



# NVIDIA vMaterials Iray for Maya

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Version 1.0



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## **NVIDIA vMaterials – Iray for Maya**

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# 1 Introduction

This document guides you through the steps that are necessary to use vMaterials 2 in Iray for Maya 2020 on Windows.

## 1.1 Prerequisites

- [Microsoft Windows 10](#)<sup>1</sup>
- [Autodesk Maya](#)<sup>2</sup>
- [Iray for Maya plugin](#)<sup>3</sup>

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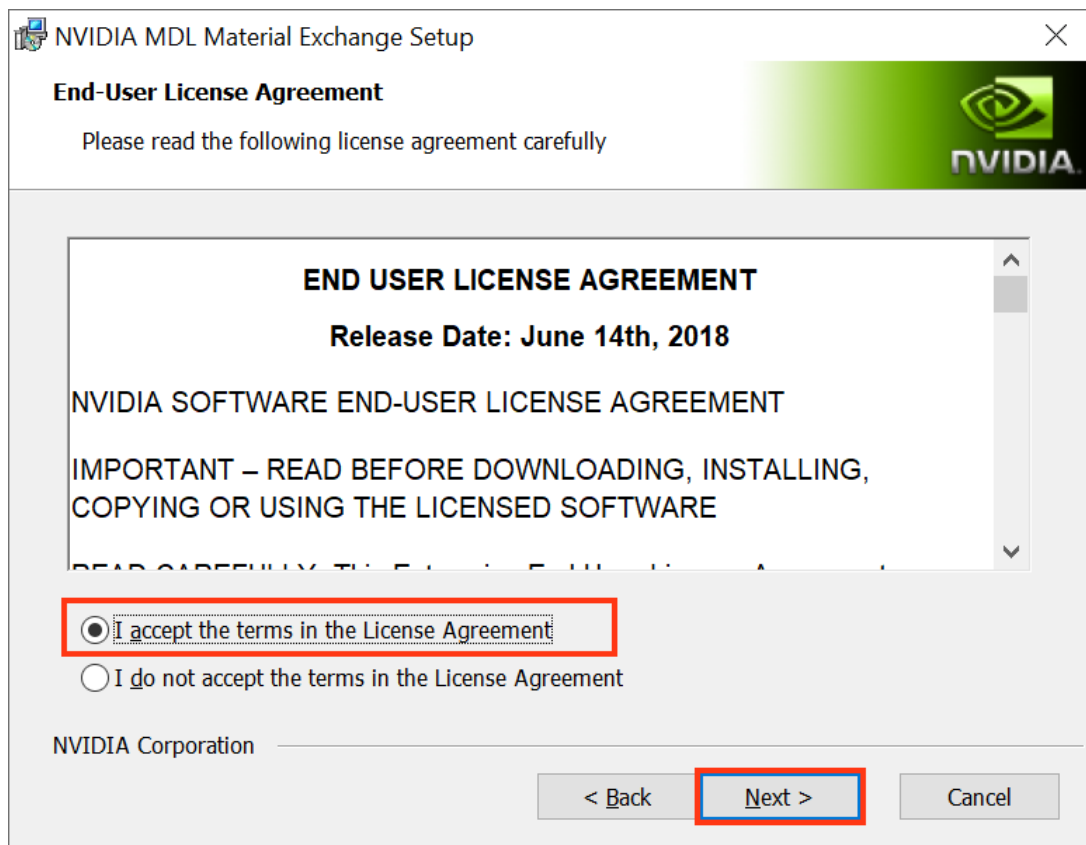
1. <https://www.microsoft.com/en-us/windows/get-windows-10>

2. <https://www.autodesk.com/products/maya/overview/>

3. <https://www.0x1-software.com/en/produkte/iray-for-maya.html>

## 2 Installing vMaterials 2 and Material Exchange

1. Download the vMaterials 2 installer for your operating system (Windows, Linux, Mac) from <https://developer.nvidia.com/vmaterials>.
2. Run the vMaterials 2 installer.
  - 2.1. If you have not yet installed the NVIDIA Material Exchange package, you will be prompted to install it. In this case click Next.
  - 2.2. Accept the End User License Agreement for Material Exchange:



*Fig. 2.1 - Accepting the End User License Agreement for Material Exchange*

- 2.3. In the next dialog, you define the configuration of Material Exchange. Click **Complete** to choose a complete installation. Material Exchange will be installed in folder `C:\Program Data\NVIDIA Corporation\mdl`.

