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Subject: Lightmapping...

Posted by [PiMuRho](#) on Sat, 12 Jun 2004 05:39:33 GMT

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AircraftkillerThey also take up three times the processing power on your video chipset.

From Jani Penttinen - engine programmer for Renegade:

I have no idea what this means, but lightmaps are just an extra texture stage which modulates the primary texture. Lightmaps cause regularly no performance hit, though it is true that they tend to add the number of textures in the scene, which slows things down a little (not much, if everything is designed pretty well). On older video cards it is sometimes needed to render the lightmap as an extra pass (rather than a secondary stage), which obviously consumes more fillrate.

Lightmaps are always 100% precomputed, so they don't make things slower. Lightmaps are usually really low resolution, because the lighting information doesn't need to be accurate. Especially when you combine with the high resolution primary texture, the results are pretty good looking.

AircraftkillerThey didn't get away with anything. The multi-pass lightmapping, in conjunction with the close proximity of the bases and the way the levels were designed, ended up causing most of the frame rate issues in the game.

Not true at all. What caused most of the performance problems was that the assets had been mostly designed for older generation of 3D cards, and not really optimized for new hardware (new being GeForce2 in this case). After the game shipped I created guidelines for new art and we successfully created levels with more than 500k polygons visible, running a steady 60 fps on ATI R200 (GF3 era card). Do some googling and search for Renegade 2 screenshots, you should be able to find some that were leaked after the studio was shut down. This was running with the same core technology, just with better designed art assets.

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