

Technical Education Services

Autodesk® Navisworks® Essentials



Course Length: 3 days

The Autodesk® Navisworks® Essentials training course instructs students in best approaches to combine 3D geometry from cross disciplines into one scene to enable effective model reviews. Through a hands-on, practice-intensive curriculum, students acquire the knowledge needed to review and markup the model, use Timeliner, Animator, Scriptor, Quantification, Autodesk Rendering, as well as the Clash Detective tools within the Autodesk Navisworks software.

Using the functionality of the Autodesk® Navisworks® Simulate, and Manage features, students learn how to open, review, quantify, and run object-interference checks on 3D models. Students also learn how to link to task-scheduling files and create 4D construction simulations. Using the Animator and Scriptor tools, students create interactive animations. In addition, students learn how the Autodesk Rendering tools can help them create photorealistic images and animations.

After completing this training course, you will be able to:

- Describe the main features and functionality of the Autodesk Navisworks software.
- Open and append 3D files of different formats and save in the Autodesk Navisworks format.
- Create links to object properties files and scheduling files in external databases.
- Perform visual project model reviews using the built-in review and reporting tools.

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Technical Education Services

- Create construction simulations of a project model to check the validity of construction schedules.
- Use Animator and Scripter to create interactive animations for presentations and demonstrations.
- Obtain takeoff data from source models to create material estimates, measure areas, and count components.
- Perform interference detection tests between 3D files of different disciplines to check integrity of the design.
- Add true-to-life materials, and lighting and backgrounds to project models, to create photorealistic output.

Prerequisites:

Before using this training guide, students should have working knowledge of 3D design and task-scheduling software. This training guide is designed for new and experienced Autodesk Navisworks users who need to become familiar with the main tools within the software.

Table of Contents

Chapter 1: Getting Started

- Workspace Overview
- Navigation
- Opening and Appending Files in Navisworks
- Saving, Merging, Refreshing, and Publishing Files
- Selection Tree and Selecting Objects
- The Autodesk Navisworks Engine

Technical Education Services

Chapter 2: Model Review

- Hiding Objects and Overriding Materials
- Object Properties
- Measuring and Moving Objects
- Viewpoints
- Comments and Redlining
- Animations
- Sectioning
- Links
- Comparing Models
- Switchback
- Navisworks Real-Time Rendering

Chapter 3: TimeLiner

- TimeLiner Overview
- Gantt View
- Creating Tasks
- Import Tasks from External Project File
- TimeLiner Simulation
- Configuring and Defining a Simulation
- Simulation Export

Chapter 4: Animator

- Animator Overview
- Creating a Basic Animation
- Manipulate Geometry Objects in an Animation Set
- Section Plane Sets

Technical Education Services

Chapter 5: Scripter

- Scripter Overview
- Creating and Managing Scripts
- Creating and Configuring Events
- Creating and Configuring Actions

Chapter 6: Quantification

- Quantification Overview
- Setting up a Quantification Project
- Item and Resource Management
- Model and Virtual Takeoff
- Managing Takeoff Data
- Analyzing Changes

Chapter 7: Clash Detective

- Clash Detective Overview
- Setting Clash Rules
- Clash Results
- Clash Test Reporting
- Working with Clash Tests
- Audit Checks
- Export and Import Clash Tests
- Custom Clash Tests
- Laser Scan Data Clashing
- Holding and Releasing Objects
- SwitchBack in Clash Detective
- Time-Based Clashing

Technical Education Services

Chapter 8: Autodesk Rendering

- Autodesk Rendering Overview
- Adding Materials to a Model
- Creating and Editing Materials
- Material Mapping
- Lighting
- Sun and Sky Lights
- Exposure Control
- Ground Planes
- Photorealistic Rendering

Appendix A: Presenter Basics

- Presenter Overview
- Apply Materials to Model Items
- Adding Lighting Effects to a Scene
- Adding Background Effects
- Outputting Rendered Images
- Outputting Animations (Videos)

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Appendix B: Presenter Advanced Features

- Editing and Managing Materials
- Advanced Material Editing
- Individual Light Effects
- Light Scattering
- Image-Based Lighting
- Environment Backgrounds and Reflections
- Creating Custom Rendering Effects
- Custom Environments
- RPC (Rich Photorealistic Content)

Appendix C: Data Tools

- Database Support (Data Tools)

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