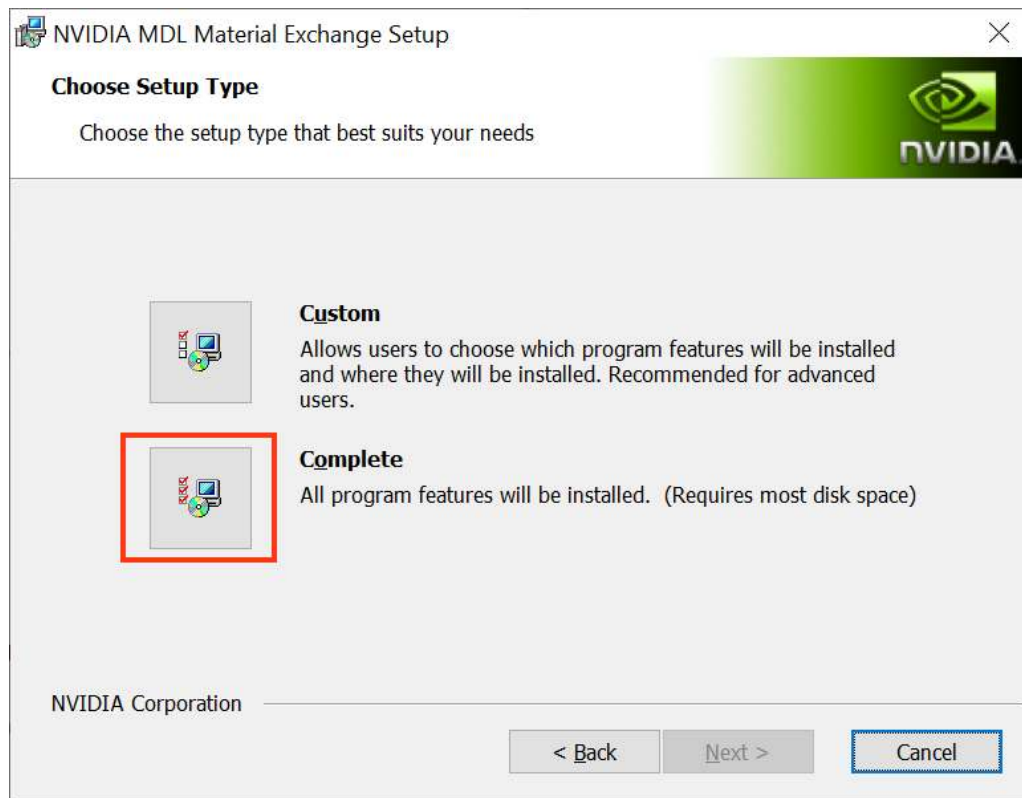


Fig. 2.2 - Choosing to install all program features for Material Exchange

2.4. In the next dialog, click **Install** to complete the Materials Exchange installation.

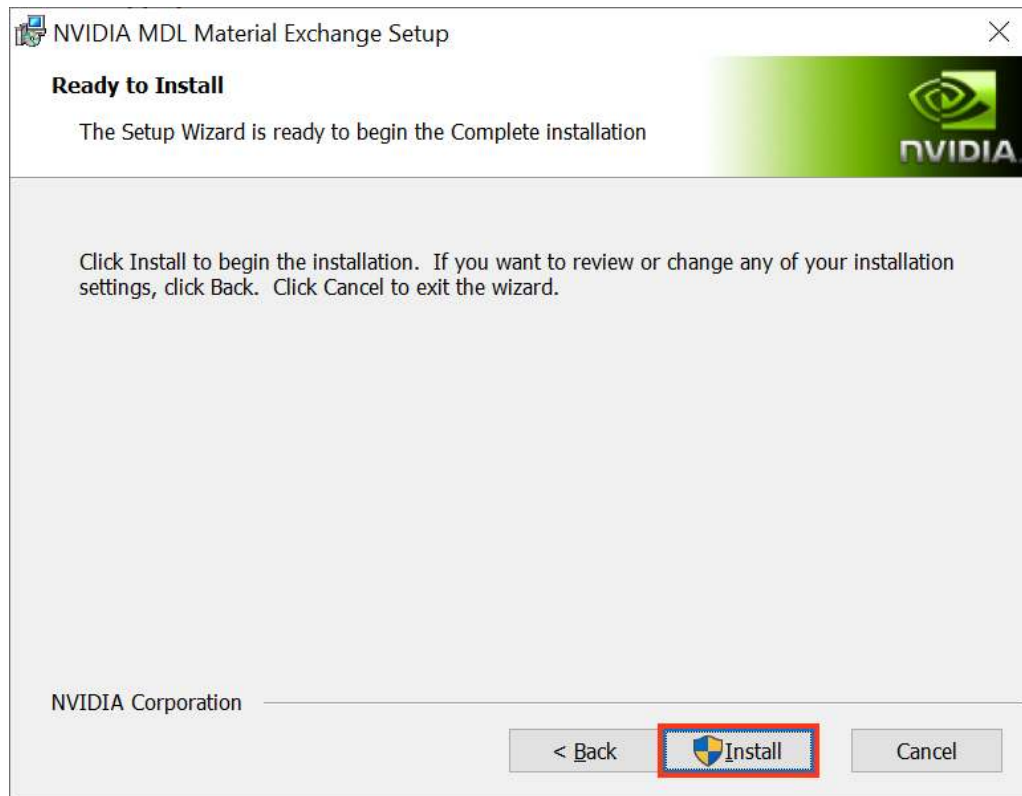


Fig. 2.3 - Completing the installation

2.5. Once the Material Exchange package has been installed, vMaterials 2 installation will proceed.

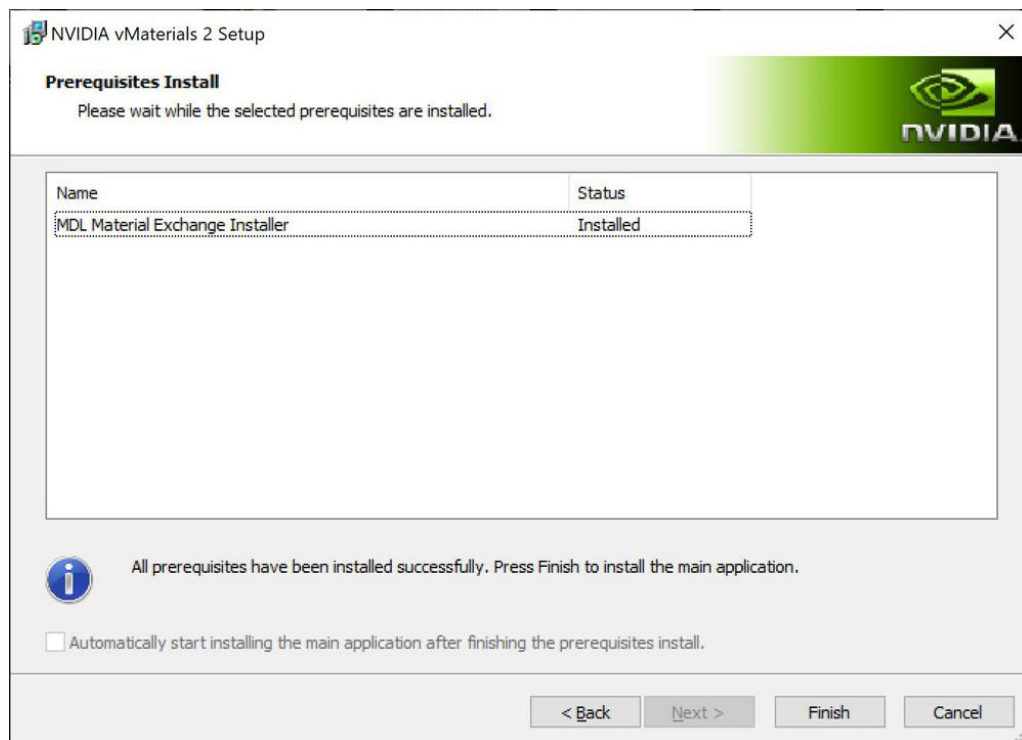


Fig. 2.4 - Completion of the Material Exchange package installation

3. Click Next after the vMaterials 2 welcome dialog.



Fig. 2.5 - The vMaterials 2 welcome dialog

4. In the next dialog, accept the End User License Agreement for vMaterials 2 and click Next.

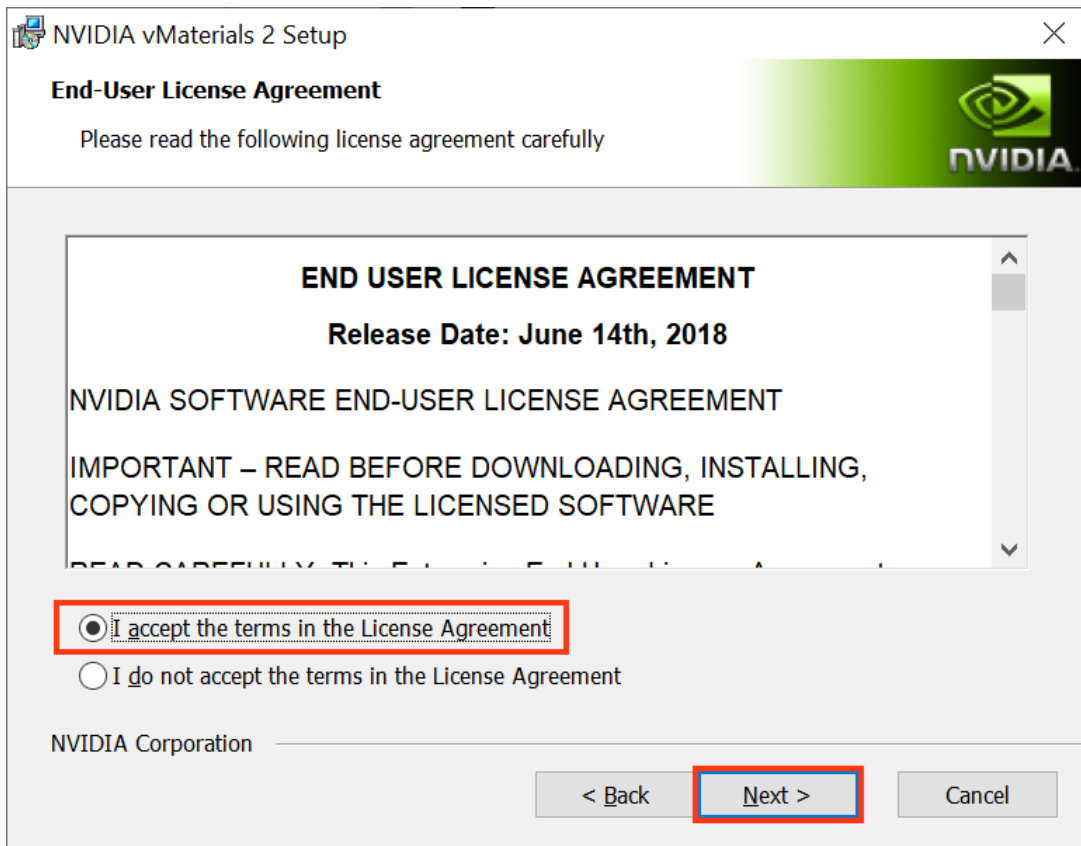


Fig. 2.6 - Accepting the End User License Agreement for vMaterials 2

5. In the next dialog, you will be asked about the configuration of vMaterials 2. Click Complete to choose a complete installation. vMaterials 2 will be installed in a folder based on your username:

C:\Users\*username*\Documents\mdl

To install vMaterials to a custom directory, see [Using vMaterials from a different installation location](#) (page 12).



