

Parallax-Mapping



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Ordinary Texture



Normal-Mapping



Parallax Mapping

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Smooth surface we actually have with a texture on it

Bumpy surface that we pretend to have

4. And, if that bumpy surface was real, then this is the *actual* (s,t) and texture color we *should* place at the fragment we are looking at.

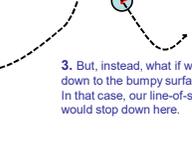
3. But, instead, what if we look "through" that fragment down to the bumpy surface that we are pretending to have. In that case, our line-of-sight wouldn't stop at #2 above. It would stop down here.

1. Here is our Eye Position

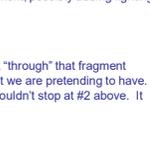
2. This is the fragment we are looking at. It has its own vST. Normally, we would use that vST to index into the texture and plop an RGB into that fragment, possibly adding lighting first.



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This Gets Us a More Realistic Appearance, But Still Maintains the Advantages of Bump-Mapping



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