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Computerworld Apr 15 2022 For more than 40 years, Computerworld has been the leading source of technology news and information for IT influencers worldwide. Computerworld's award-winning Web site (Computerworld.com), twice-monthly publication, focused conference series and custom research form the hub of the world's largest global IT media network.

MCSE Exchange 2000 Design Jul 06 2021 This comprehensive test preparation book is the best resource available for IT professionals seeking to pass the MCSE Designing and Deploying a Messaging Infrastructure with Microsoft Exchange 2000 Server exam (70-225). Clear, concise chapters cover all of the pertinent test concepts such as analyzing business requirements and resources for Exchange 2000, designing and deploying Exchange 2000 Server messaging solutions, fault tolerance, and data recovery, and managing Active Directory and Internet Information Server (IIS). Real-world projects and examples provide the reader with practical hands-on experience that aid recall during the exam.

PC Mag May 04 2021 PCMag.com is a leading authority on technology, delivering Labs-based, independent reviews of the latest products and services. Our expert industry analysis and practical solutions help you make better buying decisions and get more from technology.

Computerworld Dec 23 2022 For more than 40 years, Computerworld has been the leading source of technology news and information for IT influencers worldwide. Computerworld's award-winning Web site (Computerworld.com), twice-monthly publication, focused conference series and custom research form the hub of the world's largest global IT media network.

MCSA Windows Server 2016 Complete Certification Kit Jan 12 2022 Prepare for the MCSA Windows Server 2016 Exams 70-740, 70-741, and 70-742! Microsoft's MCSA certification for Windows Server 2016 requires passing three exams. This VALUE-PRICED Certification Kit includes more than 1,300 pages of quality exam-prep content, covering 100% of the objective domains of all three exams (as well as the Upgrade exam, 70-743). It also includes more than 1000 practice questions. You also have access to an interactive practice test environment, electronic flashcards, and videos showing you how to perform the more difficult tasks. Both first-time MCSA candidates and those wishing to upgrade from Server 2012 R2 certification will benefit from this complete test-prep guide, including: Completely updated to cover the Windows Server 2016 Exams Provides a comprehensive Study Guide plus Practice Tests for all three MCSA Windows Server 2016 exams: 70-740, 70-741, and 70-742, as well as the Upgrade exam: 70-743 Covers installing and configuring Windows Server 2016; deploying and configuring DNS service; administering Active Directory; creating and managing Group Policy Objects; configuring server roles and features, Hyper-V, and core networking services; and much more Explains basic networking concepts, DHCP, deploying and maintaining servers, configuring a network policy server infrastructure and high availability in Windows Server 2016, and much more Features real-world scenarios, hands-on exercises, practice exams, electronic flashcards, and over an hour of video demonstrations Covers all exam objectives MCSA Windows Server 2016 Complete Certification Kit arms you with all the information you must master to achieve MCSA certification on Windows Server 2016.

Sun Tracking and Solar Renewable Energy Harvesting Nov 29 2020 Free to download eBook on Practical Solar Tracking Design, Solar Tracking, Sun Tracking, Sun Tracker, Solar Tracker, Follow Sun, Sun Position calculation (Azimuth, Elevation, Zenith), Sun following, Sunrise, Sunset, Moon-phase, Moonrise, Moonset calculators. In harnessing power from the sun through a solar tracker or solar tracking system, renewable energy system developers require automatic solar tracking software and solar position algorithms. On-axis sun tracking system such as the altitude-azimuth dual axis or multi-axis solar tracker systems use a sun tracking algorithm or ray tracing sensors or software to ensure the sun's passage through the sky is traced with high precision in automated solar tracker applications, right through summer solstice, solar equinox and winter solstice. Eco Friendly and Environmentally Sustainable Micro Combined Solar Heat and Power (m-CHP, m-CCHP, m-CHCP) with Microgrid Storage and Layered Smartgrid Control towards Supplying Off-Grid Rural Villages in developing BRICS countries such as Africa, India, China and Brazil. Off-grid rural villages and isolated islands areas require mCHP and trigeneration solar power plants and associated isolated smart microgrid solutions to serve the community energy needs. This article describes the development progress for such a system, also referred to as solar polygeneration. The system includes a sun tracker mechanism wherein a parabolic dish or lenses are guided by a light sensitive mechanism in a way that the solar receiver is always at right angle to the solar radiation. Solar thermal energy is then either converted into electrical energy through a free piston Stirling, or stored in a thermal storage container. The project includes the thermodynamic modeling of the plant in Matlab Simulink as well as the development of an intelligent control approach that includes smart microgrid distribution and optimization. The book includes aspects in the simulation and optimization of stand-alone hybrid renewable energy systems and co-generation in isolated or islanded microgrids. It focusses on the stepwise development of a hybrid solar driven micro combined cooling heating and power (mCCHP) compact trigeneration polygeneration and thermal energy storage (TES) system with intelligent weather prediction, weak-ahead scheduling (time horizon), and look-ahead dispatch on integrated smart microgrid distribution principles. The solar harvesting and solar thermodynamic system includes an automatic sun tracking platform based on a PLC controlled mechatronic sun tracking system that follows the sun progressing across the sky. An intelligent energy management and adaptive learning control optimization approach is proposed for autonomous off-grid remote power applications, both for thermodynamic optimization and smart micro-grid optimization for distributed energy resources (DER). The correct resolution of this load-following multi objective optimization problem is a complex task because of the high number and multi-dimensional variables, the cross-correlation and interdependency between the energy streams as well as the non-linearity in the performance of some of the system components. Exergy-based control approaches for smartgrid topologies are considered in terms of the intelligence behind the safe and reliable operation of a microgrid in an automated system that can manage energy flow in electrical as well as thermal energy systems. The standalone micro-grid solution would be suitable for a rural village, intelligent building, district energy system, campus power, shopping mall centre, isolated network, eco estate or remote island application setting where self-generation and decentralized energy system concepts play a role.

