

The Future of Integrated Information and z/OS Documentation

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Abstract

The way that IBM develops, delivers and distributes documentation is changing.

BookManager is no longer strategic and it is gradually being phased out. IBM's corporate strategy of authoring in DITA XML and delivering information via Information Centers is impacting how you receive and integrate documentation.

IBM is investing in new interfaces to improve productivity and modernize the mainframe. This provides us with the opportunity to eliminate thousands of pages of traditional documentation. But what if something goes wrong -- will you have the information you need? Help us decide what can and cannot be eliminated. How will you ensure that you have access to the information you need in a critical situation or for disaster recovery. Brainstorm with your colleagues so you can have the information you need when you need it. This interactive session will be especially helpful to people who manage intranet repositories of documentation. What are your information management needs? With social networking on the rise, are there new ways that you would like to communicate with IBM and others in the z/OS community? The session will be a great opportunity to hear, share and be heard.

In exchange for completing a survey, attendees will receive a copy of IBM's latest softcopy collection kit.



Agenda

- z/OS ® V1R12 Product Documentation Library Update
 Changes for V1R12 and R11

 - Softcopy Collection Update
 - Hot Topics Update
 - z/OS Product Documentation Surveys Results
- z/OS Documentation tools and technology update
 - Recap: Information Strategy
 - Using z/OS V1R12 Information Center
 - Managing the transition to Information centers with IBM Library Server
- Tools for simplification
 - z/OSMF
 - Management Simplification Strategy
- Tools and resources System z Education
 Update on the IBM Academic Initiative

 - z/OS basic skills information center
 - Tools for new application developers
 - zNextGen
- Fun Stuff Mainframes in Second life
- Misc Tips and tools for finding Information
- Appendix



What's New in z/OS Product Documentation





z/OS V1R12 Product Documentation Changes

New books

- A new book has been added to support the new product, IBM z/OS Management Facility: IBM z/OS Management Facility Configuration Guide (SA38-0652).
- Another book is recommended in conjunction with support for IBM z/OSMF: IBM WebSphere Application Server OEM Edition for z/OS Configuration Guide, GA38-0631).
- A new book has been added to the IBM Tivoli Directory Server library: *IBM Tivoli Directory Server Messages and Codes for z/OS (SA23-2262)*.

Changed Information

> z/OS Support for Unicode: Using Unicode Services has been re-titled to z/OS Unicode Services User's Guide and Reference.

Recap: z/OS V1R11 Product Documentation Changes

New books

- A new book has been added to the Communications Server library: z/OS V1R11 Communications Server: SNA ACF/TAP Trace Analysis Handbook (GC23-8588)
- A new book has been added to the Open Systems Adapter library: System z9 and eServer zSeries Open Systems Adapter-Express Integrated Controller 3215 Support (SA23-2247)

Changed information

- DFSMSdss Storage Administration Guide has been re-titled to DFSMSdss Storage Administration
- DFSMShsm Storage Administration Guide has been re-titled to DFSMShsm Storage Administration
- DFSMS Storage Administration Reference has been re-titled to DFSMSdfp Storage Administration Additionally, some information from this book has been moved:
 - DFSMSdss section (Part 2) is moved into DFSMSdss Storage Administration
 - DFSMShsm section (Part 3) is moved into DFSMShsm Storage Administration
 - DFSMSdfp section (Part 1) remains in the current book, DFSMSdfp Storage Administration



Removals

- C/C++ Legacy Class Libraries Reference (SC09-7652)
- IBM Open Class Library Transition Guide (SC09-4948)
- z/OS Integrated Security Services LDAP Client Programming (SC24-5924)
- z/OS Integrated Security Services LDAP Server Administration and Use (SC24-5923)

IBM z/OS Softcopy Collections

- Used:
 - As the basis for our Internet Library
 - To populate local repositories
 - For standalone access, and emergencies
- Distributed with
 - IBM Softcopy Reader
 - IBM Softcopy Librarian
- The DVD simplifies softcopy management as users switch levels of the system, they simply switch DVDs (i.e. z/OS V1R11)
- SoftCopy Librarian is used to update local repositories directly from Boulder
- Now contain Indexed PDFs (PDFs with the power of BookManager search)





Softcopy Collection Update

Availability and refresh schedule



z/OS Release	Latest update available
z/OS Release 11	September 25, 2009
CD, DVD and Internet Library	Refresh April 2, 2010
z/OS Release 10	September 26, 2008
CD, DVD and Internet Library	Refresh April 3, 2009
z/OS Release 9	September 28, 2007
CD, DVD and Internet Library	Refresh April 4, 2008

Starting with z/OS Release 6, annual product release cycle - at least one softcopy refresh, typically 6 months after GA.



Softcopy Update: Priced z/OS documentation features

The following priced features are *subscriptions* and include automatic shipment of collection

updates while z/OS V1 is orderable.

Order feature by collection title

z/OS V1Rx & Software Products DVD Collection (SK3T-4271)

- •Includes a single release of z/OS plus related z/OS software product libraries.
- •Includes both PDF and BookManager formats, when available.
- ■BookManager and PDF formats ship on separate DVDs in the collection.
- Includes selected IBM Redbooks, in PDF format, related to z/OS and other System z products.
- •Includes the contents of the zFavorites for zSeries..
- Requires a DVD drive that can read disks in DVD-9 (single-sided, dual layer format).

IBM eServer Redbooks (SK3T-7876)





z/OS Hot Topics Newsletter

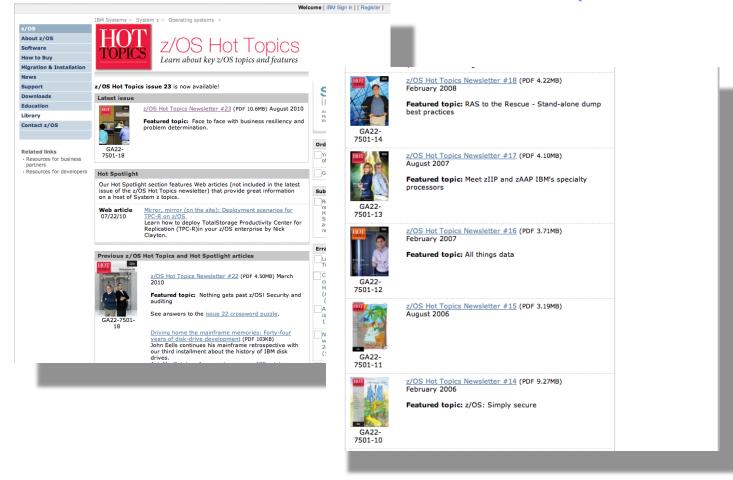
- Easy-to-use, hands-on, technical information not often found in standard z/OS product references.
- Articles by z/OS designers, testers, developers and service.
- Emphasis on presenting technical information in a lively, informal manner.
- Published semi-annually to coincide with the SHARE user conference.







