Tcl Tk 8 5 Programming Cookbook Wheeler Bert

This volume is the Proceedings of the First International Conference on Advanced Multimedia Content Processing (AMCP ’98). With the remarkable advances made in computer and communication hardware/software system technologies, we can now easily obtain large volumes of multimedia data through advanced computer networks and store and handle them in our own personal hardware. Sophisticated and integrated multimedia content processing technologies, which are essential to building a highly advanced information based society, are attracting ever increasing attention in various service areas, including broadcasting, publishing, medical treatment, entertainment, and communications. The prime concerns of these technologies are how to acquire multimedia content data from the real world, how to automatically organize and store these obtained data in databases for sharing and reuse, and how to generate and create new, attractive multimedia content using the stored data. This conference brings together researchers and practitioners from academia, in dustry, and public agencies to present and discuss recent advances in the acquisition, management, retrieval, creation, and utilization of large amounts of multimedia con tent. Artistic and innovative applications through the active use of multimedia con tent are also subjects of interest. The conference aims at covering the following par ticular areas: (1) Dynamic multimedia data modeling and intelligent structuring of content based on active, bottom up, and self organized strategies. (2) Access archi tecture, querying facilities, and distribution mechanisms for multimedia content.
Computing Handbook, Third Edition: Computer Science and Software Engineering mirrors the modern taxonomy of computer science and software engineering as described by the Association for Computing Machinery (ACM) and the IEEE Computer Society (IEEE-CS). Written by established leading experts and influential young researchers, the first volume of this popular handbook examines the elements involved in designing and implementing software, new areas in which computers are being used, and ways to solve computing problems. The book also explores our current understanding of software engineering and its effect on the practice of software development and the education of software professionals. Like the second volume, this first volume describes what occurs in research laboratories, educational institutions, and public and private organizations to advance the effective development and use of computers and computing in today’s world. Research-level survey articles provide deep insights into the computing discipline, enabling readers to understand the principles and practices that drive computing education, research, and development in the twenty-first century.
Presents tools and environments freely available and helpful to programmers working in a UNIX-like environment, such as JUnit, DEJAGNU, GDB, DDD, and Bugzilla for testing and debugging; version control with CVS, DIFF, and PATCH; processing input with LEX and YACC; software construction with MAKE, ANT, and AUTOCONF; and integrated environments such as Eclipse. Original. (Intermediate)
Written by the author of Expect, this is the first book to explain how this new part of the UNIX toolbox can be used to automate telnet, ftp, passwd, rlogin, and hundreds of other interactive applications. The book provides lots of practical examples and scripts

