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Specification and Design of Embedded Systems Software Specification and Design Software Specification and Design The Interior Design Reference & Specification Book Interactive Systems. Design, Specification, and Verification Design, Specification and Verification of Interactive Systems '99 Structural Design Guide Interactive Systems: Design, Specification, and Verification Design, Specification and Verification of Interactive Systems '98 Interactive Systems. Design Specification, and Verification Comprehensive Specification for the Seismic Design of Bridges Interactive Systems. Design, Specification, and Verification Design, Specification and Verification of Interactive Systems '96 Structural Steel Design to Eurocode 3 and AISC Specifications Design, Specification and Verification of Interactive Systems '97 Architectural Design Interactive Systems. Design, Specification, and Verification Interactive Systems: Design, Specification, and Verification Construction Specifications Writing Interactive Systems. Design, Specification, and Verification Design, Specification and Verification of Interactive Systems '95 A Specification Technique for the Conceptual Design of Manufacturing Systems Product Design Interactive Systems: Design, Specification, and Verification Advances in Design and Specification Languages for Embedded Systems Mastering and Managing the FDA Maze Sap: How to Write a Report Functional Specification Interactive Systems UML-B Specification for Proven Embedded Systems Design The Interior Design Reference & Specification Book updated & revised Specification by Example Writing Great Specifications Cold-Formed Steel Design Specification-Driven Product Development Industrial Knowledge Management Mixed-Signal Methodology Guide SPECC: Specification Language and Methodology Computational Optimization, Methods and Algorithms Interactive Systems. Design, Specification, and Verification Program Development by Specification and Transformation

Specification and Design of Embedded Systems

1994

this is the first book on embedded systems to offer a unified approach to hardware and software specification and design issues and the first to outline a new specify explore refine paradigm that is presently being used in industry in an ad hoc manner but until now has not been formally described the book addresses the system design methodology from conceptualization to manufacturing using this new paradigm and shows how this methodology can result in 10x improvement in productivity addresses two of the most significant topics in the design of digital systems executable system specification and a methodology for system partitioning and refinement into system level components covers models and architectures specification languages a specification example translation to vhdl system partitioning design quality estimation specification refinement into synthesizable models and system design methodology and environment contains a complete specification of a model product telephone answering machine and demonstrates how to write the specification from an english description for risc design methodologists and vhdl methodologists and cad software developers

Software Specification and Design

1992-01-16

clearly demonstrates how to tackle the difficult task of software specification and design focusing on the specification to design transition it provides step by step rules guidelines heuristics hints and tips a large case study is used to illustrate key aspects of project development along with a variety of analysis and design methods for both sequential and concurrent systems it also offers detailed coverage of the transitional phase

Software Specification and Design

2005-09-26

the rigors of engineering must soon be applied to the software development process or the complexities of new systems will initiate the collapse of companies that attempt to produce them software specification and design an engineering approach offers a foundation for rigorously engineered software it provides a clear vision of what occurs at e

The Interior Design Reference & Specification Book

2013-07

guides students and professionals through the interior design process from planning to execution in an updated edition that includes new information on project management building systems and codes and lighting

Interactive Systems. Design, Specification, and Verification

2007-05-15

this book constitutes the thoroughly refereed post proceedings of the 13th international workshop on design specification and verification of interactive systems dsvis 2006 held in dublin ireland in july 2006 the 19 revised full papers presented together with one keynote paper and two working group reports were carefully reviewed and selected from 57 submissions during two rounds of reviewing and improvement

Design, Specification and Verification of Interactive Systems '99

2012-12-06

this book is the formal proceedings of the eurographics workshop on design specifi cation and verification ofinteractive systems dsv is 99 which was held at the uni versity of minho braga portugal from june 2 to june 4 1999 the previous events of this series were held at pisa toulouse namur granada and abingdon the theme this year was engaging the mind by enriching the senses emphasising the importance of the interface in making interaction both effective and enjoyable presentations and discussions covered topics that included specification methods and their use in design model based tool support task and dialogue models distributed col laboration and models for vr input as in previous years there was a strong emphasis on formal representations and modelling techniques and their use in understanding in teraction and informing the design of artefacts however the aim of the workshop is to encourage an exchange of views within a broad community and other approaches in particular tool support for model based design were also represented this book includes the papers of the two invited speakers one as an abstract only the fourteen full papers accepted for publication two shorter position papers and the reports from the working group discussions the format of the workshop aimed to mix formal paper presentations with informal discussion sessions with the two invited talks setting the tone for the meeting