Hundreds of articles online at the Hot Topics website



http://www.ibm.com/systems/z/os/zos/bkserv/hot_topics.html





Your feedback is important to us

- Do you have a favorite z/OS function or product that you want to learn more about?
- Have you found any recent articles to be especially helpful?
- Would you like to see more articles about System z hardware, such as specialty engines and storage devices?
- Are there other themes that you'd like us to devote an issue to?

Drop us a line and let us know at newsletr@us.ibm.com

(the e-mail address is posted inside the front cover of every issue)



z/OS Basic Skills Information Center Update





Resources for people on the job

- Customers told us they needed help with people they have in their enterprise today
 - Lack of introductory material on z/OS and the mainframe
 - New hires do not have z/OS or mainframe skills
 - Retraining people for retiring main framers is difficult because there is little self-study material available.
- Your Requirements
 - Provide basic foundations for z/OS and Mainframe
 - Provide materials that allow people to learn on the job
 - Must be free!
- Our Solution:
 - z/OS basic skills information center







z/OS basic skills information center

- Provides introductory information:
 - -z/OS Basics
 - -Application Development Basics
 - -Systems Programmer Basics
 - -Networking Basics
 - -Security Basics
 - -Reusable JCL Samples (New)
 - -Currently working on
 - Software maintenance
 - Expanding Security Basics
- Interactive tutorials for JCL and ISPF





Now Available in 2010

- New enhanced information on DB2 and IMS
- New revised section on z/OS Networking

http://publib.boulder.ibm.com/infocenter/zos/basics/index.jsp



Other Self Study Resources

Reusable JCL samples with instructions for modifying each for reuse



Starter set of samples in the information center includes:

- Creating a data set
- Copying a data set to tape
- Copying a partitioned data set
- Copying a load module
- Deleting a data set

The "New Mainframe" Textbooks

- 1. <u>Introduction to the New Mainframe: Large-Scale Commercial Computing</u>, SG24-7175-00
- 2. Introduction to the New Mainframe: Networking, SG24-6772-00
- 3. Introduction to the New Mainframe: z/VSE Basics, SG24-7436-00
- 4. Introduction to the New Mainframe: z/OS Basics, SG24-6366-0
- 5. Introduction to the New Mainframe: Security, SG24-6776-00
- 6. Introduction to the New Mainframe: z/VM Basics, SG24-7316-00



z/OS Documentation tools and technology update



z/OS Product Documentation Strategy Summary

Today

- Authoring
 - -SGML (IBMIDDOC)
 - -Books and book metaphor
- Information Formats
 - BookManager, PDF, IndexedPDFs, HTML via LibraryServer
- Distribution
 - -Internet
 - -CD Collections
 - –DVD Collections

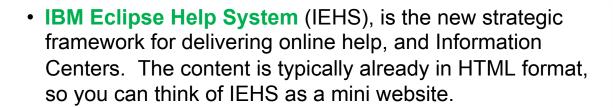
Tomorrow

- Authoring
 - -XML (DITA Open)
 - -Articles and web metaphor
- Information Formats
 - Eclipse-based Information Centers, RSS, PDFs, Indexed PDFs
- Distribution
 - -Internet
 - -DVD

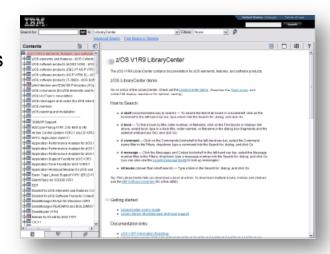


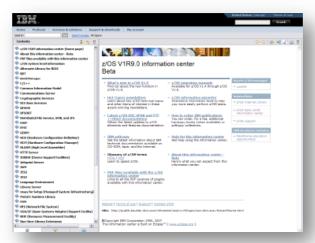
Review of Terminology

- IBM Library Server, formerly known as IBM BookServer ships with z/OS and is used to convert BookManager books on the fly to HTML to serve on the internet. It also serves PDF.
 - · Library Centers: are repositories created using Library Server.
 - Example: z/OS V1R9 Library Center (http://publibz.boulder.ibm.com/bookmgr OS390/libraryserver/zosv1r9/)



- Information Centers: are repositories created using IEHS.
- Example: z/OS V1R9 Information Center Beta
- (http://publib.boulder.ibm.com/Information Centers/zos/v1r9/index.jsp)







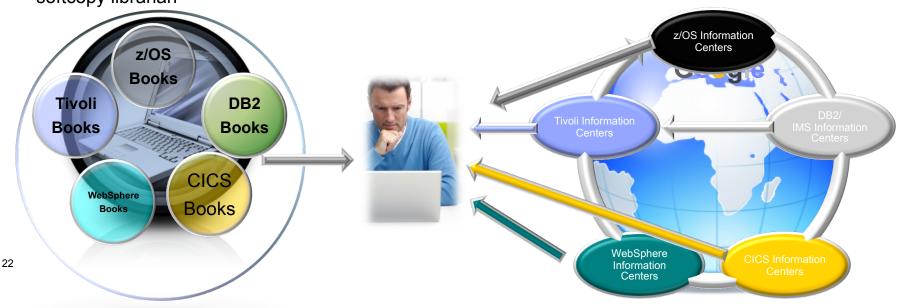
Library Center and Information Centers Compared

IBM Library Centers (BookManager-based)

- One repository has multiple products
- Not indexed by Google and others
- Within the repository, BookManager search is used.
- Library Center repositories can be updated using IBM's softcopy librarian

IBM Information Centers (Eclipse-based)

- Usually one repository per product
- Can be indexed by Google and others
- Within the repository, Lucene search is used
- Eclipse based repositories have a built in update function





