

How-To Guide

SAP 3D Visual Enterprise Author

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How-To Use Queries

Document History

Document Version	Description
1.0	First version

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1 Introduction

This guide describes how to create, load and use queries to add material to objects

You can learn how to select objects by metadata tags and apply materials to those selected objects using the query.

You can create queries in special window, save and load as .rhq files. To create a query, choose F3 -> Query.

You can execute queries from that window and the results displayed in the normal SAP 3D Visual Enterprise Author viewport.

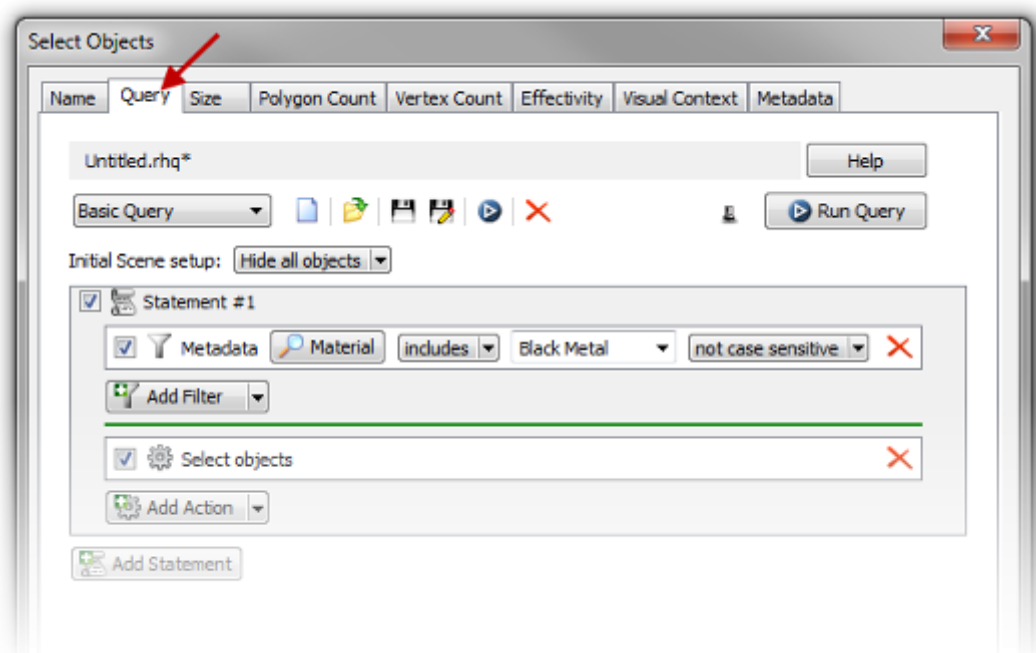
You can execute multiple statements.

Each statement has the following attributes:

- One or more filters that are tested against the nodes in the Bill of Materials, or node hierarchy
- Actions that are taken on the nodes that match the filters in the statement

You can use queries to do the following:

- Select objects by metadata
- Select by name
- Spatial selections and more



2 Queries, Metadata and Materials

2.1 Using the Query to Add Materials

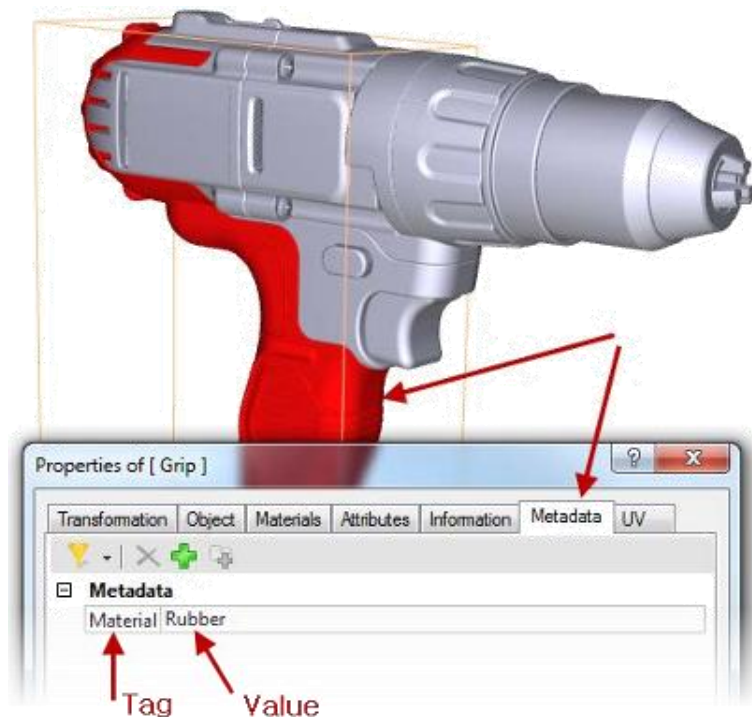
In this guide you can use the query to identify parts based on their metadata and apply a material. You can color or add a material based on a metadata field to a model with thousands of parts.