Structural Design Guide

1996-08-31

this essential guide clearly explains the american institute for steel construction aisc load and resistance factor design lrfd specifications and commentary enabling readers to conform with and profit from the design aids and tables in the aisc manuals of steel construction volumes i and ii it provides readers with valuable specification interpretations analysis and design examples and graphs providing ready made solutions to complex code formulas special features of this practical volume include quick and economical beam selection tables detailed truss design examples and coefficients for shears moments and points of inflection it contains a variety of numerical examples along with discussions of material specifications the design requirements included in the lrfd specifications are arranged in an accessible manner making it easy to pinpoint the design of specific elements this single volume resource

offers structural engineers essential material necessary for designing efficient structural steel buildings engineering students in related courses will find this book invaluable for understanding and becoming acclimated with the aisc and lrfd standard design practices

Interactive Systems: Design, Specification, and Verification

2012-12-06

making systems easier to use implies increasingly complex management of communication between users and applications an increasing part of the application program is devoted to the user interface in order to manage this complexity it is very important to have tools notations and methodologies that support the designer s work during the refinement process from specification to implementation the purpose of this proceedings of the first 1994 eurographics workshop on this area is to review the state of the art it compares the different existing approaches in order to identify the principal requirements and the most suitable notations and methods and indicates the relevant results

Design, Specification and Verification of Interactive Systems '98

2013-11-11

does modelling formal or otherwise play a role in designing interactive systems a proliferation of interactive devices and technologies is used in an ever increasing diversity of contexts and combinations in professional and every day life this development poses a significant challenge to modelling approaches used for the design of interactive systems the papers in this volume discuss a range of modelling approaches the representations they use the strengths and weaknesses of their associated specification and analysis techniques and their role in supporting the design of interactive systems

Interactive Systems. Design Specification, and Verification

2006-05-15

this book constitutes the refereed post proceedings of the 12th international workshop on design specification and verification of interactive systems dsv is 2005 the 20 revised full papers 1 keynote paper and 4 summaries of group discussions are organized in topical sections on teams and groups sketches and templates away from the desktop migration and mobility analysis tools model based design processes and tools and group discussions

Comprehensive Specification for the Seismic Design of Bridges

2002

the modern world has made available a wealth of new possibilities for

interacting with computers through advanced applications while on the go with handheld smart telephones or using electronic tabletops or wall sized displays developers of modern interactive systems face great problems how to design applications which will work well with newly available technologies and how to efficiently and correctly implement such designs design specification and verification of interactive systems 2008 was the 15th of a series of annual workshops devoted to helping designers and implementers of interactive systems unleash the power of modern interaction devices and techniques dsv is 2008 was held at queen s university in kingston canada during july 16 18 2008 this book collects the best papers submitted to the workshop there were 17 full papers 10 late breaking and experience report papers and two demonstrations keynote presentations were provided by judy brown of carleton university and randy ellis of queen s university the first day of the workshop addressed the problems of user interface evaluation and specification with particular emphasis on the use of task models to provide hi level approaches for capturing the intended functionality of a user interface day two continued this theme examining techniques for modeling user interfaces particularly for mobile and ubiquitous applications presenters also discussed advanced implem tation techniques for interactive systems finally day three considered how to arc tect interactive systems and returned to the themes of evaluation and specification

Interactive Systems. Design, Specification, and Verification

2008-07-01

making systems easier to use implies an ever increasing complexity in managing communication between users and applications indeed an increasing part of the application code is devoted to the user interface portion in order to manage this complexity it is important to have tools notations and methodologies which support the designer s work during the refinement process from specification to implementation selected revised papers from the eurographics workshop in namur review the state of the art in this area comparing the different existing approaches to this field in order to identify the principle requirements and the most suitable notations and indicate the meaningful results which can be obtained from them