The z/OS Documentation Team's Transition

- We plan to maintain traditional deliverables until the new strategy is adopted
 - Continue to produce BookManager and PDF during the transition
 - Deliver via new Eclipse-based help system framework on the web and DVD
 - Leverage Library Server to help in the transition
- In 2009, we will provided a production level information center
- In 2010, we will provide new update function for our information centers
 - Authoring:
 - Gradual migration of active from books to topic-based information to DITA
 - Distribution:
 - Publish content in Information Centers
 - Distribute DVDs of Information Centers for local install
 - Continue to distribute DVD and CDs (if need) for standalone access





Tools to Make Your Own Documentation

- IBM authors content in DITA and uses a variation of the Eclipse help system for publishing on the web and for stand-alone installation
- Both DITA and Eclipse are open and freely available
- To get started you'll need:
 - The DITA Open Toolkit which is a set of Java-based, open source tools that provide processing for DITA maps and topic content. You can download the OT and install it for free on your computer to get started with topic-based writing and publishing.
 - A XML editor that supports DITA (it is possible to create DITA documents with a flat text editor, but not recommended.)
 - The Eclipse Help System framework available on z/OS DVDs



Information Centers are IBM's Strategy to Provide Product Documentation

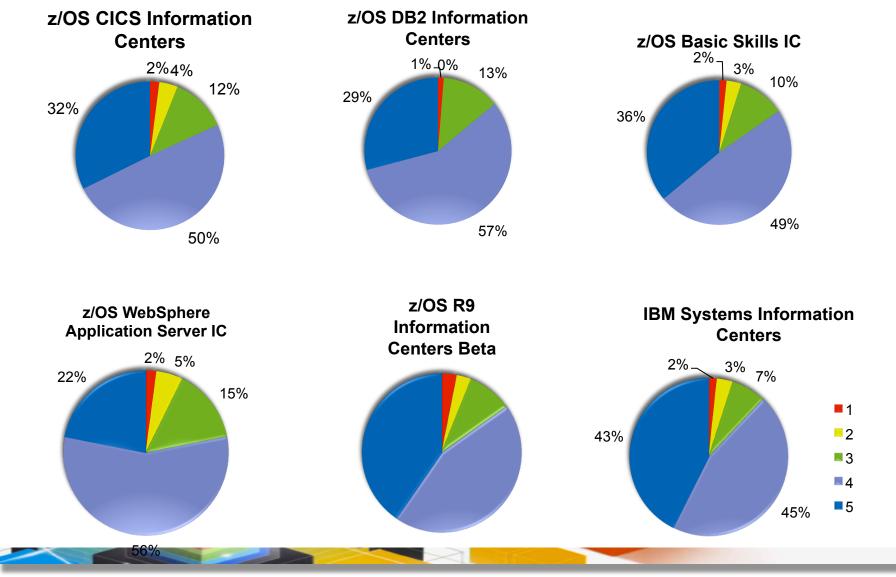
Key Advantages - Information Centers are:

- ✓ Are Internet friendly (easily indexed by Google and other search engines)
- ✓ Are non-proprietary (HTML and XML) makes it easier for ISV integration
- √ Have extensible function due to plug-in architecture
- ✓ Can take advantage of ever evolving internet technologies:
 - √ The Semantic Web
 - √ Collaboration
 - ✓ Web 2.0 and so on
- ✓ Can easily incorporate interactive elements such as, wizards, calculators, dynamic tables, and multimedia
- ✓ Modular, article-based information rather than books will make it easier to create solution-oriented information
- ✓ Easier and faster updates to improve content quality and correct errors
 - ✓ Higher customer sat
 - ✓ Lower incidence of outages due to doc APARs
 - ✓ Might lead to lower service costs
- ✓ Internally, they are useful for Agile development projects, because they can provide be rebuild weekly or in some cases, even daily to provide all teams with the most current information.





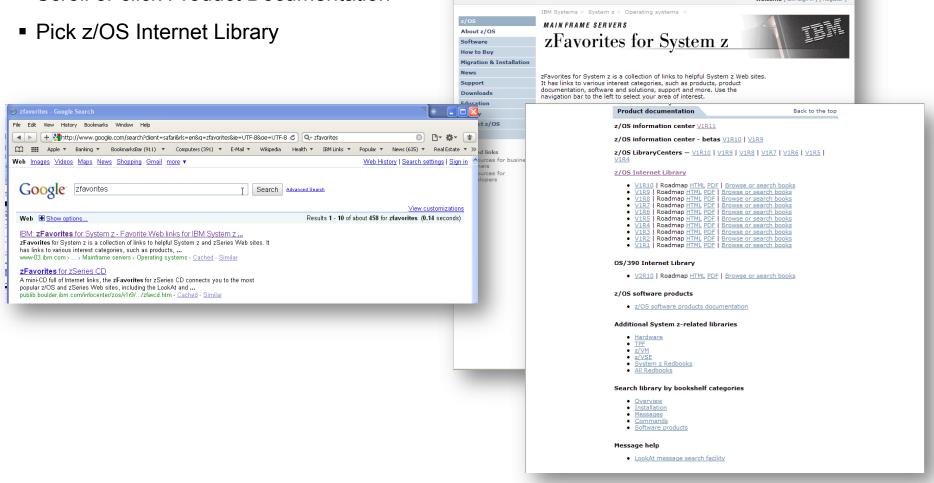
Information Center Acceptance





Finding z/OS Information Online Start with zFavorites

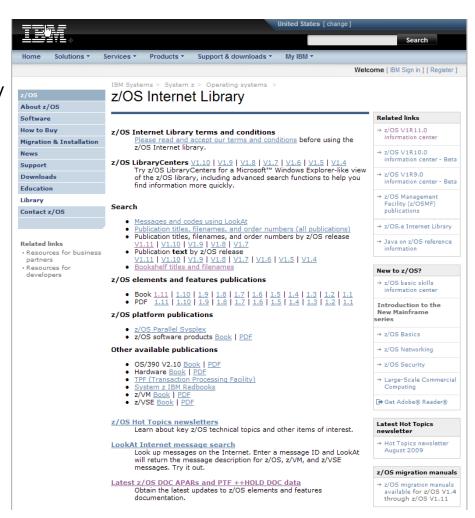
- Google "zFavorites" and pick the top hit
- Scroll or click Product Documentation





