

March 22nd 2011 (Waterloo)

Software Solution Motor Package

Morning session (9.00 to 12.30)

- Welcome message
- **SPEED**[®]: Analytical models for motor performance prediction
- **Motor-CAD**[®]: Thermal analysis of electrical machines

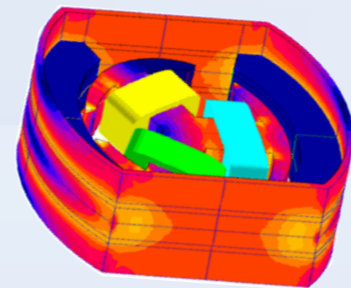
Coffee break

- Flux software environment
- Flux capabilities in motor modelling: circuit, movement, drive
- Motor overlays interface
- 2D FEM design : from static to transient electromechanical behaviour (Flux), Brushless & induction machine

12.30 to 14.00 (Lunch)

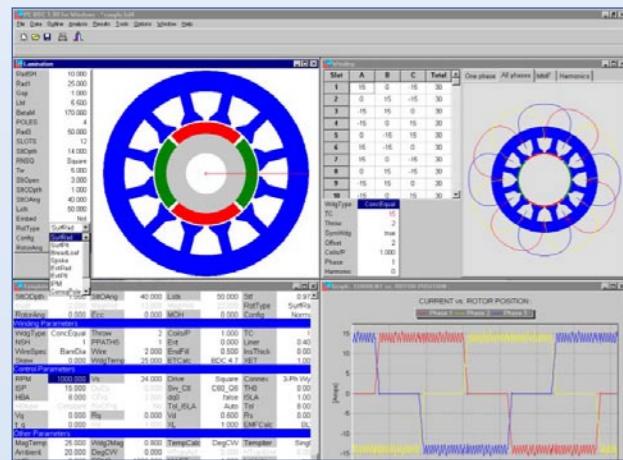
Afternoon session (14.00 to 16.30)

- 3D modelling : from static to transient electromechanical behaviour (Flux) Brushless
- Flux software solutions dedicated to your applications: motors, linear actuators, radiated fields, thermal analysis
- Coupling Flux to Excel[®]
- Possibilities to automate Flux
- Flux / Portunus co-simulation
- Open discussion, close of presentation day

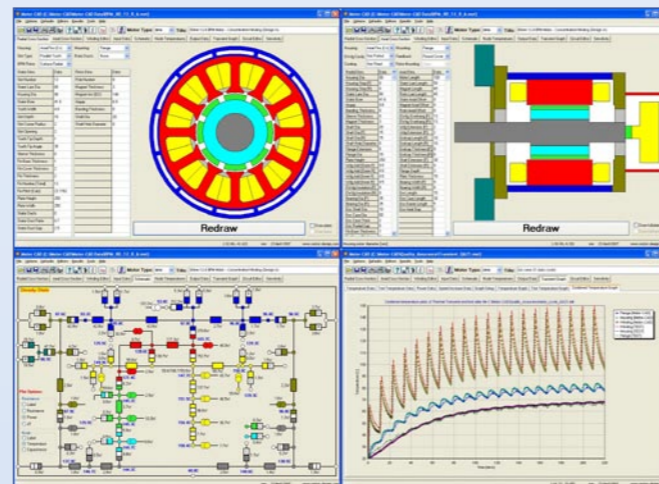


Waterloo (HOTEL Le côté vert)

Chaussée de Bruxelles 200G, B-1410 Waterloo BELGIUM,
Tel: +32-(0)2.354.01.05 - Map: www.cotevert.be



SPEED[®]: Sizing and preliminary design of electric motors



Motor-CAD[®]: Thermal optimisation of electric motors

March 24th 2011 (Eindhoven)

Flux[®]: Electromagnetic and Thermal FE Analysis

Morning session (9.00 to 12.30)

- Welcome message
- Environment
- CAD import capabilities, parametrisation, automatic meshing
- Circuits equations coupling
- Kinematic coupling in rotation and translation
- Static, harmonic and transient applications

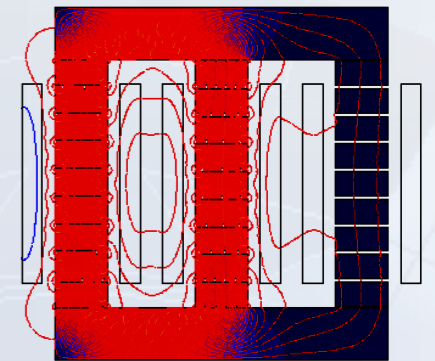
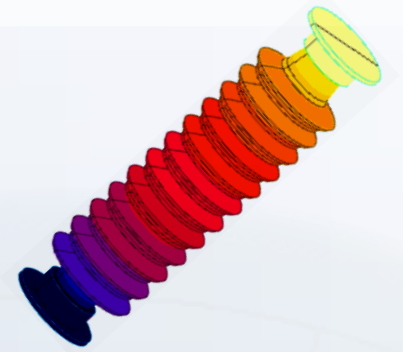
Coffee break

- Embedded circuit descriptor
- Solvers
- Postprocessing capabilities
- Multiphysics
- Python programming language

12.30 to 14.00 (Lunch)

