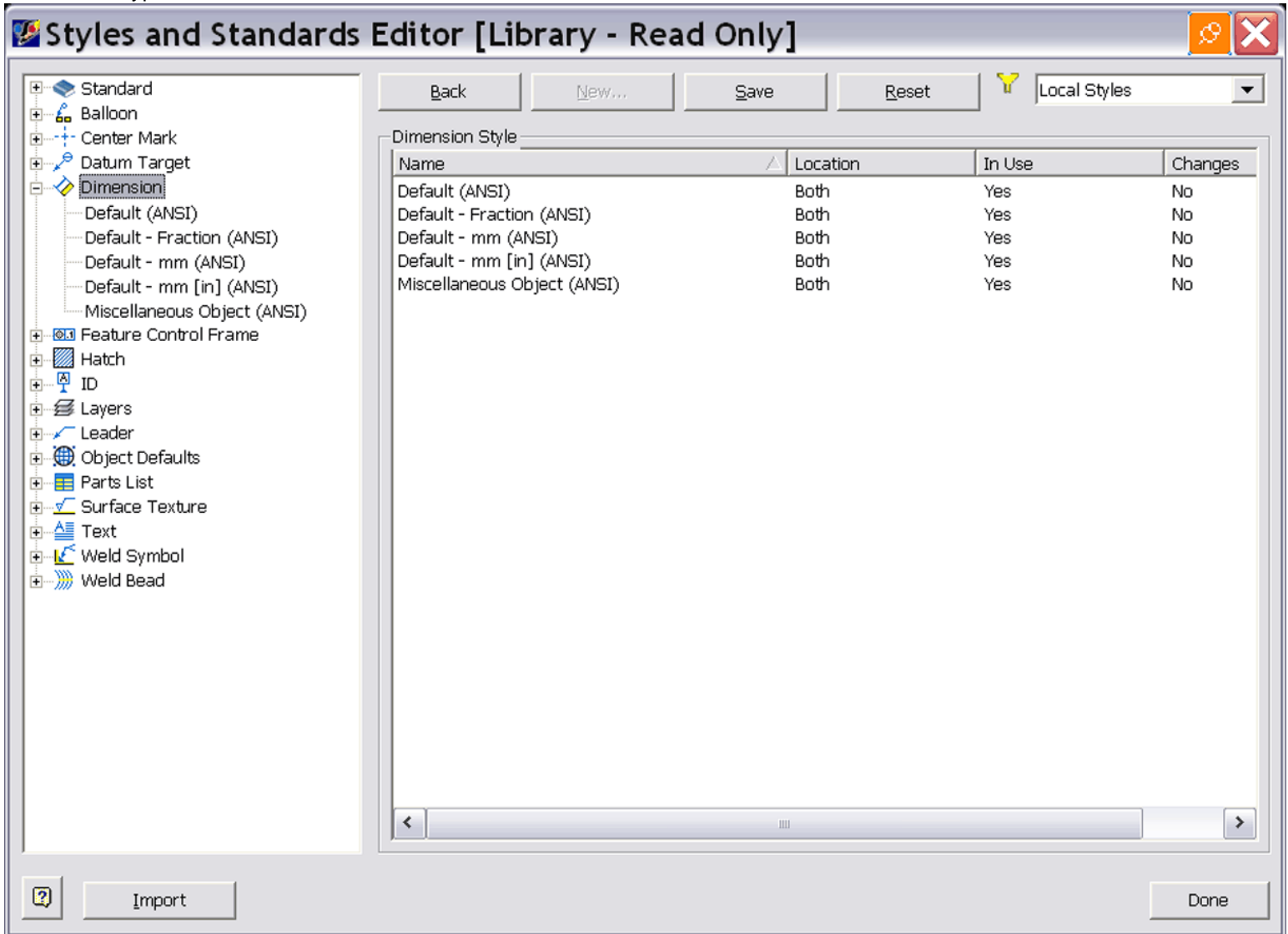
How do objects relate to styles?

Start a new drawing using the **ANSI (in).idw** template. From the Format menu on the main toolbar, select **Styles Editor**

In the Styles and Standards Editor, notice the tree control on the left side of the editor. Each top-level node represents a style type. For example, objects such as baseline dimensions, hole notes, and radial dimensions each belong to the Dimension style type.

