Multilayered geometries are very important building blocks for optical structures. Optical antennas, transmission lines and bio and chemical sensors are all built with the help of the unique features of the multilayered geometries (e.g. guided waves, energy localization, etc.). As a result of increasing number of layered geometry applications, it has become crucial to analyze the multilayered geometries in a robust way in the optical range of the spectrum. It has been shown that the layered media Green’s functions (expansions) integrated into Multiple Multipole Program (MMP) work well in the analysis of such structures in the optical range. In this talk, we will introduce an update for these expansions, so called the complex origin layered media Green’s functions. By this update, the user can modify the shape of the beam that is radiated from the expansion. This would reduce the number of expansions needed for the whole problem, therefore decrease the time required for the solution, especially for long structures compared with the wavelength. In this talk, the derivation of the complex origin layered media Green’s functions will be discussed with a special emphasis on the physical meaning of complex origin and some numerical examples will be demonstrated.