

## Sketchup 2014 Users Guide

The intent of this book is to provide the interior design student a well-rounded knowledge of Autodesk Revit tools and techniques. These skills can then be applied to enhance professional development in both academia and industry. The overall premise of the book is to learn Revit while developing the interior of a two story law office. The reader is provided an architectural model with established columns, beams, exterior walls, minimal interior walls and roofs in which to work. This allows more emphasis to be placed on interior design rather than primary architectural elements. The chapters chronology generally follows the typical design process. Students will find this book helps them more accurately and efficiently develop their design ideas and skills. The first chapter introduces the reader to Revit, Building Information Modeling (BIM) and the basics of opening, saving and creating a new project. The second provides a quick introduction to modeling basic elements in Revit including walls, doors, windows and more. This chapter is designed to show students how powerful Revit is and hopefully make them more excited about learning it. The remainder of the book is spent developing the interior space of the law office with an established space program. A student will learn how to view and navigate within the provided 3D architectural model, managing and creating materials and develop spaces with walls, doors and windows. Once all the spaces are added to the model, several areas are explored and used as the basis to cover Revit commands and workflows. At the end of this tutorial, the reader will be able to model floor finishes, ceilings with soffits, casework, custom reception desk, restrooms, furniture and light fixtures. Additional features such as tags, schedules and photo-realistic rendering will be covered.

This book constitutes the refereed proceedings of the 8th International Conference on Ubiquitous Computing and Ambient Intelligence, UCAMI 2014, held in Belfast, UK, in December 2014. The 57 papers presented together with 7 papers of the workshop AmlUA 2014, 8 papers of the workshop IoT 2014, 7 papers of the workshop EUSPAI 2014, and 6 papers of the workshop VSS 2014 were carefully reviewed and selected from numerous submissions. The papers are grouped in topical sections on key application domains for ambient intelligence, human interaction in ambient intelligence, ICT instrumentation and middleware support for smart environments and objects, adding intelligence for environment adaption, and security and privacy issues in AAL. With the UK government's 2016 BIM threshold approaching, support for small organisations on interpreting, filtering and applying BIM protocols and standards is urgently required. Many small UK construction industry supply chain firms are uncertain about what Level 2 BIM involves and are unsure about taking first steps towards having BIM capability. As digitisation, increasingly impacts on work practices, Getting to Grips with BIM offers an insight into an industry in change supplemented by practical guidance on managing the transition towards more widespread and integrated use of digital tools to manage the design, construction and whole life use of buildings.

Go 3D with Google's exciting architectural design software for Mac and Windows Whether you need to learn 3D modeling for business or you're just eager to see what you can create, Google SketchUp and Google SketchUp 8 For Dummies are for you. Available in both a free hobbyist version and a full-featured professional version, SketchUp explodes the myth that 3D modeling software must be complicated to learn

and use. This book will take you step by step through downloading and using both versions on both Mac and Windows. There are even video walkthroughs on the companion Web site. Google's exciting 3D modeling software offers hobbyists as well as architects, engineers, and industrial designers a less complicated tool for architectural rendering, urban planning, set design, game design, and other uses This guide explains both the free and professional versions for both Windows and Mac Covers the basic concepts of 3D modeling and how to build a 3D model, print or share your work online, export your drawing to another design package or Google Earth, and create a detailed set of plans Companion Web site features video walkthroughs Google SketchUp 8 For Dummies gets you up and running with 3D modeling quickly and easily. Construction Documents using SketchUp Pro & LayOut by Paul Lee shows professionals & enthusiasts how to tie all the parts of SketchUp Pro together to produce drawings that were traditionally the domain of CAD. For the first time, by using Paul Lee's methodology it is possible to produce fully-fledged construction files from 3D model-centred information. Create wire-frames of your model that describe the "CAD" detail. Learn how to make this information appear in plan, section and elevation scenes. Then use this information in LayOut to create top quality construction files. NOTE: The exercises in this book are concentrated into the creation of a simple set of drawings of a table in plan, section and elevation. This is a microcosm of the means by which larger drawings can then be produced. The companion SketchUp and LayOut samples for download illustrate this point. Please send feedback to the author: paul@visionsion.ie Thanks.

Discover the secrets of the Google SketchUp with the 16 real-world professional-level projects including parks, structures, concept art, and illustration. Google SketchUp Workshop includes all the wide variety of projects that SketchUp can be used for- architectural visualization, landscape design, video game and film conception, and more. SketchUp masters in every field will get you up to speed in this agile and intuitive software and then show you the real uses with through projects in architecture, engineering, and design.