solving common problems, including a chapter of extended examples.
Winner of the 2014 Jolt Award for "Best Book" “Whether you are an experienced programmer or are starting your career, Python in Practice is full of valuable advice and example to help you improve your craft by thinking about problems from different perspectives, introducing tools, and detailing techniques to create more effective solutions.” —Doug Hellmann, Senior Developer, DreamHost If you’re an experienced Python programmer, Python in Practice will help you improve the quality, reliability, speed, maintainability, and usability of all your Python programs. Mark Summerfield focuses on four key themes: design patterns for coding elegance, faster processing through concurrency and compiled Python (Cython), high-level networking, and graphics. He identifies well-proven design patterns that are useful in Python, illuminates them with expert-quality code, and explains why some object-oriented design patterns are irrelevant to Python. He also explodes several counterproductive myths about Python programming—showing, for example, how Python can take full advantage of multicore hardware. All examples, including three complete case studies, have been tested with Python 3.3 (and, where possible, Python 3.2 and 3.1) and crafted to maintain compatibility with future Python 3.x versions. All code has been tested on Linux, and most code has also been tested on OS X and Windows. All code may be downloaded at www.qtrac.eu/pipbook.html. Coverage includes Leveraging Python’s most effective creational, structural, and behavioral design patterns Supporting concurrency with Python’s multiprocessing, threading, and concurrent.futures modules Avoiding concurrency problems using thread-safe queues and futures rather than fragile locks Simplifying networking with high-level modules, including xmlrpclib and RPyC Accelerating Python code with Cython, C-based Python modules, profiling, and other techniques Creating modern-looking GUI applications with Tkinter Leveraging today’s powerful graphics hardware via the OpenGL API using pyglet and PyOpenGL
The Tcl Programming Language is a comprehensive guide to the current version (8.6) of this immensely flexible and versatilelanguage. Starting with the basic features, it expands its scope toinclude the more advanced concepts, facilities and programming idiomsfrom which the language derives its power. Begin with the basics of Tcl syntax and commands for operating ondata. Get acquainted with the flexible and uniform execution model thatenables metaprogramming, custom control structures etc. Learn to modularize your code with namespaces, object-orienteddesign and packages. See how intrinsic support for Unicode and encodings makes it abreeze to localize your applications. Become conversant with the integrated event loop and how itfacilitates efficient asynchronous I/O models and the reactive styleof programming. Delve into Tcl's sophisticated I/O framework and write your ownreflected channels, transforms and virtual file systems. Understand the built-in facilities for inter-process communicationusing pipes or the network. See how concurrent programming facilities like coroutines andthreads can simplify your code and make it more performant. Learn how to secure your application through the use of safeinterpreters for sandboxing. Interact with databases through the Tcl Database Connectivityinterface. Discover how software distribution and installation headaches areeliminated with starkits and single file deployment. The breadth of coverage and numerous examples will familiarizenewcomers to every aspect of Tcl programming. At the same time, thedepth and level of detail, and an exhaustive index,

make The TclProgramming Language a valuable reference in every Tcl programmer's library.

Newly updated with over 150 pages of material on the latest Tcl extensions, Tcl/Tk: A Developer’s Guide is a unique practical tutorial for professional programmers and beginners alike. Starting with a clear picture of the basics, Tcl/Tk covers the variety of tools in this "Swiss army knife" of programming languages, giving you the ability to enhance your programs, extend your application's capabilities, and become a more effective programmer. This updated edition covers all of the new features of version 8.6, including object-oriented programming and the creation of megawidgets, existing data structure implementations, themed widgets and virtual events. Extensive code snippets and online tutorials in various languages will give you a firm grasp on how to use the Tcl/Tk libraries and interpreters and, most importantly, on what constitutes an effective strategy for using Tcl/Tk. Includes the latest features of Tcl/Tk 8.6 Covers Tcl development tools, popular extensions, and packages to allow developers to solve real-world problems with Tcl/Tk immediately Provides straightforward explanations for beginners and offers tips, style guidelines, and debugging techniques for advanced users

Here is all the practical, hands-on information you need to build, manage and maintain a heterogeneous computing environment with hardware, software, and network equipment from a number of different vendors. Packed with real-world case studies and proven techniques for integrating disparate platforms, operating systems and servers, Handbook of Heterogeneous Computing is a one-stop, non-nonsense guide that shows you how to: * port and develop applications in a heterogeneous environment * manage desktops, data access, communications, and security in a heterogeneous environment * and build distributed heterogeneous systems What is best for your installation? Should you standardize on the Windows environment for both production applications and office applications? Should you adopt the Windows NT workstation as a standard desktop and use Windows NT as the network operating system? Handbook of Heterogeneous Computing details the advantages and disadvantages of these and other approaches. The book also explains: * the arts of porting and developing applications in a heterogeneous environment using Java, CGI/Perl, and other tools * how to build interfaces with mainframe legacy systems * how to use CORBA to integrate distributed database systems while at the same time managing database gateways and interoperability * how to manage interlan switching, multicast networking structures, SNA-LAN integration, and all aspects of enterprise networks * and how to use Kerberos, firewalls, PGP, RSA public keys, and other tools to assure security in heterogeneous environments. Heterogeneous computing is here to stay. It is therefore up to corporate end-users to make competing products fit into their environments efficiently, effectively and economically. Handbook of Heterogeneous Computing gives you t