Searching the z/OS Internet Library

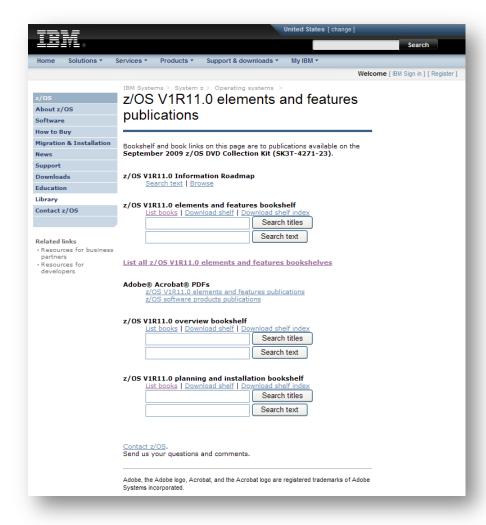
- The z/OS Internet Library features both Information Centers and Library Centers. The Information centers are eclipse based, the Library Centers are driven by IBM's Library Server
- Currently, Information Centers have content on just the base or typically a single product.
- Library Centers have both the base and software products
- Google does a great job pulling the content together today, but we are working on ways to broaden and customize the content for our customers.





BookManager Shelves

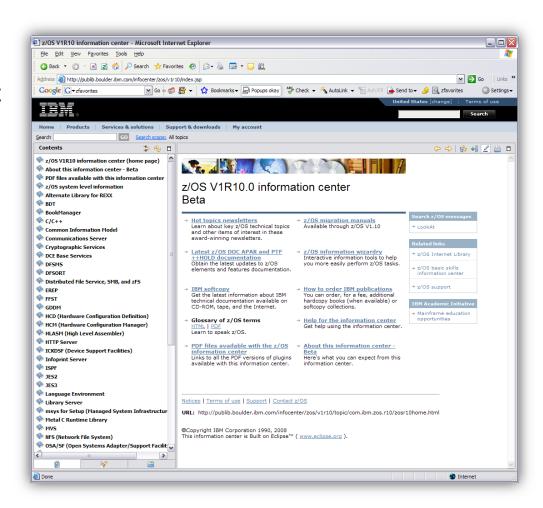
- The internet library is based on our collection kits. There are 45 + bookshelves to help you narrow your search. There are task oriented shelves such as installation and migration.
- The library is also filtered by z/OS release, so you can pick the release or releases you're running.
- There are specialized searches for messages using our LookAT message lookup facility.
- There is a special shelf for APARS or both z/OS and OS/390
- If you know the title or form number of your book, you can use it to go directly to the book.





Using Information Centers for Search

- Much like the BookManager based Library Centers, all content is arranged by element or feature
 - Done to help users who are familiar with the z/OS library
 - Also helps chunk the library for faster search and retrieval.
- Each "plug-in" includes all the information for that element arranged by their corresponding book titles.





Discussion Question: Are scoped searches needed?

BookManager

- Shelves are used to provide filtered searches
- There are shelves by
 - -Element and feature
 - -Tasks
 - Planning
 - Installation
 - Diagnosis
 - -Reference
 - -What shelves are used?

Information Centers

- Search scopes help narrow search
- Inherent by architecture are the elements and feature scopes
- Currently there are no other specialized scopes
- Are search scopes needed?
- If so what ones are critical?



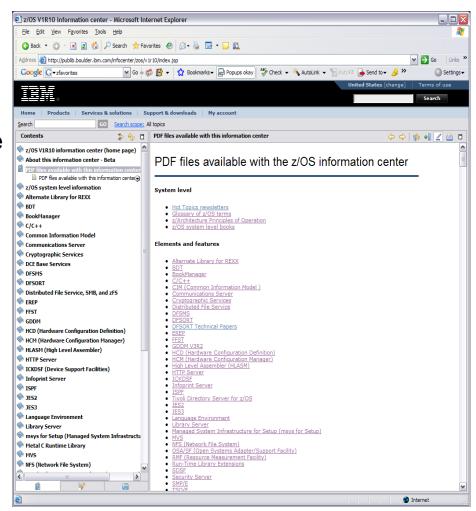
Information Roadmap to Documentation and Information Centers for System z

Product	URL
All Products	http://www.ibm.com/support/publications/us/library/
CICS Server	http://publib.boulder.ibm.com/infocenter/cicsts/v4r1/index.jsp
CICS Gateway	http://publib.boulder.ibm.com/infocenter/cicstgzo/v7r2/index.jsp
DB2 / IMS	http://publib.boulder.ibm.com/infocenter/dzichelp/v2r2/index.jsp
Lotus	http://www-01.ibm.com/software/lotus/support/information-centers/
Rational Developer	http://www-01.ibm.com/software/awdtools/rdz/library/index.html
Tivoli (Index)	http://www.ibm.com/developerworks/wikis/display/tivolidoccentral/Home
Lotus Notes	http://www.ibm.com/developerworks/lotus/documentation/notes/?S_TACT=105AGX13&S_CMP=LP
WebSphere	http://www-01.ibm.com/software/webservers/appserv/was/library/v70/was-zos/
z/OS V1R11	http://publib.boulder.ibm.com/infocenter/zos/v1r11/index.jsp
z/OS Internet Library	http://www-03.ibm.com/systems/z/os/zos/bkserv/
z/VM	http://publib.boulder.ibm.com/infocenter/zvm/v5r4/index.jsp



All z/OS Information Centers include indexed PDFs

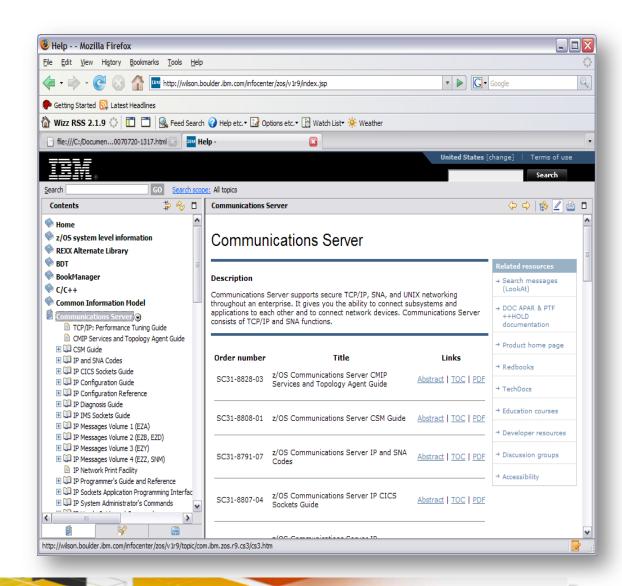
- All information centers have a listing of all PDFs for all the books
- All PDFs are indexed and searchable using the IBM Advance Linguistic Search
- See the BookManager site for more information on this