The texts presented in Proportion Harmonies and Identities (PHI) - INTELLIGENCE, CREATIVITY AND FANTASY were compiled with the intent to establish a multidisciplinary platform for the presentation, interaction and dissemination of research. The aim is also to foster the awareness and discussion on the topics of Harmony and Proportion with a focus on different visions relevant to Architecture, Arts and Humanities, Design, Engineering, Social and Natural Sciences, and their importance and benefits for the sense of both individual and community identity. The idea of modernity has been a significant motor for development since the Western Early Modern Age. Its theoretical and practical foundations have become the working tools of scientists, philosophers, and artists, who seek strategies and policies to accelerate the development process in different contexts.

This book is filled with examples explaining the theoretical concepts behind them. Filled with sample screenshots, diagrams, and final rendered images, this book will help readers develop an understanding of photographic rendering with V-Ray. If you are a SketchUp user who would love to turn your favourite modelling application into a 'virtual photography studio', then this book has been designed and written for you. Existing V-Ray users will also find plenty to enjoy and benefit from in this book. Some basic

experience with SketchUp and familiarity with photography will be helpful, but is not mandatory.

A practical guide to SketchUp addressing the specific needs of interior designers. Already a common and popular tool for architects and landscape architects, SketchUp is increasingly finding a place in the professional workflow of interior designers. SketchUp for Interior Design is a practical introduction for interior designers and students who want to learn to use the software for their unique needs. The book covers the basics of creating 3D models before showing how to create space plans, model furniture, cabinetry, and accessories, experiment with colors and materials, incorporate manufacturers' models into project plans, and create final presentations and animated walk-throughs for clients. Each chapter includes clear explanations and helpful illustrations to make this an ideal introduction to the topic. Includes downloadable sample models and 39 tutorial videos. Features sample questions and activities for instructors and additional online resources for students and self-learners. Provides instruction on using SketchUp in both PC and Mac formats.

The sure way for design professionals to learn SketchUp modeling and rendering techniques. Rendering In SketchUp provides instructions for creating 3D photoreal graphics for SketchUp models using integrated rendering programs. The book serves as a beginner rendering manual and reference guide to further develop rendering skills. With an emphasis on step-by-step process, SketchUp users learn a universal approach to rendering varied SketchUp projects, including architecture, interiors, and site design models. The book focuses on tasks and principles at the core of photorealistic rendering, including:

- Rendering process: Learn a step-by-step process focused on workflow within SketchUp's familiar workspace.
- Universal method: Understand how the process can be used to work with a variety of different integrated rendering programs, including Shaderlight, SU Podium and Twilight Render\*\*. These programs are easy to learn and function in SketchUp.
- Textures and materials: Discover how to obtain, apply and edit texture images representing surfaces.
- Component details: Learn how to acquire and organize model details to allow for rich, expressive settings while maintaining computer and SketchUp performance.
- Exterior and simulated lighting: Learn to set exterior lighting with the SketchUp's Shadow menu or illuminate a scene with simulated lights, lamps, and bulbs.
- Render settings: Use specific settings for various rendering programs to quickly set texture character, image quality, and graphic output.
- Computer specifications: Find out how computers produce renders and the type of computer hardware required to streamline the process.
- Photoshop post-processing: Learn how to further refine rendered images in Photoshop.

\*\*Free online chapters: The book reviews specific settings for SketchUp and the rendering plug-in Shaderlight. Given the ever-changing nature of technology, free, online accompanying chapters detail settings for additional integrated rendering programs including SU Podium, Twilight Render, and more.

Design Integration Using Autodesk Revit 2014 is designed to provide the reader with a well-rounded knowledge of Autodesk Revit tools and techniques. All three flavors of the Revit platform are introduced in this textbook. This approach gives the reader a broad overview of the Building Information Modeling (BIM) process. The topics cover the design integration of most of the building disciplines: Architectural, Interior Design, Structural, Mechanical, Plumbing and Electrical. Civil is not covered, but adding topography to your model is. Each book comes with a CD containing numerous video presentations of the written material. Throughout the book the student develops a two story law office. The drawings start with the floor plans and develop all the way to photo-realistic renderings similar to the one on the cover of this book. Along the way the building's structure, ductwork, plumbing and electrical (power and lighting) are modeled. By the end, the reader will have a thorough knowledge of many of the Revit basics needed to be productive in a classroom or office environment. Even if you will only be working with one component of Revit in your chosen profession, this book will give you important knowledge on how the other disciplines will be doing their work and valuable insight into the overall process. As an instructor, the author understands that many students in a classroom setting have varying degrees of computer experience. To help level the playing field the first chapter is devoted to an introduction to computers. Much of the basics are covered, from computer hardware and software to file management procedures: including step-by-step instructions on using a flash drive. Chapters 2 through 5 cover many of the Revit basics needed to successfully and efficiently work in the software. Once the fundamentals are covered, the remaining chapters walk the reader through a building project which is started from scratch so nothing is taken for granted by the reader or the author.

