SOLIDWORKS®

SOLIDWORKS Electrical: 3D

Dassault Systèmes SolidWorks Corporation 175 Wyman Street Waltham, MA 02451 U.S.A. © 1995-2024, Dassault Systemes SolidWorks Corporation, a Dassault Systèmes company, 175 Wyman Street, Waltham, Mass. 02451 USA. All Rights Reserved.

The information and the software discussed in this document are subject to change without notice and are not commitments by Dassault Systemes SolidWorks Corporation (DS SolidWorks).

No material may be reproduced or transmitted in any form or by any means, electronically or manually, for any purpose without the express written permission of DS SolidWorks.

The software discussed in this document is furnished under a license and may be used or copied only in accordance with the terms of the license. All warranties given by DS SolidWorks as to the software and documentation are set forth in the license agreement, and nothing stated in, or implied by, this document or its contents shall be considered or deemed a modification or amendment of any terms, including warranties, in the license agreement.

For a full list of the patents, trademarks, and thirdparty software contained in this release, please go to the Legal Notices in the SOLIDWORKS documentation.

Restricted Rights

This clause applies to all acquisitions of Dassault Systèmes Offerings by or for the United States federal government, or by any prime contractor or subcontractor (at any tier) under any contract, grant, cooperative agreement or other activity with the federal government. The software, documentation and any other technical data provided hereunder is commercial in nature and developed solely at private expense. The Software is delivered as "Commercial Computer Software" as defined in DFARS 252.227-7014 (June 1995) or as a "Commercial Item" as defined in FAR 2.101(a) and as such is provided with only such rights as are provided in Dassault Systèmes standard commercial end user license agreement. Technical data is provided with limited rights only as provided in DFAR 252.227-7015 (Nov. 1995) or FAR 52.227-14 (June 1987), whichever is applicable. The terms and conditions of the Dassault Systèmes standard commercial end user license agreement shall pertain to the United States government's use and disclosure of this software, and shall supersede any conflicting contractual terms and conditions. If the DS standard commercial license fails to meet the United States government's needs or is inconsistent in any respect with United States Federal law, the United States government agrees to return this software, unused, to DS. The following additional statement applies only to acquisitions governed by DFARS Subpart 227.4 (October 1988): "Restricted Rights - use, duplication and disclosure by the Government is subject to restrictions as set forth in subparagraph (c)(l)(ii) of the Rights in Technical Data and Computer Software clause at DFARS 252-227-7013 (Oct. 1988)."

In the event that you receive a request from any agency of the U.S. Government to provide Software with rights beyond those set forth above, you will notify DS SolidWorks of the scope of the request and DS SolidWorks will have five (5) business days to, in its sole discretion, accept or reject such request. Contractor/ Manufacturer: Dassault Systemes SolidWorks Corporation, 175 Wyman Street, Waltham, Massachusetts 02451 USA.

Contents

Introduction

	About This Course	. 2
	Prerequisites	. 2
	Course Design Philosophy	. 2
	Using this Book	. 2
	About the Training Files	. 3
	Windows	. 3
	Conventions Used in this Book	. 4
	Use of Color	. 4
	Graphics and Graphics Cards	. 4
	Color Schemes	. 5
	More SOLIDWORKS Training Resources.	. 5
	Local User Groups	. 5
Lesson 1:	1	
Assembly Creation		
	What are Assemblies?	. 8
	Stages in the Process	. 8
	Unarchiving a Project	10
	Opening an Existing Project in SOLIDWORKS	10
	The Electrical Project Pages	11
	SOLIDWORKS Assembly	12
	Opening a SOLIDWORKS File from the Browser	13
	Exercise 1: Assembly Creation	17
	Literence in resonary creation, and a second	· /

Lesson 2: Cabinets Ducts Rails	
Cabinets, Ducts, Raik	Cohinata Duata Daila 20
	Adding a Cabinet
	Adding a Cabinet
	Stages in the Process
	Inserting Components
	Inserting Rails
	Mate References
	Change Rail or Duct Length
	Inserting Ducts
	Mates
	Exercise 2: Cabinets
Lesson 3:	
Component Intelligen	ce
	What is a component?
	Component Intelligence
	The Electrical Component Wizard
	Stages in the Process
	Define Faces
	Create Mate Reference
	Create Connection Points
	Creating Cable Connection Points
	Exercise 3: Component Intelligence
Lesson 4:	
Insert Components	
-	Insert Components
	Stages in the Process
	Align Components
	Inserting Terminals
	Exercise 4: Insert Components
Lesson 5:	1
Routing Wires	
	Routing Wires 58
	Stages in the Process 58
	Routing Path 61
	Sketch Name
	Route Wires
	3DSketch Route
	Routing Parameters
	Wire Sketches
	SOLIDWORKS Route
	Wire Segregation
	Exercise 5: Routing Wires

Lesson 6: Routing Cables

Routing Cables	76
Stages in the Process	76
Creating Cable Connection Points	77
Route Cables	79
Set Origin Destination of Cables by Location	80
Exercise 6: Routing Cables	84