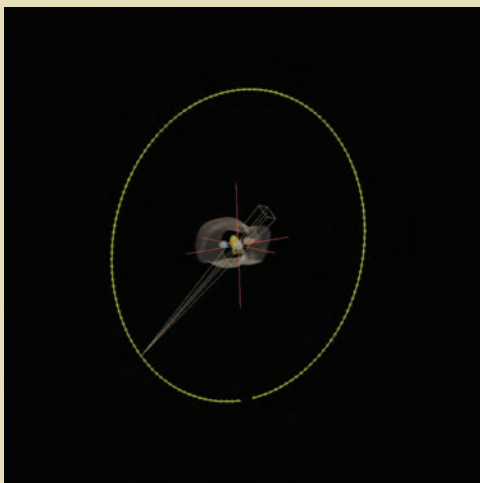
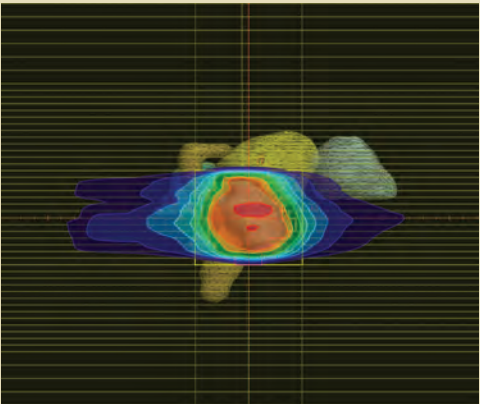
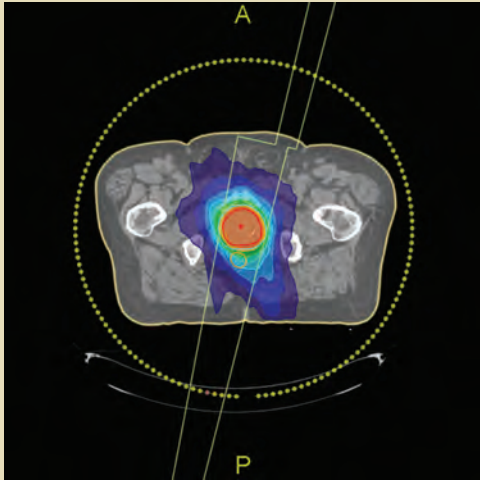


Panther TPS – ProArc (VMAT)

Revolutionize Cancer Treatment with ProArc



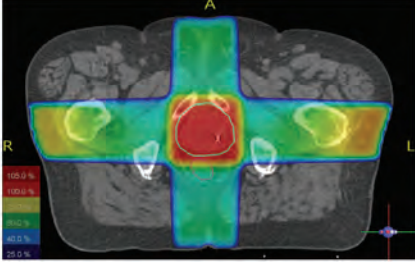
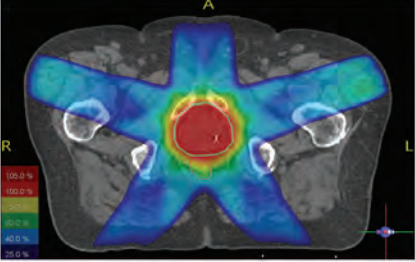
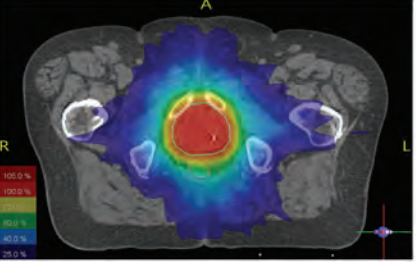
Prowess is dedicated to saving lives by delivering products with the highest efficiency and efficacy. By leveraging decades of research and refinement of our Direct Aperture Optimization (DAO) algorithm – first introduced for IMRT planning in 2004 – Prowess has embraced the future of external beam radiation therapy and now offers the next level of accuracy and speed.

Compatibility and Versatility

ProArc supports multiple vendor hardware and their rotational IMRT techniques. Whether your clinic uses Varian, Elekta, Akesis, Shinva, or Siemens linear accelerators, Prowess provides a compatible treatment planning system to help deliver the best patient care.

Benefits:

- **Comprehensive DAO Integration:** Enables plan creation considering all machine parameters and motion limits, ensuring optimized dose distribution can be delivered.
- **Automatic Parameter Enforcement:** Dose rate, gantry speed, collimator speed, and leaf movement are enforced during optimization.
- **Reduced Treatment Time:** Faster than IMRT delivery, minimizing patient discomfort and treatment time.
- **Minimized Intra-fractional Movement:** Reduces the chance of patient movement during treatment.
- **Improved Patient Comfort:** Enhances the overall treatment experience.
- **Enhanced Dose Conformality:** Provides better dose distribution conformity, minimizing hot spots near the patient's skin.
- **Lower Total Body Dose:** Reduces high dose spreading to nearby organs at risk (OARs).

Treatment Type	Conformal (4 beams)	Step & Shoot IMRT (5 beams)	PROARC IMRT (1 arc)
Delivery Time	~5 minutes*	~5 minutes*	~2 minutes*
Dose Distribution			
Goal	Improve Conformal plan quality & maintain delivery speed		Maintain IMRT plan quality & improve delivery speed

* Actual delivery time can vary greatly depending on treatment site and plan complexity

By embracing the advancements in DAO and rotational IMRT techniques, ProArc ensures a seamless, efficient, and effective treatment planning experience, revolutionizing cancer treatment with precision and care.

Key Features:

- **Rapid Planning:** GPU-accelerated dose calculations can be performed in less than one minute for most cases.
- **Precise Optimization:** Fine-tune dose distributions with real-time user interaction and multiple constraint settings.
- **High Pass Rate:** Achieves high pass rates without compromising plan quality for deliverability.
- **Flexible Delivery:** Support for various machine types, including variable and constant dose rate systems.
- **Advanced Techniques:** Enable non-coplanar and slip ring gantry treatments.
- **Plan Adaptation:** Optimize on top of existing plans for efficient treatment modifications.
- **Planning Efficiency:** The plan acceptance criteria (DVL) are automatically applied as starting constraints for which templates can be easily modified and saved for improved consistency and even faster optimization workflows.
- **User-Friendly Interface:** Easy to learn and switch between VMAT and IMRT planning due to the shared optimization interface.