Skin is one of the most difficult materials to reproduce in computer graphics, mainly due to two major factors: First, the complexity of the light interactions happening at the subsurface layers of skin, and second, the high sensitivity of our perceptual system to the artificial imperfections commonly appearing in synthetic skin models. Many current approaches mix physically-based algorithms with image-based improvements to achieve realistic skin rendering in real-time. Unfortunately, those algorithms still suffer from artifacts such as halos or incorrect diffusion. Some of these artifacts (e.g. incorrect diffusion) are especially noticeable if the models have not been previously segmented. In this paper we present some extensions to the Separable Subsurface Scattering (SSSS) framework that reduce those artifacts while still maintaining a high framerate. The result is an improved algorithm that achieves high quality rendering for models directly obtained from scanners, not requiring further processing.