The procedure below can save you a large amount of time.

1. Double click the part shown in the image and select the *Metadata* tab. Note the metadata tag *Material* and the value *Rubber*.

Metadata allows you to associate information with individual objects or to the complete scene. An example of metadata that might be added to a part could be Part Name, Description, Material or Unit Price. You use this metadata field to apply predefined RH material types.

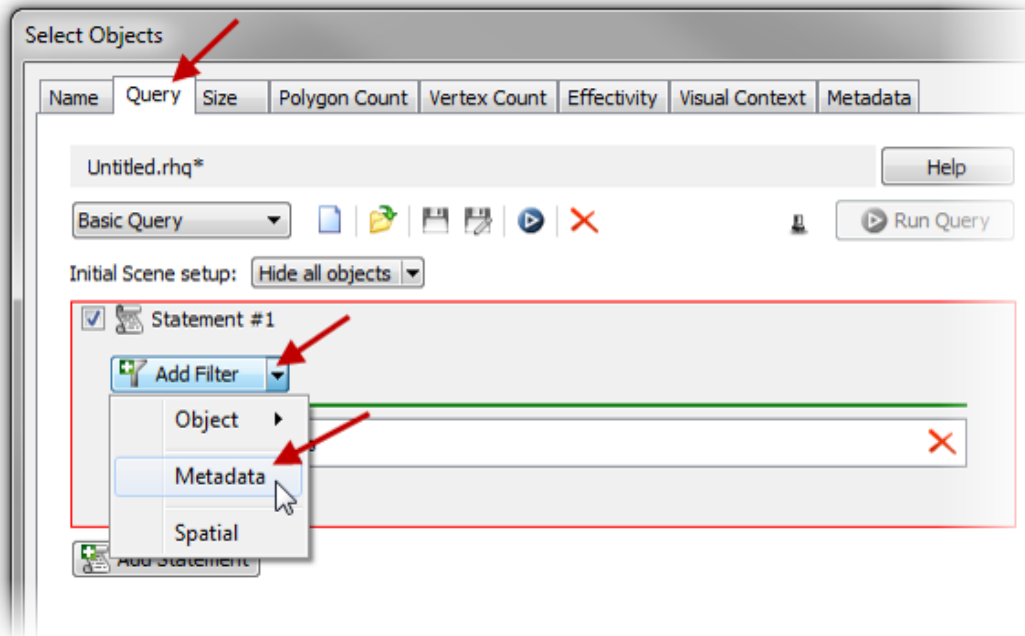
2. Close the properties window and double click in the open scene to deselect the part.