"... the book is wonderfully illustrated with full color and descriptive images that complement each tutorial or exercise. Alex's teaching background really rings through as every item is nicely structured and very informative. Overall Alex's book is a winner. Well structured, illustrated and most of all easy to read and understand. While the overall theme is based in architecture, the techniques can be applied to any discipline and the wide range of topics covered are excellently delivered." -Richard O'Brien, CatchUp Editor, the official SketchUcation newsletter

The one-stop guide to SketchUp for architects, designers, and builders SketchUp is the tool of choice for architects, interior designers, and construction professionals. Though the basics are simple to understand, getting the most out of it requires deeper instruction and guidance. Architectural Design with Google SketchUp uses easy-to-understand tutorials to describe both common and advanced process, illustrated throughout with full-color renderings. Handy sidebars throughout the book cover fundamentals and background information End-of-chapter exercises help readers master new skills and techniques A robust companion website includes helpful videos, sample files, and plug-ins

Learn all about the most versatile tool in your shop! What can a router add to your woodworking? Simple and complicated joinery for boxes, cabinetry, tables, chairs, doors and much more. You can produce a dizzying array of decorative edge and surface treatments--from a basic chamfer or roundover, to intricate intarsia and inlay. • In a special 54-page primer you'll learn the basics on fixed-base routers, plunge routers and router tables. Discover the details of router joinery and get the information you need to start making boxes, drawers and edge and surface treatments. • An entire section on router joinery will give you details on half-laps, dados, mortise & tenons, dovetails, cope-and-stick, lock joints and more. • Learn to make and use router jigs that will improve the accuracy and performance of your tools, and even offer new ways to use them. • Mounting a router in a table offers even more versatility, and we've included plans for five simple router tables to get you started. • Also included are four projects that use routers in all their versatility, to let you put your knowledge to work. These collected articles are from the most-respected and knowledgeable authors on the topic of routers and include everything you need to start working with routers, or to expand your use of this amazing and powerful tool.

The only comprehensive SketchUp guide written for builders and contractors SketchUp is a 3D modeling application used in areas ranging from civil and mechanical engineering to motion picture and video game design. Three-dimensional modeling is of obvious value to the building industry—yet resources for transforming architectural designs into reality is surprisingly limited. SketchUp for Builders is the first comprehensive guide designed specifically for builders and contractors, providing step-by-step instructions on incorporating 3D modeling into all phases of the construction process. Author John Brock draws from his 30 years of experience as a custom home designer and builder to provide practical advice on how to understand what you are building before it is built. This valuable guide demonstrates how to eliminate cost overruns, construction delays, and design flaws by integrating SketchUp modeling into your workflow. Emphasizing real-world practicality, this book covers all of the essential components of modeling a 3D construction project, from SketchUp fundamentals and object basics to importing construction drawings and increasing project efficiency with extensions and plugins. All phases of construction are clearly explained, including foundations, walls and floor systems, roof and mechanical systems, and exterior and interior finishes. Supplies a constructability process for efficient and cost-effective build projects Offers step-by-step guidance for creating construction documents, renderings, animations, virtual reality tours, and more Integrates SketchUp into all stages of the construction process Provides access to resources such as web tutorials, blogs, and the online SketchUp community Demonstrates how to generate construction documents with accompanying Layout software SketchUp for Builders: A Comprehensive Guide for Creating 3D Building Models Using SketchUp in an indispensable source of information for contractors and builders, architects, interior designers, landscape architects,

construction professionals, and anyone seeking to create 3D models of the design and construction process.

These proceedings collect selected papers from the 7th International Conference on Green Intelligent Transportation System and Safety held in Nanjing on July 1-4, 2016. The selected works, which include state-of-the-art studies, are intended to promote the development of green mobility and intelligent transportation technology to achieve interconnectivity, resource sharing, flexibility and higher efficiency. They offer valuable insights for researchers and engineers in the fields of Transportation Technology and Traffic Engineering, Automotive and Mechanical Engineering, Industrial and System Engineering, and Electrical Engineering.

Beginning with a quick start tutorial which will get you up and running with SketchUp 2014 quickly, you will move on to learning the key skills you will need to wow your clients with stunning visualizations through a series practical steps, tips and tricks. If you are a SketchUp user, from an amateur right through to an architectural technician, professional architect, or designer, this is the book for you. This book is also suitable as a companion to any architectural design or multimedia course, and is accessible to anyone who has learned the basics of SketchUp.

