We have coupled the Dynamically Penalized Likelihood (DPL) inverse treatment-planning algorithm with a commercial, 3D treatment planning system. The DPL algorithm is an iterative method based on the Maximum Likelihood Estimator. The DPL algorithm has been shown to be fast, flexible and robust in finding solutions to inverse problems with simple patient modeling and energy deposition. The coupling of the DPL algorithm and the commercial system allowed us to find solutions that accounted for scatter and beam divergence during the beam weight optimization phase by using a FDA approved pencil beam calculation engine. The commercial system was used to generate a separate dose matrix for each of the pencil beams in the plans. These dose matrices were made available to the DPL algorithm. The DPL algorithm was used to find inverse problem solutions based on the geometry supplied and with full knowledge of the dose contributions by each of the pencil beams involved in the plan as supplied by the commercial system. We subsequently compared three different beam optimization results from: 1) parallel pencil beams with primary only optimization and forward calculation 2) parallel pencil beams with primary only optimization and full scatter forward calculation and 3) divergent pencil beams with full scatter optimization and forward calculation. Significant differences were obtained when the beam weights from the primary only optimization were used in a forward calculation in the commercial system. Once scatter and divergence were considered during the optimization, the DPL's results agreed with those of the commercial system.