Design, Specification and Verification of Interactive Systems '96

2012-12-06

structural steel design to eurocode 3 and aisc specifications deals with the theory and practical applications of structural steel design in europe and the usa the book covers appropriate theoretical and background information followed by a more design oriented coverage focusing on european and united states specifications and practices allowing the reader to directly compare the approaches and results of both codes chapters follow a general plan covering a general section covering the relevant topics for the chapter based on classical theory and recent research developments a detailed section covering design and detailing to eurocode 3 specification a detailed section covering design

and detailing to aisc specifications fully worked examples are using both codes are presented with construction companies working in increasingly international environments engineers are more and more likely to encounter both codes written for design engineers and students of civil and structural engineering this book will help both groups to become conversant with both code systems

Structural Steel Design to Eurocode 3 and AISC Specifications

2016-05-02

an increasing recognition of the role of the human system interface is leading to new extensions and styles of specification techniques are being developed that facilitate the expression of user oriented requirements and the refinement and checking of specifications of interactive systems this book reflects the state of the art in this important area and also contains a summary of working group discussions about how the various techniques represented might be applied to a common case study

Design, Specification and Verification of Interactive Systems '97

2012-12-06

this book presents a design methodology that is practically applicable to the architectural design of a broad range of systems it is based on fundamental design concepts to conceive and specify the required functional properties of a system while abstracting from the specific implementation functions and technologies that can be chosen to build the system abstraction and precision are indispensable when it comes to understanding complex systems and precisely creating and representing them at a high functional level once understood these concepts appear natural self evident and extremely powerful since they can directly precisely and concisely reflect what is considered essential for the functional behavior of a system the first two chapters present the global views on how to design systems and how to interpret terms and meta concepts this informal introduction provides the general context for the remainder of the book on a more formal level chapters 3 through 6 present the main basic design concepts illustrating them with examples language notations are introduced along with the basic design concepts lastly chapters 7 to 12 discuss the more intricate basic design concepts of interactive systems by focusing on their common functional goal these chapters are recommended to readers who have a particular interest in the design of protocols and interfaces for various systems the didactic approach makes it suitable for graduate students who want to develop insights into and skills in developing complex systems as well as practitioners in industry and large organizations who are responsible for the design and development of large and complex systems it includes numerous tangible examples from various fields and several appealing exercises with their solutions

Architectural Design

2016-09-30

this book constitutes the thoroughly refereed post proceedings of the 10th international workshop on design specification and verification of interactive systems dsv is 2003 held in funchal madeira island portugal in june 2003 the 26 revised full papers and 5 revised short papers presented together with an invited paper have passed through two rounds of reviewing selection and improvement the papers are organized in topical sections on test and evaluation and groupware tools and technologies task modeling model based design mobile and multiple devices uml and specification languages

Interactive Systems. Design, Specification, and Verification

2003-10-09

this book constitutes the thoroughly refereed post proceedings of the 9th international workshop on the design specification and verification of interactive systems dsv is 2002 held in rostock germany in june 2002 the 19 revised full papers presented have gone through two rounds of reviewing selection and improvement all aspects of the design specification and verification of interactive systems from the human computer interaction point of view are addressed particular emphasis is given to models and their role in supporting the design and development of interactive systems and user interfaces for ubiquitous computing

Interactive Systems: Design, Specification, and Verification

2003-07-01

updated edition of the comprehensive rulebook to the specifier s craft with this latest update construction specifications writing sixth edition continues to claim distinction as the foremost text on construction specifications this mainstay in the field offers comprehensive practical and professional guidance to understanding the purposes and processes for preparation of construction specifications this new edition uses real world document examples that reflect current writing practices shaped by the well established principles and requirements of major professional associations including the american institute of architects aia the engineers joint contract documents committee ejcdc and the construction specifications institute csi also included are guidelines for correct terminology product selection organization of specifications according to recognized csi formats and practical techniques for document production fully revised throughout this sixth edition includes updates to masterformat 2004 as well as sectionformat pageformat 2007 and uniformat end of chapter questions and specification writing exercises samples of the newly updated construction documents from the aia new chapter on sustainable design and specifications for leed projects updated information on the role of specifications in building information modeling bim