This book is a practical tutorial, packed with real-world case studies to help you design models that print right the first time. If you are familiar with SketchUp and want to print the models you've designed, then this book is ideal for you. You don't need any experience in 3D printing; however, SketchUp beginners will require a companion book or video training series to teach them the basic SketchUp skills.

“In this comprehensive book, Professor Randy Deutsch has unlocked and laid bare the twenty-first century codice nascosto of architecture. It is data. Big data. Data as driver. . . This book offers us the chance to become informed and knowledgeable pursuers of data and the opportunities it offers to making architecture a wonderful, useful, and smart art form.” —From the Foreword by James Timberlake, FAIA Written for architects, engineers, contractors, owners, and educators, and based on today’s technology and practices, *Data-Driven Design and Construction: 25 Strategies for Capturing, Applying and Analyzing Building Data* addresses how innovative individuals and firms are using data to remain competitive while advancing their practices. seeks to address and rectify a gap in our learning, by explaining to architects, engineers, contractors and owners—and students of these fields—how to acquire and use data to make more informed decisions. documents how data-driven design is the new frontier of the convergence between BIM and architectural computational analyses and associated tools. is a book of adaptable strategies you and your organization can apply today to make the most of the data you have at your fingertips. *Data-Driven Design and Construction* was written to help design practitioners and their project teams make better use of BIM, and leverage data throughout the building

lifecycle.

This book follows on previous works addressing sustainable development research in the Asia-Pacific region. It mainly focuses on India, a country currently facing immense challenges in the form of climate change, rapid urbanisation, and population pressures in its journey to help achieve the Sustainable Development Goals. Expecting to surpass China in terms of population in the near future, India needs to develop its own solutions in order to uphold its commitments under the Paris Agreement. This book makes a contribution in that direction by presenting case studies on various aspects of the built environment, from education to managing cities, procurement, and considerations for a circular economy. The papers gathered here offer a vital resource for government policymakers, educators, and current and future professionals, equipping them with the knowledge and expertise they need in order to overcome today's complex challenges in the built environment.

The SketchUp to LayOut book is the essential guide for woodworkers, carpenters, architects, contractors, builders, and designers who already know the basics on how to use SketchUp, but are looking to create stunning presentations to visualize their ideas with their clients using LayOut. Learn the workflow for creating models specifically for LayOut Before you even begin modeling that first rectangle, you'll need to fully understand which type of model you should be building for LayOut. Don't make the mistake of creating twice the amount of work for yourself because you didn't properly organize your model ahead of time. I'll teach you how to save time and frustration by organizing your model so YOU are in control of how your model viewports look. The entire first half of the book is dedicated to preparing your model for LayOut. From organizational workflow, to scenes and styles. I share with you my 5 point method I use to visualize and prepare every scene I create for LayOut. Not only will you understand exactly what those five points are, you'll learn multiple ways to control them. Using these methods, you will gain complete control over the look of your viewports in LayOut. You will master every aspect of a SketchUp scene and style, to enable you to create impressive presentations and drawings in the least amount of time possible. Is this too advanced for me? This book is designed for construction professionals who don't have any prior experience in LayOut at all. But it's also structured in a way that lets you look up specific tasks or methods without having to read the book cover to cover. I'll save you all the time and frustration that I went through when I first learned LayOut by quickly orienting you with the workspace, then jumping right in to creating your own titleblock, inserting SketchUp models, and adding dimensions. You should have some basic knowledge on how to use SketchUp. But if you're just starting out, you'll have complete access to my entire library of tutorials and videos for free on my website to bring you up to speed quickly. Every important aspect of LayOut is explained in the book, with step by step instructions for you to follow along. Learn exactly what you need to know and skip over all the little details you don't need

to worry about. The book has been updated for 2014 so you'll even learn about the new Auto-Text tag feature, saving you a ton of time on those redundant text edits. You'll see REAL examples The sample projects in the book are real projects, not hypothetical meaningless shapes and boxes, so you can see exactly how to apply the concepts you learn in context with the real world. Plus, the SketchUp and LayOut files are included with each book download so you'll be able to follow along and discover for yourself how to organize a similar project of your own. The sample projects include a woodworking table project, a kitchen project, and a three story house project. At the same time, each step by step instruction can be read and followed independently from the project. So if you need to go back and reference a certain part of the book to learn how to do something specific, you'll be able to do that too. Advanced Techniques I've consulted with many of the best SketchUp gurus in the world! I've hung out with Nick Sonder at the SketchUp basecamp conference. I've interviewed Aidan Chopra, SketchUp evangelist and author of "Google SketchUp for Dummies", Eric Schimelpfenig from SketchThis.net, and Alexander Schreyer, author of "Architectural Design with SketchUp". I've also consulted with Mike Brightman, author of "The SketchUp Workflow for Architecture", Daniel Tal, author of "Rendering In SketchUp", and many other great SketchUp experts.

