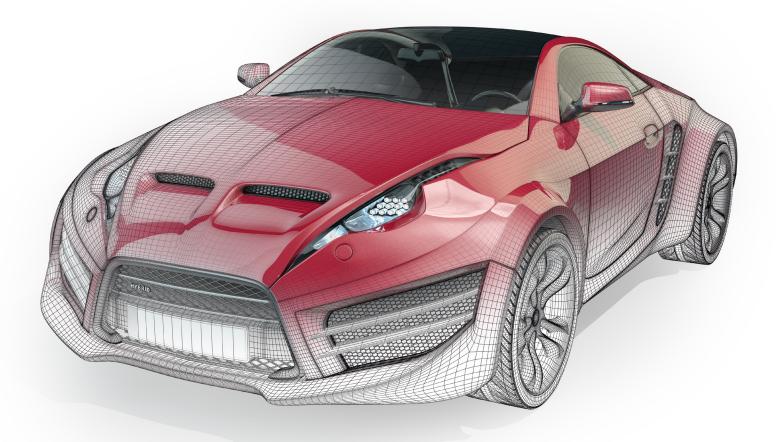
# **CSWE** Certified SolidWorks® Expert **Preparation Materials** SolidWorks 2010 - 2015



Paul Tran CSWE, CSWI



## Visit the following websites to learn more about this book:



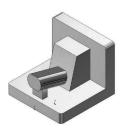


Copyrights Notices Disclaimer Trademarks

## Introduction: Are You the Next CSWE?

#### **Chapter 1: Surface Modifications** 1-1 Chapter summary 1-1 Tools Needed 1-2 Opening a part document 1-3 Working with Surfaces 1-3 Deleting the faces 1-3 Measuring the angle 1-4 Rotating the handle 1-5 Recreating the surfaces 1-6 Hiding a surface body 1-8 Trimming the surfaces 1-9 Showing a surface body 1-10 Knitting all surface bodies 1-10 Creating a section view 1-11 Measuring the mass 1-11 Exercise: Surface Modifications 1-13

## **Chapter 2: Assembly Modifications**



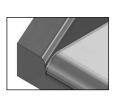
Dig Modifications	2-1
Chapter summary	2-1
Fools Needed	2-2
Opening an assembly document	2-3
Editing the first component	2-3
Adding Draft	2-4
Viewing the draft results	2-5
Editing the second component	2-6
Replacing a plane	2-6
Repairing the sketch errors	2-7
Correcting the end condition	2-8
Exiting the edit component mode	2-9



Measuring the center of mass	2-10
Exercise: Using manual drafts	2-11

3-1

## **Chapter 3: The Order of Fillets**





Chapter summary	3-1
Tools Needed	3-2
Opening a part document	3-3
Comparing the fillet results	3-3
Planning the order of fillets	3-4
Adding the face fillet	3-4
Creating the constant fillet	3-5
Adding another constant fillet	3-6
Measuring the mass	3-6
Exercise: Fillet Options	3-7

#### **Chapter 4: Creating a Flat Spring Assembly** 4-1 Chapter summary 4-1 **Tools Needed** 4-2 Starting a new part template 4-3 Creating the helix - the sweep path 4-4 Creating the sweep profile 4-4 Adding the pierce relation 4-5 Creating the swept feature 4-5 Creating an axis 4-6 Opening an assembly document 4-7 Inserting the part into an assembly 4-7 Showing the axis 4-7 Adding mates 4-8 Checking the degrees of freedom 4-8 Adding coincident mates 4-9 Applying dimension changes 4-11 Viewing the results 4-12 Calculating the center of mass 4-12 Exercise: Spring Assembly 4-13

# Chapter 5: Part Modifications5-1Chapter summary5-1Tools Needed5-2Opening a part document5-3

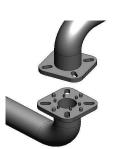
#### **CSWE | Exam Preparation | Table of Contents**

		5.0
	Modifying the model	5-3
	Converting the outline of a feature	5-3
" Malada La Miller	Deleting the on-edge relations	5-4
	Removing the raised feature	5-5
	Creating a cut	5-5
	Recreating the sweep path	5-6
	Using projected curve	5-6
SUDANAR	Creating the sweep profile	5-7
ECONA A PROS	Adding the pierce relation	5-7
	Creating a swept feature	5-8
	Calculating the mass	5-9
	Exercise: Part modifications	5-11
and the second		

