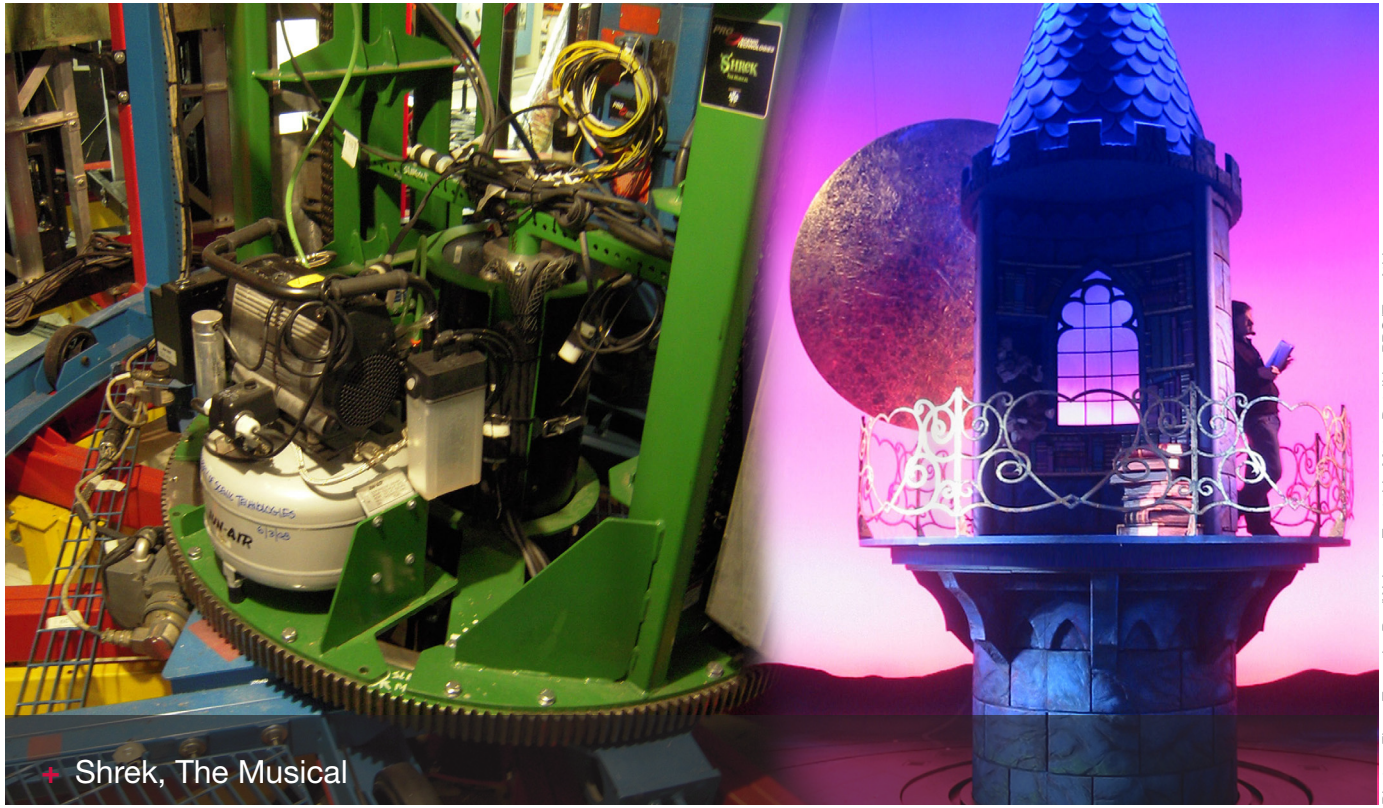
Challenge

Engineer and build the complex automated multiple revolves for the Broadway production of *Shrek, The Musical.*



+ Shrek, The Musical

Photos: Fiona Tower by PaulWeimar; Turntable Motor Detail by PRG/Troy Atkinson

Solution: Tony Award-winning scenic designer Tim Hatley trusted PRG Scenic Technologies to engineer and build the automated floor unit for *Shrek, The Musical*. Hatley designed a complicated system with three revolves laid concentrically inside each other that also housed five elevators. He wanted linear delivery of the scenery but at the same time he didn't want tracks all over the stage. "We had to find a way to get the revolve concept to work so that scenery could move left to right or upstage to downstage," explains Hatley.

The whole turntable assembly is 10 feet tall. The largest turntable is 27 feet in diameter; the smallest is 8 feet. The smallest turntable lifts from the deck to a height of 5 feet. The complex engineering of the automation required each turntable to have a different drive style. The largest turntable is a grommet-drive with a cable around the outside.

The center one is a chain-drive turntable with a chain around the outside, and the inner turntable is a pinion-gear turntable, which is rotated from the perimeter. To achieve precise positioning, which was critical, all the turntables utilize perimeter-drives.

PRG's Stage Command® system is used to control all the deck automation systems, and PRG's standard 1388 and 1395 Drive Racks are used for motor control.

Scenic Technologies scope of work also included electrification of over 42,000 individual three-color LED's embedded in 16 fiberglass shells that act as a video wall when aligned. Of the entire experience Hatley said, "Scenic Technologies was a joy to work with throughout the entire process."