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Nota di contenuto	MoCap for ArtistsWorkflow and Techniques for Motion Capture; Copyright; Contents; Acknowledgments; Introduction; Chapter 1: An Overview and History of Motion Capture; 1.1 About This Book; 1.2 History of Mocap; 1.2.1 Early attempts; 1.2.2 Rotoscoping; 1.2.3 Beginning of digital mocap; 1.3 Types of Mocap; 1.3.1 Optical mocap systems; 1.3.2 Magnetic mocap systems; 1.3.3 Mechanical mocap systems; Chapter 2: Preproduction; 2.1 Importance of Preproduction; 2.2 Pre-capture Planning; 2.2.1 Script; 2.2.2 Storyboard; 2.2.3 Shot list; 2.2.4 Animatic; 2.3 Preparation for Capture; 2.3.1 Talent 2.3.2 Marker sets2.3.2.1 What are the system limitations?; 2.3.2.2 What kind of motion will be captured?; 2.3.2.3 Know the anatomy; 2.3.3 Capture volume; 2.3.4 Shot list; 2.3.5 Capture schedule; 2.3.6 Rehearsals; 2.3.7 Props; 2.3.8 Suits and markers; Chapter 3: Pipeline; 3.1 Setting up a Skeleton for a 3D Character; 3.2 Calibrations; 3.2.1 System calibration; 3.2.2 Subject calibration; 3.3 Capture Sessions; 3.3.1 Audio and video references; 3.3.2 Organization; 3.3.3 Preventing occlusions; 3.4 Cleaning Data; 3.5 Editing Data; 3.6 Applying Motions

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to a 3D Character

	3.7 Rendering and Post-productionChapter 4: Cleaning and Editing Data; 4.1 Cleaning Marker Data; 4.1.1 Types of data; 4.1.1.1 Optical marker data (translational data); 4.1.1.2 Translational and rotational data; 4.1.1.3 Skeletal data; 4.1.2 What to clean and what not?; 4.1.2.1 What not to clean?; 4.1.2.2 What to clean?; 4.1.3 Labeling/identifying; 4.1.4 Data cleaning methods; 4.1.4.1 Eliminating gaps; 4.1.4.2 Eliminating spikes; 4.1.4.3 Rigid body; 4.1.4.4 Filters; 4.1.5 When to stop?; 4.2 Applying Marker Data to the Skeleton; 4.2.1 Actor; 4.2.2 Skeleton; 4.2.3 Character Chapter 5: Skeletal Editing5.1 Retargeting; 5.1.1 Reducing need for retargeting; 5.1.2 Scaling a skeleton; 5.1.3 Fixing foot sliding; 5.1.4 Working on the spine; 5.2 Blending Motions; 5.2.1 Selecting a blending point; 5.2.2 Matching positions; 5.2.3 Dealing with less than ideal cases; 5.3 Inverse Kinematics; 5.4 Floor Contact; 5.5 Rigid Body; 5.6 Looping Motion; 5.6.1 Getting motion ready; 5.6.2 Setting up the loop; 5.6.2.1 Walking down the z-axis; 5.6.2.2 Taking out the translation; 5.7 Poses; 5.7.1 Deciding what to use; 5.7.2 Creating a pose; 5.7.3 Key-framing a pose Chapter 6: Data Application - Intro Level: Props6.1 A Stick with Two Markers; 6.1.1 When it fails: Occlusion; 6.1.2 When it fails: Rotation; 6.2 A Stick with Three Markers; 6.2.1 Three markers with equal distances; 6.2.2 Three markers on a single straight line; 6.2.3 Placement of three markers that works; 6.3 Flexible Objects; Chapter 7: Data Application - Intermediate Level: Decomposing and Composing Motions; 7.1 Mapping Multiple Motions; 7.1.1 Decomposing and composing upper and lower body motions; 7.1.2 Synchronizing upper and lower body motions; 7.2 Balance; 7.3 Breaking Motion Apart 7.3.1 When you don't need all the motion
Sommario/riassunto	Make motion capture part of your graphics and effects arsenal. This introduction to motion capture principles and techniques delivers a working understanding of today's state-of-the-art systems and workflows without the arcane pseudocodes and equations. Learn about the alternative systems, how they have evolved, and how they are typically used, as well as tried-and-true workflows that you can put to work for optimal effect. Demo files and tutorials provided on the companion CD deliver first-hand experience with some of the core processes.