The Tcl language and Tk graphical toolkit are simple and powerful building blocks for custom applications. The Tcl/Tk combination is increasingly popular because it lets you produce sophisticated graphical interfaces with a few easy commands, develop and change scripts quickly, and conveniently tie together existing utilities or programming libraries.One of the attractive features of Tcl/Tk is the wide variety of commands, many offering a wealth of options. Most of the things you'd like to do have been anticipated by the language's creator, John Ousterhout, or one of the developers of Tcl/Tk's many powerful extensions. Thus, you'll find that a command or option probably exists to provide just what you need.And that's why it's valuable to have a quick reference that briefly describes every command and option in the core Tcl/Tk distribution as well as the most popular extensions. Keep this book on your desk as you write scripts, and you'll be able to find almost instantly the particular option you need.Most chapters consist of alphabetical listings. Since Tk and mega-widget packages break down

commands by widget, the chapters on these topics are organized by widget along with a section of core commands where appropriate. Contents include: Core Tcl and Tk commands and Tk widgets C interface (prototypes) Expect [incr Tcl] and [incr Tk] Tix TclX BLT Oratcl, SybTcl, and Tclodbc

Just what you need -- another programming language that promises to transform your Web site into an interactive multimedia powerhouse. But before you roll your eyes, consider this: Tcl/Tk, the new scripting language from the folks who gave us Java, not only adds interactivity and multimedia to Web pages, but it's also easy to use -- even for non-programmers. And Tcl/Tk For Dummies makes easy-to-use even easier. A practical, comprehensive reference, Tcl/Tk For Dummies introduces you to the language and what you can do with it. Authors Tim Webster and Alex Francis quickly get you up to speed writing your own tclets, compact programs that run within Web pages viewed in the Netscape Navigator or Microsoft Internet Explorer Web browsing programs. The authors spell out the language's simple syntax and present the commands, procedures, functions, variables, and other elements that make up Tcl/Tk. They also show you how to use widgets, convenient, ready-to-use components that you can add to your Tcl/Tk programs. In addition, Tcl/Tk For Dummies provides hands-on information on how to do things like Develop useful applications that run within a Web browser as if they were traditional, stand-alone programs running under a regular operating system Write platform-independent scripts that run on Windows, Mac OS, UNIX, and even on BeOS platforms Create animation and games to add value and fun to Web pages Improve your Web server's performance by shifting the burden from server-side CGI scripts to client-side Tcl/Tk scripts Plus, the Tcl/Tk For Dummies CD-ROM includes the Mac and Windows Tcl/Tk 8.0 development software with Wish 8.0, and HTML editor, and plenty of sample code from the book.

Over 100 great recipes to effectively learn Tcl/Tk 8.5.

Describes the concepts of programming with Linux, covering such topics as shell programming, file structure, managing memory, using MySQL, debugging, processes and signals, and GNOME.

Tcl/Tk 8.5 Programming CookbookPackt Publishing Ltd

A guide to building and modifying Tcl scripts to automate network administration tasks Streamline Cisco network administration and save time with Tcl scripting Cisco networking professionals are under relentless pressure to accomplish more, faster, and with fewer resources. The best way to meet this challenge is to automate mundane or repetitive tasks wherever possible. In this book, three Cisco experts show you how to use Tcl scripting for Cisco IOS devices to do just that. You’ll learn easy techniques for creating, using, and modifying Tcl scripts that run directly on Cisco network devices from the Cisco IOS command line. The authors first teach basic Tcl commands and concepts for capturing and manipulating data and for querying or controlling Cisco equipment. Building on these core skills, they show you how to write scripts that automate and streamline many common IOS configuration, monitoring, and problem-solving tasks. The authors walk through the entire script development process, including planning and flowcharting what you want to accomplish, formatting your code, adding comments, and troubleshooting script errors. They also present many downloadable sample scripts, along with practical guidance for adapting them to your own environment. Whatever your role in managing, monitoring, or securing Cisco IOS networks and equipment, this book will help you get the job done more rapidly and efficiently. Automate routine administration tasks you’ve always performed manually Instantly collect and modify IOS router configurations and other data Write Syslog scripts to document failures, monitor network health, collect statistics, and send alarm messages Implement automated network performance measurement using IP SLA Use the Embedded Event Manager’s event detectors, server, and policies to customize device operation Trigger preplanned actions to correct problems as they arise Simplify policy

