

Autodesk Navisworks Essentials

32 Hours

Course Description

This comprehensive Autodesk Navisworks course is designed to equip construction professionals with the skills and knowledge needed to effectively manage and collaborate on construction projects using Autodesk Navisworks. Participants will gain hands-on experience in navigating the Navisworks interface, reviewing and editing files from various software applications, conducting interference checks, creating simulations, and producing photorealistic images. By the end of this course, you will have the expertise to streamline your construction project management processes and enhance collaboration across disciplines.

Audience

This course is suitable for:

- Architects and designers
- Civil engineers
- Structural engineers
- MEP (Mechanical, Electrical, Plumbing) engineers
- Construction project managers
- BIM (Building Information Modeling) coordinators
- Anyone involved in construction project planning, coordination, and management.

Pre-requisite Knowledge/Skills

Participants should have a basic understanding of construction project management concepts and familiarity with software applications commonly used in the industry. Knowledge of Autodesk Revit, AutoCAD, and other relevant software is beneficial but not mandatory.

Course Objectives

By the end of this Autodesk Navisworks course, participants will be able to:

- Navigate and utilize the Navisworks interface effectively.
- Collaboratively review and edit files from various software applications within Navisworks.
- Conduct interference checks between different disciplines to identify and resolve clashes.
- Create construction simulations and virtual tours of project models.
- Generate photorealistic images of unified project models.
- Customize object visibility and appearance to enhance project understanding.
- Utilize measurement tools, redline annotations, and comments for accurate documentation.
- Manage project grids, levels, and object links efficiently.
- Compare models and objects to ensure consistency and quality control.
- Harness the power of rendering tools and environmental settings for realistic project visualization.

- Create animations and scripts to communicate construction processes.
- Implement TimeLiner for project timeline management and simulation.
- Perform interference tests and export detailed reports for project quality assurance.

Course Outline

The course comprises 32 hours of theory. It's divided into 9 different modules.

Module 1: Introduction

- Introduction
- Interface components
- Work spaces
- File types in Navisworks
- Collaborative design at Navisworks

Module 2: Navigating the Interface

- Model Explorer
- Save and publish the model
- Export from Revit to Navisworks
- Display details

Module 3: Object Management

- Selection of objects
- Object visibility
- Object tools
- Selection sets and search sets
- Show object properties dynamically
- Selection Inspector
- Appearance profiler

Module 4: Visualization and Navigation

- Real-time navigation
- Points of view
- Adding realism to navigation
- Creating camitana animation

Module 5: Documentation and Analysis

- Measurements
- Red lines
- Add Comments
- Sectioning view
- Grids and levels of a Revit file
- Object Links
- Comparing models and objects
- Batch tool
- Multiple and complete views

Module 6: Rendering and Visualization

- Switchback tool
- Render tool
- Materials
- Material mapping
- Lights
- Environment settings
- Current render settings

Module 7: Animation and Scripting

- Animator module
- Enabling scripts

Module 8: Project Timeline Management

- TimeLiner module
- Data sources
- TimeLiner Configuration
- Simulation in TimeLiner
- Link objects using rules
- Manage processes with TimeLiner

Module 9: Quality Control

- Create interference tests
- Export interference reports