Construction Specifications Writing

2011-09-13

the wait for the year 2000 was marked by the fear of possible bugs that might have arisen at its beginning one additional fear we had during this wait was whether ganising this event would have generated a boon or another bug the reasons for this fear originated in the awareness that the design of interactive systems is a fast moving area the type of research work presented at this unique event has received limited support from funding agencies and industries making it more difficult to keep up with the rapid technological changes occurring in interaction technology however despite our fear the workshop was successful because of the high quality level of participation and discussion before discussing such results let us step back and look at the evolution of dsv is design specification and verification of interactive systems an international wo shop that has been organised every year since 1994 the first books that addressed this issue in a complete and thorough manner were the collection of contributions edited by harrison and thimbleby and the book written by alan dix which focused on abstractions useful to highlight important concepts in the design of interactive systems since then this area has attracted the interest of a wider number of research groups and some workshops on related topics started to be organised dsv is had its origins in this spreading and growing interest the first workshop was held in a monastery located in the hills above bocca di magra italy

Interactive Systems. Design, Specification, and Verification

2003-06-29

this book is the final outcome of the eurographics workshop on design specification and verification of interactive systems that was held in bonas from june 7 to 9 1995 this workshop was the second of its kind following the successful first edition in italy in 1994 the goal of this ongoing series of meetings is to review the state of the art in the domain of tools notations and methodologies supporting the design of interactive systems this acknowledges the fact that making systems that are friendlier to the user makes the task ever harder to the designers of such systems and that much research is still needed to provide the appropriate conceptual and practical tools the workshop was located in the chateau de bonas in the distant countryside of toulouse france tms location has been selected to preserve the quiet and studious atmosphere that was established in the monastery of santa croce at bocca di magra for the first edition and that was much enjoyed by the participants the conversations initiated during the sessions often lasted till late at night in the peaceful atmosphere of the gers landscape

Design, Specification and Verification of Interactive Systems ’95

2012-12-06

the discovery of market needs and the manufacture of a product to meet those needs are integral parts of the same process since most textbooks

on new product development are written from either a marketing or an engineering perspective it is important for students to encounter these two aspects of product development together in a single text product design practical methods for the systematic development of new products covers the entire new product development process from market research through concept design embodiment design design for manufacture and product launch systematic and practical in its approach the text offers both a structured management framework for product development and an extensive range of specific design methods chapters feature design toolkits that provide detailed guidance on systematic design methods present examples with familiar products and conclude with reviews of key concepts this major text aims to turn the often haphazard and unstructured product design process into a quality controlled streamlined and manageable procedure it is ideal for students of engineering design and technology on their path to designing new products

A Specification Technique for the Conceptual Design of Manufacturing Systems

2011

this book constitutes the thoroughly refereed post proceedings of the 8th international workshop on the design specification and verification of interactive systems dsv is 2001 held in glasgow scotland uk in june 2001 the 12 revised full papers presented have gone through two rounds of reviewing selection and revision the book offers topical sections on mobile interface design context sensitive interfaces supervision and control systems temporal and stochastic issues and new perspectives

Product Design

2018-10-03

this book is the latest contribution to the chip design languages series and it consists of selected papers presented at the forum on specifications and design languages fdl 06 in september 2006 the book represents the state of the art in research and practice and it identifies new research directions it highlights the role of specification and modelling languages and presents practical experiences with specification and modelling languages

Interactive Systems: Design, Specification, and Verification

2003-06-30

the number of fda regulations and the agency s increased expectations is staggering and their content tedious creating a regulated industry need for compliance insight and appropriate detail this book is the reference needed to successfully navigate through the fda maze the target audiences for this desk reference include regulatory professionals who know their responsibility to keep their firm s employees trained and competent on fda device regulations and who need a preliminary desk reference that can be used throughout their enterprise to help train and ensure compliance neophytes who know nothing about fda but need a

resource that provides both broad and specific information in sufficient detail to be useful beginners who know a little about fda need to know more and need a reference tool to help them be more effective and productive on the job intermediates who knows enough about fda to know they need to know more and who need a reference tool that provides them with both more basics and executable detail busy managers who need to know regulatory requirements and fda expectations in order to manage compliance in their specific activity busy executives ceos coos and operations managers whom fda holds responsible for all regulatory compliance who also need a desk reference with specific information to quickly assess regulatory compliance identify potential noncompliance and review corrective preventive and compliance actions

