2015

Analysis@CATIA

30D, Jalan PJS 1/46, Petaling Utama, Petaling Jaya, 46000 Selangor Darul Ehsan
Tel: +603-7783 3459 | Fax: +603-7781 6818
Email : training@mawea.com.my
Website : www.mawea.com.my

MAWEA INDUSTRIES

Contents

Course	Subject	Code	Duration (day)
2.1.4	Analysis@CATIA		
	Generative Part Structural Analysis	CAT-C01	2
	Generative Assembly Structural Analysis	CAT-C02	1
	Catia Non Linear Analysis	CAT-C03	1

CATIA V5 TRAINING – GENERATIVE PART STRUCTURAL ANALYSIS (G-FEA)

Venue : **MAWEA TRAINING CENTRE** (Petaling Jaya, Selangor)

Date : **TBC**

Duration/Time : **2 Days** (9.00 a.m. to 5.00 p.m.)

Introduction

Generative Part Structural Analysis will teach you how to use advanced Finite Element Analysis pre-processing techniques and post-processing tools, including the concept of defining virtual parts to avoid excessive geometric modeling. You will learn how to perform frequency analysis on a single part, and how to use adaptive meshing to achieve predefined accuracy.

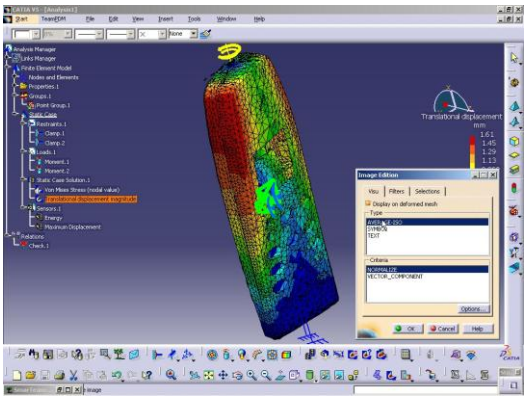
Objective

Generative Part Structural Analysis

- Understand why, when, and how to use Finite Element Analysis
- Use different element types and shapes to mesh a part
- Apply clamp, slider, and iso-static restraints
- Define and customize the material properties of the parts to be analyzed
- Apply pressure, acceleration, and force density loads
- Define virtual parts to simplify the analysis

Contents

- Advanced Pre-Processing Tools
- Historic of Computation
- Frequency Analysis
- Result Visualization
- Computing a Frequency Case
- Result Management
- Computing with Adaptively
- Refinement



Please do not hesitate to call ***MAWEA*** at ***03-7783 3459*** for further info or ***FAX to 03-77816818*** for registration.

MAWEA INDUSTRIES SDN. BHD. (356204-A)

30D, Jalan PJS 1/46, Petaling Utama, 46000 Petaling Jaya, Selangor, Malaysia.

Tel: +603 - 7783 3459 Fax: +603 - 7781 6818 Email: training@mawea.com.my

www.mawea.com.my

CATIA STRUCTURAL ANALYSIS FOR PARTS & ASSEMBLY (G-FEA)

Venue : **MAWEA TRAINING CENTRE** (Petaling Jaya, Selangor)

Date : **TBC**

Duration/Time : **1 Day** (9.00 a.m. to 5.00 p.m.)

Introduction

Generative Assembly Structural Analysis will teach you how to use advanced Finite Element Analysis pre-processing techniques and post-processing tools, including the concept of defining virtual parts to avoid excessive geometric modeling. You will learn how to perform frequency analysis on a single part, and how to use adaptive meshing to achieve predefined accuracy.

Objective

Generative Part Structural Analysis

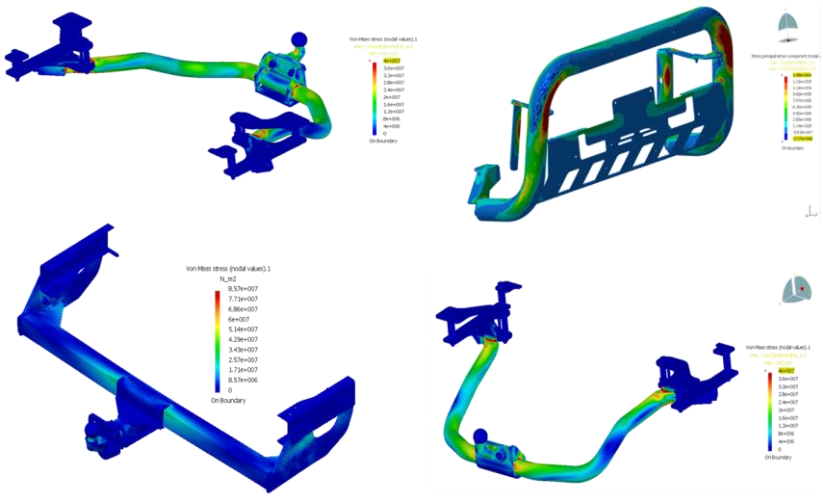
- Understand why, when, and how to use Finite Element Analysis
- Use different element types and shapes to mesh a part
- Apply clamp, slider, and iso-static restraints
- Define and customize the material properties of the parts to be analyzed
- Apply pressure, acceleration, and force density loads
- Define virtual parts to simplify the analysis

