

Autodesk Official Training Guide

Essentials

AutoCAD[®]

2010

Transitioning from **AutoCAD[®]** 2009

AutoCAD 2009 users moving to AutoCAD 2010 software learn how powerful new features can help them tackle design problems with ease.

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Acknowledgements

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CrWare, LP began publishing courseware for Autodesk Inventor in 2001. Since that time, the company has grown to include full-time curriculum developers, subject matter experts, and technical writers, each with a unique set of industry experiences and talents that enables CrWare to create content that is both accurate and relevant to meeting the learning needs of its readers and customers.

The company's Founder and General Partner, Ron Myers, has been using Autodesk products since 1989. During that time, Ron Myers worked in all disciplines of drafting and design, until 1996 when he began a career as an Applications Engineer, Instructor and Author. Ron Myers has been creating courseware and other training material for Autodesk since 1996 and has written and created training material for AutoCAD, Autodesk Inventor, AutoCAD Mechanical, Mechanical Desktop, and Autodesk Impression.

Introduction

Welcome to the *AutoCAD 2010: Transitioning from AutoCAD 2009* Autodesk Official Training Guide (AOTG), a training guide for use in Authorized Training Center (ATC) locations, corporate training settings, and other classroom settings.

Although this guide is designed for instructor-led courses, you can also use it for self-paced learning. The guide encourages self-learning through the use of the AutoCAD Help system.

This introduction covers the following topics:

- Course objectives
- Prerequisites
- Using this guide
- CD contents
- Completing the exercises
- Installing the exercise data files from the CD
- Video
- Imperial and metric datasets
- Notes, tips, and warnings
- Feedback

This guide is complementary to the software documentation. For detailed explanations of features and functionality, refer to the Help in the software.

Course Objectives

After completing this guide, you will be able to:

- Use parametric design methods to create and maintain geometric and dimensional relationships between objects to increase your productivity and enforce design intent.
- Use geometric and dimensional constraints within a dynamic block, create a block properties table and test your dynamic blocks in the block editor.
- Describe organic modeling and the various object types that you create using organic modeling.
- Explain the new measure tools, XREF fade, using geographic data, 3D printing, and new customizable interface features.

Prerequisites

This guide is designed for the experienced user who is upgrading to the latest version of the software. You should be familiar with:

- The previous release of AutoCAD.
- Microsoft® Windows® XP, or Microsoft® Windows® Vista.

Using This Guide

The lessons are independent of each other. However, it is recommended that you complete these lessons in the order that they are presented unless you are familiar with the concepts and functionality described in those lessons.

Each chapter contains:

- **Lessons**
Usually two or more lessons in each chapter.
- **Exercises**
Practical, real-world examples for you to practice using the functionality you have just learned. Each exercise contains step-by-step procedures and graphics to help you complete the exercise successfully.

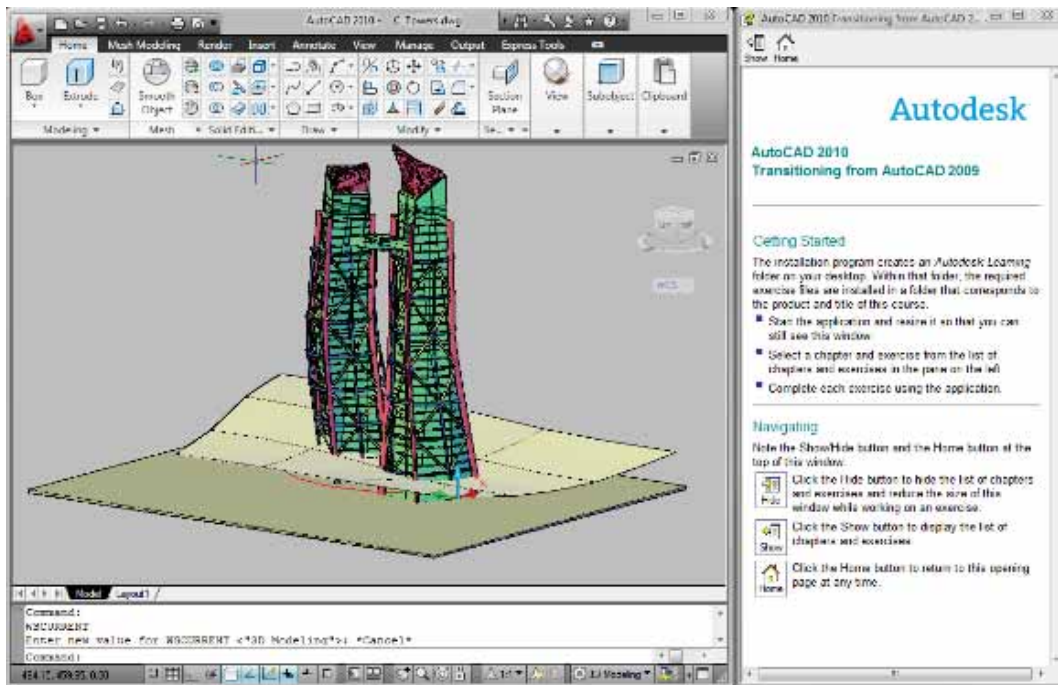
CD Contents

The CD attached to the back cover of this book contains all the data and drawings you need to complete the exercises in this guide.

Completing the Exercises

You can complete the exercise in two ways: using the book or on screen.

- **Using the book**
Follow the step-by-step exercises in the book.
- **On Screen**
Click the AOTG - AutoCAD 2010 Transitioning from AutoCAD 2009 icon on your desktop, installed from the CD, and follow the step-by-step exercises on screen. The onscreen exercises are the same as those in the book. The onscreen version has the advantage that you can concentrate on the screen without having to glance down at your book.



After launching the onscreen exercises, you might need to alter the size of your application window to align both windows.

Installing the Exercise Data Files from the CD

To install the data files for the exercises:

1. Insert the CD.
2. Double-click the self-extracting archive *AutoCAD_2010_Transitioning.exe*.

Unless you specify a different folder, the exercise files are installed in the following folder:

C:\Autodesk Learning\AutoCAD 2010\Transitioning from AutoCAD 2009.

After you install the data from the CD, this folder contains all the files necessary to complete each exercise in this guide.

Video

After you install the contents of the CD, video demonstrations are installed in the *\Demonstration* folder. These videos, which are narrated by AutoCAD Insider, Heidi Hewett, provide introductions and overviews of major topic areas.

The videos are published in Microsoft WMV format. To view a WMV file, you will need to have a WMV compatible player installed on your computer, such as Windows Media Player, or QuickTime.

Imperial and Metric Datasets

In exercises that specify units of measurement, alternative files may be provided as shown in the following example:

- Open *i_stair_settings.dwg* (imperial) or *m_stair_settings.dwg* (metric).

In the exercise steps, the imperial value is followed by the metric value in parentheses as shown in the following example:

- For Length, enter **13'2" (4038 mm)**.

For exercises with no specific units of measurement, files are provided as shown in the following example:

- Open *c_stair_settings.dwg* (common).

In the exercise steps, the unitless value is specified as shown in the following example:

- For Length, enter **400**.

Notes, Tips, and Warnings

Throughout this guide, notes, tips, and warnings are called out for special attention.



Notes contain guidelines, constraints, and other explanatory information.



Tips provide information to enhance your productivity.



Warnings provide information about actions that might result in the loss of data, system failures, or other serious consequences.

Feedback

We always welcome feedback on Autodesk Official Training Guides. After completing this course, if you have suggestions for improvements or if you want to report an error in the book or on the CD, please send your comments to learningtools@autodesk.com.