X-ray reflectivity is commonly used in the analysis of thin film thickness and surface/interface roughness. By fitting a properly measured x-ray reflectivity curve with a theoretically calculated one, one can learn the film structure with fairly high precision. In practice, however, even with the simplest single-layer film, it is not always easy to obtain a satisfactory fitting result using a homogeneous single-layer model. Here, we discuss a few practical techniques that can be used for achieving improved fitting results and to extract more detailed structural information of the film. In particular, we will consider single-layer films with natural surface adsorption or linear and random density variations along the surface normal.