Discrete digital simulation models for the thermodynamic and active demand side management systems with digital smartgrid control unit to optimize the system energy management is currently under development. Parametric simulation models for this trigeneration system (polygeneration, poligeneration, quadgeneration) are developed on the Matlab Simulink and TrnSys platforms. In terms of model predictive coding strategies, the automation controller will perform multi-objective cost optimization for energy management on a microgrid level by managing the generation and storage of electrical, heat and cooling energies in layers. Each layer has its own set of smart microgrid priorities associated with user demand side cycle predictions. Mixed Integer Linear Programming and Neural network algorithms are being modeled to perform Multi Objective Control optimization as potential optimization and adaptive learning techniques.

Computerworld Jan 20 2020 For more than 40 years, Computerworld has been the leading source of technology news and information for IT influencers worldwide. Computerworld's award-winning Web site (Computerworld.com), twice-monthly publication, focused conference series and custom research form the hub of the world's largest global IT media network.

Wireless Mobile Communication and Healthcare Dec 31 2020 This book constitutes the refereed proceedings of the Second International ICST Conference on Wireless Mobile Communication and Healthcare, MobiHealth 2011, held on Kos Island, Greece, in October 2011. The 60 revised full papers presented were carefully reviewed and selected from more than 80 submissions. The papers are organized in 10 sessions and two workshops with topics covering intrabody communications, chronic disease monitoring and management, ambient assistive technologies, implantable and wearable sensors, emergency and disaster applications.

Making Things See Jun 05 2021 This detailed, hands-on guide provides the technical and conceptual information you need to build cool applications with Microsoft's Kinect, the amazing motion-sensing device that enables computers to see. Through half a dozen meaty projects, you'll learn how to create gestural interfaces for software, use motion capture for easy 3D character animation, 3D scanning for custom fabrication, and many other applications. Perfect for hobbyists, makers, artists, and gamers, Making Things See shows you how to build every project with inexpensive off-the-shelf components, including the open source Processing programming language and the Arduino microcontroller. You'll learn basic skills that will enable you to pursue your own creative applications with Kinect. Create Kinect applications on Mac OS X, Windows, or Linux Track people with pose detection and skeletonization, and use blob tracking to detect objects Analyze and manipulate point clouds Make models for design and fabrication, using 3D scanning technology Use MakerBot, RepRap, or Shapeways to print 3D objects Delve into motion tracking for animation and games Build a simple robot arm that can imitate your arm movements Discover how skilled artists have used Kinect to build fascinating projects

More Windows for Dummies Mar 22 2020 A sequel to the popular Windows for Dummies presents a collection of tips and tricks to help readers take full advantage of the features and capabilities of Windows. Original. (Beginner).

Securing DevOps Feb 19 2020 Summary Securing DevOps explores how the techniques of DevOps and security should be applied together to make cloud services safer. This introductory book reviews the latest practices used in securing web applications and their infrastructure and teaches you techniques to integrate security directly into your product. You'll also learn the core concepts of DevOps, such as continuous integration, continuous delivery, and infrastructure as a service. Purchase of the print book includes a free eBook in PDF, Kindle, and ePub formats from Manning Publications. About the Technology An application running in the cloud can benefit from incredible efficiencies, but they come with unique security threats too. A DevOps team's highest priority is understanding those risks and hardening the system against them. About the Book Securing DevOps teaches you the essential techniques to secure your cloud services. Using compelling case studies, it shows you how to build security into automated testing, continuous delivery, and other core DevOps processes. This experience-rich book is filled with mission-critical strategies to protect web applications against attacks, deter fraud attempts, and make your services safer when operating at scale. You'll also learn to identify, assess, and secure the unique vulnerabilities posed by cloud deployments and automation tools commonly used in modern infrastructures. What's inside An approach to continuous security Implementing test-driven security in DevOps Security techniques for cloud services Watching for fraud and responding to incidents Security testing and risk assessment About the Reader Readers should be comfortable with Linux and standard DevOps practices like CI, CD, and unit testing. About the Author Julien Vehent is a security architect and DevOps advocate. He leads the Firefox Operations Security team at Mozilla, and is responsible for the security of Firefox's high-traffic cloud services and public websites. Table of Contents Securing DevOps PART 1 - Case study: applying layers of security to a simple DevOps pipeline Building a barebones DevOps pipeline Security layer 1: protecting web applications Security layer 2: protecting cloud infrastructures Security layer 3: securing communications Security layer 4: securing the delivery pipeline PART 2 - Watching for anomalies and protecting services against attacks Collecting and storing logs Analyzing logs for fraud and attacks Detecting intrusions The Caribbean breach: a case study in incident response PART 3 - Maturing DevOps security Assessing risks Testing security Continuous security

Pro Azure Administration and Automation May 24 2020 Learn best practices and the proper use of Azure management tools, such as Azure Portal, Azure PowerShell, Azure CLI, and ARM templates, which are time-saving tools that support daily administration tasks such as monitoring, alerting, backups, security, and more. This book explores common Azure services, including Azure networking, virtual machines, app services, backup, monitoring, and other tools of the trade that IT professionals use on a regular basis. And you will come away with a strong understanding of these services and how to use them. While Microsoft Azure is no longer "the new cloud on the block," it continues to be one of the fastest-growing platforms with regard to features, integrations, and capabilities. Over the last decade, it has undergone significant changes and amassed a large following, but many of its users, especially those who transitioned from traditional admin tasks to modern cloud computing, are not reaping its full benefits. Management in the cloud, while seemingly simpler in some ways, is not without its own set of complexities and headaches. Admins want to streamline it where it makes sense and allocate the right resources to the right job in order to keeps cost in check, but where does one begin? Pro Azure Administration and Automation is a comprehensive guide that is chock full of time-saving recipes and scripts you can rely on to learn about day-to-day Azure administration and automation. What You Will Learn Attain theoretical and practical knowledge on deploying and managing Azure Gain an understanding of services, their relationship with other services, and their configuration parameters Adopt a modern mindset, transitioning from a traditional IT admin mindset to a cloud admin pro Understand how everything in the cloud is billable and learn how to factor it into choices Apply in-chapter PowerShell scripts and ARM templates which can be re-purposed Know when it makes sense to be more involved in tasks (for example, automation and scripting) Who This Book Is For IT professionals who are responsible for the day-to-day tasks in Azure as well as cloud management and planning

PC Mag Oct 09 2021 PCMag.com is a leading authority on technology, delivering Labs-based, independent reviews of the latest products and services. Our expert industry analysis and practical solutions help you make better buying decisions and get more from technology.

Proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018) Apr 03 2021 This book presents the proceedings of the 20th Congress of the International Ergonomics Association (IEA 2018), held on August 26-30, 2018, in Florence, Italy. By highlighting the latest theories and models, as well as cutting-edge technologies and applications, and by combining findings from a range of disciplines including engineering, design, robotics, healthcare, management, computer science, human biology and behavioral science, it provides researchers and practitioners alike with a comprehensive, timely guide on human factors and ergonomics. It also offers an excellent source of innovative ideas to stimulate future discussions and developments aimed at applying knowledge and techniques to optimize system performance, while at the same time promoting the health, safety and wellbeing of individuals. The proceedings include papers from researchers and practitioners, scientists and physicians, institutional leaders, managers and policy makers that contribute to constructing the Human Factors and Ergonomics approach across a variety of methodologies, domains and productive sectors. This volume includes papers addressing the following topics: Aging, Gender

and Work, Anthropometry, and Ergonomics for Children and Education.

Research and Education in Robotics -- EUROBOT 2008 Jun 17 2022 This volume constitutes the refereed proceedings of the International Conference on Research and Education in Robotics, EUROBOT 2008, held in Heidelberg, Germany, in May 2008. The EUROBOT Conference 2008 was accompanied by the international amateur robotics contest EUROBOTopen final, edition 2008. The 18 revised full papers presented were carefully reviewed and selected from the 33 papers which had built the main program of the conference. A fundamental aspect of EUROBOT is the promotion of sciences and technology among young students and researchers. The theme for 2008 was "Mission to Mars". This resulted in interesting robots as well as interesting papers for this volume.

Professional Microsoft® Smartphone Programming Feb 13 2022 "Professor Yang and Dr. Zheng are two of the passionate young researchers in the field with a lot of hands-on experience. Professor Ni, on the other hand, is a veteran in wireless technologies, 2.5G/3G cellular phones, and embedded systems. The energy, the hands-on experience, and the long-term vision ensure that the book is of highest quality." --From the foreword by Ya-Qin Zhang, Corporate Vice President for Research, Microsoft China The second-generation Smartphone applications are exclusively designed to leverage the advantages of mobility and ubiquitous wireless access. This book provides you with an in-depth look at software development issues and design guidelines, and helps you gain the skills you need to develop your own efficient and feature-rich Smartphone applications that utilize the latest cutting-edge technologies. Complete with code and examples, the book first walks you through the Microsoft Smartphone platform from a software developer's perspective. It next uncovers the .NET Compact Framework as well as the Smartphone programming environment. You'll then find detailed information on Microsoft Smartphone-related application design and programming topics in the domains of the .NET Compact Framework (managed code). Plus, you'll explore advanced development topics such as security and performance considerations that you'll be able to incorporate into your own applications. What you will learn from this book * How to use the programming framework and classes available in Windows Mobile and Smartphone SDK * The fundamentals of .NET Compact Framework 2.0 * Techniques for developing your own robust Smartphone applications * Steps for customizing components and P/Invoke * How to enhance data and communication security * Ways to improve the performance of your applications * Fundamental techniques for supporting world-ready applications Who this book is for This book is for software architects and developers working in the area of mobile application development as well as professionals who want a quick and thorough overview of the Microsoft Smartphone software development platform. Wrox Professional guides are planned and written by working programmers to meet the real-world needs of programmers, developers, and IT professionals. Focused and relevant, they address the issues technology professionals face every day. They provide examples, practical solutions, and expert education in new technologies, all designed to help programmers do a better job.

InfoWorld Jul 26 2020 InfoWorld is targeted to Senior IT professionals. Content is segmented into Channels and Topic Centers. InfoWorld also celebrates people, companies, and projects.

Network World Mar 02 2021 For more than 20 years, Network World has been the premier provider of information, intelligence and insight for network and IT executives responsible for the digital nervous systems of large organizations. Readers are responsible for designing, implementing and managing the voice, data and video systems their companies use to support everything from business critical applications to employee collaboration and electronic commerce.

Microsoft Azure Essentials - Fundamentals of Azure Oct 21 2022 Microsoft Azure Essentials from Microsoft Press is a series of free ebooks designed to help you advance your technical skills with Microsoft Azure. The first ebook in the series, Microsoft Azure Essentials: Fundamentals of Azure, introduces developers and IT professionals to the wide range of capabilities in Azure. The authors - both Microsoft MVPs in Azure - present both conceptual and how-to content for key areas, including: Azure Websites and Azure Cloud Services Azure Virtual Machines Azure Storage Azure Virtual Networks Databases Azure Active Directory Management tools Business scenarios Watch Microsoft Press's blog and Twitter (@MicrosoftPress) to learn about other free ebooks in the "Microsoft Azure Essentials" series.

The Photon Kit Development Workshop Jul 18 2022 Photon kit is a tiny Wi-Fi development kit to build an Internet of Things programs. This board has built-in WiFi Module. This book helps you to get started with Photon kit development. The following is highlight of the book: * Preparing Development Environment * Setting Up The Photon Development: Particle Build, Particle Dev, Particle CLI, GNU GCC ARM * GPIO Programming * UART * PWM and Analog Input * Working with I2C * SPI * Working with EEPROM * Building Internet of Things * Photon and Microsoft Azure

InfoWorld Nov 10 2021 InfoWorld is targeted to Senior IT professionals. Content is segmented into Channels and Topic Centers. InfoWorld also celebrates people, companies, and projects.

