Altair | HyperWorks®

VisSim/Motion™

Motion Control System Design Interface

Block Set

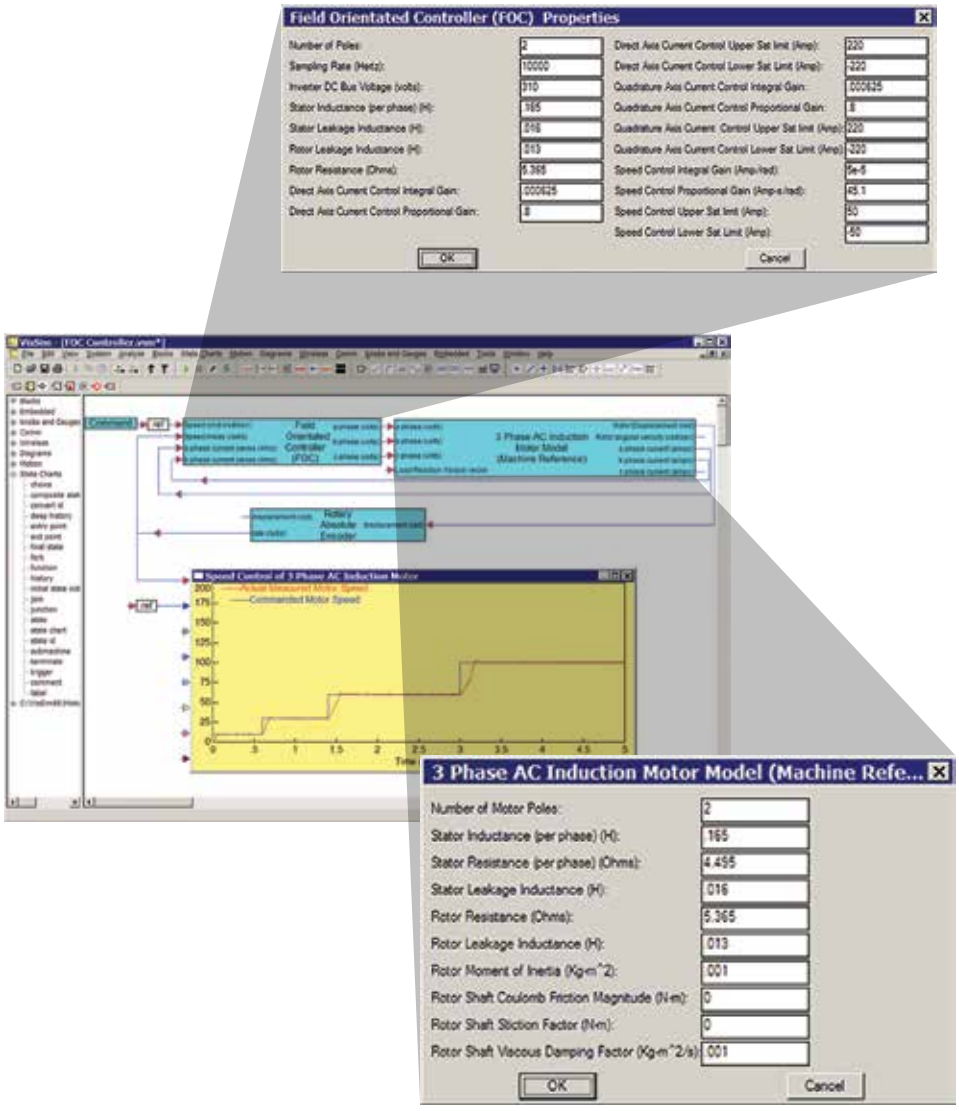
- Amplifiers: PWM Brush (2-Quad, 4-Quad, 2-Quad WCF, 4-Quad WCF; PWM Brush & Brushless Servo
- Controllers: AC Induction Motor Current Model (FOC), Commutator (Six Step), Microstep, PID (Digital & Ideal), Field Orientated, PWM (Dual Phase, Single Phase, Space Vector), Stepper Motor
- Filters: Low Pass, Rate Estimation (Rooftop)
- Loads: Rotational, Translational
- Motors: AC Induction (DQ, Machine Reference), Basic DC (Permanent Magnet), Brushless DC (PLDC/PMSM), Permanent Magnet Stepper (2 Phase)
- Sensors: Frequency Demodulator, Hall Sensor, Linear Encoder, LVDT, Rotary Encoder, Rotary Position Sensor, Rotary Servo Potentiometer, Rotary Tachmeter
- Sources: 3-Phase AC, 3-Phase Square Wave Inverter, Triangle Wavae Generator
- Tools: Discrete Integrator
- Transforms: Clarke, Inverse Clark, Park, Inverse Park, Park Stationary

System Requirements

- Professional VisSim v9.0
- Windows XP, Vista, 7, or 8
- 128 MB RAM
- 125 MB hard disk space

Introduction

VisSim/Motion consists of over 40 customizeable blocks (see Block Set). These blocks are implemented in floating point, making them ideal for simulating a motor and controller in VisSim before downloading the code to an embedded target.



VisSim model that simulates Field Oriented Motor Control (FOC) of an AC induction motor using the VisSim Motion block set. Interactive dialog boxes let you configure FOC (top) and 3-Phase AC induction motor (bottom) parameters.