

Materials

Part 1 – Basics & Assigning



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Sessions

1. Basics & Assigning
2. Custom Materials
3. Shared Material Libraries

Advanced techniques

- Advanced Materials
- Cloud Rendering



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Purposes of Materials

Realism/rendering
Drafting appearance
Keynotes for tagging
Thermal/physical properties



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Autodesk Materials

“AEC Materials” Library

Maps usually under;

C:\Program Files (x86)\Common Files\Autodesk
Shared\Materials



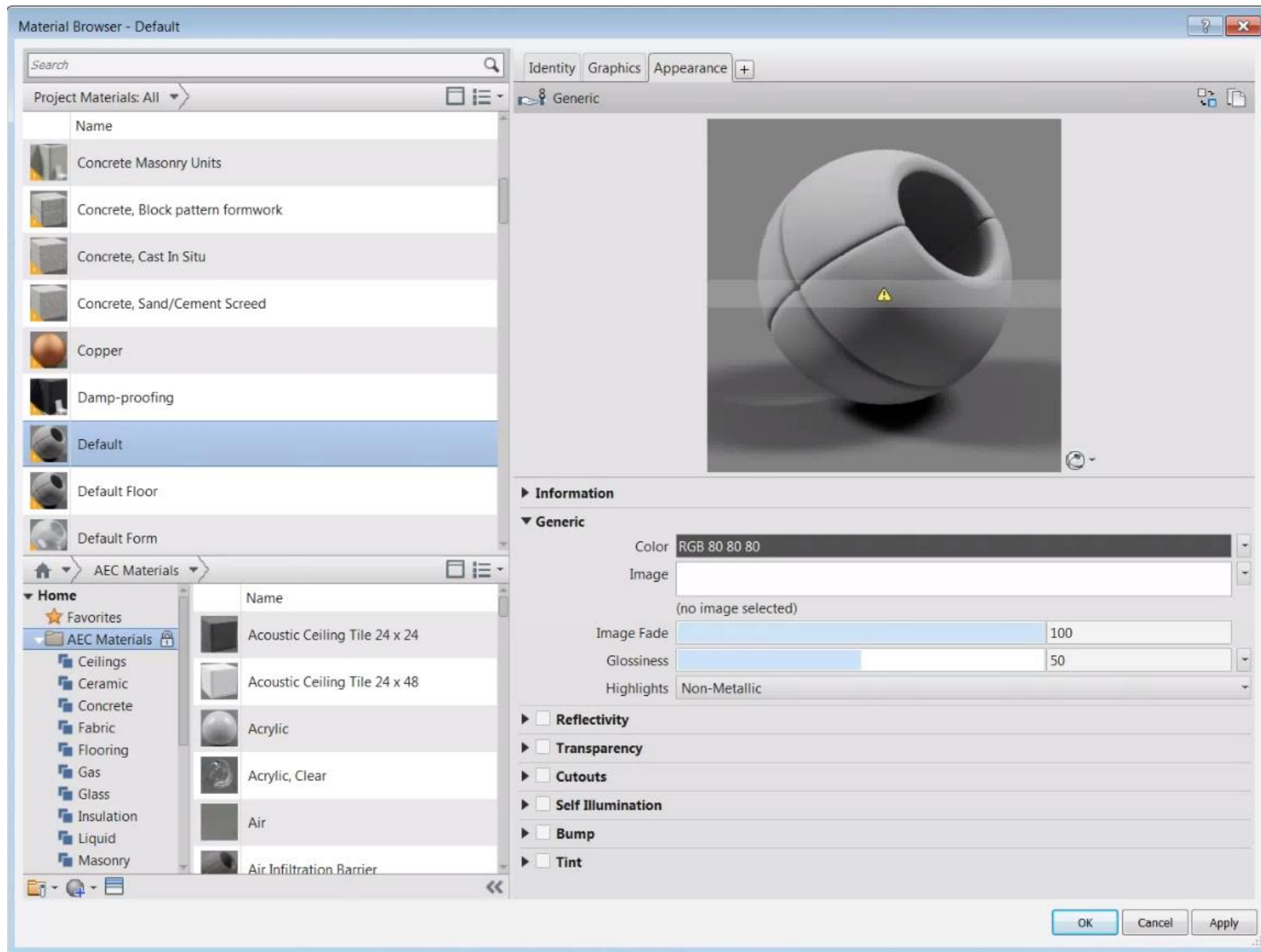
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Aspects of a Material

