The object of this work is to create software implementing two algorithms for global ilumination computing. Iradiance and radiance caching should be implemented in CUDA framework on graphics card (GPU). Parallel implementation on GPU should dramatically improve algoritm speed compared to CPU implementation. The software will be written using already done framework for global illumunation computation. That allow to focus to algorithm implementation only. This work should speed up testing of new or existing methods for global illumination computing, because saving and reusing of intermediate results can be used for other algorithms too.