

# Revit®

Structure 2008

## **Essentials**

Autodesk® Official Training Courseware  
(AOTC)

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- Inlet Technology is an Authorized Autodesk Reseller providing Revit implementation, training and support services in the U.S.

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# Introduction

Welcome to the *Revit Structure 2008: Essentials* Autodesk Official Training Courseware (AOTC). This courseware can be used in Authorized Training Center (ATC®) locations, corporate training settings, and other classroom settings.

This courseware is designed to teach you the essential features and functionality of Revit® Structure 2008, from structural design through construction documentation. Although this courseware is designed to be used as a teaching tool for instructor-led courses, it can also be used for self-paced learning. In addition to the courseware, this book encourages self-learning through the use of the Revit Structure 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:

- Use building information modeling to manage change in a building model.
- Use different parts of the Revit Structure user interface and work with the different types of Revit elements and families.
- Explore the different views displayed in the Project Browser and change their properties, control the visibility and graphical representation of objects in a structural model, create elevation and section views, and work with 3D views.
- Set up a project and transfer standards between projects, add and modify levels in a structural model, and add and modify grids.
- Work with structural columns, create new wall types, create structural walls in a plan view, and add footings and pilasters.
- Add floor framing to a structural model by adding beams, work with beams and beam systems, and add structural steel moment and braced frames to a structural model.

- Add slabs to structural models, create a roof structure, and add steel framing for support.
- Add foundations to a structural model.
- Add stairs and create openings for the stairs, create various types of ramps and landings, and create elevator pits in a structural model.
- Add tags to columns and beams; add dimensions, spot dimension symbols, and text notes to a project; create a legend with notes, annotation symbols, and model elements; and work with different types of schedules.
- Add details to wall sections and add reinforcements; add detail lines and detail groups to a section view; import typical DWG™ details; add concrete detail components to drafting views; and create and modify steel details illustrating connections between steel structural components.
- Create sheets and titleblocks, print a sheet set, and export Revit Structure views and sheets to CAD formats.

## Prerequisites

This course is designed for new users and covers the basics of Revit Structure, from structural design through construction documentation. No previous CAD experience is necessary. However, it is recommended that you have a working knowledge of:

- Structural engineering, drafting, or design skills.
- Microsoft® Windows® 2000 or Microsoft® Windows® XP.

## Using This Courseware

The lessons are independent of each other. However, we recommend 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 files you need to complete the exercises in this course.

## Completing the Exercises

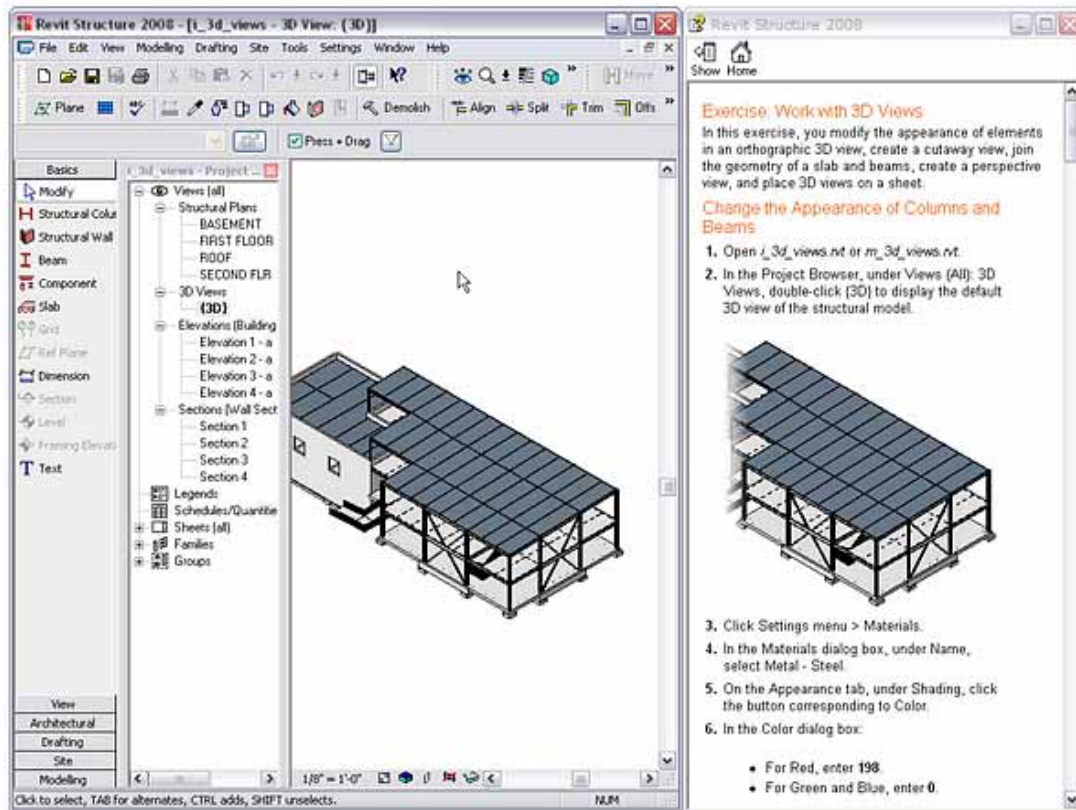
You can complete the exercise in two ways: using the book or onscreen.

- **Using the book**

Follow the step-by-step exercises in the book.

- **Onscreen**

Click the AOTC - Revit Structure 2008 Essentials AOTC 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 Structure 2008\Essentials\*

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\_foundations.rvt*(imperial) or *m\_foundations.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\_object\_visibility.rvt*.

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](mailto:AOTC.feedback@autodesk.com).