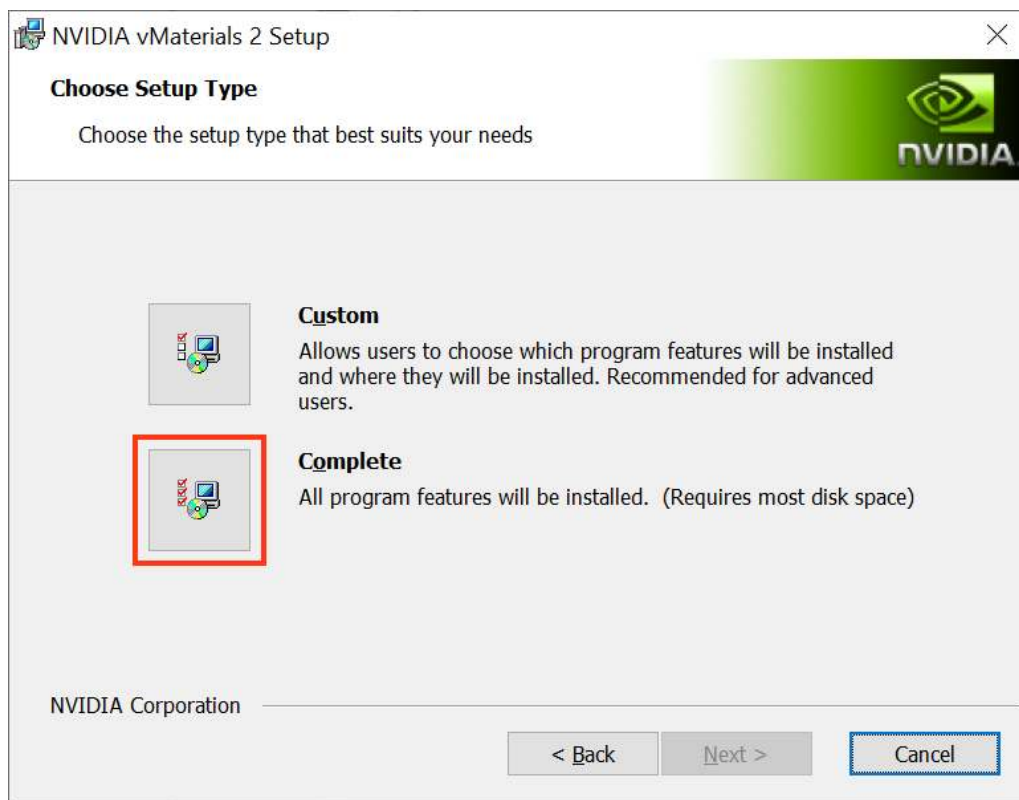


Fig. 2.7 - Choosing the complete installation of vMaterials 2

- 6. In the next dialog, click **Install** to copy vMaterials 2 files to your chosen folder.

