Advanced

Autodesk Official Training Courseware (AOTC)

Revit®

Architecture 2009

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Autodesk®

Trademarks

Disclaimer

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Contents

Introduction

Welcome to the *Revit Architecture 2009: Advanced* Autodesk Official Training Courseware (AOTC), training courseware for use in Authorized Training Center (ATC®) locations, corporate training settings, and other classroom settings.

Although this courseware is designed for instructor-led courses, you can also use it for self-paced learning. The courseware encourages self-learning through the use of the Revit® Architecture 2009 Help system.

This introduction covers the following topics:

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

This courseware 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 course, you will be able to:

- Create 2D detail components, work with detail groups, and manage a library of typical details.
- Add 3D rebar to beams and columns and add area and path reinforcements to walls and slabs.
- Create a slab on metal deck, create a precast hollow core slab for a project, create a tapered moment frame, create a 3D steel gusset plate, add steel stiffeners in a structural model, and create stepped footings.
- Work with bar joist and truss families.
- Work with and adjust the analytical model as well as understand how to analyze the model with external analysis applications.
- Import and export data between AutoCAD® and AutoCAD® Architecture and Revit® Structure projects.
- Link Revit models, coordinate and monitor changes in a current project and a linked project, and check and fix interference conditions in Revit Structure projects.
- Create, use, and manage worksets.
- Publish Revit Structure files to Design Web Format (DWF™) files and work with DWF markup files.
- Import and export design data using the Industry Foundation Classes (IFC) format.

Prerequisites

This course is designed for existing Revit Architecture users.

It is recommended that you have:

- Basic architecture and design skills.
- Basic Revit Architecture skills.
- Completed the Revit Architecture Essentials courseware.
- A working knowledge of Microsoft® Windows® 2000 or Microsoft® Windows® XP.

Using This Courseware

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.

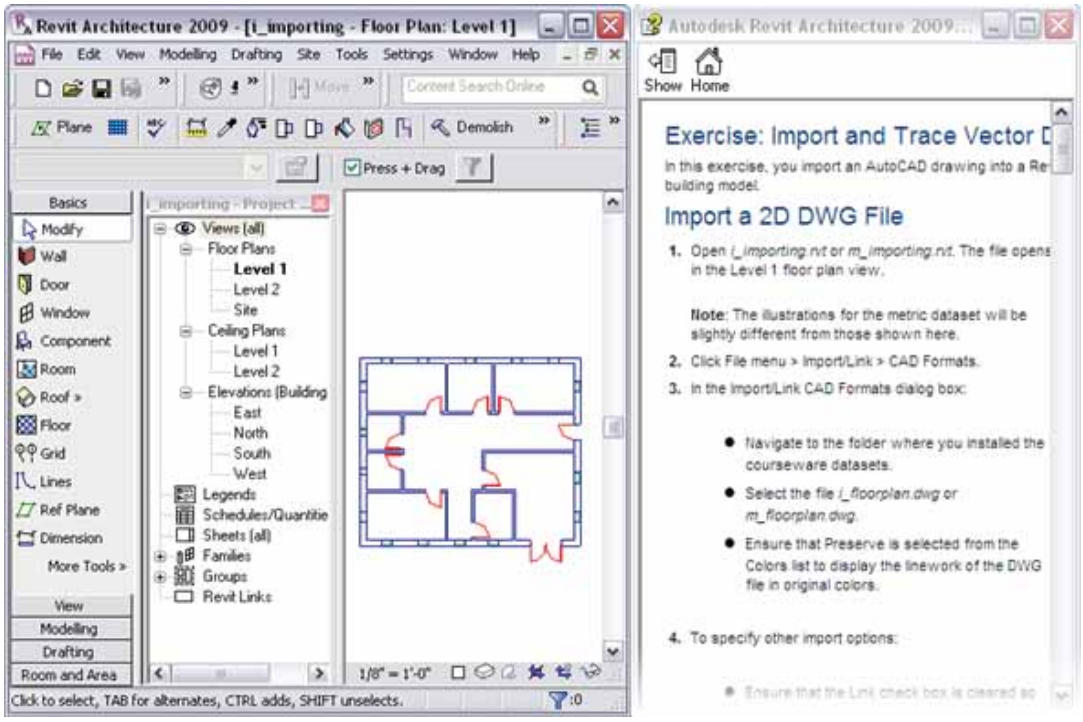
CD Contents

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

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 AOTC - Revit Architecture 2009 Advanced 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 courseware CD.
2. When the setup wizard begins, follow the instructions on screen to install the data.
3. If the wizard does not start automatically, browse to the root directory of the CD and double-click *Setup.exe*.

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

C:\Documents and Settings\All Users\Autodesk Learning\Revit Architecture 2009\Advanced

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

Imperial and Metric Datasets

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

- Open *i_massing_start.rvt* (imperial) or *m_massing_start.rvt* (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_mainbuilding.rvt* (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 courseware, 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 Courseware. 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 *AOTC.feedback@autodesk.com*.