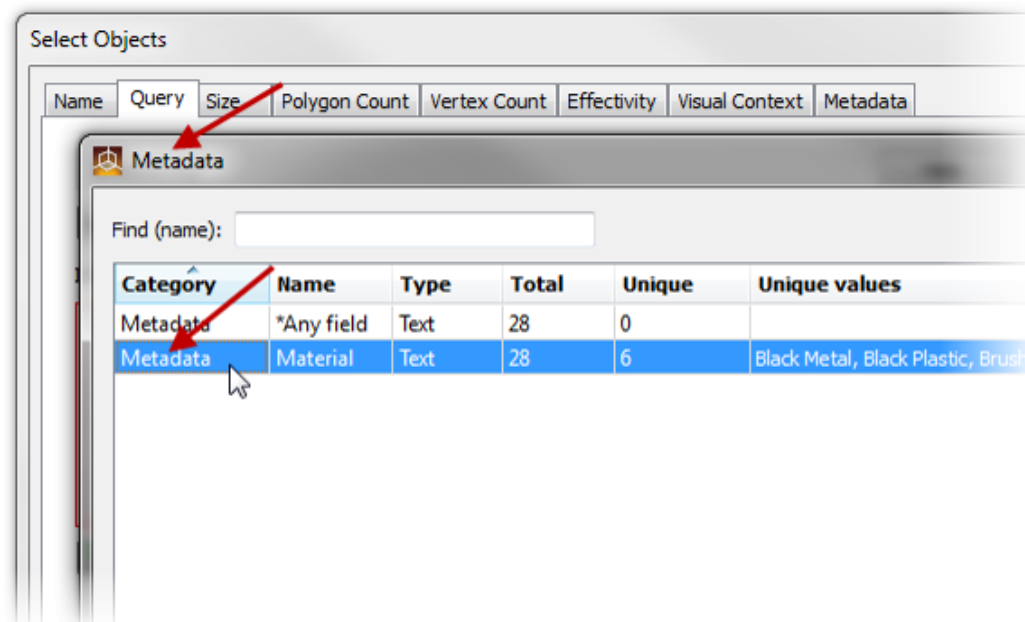
2.2 Creating a Query

To create a query, proceed as follows:

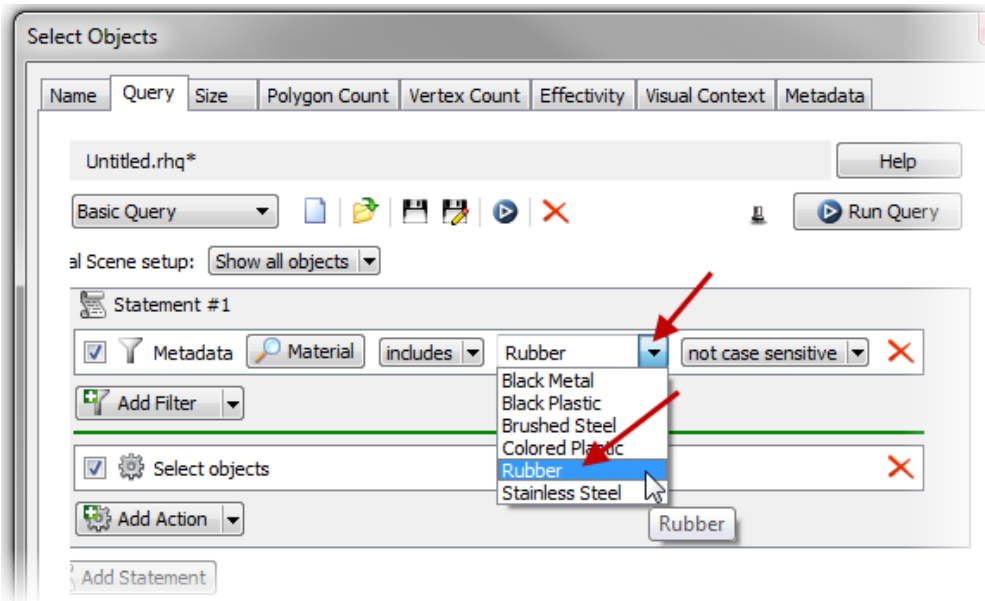
1. Choose F3 on keyboard to open the *Select Objects* window and select the *Query* tab.
2. To add filter, select the down arrow next to *Add filter* and then select *Metadata*.



