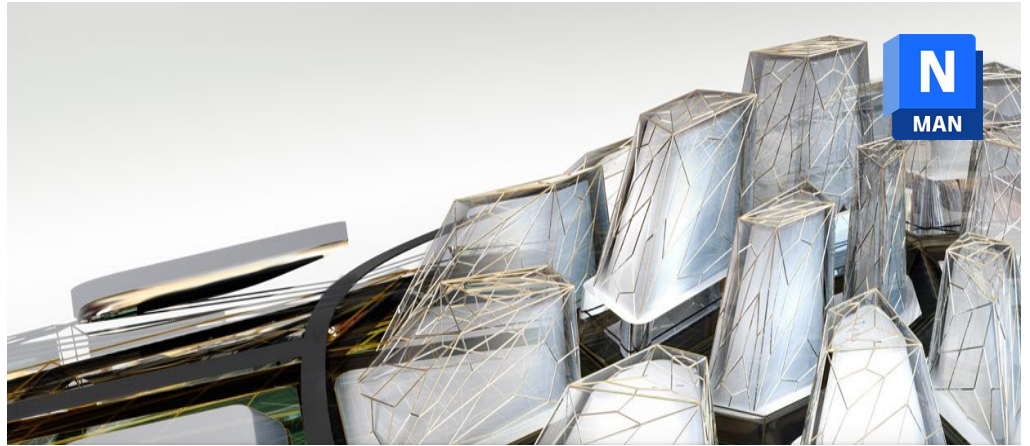# NavisWorks Essentials
Training course outline

NavisWorks complements 3D design packages such as AutoCAD and Revit, providing sophisticated project review features.

NavisWorks Essentials training provides a thorough grounding for beginners, teaching how to combine 3D models from cross disciplines into one scene, enabling effective review.

Course summary
Teaches how to use the NavisWorks Manage and NavisWorks Simulate applications to combine 3D models from cross disciplines into one scene, enabling effective review.

Delegates learn to use the TimeLiner, Animator, Scripter and Presenter tools within NavisWorks.

NavisWorks Manage users learn how to carry out Clash Detection.

Duration
Two days.

Who should attend?
Newcomers to NavisWorks and novice NavisWorks users.

Prerequisites
You should have a good working knowledge of an Autodesk application, such as AutoCAD or Revit

In-class or live online
You can attend in-person at our centres, or participate live online from your place of work or home.

To read about our approach to online training, see armada.co.uk/liveonline.

General information
Armada is a long-standing Autodesk authorised Training Centre (ATC), and our courses are accredited by Autodesk.

Courses are hosted by Autodesk Certified Instructors (ACIs) with vast experience of using the application professionally.

Whilst attending training at our centres, you'll have the use of a computer running licensed software to practice the techniques taught.

Refreshments and lunch are provided.

Course fees can be paid by card or bank transfer. We accept purchase orders from UK-registered companies and public sector organisations.

Course materials and certificate
You'll receive:

- A comprehensive training guide and practice files.
- An e-certificate confirming successful completion of an accredited *NavisWorks Essentials* course.

Method of delivery
Training is designed for the busy professional, being short and intensive and combining lecture and demonstration. Practical exercises carried out under guidance help you learn the techniques taught.

You have ample opportunity to discuss specific requirements with the trainer.

After course support
Following training, you're entitled to 30 days' email support from your trainer.

Further information
See armada.co.uk/course/navisworks.

Course syllabus
See over.

AUTODESK
Authorised Training Centre

armada

Course syllabus

Topics	Sub-topics
Getting started with NavisWorks	Workspace
	Opening and appending files
	Saving, merging and refreshing files
	About file types
	Database support
Visual project model reviews	Navigation
	Absolute coordinate display
	The NavisWorks engine
	Performance indicators
	Selection tree and selecting objects
	Hiding objects and overriding materials
	Object properties
	Measuring and moving objects
	Selection and search sets
	Viewpoints
	Comments and redlining
	Animations
	Sectioning
	Hyperlinks
	Comparing models
	Switchback
	NavisWorks real-time rendering
TimeLiner	TimeLiner overview
	Creating tasks
	Importing tasks from an external project file
	TimeLiner simulation
	Configuring and defining a simulation
	Simulation export
Animator	Animator overview
	Creating a basic animation
	Cameras and camera viewpoints
	Manipulate geometry objects in an animation set
	Section plane sets
	Controlling animation scene playback

Topics	Sub-topics
Scripter	Scripter overview
	Creating and managing scripts
	Events
	Creating and configuring actions
Presenter basics	Presenter overview
	Apply materials to model items
	Adding lighting effects to a scene
	Adding background effects
	Rendering effects
	Outputting rendered images
	Outputting animations (videos)
Presenter advanced features	Editing and managing materials
	Advanced material editing
	Ground planes
	Individual light effects
	Image-based lighting
	Environment backgrounds and reflections
	Custom environments
	Light scattering
	Rich Photorealistic Content (RPC)
Clash Detection (NavisWorks Manage only)	Clash Detection overview
	Selecting items to be clashed
	Clash test settings
	Setting clash rules
	Clash results
	Clash test reporting
	Audit checks
	Create and save batches of clash tests
	Export and import clash tests
	Custom clash tests
	Setting up custom clash tests
	Laser scan data clashing
	Holding and releasing objects
	SwitchBack in clash detective
	Time-based clashing