Network World Aug 07 2021 For more than 20 years, Network World has been the premier provider of information, intelligence and insight for network and IT executives responsible for the digital nervous systems of large organizations. Readers are responsible for designing, implementing and managing the voice, data and video systems their companies use to support everything from business critical applications to employee collaboration and electronic commerce.

Building Windows 8 Apps with JavaScript Jun 24 2020 Building Windows 8 Apps with JavaScript is the definitive guide for every experienced developer who wants to create, ship, and profit from Windows 8 apps built with HTML5 and JavaScript. Written by Chris Sells, former Visual Studio Principal Program Manager who led the team that built Microsoft's official Windows 8 JavaScript app templates, and Brandon Satrom, expert web/mobile developer, this book covers every facet of development with Microsoft's new JavaScript framework and WinRT. The authors guide you through building full-featured Windows Store apps that merge the best aspects of desktop, web, and mobile apps into a single user and developer experience. You'll learn how to leverage the full power of the Windows 8 platform and integrate services ranging from client-side state to offline storage. Leveraging these techniques, you can deliver information to users faster, more clearly, and more concisely, on whatever devices they prefer. Through complete example projects, Building Windows 8 Apps with JavaScript covers Understanding powerful new improvements in Windows 8 developer experience Using Windows 8's more flexible binding to update the UI as underlying data changes Creating layouts and typography that fit Windows 8 style and leverage its advantages Working with audio, video, captured media, animation, and HTML5 graphics Making your app "connectable" with PlayTo Integrating WinJS navigation services to improve UI control Maintaining app states built up over time, and sharing them across devices Writing highly responsive async apps Supporting true-touch metaphors and interactions, location data, and sensors Designing apps for the Windows 8 design language Extending JavaScript code to integrate existing C/C++ code or to access Windows capabilities that WinRT doesn't expose Discovering best practices for monetizing Windows Store apps All of the downloadable examples can be created and run with Microsoft's free Visual Studio 2012 Express for Windows 8, which includes all you need to build, package, and deploy your Windows Store apps.

Introducing Windows 10 for IT Professionals Nov 22 2022 Get a head start evaluating Windows 10--with technical insights from award-winning journalist and Windows expert Ed Bott. This guide introduces new features and capabilities, providing a practical, high-level overview for IT professionals ready to begin deployment planning now. This edition was written after the release of Windows 10 version 1511 in November 2015 and includes all of its enterprise-focused features. The goal of this book is to help you sort out what's new in Windows 10, with a special emphasis on features that are different from the Windows versions you and your organization are using today, starting with an overview of the operating system, describing the many changes to the user experience, and diving deep into deployment and management tools where it's necessary.

InfoWorld Dec 19 2019 InfoWorld is targeted to Senior IT professionals. Content is segmented into Channels and Topic Centers. InfoWorld also celebrates people, companies, and projects.

MCTS Self-paced Training Kit (exam 70-620) Aug 27 2020 Practice tests. Reinforce your understanding of how to configure Windows Vista by using electronic practice tests on the CD-ROM culled from the pool of Lesson Review questions in this book. You customize the questions to meet your needs. You can practice for the 70-620 certification exam by using tests created from a pool of 300 questions, which give you many

practice exam options.

PC Magazine Feb 01 2021

Professional Microsoft Robotics Developer Studio Apr 27 2023 Microsoft Robotics Developer Studio (MRDS) offers an exciting new way to program robots in the Windows environment. With key portions of the MRDS code available in source form, it is readily extensible and offers numerous opportunities for programmers and hobbyists. This comprehensive book illustrates creative ways to use the tools and libraries in MRDS so you can start building innovative new robotics applications. The book begins with a brief overview of MRDS and then launches into MRDS concepts and takes a look at fundamental code patterns that can be used in MRDS programming. You'll work through examples—all in C#—of common tasks, including an examination of the physics features of the MRDS simulator. As the chapters progress, so does the level of difficulty and you'll gradually evolve from navigating a simple robot around a simulated course to controlling simulated and actual robotic arms, and finally, to an autonomous robot that runs with an embedded PC or PDA. What you will learn from this book How to program in the multi-threaded environment provided by the concurrency and coordination runtime Suggestions for starting and stopping services, configuring services, and packaging your services for deployment Techniques for building new services from scratch and then testing them How to build your own simulated environments and robots using the Visual Simulation Environment What robots are supported under MRDS and how to select one for purchase Who this book is for This book is for programmers who are interested in becoming proficient in the rapidly growing field of robotics. All examples featured in the book are in C#, which is the preferred language for MRDS.

InfoWorld Apr 22 2020 InfoWorld is targeted to Senior IT professionals. Content is segmented into Channels and Topic Centers. InfoWorld also celebrates people, companies, and projects.

Microsoft Hybrid Cloud Unleashed with Azure Stack and Azure Mar 26 2023 Microsoft Hybrid Cloud Unleashed brings together comprehensive and practical insights into hybrid cloud technologies, complete CloudOps and DevOps implementation strategies, and detailed guidance for deploying Microsoft Azure Stack in your environment. Written by five Microsoft Cloud and Datacenter Management MVPs, this book is built on real-world scenarios and the authors' extraordinary hands-on experiences as early adopters. Step by step, the authors help you integrate your optimal mix of private and public cloud, with a unified management experience that lets you move workloads at will, achieving unprecedented flexibility. The authors also guide you through all aspects of building your own secure, high-performance hybrid cloud infrastructure. You'll discover how Azure Stack enables you to run data centers with the same scalability, redundancy, and reliability as Microsoft's Azure data centers; how to integrate Azure infrastructure and platform services with internal operations; and how to manage crucial external dependencies. The book concludes with a deep dive into automating and customizing Azure Stack for maximum reliability, productivity, and cost savings. Detailed information on how to Run a private/hybrid cloud on your hardware in your data center, using APIs and code identical to public Azure Apply ITIL and DevOps lifecycles to your hybrid cloud implementation Gain a deep understanding of Azure Stack architecture, components, and internals Install and configure Azure Stack and master the Azure Stack Portal Integrate and utilize infrastructure, core, and custom resource providers Effectively provision, secure, and manage tenants Manage, monitor, troubleshoot, and back up Azure Stack with CloudOps Automate resource provisioning with PowerShell, the Azure CLI, templates, and Azure Stack's API Write your own Azure Resource Manager templates Centrally automate cloud management and complex tasks connected to external systems Develop customized, production-ready Azure Stack marketplace items

Computerworld May 16 2022 For more than 40 years, Computerworld has been the leading source of technology news and information for IT influencers worldwide. Computerworld's award-winning Web site (Computerworld.com), twice-monthly publication, focused conference series and custom research form the hub of the world's largest global IT media network.

