       This thesis presents a novel implementation of Vertex Connection and Merging (VCM) in a spectral framework with Hero Wavelength Spectral Sampling (HWSS) support. To the best of our knowledge, this is the first work to successfully achieve this integration. The primary objective was to enhance the efficiency and accuracy of light transport simulations in complex spectral scenarios. Additionally, the system incorporates fluorescence simulation capabilities, although the current implementation captures only a subset of fluorescent effects. Our implementation adds support for fluorescent effects to a light tracer and progressive photon mapper.