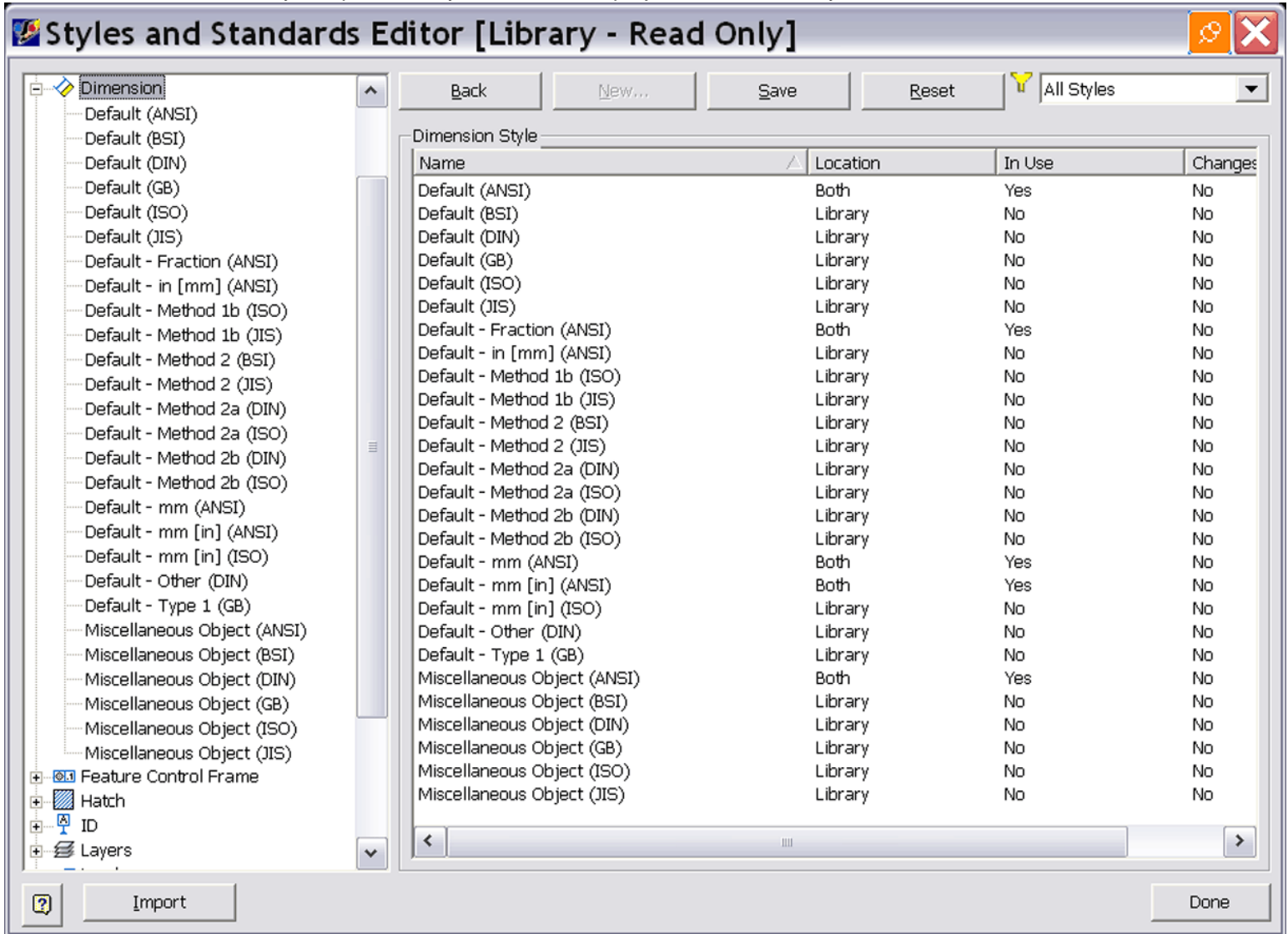


Nested under each top-level node are the style definitions that can be applied to objects that belong to that style type. Expand the **Dimension** node and notice the various default styles that are available for that style type.