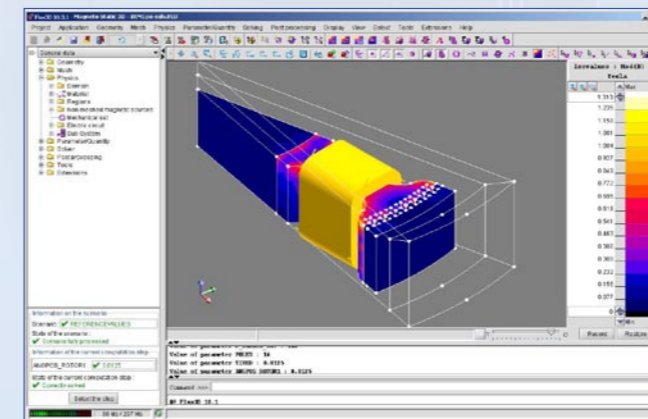
Afternoon session (14.00 to 16.30)

- Flux for multiphysics
- Flux Portunus co-simulation
- Flux software solutions dedicated to your applications: motors, linear actuators, proximity sensors, radiated fields, electric devices, thermal analysis
- Open discussion, close of presentation day

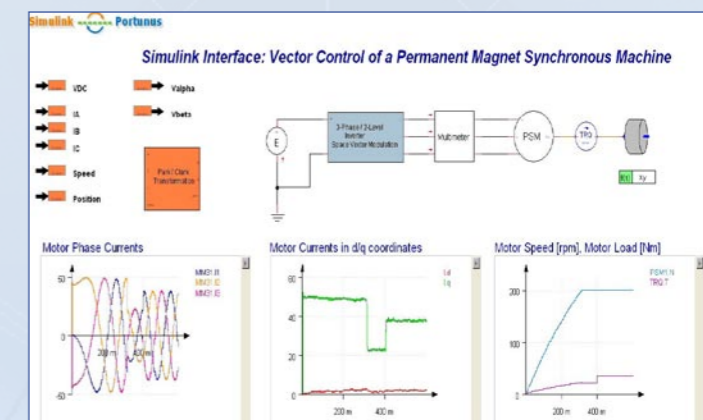


Eindhoven (Technische Universiteit Eindhoven)

Den Dolech 2, P.O. Box 513, 5600 MB Eindhoven, The Netherlands, Tel. +31 40 247 9111
Map: w3.tue.nl/fileadmin/organisatie/objects/doc/plattegrond_eng_2008.pdf



Flux[®]: Electromagnetic and Thermal FE Analysis



Portunus[®]: Mechatronic System Simulator

March 25th 2011 (Eindhoven)
PSCAD®: Power System Simulation
Morning session (9.00 to 12.30)



- Welcome message
- General features
 - »» What is PSCAD/EMTDC?
 - »» Power system Simulators: Transient vs Steady State
 - »» When to use EMT simulations?
 - »» Typical Studies
- PSCAD environment

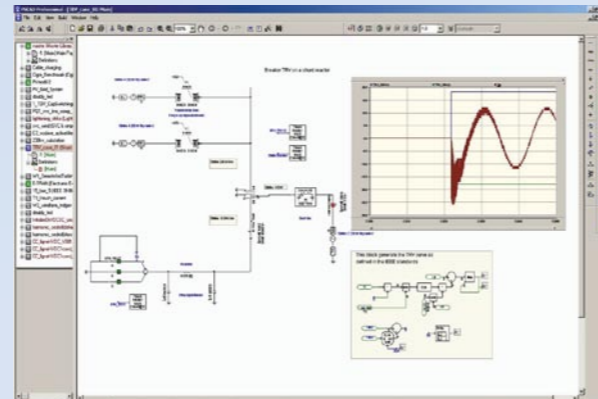
Coffee break

- Simulation Theory /EMTDC
 - »» Network Solution
 - »» Representing components
 - »» Interpolation method
- Create user component
- Black boxing
- Matlab/Simulink® Interface

12.30 to 14.00 (Lunch)

Afternoon session (14.00 to 16.30)

- Example Study Cases
 - »» Transformer Energizing/Inrush
 - »» Line Energizing Study
 - »» Wind Farm modelling
 - »» Fast Transients
- Open discussion, close of presentation day



PSCAD®: Power System Simulation

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These seminars are free of charge!

Please register on line at www.cedrat.com before March 11st 2011.

If you can't join us in Benelux, we propose you the following dates:



- »» **Germany:** March 29th 2011, Dortmund in partnership with MACCON.
- »» **Germany:** March 30th 2011, Mannheim in partnership with MACCON.
- »» **Switzerland:** April 6th 2011, Lausanne, in partnership with applied magnetics.
- »» **Switzerland:** May 4st 2011, Zurich, in partnership with applied magnetics.



15 chemin de Malacher
 Inovallée, 38246 MEYLAN Cedex France,
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Advanced Simulation Methods in Electrical Engineering

**Discover CAD software solutions
fully dedicated to your applications !**

- »» **March 22nd 2011: Waterloo (HOTEL Le côté vert)**
Software Solution Motor Package Presentation
- »» **March 24th 2011: Eindhoven (Eindhoven University of Technology)**
Flux®: Electromagnetic and Thermal FE Analysis Presentation
- »» **March 25th 2011: Eindhoven (Eindhoven University of Technology)**
PSCAD®: Power System Simulation Presentation

- Rotating machines
- Linear actuators
- Transformers & inductors
- Induction heating devices
- Sensors
- High voltage equipment
- Cables, busbars & conductors
- Electromagnetic compatibility
- Non destructive testing
- And much more !

