



PhotoWorks

Pre-Requisites:

- SolidWorks Essentials

Daily Schedule: Begin at 8:30 a.m., End at 4:30 p.m., 1 hour lunch

Length: 2 Days

Description: This course teaches students how to create photo-realistic renderings of SolidWorks parts and assemblies using the PhotoWorks add-in software. Students learn how to apply materials, add decals, and work with lighting. Students also learn how to make their own materials and decals and apply them to the PhotoWorks system. This course also teaches techniques for getting the best screen renderings and the best system performance from PhotoWorks while creating elaborate scenes for a variety of outputs.

This course is taught from the official course curriculum from SolidWorks Corporation, with additional information from Graphics Systems instructors.

Introduction

- About This Course
- What is Photorealistic Rendering?
- Right Brain Versus Left Brain
- Cameras
- Rendering Results
- PhotoWorks

Lesson 2: Getting Started

- What is the PhotoWorks Software?
- Starting PhotoWorks
- PhotoWorks User Interface
- Getting Help
- Options
- Monitor Corrections

Lesson3: Basic Part Rendering

- Display Modes
- Software OpenGL
- Appearances
- RealView Shadows
- RealView Scenes
- Case Study: Display and Appearances
- Case Study: Appearances from Materials

Lesson3: Basic Part Rendering (Continued)

- The Rendering Process
- Case Study: Idler Arm
- Appearances
- PhotoWorks Scenes
- PhotoWorks Appearance Editor
- Rendering
- Sub-image Rendering
- PhotoWorks Scene Editor
- Editing PhotoWorks Properties
- PhotoWorks Studio
- Case Study: PhotoWorks Studio
- Exercise 1: Bracket
- Exercise 2: Screw Driver
- Exercise 3: PhotoWorks Studio

Lesson 4: Mapping Texture Appearances

- Introduction
- Textures
- Case Study: Texture Mapping
- Texture Mapping
- Texture Orientation
- Mapping Adjustments (Mapping by the Numbers)
- Exercise 4: Textures
- Exercise 5: Texture Mapping Practice

Lesson 5: Applying Appearances

- Introduction
- Case Study: Computer Monitor
- Creating Custom Colors
- Hierarchy Review
- Overview
- Case Study: The Chess Set
- Appearance Library
- View Image File
- Creating Appearance Folders
- Case Study: Hybrid Appearances
- Embedding Appearances
- Linking Appearance
- Illumination
- Organizing Files
- Exercise 6: Ice Cream Scoop





PhotoWorks

Lesson 6: Assemblies and Configurations

- Rendering Part Configurations
- Case Study: Part Configurations - The Chessboard
- Appearance Hierarchy in an Assembly
- Case Study: Assembly Configurations - The Locking Pin
- Active Custom Folder
- Case Study: Rocker Switch
- PhotoWorks Legacy Data
- Exercise 7: Lighter
- Exercise 8: Lighter Configurations
- Exercise 9: Custom Appearances and Folders

Lesson 7: Decals

- Decals
- Case Study: Monitor Face
- Case Study: Label Mapping
- Case Study: Multiple Decals
- Case Study: Gradient Masks
- Exercise 10: Travel Mug
- Exercise 11: Chisel

Lesson 8: Viewpoint

- ViewPoint
- Positioning the Viewpoint
- Named Views
- Perspective View
- The SolidWorks Camera
- Case Study: Cameras
- Apparent Depth
- Case Study: Apparent Depth
- Standard Lens
- Depth of Field
- Case Study: Setting Depth of Field
- Case Study: Getting Behind the Walls
- Exercise 12: Depth of Field
- Exercise 13: The Assembly Line

Lesson 9: Scenes and Lighting

- Scenes and Lighting
- Scenery Examples
- Scene Editor
- Applying Appearances to Scenery
- Scene Library

Lesson 9: Scenes and Lighting (Continued)

- Case Study: Scenery
- Lighting
- Shadows
- Lighting Schemes
- Case Study: Flashlight
- Spot Lights
- Lighting Characteristics
- PhotoWorks Light Characteristics
- Foreground Effects
- Exercise 14: The Book Light
- Exercise 15: Stapler

Lesson 10: Advanced Lighting

- Rendering Basics
- Case Study: Lighting Principles
- Ambient Light
- Indirect Lighting
- Lighting Concepts
- Global Illumination
- Case Study: Global Illumination
- Setting Up Global Illumination
- Case Study: Fire Truck
- Photo Studios and Area Lights
- Caustics
- Case Study: Caustics

Lesson 11: Reflective and Transparent Appearances

- Reflections
- Case Study: Environments
- Case Study: Kitchen Scene
- Transparent Appearances
- Exercise 16: Workbench
- Exercise 17: Lotion Bottle

Lesson 12: Output Options

- Output Design Intent
- Output Options
- Render to the Screen
- Render Contours
- Case Study: Contours
- Render to a Printer





GRAPHICS/SYSTEMS

Your Source for SolidWorks

2010 SolidWorks Training

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Oakbrook Terrace, IL 60181



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www.gxsc.com

PhotoWorks

Lesson 12: Output Options (Continued)

Case Study: Print a Picture of the Micrometer

Rendering Images to a File

Case Study: Sales Brochure

Screen Presentations

Case Study: PowerPoint®

Alpha Channel

Transporting Files

Case Study: Transport Files

Exercise 18: Product Information Sheet

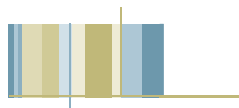
Exercise 19: PowerPoint® Slide

Exercise 20: Contours

Lesson 13: Putting It All Together

Putting It All Together

Exercise 21: Miter Saw



Milwaukee

Chicago

Madison

Green Bay