A newly updated and comprehensive guide to all aspects of visual design From doing a quick sketch to producing a fully rendered model, the ability to create visual representations of designs is a critical skill for every designer. Interior Design Visual Presentation, Fifth Edition offers thorough coverage of interior design communication used throughout the design process, complete with a broad range of real-world examples. This fully updated handbook presents a full range of styles and techniques used for interior design visual communication, from hand drawing to 3D computer modeling. Its accessible, how-to approach guides you through a variety of methods for executing creative and successful design graphics, models, and presentations. Recognizing the ongoing proliferation of digital tools for visual representation, this edition provides the latest information on software used in presentation such as Photoshop, and SketchUp, and covers the integration of Revit, and AutoCAD generated content into design presentations.

- Covers all aspects of visual design and presentation for interior designers
- Includes color illustrations that feature a wide range of project types including residential, healthcare and public projects, designed to highlight step-by-step instructions
- Provides a discussion of incorporation of 3D digital models into presentations including use in virtual reality, and expanded information on scale models including a discussion of 3D printing
- Includes a companion website for instructors, featuring PowerPoint lecture slides and an instructor's manual

From traditional to cutting-edge techniques, Interior Design Visual Presentation, Fifth Edition gives students and professionals alike the tools to give life to their design vision.

Google SketchUp is the exciting free software package that makes 3D available

to everybody. Whether you need to build 3D models for work, or you've just always wanted to explore 3D modeling, Google SketchUp was made for you. Still, it does take a bit of understanding to get started, so turn to Google SketchUp 7 For Dummies. In classic For Dummies tradition, Google SketchUp 7 For Dummies gets right to the point so you can start creating 3D models right away. You'll learn to: Set up SketchUp, learn about edges and faces, use inferences and guides, and build your first model Establish a basic end-to-end workflow for creating and sharing models Model non-boxy objects like terrain, characters, bottles, and spheres Add details like stairs, gutters, and eaves Spruce up your models with styles and shadows to add effects, make objects pop, and enhance realism Use the LayOut function to draw with vector tools, add text and callouts, and print your work Design buildings and objects, export your models to other design programs or to Google Earth, and explore 3D animation On the book's companion Web site, you'll also find a bonus chapter and videos demonstrating more about what you can do with Google SketchUp. Google SketchUp 7 For Dummies also shows you what SketchUp can and can't do, and offers tips for solving common problems. Add a new dimension to your work today!

Discover BIM: A better way to build better buildings Building Information Modeling (BIM) offers a novel approach to design, construction, and facility management in which a digital representation of the building product and process is used to facilitate the exchange and interoperability of information in digital format. BIM is beginning to change the way buildings look, the way they function, and the ways in which they are designed and built. The BIM Handbook, Third Edition provides an in-depth understanding of BIM technologies, the business and organizational issues associated with its implementation, and the profound advantages that effective use of BIM can provide to all members of a project team. Updates to this edition include: Information on the ways in which professionals should use BIM to gain maximum value New topics such as collaborative working, national and major construction clients, BIM standards and guides A discussion on how various professional roles have expanded through the widespread use and the new avenues of BIM practices and services A wealth of new case studies that clearly illustrate exactly how BIM is applied in a wide variety of conditions Painting a colorful and thorough picture of the state of the art in building information modeling, the BIM Handbook, Third Edition guides readers to successful implementations, helping them to avoid needless frustration and costs and take full advantage of this paradigm-shifting approach to construct better buildings that consume fewer materials and require less time, labor, and capital resources.

This book introduces the usage, functionality, and application of data in geographic information systems (GIS) for geo-spatial analysis. It offers knowledge on GIS tools and techniques and explains how they can be applied in real-world project to architects and planners in the Indian and the Greater South

Asian context using open-source software. The volume explains concepts on planning and architectural tasks, their data, methods and requirements followed, and includes GIS-related exercises on the same tasks. It takes the reader through the concepts of geo-spatial analysis and its referencing system while quoting examples from India. Further, the content of the book will help the planners involved in preparing GIS-based master planning for cities under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme (see Glossary for details). A practical guidebook providing a step-by-step guide to learn open source GIS, this book will be useful for students, scholars and professionals from the field of architecture and planning, geography and other spatial sciences, instructors of GIS course on planning and architecture, urban and regional planners, transport planners, urban design, landscape architects, environmental planners, departments of town and country planning, and development authorities. It will also be useful for anyone interested in the geospatial analysis.