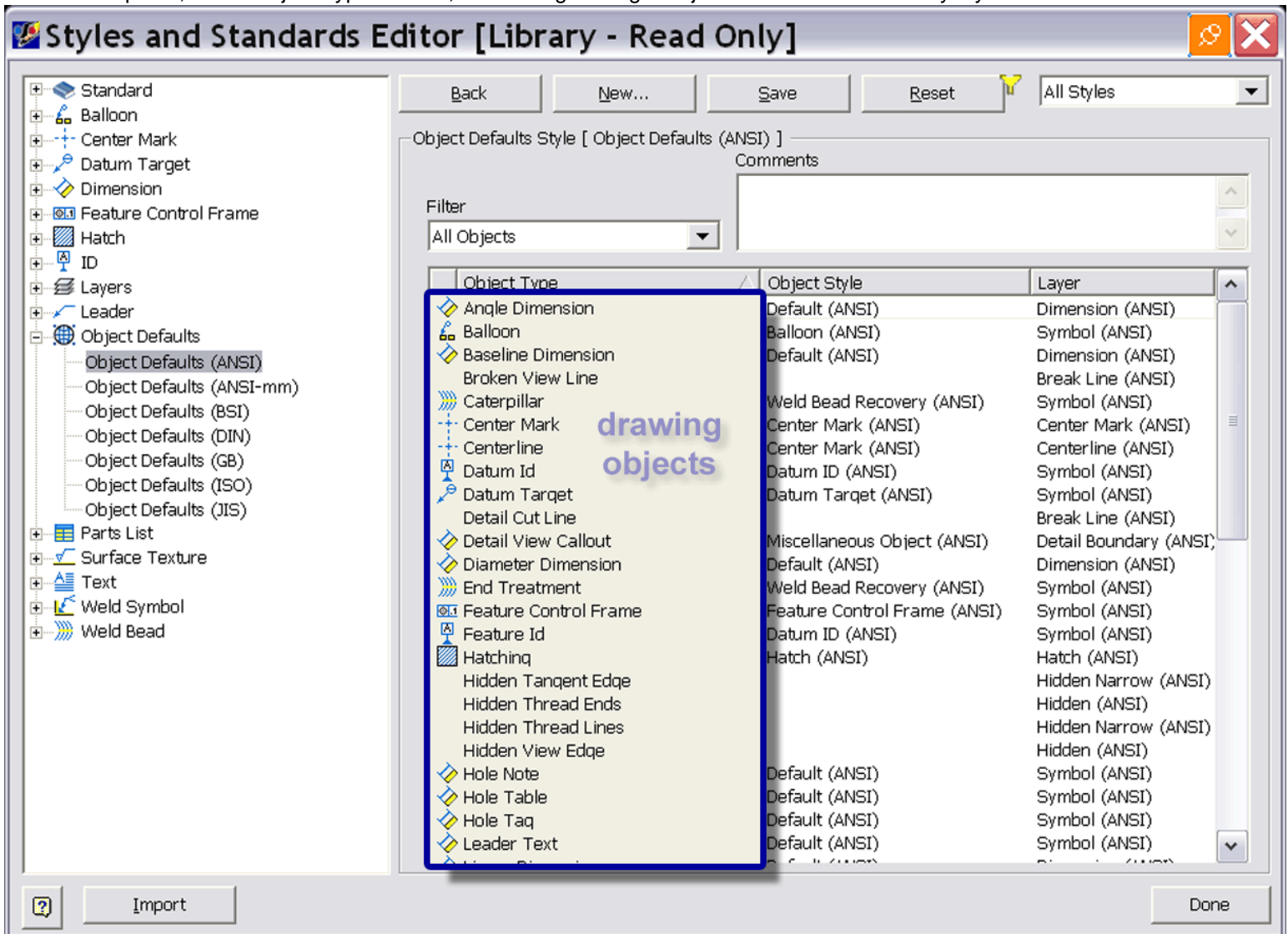


From the dialog filter at the top right of the editor, select **All Styles** from the drop-down list. Expand the **Dimension** node again and notice all default style definitions for the Dimension style type are now available. This includes all style definitions in the current document and the style library.

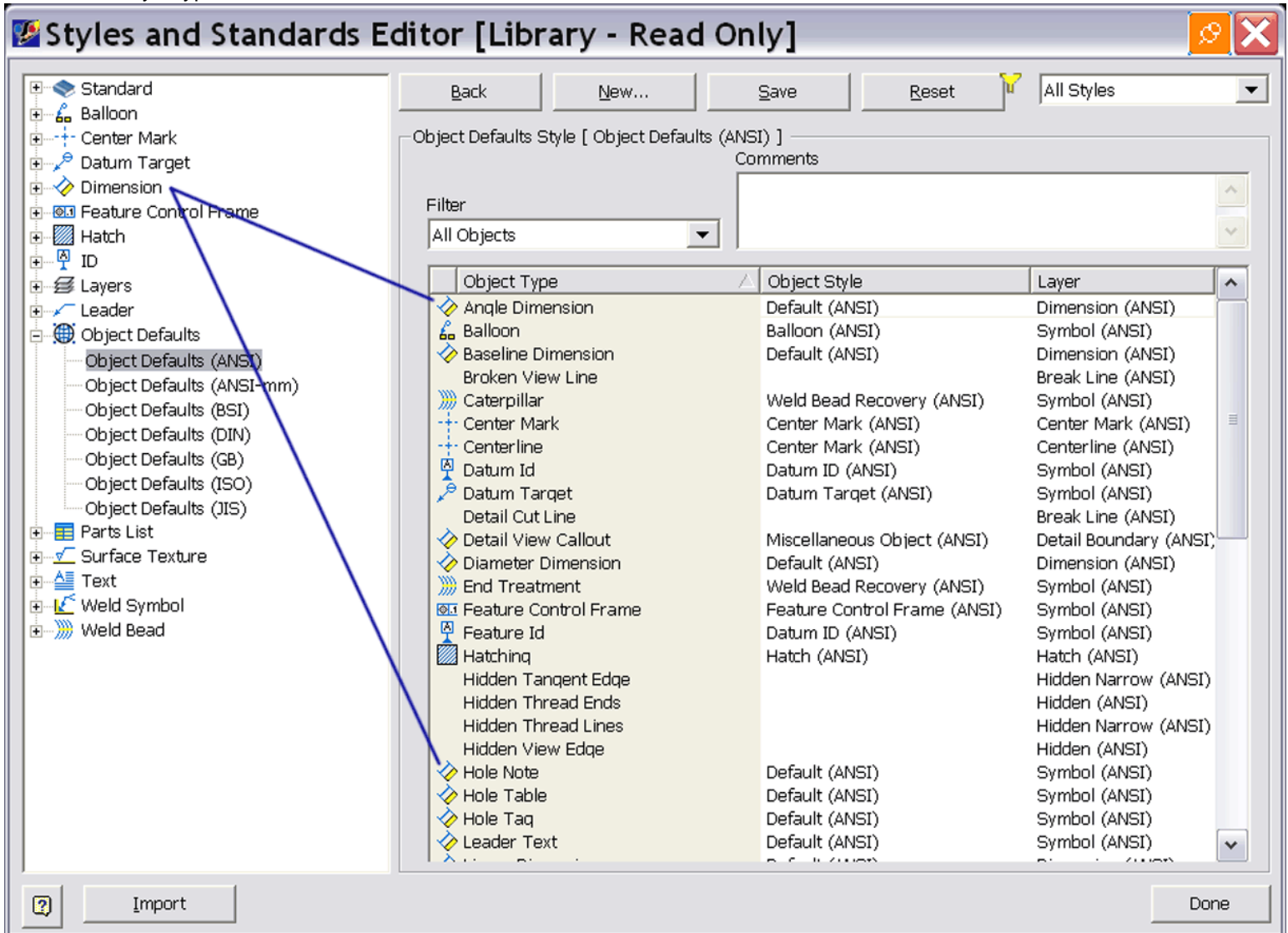
Note: The All Styles option is only available if the project is set to use styles.