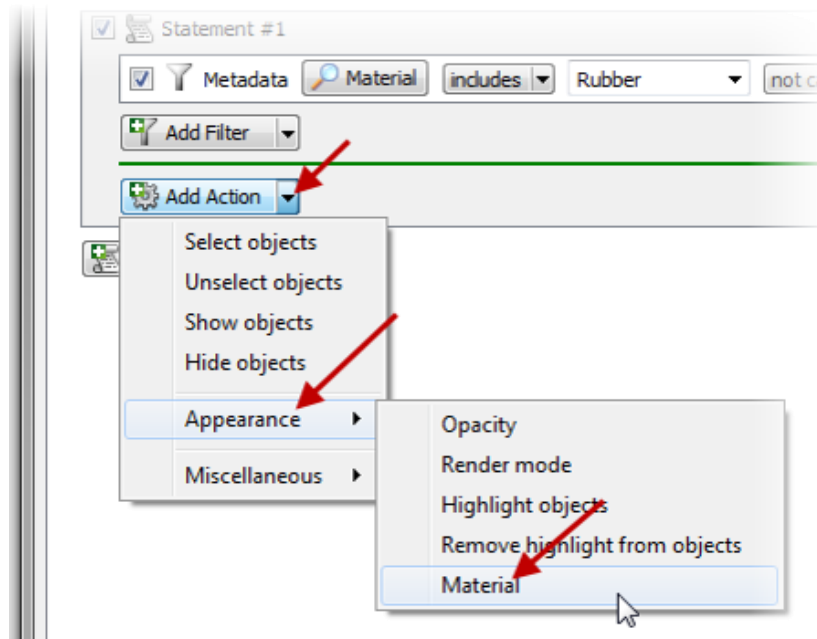
3. In the *Metadata* window select the *Metadata* category with the name *Material*. Notice the unique values, and choose *OK*.



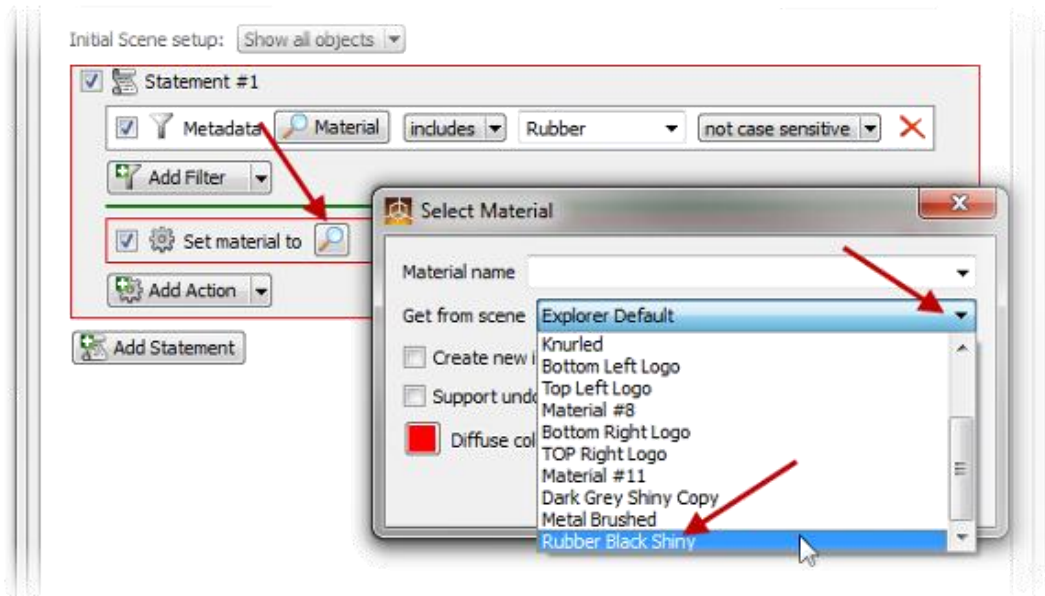
4. Click the down arrow as shown and select *Rubber* as the metadata filter.