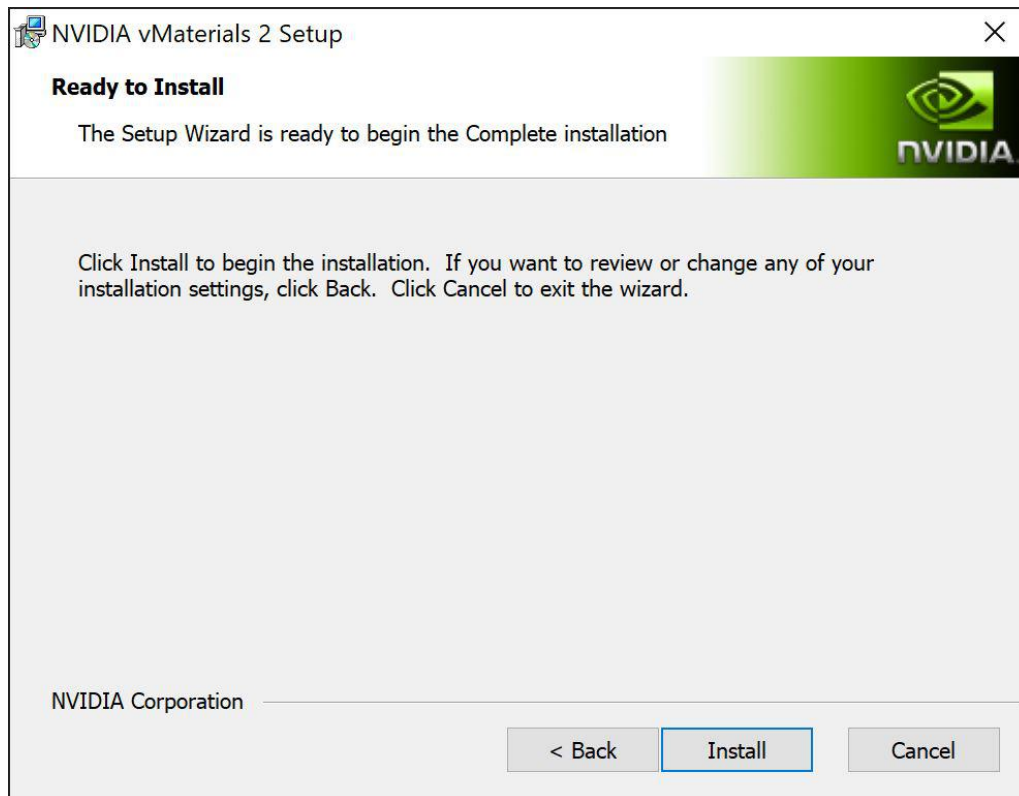


Fig. 2.8 - Installing vMaterials 2 files

7. A dialog displays the progress of the installation.

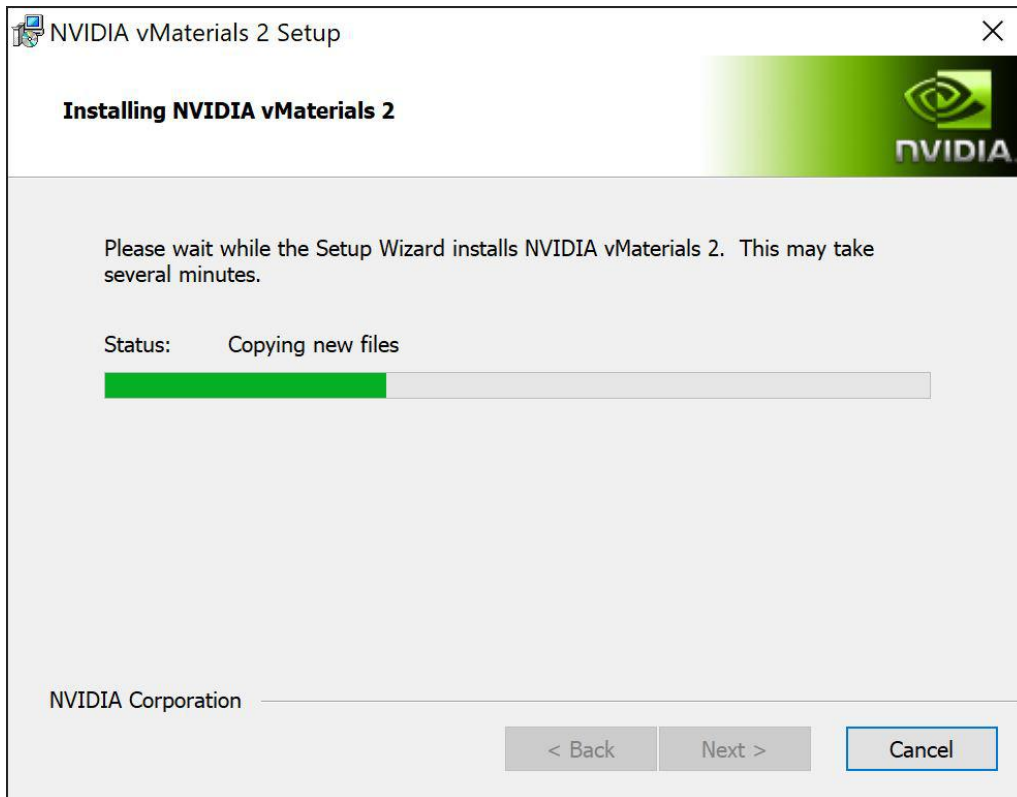


Fig. 2.9 - Installation status display

8. Once the installation is complete, click Finish.

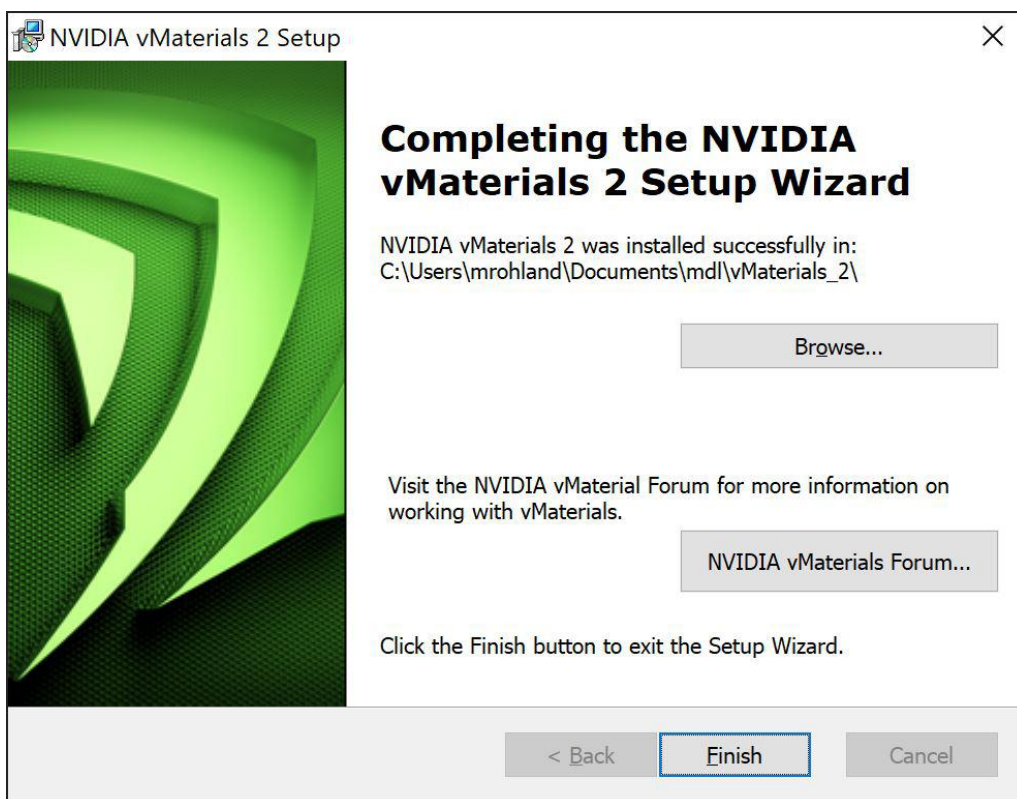


Fig. 2.10 - Completing the vMaterials 2 installation

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## 3 Maya and vMaterials 2

You assign materials in the vMaterials 2 library in Maya through Hypershade.

### 3.1 Assigning a material

1. Launch Maya. If Maya was running during the vMaterials installation, you have to restart Maya.
2. Display the Render Settings dialog and select Iray Photoreal or Iray Interactive.



*Fig. 3.1 - Selecting Iray Photoreal in the Render Settings dialog*

3. Open Hypershade and select Iray in the **Create** menu. Select **Materials** in the drop-down list and click on ifmMDLMaterial.

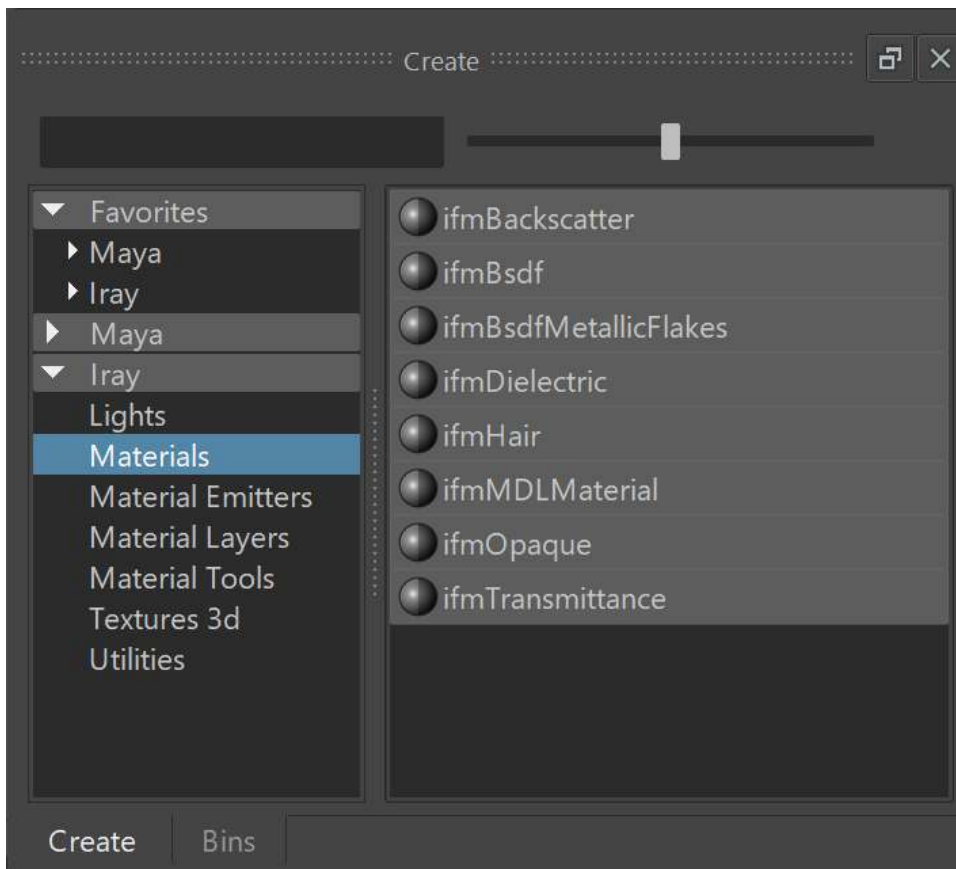


Fig. 3.2 - Selecting ifmMDLMaterial in Hypershade

4. In the drop-down list of the Property Editor or Attribute Editor, select User and then vMaterials\_2. Choose one of the material categories or an item in the Presets tab that is displayed.

