BIM MODELLER TRAINING

BIM Modeller Courses

TABLE OF CONTENTS

man✕machine

Revit Architecture Fundamentals 3 Days

COURSE DESCRIPTION

This comprehensive Revit training course covers the essentials skills required to use Autodesk Revit to design and share information between BIM project teams. You will learn how to draw and modify Architectural elements in 3D using the toolsets. We will also show you how to extract information and data from the Building Information Model to create schedules and basic take-offs.

COURSE MODULES

- Introduction to BIM and Autodesk Revit
- Basic Sketching and Modify Tools
- Starting an Architectural Project
- Modelling Walls
- Working with Doors and Windows
- Working with Curtain Walls
- Working with Views
- Adding Components
- Modelling Floors
- Modelling Ceilings
- Modelling Roofs
- Modelling Stairs, Railings and Ramps
- Creating Construction Documents
- Annotating Construction Documents
- Adding Tags and Schedules
- Creating Details

OTHER INFORMATION

Prerequisites

An understanding of AEC terminology is recommended. Previous CAD knowledge is beneficial.

Course Duration

3 Days

Next Steps

BIM & Digital Construction Fundamentals

man machine

Revit Structure Fundamentals **3 Days**

COURSE DESCRIPTION

This comprehensive course covers the essential skills required to use Autodesk Revit, the leading Building Information Modelling (BIM) tools used to design, document, visualise, collaborate and simulate projects, between BIM project teams. You will learn how to draw and modify structural elements in 3D using the Autodesk Revit toolsets. We will show you how to extract information and data from the Building Information Model to create schedules and basic take-offs.

COURSE MODULES

- Introduction to BIM
- Introduction to Autodesk Revit
- Basic Sketching Tools
- Basic Modify Tools
- Structural Framing
- Starting Structural Projects
- Structural Grids
- Structural Columns
- Foundations
- Working with Views
- Adding Structural Slabs
- Structural Reinforcement
- Structural Analysis
- Creating Construction Documents
- Annotating Construction Documents

OTHER INFORMATION

Prerequisites

Understanding of Structural terminology is recommended. Previous CAD knowledge would be beneficial.

Course Duration

3 Days

Next Steps

BIM & Digital Construction Fundamentals

Revit MEP Fundamentals 3 Days

COURSE DESCRIPTION

Autodesk Revit is the leading Building Information Modelling (BIM) tool used to design, document, visualise, collaborate and simulate projects for building services engineers. Revit's BIM capability is used to streamline the design and analysis process and improve collaboration among project teams. You'll learn how to draw and modify Mechanical, Electrical and Plumbing elements in 3D using the toolsets. We will show you how to extract information from the Building Information Model to create schedules and basic take-offs. Sheet publication is covered in detail to ensure you can take your 3D models and use them to develop 2D published sheets or drawings.

COURSE MODULES

- Introduction to BIM
- Introduction to Autodesk Revit
- Basic Sketching Tools
- Basic Modify Tools
- Starting System Projects
- Working with Views
- Setting up Spaces
- Heating and Cooling Loads Analysis
- Basic System Tools
- HVAC Networks
- Plumbing Networks
- Electrical Systems
- Creating Construction Documents
- Annotating Construction Documents
- Adding Tags and Schedules

OTHER INFORMATION

Prerequisites

Understanding of MEP terminology is recommended. Previous CAD knowledge would be beneficial.

Course Duration

3 Days

Next Steps

BIM & Digital Construction Fundamentals

Revit Family and Template Creation 2 Days

COURSE DESCRIPTION

This Revit course will teach you how to create your own family components for use with Autodesk Revit. During this course you will learn how to model and add metadata to your components and appreciate how to align them to UK BIM Standards.

COURSE MODULES

- Introduction and Principles of BIM
- Introduction to Revit Families
- Basic Principles of Revit Family Editing
- Geometry Formation
- Ten Rules of Family Creation
- Creating your First Revit Family
- Working with more Complex Families
- Working with Hosted Families
- Handling Level of Information
- Parameters and Formulas
- Creating your own BIM Ready Families
- Model Organisation and CAD Standards
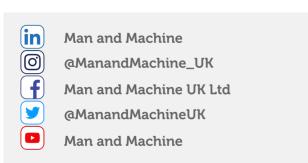- Creating a BIM Ready Revit Template

OTHER INFORMATION

Prerequisites

You should be comfortable with the fundamentals of Autodesk Revit.

Course Duration

2 Days

Next Steps

BIM & Digital Construction Fundamentals

Civil 3D Fundamentals 3 Days

COURSE DESCRIPTION

This Civil 3D training course is designed for Civil Engineers and Surveyors who want to take advantage of the interactive, dynamic design functionality of AutoCAD Civil 3D.