Advances in Design and Specification Languages for Embedded Systems

2007-07-19

author linda timms goes beyond the standard consulting guide to bring you constructive reliable advice for delivering effective complete professional functional specs on time filled with plain english real world examples hints and tips sap how to write a report functional specification provides the secrets you need to make a daunting task achievable whether you are a sap project team member seconded from the business unsure where to start with documenting business requirements a support analyst dealing with change requests and new requirements an offshore analyst consultant wanting to up your game get recognition for top quality work and stand out from the crowd anyone fresh out of a sap academy or training course wanting to transition smoothly into a valuable project team member a graduate with one of the big management consulting firms wanting focussed reliable advice to help build your consulting career a junior consultant wanting to make a name for yourself as a professional productive good sap resource an experienced consultant wanting to refresh your knowledge and maybe kick some bad habits a business analyst looking to move into the sap arena a manager or team lead tasked with reviewing and signing off functional specs a project manager wanting to bring in best practices a technical analyst wanting to understand the functional side of sap requirements sap how to write a report functional specification is a comprehensive guide including a free downloadable functional specification template that will have you producing polished high caliber valuable report specifications in no time

Mastering and Managing the FDA Maze

2014-07-18

this book presents the perspective of the project on a paradigm unifying system specification environments for proven electronic design pus see as conceived in the course of the research during 2002 2003 the initial statement of the research was formulated as follows the objective of pussee is to introduce the formal proof of system properties throughout a modular system design methodology that integrates sub systems co verification with system refinement and reusability of virtual system components this will be done by combining the uml and b languages to allow the verification of system specifications through the composition of proven sub systems in particular interfaces using the vsiaslif

standard the link of b with c vhdl and systemc will extend the correct by construction design process to lower system on chip soc development stages prototype tools will be developed for the code generation from uml and b and existing b verification tools will be extended to support ip reuse according to the vsi alliance work the methodology and tools will be validated through the development of three industrial applications a wireless mobile terminal a telecom system on chip based on hiperlani2 protocol and an anti collision module for automobiles the problem was known to be hard and the scope ambitious but the seventeen chapters that follow describing the main results obtained demonstrate the success of the research acknowledged by the european reviewers they are released to allow the largest audience to learn and take benefit of

Sap: How to Write a Report Functional Specification

2012-05-22

the interior design reference specification book collects the information essential to planning and executing interior projects of all shapes and sizes and distills it in a format that is as easy to use as it is to carry in this new revised edition you ll also find interviews with top practitioners drawn across the field of interior design some of the topics this excellent reference will explore with you include fundamentals provides a step by step overview of an interior project describing the scope of professional services the project schedule and the design and presentation tools used by designers space examines ways of composing rooms as spatial environments while speaking to functional and life safety concerns surface identifies options in color material texture and pattern while addressing maintenance and performance issues environments looks at aspects of interior design that help create a specific mood or character such as natural and artificial lighting sound and smell elements describes the selection and specification of furniture and fixtures as well as other components essential to an interior environment such as artwork and accessories resources gathers a wealth of useful data from sustainability guidelines to online sources for interiors related research

Interactive Systems

1994

summary specification by example is an emerging practice for creating software based on realistic examples bridging the communication gap between business stakeholders and the dev teams building the software in this book author gojko adzic distills interviews with successful teams worldwide sharing how they specify develop and deliver software without defects in short iterative delivery cycles about the technology specification by example is a collaborative method for specifying requirements and tests seven patterns fully explored in this book are key to making the method effective the method has four main benefits it produces living reliable documentation it defines expectations clearly and makes validation efficient it reduces rework and above all it assures delivery teams and business stakeholders that the software that s built is right for its purpose about the book this book distills from the experience of leading teams worldwide effective ways to specify test and deliver software in short iterative delivery cycles case studies in

this book range from small web startups to large financial institutions working in many processes including xp scrum and kanban this book is written for developers testers analysts and business people working together to build great software purchase of the print book comes with an offer of a free pdf epub and kindle ebook from manning also available is all code from the book what s inside common process patterns how to avoid bad practices fitting sbe in your process 50 case studies table of contents part 1 getting started part 2 key process patterns part 3 case studies key benefits key process patterns living documentation initiating the changes deriving scope from goals specifying collaboratively illustrating using examples refining the specification automating validation without changing specifications validating frequently evolving a documentation system uswitch rainstor iowa student loan sabre airline solutions eplan services songkick concluding thoughts

