

# Maestro

## Few Things Are More Challenging Than Tumors That Move

**ACCOUNTING FOR TUMOR MOTION** is one of the most difficult tasks faced in treatment planning. A variety of limitations in traditional systems force clinicians to choose between accuracy and efficiency when preparing plans that factor in a tumor's motion.

#### COMMON CHALLENGES

#### Image Registrations Are Unreliable, and Display Options Are Limited

- · It's difficult and time-consuming to register diagnostic images and 4D images accurately.
- · You often can't display diagnostic images, 4D images, and registrations at once in a useful layout.
- · You can't easily adjust the layout to suit your purpose.

### Traditional Systems Limit Your Ability to Make the Best Possible Treatment Decisions

- $\cdot\,$  It's typically not feasible to contour the target on every phase of the 4D CT.
- $\cdot\,$  You're forced to rely on the Max IP to create the ITV. This has been proven to overestimate or underestimate the actual tumor size.
- · Estimating total tumor motion is a laborious, imprecise process.
- · Algorithm limitations make creating an accurate PET/CT to Plan CT registration difficult, if not impossible.
- Motion artifact usually results in clinicians throwing out poor data during binning, instead of correcting it.

#### Availability of MIPs Can Be Limited

- Depending on the system used to bin 4D data, you can't always create Max, Mean, and Min IP derived series.
- $\cdot\,$  You often don't have access to the appropriate MIP series.



Simplify Tumor Motion with MIM Maestro® www.mimsoftware.com/4d-motion