management using the Tcl script refresh feature Protect Tcl script security with digital signatures and PKI Understand how Tcl functions within the Cisco IOS environment Master Tcl syntax and commands through hands-on practice Learn best scripting practices through expert examples Quickly modify this book's examples for your own environment This book is part of the Networking Technology Series from Cisco Press®, which offers networking professionals valuable information for constructing efficient networks, understanding new technologies, and building successful careers.

The editors provide a review of the programming environments for parallel computers with the help of worldwide specialists in each domain. Four different domains were discussed at the workshop, and they each form a part of this book.

Here is all the practical, hands-on information you need to build, manage and maintain a heterogeneous computing environment with hardware, software, and network equipment from a number of different vendors. Packed with real-world case studies and proven techniques for integrating disparate platforms, operating systems and servers, Multi-Operating

This book constitutes the proceedings of the First International Conference on Principles and Practice of Constraint Programming, CP '95, held in Cassis near Marseille, France in September 1995. The 33 refereed full papers included were selected out of 108 submissions and constitute the main part of the book; in addition there is a 60-page documentation of the four invited papers and a section presenting industrial reports. Thus besides having a very strong research component, the volume will be attractive for practitioners. The papers are organized in sections on efficient constraint handling, constraint logic programming, concurrent constraint programming, computational logic, applications, and operations research.

Explore Python's GUI frameworks and create visually stunning and feature-rich applications Key Features Integrate stunning data visualizations using Tkinter Canvas and Matplotlib Understand the basics of 2D and 3D animation in GUI applications Explore PyQt's powerful features to easily design and customize your GUI applications Book Description A responsive graphical user interface (GUI) helps you interact with your application, improves user experience, and enhances the efficiency of your applications. With Python, you'll have access to elaborate GUI frameworks that you can use to build interactive GUIs that stand apart from the rest. This Learning Path begins by introducing you to Tkinter and PyQt, before guiding you through the application development process. As you expand your GUI by adding more widgets, you'll work with networks, databases, and graphical libraries that enhance its functionality. You'll also learn how to connect to external databases and network resources, test your code, and maximize performance using asynchronous programming. In later chapters, you'll understand how to use the cross-platform features of Tkinter and Qt5 to maintain compatibility across platforms. You'll be able to mimic the platform-native look and feel, and build executables for deployment across popular computing platforms. By the end of this Learning Path, you'll have the skills and confidence to design and build high-end GUI applications that can solve real-world problems. This Learning Path includes content from the following Packt products: Python GUI Programming with Tkinter by Alan D. Moore Qt5 Python GUI Programming Cookbook by B. M. Harwani What you will learn Visualize graphs in real time with Tkinter's animation capabilities Use PostgreSQL authentication to ensure data security for your application Write unit tests to avoid regression when updating

