Performance Modeler User Guide

Circuit simulation is essential in integrated circuit design, and the accuracy of circuit simulation depends on the accuracy of the transistor model. BSIM3v3 (BSIM for Berkeley Short-channel IGFET Model) has been selected as the first MOSFET model for standardization by the Compact Model Council, a consortium of leading companies in semiconductor and design tools. In the next few years, many fabless and integrated semiconductor companies are expected to switch from dozens of other MOSFET models to BSIM3. This will require many device engineers and most circuit designers to learn the basics of BSIM3. MOSFET Modeling & BSIM3 User's Guide explains the detailed physical effects that are important in modeling MOSFETs, and presents the derivations of compact model expressions so that users can understand the physical meaning of the model equations and parameters. It is the first book devoted to BSIM3. It treats the BSIM3 model in detail as used in digital, analog and RF circuit design. It covers the complete set of models, i.e., I-V model, capacitance model, noise model, parasitics model, substrate current model, temperature effect model and non quasi-static model. MOSFET Modeling & BSIM3 User's Guide not only addresses the device modeling issues but also provides a user's guide to the device or circuit design engineers who use the BSIM3 model in digital/analog circuit design, RF modeling, statistical modeling, and technology prediction. This book is written for circuit designers and device engineers, as well as device scientists worldwide. It is also suitable as a reference for graduate courses and courses in circuit design or device modelling. Furthermore, it can be used as a textbook for industry courses devoted to BSIM3. MOSFET Modeling & BSIM3 User's Guide is comprehensive and practical. It is balanced between the background information and advanced discussion of BSIM3. It is helpful to experts and students alike.

The Pulse Mode Performance Model computer program has been developed to provide an analytical tool for accurately predicting the pulse-mode performance of attitude control rocket engines. Specifically, the principal performance parameters predicted are propellant flows, total impulse and mean specific impulse for individual pulses and for overall mission duty cycles. The pulse mode operation is applicable for pulse widths which are long enough for thrust to approach its steady-state level and for pulse rates which are not so rapid as to prevent thrust from decaying below 10 percent of its steady-state level between pulses. This volume of the Users Guide describes the computer program, its required input data, special operating instructions and output.

Solar Energy Update

Energy Research Abstracts

2018 CFR Annual Digital e-Book Edition, 40 Protection of Environment - Parts 50 to 51

Electricity from Photovoltaic Solar Cells: Project analysis and integration

Pulse Mode Performance Model Computer Program Documentation and User's Guide. Volume 2. Appendix A. Source Program Listing. Appendix B. Card Changes for Special Deck Setup. Appendix C. Input Data Deck Listing for Example Case

This new edition of this bestselling guide offers an integrated approach to process improvement that delivers quick and substantial results in quality and productivity in diverse settings. The authors explore their Model for Improvement that worked with international improvement efforts at multinational companies as well as in different industries such as healthcare and public agencies. This edition includes new information that shows how to accelerate improvement by spreading changes across multiple sites. The book presents a practical tool kit of ideas, examples, and applications.

The Pulse Mode Performance Model computer program has been developed to provide an analytical tool for accurately predicting the pulse-mode performance of attitude control rocket engines. Volume II contains a listing of the source program coding (excluding subprogram TDK), of card changes for special desk set ups and of the input data used in the example case.

Advanced Information Systems Engineering

A Guide to Building Information Modeling for Owners, Designers, Engineers, Contractors, and Facility Managers

Proceedings

The Improvement Guide

Quarterly Abstract Bulletin

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.

