

# Working with SIMPACK 8.5 and Beyond

Dr. Wolfgang Trautenberg,  
INTEC GmbH

# Working with SIMPACK 8.5 and Beyond

---

## Overview

---

- SIMPACK 8.5 in Numbers
- Key Features of SIMPACK 8.5
- SIMPACK 8.5 Hands On
- SIMPACK whats next

# Working with SIMPACK 8.5 and Beyond

---

## SIMPACK 8.5 in Numbers

---

- Strong Focus on Useability
- Over 400 Development Items
  - Customer Driven
  - Technology driven
  - Bug Fixes
- Development Start April 2000

# Working with SIMPACK 8.5 and Beyond

---

## SIMPACK 8.5 in Numbers

---

- Beta Phase since August 2001
- More than 400 Test Cases grouped in
  - Functionality
  - Solver
  - Customer Models
- First Release December 2002

# Working with SIMPACK 8.5 and Beyond

---

## Key Features for SIMPACK 8.5

- Freely Definable Unit System
- User Routines
- Substitution Variables
- Function Expressions
- Modelling Element Library expansions

# Working with SIMPACK 8.5 and Beyond

---

## Key Features for SIMPACK 8.5

- Track Module
- Linearization / Modal Analysis
- Static Equilibrium
- Data Import/Export with Altair Motion View
- Documentation
- Packaging / Dimensions

# Working with SIMPACK 8.5 and Beyond

---

## SIMPACK 8.5 Hands On Part I

- File Open
- Treeview Selections
- Icons / Right Mouse Button
- Context Sensitive Parameter Lists
- Parametrization / Substitution Variables
- Input Functions / Input Function Arrays

# Working with SIMPACK 8.5 and Beyond

---

## SIMPACK 8.5 Hands On Part I

- New Elements
- Joint States Dependency Setting
- Units
- Function Expressions
- Animation
- Data Export to Motion View



# Working with SIMPACK 8.5 and Beyond

---

## SIMPACK 8.5 Hands On Part II

- Linearization / Modal Analysis
- Static Equilibrium

# Working with SIMPACK 8.5 and Beyond

---

## SIMPACK whats Next

---

- Immediate Developments
- Strategic Focus

# Working with SIMPACK 8.5 and Beyond

---

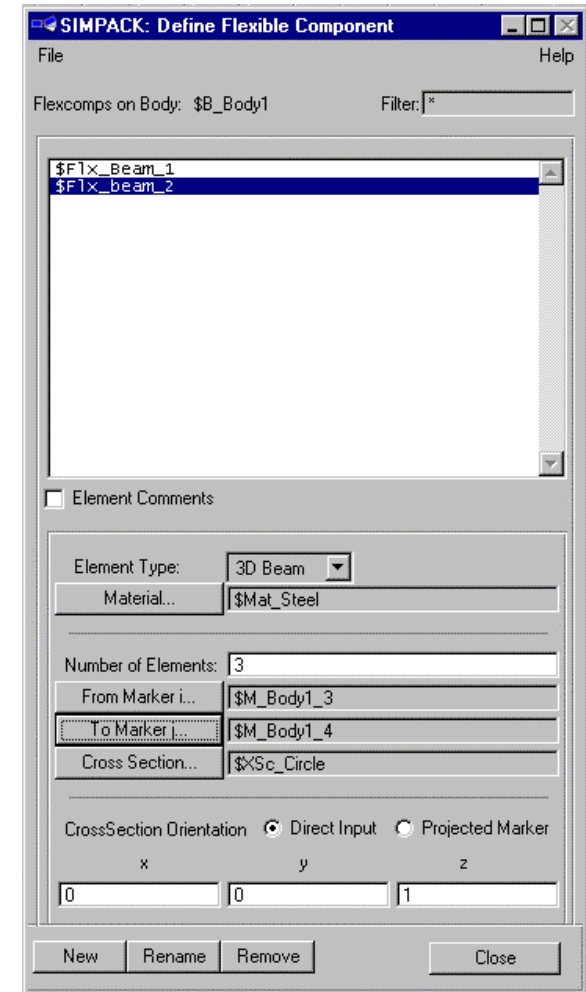
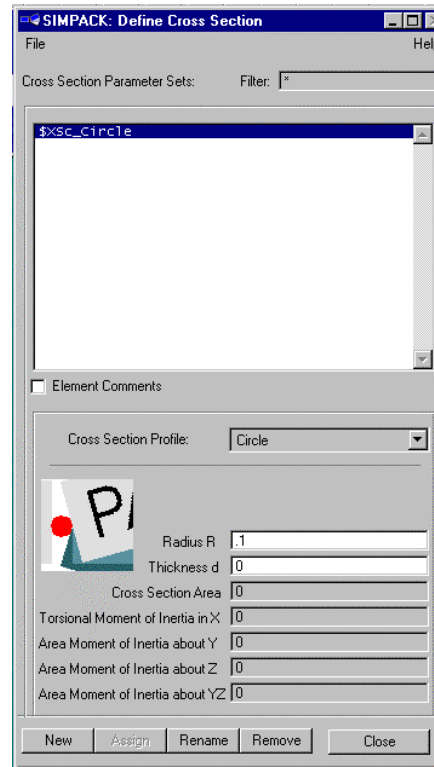
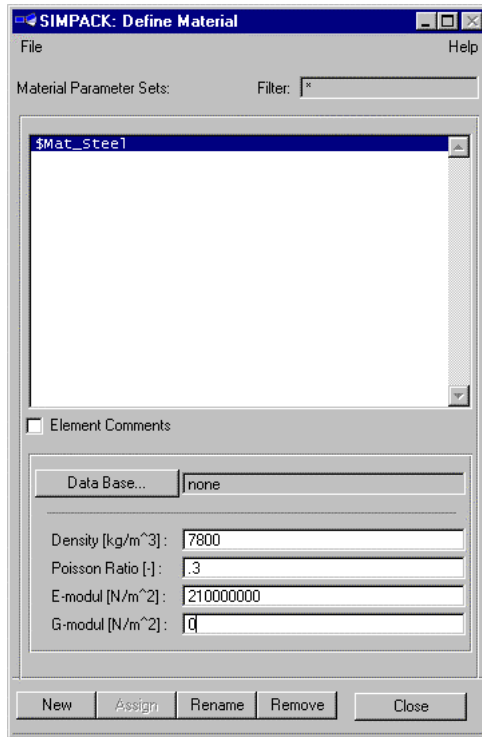
## SIMPACK whats Next: Immediate