Element/Shelf Level View

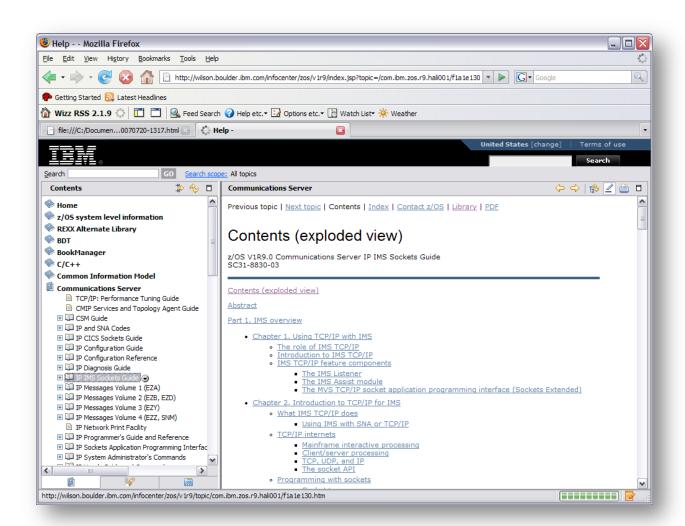
- Each "information plug-in" is architected to be like the BookManager bookshelf and it contains all the documentation for that element.
- Each element page has a welcome page listing:
 - A description
 - A list of all the publications and each publication has a link to
 - An Abstract
 - Book table of contents
 - A link to the corresponding PDF to make it easy to download.





Navigating the Plug-ins

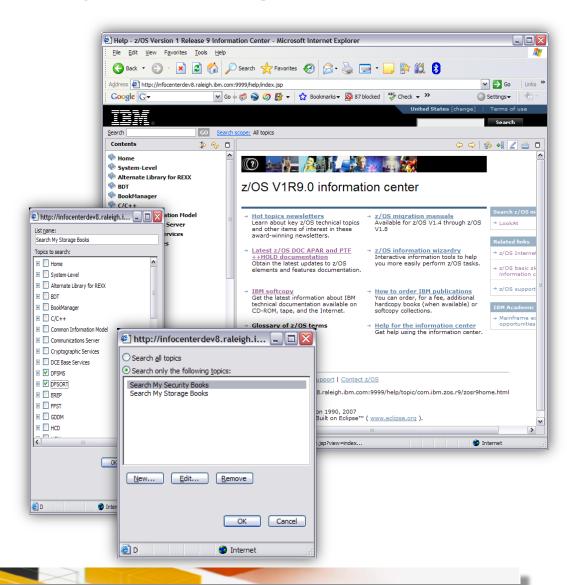
- Navigation provided along the top
- The contents pane is automatic synchronized with the table of contents pane so you always know where you are.
- Ability to download corresponding PDF from the top of each page
- Page URL clearly displayed at the bottom of each page makes it easy to book mark or e-mail the exact location in the Information Center





Re-usable search scopes to help you find things faster

- You can think of search scopes as your own personal bookshelves. They are collections of plug-ins that can be composed of individual books or whole libraries of books.
- Search scopes are easily created and you can easily modify them.

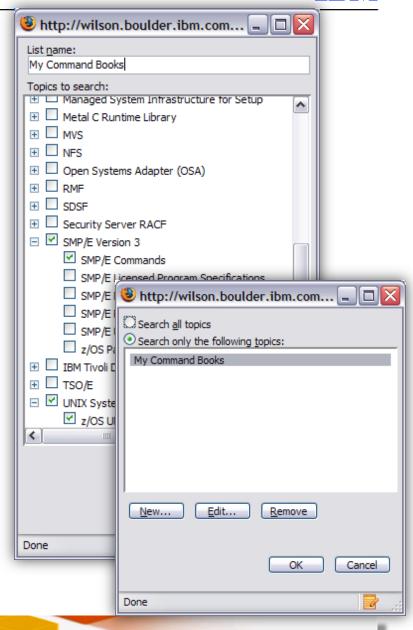


IEW

Create re-usable search scopes

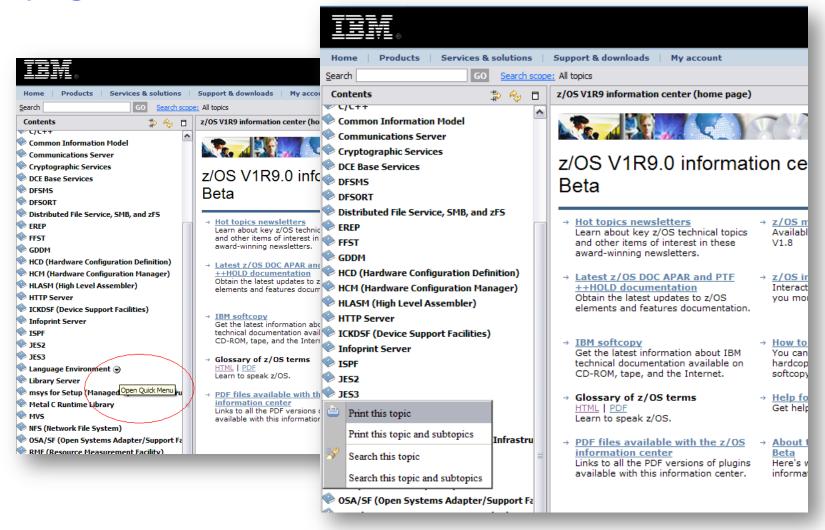
These can be created on the fly and saved for future use. They are similar to BookManager bookshelf searches.

- 1. Click on search scope
- 2. Click on "new"
- 3. Name your search to make it easy to remember "My Command Books"
- 4. Use the check boxes to select the plug-ins/shelves. Or click on the plus signs to drill down to individual books.
- 5. Click OK when to close the selection box.
- Click OK again to return to the Information center and notice that beside search scope it now the name of the search scope you defined (My Commands)
- 7. Enter your search term in the search dialog and click go.