The field of cognitive modeling has progressed beyond modeling cognition in the context of simple laboratory tasks and begun to attack the problem of modeling it in more complex, realistic environments, such as those studied by researchers in the field of human factors. The problems that the cognitive modeling community is tackling focus on modeling certain problems of communication and control that arise when integrating with the external environment factors such as implicit and explicit knowledge, emotion, cognition, and the cognitive system. These problems must be solved in order to produce integrated cognitive models of moderately complex tasks. Architectures of cognition in these tasks focus on the control of a central system, which includes control of the central processor itself, initiation of functional processes, such as visual search and memory retrieval, and harvesting the results of these functional processes. Because the control of the central system is conceptually different from the internal control required by individual functional processes, a complete architecture of cognition must incorporate two types of theories of control: Type 1 theories of the structure, functionality, and operation of the controller, and type 2 theories of the internal control of functional processes, including how and what they communicate to the controller. This book presents the current state of the art for both types of theories, as well as contrasts among current approaches to human-performance models. It will be an important resource for professional and student researchers in cognitive science, cognitive-engineering, and human-factors. Contributors: Kevin A. Gluck, Jerry T. Ball, Michael A. Krusmark, Richard W. Pew, Chris R. Sims, Vladislav D. Veksler, John R. Anderson, Ron Sun, Nicholas L. Cassimatis, Randy J. Brou, Andrew D. Egerton, Stephanie M. Doane, Christopher W. Myers, Hansjörg Neth, Jeremy M Wolfe, Marc Pomplun, Ronald A. Rensink, Hansjörg Neth, Chris R. Sims, Peter M. Todd, Lael J. Schooler, Wai-Tat Fu, Michael C. Mozer, Sachiko Kinoshita, Michael Shettel, Alex Kirlik, Vladislav D. Veksler, Michael J. Schoelles, Jerome R. Busemeyer, Eric Dimperio, Ryan K. Jessup, Jonathan Gratch, Stacy Marsella, Glenn Gunzelmann, Kevin A. Gluck, Scott Price, Hans P. A. Van Dongen, David F. Dinges, Frank E. Ritter, Andrew L. Reifers, Laura Cousino Klein, Michael J. Schoelles, Eva Hudlicka, Hansjörg Neth, Christopher W. Myers, Dana Ballard, Nathan Sprague, Laurence T. Maloney, Julia Trommershäuser, Michael S. Landy, A. Hornof, Michael J. Schoelles, David Kieras, Dario D. Salvucci, Niels Taatgen, Erik M. Altmann, Richard A. Carlson, Andrew Howes, Richard L. Lewis, Alonso Vera, Richard P. Cooper, and Michael D. Byrne

User's Guide for version 1 (EPA/530/SW-84-009) and. User's guide for version I (EPA /530-SW-84-010)

Guide for Industrial Waste Management

Technical Abstract Bulletin

BPMN Modeling and Reference Guide

ORD Publications Announcement

Underwater Acoustic Modeling and Simulation, Fourth Edition continues to provide the most authoritative overview of currently available propagation, noise, reverberation, and sonar-performance models. This fourth edition of a bestseller discusses the fundamental processes involved in simulating the performance of underwater acoustic systems and emphasizes the importance of applying the proper modeling resources to simulate the behavior of sound in virtual ocean environments. New to the Fourth Edition Extensive new material that addresses recent advances in inverse techniques and marine-mammal protection Problem sets in each chapter Updated and expanded inventories of available models Designed for readers with an understanding of underwater acoustics but who are unfamiliar with the various aspects of modeling, the book includes sufficient mathematical derivations to demonstrate model formulations and provides guidelines for selecting and using the models. Examples of each type of model illustrate model formulations, model assumptions, and algorithm efficiency. Simulation case studies are also included to demonstrate practical applications. Providing a thorough source of information on modeling resources, this book examines the translation of our physical understanding of sound in the sea into mathematical models that simulate acoustic propagation, noise, and reverberation in the ocean. The text shows how these models are used to predict and diagnose the performance of complex sonar systems operating in the undersea environment.