Generative Assembly Structural Analysis

- Understand what type of assembly analysis
- Define analysis connection between components
- Using existing assembly constraints to auto create connections
- Assign connection property that fit the joints.

Contents

Advanced Pre-Processing Tools
Historic of Computation
Frequency Analysis
Result Visualization
Computing a Frequency Case
Result Management
Computing with Adaptively Refinement
Assembly Analysis Overview
Analysis Connections and Property
Analysis Assembly Management



Please do not hesitate to call ***MAWEA*** at ***03-7783 3459*** for further info or ***FAX to 03-77816818*** for registration.

MAWEA INDUSTRIES SDN. BHD. (356204-A)
30D, Jalan PJS 1/46, Petaling Utama, 46000 Petaling Jaya, Selangor, Malaysia.
Tel: +603 - 7783 3459 Fax: +603 - 7781 6818 Email: training@mawea.com.my
www.mawea.com.my

DS CATIA
THE DIGITAL PRODUCT EXPERIENCE

CATIA V5 TRAINING – NONLINEAR STRUCTURAL ANALYSIS

Venue : **MAWEA TRAINING CENTRE** (Petaling Jaya, Selangor)

Date : **TBC**

Duration/Time : **1 Day** (9.00 a.m. to 5.00 p.m.)

Introduction

Nonlinear Structural Analysis (ANL) extends the CATIA V5 Analysis capabilities to allow more advanced simulation that includes nonlinear effects, such as large displacements and material nonlinearity. Material plasticity, typical of metals, can be modeled, as can the nonlinear elasticity in hyperelastic materials like rubber. ANL also provides more advanced contact capability including the automatic creation of contact surfaces based on their geometric proximity. ANL allows designers and design engineers to understand the performance of components that are made of materials like rubber that have nonlinear responses. In such scenarios, the designs are flexible and undergo large displacements, or they sustain overload conditions when components might be permanently deformed, but must not fail.

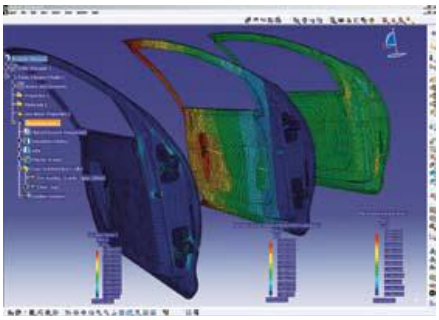
Objectives

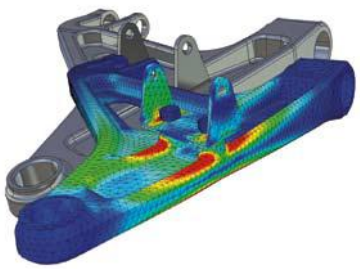
Upon completion of this course you will be able to:

- Includes the effect of large displacements.
- Allows the plastic deformation of materials to be modeled.
- Models the nonlinear elasticity of rubber and other hyperelastic materials.
- Multi-step analysis allows the effect of multiple sequential loadings to be analyzed.
- Provides advanced contact capability including automatic contact detection.
- Performs thermal stress analysis when used in conjunction with Thermal Analysis (ATH).

Contents

- **Basic nonlinear structural analysis**
- **Nonlinear materials**
- **Multi-step analysis**
- **Vibration analysis**
- **Loading**
- **Advanced contact**
- **Connections**
- **Robust, efficient solution**
- **Results interpretation**





Please do not hesitate to call ***MAWEA*** at ***03-7783 3459*** for further info or ***FAX to 03-77816818*** for registration.

MAWEA INDUSTRIES SDN. BHD. (356204-A)

30D, Jalan PJS 1/46, Petaling Utama, 46000 Petaling Jaya, Selangor, Malaysia.

Tel: +603 - 7783 3459 Fax: +603 - 7781 6818 Email: training@mawea.com.my

www.mawea.com.my

DASSAULT SYSTEMES DS CATIA