The site designer's guide to SketchUp's powerful modeling capabilities SketchUp for Site Design is the definitive guide to SketchUp for landscape architects and other site design professionals. Step-by-step tutorials walk you through basic to advanced processes, with expert guidance toward best practices, customization, organization, and presentation. This new second edition has been revised to align with the latest software updates, with detailed instruction on using the newest terrain modeling tools and the newly available extensions and plug-ins. All graphics have been updated to reflect the current SketchUp interface and menus, and the third part of the book includes all-new content featuring the use of new grade and terrain extensions. Developed around the needs of intermediate professional users and their workflows, this book provides practical all-around coaching on using SketchUp specifically for modeling site plans. SketchUp was designed for usability, with the needs of the architect, industrial designer, and engineers at center stage. This book shows you how the software's powerful terrain and grade functions make it an ideal tool for site designers, and how to seamlessly integrate it into your workflow for more efficient design and comprehensive planning. Master the SketchUp basics, navigation, components, and scripts Turn 2D sketches into 3D models with volume, color, and material Create detailed site plans, custom furnishings, gradings, and architecture Learn sandbox tools, organization strategies, and model presentation tips SketchUp has undergone major changes since the publication of this guide's first edition, with its sale to Trimble Navigation bringing about a number of revisions and the availability of more immediately useful features. SketchUp for Site Design shows you how to harness the power of this newly expanded feature set to smooth and optimize the site design workflow. The 2nd edition of Chopra's Google SketchUp provides key pedagogical elements, which help prepare readers for the workforce. The content provides real-world and applied material including better PowerPoint presentations and

how-to animations. Additional features include updated content to reflect software upgrades and market use; new pedagogy elements and interior design; and more robust resources that will be appropriate for different users of Google Sketch. The book also addresses the similarities between the adapted title, Google SketchUp 8 for Dummies, and Google SketchUp 2. This includes a title that contains the core content and basic software how-to from For Dummies; revised TOC to reflect the course; and new material developed/written by writer and academic advisors/reviewers. This edition goes beyond the basic software use to teach on portions of SketchUp.

Building Information Modelling (BIM) is a global phenomenon which is gaining significant momentum across the world. Currently there is little information on how to realise and monitor benefits from implementing BIM across the life-cycle of a built environment asset. This book provides a practical and strategic framework to realise value from implementing BIM by adapting Benefit Realisation Management theory. It presents an approach for practitioners aiming to implement BIM across the life-cycle of built environment assets, including both buildings and infrastructure. Additionally, the book features: wide-ranging information about BIM, the challenges of monitoring progress towards benefit goals and the greater context of implementation; a set of dictionaries that illustrate: how benefits can be achieved, what the benefit flows are and the enabling tools and processes that contribute to achieving and maximising them; a suite of measures that can serve to monitor progress with examples of how they have been used to measure benefits from BIM; real-world examples from across the world and life-cycle phases that show how these benefits can be achieved; and information on international maturity and competency measures to complement the value realisation framework. Including a blend of academic and industry input, this book has been developed in close collaborative consultation with industry, government and international research organisations and could be used for industry courses on BIM benefits and implementation for asset management or by universities that teach BIM-related courses.

The 2014 Asia-Pacific Conference on Computer Science and Applications was held in Shanghai, December 27-28, 2014. These CSAC-2014 proceedings include 105 selected papers, which focus not only on the research of science and technology of computer sciences, but also on the research of applications, aiming at a quick and immediate effect on

Recent advances in information and communication technologies have enhanced the standards of metropolitan planning and development. With the increase in mobile communication, this will help to deliver innovative new services and apps in the field of urban e-planning. *New Approaches, Methods, and Tools in Urban E-Planning* is a key resource for the latest academic research on recent innovations in urban e-planning, citizen e-participation, the use of social media, and new forms of data collection and idea generation for urban planning. Presenting broad coverage among a variety of pertinent views and themes such as ethnography, e-

consultation, and civic engagement, this book is ideally designed for planners, policymakers, researchers, and graduate students interested in how recent technological advancements are enhancing the traditional practices in e-planning.

This book is filled with examples explaining the theoretical concepts behind them. Filled with ample screenshots, diagrams, and final rendered images, this book will help readers develop an understanding of photographic rendering with V-Ray. If you are a SketchUp user who would love to turn your favourite modelling application into a virtual photography studio', then this book has been designed and written for you. Existing V-Ray users will also find plenty to enjoy and benefit from in this book. Some basic experience with SketchUp and familiarity with photography will be helpful, but is not mandatory.