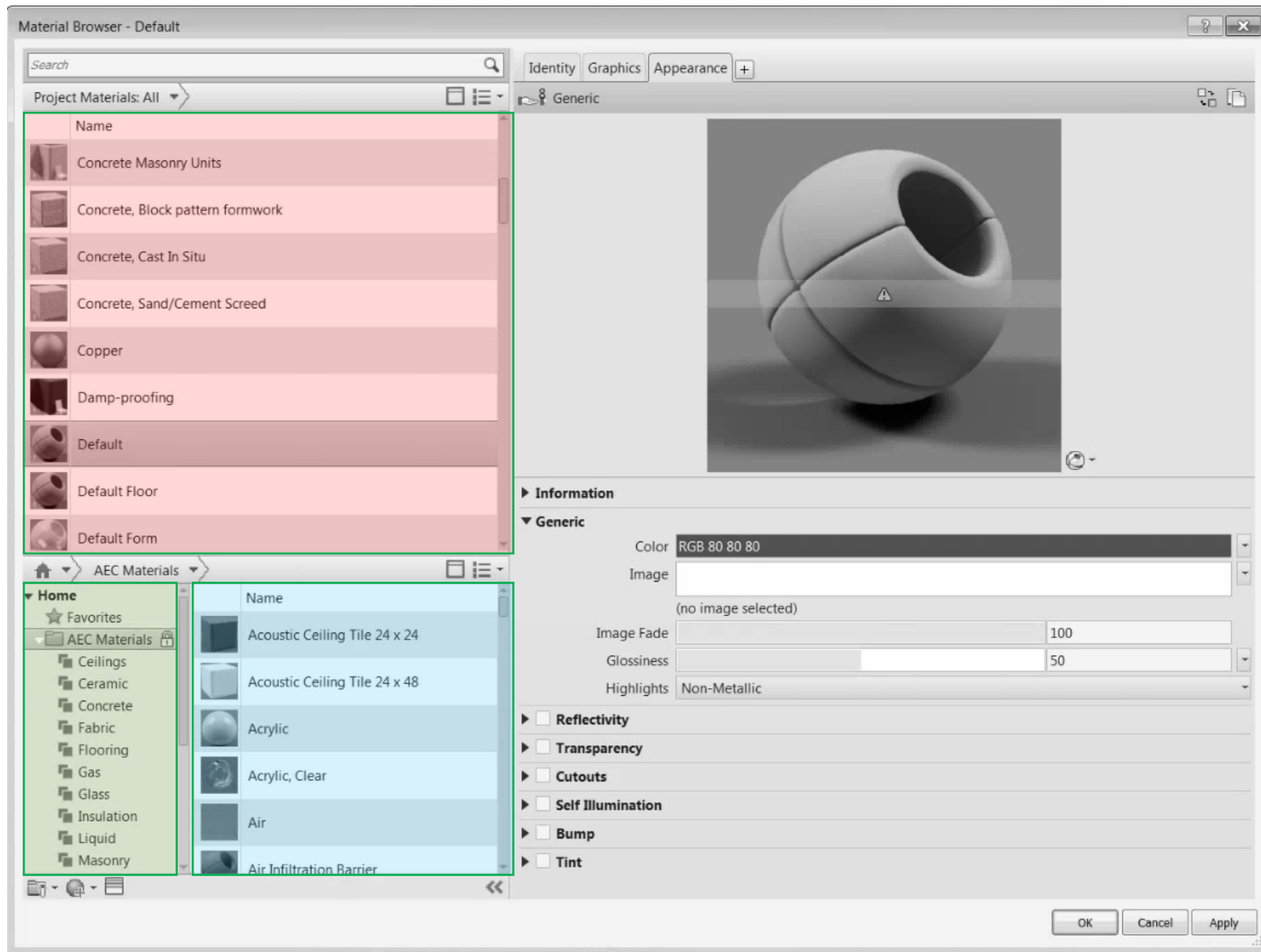
Unboxing the user interface



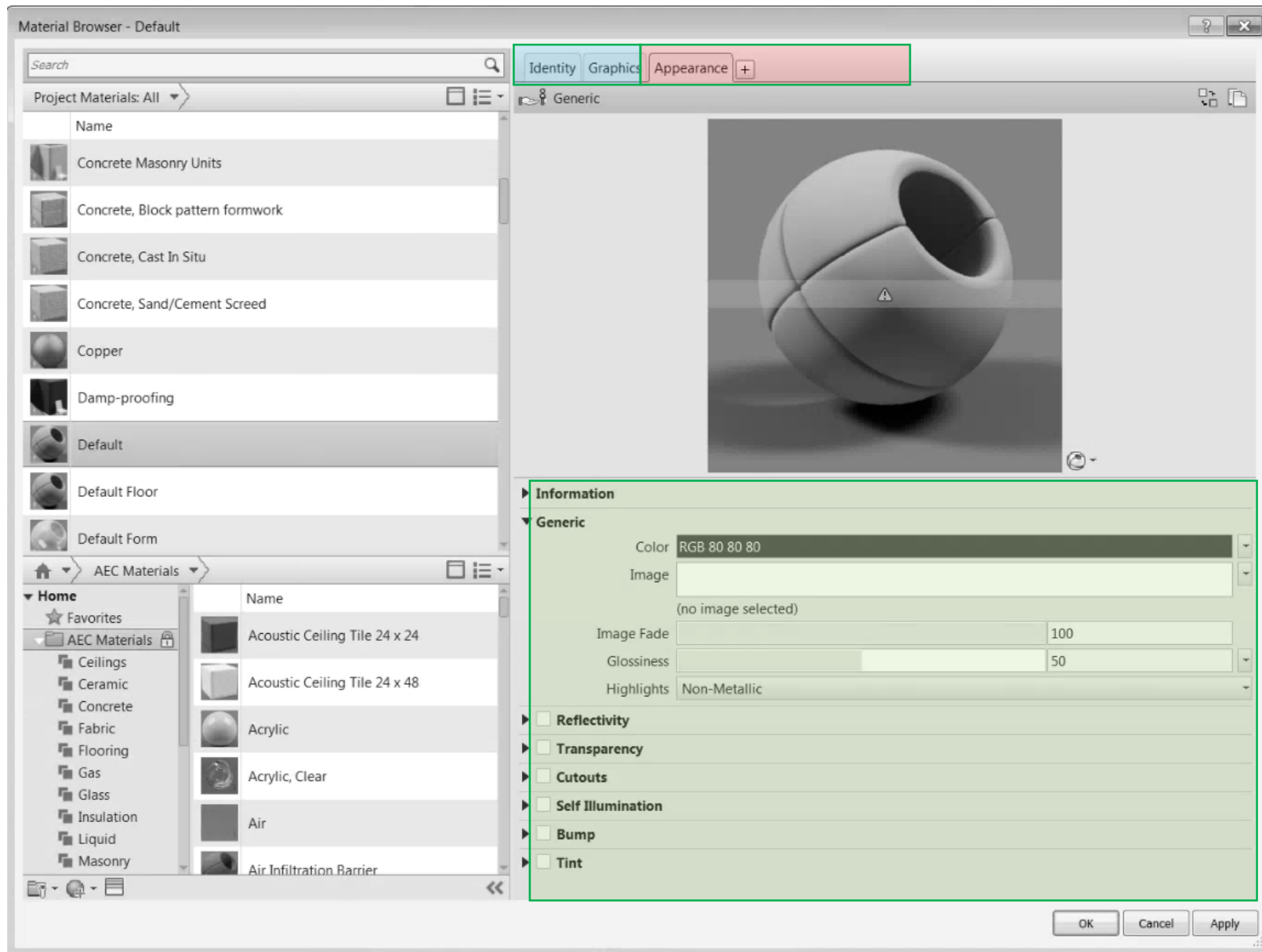
