

## Gx1 User Guide

The popularity of the Internet and the affordability of IT hardware and software have resulted in an explosion of applications, architectures, and platforms. Workloads have changed. Many applications, including mission-critical ones, are deployed on various platforms, and the IBM® System z® design has adapted to this change. It takes into account a wide range of factors, including compatibility and investment protection, to match the IT requirements of an enterprise. This IBM Redbooks® publication addresses the new IBM zEnterprise® System. This system consists of the IBM zEnterprise EC12 (zEC12), an updated IBM zEnterprise Unified Resource Manager, and the IBM zEnterprise BladeCenter® Extension (zBX) Model 003. The zEC12 is designed with improved scalability, performance, security, resiliency, availability, and virtualization. The superscalar design allows the zEC12 to deliver a record level of capacity over the prior System z servers. It is powered by 120 of the world's most powerful microprocessors. These microprocessors run at 5.5 GHz and are capable of running more than 75,000 millions of instructions per second (MIPS). The zEC12 Model HA1 is estimated to provide up to 50% more total system capacity than the IBM zEnterprise 196 (z196) Model M80. The zBX Model 003 infrastructure works with the zEC12 to enhance System z virtualization and management. It does so through an integrated hardware platform that spans mainframe, IBM POWER7®, and IBM System x® technologies. Through the Unified Resource Manager, the zEnterprise System is managed as a single pool of resources, integrating system and workload management across the environment. This book provides information about the zEnterprise System and its functions, features, and associated software support. Greater detail is offered in areas relevant to technical planning. It is intended for systems engineers, consultants, planners, and anyone who wants to understand the zEnterprise System functions and plan for their usage. It is not intended as an introduction to mainframes. Readers are expected to be generally familiar with existing IBM System z® technology and terminology.

The popularity of the Internet and the affordability of IT hardware and software have resulted in an explosion of applications, architectures, and platforms. Workloads have changed. Many applications, including mission-critical ones, are deployed on a variety of platforms, and the System z® design has adapted to this change. It takes into account a wide range of factors, including compatibility and investment protection, to match the IT requirements of an enterprise. This IBM® Redbooks® publication discusses the IBM zEnterprise System, an IBM scalable mainframe server. IBM is taking a revolutionary approach by integrating separate platforms under the well-proven System z hardware management capabilities, while extending System z qualities of service to those platforms. The zEnterprise System consists of the IBM zEnterprise 114 central processor complex, the IBM zEnterprise Unified Resource Manager, and the IBM zEnterprise BladeCenter® Extension. The z114 is designed with improved scalability, performance, security, resiliency, availability, and virtualization. The z114 provides up to 18% improvement in uniprocessor speed and up to a 12% increase in total system capacity for z/OS®, z/VM®, and Linux on System z over the z10™ Business Class (BC). The zBX infrastructure works with the z114 to enhance System z virtualization and management through an integrated hardware platform that spans mainframe, POWER7™, and System x technologies. The federated capacity from multiple architectures of the zEnterprise System is managed as a single pool of resources, integrating system and workload management across the environment through the Unified Resource Manager. This book provides an overview of the zEnterprise System and its functions, features, and associated software support. Greater detail is offered in areas relevant to technical planning. This book is intended for systems engineers, consultants, planners, and anyone wanting to understand the zEnterprise System functions and plan for their usage. It is not intended as an introduction to mainframes. Readers are expected to be generally familiar with existing IBM System z technology and terminology.

The 4th edition of this popular Handbook continues to provide an easy-to-use guide to the many exciting new developments in the field of optical fiber data communications. With 90% new content, this edition contains all new material describing the transformation of the modern data communications network, both within the data center and over extended distances between data centers, along with best practices for the design of highly virtualized, converged, energy efficient, secure, and flattened network infrastructures. Key topics include networks for cloud computing, software defined networking, integrated and embedded networking appliances, and low latency networks for financial trading or other time-sensitive applications. Network architectures from the leading vendors are outlined (including Smart Analytic Solutions, Qfabric, FabricPath, and Exadata) as well as the latest revisions to industry standards for interoperable networks, including lossless Ethernet, 16G Fiber Channel, RoCE, FCoE, TRILL, IEEE 802.1Qbg, and more. Written by experts from IBM, HP, Dell, Cisco, Ciena, and Sun/ Oracle Case studies and 'How to...' demonstrations on a wide range of topics, including Optical Ethernet, next generation Internet, RDMA and Fiber Channel over Ethernet Quick reference tables of all the key optical network parameters for protocols like ESCON, FICON, and SONET/ATM and a glossary of technical terms and acronyms