Expand the **Object Defaults** node, and then select the **Object Defaults (ANSI)** subnode. In the controls panel, in the Object Type column, all drawing manager objects that are controlled by styles are listed.

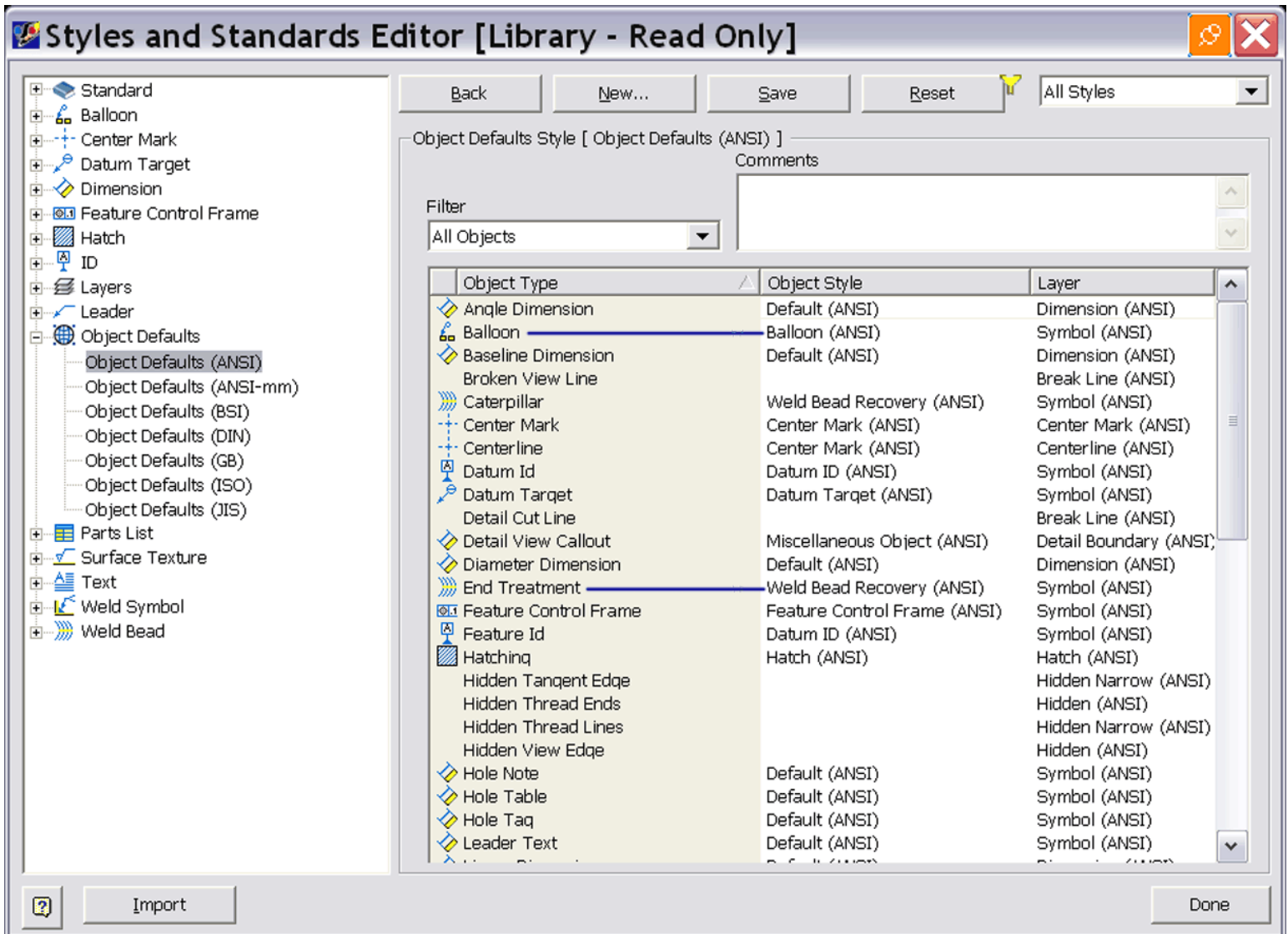


Most objects have an accompanying icon to indicate which style type controls their format. For example, notice that the Angle Dimension, Hole Note, and Thread Note objects are each formatted by the Dimension style type.