Computerworld Dec 11 2021 For more than 40 years, Computerworld has been the leading source of technology news and information for IT influencers worldwide. Computerworld's award-winning Web site (Computerworld.com), twice-monthly publication, focused conference series and custom research form the hub of the world's largest global IT media network.

Smartphones Sep 08 2021 Analyzing the new technology of Smartphones in great detail, this guide discusses relevant reference solutions, the role of middleware on related operating systems, and how cell phone vendors consequently confront this growing challenge. A very detailed and cogent perspective on the world of Smartphones, the report examines its vast feature sets, reveals its impact on other leading technologies and companies, and supplies extensive case studies on how Smartphones enhance user productivity and encourage deployment of user applications.

Computer Security and Telerobotics for Everyone Jan 24 2023 The book discusses some basics about computer security and some of the strategies that personal computer users take to try to keep their machine safe. It also discusses the dangers that many people and governments face from people misusing computer resources and some of the strategies that the United States Federal Government is taking to help keep its citizens safe. The book also robotics used from a distance to help disabled people recreate and work across countries.

Cyber Arms Aug 19 2022 This book will raise awareness on emerging challenges of AIempowered cyber arms used in weapon systems and stockpiled in the global cyber arms race. Based on real life events, it provides a comprehensive analysis of cyber offensive and defensive landscape, analyses the cyber arms evolution from prank malicious codes into lethal weapons of mass destruction, reveals the scale of cyber offensive conflicts, explores cyber warfare mutation, warns about cyber arms race escalation and use of Artificial Intelligence (AI) for military purposes. It provides an expert insight into the current and future malicious and destructive use of the evolved cyber arms, AI and robotics, with emphasis on cyber threats to CBRNe and critical infrastructure. The book highlights international efforts in regulating the cyber environment, reviews the best practices of the leading cyber powers and their controversial approaches, recommends responsible state behaviour. It also proposes information security and cyber defence solutions and provides definitions for selected conflicting cyber terms. The disruptive potential of cyber tools merging with military weapons is examined from the technical point of view, as well as legal, ethical, and political perspectives.

Expert .NET Micro Framework Mar 14 2022 The Microsoft .NET Micro Framework is a small and efficient .NET runtime environment used to run managed code on devices that are too small and resource constrained for Windows CE and the Compact Framework. Expert .NET Micro Framework will teach you everything you need to know to use the .NET Micro Framework to create effective embedded applications. It begins with the basics of accessing hardware and networking before delving deep into the less-known areas such as cryptography and globalization, and how to use technologies such as wireless communication that are not directly supported by the .NET Micro Framework. This book is a must if you want to get as much as possible out of the .NET Micro Framework to write powerful embedded applications. Expert .NET Micro Framework also describes how to use resources and write globalized and multilingual embedded applications. You will learn how to effectively use binary serialization to store data permanently in flash memory or exchange data with a PDA or PC. Topics like cryptography and encrypted data exchange with a .NET or Compact Framework application are covered.

Troubleshooting with the Windows Sysinternals Tools Sep 20 2022 Optimize Windows system reliability and performance with Sysinternals IT pros and power users consider the free Windows Sysinternals tools indispensable for diagnosing, troubleshooting, and deeply understanding the Windows platform. In this extensively updated guide, Sysinternals creator Mark Russinovich and Windows expert Aaron Margosis help you use these powerful tools to optimize any Windows system's reliability, efficiency, performance, and security. The authors first explain Sysinternals' capabilities and help you get started fast. Next, they offer in-depth coverage of each major tool, from Process Explorer and Process Monitor to Sysinternals' security and file utilities. Then, building on this knowledge, they show the tools being used to solve real-world cases involving error messages, hangs, sluggishness, malware infections, and much more. Windows Sysinternals creator Mark Russinovich and Aaron Margosis show you how to: Use Process Explorer to display detailed process and system information Use Process Monitor to capture low-level system events, and quickly filter the output to narrow down root causes List, categorize, and manage software that starts when you start or sign in to your computer, or when you run Microsoft Office or Internet Explorer Verify digital signatures of files, of running programs, and of the modules loaded in those programs Use Autoruns, Process Explorer, Sigcheck, and

Process Monitor features that can identify and clean malware infestations Inspect permissions on files, keys, services, shares, and other objects Use Sysmon to monitor security-relevant events across your network Generate memory dumps when a process meets specified criteria Execute processes remotely, and close files that were opened remotely Manage Active Directory objects and trace LDAP API calls Capture detailed data about processors, memory, and clocks Troubleshoot unbootable devices, file-in-use errors, unexplained communication, and many other problems Understand Windows core concepts that aren't well-documented elsewhere