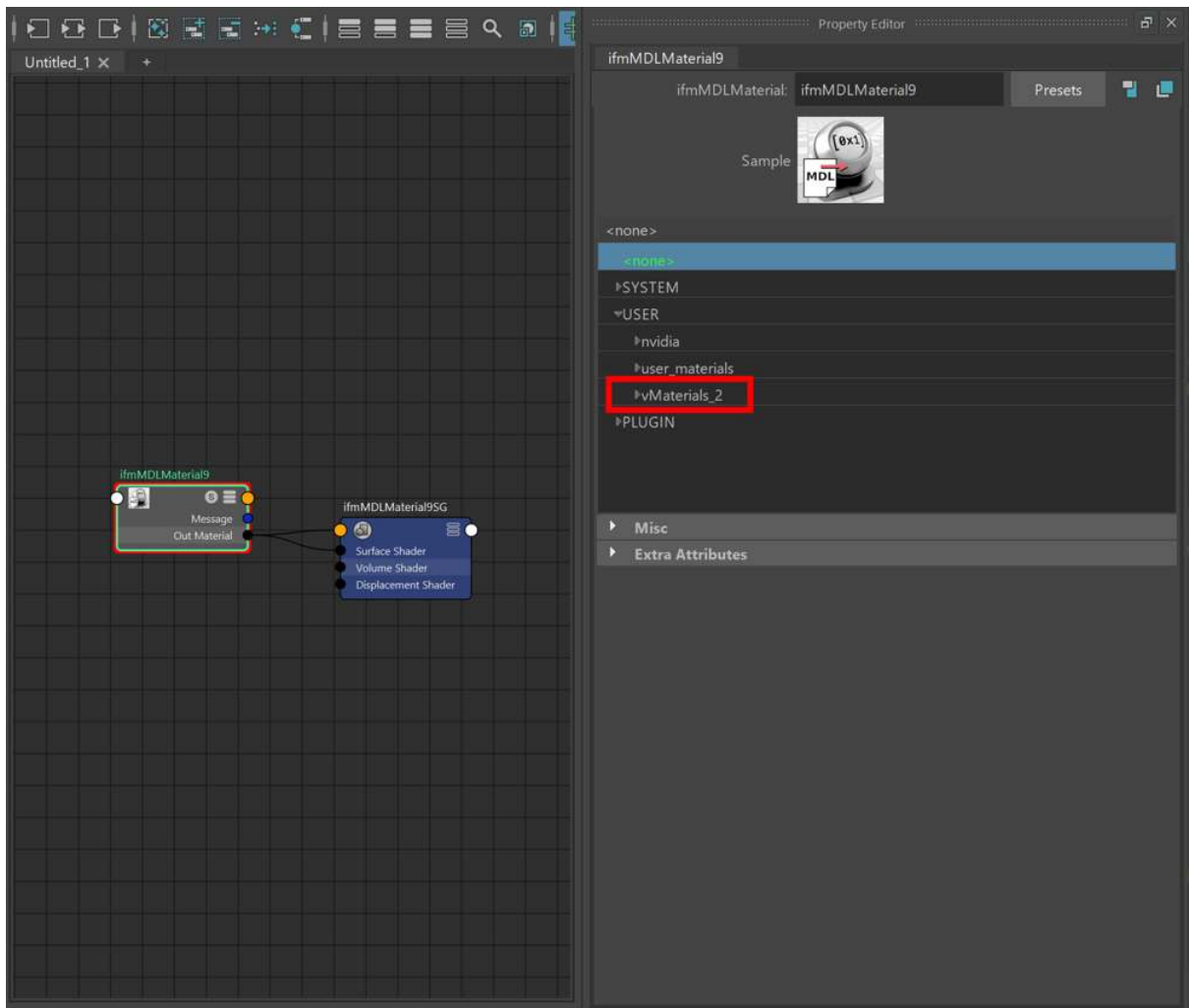


Fig. 3.3 - Selecting a material

5. Select an object in the viewport. Hold down the right mouse button and choose Assign Existing Material to assign your material.