code Handle different signals generated on mouse clicks using QSpinBox and sliders Employ network concepts, internet browsing, and Google Maps in UI Use graphics rendering to implement animations in your GUI Who this book is for If you’re an intermediate Python programmer looking to enhance your coding skills by writing powerful GUIs in Python using PyQT and Tkinter, this is an ideal Learning Path for you. A strong understanding of the Python language is a must to grasp the concepts explained in this book.
Python Essentials provides a vital tour of the most critical features of Python. Starting with setup and installation, you will soon dive into exploring built-in-library types, Python's rich collection of operators and built-in functions, variables, assignment and scoping rules. From this foundation, you will explore functions, a crucial aspect of any programming language, including considerable sophistication in defining parameters to a function and providing argument values. Explore advanced functional programming using generator expressions, comprehensions, and generator functions. Handle file input and output using web services and context managers, exception handling and explore wider, popular frameworks. Through this concise and practical guide, you will explore all you need to know to leverage this powerful, and industry-standard, programming language.
In just a few chapters you will learn about Tcl features that allow you to isolate and protect your code from being damaged in large applications. You will even learn how to extend the language itself. Tcl/Tk: A Developer's Guide clearly discusses development tools, proven techniques, and existing extensions. It shows how to use Tcl/Tk effectively and provides many code examples. This fully revised new edition is the complete resource for computer professionals, from systems administrators to programmers. It covers versions 7.4 to 8.4 and includes a CD-ROM containing the interpreters, libraries, and tutorials to get you started quickly. Additional materials in the book include case studies and discussions of techniques for the advanced user. On the CD-ROM *Distributions for Tcl 8.3 and 8.4 for Linux, Solaris, Macintosh, and Windows. *A copy of ActiveTcl from ActiveState. *The latest release of TclTutor. *How-to's and tutorials as well as copies of all the tools discussed in the book.
Python 3 is the best version of the language yet: It is more powerful, convenient, consistent, and expressive than ever before. Now, leading Python programmer Mark Summerfield demonstrates how to write code that takes full advantage of Python 3’s features and idioms. The first book written from a completely “Python 3” viewpoint, Programming in Python 3 brings together all the knowledge you need to write any program, use any standard or third-party Python 3 library, and create new library modules of your own. Summerfield draws on his many years of Python experience to share deep insights into Python 3 development you won’t find anywhere else. He begins by illuminating Python’s “beautiful heart”: the eight key elements of Python you need to write robust, high-performance programs. Building on these core elements, he introduces new topics designed to strengthen your practical expertise—one concept and hands-on example at a time. This book’s coverage includes Developing in Python using procedural, object-oriented, and functional programming paradigms Creating custom packages and modules Writing and reading binary, text, and XML files, including optional compression, random access, and text and XML parsing Leveraging advanced data types, collections, control structures, and functions Spreading program workloads across multiple processes and threads Programming SQL databases and key-value DBM files Utilizing Python’s regular expression mini-language and module Building

usable, efficient, GUI-based applications Advanced programming techniques, including generators, function and class decorators, context managers, descriptors, abstract base classes, metaclasses, and more Programming in Python 3 serves as both tutorial and language reference, and it is accompanied by extensive downloadable example code—all of it tested with the final version of Python 3 on Windows, Linux, and Mac OS X.

Covers basic and advanced applications of Perl/Tk, discussing topics including basic Perl/Tk widgets and geometry managers, how to use callbacks and bindings effectively, working with images, and developing a Tk widget in C.

Build network-aware applications using Tcl, a powerful dynamic programming language.

