



Your European Partner in Power Simulation

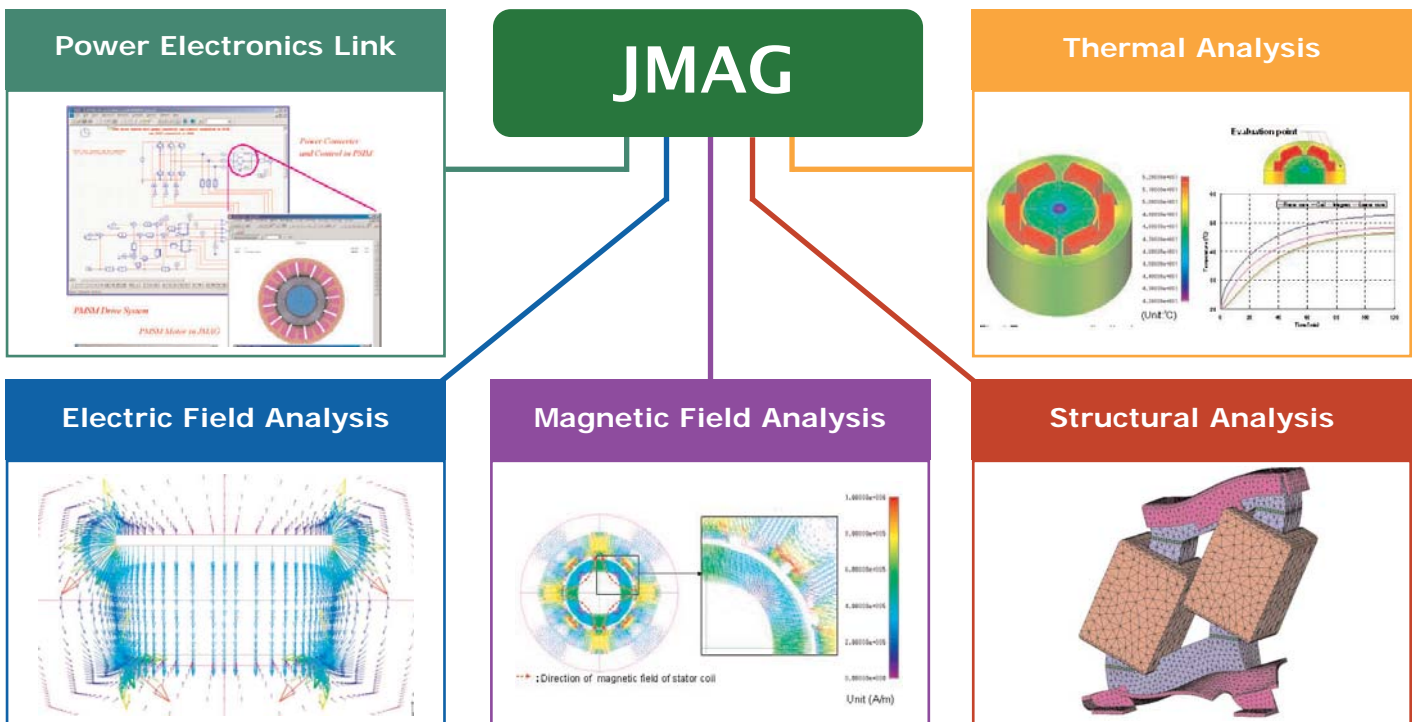
JMAG, a Complete Electromechanical FEA Software

JMAG is an easy-to-use and complete FEA software for electromagnetic field, thermal and structural analyses, developed by JRI Solutions, Limited.

Since first introduced in 1983, JMAG has assisted many companies in a wide range of industries, universities and research institutes for the design and optimization of mechatronic equipments such as motors, actuators, converters, transformers, antennae...

JMAG can be used for a wide range of system design problems, including drive circuits due to the capability to link the analysis with a power electronics simulator.

More than 20 years of experience in developing analysis software and continuous feedback from our customers enables JMAG to consistently offer state of the art simulation technology.



