

1.0 Example: Creating Water (H₂O)

This example gives step-by-step instructions for the creation of water.

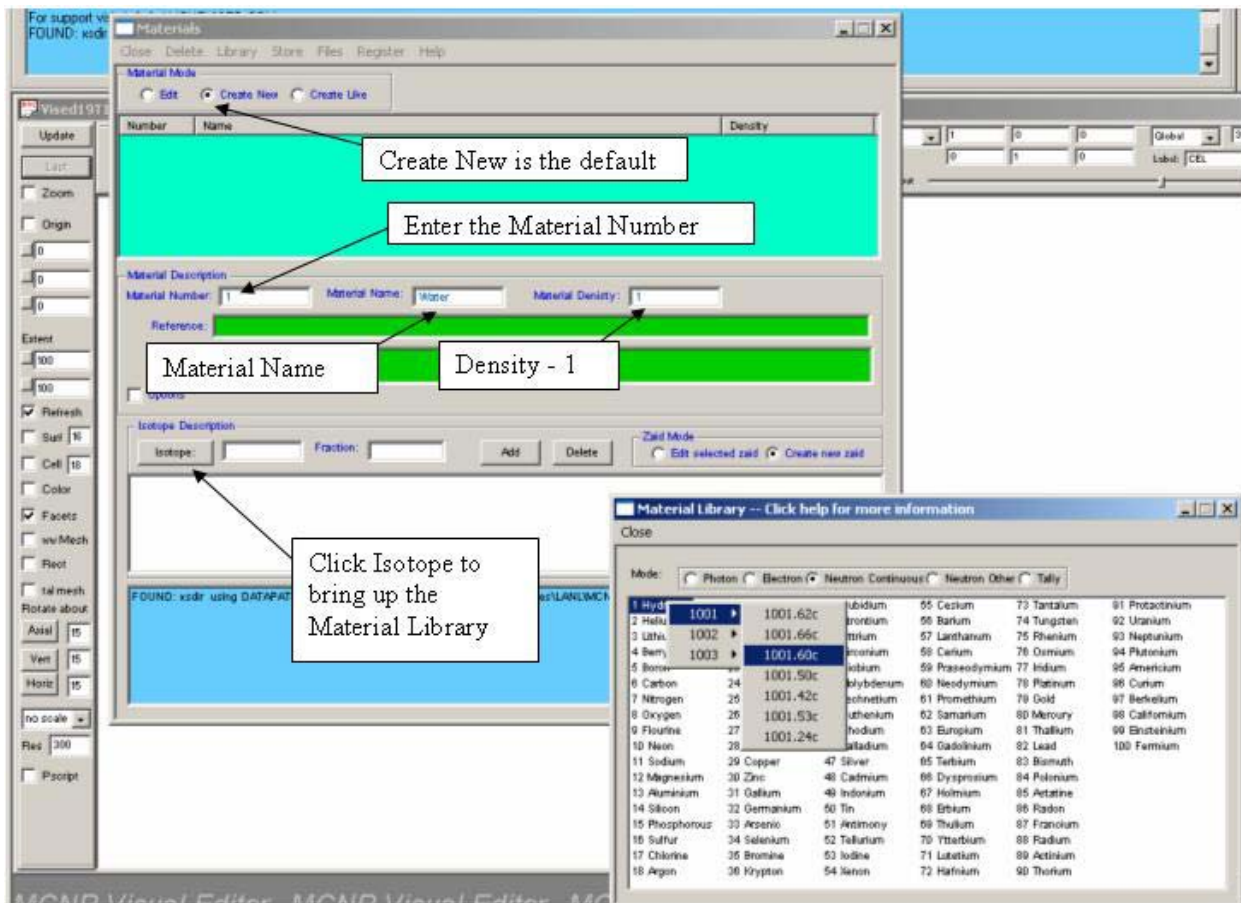


Figure 1-1 Create the Hydrogen Isotope in Water (H₂O)

Start the Visual Editor.

Click on **Data...Materials**.

Verify that **Create New Material Mode** button is selected. It is the default.

A number 1 should already be in the Material Number box. If not, **type 1** in the **Material Number Box**.

Type **Water** in the **Material Name** box.

Type **1** in the **Material Density** box to set the density to one which is the accepted value.

Click on the **Isotope** button to bring up the Material Library window. If the Material Library window is blank or does not appear, there is a problem with the vised.defaults file. Please see *Section 11.5 in the Visual Editor Manual* for more information.

The first ZAID will be for the Hydrogen component of H₂O.

In the Material Library window, **Click on 1. Hydrogen**.

Click on 1001.

Click on 1001.60c.

On the Material Panel, notice that the number 1001.60c has been entered in the box next to the Isotope button. In the fraction box, **type 2** because there are two hydrogen atoms in H₂O. The 2 is positive because an atom fraction is used. If a gram fraction were to be used, the number would be negative and the entry would be -0.111915 for the weight of hydrogen in grams.

Click on Add. The Isotope pair appears in the box below.

The second ZAID will be for the Oxygen component of H₂O.

In the Material Library window, **Click on 8. Oxygen.**

Click on 8016.

Click on 8016.60c.

On the Material Panel, notice that the number 8016.60c has been entered in the box next to the Isotope button. In the fraction box, **type 1** because there is one oxygen atom in H₂O. The 1 is positive because an atom fraction is used. If a gram fraction were to be used, the number would be negative and the entry would be -0.888085 for the weight of oxygen in grams.

Click on Add. The Isotope pair appears in the box below.

Click on Register.

The material *Water* appears in the material list at the top of the material panel.