This IBM® Redbooks® publication addresses performance tuning topics to help leverage the virtualization strengths of the POWER® platform to solve clients' system resource utilization challenges, and maximize system throughput and capacity. We examine the performance monitoring tools, utilities, documentation, and other resources available to help technical teams provide optimized business solutions and support for applications running on IBM POWER systems' virtualized environments. The book offers application performance examples deployed on IBM Power Systems™ utilizing performance monitoring tools to leverage the comprehensive set of POWER virtualization features: Logical Partitions (LPARs), micro-partitioning, active memory sharing, workload partitions, and more. We provide a well-defined and documented performance tuning model in a POWER system virtualized environment to help you plan a foundation for scaling, capacity, and optimization . This book targets technical professionals (technical consultants, technical support staff, IT Architects, and IT Specialists) responsible for providing solutions and support on IBM POWER systems, including performance tuning.

There are many Old Testament Hebrew lexicons available today, yet none offer the accuracy, user-friendliness, or affordable price as the single volume Old Testament Parsing Guide. Formerly published in a highly regarded two volume set, this new edition of Old Testament Parsing Guide seeks to offer help to Hebrew students by addressing their major need—the verbal system. With newly added vowel points, Old Testament Parsing Guide is easier to read and a more valuable Old Testament translation tool than ever.

Part of the bestselling Jedi Path series by Daniel Wallace, Star Wars®: Smuggler's Guide reveals previously untold stories of the galaxy's underworld. Recovered from a strongbox on the Millennium Falcon, this guide started as a simple logbook with a piece of valuable information. But it was soon stolen, traded, and smuggled around the outer rim and shady ports, until it ultimately ended up in the hands of the outlaw Han Solo. • The infamous logbook passed through the hands of such notorious characters as Maz Kanata, Hondo Ohnaka, Dryden Vos, and Lando Calrissian • With each pirate, thief, gambler, and criminal who took possession of the book, new insights and details were added • The result is a coveted collection of hidden treasure locations, advice, and hard-earned data A must-have handbook to the galaxy's underworld, Star Wars®: Smuggler's Guide is a crucial and hugely entertaining read for fans seeking a deeper understanding of the saga. Readers explore the checkered pasts of the galaxy's smugglers, thieves and pirates, with numerous tie-ins to the films. • Reveals secrets and other juicy morsels of new information in the Star Wars® lore •

Perfect gift for Star Wars® fans of all ages who are eager to learn more about the Star Wars® universe • Great for those who loved Star Wars: The Visual Encyclopedia by Adam Bray, Star Wars Encyclopedia of Starfighters and Other Vehicles by Landry Q. Walker, and Star Wars: 5-Minute Star Wars Stories by Disney Lucasfilm Press © & TM LUCASFILM LTD. Used Under Authorization.

A sequel to Power Electronics Technology and Applications, this text is targeted specifically towards the needs of practicing design engineers. The focus is to provide the practicing engineer with up-to-date technology and emerging applications.