John K. Ousterhout's Definitive Introduction to Tcl/Tk–Now Fully Updated for Tcl/Tk 8.5 Tcl and the Tk Toolkit, Second Edition, is the fastest way for newcomers to master Tcl/Tk and is the most authoritative resource for experienced programmers seeking to gain from Tcl/Tk 8.5's powerful enhancements. Written by Tcl/Tk creator John K. Ousterhout and top Tcl/Tk trainer Ken Jones, this updated volume provides the same extraordinary clarity and careful organization that made the first edition the world's number one Tcl/Tk tutorial. Part I introduces Tcl/Tk through simple scripts that demonstrate its value and offer a flavor of the Tcl/Tk scripting experience. The authors then present detailed, practical guidance on every feature necessary to build effective, efficient production applications–including variables, expressions, strings, lists, dictionaries, control flow, procedures, namespaces, file and directory management, interprocess communication, error and exception handling, creating and using libraries, and more. Part II turns to the Tk extension and Tk 8.5's new themed widgets, showing how to organize sophisticated user interface elements into modern GUI applications for Tcl. Part III presents incomparable coverage of Tcl's C functions, which are used to create new commands and packages and to integrate Tcl with existing C software–thereby leveraging Tcl's simplicity while accessing C libraries or executing performance-intensive tasks. Throughout, the authors illuminate all of Tcl/Tk 8.5's newest, most powerful improvements. You'll learn how to use new Starkits and Starpacks to distribute run-time environments and applications through a single file; how to take full advantage of the new virtual file system support to treat entities such as zip archives and HTTP sites as mountable file systems; and more. From basic syntax to simple Tcl commands, user interface development to C integration, this fully updated classic covers it all. Whether you're using Tcl/Tk to automate system/network administration, streamline testing, control hardware, or even build desktop or Web applications, this is the one Tcl/Tk book you'll always turn to for answers.

An encyclopedic handbook on audio programming for students and professionals, with many cross-platform open source examples and a DVD covering advanced topics. This comprehensive handbook of mathematical and programming techniques for audio signal processing will be an essential reference for all computer musicians, computer scientists, engineers, and anyone interested in audio. Designed to be used by readers with varying levels of programming expertise, it not only provides the foundations for music and audio development but also tackles issues that sometimes remain mysterious even to experienced software designers. Exercises and copious examples (all cross-platform and based on free or open source software) make the book ideal for classroom use. Fifteen chapters and eight appendixes cover such topics as programming basics for C and C++

(with music-oriented examples), audio programming basics and more advanced topics, spectral audio programming; programming Csound opcodes, and algorithmic synthesis and music programming. Appendixes cover topics in compiling, audio and MIDI, computing, and math. An accompanying DVD provides an additional 40 chapters, covering musical and audio programs with micro-controllers, alternate MIDI controllers, video controllers, developing Apple Audio Unit plug-ins from Csound opcodes, and audio programming for the iPhone. The sections and chapters of the book are arranged progressively and topics can be followed from chapter to chapter and from section to section. At the same time, each section can stand alone as a self-contained unit. Readers will find The Audio Programming Book a trustworthy companion on their journey through making music and programming audio on modern computers.

If you are a Java developer or administrator with a technical background and want to install and configure Liferay Portal as an enterprise intranet, this is the book for you. In short, reusable recipes help you realize business goals as working features in Liferay. This book will also give you useful hints on how to easily improve the default functionality of the system and its performance.

Masterminds of Programming features exclusive interviews with the creators of several historic and highly influential programming languages. In this unique collection, you'll learn about the processes that led to specific design decisions, including the goals they had in mind, the trade-offs they had to make, and how their experiences have left an impact on programming today. Masterminds of Programming includes individual interviews with: Adin D. Falkoff: APL Thomas E. Kurtz: BASIC Charles H. Moore: FORTH Robin Milner: ML Donald D. Chamberlin: SQL Alfred Aho, Peter Weinberger, and Brian Kernighan: AWK Charles Geschke and John Warnock: PostScript Bjarne Stroustrup: C++ Bertrand Meyer: Eiffel Brad Cox and Tom Love: Objective-C Larry Wall: Perl Simon Peyton Jones, Paul Hudak, Philip Wadler, and John Hughes: Haskell Guido van Rossum: Python Luiz Henrique de Figueiredo and Roberto Ierusalimschy: Lua James Gosling: Java Grady Booch, Ivar Jacobson, and James Rumbaugh: UML Anders Hejlsberg: Delphi inventor and lead developer of C# If you're interested in the people whose vision and hard work helped shape the computer industry, you'll find Masterminds of Programming fascinating.