Practical Solar Tracking Automatic Solar Tracking Sun Tracking Автоматическое удержание Солнечная слежения ВС ██████████ Sep 27 2020 This book details Practical Solar Energy Harvesting, Automatic Solar-Tracking, Sun-Tracking-Systems, Solar-Trackers and Sun Tracker Systems using motorized automatic positioning concepts and control principles. An intelligent automatic solar tracker is a device that orients a payload toward the sun. Such programmable computer based solar tracking device includes principles of solar tracking, solar tracking systems, as well as microcontroller, microprocessor and/or PC based solar tracking control to orientate solar reflectors, solar lenses, photovoltaic panels or other optical configurations towards the sun. Motorized space frames and kinematic systems ensure motion dynamics and employ drive technology and gearing principles to steer optical configurations such as mangin, parabolic, conic, or cassegrain solar energy collectors to face the sun and follow the sun movement contour continuously. In general, the book may benefit solar research and solar energy applications in countries such as Africa, Mediterranean, Italy, Spain, Greece, USA, Mexico, South America, Brazilia, Argentina, Chili, India, Malaysia, Middle East, UAE, Russia, Japan and China. This book on practical automatic Solar-Tracking Sun-Tracking is in .PDF format and can easily be converted to the .EPUB .MOBI .AZW .ePub .FB2 .LIT .LRF .MOBI .PDB .PDF .TCR formats for smartphones and Kindle by using the ebook.online-convert.com facility. The content of the book is also applicable to communication antenna satellite tracking and moon tracking algorithm source code for which links to free download links are provided. In harnessing power from the sun through a solar tracker or practical solar tracking system, renewable energy control automation systems require automatic solar tracking software and solar position algorithms to accomplish dynamic motion control with control automation architecture, circuit boards and hardware. On-axis sun tracking system such as the altitude-azimuth dual axis or multi-axis solar tracker systems use a sun tracking algorithm or ray tracing sensors or software to ensure the sun's passage through the sky is traced with high precision in automated solar tracker applications, right through summer solstice, solar equinox and winter solstice. A high precision sun position calculator or sun position algorithm is this an important step in the design and construction of an automatic solar tracking system. From sun tracing software perspective, the sonnet Tracing The Sun has a literal meaning. Within the context of sun track and trace, this book explains that the sun's daily path across the sky is directed by relatively simple principles, and if grasped/understood, then it is relatively easy to trace the sun with sun following software. Sun position computer software for tracing the sun are available as open source code, sources that is listed in this book. Ironically there was even a system called sun chaser, said to have been a solar positioner system known for chasing the sun throughout the day. Using solar equations in an electronic circuit for automatic solar tracking is quite simple, even if you are a novice, but mathematical solar equations are over complicated by academic experts and professors in text-books, journal articles and internet websites. In terms of solar hobbies, scholars, students and Hobbyist's looking at solar tracking electronics or PC programs for solar tracking are usually overcome by the sheer volume of scientific material and internet resources, which leaves many developers in frustration when search for simple experimental solar tracking source-code for their on-axis sun-tracking systems. This booklet will simplify the search for the mystical sun tracking formulas for your sun tracker innovation and help you develop your own autonomous solar tracking controller. By directing the solar collector directly into the sun, a solar harvesting means or device can harness sunlight or thermal heat. This is achieved with the help of sun angle formulas, solar angle formulas or solar tracking procedures for the calculation of sun's position in the sky. Automatic sun tracking system software includes algorithms for solar altitude azimuth angle calculations required in following the sun across the sky. In using the longitude, latitude GPS coordinates of the solar tracker location, these sun tracking software tools supports precision solar tracking by determining the solar altitude-azimuth coordinates for the sun trajectory in altitude-azimuth tracking at the tracker location, using certain sun angle formulas in sun vector calculations. Instead of follow the sun software, a sun tracking sensor such as a sun sensor or webcam or video camera with vision based sun following image processing software can also be used to determine the position of the sun optically. Such optical feedback devices are often used in solar panel tracking systems and dish tracking systems. Dynamic sun tracing is also used in solar surveying, DNI analyser and sun surveying systems that build solar infographics maps with solar radiance, irradiance and DNI models for GIS (geographical information system). In this way geospatial methods on solar/environment interaction makes use use of geospatial technologies (GIS, Remote Sensing, and Cartography). Climatic data and weather station or weather center data, as well as queries from sky servers and solar resource database systems (i.e. on DB2, Sybase, Oracle, SQL, MySQL) may also be associated with solar GIS maps. In such solar resource modelling systems, a pyranometer or solarimeter is normally used in addition to measure direct and indirect, scattered, dispersed, reflective radiation for a particular geographical location. Sunlight analysis is important in flash photography where photographic lighting are important for photographers. GIS systems are used by architects who add sun shadow applets to study architectural shading or sun shadow analysis, solar flux calculations, optical modelling or to perform weather modelling. Such systems often employ a computer operated telescope type mechanism with ray tracing program software as a solar navigator or sun tracer that determines the solar position and intensity. The purpose of this booklet is to assist developers to track and trace suitable source-code and solar tracking algorithms for their application, whether a hobbyist, scientist, technician or engineer. Many open-source sun following and tracking algorithms and source-code for solar tracking programs and modules are freely available to download on the internet today. Certain proprietary solar tracker kits and solar tracking controllers include a software development kit SDK for its application programming interface API attributes (Pebble). Widget libraries, widget toolkits, GUI toolkit and UX libraries with graphical control elements are also available to construct the graphical user interface (GUI) for your solar tracking or solar power monitoring program. The solar library used by solar position calculators, solar simulation software and solar contour calculators include machine program code for the solar hardware controller which are software programmed into Micro-controllers, Programmable Logic Controllers PLC, programmable gate arrays, Arduino processor or PIC processor. PC based solar tracking is also high in demand using C++, Visual Basic VB, as well as MS Windows, Linux and Apple Mac based operating systems for sun path tables on Matlab, Excel. Some books and internet webpages use other terms, such as: sun angle calculator, sun position calculator or solar angle calculator. As said, such software code calculate the solar azimuth angle, solar altitude angle, solar elevation angle or the solar Zenith angle (Zenith solar angle is simply referenced from vertical plane, the mirror of the elevation angle measured from the horizontal or ground plane level). Similar software code is also used in solar calculator apps or the solar power calculator apps for IOS and Android smartphone devices. Most of these smartphone solar mobile apps show the sun path and sun-angles for any location and date over a 24 hour period. Some smartphones include augmented reality features in which you can physically see and look at the solar path through your cell phone camera or mobile phone camera at your phone's specific GPS location. In the computer programming and digital signal processing (DSP) environment, (free/open source) program code are available for VB, .Net, Delphi, Python, C, C+, C++, PHP, Swift, ADM, F, Flash, Basic, QBasic, GBasic, KBasic, SIMPL language, Squirrel, Solaris, Assembly language on operating systems such as MS Windows, Apple Mac, DOS or Linux OS. Software algorithms predicting position of the sun in the sky are commonly available as graphical programming platforms such as Matlab (Mathworks), Simulink models, Java applets, TRNSYS simulations, Scada system apps, Labview module, Beckhoff TwinCAT (Visual Studio), Siemens SPA, mobile and iphone apps, Android or iOS tablet apps, and so forth. At the same time, PLC software code for a range of sun tracking automation technology can follow the profile of sun in sky for Siemens, HP, Panasonic, ABB, Allan Bradley, OMRON, SEW, Festo, Beckhoff, Rockwell, Schneider, Endress Hauser, Fudji electric. Honeywell, Fuchs, Yokonawa, or Muthibishi platforms. Sun path projection software are also available for a range of modular IPC embedded PC motherboards, Industrial PC, PLC (Programmable Logic Controller) and PAC (Programmable Automation Controller) such as the Siemens S7-1200 or Siemens Logo, Beckhoff IPC or CX series, OMRON PLC, Ercam PLC, AC500plc ABB, National Instruments NI PXI or NI cRIO, PIC processor, Intel 8051/8085, IBM (Cell, Power, Brain or Truenorth series), FPGA (Xilinx Altera Nios), Intel, Xeon, Atmel megaAVR, MPU, Maple, Teensy, MSP, XMOS, Xbee, ARM, Raspberry Pi, Eagle, Arduino or Arduino AtMega