Key Features

- Easy-to-use Interface
- For novices and experts use
- 2D/3D Analyses
- CAD Interfaces
- Coupled Analyses
- Co-simulation with Circuit Software (PSIM, Matlab/Simulink)
- Real Time Modeling Tool
- Iron Loss Calculation, joule loss calculation
- Busbar, coil PM motor inductance calculation
- Parametric analyses

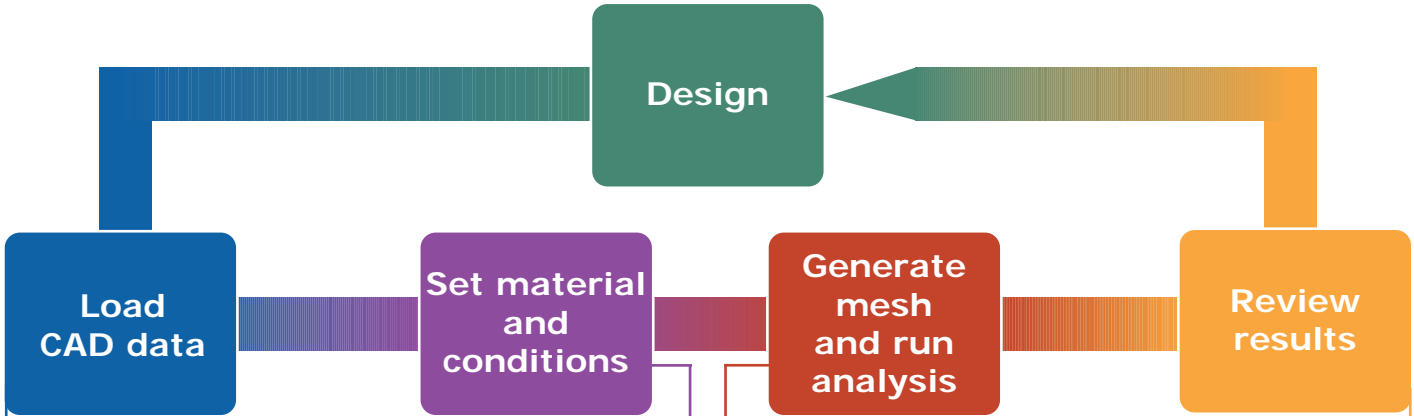
Application Fields

- Motors
- Induction motors
- Generators
- Transformers
- Reactors
- Actuators
- Sensors
- Speakers
- Solenoids
- Busbars
- Magnetic heads
- Magnetic recording
- Nondestructive evaluation
- etc...



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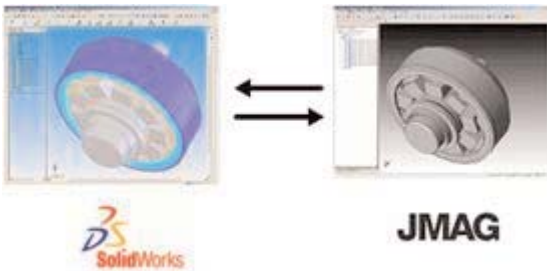
JMAG, from Design to Analysis



Interface with CAD Systems

Link with:

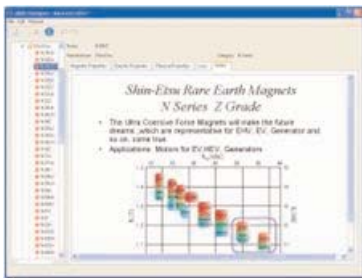
- DXF
- Universal File
- SAT
- IGES (3D)
- CATIA V4, V5
- Pro/Engineer
- SolidWorks (Direct link)



Link with SolidWorks

Material and Condition Setting

- Extensive material database
- Flexible Magnetization Pattern Settings
- Powerful circuit editor



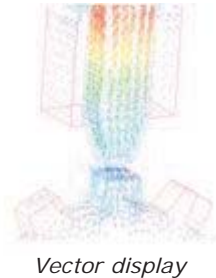
Material database



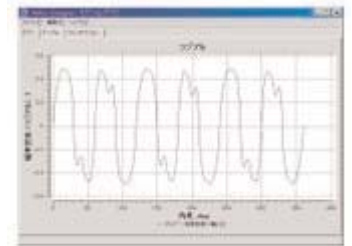
Magnetization pattern

Evaluating Analysis Results

- Vector plots
- Contour
- Selection graphs
- Animation creation



Vector display



Section graph



Contour display

Item	Value	Unit
Flux	1.234	Wb
Force	5.678	N
Power	9.876	W
Temperature	123.4	°C
Current	456.7	A
Voltage	789.0	V
Inductance	1.23	mH
Resistance	4.56	ohm
Capacitance	7.89	nF
Frequency	123.4	Hz
Phase	45.6	deg
Angle	12.3	deg
Length	1.23	mm
Area	4.56	mm²
Volume	7.89	mm³
Mass	12.34	g
Moment	45.67	g·mm²
Inertia	78.90	g·mm⁴

Table

Mesh Generation/Analysis

- Manual mesh
- Automatic mesh
- Adaptive mesh
- Cylindrical slide mesh



Mesh generation