



ANSYS Workbench Tutorial

Kent Lawrence

Download now

[Click here](#) if your download doesn't start automatically

ANSYS Workbench Tutorial

Kent Lawrence

ANSYS Workbench Tutorial Kent Lawrence

The exercises in the **ANSYS Workbench Tutorial (Release 10)** introduce the reader to effective engineering problem solving through the use of this powerful modeling, simulation and optimization tool. Topics that are covered include solid modeling, stress analysis, conduction/convection heat transfer, thermal stress, vibration and buckling. It is designed for practicing and student engineers alike and is suitable for use with an organized course of instruction or for self-study.

CONTENTS:

INTRODUCTION

- Overview
- The Process
- The Tutorials
- The ANSYS Workbench Interface
- Summary

1 – SOLID MODELING FUNDAMENTALS

- Overview
- Introduction
- Tutorial 1A – Extrusion
- Tutorial 1B – Revolution
- Tutorial 1C – Sweep Sketching
- Summary
- Problems

2 – PLACED FEATURES, ASSEMBLY

- Overview
- Introduction
- Tutorial 2A – Adding A Hole to the Extrusion
- Tutorial 2B – Adding a Round to the Extrusion
- Tutorial 2C – Adding a Chamfer to the Extrusion
- Tutorial 2D – Patterns
- Tutorial 2E – Clevis Assembly
- Tutorial 2F – Alternate Solid Modeler
- Summary
- Problems

3 – MODELING TECHNIQUES

- Overview
- Introduction
- Tutorial 3A – Parameters

- Other CAD Systems
- Surface And Line Models
- Tutorial 3B – Planar Surface Models
- Tutorial 3C – 3D Surface Models
- Tutorial 3D – Line Models
- Summary
- Problems

4 – SIMULATION I

- Overview
- Introduction
- Tutorial 4A – Plate with Central Circular Hole
- Tutorial 4B – Plate with Central Square Hole
- Summary
- Problems

5 - SIMULATION II

- Overview
- Introduction
- Tutorial 5A – Cylindrical Pressure Vessel
- Tutorial 5B – Bracket
- Tutorial 5C – Clevis Assembly
- Summary
- Problems

6 – WIZARDS & TOOLS

- Overview
- Introduction
- Tutorial 6A – Static Loadings – Ductile Materials
- Tutorial 6B – Static Loadings – Brittle Materials
- Tutorial 6C – Fatigue Loadings – Ductile Materials
- Summary
- Problems

7 – HEAT TRANSFER & THERMAL STRESS

- Overview
- Introduction
- Heat Transfer
- Tutorial 7A – Temperature Distribution in a Cylinder
- Thermal Stress I
- Tutorial 7B – Uniform Temperature Change
- Thermal Stress II
- Tutorial 7C – Thermal Stress in a Cylinder
- Summary
- Problems

8 – SURFACE & LINE MODELS

- Overview
- Introduction
- Tutorial 8A – Sheet with Circular Hole – Plane Stress
- Tutorial 8B – Pressure Vessel
- Tutorial 8C – Bracket
- Tutorial 8D – Line-Body Model
- Summary
- Problems

9 – NATURAL FREQUENCIES & BUCKLING LOADS

- Overview
- Introduction
- Tutorial 9A – Simply Supported Beam Frequencies
- Tutorial 9B – Natural Frequencies of a Chime
- Tutorial 9C – Natural Frequencies of an Assembly
- Buckling Loads
- Tutorial 9D – Fixed-Free Column (Flagpole)
- Tutorial 9E – Buckling of a Pinned-Pinned Column
- Tutorial 9F – Buckling of a Built-Up Structure
- Summary
- Problems

ABOUT THE AUTHOR:

Kent L. Lawrence is Professor of Mechanical and Aerospace Engineering, University of Texas at Arlington where he has served as Graduate Advisor, Chair of the Department, and supervised the graduate work of over one hundred masters and PhD students. He is a Life Fellow of ASME, the author of the book ANSYS Tutorial, SDC Publications, 2002, 2003, 2004, 2005, 2006 and coauthor with Robert L. Woods of the text Modeling and Simulation of Dynamic Systems, Prentice-Hall, 1997.

 [Download ANSYS Workbench Tutorial ...pdf](#)

 [Read Online ANSYS Workbench Tutorial ...pdf](#)

Download and Read Free Online ANSYS Workbench Tutorial Kent Lawrence

From reader reviews:

Edward Tuttle:

Do you have favorite book? In case you have, what is your favorite's book? E-book is very important thing for us to learn everything in the world. Each reserve has different aim or perhaps goal; it means that book has different type. Some people truly feel enjoy to spend their time for you to read a book. They may be reading whatever they acquire because their hobby is usually reading a book. What about the person who don't like studying a book? Sometime, man or woman feel need book if they found difficult problem or perhaps exercise. Well, probably you will need this ANSYS Workbench Tutorial.

John Bledsoe:

In this 21st centuries, people become competitive in every way. By being competitive right now, people have do something to make these survives, being in the middle of the crowded place and notice simply by surrounding. One thing that often many people have underestimated that for a while is reading. Sure, by reading a reserve your ability to survive improve then having chance to remain than other is high. For you who want to start reading a new book, we give you this specific ANSYS Workbench Tutorial book as starter and daily reading guide. Why, because this book is usually more than just a book.

Ernestine Biggs:

Do you certainly one of people who can't read gratifying if the sentence chained in the straightway, hold on guys this particular aren't like that. This ANSYS Workbench Tutorial book is readable through you who hate those perfect word style. You will find the information here are arrange for enjoyable examining experience without leaving perhaps decrease the knowledge that want to supply to you. The writer regarding ANSYS Workbench Tutorial content conveys thinking easily to understand by many people. The printed and e-book are not different in the content material but it just different such as it. So , do you still thinking ANSYS Workbench Tutorial is not loveable to be your top record reading book?

Earl Casey:

This ANSYS Workbench Tutorial is brand new way for you who has interest to look for some information because it relief your hunger details. Getting deeper you in it getting knowledge more you know or else you who still having bit of digest in reading this ANSYS Workbench Tutorial can be the light food for yourself because the information inside this kind of book is easy to get by means of anyone. These books build itself in the form which can be reachable by anyone, yes I mean in the e-book form. People who think that in guide form make them feel drowsy even dizzy this reserve is the answer. So there is no in reading a reserve especially this one. You can find what you are looking for. It should be here for anyone. So , don't miss the idea! Just read this e-book style for your better life and also knowledge.

**Download and Read Online ANSYS Workbench Tutorial Kent
Lawrence #O6UHC GF0ES5**

Read ANSYS Workbench Tutorial by Kent Lawrence for online ebook

ANSYS Workbench Tutorial by Kent Lawrence Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read ANSYS Workbench Tutorial by Kent Lawrence books to read online.

Online ANSYS Workbench Tutorial by Kent Lawrence ebook PDF download

ANSYS Workbench Tutorial by Kent Lawrence Doc

ANSYS Workbench Tutorial by Kent Lawrence Mobipocket

ANSYS Workbench Tutorial by Kent Lawrence EPub