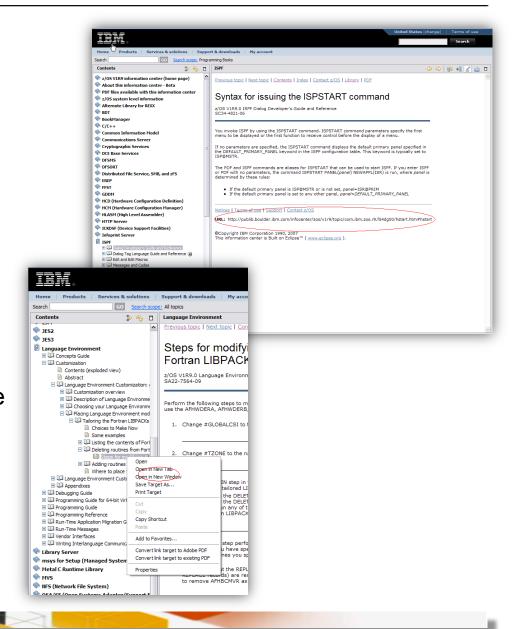
Use the quick menus to search or review and print just one plug-in





Send a colleague a bookmark

- In the z/OS V1R9 Information Center, all pages have the URL listed at the bottom of the page so you can easily cut and paste it to send it to a colleague
- Not all Information Centers have this feature, so in general you can use the quick menu to open the topic in another browser window and then capture the URL from the browser dialog.





Setting Up Your Own Information Center based Repository

- Many z/OS Products offer Information
 Centers on DVD or CD for local installation
- As we transition from BookManager to Information Centers, you can use library server



Our Documentation Surveys

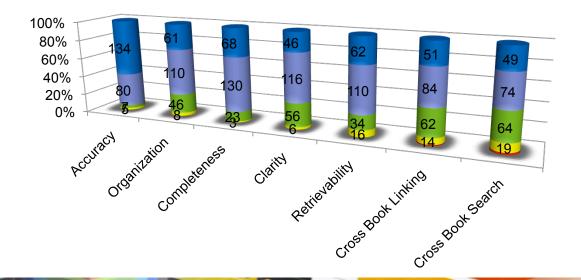




About our z/OS Documentation Surveys

- The surveys are distributed twice a year at SHARE. Typically we collect 250 to 300 surveys
- We use them to:
 - Track the quality and get feedback on our current information deliverables
 - Help us direct our documentation strategy to serve you best
 - Gather requirements for future deliverables

Rate z/OS Documentation on the following qualities



On a scale of 1-5
where:

1
2 = Very Dissatisfied
3
4
5 = Very Satisfied

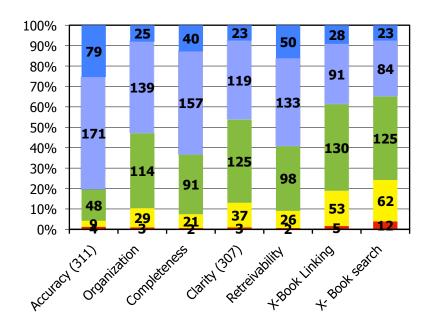


Our Scorecard

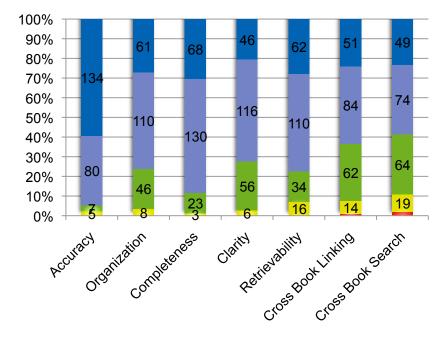
- An example of how we track our quality.
- These charts show how our customer satisfaction has improved over time.

On a scale of 1-5 where:

- 1 = Very Dissatisfied
- 2
- **3**
- **4**
- 5 = Very Satisfied





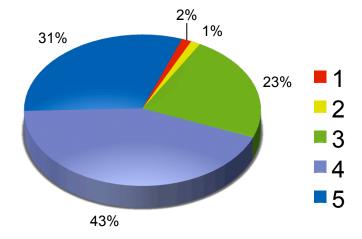


2009 Survey Data



Rate your satisfaction with BookManager's PDF search

- For a long time, customers requested a PDF search that was as robust as BookManager, so two years ago, we introduced IBM Advanced Linguistic Search for PDF, which uses BookManager indexing to improve PDF search.
- It takes time for customers to discover new offerings. (It was 5 years before LookAt was well known).
- PDF search is extra effort for ID shops and we wanted to know if it was worth the effort in continuing to produce indexed PDFs.
- This chart shows that PDF search is an overwhelming success and so we will continue to deliver it.





Listening to the customer

A sample of the improvements made over time as a result of SHARE feedback

z/OS Customer Requirements	Deliverables
Help me manage softcopy documentation	Softcopy librarian and DVD collections XKS support to manage PDFs
Give me access to information on the go.	Hand-held support for Library Server
Make it easy to find message information	LookAt and LookAt mobile
Faster access to command information	Command filtering in library centers
Provide a BookManager like search for PDF	The IBM Advanced Linguistic Search for PDF and z/OS base indexed PDFs
Provide a central repository for all z/OS information I want to Google z/OS information	z/OS Library Centers contain base, plus software products information
	We delivered the z/OS Information Centers indexable by Google
Free education materials for the newbie	z/OS Basic Skills Information Centers



Improvements in plan for 2010

Requirement

Improve information currency

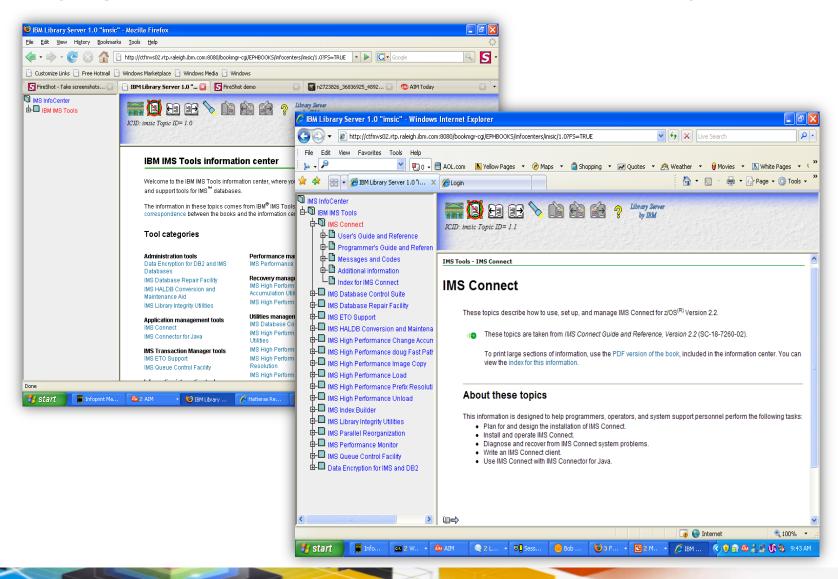
- Provide free education materials for people new to z/OS
- Enable large systems thinking at universities
- Improve search