microcontroller, with servo motor, stepper motor, direct current DC pulse width modulation PWM (current driver) or alternating current AC SPS or IPC variable frequency drives VFD motor drives (also termed adjustable-frequency drive, variable-speed drive, AC drive, micro drive or inverter drive) for electrical, mechatronic, pneumatic, or hydraulic solar tracking actuators. The above motion control and robot control systems include analogue or digital interfacing ports on the processors to allow for tracker angle orientation feedback control through one or a combination of angle sensor or angle encoder, shaft encoder, precision encoder, optical encoder, magnetic encoder, direction encoder, rotational encoder, chip encoder, tilt sensor, inclination sensor, or pitch sensor. Note that the tracker's elevation or zenith axis angle may be measured using an altitude angle-, declination angle-, inclination angle-, pitch angle-, or vertical angle-, zenith angle- sensor or inclinometer. Similarly the tracker's azimuth axis angle may be measured with an azimuth angle-, horizontal angle-, or roll angle- sensor. Chip integrated accelerometer magnetometer gyroscope type angle sensors can also be used to calculate displacement. Other options include the use of thermal imaging systems such as a Fluke thermal imager, or robotic or vision based solar tracker systems that employ face tracking, head tracking, hand tracking, eye tracking and car tracking principles in solar tracking. With unattended decentralised rural, island, isolated, or autonomous off-grid power installations, remote control, monitoring, data acquisition, digital datalogging and online measurement and verification equipment becomes crucial. It assists the operator with supervisory control to monitor the efficiency of remote renewable energy resources and systems and provide valuable web-based feedback in terms of CO₂ and clean development mechanism (CDM) reporting. A power quality analyser for diagnostics through internet, WiFi and cellular mobile links is most valuable in frontline troubleshooting and predictive maintenance, where quick diagnostic analysis is required to detect and prevent power quality issues. Solar tracker applications cover a wide spectrum of solar applications and solar assisted application, including concentrated solar power generation, solar desalination, solar water purification, solar steam generation, solar electricity generation, solar industrial process heat, solar thermal heat storage, solar food dryers, solar water pumping, hydrogen production from methane or producing hydrogen and oxygen from water (HHO) through electrolysis. Many patented or non-patented solar apparatus include tracking in solar apparatus for solar electric generator, solar desalinator, solar steam engine, solar ice maker, solar water purifier, solar cooling, solar refrigeration, USB solar charger, solar phone charging, portable solar charging tracker, solar coffee brewing, solar cooking or solar drying means. Your project may be the next breakthrough or patent, but your invention is held back by frustration in search for the sun tracker you require for your solar powered appliance, solar generator, solar tracker robot, solar freezer, solar cooker, solar drier, solar pump, solar freezer, or solar dryer project. Whether your solar electronic circuit diagram include a simplified solar controller design in a solar electricity project, solar power kit, solar hobby kit, solar steam generator, solar hot water system, solar ice maker, solar desalinator, hobbyist solar panels, hobby robot, or if you are developing professional or hobby electronics for a solar utility or micro scale solar powerplant for your own solar farm or solar farming, this publication may help accelerate the development of your solar tracking innovation. Lately, solar polygeneration, solar trigeneration (solar triple generation), and solar quad generation (adding delivery of steam, liquid/gaseous fuel, or capture food-grade CO₂) systems have need for automatic solar tracking. These systems are known for significant efficiency increases in energy yield as a result of the integration and re-use of waste or residual heat and are suitable for compact packaged micro solar powerplants that could be manufactured and transported in kit-form and operate on a plug-and play basis. Typical hybrid solar power systems include compact or packaged solar micro combined heat and power (CHP or mCHP) or solar micro combined, cooling, heating and power (CCHP, CHPC, mCCHP, or mCHPC) systems used in distributed power generation. These systems are often combined in concentrated solar CSP and CPV smart microgrid configurations for off-grid rural, island or isolated microgrid, minigrid and distributed power renewable energy systems. Solar tracking algorithms are also used in modelling of trigeneration systems using Matlab Simulink (Modelica or TRNSYS) platform as well as in automation and control of renewable energy systems through intelligent parsing, multi-objective, adaptive learning control and control optimization strategies. Solar tracking algorithms also find application in developing solar models for country or location specific solar studies, for example in terms of measuring or analysis of the fluctuations of the solar radiation (i.e. direct and diffuse radiation) in a particular area. Solar DNI, solar irradiance and atmospheric information and models can thus be integrated into a solar map, solar atlas or geographical information systems (GIS). Such models allow for defining local parameters for specific regions that may be valuable in terms of the evaluation of different solar in photovoltaic or CSP systems on simulation and synthesis platforms such as Matlab and Simulink or in linear or multi-objective optimization algorithm platforms such as COMPOSE, EnergyPLAN or DER-CAM. A dual-axis solar tracker and single-axis solar tracker may use a sun tracker program or sun tracker algorithm to position a solar dish, solar panel array, heliostat array, PV panel, solar antenna or infrared