AutoCAD Civil 3D software enables the rapid development of alternatives through its model-based design tools. The course will teach you how to organise project data, work with points, create and analyse surfaces, model road corridors, perform grading and volume calculation tasks and layout pipe networks.

COURSE MODULES

- Autodesk Civil 3D User Interface
- Create Points and Point Groups
- Work with Survey Figures
- Create, Edit, View and Analyse Surfaces
- Create and Edit Alignments
- Create Data Shortcuts
- Create Sites, Profiles and Cross-Sections
- Create Assemblies and Corridors
- Create Simple Grading Solutions
- Create Gravity Fed Pipe Networks
- Perform Quantity Take-Off and Volume Calculations
- Utilise Plan Productions to Create Plans and Profile Sheets

OTHER INFORMATION

Prerequisites

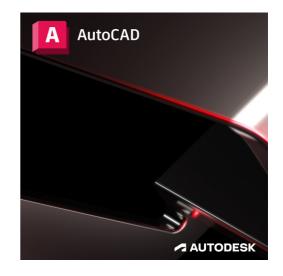Experience with AutoCAD and a good understanding of civil engineering terminology.

Course Duration

3 Days

Next Steps

A bespoke course

Man and Machine
@ManandMachine_UK
Man and Machine UK Ltd
@ManandMachineUK
Man and Machine

COBie Fundamentals Certification **1 Day**

COURSE DESCRIPTION

This training course will provide you with a fundamental understanding of COBie, and its use in BIM project environments. The course covers the detailed schemas and structure, as well as how they can be applied to digital projects.

It also explores how COBie is used in your BIM Workflows, their role in the lifecycle of the built asset and provides a hands-on approach to how they work. If you need to specify, create, update, use or check files for clashes/correct COBie data, you will benefit from this course.

COURSE MODULES

- Principles of BIM
- Introduction to COBie
- COBie Demystified
- The COBie Format
- The COBie Deliverable
- Delivering COBie using IFC
- COBie Toolkit using Autodesk Revit
- COBie Data Checks and QC Reporting

OTHER INFORMATION

Prerequisites

Some exposure to 3D modelling tools would be advantageous.

Course Duration

1 Day

Next Steps

IFC Fundamentals or a bespoke BIM course

man**machine

IFC Fundamentals Certification 1 Day

COURSE DESCRIPTION

This training course will provide you with a fundamental understanding of IFC, and its use in BIM project environments. The course covers the detailed schemas and structure, as well as how they can be applied to digital projects.

It also explores how IFC is used in your BIM Workflows, their role in the lifecycle of the built asset and provides a hands-on approach to how they work. If you need to specify, create, update, use or check files for clashes/correct IFC data, you will benefit from the course.

COURSE MODULES

- Principles of BIM
- IFC Demystified
- The IFC Format
- Delivering COBie using IFC
- IFC Exports and Associated Options

OTHER INFORMATION

Prerequisites

Some exposure to 3D modelling or clash detection tools would be advantageous.

Course Duration

1 Day

Next Steps

COBie Fundamentals or a bespoke BIM course

Man and Machine

@ManandMachine_UK

Man and Machine UK Ltd

@ManandMachineUK

Man and Machine

COBie and IFC Hands on Workshop 1 Day

COURSE DESCRIPTION

This course is for students wishing to get some basic hands-on experience in the implementation of IFC and COBie using Autodesk Revit. Most of the theory is assumed and this course very much focuses on the application use and how to create high quality IFC and COBie outputs.

COURSE MODULES

- COBie Property Set Compliance
- Model Preparation
- Uniclass Classification in Autodesk Revit
- COBie Extension using Autodesk Revit
- COBie Data Checks (Revit Model Checker)
- COBie to UK Standards (Leveraging Dynamo Scrips Introduction)
- IFC Creation using Revit Export - 'Add in Tool'
- Model View Definition Application
- IFC Export Customisation
- Component Handling in IFC
- Property Set Handling in IFC

OTHER INFORMATION

Prerequisites

Understanding of Revit and Navisworks is required. A good understanding of COBie and IFC Formats is beneficial.

Course Duration

1 Day

Next Steps

Bespoke BIM course

Man and Machine

@ManandMachine_UK

Man and Machine UK Ltd

@ManandMachineUK

Man and Machine

man machine

CONTACT US

🌐 www.manandmachine.co.uk

📞 01844 263700

✉️ sales@manandmachine.co.uk

man✕machine