A guide for leveraging SketchUp for any project size, type, or style. New construction or renovation. The revised and updated second edition of *The SketchUp Workflow for Architecture* offers guidelines for taking SketchUp to the next level in order to incorporate it into every phase of the architectural design process. The text walks through each step of the SketchUp process from the early stages of schematic design and model organization for both renovation and new construction projects to final documentation and shows how to maximize the LayOut toolset for drafting and presentations. Written by a noted expert in the field, the text is filled with tips and techniques to access the power of SketchUp and its related suite of tools. The book presents a flexible workflow method that helps to make common design tasks easier and gives users the information needed to incorporate varying degrees of SketchUp into their design process. Filled with best practices for organizing projects and drafting schematics, this resource also includes suggestions for working with LayOut, an underused but valuable component of SketchUp Pro. In addition, tutorial videos compliment the text and clearly demonstrate more advanced methods. This important text: Presents intermediate and advanced techniques for architects who want to use SketchUp in all stages of the design process Includes in-depth explanations on using the LayOut tool set that contains example plans, details, sections, presentations, and other information Updates the first edition to reflect the changes to SketchUp 2018 and the core functionalities, menus, tools, inferences, arc tools, reporting, and much more Written by a SketchUp authorized trainer who has an active online platform and extensive connections within the SketchUp community Contains accompanying tutorial videos that demonstrate some of the more advanced SketchUp tips and tricks Written for professional architects, as well as professionals in interior design and landscape architecture, *The SketchUp Workflow for Architecture* offers a revised and updated resource for using SketchUp in all aspects of the architectural design process.

A book that goes beyond basic-level play of the popular Minecraft computer game covers such topics as automating all aspects of mining, harvesting and building tasks; generating infinite ores on demand; building mob spawners and

traps for fast experience gains; sharing one's creations with the world and much more. Original.

Buildings are one of the main causes of the emission of greenhouse gases in the world. Europe alone is responsible for more than 30% of emissions, or about 900 million tons of CO<sub>2</sub> per year. Heating and air conditioning are the main cause of greenhouse gas emissions in buildings. Most buildings currently in use were built with poor energy efficiency criteria or, depending on the country and the date of construction, none at all. Therefore, regardless of whether construction regulations are becoming stricter, the real challenge nowadays is the energy rehabilitation of existing buildings. It is currently a priority to reduce (or, ideally, eliminate) the waste of energy in buildings and, at the same time, supply the necessary energy through renewable sources. The first can be achieved by improving the architectural design, construction methods, and materials used, as well as the efficiency of the facilities and systems; the second can be achieved through the integration of renewable energy (wind, solar, geothermal, etc.) in buildings. In any case, regardless of whether the energy used is renewable or not, the efficiency must always be taken into account. The most profitable and clean energy is that which is not consumed.

Go beyond the basics: making SketchUp work for you Architectural Design with SketchUp, Second Edition, is the leading guide to this incredibly useful tool for architects, interior designers, construction professionals, and makers. With easy to follow tutorials that first brush up on the basics of the program and then cover many advanced processes, this resource offers both informative text and full-color illustrations to clearly convey the techniques and features you need to excel. The updated second edition has a new chapter that explains how to make things with SketchUp, and covers 3D printing, design to fabrication, CNC milling, and laser cutting. Other chapters also now cover Building Information Modeling (BIM) and 3D web content generation. Additionally, the revised text offers insight into the latest products and plugin extensions, navigation methods, import/export options, and 3D model creation features to ensure you have an up to date understanding of how to make SketchUp help you meet your project goals. A leading 3D modeling application, SketchUp features documentation capabilities through photorealistic renderings and construction drawings. Because of its ease of use and ability to be enhanced with many plugin extensions for project-specific applications, SketchUp is considered the tool of choice for professionals in the architecture, interior design, construction, and fabrication fields. Access thoroughly updated information in an easy to understand writing style Increase your efficiency and accuracy when using SketchUp and refresh and supplement your understanding of SketchUp's basics Explore component-based modeling for assembly, scheduling, collaborative design, and modeling with a BIM approach Find the right plugin extensions and understand how to best work with them See how easy it is to generate presentation-ready renderings from your 3D models Learn how you can use 3D printing, CNC milling, and laser cutting to make things

with SketchUp Use cookbook-style Ruby coding to create amazing 3D objects Supplement your knowledge with video tutorials, sample files, and Ruby scripts via a robust companion website Architectural Design with SketchUp, Second Edition, is an integral resource for both students and professionals working in the architecture, interior design, construction, and fabrication industries.

