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Record Nr.	UNINA9910349289003321
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Titolo	Ray Tracing: A Tool for All / / by Jon Peddie
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-17490-5
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (381 pages)
Disciplina	006.6869 006.693
Soggetti	Computer graphics Computer simulation Computer-aided engineering Animated films Computer Graphics Simulation and Modeling Computer-Aided Engineering (CAD, CAE) and Design Animation
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Foreword.-Preface -- Introduction -- The Rendering Industry -- The Continuum -- Work Flow and Material Standards -- Applications of Ray Tracing -- Ray Tracing Hardware -- Ray Tracing Programs and Plug-Ins -- Appendix -- Glossary -- Index -- List of Figures -- List of Tables.
Sommario/riassunto	This is the first book to offer a comprehensive overview for anyone wanting to understand the benefits and opportunities of ray tracing, as well as some of the challenges, without having to learn how to program or be an optics scientist. It demystifies ray tracing and brings forward the need and benefit of using ray tracing throughout the development of a film, product, or building - from pitch to prototype to marketing. Ray Tracing and Rendering clarifies the difference between conventional faked rendering and physically correct, photo-realistic ray traced rendering, and explains how programmer's time, and backend compositing time are saved while producing more accurate

representations with 3D models that move. Often considered an esoteric subject the author takes ray tracing out of the confines of the programmer's lair and shows how all levels of users from concept to construction and sales can benefit without being forced to be a practitioner. It treats both theoretical and practical aspects of the subject as well as giving insights into all the major ray tracing programs and how many of them came about. It will enrich the readers' understanding of what a difference an accurate high-fidelity image can make to the viewer - our eyes are incredibly sensitive to flaws and distortions and we quickly disregard things that look phony or unreal. Such dismissal by a potential user or customer can spell disaster for a supplier, producer, or developer. If it looks real it will sell, even if it is a fantasy animation. Ray tracing is now within reach of every producer and marketeer, and at prices one can afford, and with production times that meet the demands of today's fast world.