Despite its importance as a central feature of musical sounds, timbre has rarely stood in the limelight. First defined in the eighteenth century, denigrated during the nineteenth, the concept of timbre came into its own during the twentieth century and its fascination with synthesizers and electronic music—or so the story goes. But in fact, timbre cuts across all the boundaries that make up musical thought—combining scientific and artistic approaches to music, material and philosophical aspects, and historical and theoretical perspectives. Timbre challenges us to fundamentally reorganize the way we think about music. The twenty-five essays that make up this collection offer a variety of engagements with music from the perspective of timbre. The boundaries are set as broad as possible: from ancient Homeric sounds to contemporary sound installations, from birdsong to cochlear implants, from Tuvan overtone singing to the tv show *The Voice*, from violin mutes to Moog synthesizers. What unifies the essays across this vast diversity is the material starting point of the sounding object. This focus on the listening experience is radical departure from the musical work that has traditionally dominated musical discourse since its academic inception in late-nineteenth-century Europe. Timbre remains a slippery concept that has continuously demanded more, be it more precise vocabulary, a more systematic theory, or more rigorous analysis. Rooted in the psychology of listening, timbre consistently resists pinning complete down. This collection of essays provides an invitation for further engagement with the range of fascinating questions that timbre opens up.

Includes original text of the Occupational safety and health act of 1970.

The aim of this volume is to provide a general overview of the econometrics of panel data, both from a theoretical and from an applied viewpoint. Since the pioneering papers by Kuh (1959), Mundlak (1961), Hoch (1962), and Balestra and Nerlove (1966), the pooling of cross section and time series data has become an increasingly popular way of quantifying economic relationships. Each series provides information lacking in the other, so a combination of both leads to more accurate and reliable results than would be achievable by one type of series alone. Over the last 30 years much work has been done: investigation of the properties of the applied estimators and test statistics, analysis of dynamic models and the effects of eventual measurement errors, etc. These are just some of the problems addressed by this work. In addition, some specific difficulties associated with the use of panel data, such as attrition, heterogeneity, selectivity bias, pseudo panels etc., have also been explored. The first objective of this book, which takes up Parts I and II, is to give as complete and up-to-date a presentation of these theoretical developments as possible. Part I is concerned with classical linear models and their extensions; Part II deals with nonlinear models and related issues: logit and probit models, latent variable models, incomplete panels and selectivity bias, and point processes.

The new Firearms Guide 8th Edition Flash Drive & Online Combo ([www.FirearmsGuide.com](http://www.FirearmsGuide.com)) is the most extensive and technologically advanced guns & ammo reference guide, gun value guide and gun schematics & blueprints library that is now offered on a superfast USB Flash Drive (for Mac & Windows) that comes in a combo with a 1 year online edition and with free updates. (Get your copy at: <http://firearmsguide.com/>) Combining both offline and online editions in a combo, gun enthusiast and professionals in the gun industry can now research and quickly find gun specs, gun values and info on over 67,000 antique and modern guns and ammo from 1,000 manufacturers worldwide. To find any gun it takes a mere second because you can search with 14 search criteria like model name, manufacturer, action, caliber, price, country of origin, year, stock type, etc. With those 14 search criteria you can perform simple or complex searches that you cannot do with Google and get precise search results every time. Over 6,800 hi-resolution printable gun schematics and blueprints are presented for gunsmiths and also gun values for 67,000 antique and modern guns based off of the 100% - 30% condition ratings are presented online for gun traders. Published since 2009, Firearms Guide is the ultimate tool to search, find, identify, research and evaluate antique and modern civilian and military guns...for every gun enthusiast, gunsmith or gun collector and trader. Thanks to the massive amount of detailed information (over 41,000 hi-res images) on antique and modern military and civilian guns and better search ability than Google (14 search criteria..caliber, action type, year, country, stock type, etc) it saves a huge amount of time and provides valuable info, prices, gun values, features, highest quality zoom able picture and printable schematics & blueprints with parts lists. This is fastest, most extensive and most modern gun book today...with free updates!

Provides information and user's reviews on over four hundred "shareware" programs, from spreadsheets and word processors to database and graphics programs

The indispensable consumers' guide to the music of Led Zeppelin. An album by album, track by track, run-down of every song released by Led Zeppelin, from their classic first album to their best selling albums of the seventies and beyond. Also includes details of their remastered recordings, compilation albums, live albums and Led Zeppelin on DVD.