#### **Chapter 6: Replacing External References** 6-1 Chapter summary 6-1 **Tools Needed** 6-2 Opening an assembly document 6-3 Examining the existing mates 6-3 Suppressing the InPlace mate 6-4 Adding a concentric mate 6-4 Editing a component 6-5 Replacing the sketch plane 6-5 Viewing the external reference symbols 6-6 Exiting the edit component mode 6-6 Adding new mates 6-7 Adding a concentric mate 6\_7

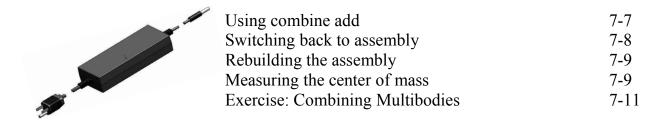
Adding a concentric mate	0-7
Adding a distance mate	6-7
Measuring the center of mass	6-8
Exercise: Replacing External References	6-9

## **Chapter 7: Working with Multibodies**



ig with Multibodies	7-1
Chapter summary	7-1
Tools Needed	7-2
Opening an assembly file	7-3
Switching to the part level	7-4
Editing a feature	7-4
Using Move / Copy / Constraint	7-5
Adding mates	7-5
Changing the display option	7-6
Using the combine command	7-7

### **CSWE | Exam Preparation | Table of Contents**



## **Chapter 8: Creating a Curved Spring**



ng a Curved Spring	8-1
Chapter summary	8-1
Tools Needed	8-2
Starting a new part template	8-3
Creating the sweep path	8-3
Creating the sweep profile	8-4
Creating a swept feature	8-4
Setting the twist type	8-5
Entering the number of turns	8-5
Assigning the material	8-5
Calculating the final mass	8-6
Exercise: Circular Spring – Expanded	8-7

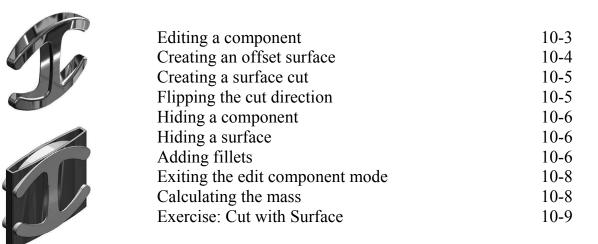
Chapter 9: Wo	rking with Sketch Pictures	9-1
-	Chapter summary	9-1
	Tools Needed	9-2
X	Creating a layout sketch	9-3
	Inserting the picture	9-4
	Locating the picture	9-4
	Scaling the picture	9-5
-	Tracing the picture	9-5
	Creating the offset entities	9-7



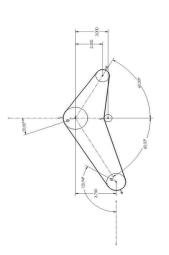
Inserting the picture	9-4
Locating the picture	9-4
Scaling the picture	9-5
Tracing the picture	9-5
Creating the offset entities	9-7
Closing off the sketch profile	9-7
Adding the sketch fillets	9-8
Adding the revolved centerline	9-9
Revolving the profile	9-10
Measuring the mass of the part	9-10
Exercise: Working with Sketch Pictures	9-11

Chapter 10: Cut with Surface	10-1
Chapter summary	10-1
Tools Needed	10-2
Opening an assembly file	10-3

#### **CSWE | Exam Preparation | Table of Contents**



## **Chapter 11: Using Belt Chain**



j Beit Chain	11-1
Chapter summary	11-1
Tools Needed	11-2
Staring a new part template	11-3
Creating the main sketch	11-3
Making the blocks	11-4
Creating a belt chain	11-5
Entering the belt length	11-6
Adding the angular dimensions	11-7
Adding a reference dimension	11-7
Applying dimension changes	11-8
Checking the new belt length	11-9
Changing the pulley's angle	11-9
Verifying the new belt length	11-10
Exercise: Creating a belt chain	11-11

## Glossary

## Index

## **SolidWorks Quick-Guides:**

Quick Reference Guide to SolidWorks Command Icons and Toolbars.