- SIMBEAM
- MatSIM
- Modal Plot
- Tyres

## SIMPACT whats Next: SIMBEAM I

- Define Beam Structured FE Models directly in SIMPACK
- Solve Beam Structured FE Models directly in SIMPACK
- Leverage powerful Parametrization for FE Models
- Perform Parameter Variations including FE Models

## SIMPACT whats Next: SIMBEAM II

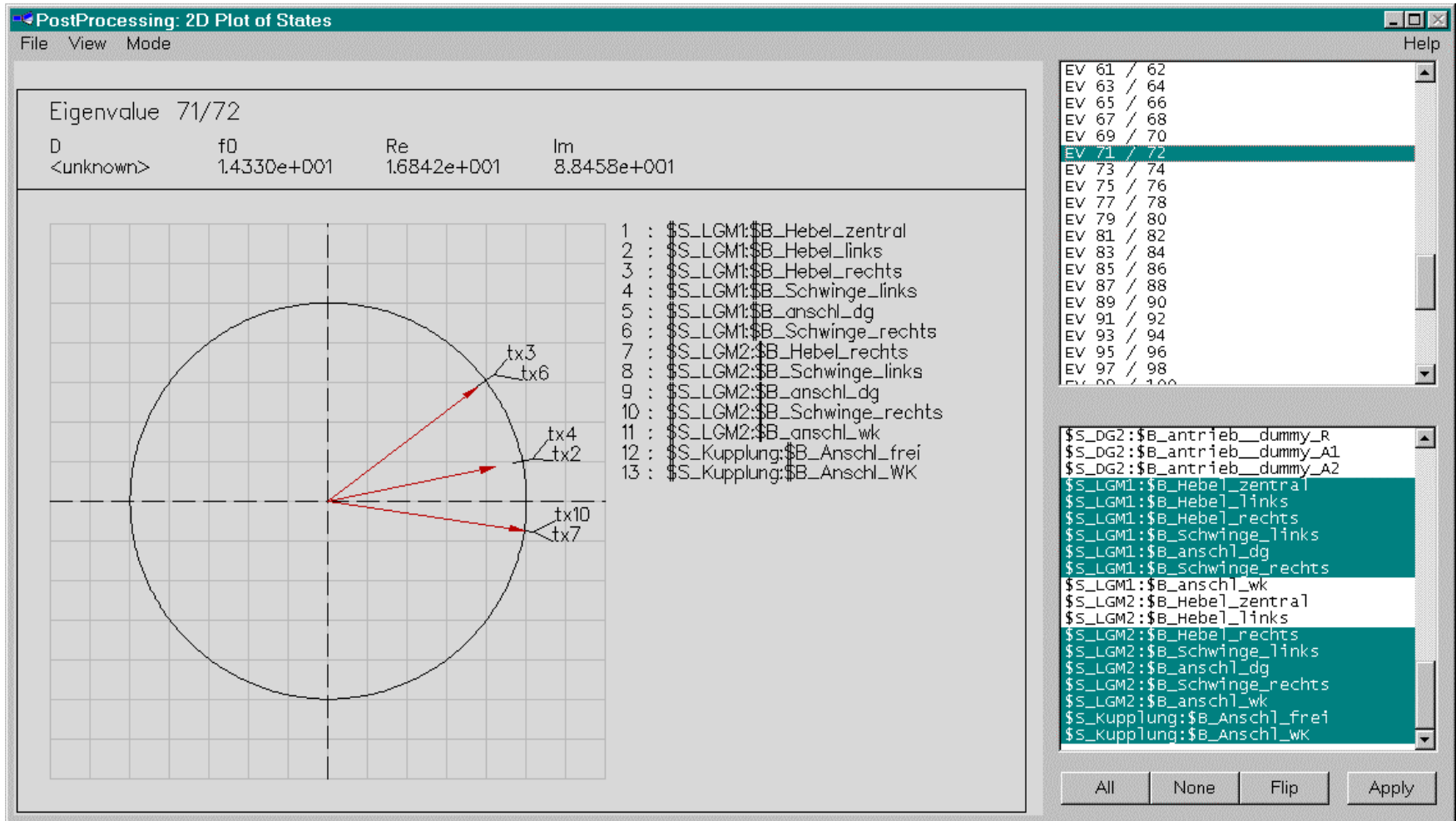


## SIMPACT whats Next: Modal Plot I

- Plot Absolute Modal Results
- Select Modes of Interest
- Select Bodies of Interest
- View Phase and Magnitude Comparison Plot

# Working with SIMPACK 8.5 and Beyond

## SIMPACK whats Next: Modal Plot II



# Working with SIMPACK 8.5 and Beyond

---

## SIMPACK whats Next: Strategic

- Realtime
- Solver 100 times faster
- Flexible Bodies
- Database / Substructures / Parametrization
- GUI and 3D Graphics