This IBM® Redbooks® publication explains how IBM Cognos® Business Intelligence (BI) administrators, authors, modelers, and power users can use the dynamic query layer effectively. It provides guidance for determining which technology within the dynamic query layer can best satisfy your business requirements. Administrators can learn how to tune the query service effectively and preferred practices for managing their business intelligence content. This book includes information about metadata modeling of relational data sources with IBM Cognos Framework Manager. It includes considerations that can help you author high-performing applications that satisfy analytical requirements of users. This book provides guidance for troubleshooting issues related to the dynamic query layer of Cognos BI. Related documents: Solution Guide : Big Data Analytics with IBM Cognos BI Dynamic Query Blog post : IBM Cognos Dynamic Query Extensibility

MOSFET Modeling & BSIM3 User's Guide

The Hydrologic Evaluation of Landfill Performance (HELP) Model

Solar Energy Computer Models Directory

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Code of Federal Regulations

The 17th European Symposium on Computed Aided Process Engineering contains papers presented at the 17th European Symposium of Computer Aided Process Engineering (ESCAPE 17) held in Bucharest, Romania, from 27-30 May 2007. The ESCAPE series serves as a forum for scientists and engineers from academia and industry to discuss progress achieved in the area of Computer Aided Process Engineering (CAPE). The main goal was to emphasize the continuity in research of innovative concepts and systematic design methods as well the diversity of applications emerged from the demands of sustainable development. ESCAPE 17 highlights the progresss software technology needed for implementing simulation based tools. The symposium is based on 5 themes and 27 topics, following the main trends in CAPE area: Modelling, Process and Products Design, Optimisation and Optimal Control and Operation, System Biology and Biological Processes, Process Integration and Sustainable Development. Participants from 50 countries attended and invited speakers presented 5 plenary lectures tackling broad subjects and 10 keynote lectures. Satellite events added a plus to the scientific dimension to this symposium. * All contributions are included on the CD-ROM attached to the book * Attendance from 50 countries with invited speakers presenting 5 plenary lectures tackling broad subjects and 10 keynote lectures

This book constitutes the refereed proceedings of the 15th International Conference on Advanced Information Systems Engineering, CaiSE 2003, held in Klagenfurt, Austria in June 2003. The 45 revised full papers presented together with 3 invited contributions were carefully reviewed and selected from 219 submissions. The papers are organized in topical sections on XML, methods and models for information systems, UML, Internet business and social modeling, peer-to-peer systems, ontology-based methods, advanced design of information systems, knowledge, knowledge management, Web services, data warehouses, electronic agreements and workflow, requirements engineering, metrics and method engineering, and agent technologies and advanced environments.

User's Manual

IBM Cognos TM1 The Official Guide

The Practical OPNET User Guide for Computer Network Simulation

EPA Publications Bibliography

BIM Handbook

This newly revised and updated edition of a classic Artech House book offers a current and complete and introduction to the analysis and design of Electro-Optical Systems (EO) imaging systems. The Second Edition provides numerous updates and brand new coverage of today's most important areas, includ the integrated spatial frequency approach and a focus on the weapons of terrorists as objects of interest. This comprehensive reference details the principles and components of the Linear Shift-Invariant (LSI) infrared and electro-optical systems and shows you how to combine this approach with calculus and domain transformations to achieve a successful imaging system analysis. Ultimately, the steps described in this book lead to results in quantitative characterizations of performance metrics such as modulation transfer functions, minimum resolvable temperature difference, minimum resolvable contrast, and probability of object discrimination. The book includes an introduction to two-dimensional functions and mathematics which can be used to describe image transfer characteristics and imaging system components. You also learn diffraction concepts of coherent and incoherent imaging systems which show you the fundamental limits of their performance. By using the evaluation procedures contained in this desktop reference, you become capable of predicting both sensor test and field performance and quantifying the effects of component variations. This practical resource includes over 780 time-saving equations.

Explains how to create and manage performance management solutions using IBM Cognos TM1, covering such topics as planning, forecasting, and scenario analytic solutions.