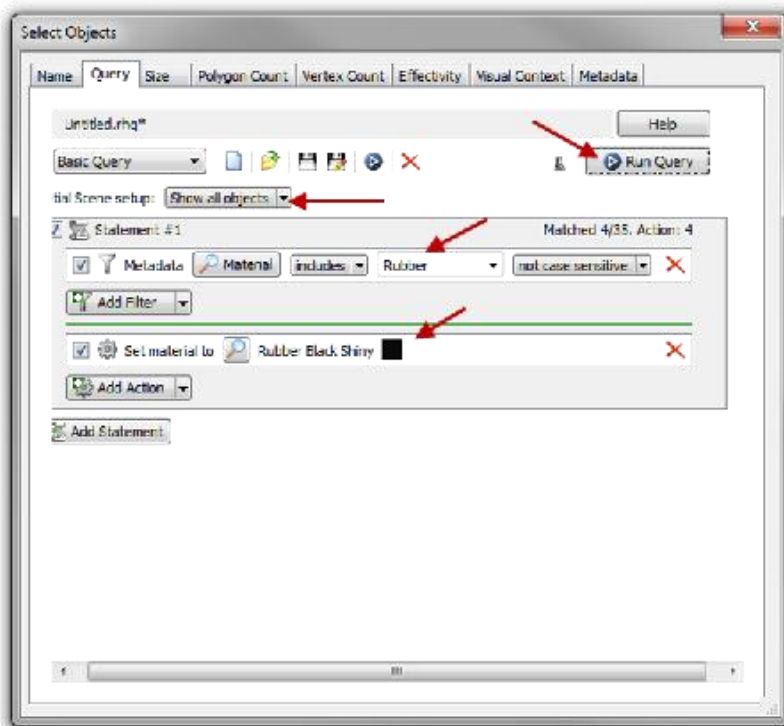
5. Click the down arrow as shown under *Add Action*, select *Appearance* -> *Material*.



6. Select the *Magnifying Glass* icon next to *Set Material To* as shown.



7. In the *Select Material* window choose *Get from Scene* down arrow, select *Rubber Black Shiny* material type and click *OK*.
8. Ensure *Show All Objects* is selected, and choose *Run Query*. Results should be as shown. To add a new statement, create a new filter and action to add the remaining materials to the objects, repeat the procedure above. Here you use a predefined query to complete this in the next section.

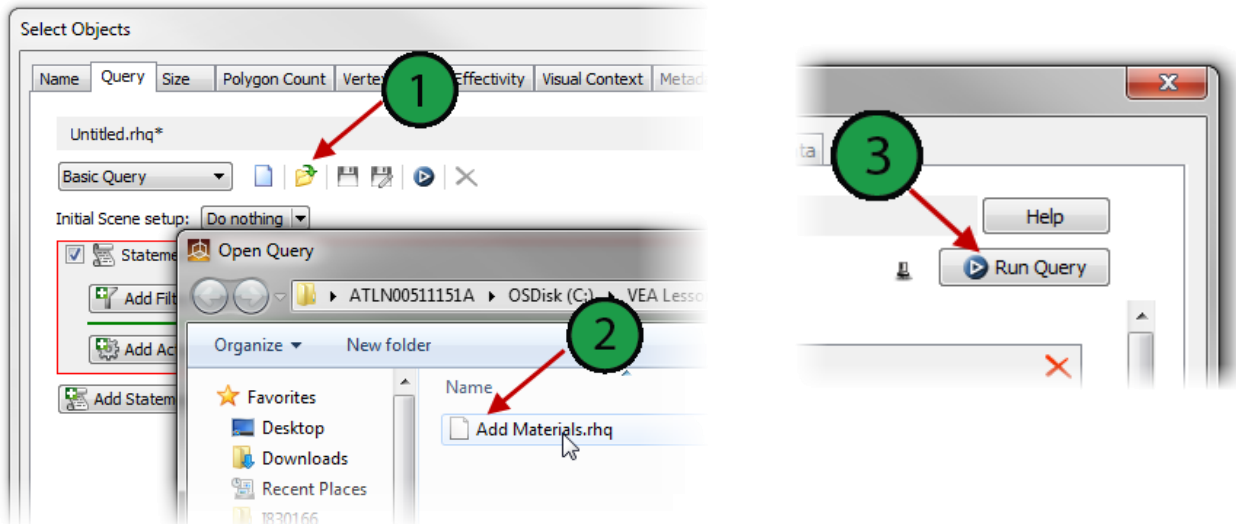


2.3 Loading a Query

You can load a predefined query and execute it to finish adding the materials to the objects in the scene based on their metadata tags.

To load a query, proceed as follows:

1. Choose *Open Query File* and navigate to the *Lesson 1 Folder* location.
2. Select *Add Materials.rhq*.
3. In the query window select *Run Query*.



Result:

After running the query your 3D Scene should appear as shown in the picture.





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