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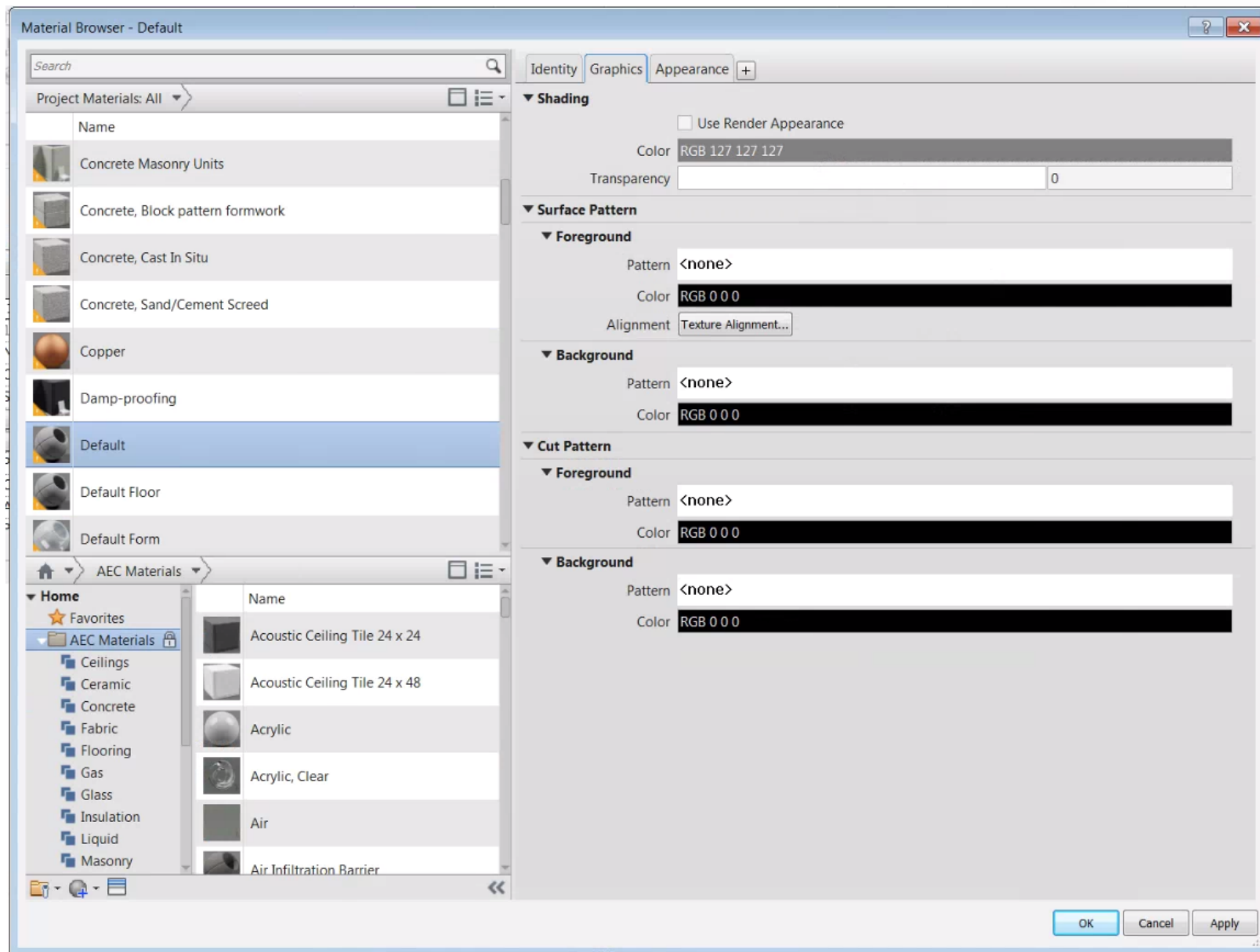
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