When you think about how far and fast computer science has progressed in recent years, it's not hard to conclude that a seven-year old handbook may fall a little short of the kind of reference today's computer scientists, software engineers, and IT professionals need. With a broadened scope, more emphasis on applied computing, and more than 70 chap

You need a graphical user interface, and it needs to run on multiple platforms. You don't have much time, and you're not a wizard with X/Motif, the Win32 GUI, or the Mac GUI. The project seems impossible, but with Tcl/Tk it's simple and fun. The Tcl scripting language and the Tk toolkit create a powerful programming environment for building graphical user interfaces. With two lines of code you can create a simple button; with two hundred lines of code, a desktop calculator; and with a thousand lines of code, an industrial-strength groupware calendar and appointment minder. Your applications run on all of the major platforms: UNIX, Windows 95/NT, and Macintosh. You can even embed your programs in a Web page to make them available online. Mark

Harrison and Michael McLennan, two noted Tcl/Tk experts, combine their extensive experience in this practical programming guide. It is ideal for developers who are acquainted with the basics of Tcl/Tk and are now moving on to build real applications. Effective Tcl/Tk Programming shows you how to build Tcl/Tk applications effectively and efficiently through plenty of real-world advice. It clarifies some of the more powerful aspects of Tcl/Tk, such as the packer, the canvas widget, and binding tags. The authors describe valuable design strategies and coding techniques that will make your Tcl/Tk projects successful. You will learn how to: Create interactive displays with the canvas widget Create customized editors with the text widget Create new geometry managers, like tabbed notebooks or paned windows Implement client/server architectures Handle data structures Interface with existing applications Package Tcl/Tk code into reusable libraries Deliver Tcl/Tk applications that are easy to configure and install Embed applications in a Web page Build applications that will run on multiple platforms Throughout the book, the authors develop numerous applications and a library of reusable components. Learn from their approach, follow their strategies, and steal their code for your own applications! But don't bother retyping all of the examples. 0201634740B04062001

Practical Programming in Tcl/Tk, 4th edition Authoritative coverage of every Tcl and Tk command in the core toolkits State-of-the-art Tk GUI coverage for Tcl, Perl, Python, and Ruby developers Covers all key Tcl 8.4 enhancements: VFS, internationalization and performance improvements, new widgets, and much more Covers multi-threaded Tcl applications and Starkits, a revolutionary way to package and deploy Tcl applications The world's #1 guide to Tcl/Tk has been thoroughly updated to reflect Tcl/Tk8.4's powerful improvements in functionality, flexibility, and performance!Brent Welch, Ken Jones, and Jeffrey Hobbs, three of the world's leading Tcl/Tk experts, cover every facet of Tcl/Tk programming, including cross-platform scripting and GUI development, networking, enterprise application integration, and much more.Coverage includes: Systematic explanations and sample code for all Tcl/Tk 8.4 core commands Complete Tk GUI development guidance--perfect for developers working with Perl, Python, or Ruby Insider's insights into Tcl 8.4's key enhancements: VFS layer, internationalized font/character set support, new widgets, and more Definitive coverage of TclHttpd web server--written by its creator New ways to leverage Tcl/Tk 8.4's major performance improvements Advanced coverage: threading, Safe Tcl, Tcl script library, regular expressions, and namespaces Whether you1re upgrading to Tcl/Tk 8.4, or building GUIs for applicationscreated with other languages, or just searching for a better cross-platformscripting solution, Practical Programming in Tcl and Tk, Fourth Editiondelivers all you need to get results!

