Wavefont recording plane (WRP) is a prominent method for faster calculation of computer generated hologram (CGH). In this paper, a method for enhancement of reconstructed image quality and faster calculation speed using Distributed Multiple WRPs (D-WRPs) is presented. Depth ranges are created based on the number of object points and WRP is set closest to the depth layer with highest number of object point. Due to creation WRPs closer to the maximum number of object point calculation time for recording light intensity on the WRP is greatly reduced. Moreover higher intensity is recorded which would produce higher quality reconstructed images. Computer simulated results for the proposed method are shown.