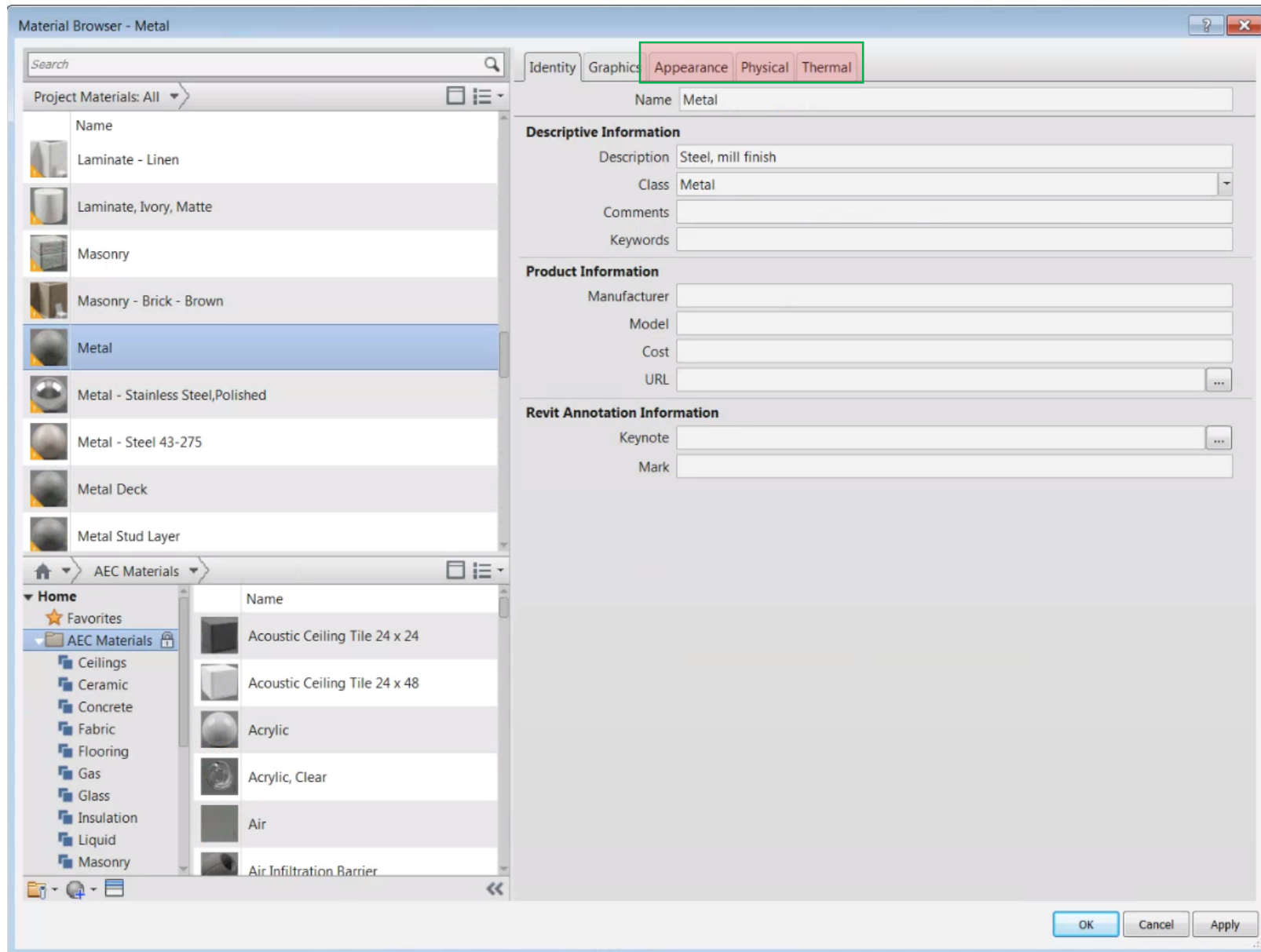
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Material Assets