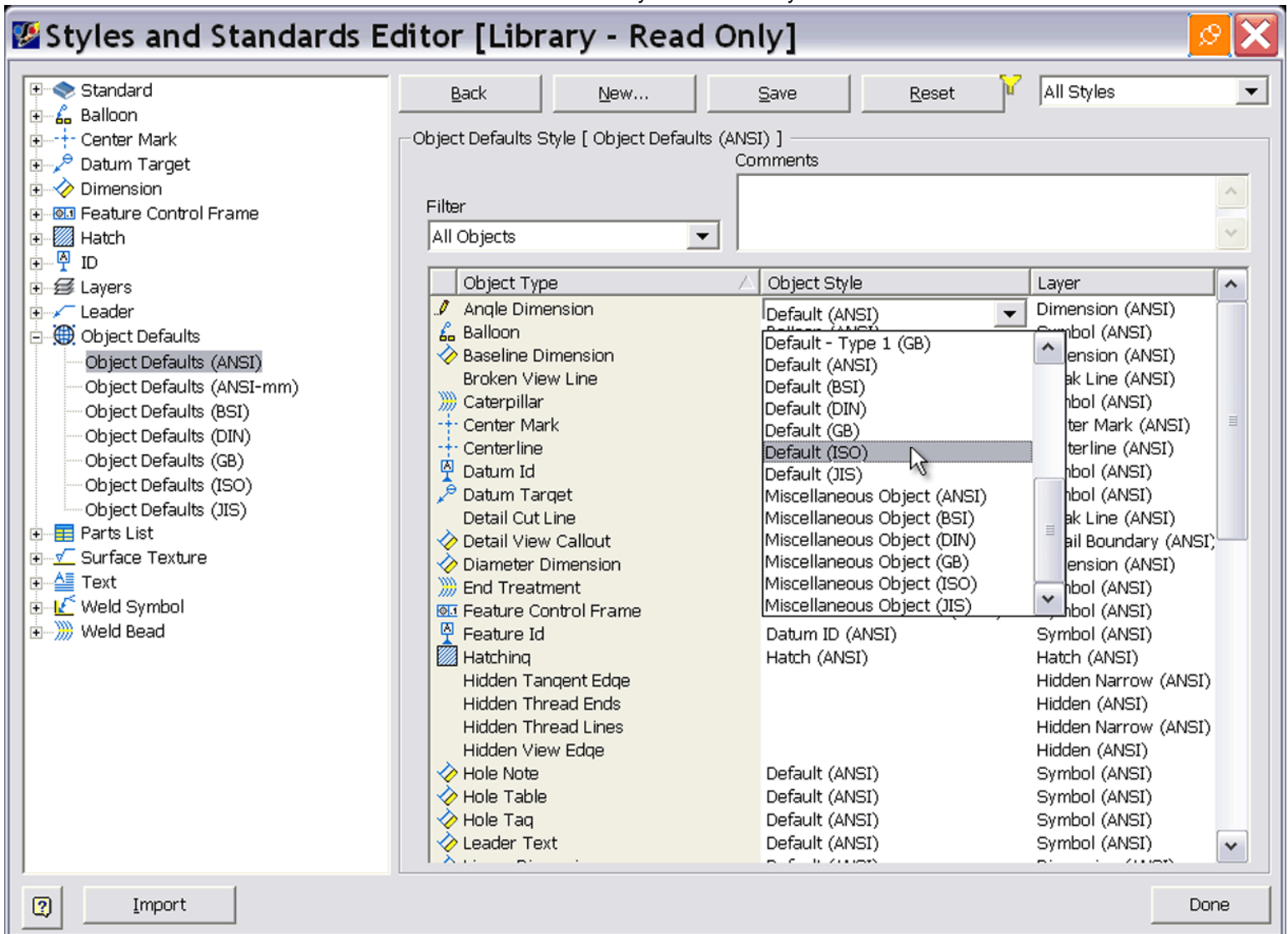
The Object Style column indicates to which style each object is assigned. For example, because we selected the Object Defaults (ANSI) style in the tree control, the Object Style column indicates that all objects are assigned, by default, to the ANSI-based style definitions. The Balloon object is assigned to the

Balloon (ANSI) style, the End Treatment object is assigned to the Weld Bead Recovery (ANSI) style, and so on.



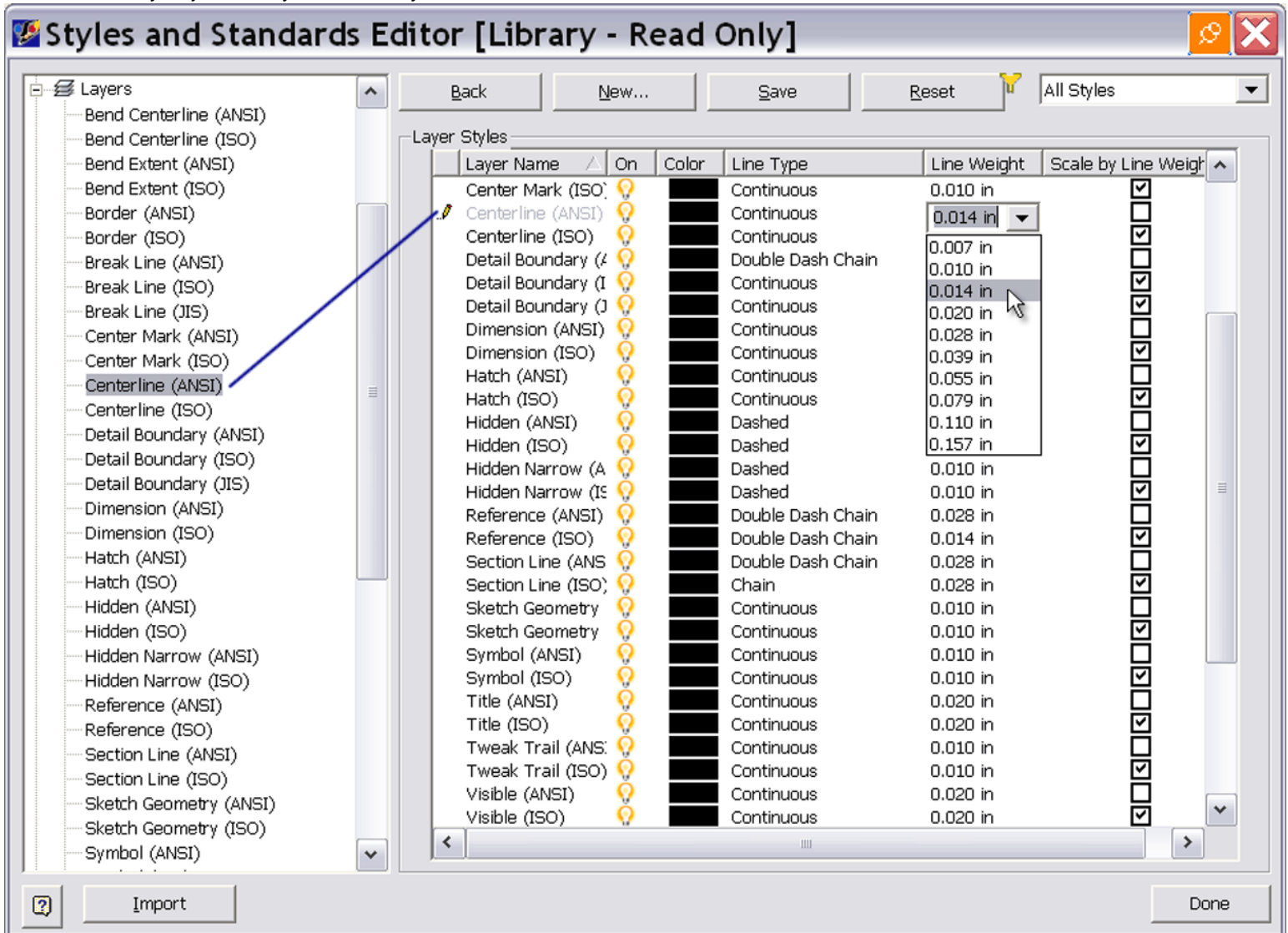
In the Angle Dimension row, click **Default (ANSI)** in the **Object Style** column. Notice that you can select any other available style from the drop-down list and apply that style to all angular dimensions in that