UML-B Specification for Proven Embedded Systems Design

2013-03-19

summary writing great specifications is an example rich tutorial that teaches you how to write good gherkin specification documents that take advantage of the benefits of specification by example foreword written by gojko adzic purchase of the print book includes a free ebook in pdf kindle and epub formats from manning publications about the technology the clearest way to communicate a software specification is to provide examples of how it should work turning these story based descriptions into a well organized dev plan is another matter gherkin is a human friendly jargon free language for documenting a suite of examples as an executable specification it fosters efficient collaboration between business and dev teams and it s an excellent foundation for the specification by example sbe process about the book writing great specifications teaches you how to capture executable software designs in gherkin following the sbe method written for both developers and non technical team members this practical book starts with collecting individual feature stories and organizing them into a full testable spec you ll learn to choose the best scenarios write them in a way that anyone can understand and ensure they can be easily updated by anyone management what s inside reading and writing gherkin designing story based test cases team collaboration managing a suite of gherkin documents about the reader primarily written for developers and architects this book is accessible to any member of a software design team about the author kamil nicieja is a seasoned engineer architect and project manager with deep expertise in gherkin and sbe table of contents introduction to specification by example and gherkin part 1 writing executable specifications with examples the specification layer and the automation layer mastering the given when then template the basics of scenario outlines choosing examples for scenario outlines the life cycle of executable specifications living documentation part 2 managing specification suites organizing scenarios into a specification suite refactoring features into abilities and business needs building a domain driven specification suite managing large projects with bounded contexts

The Interior Design Reference & Specification

Book updated & revised

2018-01-09

the definitive text in the field thoroughly updated and expanded hailed by professionals around the world as the definitive text on the subject cold formed steel design is an indispensable resource for all who design for and work with cold formed steel no other book provides such exhaustive coverage of both the theory and practice of cold formed steel construction updated and expanded to reflect all the important developments that have occurred in the field over the past decade this fourth edition of the classic text provides you with more of the detailed up to the minute technical information and expert guidance you need to make optimum use of this incredibly versatile material for building construction wei wen yu and roger laboube respected authorities in the field draw upon decades of experience in cold formed steel design research teaching and development of design specifications to provide guidance on all practical aspects of cold formed steel design for manufacturing civil engineering and building applications throughout the book they describe the structural behavior of cold formed steel members and connections from both the theoretical and experimental perspectives and discuss the rationale behind the aisi and north american design provisions cold formed steel design fourth edition features thoroughly up to date 2007 north american aisi s100 design specifications both asd and lrfd methods for usa and mexico lsd limit states design method for canada a new chapter on the direct strength method updates and revisions of all 14 existing chapters in depth design examples and explanation of design provisions cold formed steel design fourth edition is a necessary tool of the trade for structural engineers manufacturers construction managers and architects it is also an excellent advanced text for college students and researchers in structural engineering architectural engineering construction engineering and related disciplines

Specification by Example

2011-06-02

enter a magical world of friendship and fun in the sixth book of the first secret kingdom series every fairy in the kingdom is at glitter beach to watch the magic being renewed in the kingdom for another year but queen malice is also nearby can ellie summer and jasmine save the glitter dust and keep the magic alive secret kingdom is a brand new series full of the things girls love most special friendships secrets and magical adventures newly confident readers will be swept away by the magical stories of three children whose courage and resourcefulness save a fantastical land from disaster full of all the things little girls love best special friendships secrets and magical adventures all set in an incredible kingdom eye catching illustrations throughout become best friends with ellie summer and jasmine plus trixi the pixie help ellie summer and jasmine save the secret kingdom from wicked queen malice and her naughty storm sprites a new exciting adventure in each and every book

Writing Great Specifications

2017-10-25

this book the mixed signal methodology guide advanced methodology for ams ip and soc design verification and implementation provides a broad overview of the design verification and implementation methodologies required for today s mixed signal designs the book covers mixed signal design trends and challenges abstraction of analog using behavioral models assertion based metric driven verification methodology applied on analog and mixed signal and verification of low power intent in mixed signal design it also describes methodology for physical implementation in context of concurrent mixed signal design and for handling advanced node physical effects the book contains many practical examples of models and techniques the authors believe it should serve as a reference to many analog digital and mixed signal designers verification physical implementation engineers and managers in their pursuit of information for a better methodology required to address the challenges of modern mixed signal design