Managing the properties



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Asset Templates

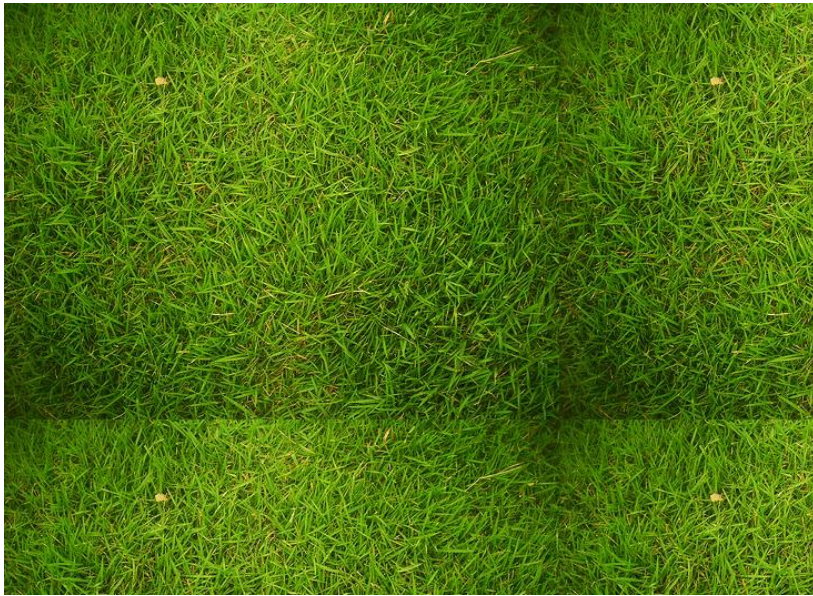
Lots of types...



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Important

Material maps need to be seamless
Or they will look very odd!



Appearance Maps

Common examples...

Diffuse

Bump/Displace/Roughness

Reflection/Refraction

Cutout

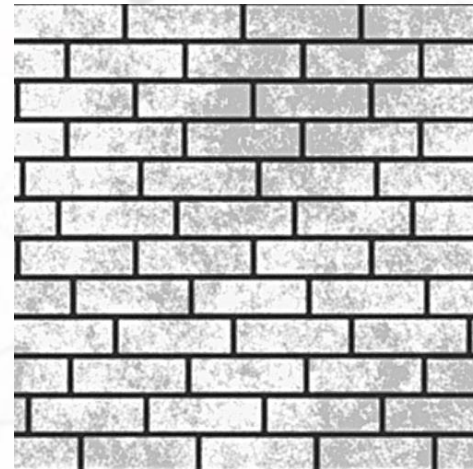


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Bump

Tells light sources how to catch 'bumps' in the surface of a surface

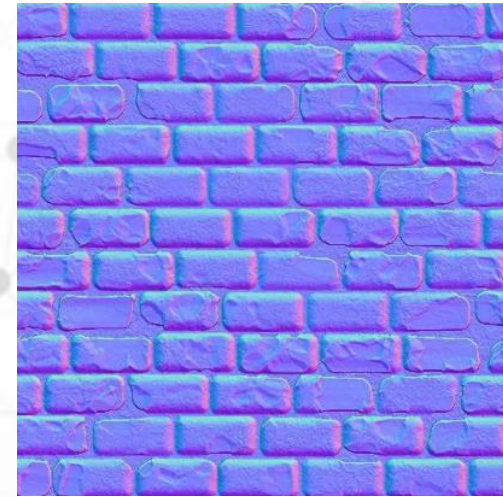
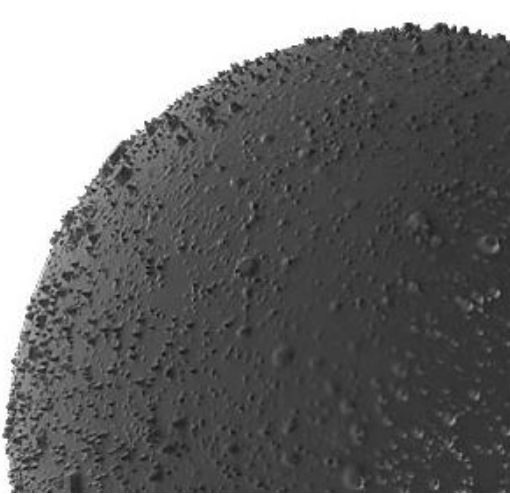
NB: does not actually indent in 3D



Displacement/Normal (2019+)

Actually physically displaces a surface, so light finds cracks etc.

Usually provides more realism, especially close



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Reflection/Refraction

Tells light sources how much to reflect or refract (whiter = more intense)



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Cutout

Omits portions of a surface
(black = cut)



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Applying Materials

Common examples...

System families (walls, roofs, ceilings etc.)

Curtain panels and mullions

Paint tool

Family environment



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