Find out how to create visually stunning and feature-rich applications by empowering Python's built-in Tkinter GUI toolkit Key Features Explore Tkinter's powerful features to easily design and customize your GUI application Learn the basics of 2D and 3D animation in GUI applications. Learn to integrate stunning Data Visualizations using Tkinter Canvas and Matplotlib. Book Description Tkinter is a lightweight, portable, and easy-to-use graphical toolkit available in the Python Standard Library, widely used to build Python GUIs due to its simplicity and availability. This book teaches you to design and build graphical user interfaces that are functional, appealing, and user-friendly using the powerful combination of Python and Tkinter. After being introduced to Tkinter, you will be guided step-by-step through the application development process. Over the course of the book, your

application will evolve from a simple data-entry form to a complex data management and visualization tool while maintaining a clean and robust design. In addition to building the GUI, you'll learn how to connect to external databases and network resources, test your code to avoid errors, and maximize performance using asynchronous programming. You'll make the most of Tkinter's cross-platform availability by learning how to maintain compatibility, mimic platform-native look and feel, and build executables for deployment across popular computing platforms. By the end of this book, you will have the skills and confidence to design and build powerful high-end GUI applications to solve real-world problems. What you will learn Implement the tools provided by Tkinter to design beautiful GUIs Discover cross-platform development through minor customizations in your existing application Visualize graphs in real time as data comes in using Tkinter's animation capabilities Use PostgreSQL authentication to ensure data security for your application Write unit tests to avoid regressions when updating code Who this book is for This book will appeal to developers and programmers who would like to build GUI-based applications. Knowledge of Python is a prerequisite.

Covers Tcl expressions, control structures, lists and arrays, widgets, using Tk with Perl and C, and creating user interfaces and Web applications with Tcl

Introduction to Network Simulator NS2 is a primer providing materials for NS2 beginners, whether students, professors, or researchers for understanding the architecture of Network Simulator 2 (NS2) and for incorporating simulation modules into NS2. The authors discuss the simulation architecture and the key components of NS2 including simulation-related objects, network objects, packet-related objects, and helper objects. The NS2 modules included within are nodes, links, SimpleLink objects, packets, agents, and applications. Further, the book covers three helper modules: timers, random number generators, and error models. Also included are chapters on summary of debugging, variable and packet tracing, result compilation, and examples for extending NS2. Two appendices provide the details of scripting language Tcl, OTcl and AWK, as well object oriented programming used extensively in NS2.

Declarative languages build on sound theoretical bases to provide attractive frameworks for application development. These languages have been succe- fully applied to a wide variety of real-world situations including database m- agement, active networks, software engineering, and decision-support systems. New developments in theory and implementation expose fresh opportunities. At the same time, the application of declarative languages to novel problems raises numerous interesting research issues. These well-known questions include scalability, language extensions for application deployment, and programming environments. Thus, applications drive the progress in the theory and imp- mentation of declarative systems, and in turn bene?t from this progress. The International Symposium on Practical Applications of Declarative L- guages (PADL) provides a forum for researchers, practitioners, and implementors of declarative languages to exchange ideas on current and novel application - eas and on the requirements for e?ective use of declarative systems. The fourth PADL symposium was held in Portland, Oregon, on January 19 and 20, 2002.

Machine generated contents note: Chapter 1: Tcl/Tk Features Chapter 2: The Mechanics of Using the Tcl and Tk Interpreters

Chapter 3: Introduction to the Tcl Language Chapter 4: File System, Disk I/O and Sockets Chapter 5: Using Strings and Lists Chapter 6: Basic list, array and dict Chapter 7: Advanced List, array and dict Chapter 8: Procedure Techniques Chapter 9: Namespaces Chapter 10: Basic TclOO Chapter 11: Advanced TclOO Chapter 12: Packages and modules Chapter 13: Introduction to Tk Graphics Chapter 14: Overview of the canvas Widget Chapter 15: The text widget and htmllib Chapter 16: Themed Widgets Chapter 17: Tk Megawidgets Chapter 18: Writing a Tcl Extension Chapter 19: Extensions and Packages Chapter 20: Programming Tools Chapter 21: Debugging and Optimization techniques Chapter 22: Tips and Techniques .