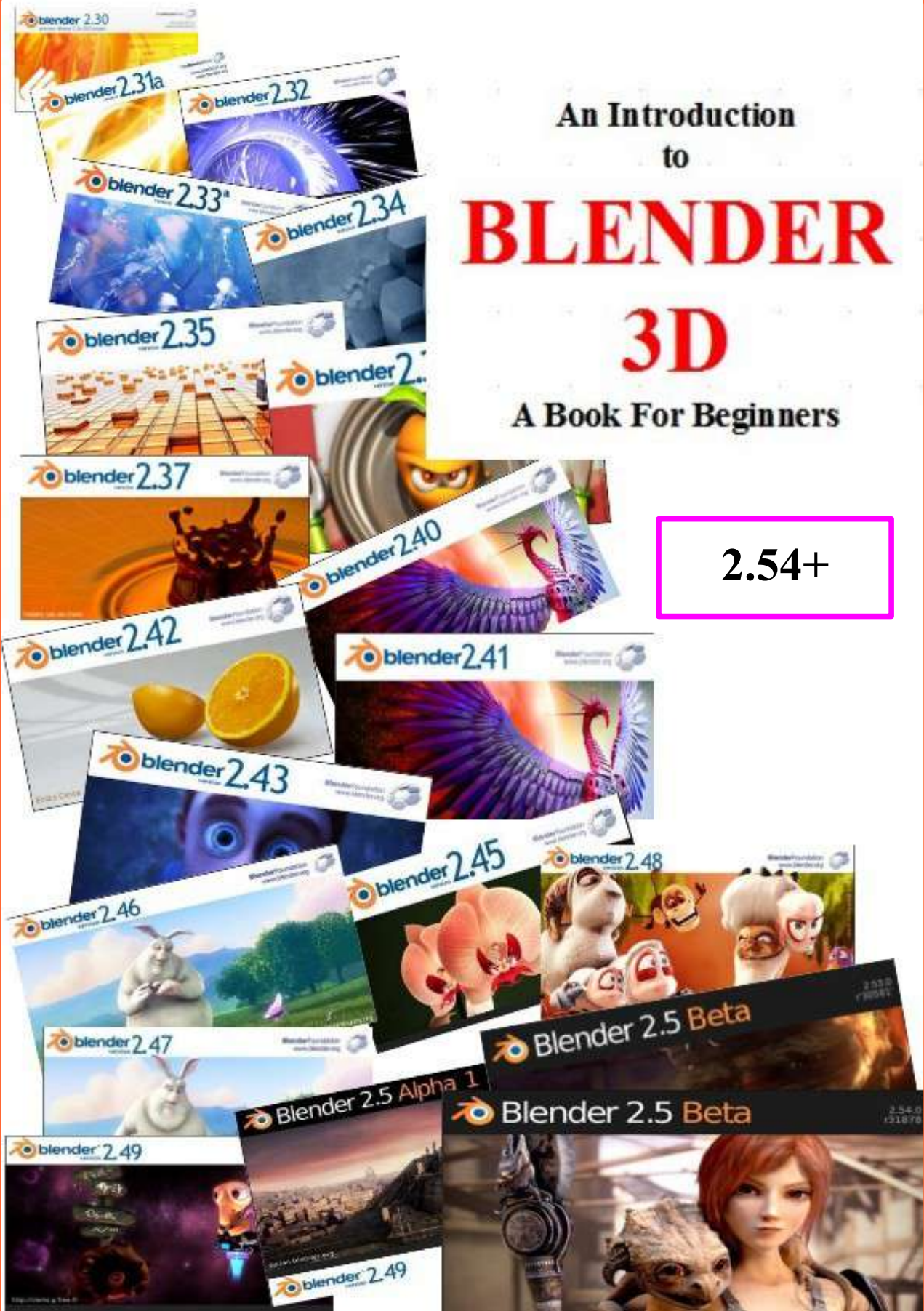


An Introduction
to
BLENDER
3D
A Book For Beginners

2.54+



Author: John M Blain

Blender 3D

Computer Modeling and Animation

Blender 3D is a an open source freeware program maintained by the Blender Foundation. The program can be downloaded, free of charge, from www.blender.org

Learning Blender is not easy but it has limitless possibilities and will give you an understanding of the complexities of computer animation. Due to the complexity it is not possible to cover everything. This manual is designed for beginners to help with the very basics of computer animation using Blender 3D. The subject matter in this publication is aimed at removing some of the frustration from the learning process. Blender 3D is a wonderful application, especially at the price, but one major drawback is the lack of basic instruction. Documentation has always lagged behind development. There is a multitude of free information available on the INTERNET from various sites in the form of tutorials. Much of the information is relevant to earlier versions of the program and since there has been a dramatic change to the interface with the introduction of version 2.50+ I believes that a new student would find learning Blender challenging. This manual is an attempt to remove some of the pain and relieve frustration by setting out the basics.