Guide to Yeast Genetics and Molecular Biology presents, for the first time, a comprehensive compilation of the protocols and procedures that have made *Saccharomyces cerevisiae* such a facile system for all researchers in molecular and cell biology. Whether you are an established yeast biologist or a newcomer to the field, this volume contains all the up-to-date methods you will need to study "Your Favorite Gene" in yeast. Key Features \* Basic Methods in Yeast Genetics \* Physical and genetic mapping \* Making and recovering mutants \* Cloning and Recombinant DNA Methods \* High-efficiency transformation \* Preparation of yeast artificial chromosome vectors \* Basic Methods of Cell Biology \* Immunomicroscopy \* Protein targeting assays \* Biochemistry of Gene Expression \* Vectors for regulated expression \* Isolation of labeled and unlabeled DNA, RNA, and protein

The popularity of the Internet and the affordability of information technology (IT) hardware and software have resulted in an explosion dramatic increase in the number of applications, architectures, and platforms. Workloads have changed. Many applications, including mission-critical ones, are deployed on a variety of platforms, and the IBM® System z® design has adapted to this change. It takes into account a wide range of factors, including compatibility and investment protection, to match the IT

requirements of an enterprise. This IBM Redbooks® publication provides information about the IBM zEnterprise® BC12 (zBC12), an IBM scalable mainframe server. IBM is taking a revolutionary approach by integrating separate platforms under the well-proven System z hardware management capabilities, while extending System z qualities of service to those platforms. The zEnterprise System consists of the zBC12 central processor complex, the IBM zEnterprise Unified Resource Manager, and the IBM zEnterprise BladeCenter® Extension (zBX). The zBC12 is designed with improved scalability, performance, security, resiliency, availability, and virtualization. The zBC12 provides the following improvements over its predecessor, the IBM zEnterprise 114 (z114): Up to a 36% performance boost per core running at 4.2 GHz Up to 58% more capacity for traditional workloads Up to 62% more capacity for Linux workloads The zBX infrastructure works with the zBC12 to enhance System z virtualization and management through an integrated hardware platform that spans mainframe, IBM POWER7®, and IBM System x® technologies. The federated capacity from multiple architectures of the zEnterprise System is managed as a single pool of resources, integrating system and workload management across the environment through the Unified Resource Manager. This book provides an overview of the zBC12 and its functions, features, and associated software support. Greater detail is offered in areas relevant to technical planning. This book is intended for systems engineers, consultants, planners, and anyone who wants to understand zEnterprise System functions and plan for their usage. It is not intended as an introduction to mainframes. Readers are expected to be generally familiar with existing IBM System z technology and terminology.

OVERVIEW 1 SAS regression procedures. 2 SAS analysis-of-variance procedures. 3 SAS categorical data procedures. 4 SAS multivariate procedures. 5 SAS discriminant procedures. 6 SAS clustering procedures. 7 SAS survival analysis procedures. 8 SAS scoring procedures. 9 The four types of estimable functions. PROCEDURES 10 ACECLUS. 11 ANOVA. 12 CANCELL. 13 CANDISC. 14 CATMOD. 15 CLUSTER. 16 DISCRIM. 17 FACTOR. 18 FASTCLUS. 19 FREQ. 20 GLM. 21 LIFEREG. 22 LIFETEST. 23 NEIGHBOR. 24 NESTED. 25 NLIN 26 NPAR1WAY. 27PLAN. 28 PRINCOMP. 29 PROBIT. 30 RANK. 31 REG. 32 RSQARE. 33 RSREG 34 SCORE. 35 STANDARD. 36 STEPDISC.