solar antenna. A self-tracking solar concentrator performs automatic solar tracking by computing the solar vector. Solar position algorithms (TwinCAT, SPA, or PSA Algorithms) use an astronomical algorithm to calculate the position of the sun. It uses astronomical software algorithms and equations for solar tracking in the calculation of sun's position in the sky for each location on the earth at any time of day. Like an optical solar telescope, the solar position algorithm pin-points the solar reflector at the sun and locks onto the sun's position to track the sun across the sky as the sun progresses throughout the day. Optical sensors such as photodiodes, light-dependent-resistors (LDR) or photoresistors are used as optical accuracy feedback devices. Lately we also included a section in the book (with links to microprocessor code) on how the PixArt Wii infrared camera in the Wii remote or Wiimote may be used in infrared solar tracking applications. In order to harvest free energy from the sun, some automatic solar positioning systems use an optical means to direct the solar tracking device. These solar tracking strategies use optical tracking techniques, such as a sun sensor means, to direct sun rays onto a silicon or CMOS substrate to determine the X and Y coordinates of the sun's position. In a solar mems sun-sensor device, incident sunlight enters the sun sensor through a small pin-hole in a mask plate where light is exposed to a silicon substrate. In a web-camera or camera image processing sun tracking and sun following means, object tracking software performs multi object tracking or moving object tracking methods. In an solar object tracking technique, image processing software performs mathematical processing to box the outline of the apparent solar disc or sun blob within the captured image frame, while sun-localization is performed with an edge detection algorithm to determine the solar vector coordinates. An automated positioning system help maximize the yields of solar power plants through solar tracking control to harness sun's energy. In such renewable energy systems, the solar panel positioning system uses a sun tracking techniques and a solar angle calculator in positioning PV panels in photovoltaic systems and concentrated photovoltaic CPV systems. Automatic on-axis solar tracking in a PV solar tracking system can be dual-axis sun tracking or single-axis sun solar tracking. It is known that a motorized positioning system in a photovoltaic panel tracker increase energy yield and ensures increased power output, even in a single axis solar tracking configuration. Other applications such as robotic solar tracker or robotic solar tracking system uses robotics with artificial intelligence in the control optimization of energy yield in solar harvesting through a robotic tracking system. Automatic positioning systems in solar tracking designs are also used in other free energy generators, such as concentrated solar thermal power CSP and dish Stirling systems. The sun tracking device in a solar collector in a solar concentrator or solar collector Such a performs on-axis solar tracking, a dual axis solar tracker assists to harness energy from the sun through an optical solar collector, which can be a parabolic mirror, parabolic reflector, Fresnel lens or mirror array/matrix. A parabolic dish or reflector is dynamically steered using a transmission system or solar tracking slew drive mean. In steering the dish to face the sun, the power dish actuator and actuation means in a parabolic dish system optically focusses the sun's energy on the focal point of a parabolic dish or solar concentrating means. A Stirling engine, solar heat pipe, thermosyphyn, solar phase change material PCM receiver, or a fibre optic sunlight receiver means is located at the focal point of the solar concentrator. The dish Stirling engine configuration is referred to as a dish Stirling system or Stirling power generation system. Hybrid solar power systems (used in combination with biogas, biofuel, petrol, ethanol, diesel, natural gas or PNG) use a combination of power sources to harness and store solar energy in a storage medium. Any multitude of energy sources can be combined through the use of controllers and the energy stored in batteries, phase change material, thermal heat storage, and in cogeneration form converted to the required power using thermodynamic cycles (organic Rankin, Brayton cycle, micro turbine, Stirling) with an inverter and charge controller. В этой книге подробно Автоматическая Solar-Tracking, BC-Tracking-Systems, Solar-трекеры и BC Tracker Systems. Интеллектуальный автоматический солнечной слежения является устройством, которое ориентирует полезную нагрузку к солнцу. Такое программируемый компьютер на основе солнечной устройство слежения включает принципы солнечной слежения, солнечных систем слежения, а также микроконтроллер,

Apple Mac, DOS or Linux OS. Software algorithms predicting position of the sun in the sky are commonly available as graphical programming platforms such as Matlab (Mathworks), Simulink models, Java applets, TRNSYS simulations, Scada system apps, Labview module, Beckhoff TwinCAT (Visual Studio), Siemens SPA, mobile and iPhone apps, Android or iOS tablet apps, and so forth. At the same time, PLC software code for a range of sun tracking automation technology can follow the profile of sun in sky for Siemens, HP, Panasonic, ABB, Allan Bradley, OMRON, SEW, Festo, Beckhoff, Rockwell, Schneider, Endress Hauser, Fuji Electric, Honeywell, Fuchs, Yokonawa, or Muthibishi platforms. 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Crossing Platforms A Macintosh/Windows Phrasebook Feb 25 2023 Like travelers in a foreign land, Mac users working in Windows or Windowusers working on a Mac often find themselves in unfamiliar territory with no guidebook--until now. Engst and Pogue assembled a handy way of translating elements from one platform to the other, or for deciphering elements that are new and unfamiliar.

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