Pulse Mode Performance Model Computer Program Documentation and User's Guide. Volume III. Appendix D. Printout for Example Case

Introduction to Infrared and Electro-optical Systems

Understanding and Using BPMN

New Construction Reference Guide Version 2.2

Containing a Codification of Documents of General Applicability and Future Effect as of December 31, 1948, with Ancillaries and Index

Designed to assist facility managers, state & tribal environmental managers, & the public to evaluate & choose protective practices for managing industrial waste in new landfills, waste piles, surface impoundments, & land application units. Identifies the components of a sound waste management system & the reasons why each is important. Also includes groundwater & air models, as well as other tools to help tailor waste management practices to a particular facility. This guidance reflects 4 underlying principles: protect human health & the environment; tailor management practices to risks; affirm state & tribal leadership; & foster a partnership.

One of the first books to provide a comprehensive description of OPNET IT Guru and Modeler software, The Practical OPNET User Guide for Computer Network Simulation explains how to use this software for simulating and modeling computer networks. The included laboratory projects help readers learn different aspects of the software in a hands-on way.Q

IBM Cognos Dynamic Query

A Practical Approach to Enhancing Organizational Performance

APICS, the Performance Advantage

Fossil Energy Update

Pulse Mode Performance Model Computer Program Documentation and User's Guide. Volume IV. Appendix E. PMDER/TDK Source Program Listing

The Pulse Mode Performance Model computer program has been developed to provide an analytical tool for accurately predicting the pulse-mode performance of attitude control rocket engines. Volume III contains the complete printout of the example case. (Modified author abstract).

Title 40 Protection of Environment - Parts 50 to 51

Factory Modeling System, Release 4.0

Patrol Car Allocation Model

Pulse Mode Performance Model Computer Program Documentation and User's Guide

EPA National Publications Catalog

15th International Conference, CAiSE 2003, Klagenfurt, Austria, June 16-18, 2003, Proceedings

The Pulse Mode Performance Model computer program has been developed to provide an analytical tool for accurately predicting the pulse-mode performance of attitude control rocket engines. Volume IV is a listing of the TDK source program coding. (Modified author abstract).

The Practical OPNET User Guide for Computer Network SimulationCRC Press

1986 Proceedings

User's Guide to XCELL+

17th European Symposium on Computed Aided Process Engineering

2017 CFR Annual Print Title 40 Protection of Environment - Parts 50 to 51

Department of Defense Catalog of Logistics Models

This report describes the Patrol Car Allocation Model (PCAM85), a computer program to assist police agencies determine the number of patrol cars to have on duty in each geographic command at different times of the day and week; a user's guide to PCAM is included. Descriptions of the capabilities and uses of the model encompass typical applications, the role of judgment in using PCAM, and the major differences between PCAM75 and PCAM85 (PCAM85 is a modernized version of the original model developed in 1975). The discussion reviews general operation principles, preparation of a data base, data required for each patrol hour, calculation of performance measures, and prescriptive calculations. The user's guide to PCAM opens with an overview of program operation and then specifies how to enter commands, command format conventions, program vocabulary, and command definitions. The guide also explains error conditions and selecting an objective function. The appendixes contain information on PCAM's calculations, PCAM reference sheets, and addresses for further information. A glossary, 19 figures, and a 40-item bibliography are also provided.

Business Process Modeling Notation (BPMN) is a standard, graphical modeling representation for business processes. It provides an easy to use, flow-charting notation that is independent of the implementation environment. An underlying rigor supports the notation-facilitating the translation of business level models into executable models that BPM Suites and workflow engines can understand. Over recent years, BPMN has been widely adopted by Business Process Management (BPM) related products-both the Business Process Analysis and Modeling tool vendors and the BPM Suites. This book is for business users and process modeling practitioners alike. Part I provides an easily understood introduction to the key components of BPMN (put forward in a user-friendly fashion). Starting off with simple models, it progresses into more sophisticated patterns. Exercises help cement comprehension and understanding (with answers available online). Part II provides a detailed and authoritative reference on the precise semantics and capabilities of the standard.

Indexes

Scientific and Technical Aerospace Reports

Integrated Models of Cognitive Systems

Underwater Acoustic Modeling and Simulation