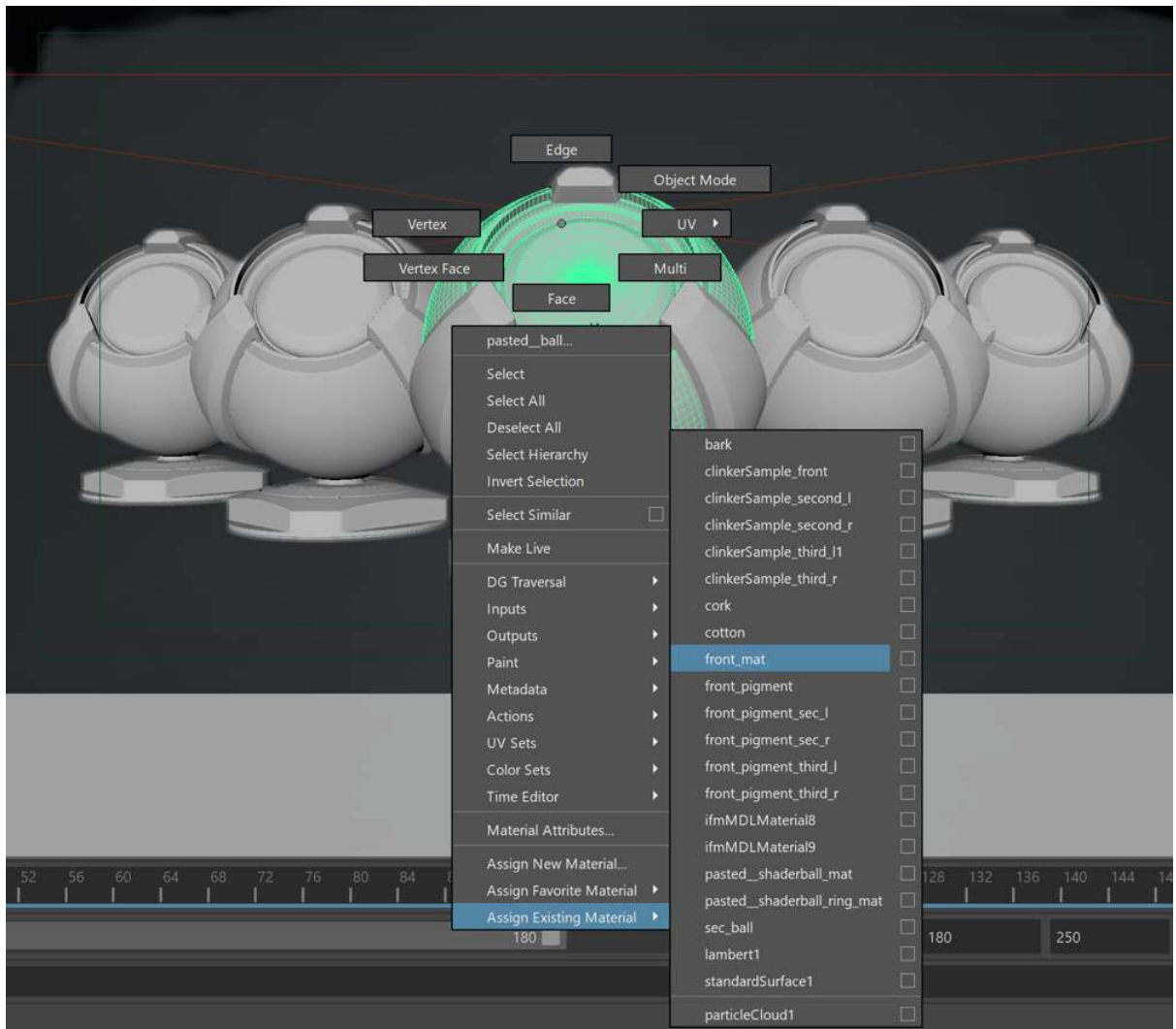
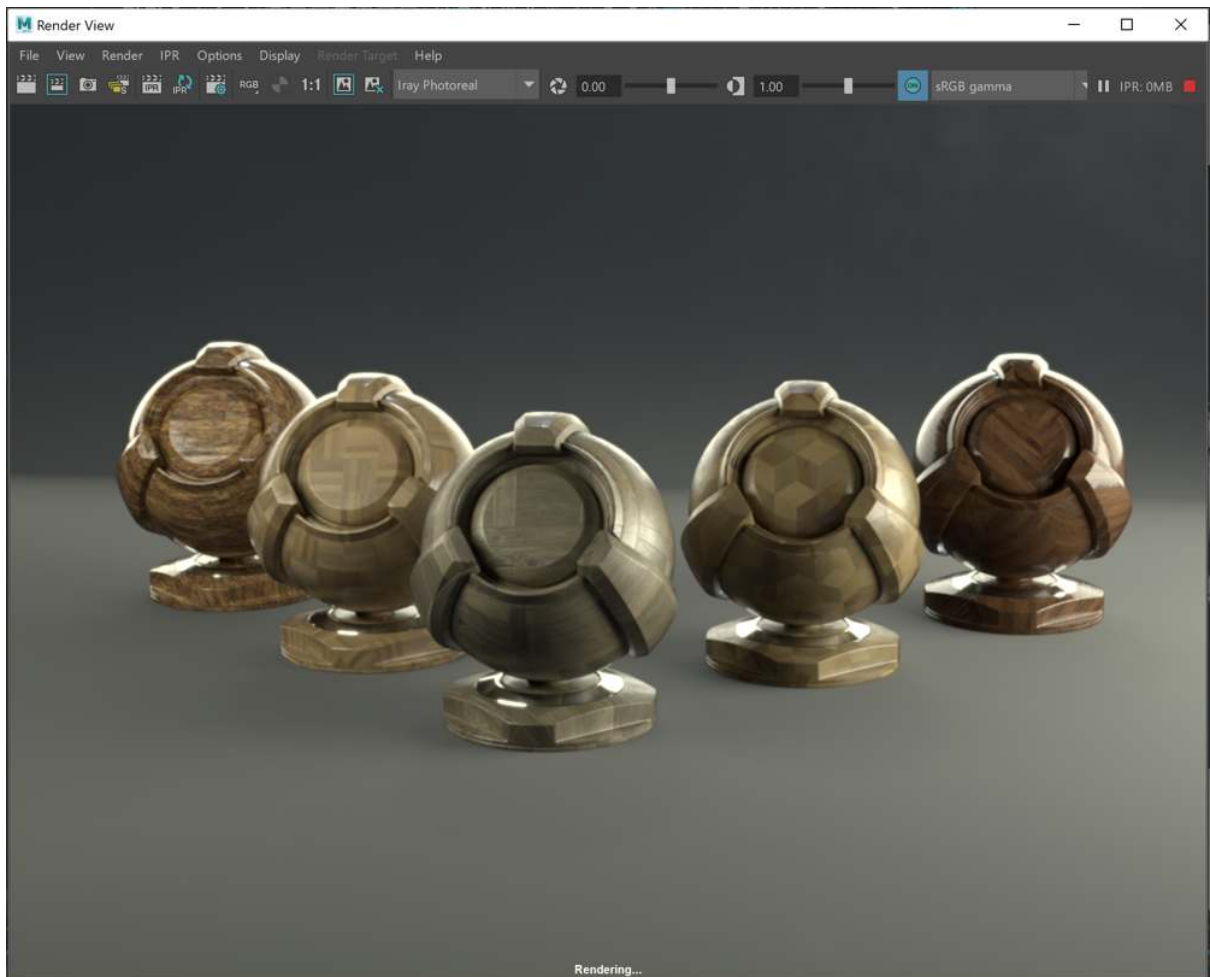


Fig. 3.4 - Assigning a material with Assign Existing Material

6. Click on the IPR render button. Modify the object's appearance by changing the material's parameters. You must also include lights in the scene; without them the rendered image is black. Lights are found in Hypershade directly above the materials, for example, `ifmlImageBasedLighting`.



*Fig. 3.5 - The rendered scene*

### 3.2 Using vMaterials from a different installation location

If you didn't install the vMaterials 2 package with the default settings — for example, you chose a different path for the vMaterials library — you must specify the location of the vMaterials so they will be available from the Property Editor.

You can specify the location of the vMaterials with the following steps:

1. Press the Windows Start menu key and type `sys` to find the Edit system environment variables dialog.

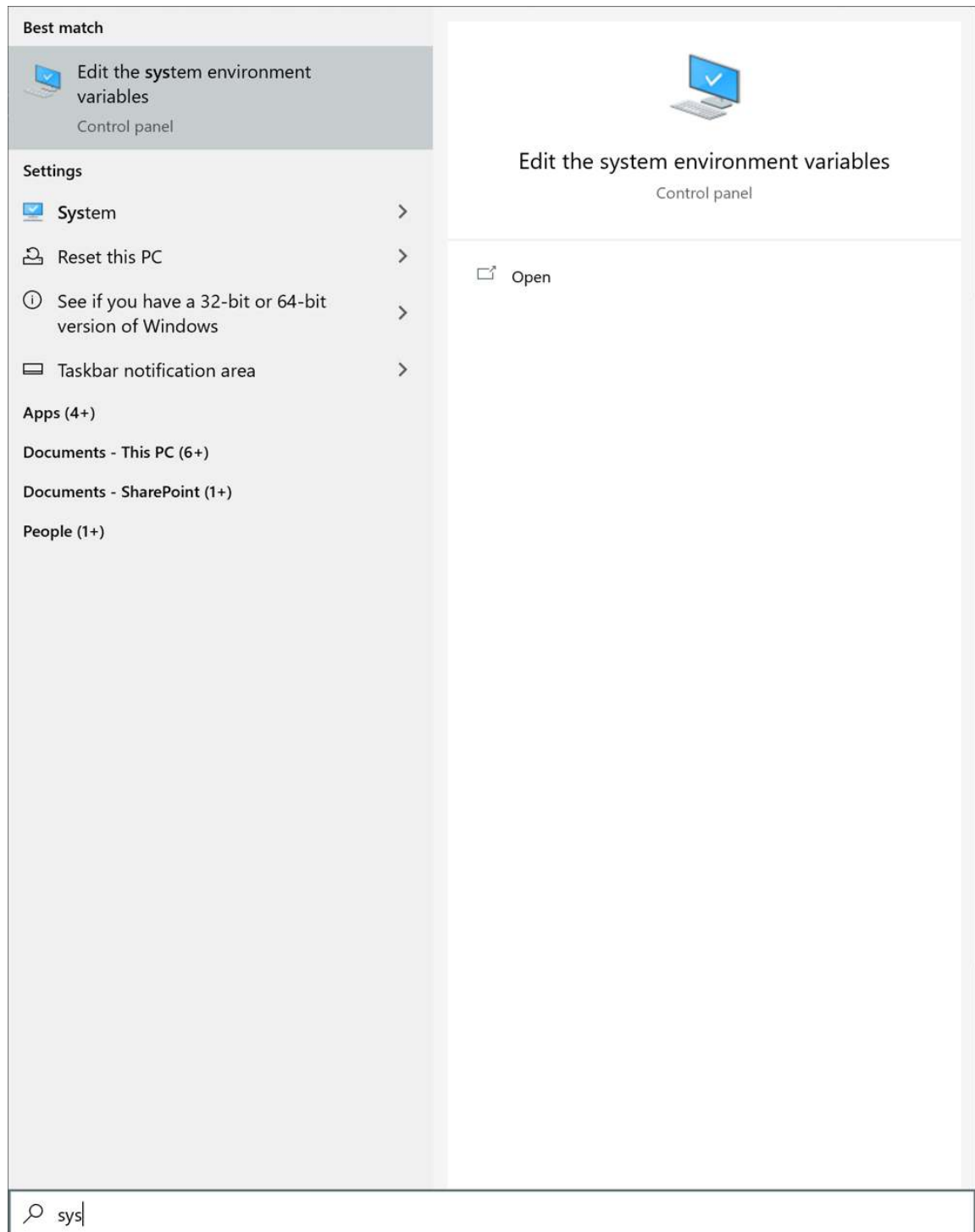


Fig. 3.6 - Finding the Edit system environment variables dialog by entering `sys` (at the bottom)



2. Click on Environment Variables. The dialog in Figure 3.7 is displayed:

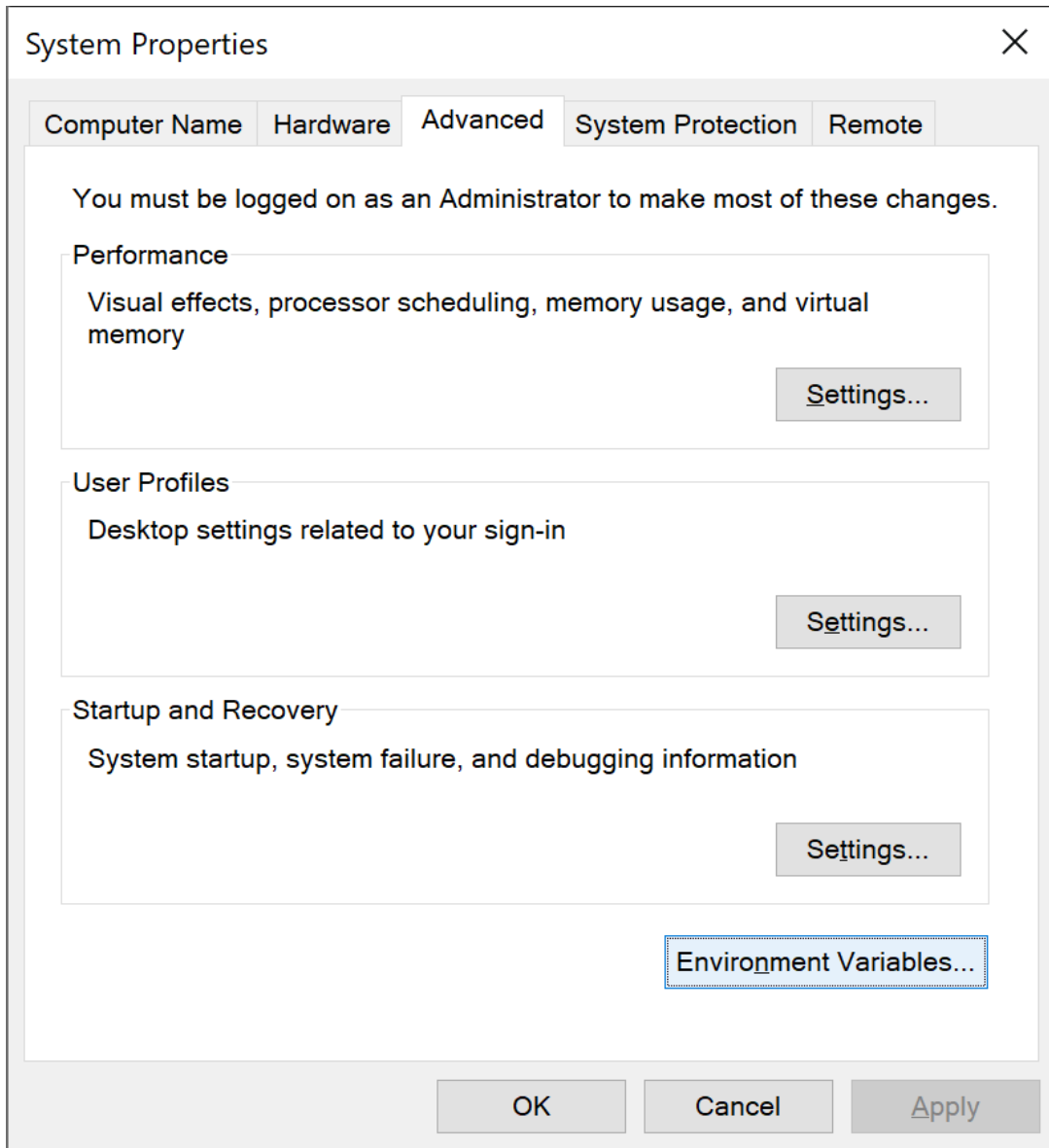


Fig. 3.7 - The System Properties dialog with a button to modify environment variables