drawing file. All existing angular dimensions reformat according to the chosen style and all angular dimensions on forward creation are also formatted by the chosen style.



Note: You can use the drop-down list on the main toolbar to assign individual objects to style definitions other than By Standard. If an object is not set to By Standard, it is not subject to the new style definition you choose in the editor dialog box.

The Layer column indicates to which layer an object is assigned. Like the Object Style, you can reassign any object to any available layer.

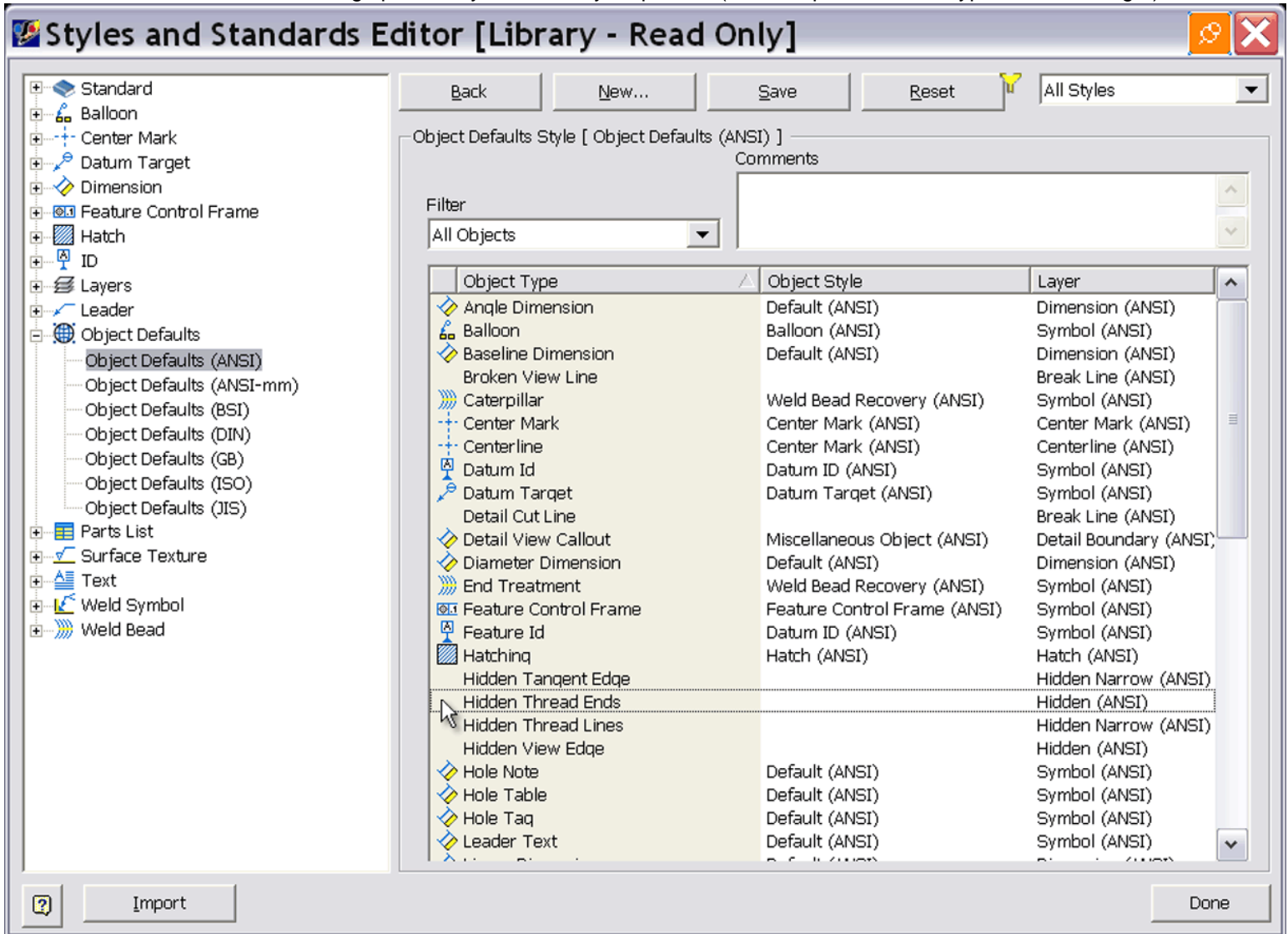


To edit the style for individual layers, expand the **Layers** node in the tree control, select the layer, and then click the layer attribute to modify in the controls panel.

Note: The layer node you select in the tree control is highlighted in the controls panel.

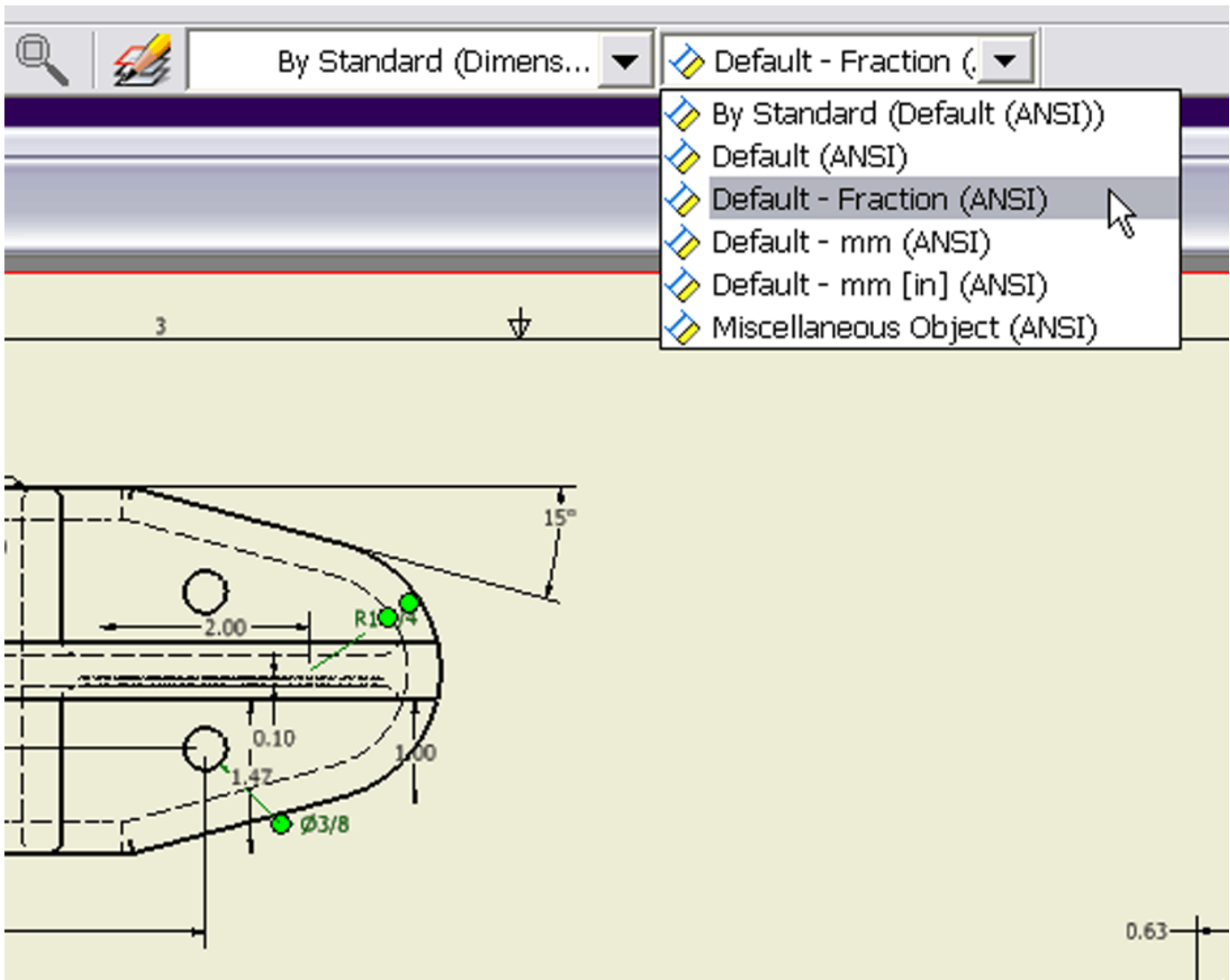
Note: After you make changes in the Styles and Standards editor, click Save to apply the changes.

In the tree control, expand the **Object Defaults** node again, and then select **Object Defaults (ANSI)**. You've probably already noticed that a number of objects are not assigned to an object style. These are objects that have no other formatting options beyond what layers provide (for example, color, line type, and line weight).



In addition to making changes in the editor, as mentioned earlier, you can also assign an object to a different style on-the-fly while working in a drawing. For example, after you add needed dimensions to your drawing views, you decide that one or more dimensions, for whatever reason, should be formatted by a different

style. Select each affected dimension, and then select the new style from the style drop-down list on the main toolbar.



