

# Density Manager by Esox Republic

version 1.0.0.17

Addin for SolidWorks, compatible with SW2001+ and higher

## Installation:

1. Make sure that there are no active SolidWorks session.
2. Unzip file *DensityManagerEsox-1.0.0.17.zip* to a temporary directory. Run program *setup.exe*.
3. *Density Manager by Esox Republic* should now be installed and available on your SolidWorks menu.

## Using Density Manager:

*Density Manager* is a SolidWorks addin that, once installed, is available through the SolidWorks menu under *Tools --> Esox Republic Tools --> Density Manager*. see **Figure 1**

## Reasons why *Density Manager* is not available?

- No active part.
- Active part is not a part or assembly. *Density Manager* is only available on menus for parts and assemblies.
- Addin not activated. Check addins under *Tools --> Addins*. Make sure that *Density Manager* is activated. See **Figure 2**.

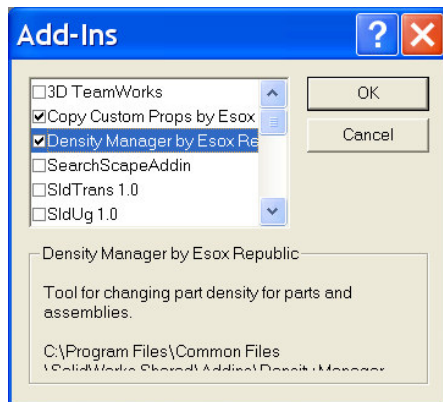


Figure 2

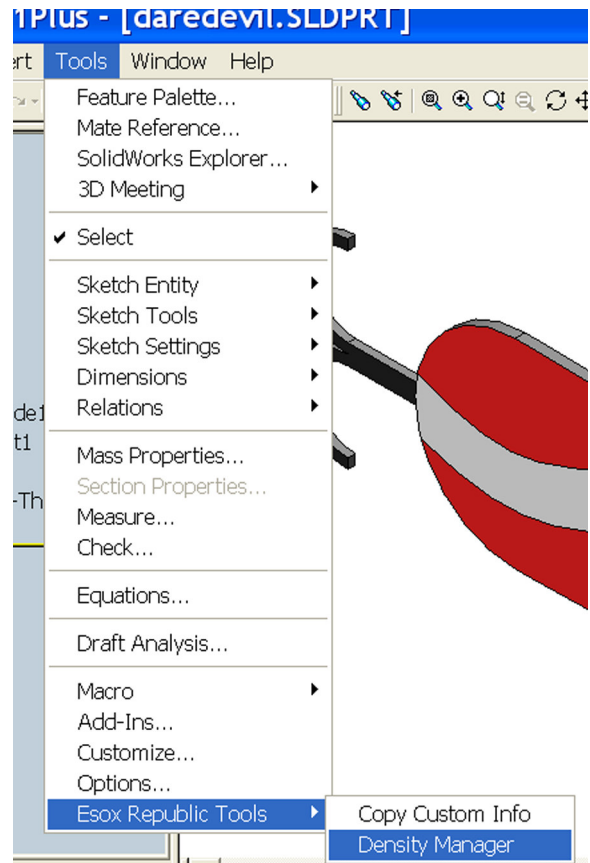


Figure 1

## Changing Density on a SolidWorks Part

To use *Density Manager* to change the density of an active document which is a SolidWorks part, access *Density Manager* via menu picks *Tools --> Esorex Republic Tools --> Density Manager*. You will see the *Density Manager* form appear (see *Figure 3*).

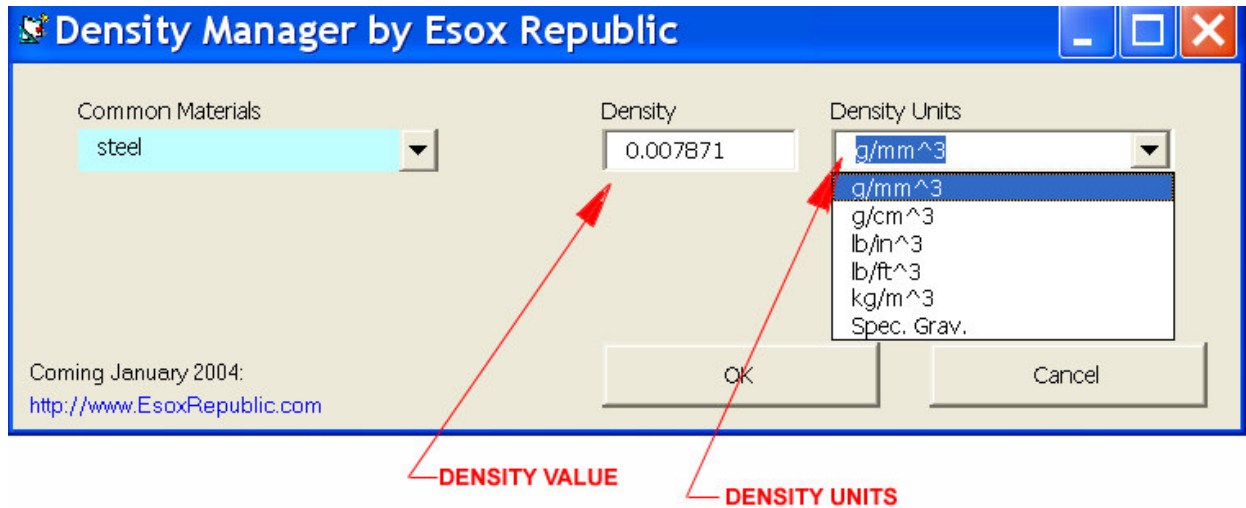


Figure 3

**Value:** The current value for the part's density setting is displayed in the "Density" box. A new value can be entered there.