Nanoscience is an interdisciplinary field that have encompassed physics, biology, engineering chemistry and computer science, among others, the prefix nano appears with increasing frequency in scientific journals and the news. Thus, as we increase our ability to fabricate computer chips with smaller features and improve our ability to cure disease at the molecular level, nanotechnology is at the doorstep. Scientists and engineers believe that the fabrication of nanomachines, nanoelectronics, and other nanodevices will help to solve numerous problems faced by mankind today related to energy, health, and materials development. In nanoelectronics there are two opposing developments: the lithographic scaling down of semiconductor components tending towards the sub10 nanometer region to supramolecular self assembling macroscopic structure with new properties. Currently the trends are mixed and one can build a variety of structures of all scales. For example one can build large scale supramolecular structures serving as templates for building circuits with nanoscale components. On the nanoelectronics architecture side, there have also been many interesting developments trying to cope with the increasing density and smallness of components and the needs of self assembly and fault tolerance. In the emerging field of nanotechnology, the production of nanostructures having special physical and chemical properties with respect to those of bulk materials is an objective due to their limited size and high density of corner or edge surface sites. Metal nanoparticles have received significant scientific and technological interest because of their use in applications such as catalysis, electronics, optics, optoelectronics, biological and chemical sensing and SERS. Nanotechnology is now creating a growing sense of excitement in the life sciences, especially biomedical devices and biotechnology, as there is an immense opportunity to arrange and rearrange molecular structures. The global market for nanotechnology products is worth an estimated compound annual growth rate (CAGR) of 11.1% from 2010 to 2015. The largest segment of the market, made up of nanomaterials, is expected to increase at a 5 year CAGR of 14.7%. The book contains polymeric nanofibres, synthesis of nanostructure, analysis of electron currents through nanojunctions, water soluble carbon nanotubes, nanoelectronic switching networks, growth of silica nanorods, magnetic nanostructures, nanomachining of microscope tips and carbon nanotubes, nanocrystalline semiconductors and many more. The present book is a sincere attempt to make the readers aware of the evolutionary trends underlying modern engineering practice which are grounded not only on the tried & true principles & techniques of the past, but also on more recent & current advances. This book will be an invaluable resource to technocrats, researches new entrepreneurs, technical institutions & introduction to this field.

Untuk memenuhi banyak keingintahuan para pembaca bagaimana memilih kamera dan lensa yang tepat bagi mereka, inilah alasan kenapa buku ini dibuat. Ini karena memang memilih kamera dan lensa itu cukup rumit. Sekilas, semua kamera dan lensa terlihat sama, tapi kalau kita perhatikan lebih saksama, terdapat banyak perbedaan antara merek dan model. Selain itu, harga kamera dan lensa lumayan tinggi. Sebagian besar dari pembaca menabung berbulan-bulan atau bahkan bertahun-tahun untuk membeli sebuah kamera dan lensa. Sangat disayangkan jika kita salah membeli kamera, lensa, dan aksesoris lainnya. Buku ini akan memberikan pedoman pintar sebelum akhirnya memilih kamera dan lensa dengan lebih dulu: • Memahami sistem kamera dan lensa. • Pedoman singkat tentang genre fotografi yang diminati. • Tip dan rekomendasi peralatan fotografi untuk jenis fotografi yang diminati. • Membahas tentang beberapa fitur canggih yang ada di berbagai kamera digital saat ini seperti GPS, timelapse, wifi, dan sebagainya.

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to be generally familiar with existing IBM System z technology and terminology. The changes to this edition are based on the System z hardware announcement dated July 12, 2011.

The essential introduction to the principles and applications of feedback systems—now fully revised and expanded This textbook covers the mathematics needed to model, analyze, and design feedback systems. Now more user-friendly than ever, this revised and expanded edition of Feedback Systems is a one-volume resource for students and researchers in mathematics and engineering. It has applications across a range of disciplines that utilize feedback in physical, biological, information, and economic systems. Karl Åström and Richard Murray use techniques from physics, computer science, and operations research to introduce control-oriented modeling. They begin with state space tools for analysis and design, including stability of solutions, Lyapunov functions, reachability, state feedback observability, and estimators. The matrix exponential plays a central role in the analysis of linear control systems, allowing a concise development of many of the key concepts for this class of models. Åström and Murray then develop and explain tools in the frequency domain, including transfer functions, Nyquist analysis, PID control, frequency domain design, and robustness. Features a new chapter on design principles and tools, illustrating the types of problems that can be solved using feedback Includes a new chapter on fundamental limits and new material on the Routh-Hurwitz criterion and root locus plots Provides exercises at the end of every chapter Comes with an electronic solutions manual An ideal textbook for undergraduate and graduate students Indispensable for researchers seeking a self-contained resource on control theory

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