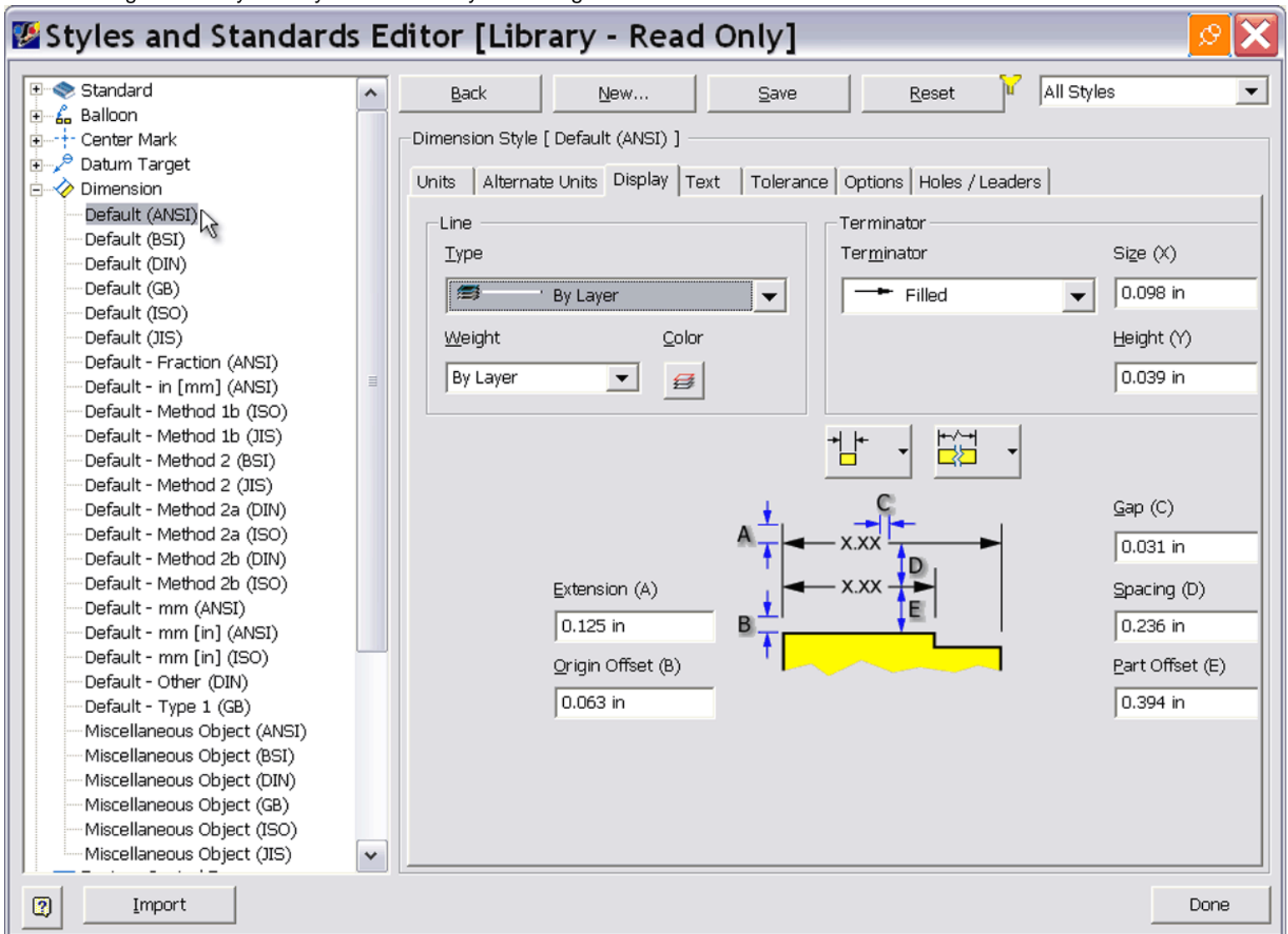
Alternatively, you can select a new style from the list while the Dimension command is active. Any dimension created after you choose the new style, during that session of the Dimension command, is formatted by that style. When you restart the Dimension command (or any other styles-related command), the style is set back to the default of By Standard.

When you reassign objects to different styles on-the-fly, using the drop-down list on the main toolbar, the changes apply only to those individually specified objects in that drawing, not the objects in other drawings. - the change is local not global. In addition, objects whose style is changed from the default are no longer governed by the active object default style and do not update if the object default style is changed.

We've discussed how objects are to assigned to style types and mapped to styles, and how to reformat the object by reassigning it to a different style, but how do you modify a style for an object?

Expand the **Dimension** node in the tree control, and then select the **Default (ANSI)** subnode. Notice in the controls panel that the familiar controls (with various modifications) for modifying object attributes have been carried forward from previous Autodesk Inventor releases. When you make modifications with these

controls, remember that you are changing the formatting information for the chosen style. Any object governed by that style is affected by the change.



You can also create your own styles using one of the default styles as a template, or starting point. In the tree control, expand the **Dimension** node, select a style, and then click **New** at the top of the editor. In the New Style Name dialog box, assign a name, and then click OK. Select this new style in the tree control, and then use the controls panel to make the desired formatting changes.

Note: When you select the Add to standard check box in the New Style Name dialog, the style is available when you select Active Style from the dialog filter.

