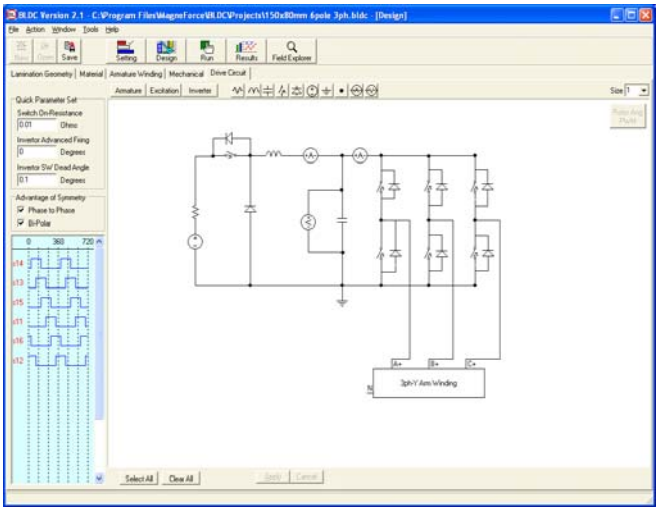
MagneForce
Software Systems, Inc.

Innovative, Brushless DC Design Tool

BLDC is an entire brushless DC design environment. A designer begins by choosing from a library of parameterized slot modules or by drawing from scratch. Once the geometry is set, materials are selected and windings are added by completing a simple table corresponding to each phase.

Using BLDC's built in schematic capture the designer next builds the inverter topology and describes the control signals. From simple rotor position control to advanced PWM operation BLDC can simulate it. The design is then "run" using one of three solver methods, all of which rely on the Finite Element Method for magnetic field calculations at successive rotor positions.

Full parameterized output is provided without any additional processing. Output ranges from machine inductances, currents, voltages, torque as well as flux density and demagnetization plots.

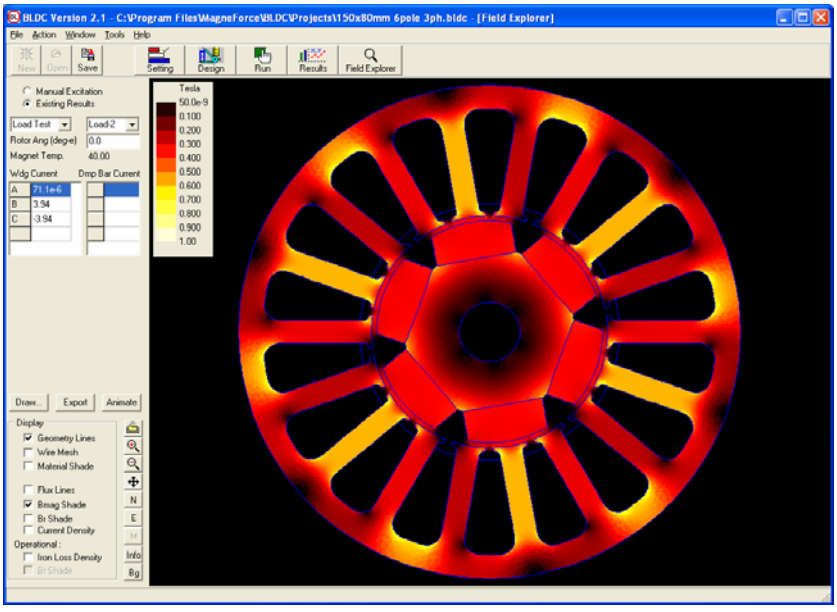


BLDC

Major Features

- Built-In Schematic Capture
- PWM Control Schemes
- No Pre or Post Processing
- Easy Winding Input
- Flux Density Distribution
- Iron Loss Calculation
- Demagnetization Prediction
- All Machine Voltage and Current Waveforms
- Machine Power & Efficiency
- Torque (Output & Cogging)
- Parameterized or Flexible Geometry Input

BLDC is easy to use and easy to remain proficient at, a benefit for casual users, while not sacrificing the in-depth analysis demanded by power users.



Multiple Solvers

- Coupled Finite Element - Time Domain Circuit Model
- Direct Solver for Transient Calculation
- Data Links to Other Popular Circuit Simulators (Simulink, Sabre)

Version 2.1

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