Deliverables

- Optimize for Information Center delivery to improve information currency
- Continuing investment and growing z/ OS Basic Skills IC
- Continuing investment in the Academic Skills Initiative
- Provide personal shelf function and standard search scopes



Displaying the IMS Information Center in the Library Center





z/OS and System z Platform simplification





Today's Mainframe a New Dimension in Computing

■ The mainframe is designed to deliver

- A highly available and security-rich base for integrating applications
- Resources optimized to meet business priorities
- Scalability for data and transaction growth
- Robust and resilient networking
- Business resiliency

With new directions

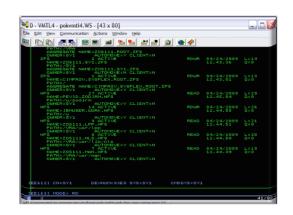
- Enhancing and extending capabilities to
- Simplifying z/OS® management
- Expanding the ecosystem





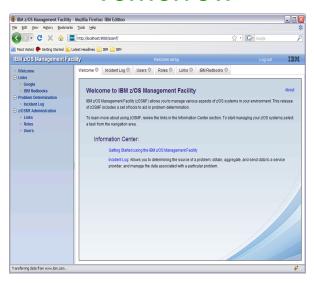
Simplification makes it easier

Today





Tomorrow



Expert-friendly, long learning curve for people new to platform

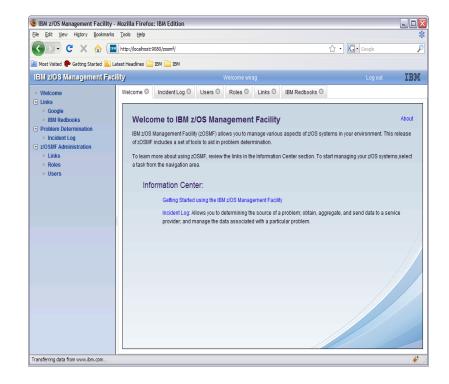
- Multiple, inconsistent UIs no central system management portal
- Many interfaces foreign to those new to platform
- Manual tasks requiring extensive documentation
- Years of z/OS experience

- √ Central z/OS management portal
- ✓ Simplified, automated task-oriented mgmt interface, with integrated user assistance
- ✓ Modern look & feel; more familiar to those new to platform
- √ Focus on customer goals
- ✓ Optional for those who prefer traditional interfaces
- ✓ Months of training



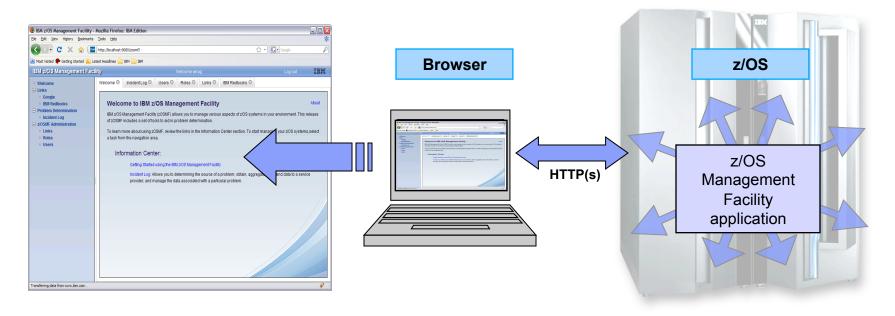
IBM z/OS Management Facility

- The IBM z/OS Management Facility helps system programmers to more easily manage and administer a mainframe system.
- More than a graphical user interface or an 'installation shield', the z/OS Management Facility is more:
 - Automated tasks can help reduce the learning curve and improve productivity.
 - Embedded active user assistance (such as wizards) guides you through tasks and helps provide simplified operations.





IBM z/OS Management Facility Manages z/OS from z/OS



z/OS Management Facility is an application on z/OS

- Browser communicates with z/OSMF via secure connection, anywhere, anytime
- Uses industry standards, such as Java, DOJO, and CIM
- Parts of z/OS Management Facility, such as the Incident log capability (R11) and WLM Policy Editor (R12), use Java and CIM (eligible for zAAP and zIIP)



IBM z/OS Management Facility Welcome page



Configuration category

- Configuration Assistant for z/OS Communication Server application
- Simplified configuration and setup of TCP/IP policy-based networking functions

Links category

- Links to resources provides common launch point for accessing resources beyond z/OSMF
- •Planned for R12* the ability to add links anywhere on the nav bar.

Performance category (R12)*

- Workload Manager Policy Editor application
- Facilitate the creation and editing of WLM service definitions, installation of WLM service definitions, and activation of WLM service policies

Problem Determination category

- Incident Log application
- •The Incident Log provides a consolidated list of SVC Dump related problems, along with details and diagnostic data captured with each incident. It also facilitates sending the data for further diagnostics.

z/OSMF Administration category

• z/OSMF authorization services for administrator: add users, define roles, dynamically add links to non-z/OSMF resources.



Simplifying mainframe management – today!

System health and monitoring:

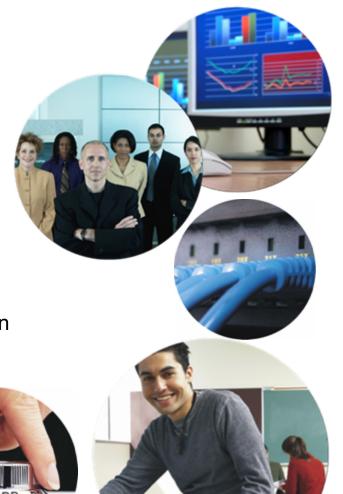
- Modern monitoring console
- Automatic health checking

Installation, configuration, and maintenance:

- On-line ordering and inventory management
- Automated on-line service acquisition
- Shortened release to release migrations
- Single view of enterprise devices
- Consistent user experience with hardware configuration

Other simplification management:

- Workload management
- Network management
- Security management





Discussion:

- IBM is working to simplify not only z/OS, but IT itself as evidenced by the new zEnterprise. In this new age what information will you need?
- What information or type of information do need at hand?
- Do you envision this ever going away?