The manual has been written by trial and error in finding the way between Blender 2.49 and Blender 2.50+. I trust you will find the information informative and useful.



This Manual Is Written Using Blender 2.54+

Blender Versions

Blender 3D has been around for a considerable time. On starting the program the Graphical User Interface show a panel with the version number in the center of the screen. On each release this panel has been changed to identify the version. The cover of this manual shows the historical array of version number panels . Blender has developed over time and as that development has evolved new releases (versions) of the program have been made available. The program reached the stage where the developers considered that a complete overhaul of the Graphical User Interface (GUI) was called for. Version 2.49 was the last of the old and at the time of writing version **2.54 beta** is the current version. The GUI of **2.5+** is completely different to 2.49 and the frustration of learning the new interface without documentation has prompted the writing of this manual.

Graphical User Interface

The Graphical User Interface (GUI) is the arrangement of Windows, Panels and Buttons which allow you, the user, to interact with the program. The interaction takes place through inputs via the computer keyboard and mouse.

In giving instructions in the use of the program with reference to keyboard and mouse actions a series of commands has evolved. The list of commands is extensive and it is not recommended that a new user attempts to memorise the list without understanding of the meaning. As you progress through this manual many of the commands are repeated over and over and you soon find that it becomes second nature. Of course you will forget the obscure commands therefore a listing is provided in the Appendix to this manual.

Good Luck
and
Enjoy the Experience.

John M Blain

Contents

CH01-BlenderInterface	
01-Blender Screen	
02-3D Window	
03-3D Space	
04-Properties Window	
CH02-NavigateSave	
01-Navigate Save	
02-Windows Explorer	
03-App Pac Imp	
CH03-Create-edit-Object	
01-Basic Mesh	
02-Move Mesh Object	
03-Mesh Vertex Edit	
04-Join Mesh	
05-Modifiers	
06-Mirror Modifier	
07-Boolean Modifier	
CH04-Materials	
01-Blender Material Slots	
02-Materials	
CH05-Textures	
01-Textures	
CH06-WorldSettings	
01-WorldSettings	
CH07-Lighting	
01-Lighting	
CH08-Camera	
01-Camera	
CH09-Rendering	
01-Render	
Ch10-Raytracing	
01-Raytracing	
CH11-Animation Basics	
01-AnimationBasics	
02-Wind Strength Animation	
CH12-3DText	
01-3D Text	
02-Elefont	
CH13-Nurbsand Metashapes	
01Meta Shapes	
02-Nurbs	
CH14-Modifiers	
00-Introduction	
01-Modifiers Introduction	
01-Generate	
Array	
Array Modifier	
Bevel	
Bevel Modifier	
Boolean	
BooleanModifier	
Build	
BuildModifier	
Decimate	
Decimate Modifier	
Mask	
Mask Modifier	
Mirror	
Mirror Modifier	
Screw	
Screw Modifier	
Subdivision Surface	
Sub Serf Modifier	
UV-Project	
UV Project Modifier	
02-Deform	
Cast	
Cast Modifier	
Curve	
Curve Modifier	
Displace	
Displace Modifier	
Hook	
Hook Modifier	
Lattice	
Lattice Modifier	
Mesh Deform	
Mesh Deform	
Shrinkwrap	
Shrinkwrap	
Simple Deform	
Simple Deform	
Wave	

CH15-ParticleSystems

01-Introduction

Introduction

Nomenclature

02-System Setup

System Setup

03-Material Influence

Settings Influence

04-Particle Buttons

Buttons-GUI

05-Tabs

Tabs

06-Starting System

Starting System

07-Material On Particles

Material On Particles

08-Interaction

Interaction

09-Samples

Samples

10-Keyed

Keyed

11-Boids

Boids

Boids GUI

12-Hair

Hair

13-Assignment

Assignment Tab

CH16-Child Parent Relationship

01-Child Parent

CH17-Constraints

01-Introduction

Introduction

02-Transform

Transform Constraint

03-Tracking

Tracking Constraint

04-Relationships

Relationship Constraint

05-UsingCurves

Duplicating Along Curve

Extruding Along Curve

CH18-Armatures

01-Armatures

CH19-Relative Shapes keys

01-Shapes Keys and Action Editor

CH20-Physics

01-Fluid Simulation

02-Fluid Simulation

03-Fluid Simulation

04-Fluid Simulation

05-Fluid Simulation

06-Fluid Simulation

07-Fluid Simulation

08-Fluid Simulation

09-Fluid Simulation

10-Fluid Simulation

11-Fluid Simulation

12-Fluid Simulation

13-Fluid Simulation

14-Fluid Simulation

CH21-Nodes

01-Nodes

CH22-Game Engine

01-Game Engine

CH23-Video sequence Editor

01-Making a Movie

[Click here to download full PDF material](#)