3. In the User variables section, click on **New** to define a new environment variable.

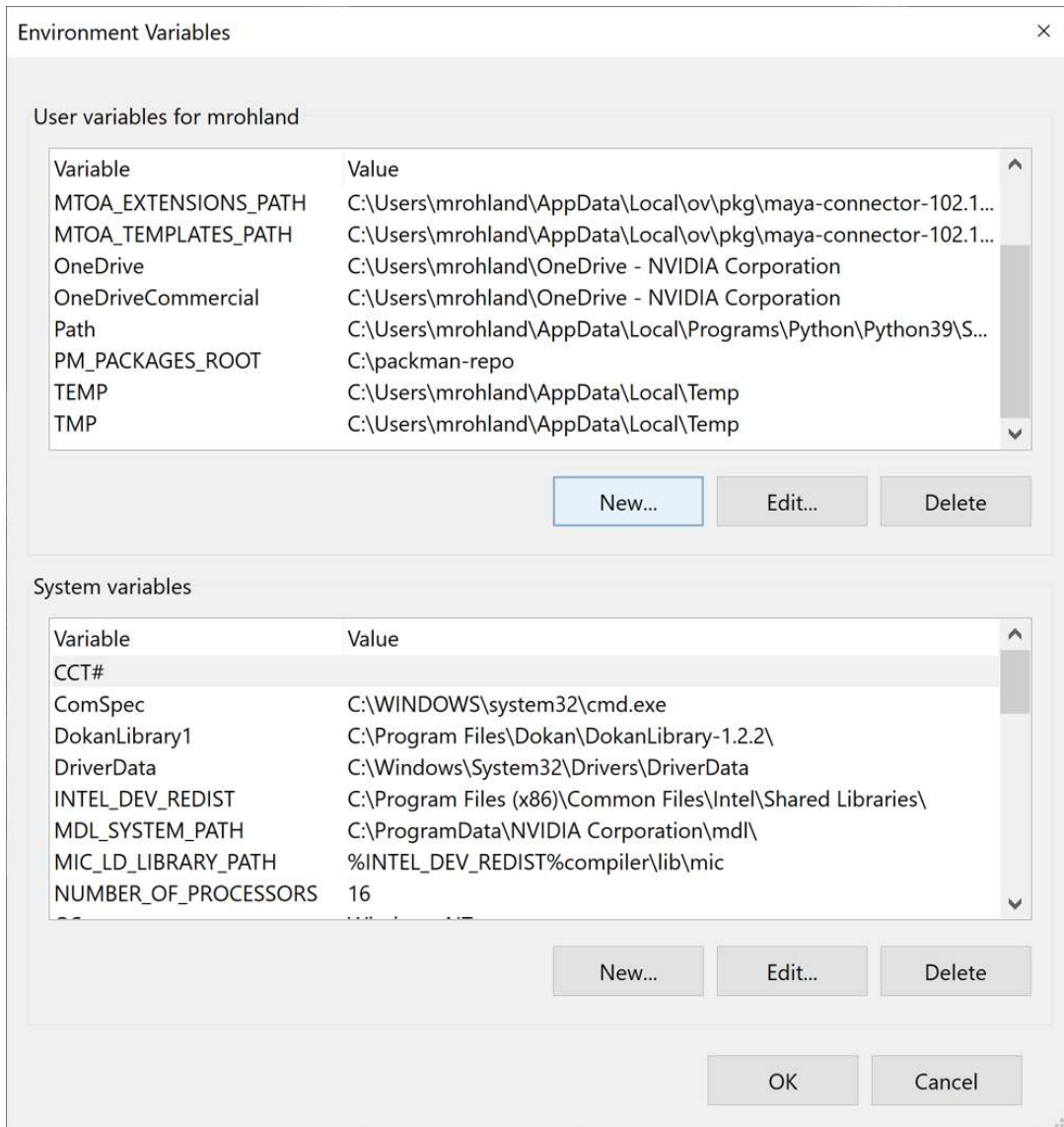


Fig. 3.8 - Defining a new environment variable

4. The name of the environment variable to define is `IFM_MDL_ROOTS`. Set the variable's value to the path where you installed the vMaterials library. Add `vMaterials::` before the path. Click the **OK** button in the dialog in Figure 3.9 and in the following dialogs that are displayed.

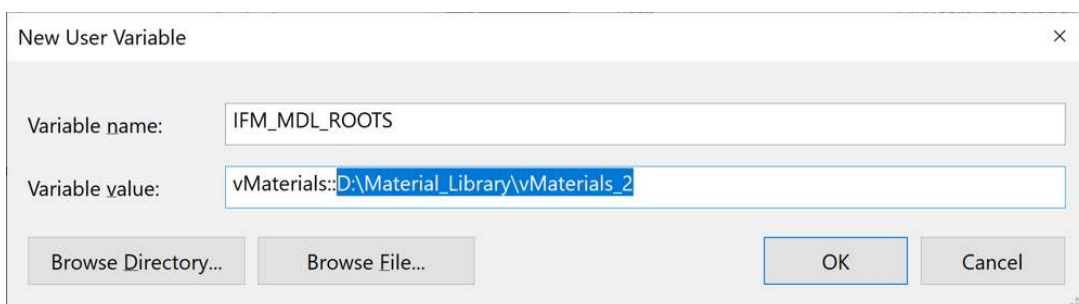


Fig. 3.9 - Defining environment variable `IFM_MDL_ROOTS` and its value

5. Your vMaterials library can now be displayed in the Property Editor.

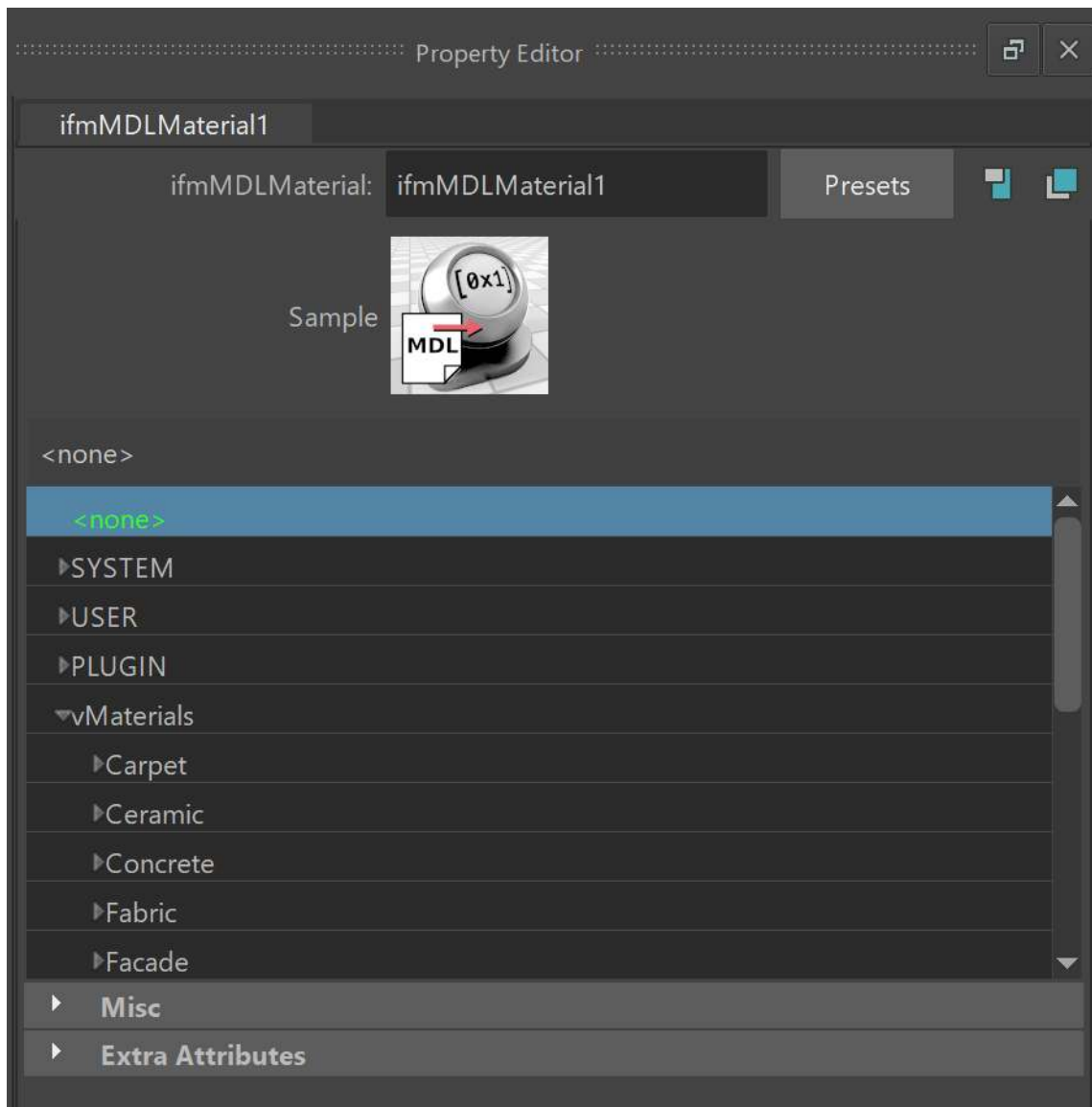


Fig. 3.10 - The custom installation of the vMaterials displayed in the Property Editor