**Units:** The *Density Manager* allows the user to input density values in a variety of units. This allows for density inputs that are in units that do not match the current part setting. Once a value is entered and accepted with the "OK" button, the value is converted to match the current part units setting.

**Common Materials:** There is a small selection of preset common materials available (See *Figure 4*). Selecting one of the common materials automatically inserts that materials density value into the "Density" box.

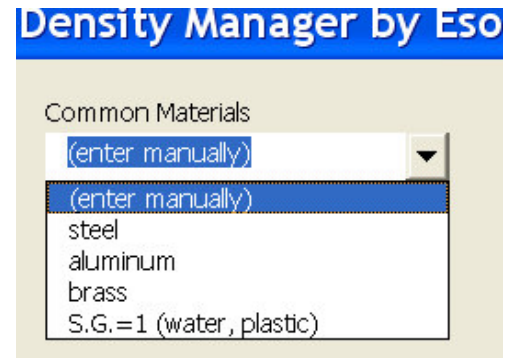


Figure 4

## Changing Density on a SolidWorks Assembly

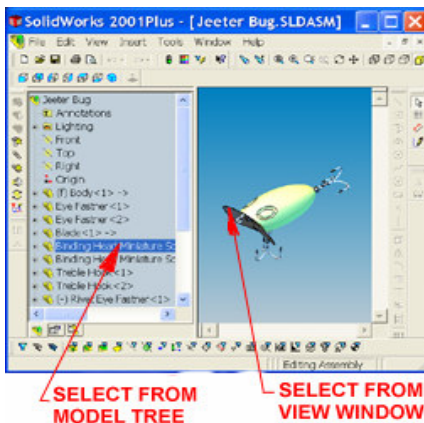


Figure 5  
model credit: Scott J. Baugh

SolidWorks assembly files do not have a density property. However, with *Density Manager by Esorex Republic*, it is possible to change the densities of any number of part components in an assembly.

### Selecting components to change:

*Density Manager* allows the user to select components for change two different ways. The user can **preselect components** to change in SolidWorks prior to activating *Density Manager* via menu picks. The user can select by picking edges, faces, or vertices of parts, or by selecting parts in the model tree, or both (see *Figure 5*).

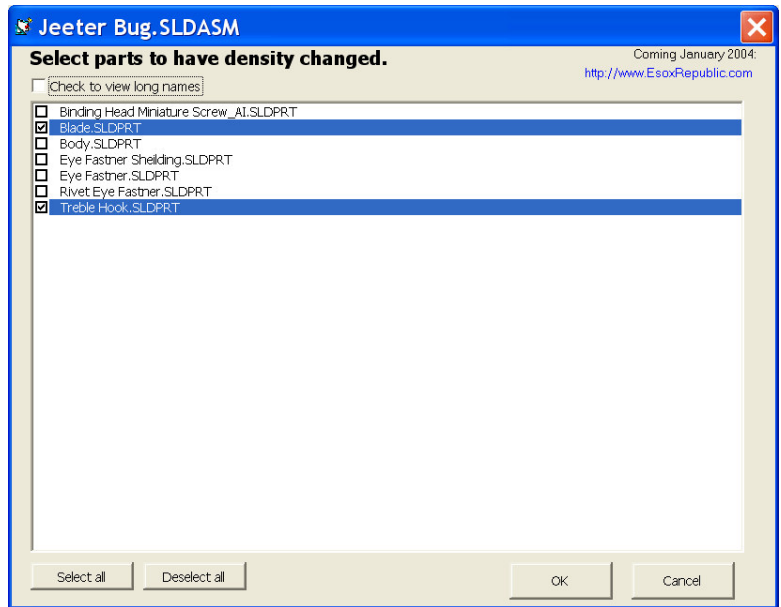
With an assembly as the active SolidWorks document, *Density Manager* will first present the user with a part list selection window (**Figure 6**). If any parts were selected before *Density Manager* was activated, they will be selected and highlighted on the part list.

The user will then have the opportunity to select or deselect parts from the list. Note the “Select all” and “Deselect all” buttons at the bottom of the window. Also note the checkbox at the top of the list which toggles between long (full path) and short names of the parts.

Once the desired part selections are made, proceed to the next step by clicking the “OK” button, or cancel the selection by clicking the “Cancel” button.

After the “OK” button is clicked on the *Part List*, *Density Manager* presents the *Density Manager* form, just as for parts (see **Figure 3**).

The density value and units will be preset to match the first preselected part or the first part on the part list. Enter new values in the same way illustrated for parts. When “OK” is clicked on the *Density Manager* form, the density of each selected part will be set to that on the *Density Manager* form.



**Figure 6**