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### Challenge

Mevion needed to enhance beam quality, increase stability and uptime to reduce system complexity, increase reliability, while lowering capital and operating costs.

### Solution

Mevion chose Dassault Systèmes' Opera for finite element analysis as a powerful standalone low frequency electromagnetic (EM), electromechanical, and multiphysics solver to simulate an advanced interaction of various EM fields.

### Benefits

Proton therapy destroys tumors with a precise, targeted dose of radiation that minimizes radiation exposure to nearby healthy tissue. Opera's low frequency EM solver provides a simulation tool to optimize this effect and further enhance accuracy. With enhanced beam quality and accuracy, protons are charged to reach the exact depth of the tumor location.