Cold-Formed Steel Design

2010-09-23

for the near future the recent predictions and roadmaps of silicon semiconductor technology all agree that the number of transistors on a chip will keep growing exponentially according to moore s law pushing technology towards the system on a chip soc era however we are increasingly experiencing a productivity gap where the chip complexity that can be handled by current design teams falls short of the possibilities offered by technological advances together with growing time to market pressures this drives the need for innovative measures to increase design productivity by orders of magnitude it is commonly agreed that the solutions for achieving such a leap in design productivity lie in a shift of the focus of the design process to higher levels of abstraction on the one hand and in the massive reuse of predesigned complex system components intellectual property ip on the other hand in order to be successful both concepts eventually require the adoption of new languages and methodologies for system design backed up by the availability of a corresponding set of system level design automation tools this book presents the specc system level design language sldl and the corresponding specc design methodology the specc language is intended for specification and design of socs or embedded systems including software and hardware whether using fixed platforms integrating systems from different ips or synthesizing the system blocks from programming or hardware description languages specc specification language and methodology describes the specc methodology that leads designers from an executable specification to an rtl implementation through a well defined sequence of steps each model is described and guidelines are given for generating these models from executable specifications finally the specc methodology is demonstrated on an industrial size example the design community is now entering the system level of abstraction era and specc is the enabling element to achieve a paradigm shift in design culture needed for system product design and manufacturing specc specification language and methodology will be of interest to researchers designers and managers dealing with system level design design flows and methodologies as well as students learning system specification modeling and design

Specification-Driven Product Development

2001

computational optimization is an important paradigm with a wide range of applications in virtually all branches of engineering and industry we almost always try to optimize something whether to minimize the cost and energy consumption or to maximize profits outputs performance and efficiency in many cases this search for optimality is challenging either because of the high computational cost of evaluating objectives and constraints or because of the nonlinearity multimodality discontinuity and uncertainty of the problem functions in the real world systems another complication is that most problems are often np hard that is the solution time for finding the optimum increases exponentially with the problem size the development of efficient algorithms and specialized techniques that address these difficulties is of primary importance for contemporary engineering science and industry this book consists of 12 self contained chapters contributed from worldwide experts who are working in these exciting areas the book strives to review and discuss the latest developments concerning optimization and modelling with a focus on methods and algorithms for computational optimization it also covers well chosen real world applications in science engineering and industry main topics include derivative free optimization multi objective evolutionary algorithms surrogate based methods maximum simulated likelihood estimation support vector machines and metaheuristic algorithms application case studies include aerodynamic shape optimization microwave engineering black box optimization classification economics inventory optimization and structural optimization this graduate level book can serve as an excellent reference for lecturers researchers and students in computational science engineering and industry

Industrial Knowledge Management

2012

this book constitutes the thoroughly refereed post proceedings of the 10th international workshop on design specification and verification of interactive systems dsv is 2003 held in funchal madeira island portugal in june 2003 the 26 revised full papers and 5 revised short papers presented together with an invited paper have passed through two rounds of reviewing selection and improvement the papers are organized in topical sections on test and evaluation and groupware tools and technologies task modeling model based design mobile and multiple devices uml and specification languages

Mixed-Signal Methodology Guide

2012-12-06

this volume gives a coherent presentation of the outcome of the project prospectra program development by specification and transformation that aims to provide a rigorous methodology for developing correct software and a comprehensive support system the results are substantial a theoretically well founded methodology covering the whole development cycle a very high level specification and transformation language family allowing meta program development and formalization of the development

process itself and a prototype development system supporting structure editing incremental static semantic checking interactive context sensitivetransformation and verification development of transformation meta programs version management and so on with an initial libraryof specifications and a sizeable collection of implemented transformations the intended audience for this documentation is the academic community working in this and related areas and those members of the industrial community interested in the use of formal methods

SPECC: Specification Language and Methodology

2011-06-17

Computational Optimization, Methods and Algorithms

2003-12-15

Interactive Systems. Design, Specification, and Verification

1993-08-30

Program Development by Specification and Transformation