

# Swing-DUO™ Software

Swing-DUO™ (Dynamic Uniformity Optimization) software is designed to simulate the combined cathode array uniformity for individually optimized motion profiles used to control the motion of the SCI magnet bars when used with our exclusive Swing Cathode™.

## FEATURES:

- Dwell-based simulation finds the key deposition angles and calculates the amount of time required at each angle.
- Outputs a CAM table for simplified servo programming - angle and time format
- Uniformity optimization for constant power or variable power
- Uniformity optimization refinement using actual measured uniformity results
- Allows customers to determine the amount of wasted material not deposited on the substrate as a function of the motion profiles
- Simple and easy to use web-based interface

## BENEFITS:

- Quickly design coater configurations for optimal uniformity of deposition
- Uniformity compensation for systemic issues in the form of motion profile changes.
- Prevent uniformity drift over the life of the target by creating multiple CAM tables for different target diameters.

For a link to the demonstration video, choose the Swing-DUO™ software from the online products page at [sputteringcomponents.com](http://sputteringcomponents.com)

Members of the SCI website can run the software using the following web address:  
<http://swingduo.sputteringcomponents.com/login>



## Simulated Four Cathode Swing Array

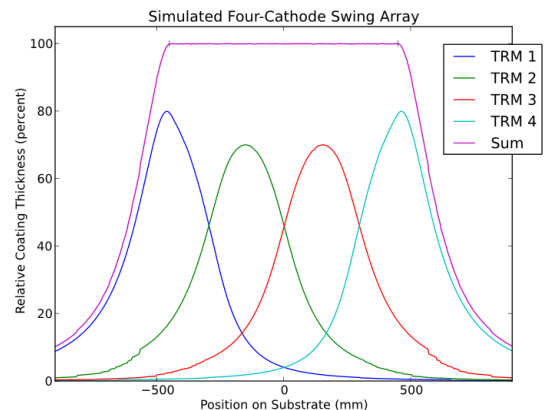


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## Swing-DUO™ Software

Dynamic  
Uniformity  
Optimization

### Optimization Results



±0.11% uniformity across the center region

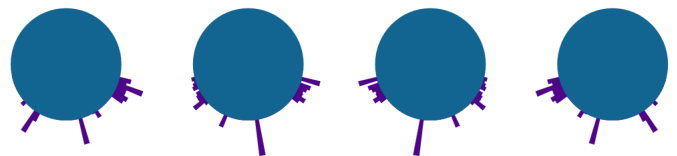
3.74% of output deposited on neighbors

31.72% of output beyond the edge of the substrate

35.46% of output not deposited on the substrate

[Cathode Configuration](#)

[Simulation Output](#)



Magnet Bar Type	<input type="text" value="mQRM"/>	Target to Substrate Distance (TTS) (mm)	<input type="text" value="100.0"/>
Number of Angles	<input type="text" value="51"/>	Substrate Width (mm)	<input type="text" value="900.0"/>
Number of Cathodes	<input type="text" value="4"/>	Cathode Spacing (mm)	<input type="text" value="250.0"/>
Target Material OD (mm)	<input type="text" value="152.0"/>	<input type="button" value="Run Simulation"/>	

Customers will experience improved coating efficiencies in the large area and high aspect ratio coating industries.