"Whatever your skill level, this concise introduction to SketchUp gets you up to speed fast. Learn how to set up the program, use drawing tools, navigate in a 3-D space, sketch, refine drawings, and create shop-ready plans. Already know a little? This easy-to-skim video lets you focus on what's new to you. Includes: sample project, tips, shortcuts, cheat sheet, and digital plan."--Container insert. Start building your 3D model today with a comprehensive guide to SketchUp 2014 SketchUp 2014 For Dummies is a user-friendly guide to creating 3D models, adding textures, creating animated walkthroughs, and more, using one of the most popular 3D modeling programs on the market. Fully updated to align with the release of SketchUp, the book guides you through the interface, tools, techniques, and tricks in SketchUp and SketchUp Pro, on both Windows and Mac platforms. Written for designers with no prior 3D modeling experience, the book provides beginner- to intermediate-level instruction in this powerful program. With a strong emphasis on usability rather than features, SketchUp has found widespread success around the world. Available as a free download, the program allows you to get comfortable and develop your skills before investing in the Pro version's additional features. SketchUp 2014 For Dummies gets you up to speed fast, beginning with an overview of the basic concepts of 3D modeling before getting down to business with the software. Organized for easy navigation, the book can also serve as a handy desk reference for more experienced designers getting acquainted with the latest update. Topics include: Using SketchUp 2014 to create 3D models Printing on a plotter or 3D printer Sharing designs via SketchUp 3D Warehouse Exporting to another design package The book also walks you through the creation of a detailed set of plans, and demonstrates how to give virtual "tours" of your design. A 16-page color insert illustrates the possibilities, and may just trigger your inspiration. Whether you're a designer, architect, engineer, or hobbyist, SketchUp 2014 For Dummies gets you started quickly.

Building information modeling (BIM) is the new AutoCAD for architects and interior designers--and Revit Architecture is the leading software package in the BIM marketplace. Revit Architecture 2014 for Designers is written specifically for architects and interior designers as they transition from CAD to BIM. Beginning with the building blocks of BIM modeling (walls, windows, and doors), the text progresses through dynamically generated 2-dimensional and 3-dimensional views to advanced features--such as photorealistic rendering, custom title blocks, and exporting drawings to AutoCAD and SketchUp. Instructions are fully illustrated, creating a smooth transition to the BIM environment for all designers. Clear, concise, and above all visual, this is the essential Revit guide written

specifically for interior designers and architects.

The most comprehensive e-book reference on Autodesk 3ds Max2013! Autodesk 3ds Max is used to create 80 percent of commerciallyavailable games and is also a key tool for visual effects artistsand graphic designers in film and television. This convenient-e-book covers the 2013 version in expanded detail, including 12chapter-length quick-start projects and 39 additional chapters notfound in the print version. Along with complete referencesdetailing all Primitives, Modifiers, Materials, Maps, andControllers, it covers advanced topics such as Patches, NURBS,Radiosity, Network Rendering, and MAXScript. It's the perfectresource for both novices and pros. 3ds Max is the tool of choice for game developers as well asvisual effects artists and graphic designers in the film and TVindustries This comprehensive e-book includes complete coverage of 3ds Max2013, and is well suited for beginners and experts alike, as wellas for educational markets teaching beginning to advanced coursesusing 3ds Max. Features a complete reference for all Primitives, Modifiers,Materials, Maps, and Controllers Covers Patches, NURBS, Radiosity, Network Rendering, MAXScript,and other advanced topics Includes 12 chapter-length quick-start projects as well as 39chapters not found in the print version, all packed with timesavingtips and expert advice Third-party models and bonus tutorials are available on CD andcan be obtained by readers by emailing a request to3dsmax13cd@wiley.com Autodesk 3ds Max 2013 Bible, Expanded Edition by veterancomputer graphics author Kelly Murdock is the comprehensive e-bookguide for every 3ds Max user.

The problem with traditional 2D CAD is that you sometimes lose touch with the overall design because you are forced to think from the perspective of flat construction documents. The restrictions of the documentation requirements and the technical limitations of the software take priority over the design itself.Designing in 3D gives you the freedom to visualize how the project will look in real life. The design becomes the primary focus, and the construction documents become a by-product of the design. That is the way it should be.There are plenty of 3D design programs out there that automate much of the process of designing a building, but you sacrifice the design once again because you are forced to learn and abide by complicated technical processes in order to get the software to do what you want. Creating anything custom further complicates the process, or is simply not possible.Where SketchUp shines is in its ability to create accurate 3D models quickly in an easy-to-use interface without forcing users to learn complicated tools or workflows. SketchUp has a unique way of prioritizing the design, and LayOut provides the conduit to communicate your design on paper.In SketchUp & LayOut for Architecture, you'll learn a step-by-step workflow that will enable you to eliminate CAD from your workflow, focus on your design, and produce beautiful construction documents for each phase of design, including Schematic Design, Design Development, and Construction Documentation.

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