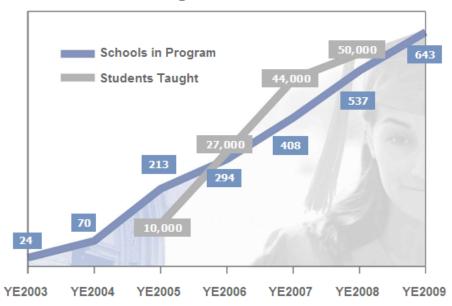
IBM Academic Initiative, System z update





Building mainframe skills for the community

Growing Academic Initiative





- IBM Academic Initiative, IBM System z <u>ibm.com/university/systemz</u>
 - −643 Participating Schools − >50,000 students attended mainframe education



IBM Academic Initiative at a Glance

- ✓ Course materials and textbooks
- √ Remote Mainframe access
- ✓ Curriculum assistance (Examples of majors, concentrations, and certificate programs)
- ✓ Faculty Seminars and Workshops
- √ Roundtable events
- ✓ Entry level for z/OS System Programmer Mastery Test
- √ Student Opportunity System
- ✓ Student mainframe contests

 Membership in the IBM Academic Initiative is free and open to individual faculty members.

Apply at <u>ibm.com/university/</u> academicinitiative

- Worldwide program
- Supports many IBM Brands and technologies
- Encourages open standards, open source
- Provides easy access to hardware, software, courses, textbooks, and resources





Fundamental to the program is...

... Flexibility

- Participation continues to increase
- WW demographics
 - 45% North America
 - 24% Europe, Middle East, and Africa
 - 16% Latin America
 - 15% Asia/Pacific
- Wide variety of schools in the program
 - Different level of participation
- All programs are unique
 - Designed to provide flexibility to the school to meet their requirements and capabilities





IBM System z courses

Mainframe courses available:

Foundational principles

- Intro to the Mainframe: z/OS Basics*
 Intro to the Mainframe: Networking*
- •Intro to the Mainframe: Security*
- •Intro to the Mainframe: Large Scale

Commercial Computing

Operating systems

- ·Linux on System z
- Introduction to z/VM®
- Introduction to z/VSE Basics
- •UNIX® System Services (Module)

User interfaces

•ISPF: z/OS Basic Interfaces

Storage management

VSAM

Programming languages

- Assembler
- •COBOL
- JCL

Other

- z/OS Advanced Topics*
- •z/OS Emerging Technologies*
- z/OS Installation

<u>Tivoli security, systems, network, and storage</u> <u>management courses</u>

- •IBM Tivoli License Compliance Manager for z/OS 4.2 Implementation
- •IBM Tivoli System Automation for z/OS 3.1 Introduction and Operations
- •IBM Tivoli System Automation for z/OS 3.1 Implementation and Administration
- •IBM Tivoli Workload Scheduler 8.2 for zOS Scheduler's Workshop

Information, data and transaction management

- •Enterprise Server Data Management
- •DB2 for z/OS Fundamentals
- DB2 Family Fundamentals (Cross product)
- •DB2 SQL Workshop (Cross product)
- •DB2 for z/OS Database Admin Workshop, Part 1
- •DB2 for z/OS Database Admin Workshop, Part 2
- •DB2 Programming Workshop for z/OS
- •DB2 for z/OS Application Development
- •DB2 for z/OS Query Optimization and Performance Tuning
- Intro to IMS*
- •An Introduction to IMS (Textbook reference)
- Transaction Management

Application development

- •WebSphere Application Server for z/OS
- •Intro to IBM WebSphere Developer for z (Web based)
- WebSphere MQ for z/OS System Administration
- •Developing COBOL with IBM Rational Developer for System z

Diagnosis

•z/OS RAS and Diagnostics*

eLearning resources:

- •Interactive e-Learning Module: z/OS Basics
- •Flash Demo: Introduction to Rational Developer for System z
- •Develop a batch DB2 for z/OS COBOL application using RDz
- •Developing and debugging a COBOL DB2 application
- •Editing record-oriented programs with the System z LPEX editor
- •Learn about your future in Large Systems
- ·Careers in Mainframes

^{*}available in audio version



Student Mainframe Contests: Generating student interest

- Five years, 15 countries and spreading worldwide
 - No experience necessary
 - Three levels of challenges
 Prizes: T- shirts, iPods, Laptops, XBox360, Wii,
 Sony PSP, Nintendo DS, HDTVs, trips
- 2009 U.S./Canada contest
 - 3,000 students from 425 schools
 - 300% increase in registration since 2005
- Contests in 2009
 - Australia
 - Russia
 - US and Canada
 - United Kingdom
 - Taiwan
 - Brazil

a Chan	npigns train, hore
1	Harris Valley Fre
2	Ocoee High School 008 IBM Master the Mainframe Contest Part 1 winners

ibm.com/university/contest

Location	Contest s	Studen ts	Schools
Brazil	2007 2008 2009	2011 3287 2008	390 400 390
BeNeLux	2007	76	9
Nordics	2007	147	11
Thailand	2007	960	40
UK	2006 2007 2008 2009	725 676 876 1132	40 59 64 70
North America	2005 2006 2007 2008 2009	750 1085 1750 1879 3000	85 177 325 325 425
Australia	2008 2009	450 315	31 29
Taiwan	2009	560	44
Russia	2009	269	41
Totals	15	21,956	2,955



Important Web sites and contacts

- System z Community
 - **▶** <u>ibm.com/systems/z/about/charter/community.html</u>
- Academic Initiative for the Mainframe
 - **▶** <u>ibm.com/university/systemz</u>
- z/OS Entry Level Mastery Exam & DB
 - **▶** <u>ibm.com/certify/mastery_tests/ovrZ01.shtml</u>
- zNextGen
 - znextgen.org
- IBM Student Opportunity System Connecting Students with jobs

www.ibm.com/university/sos

Program Manager,
Academic Initiative for the Mainframe:
Kathy Pfeiffer, pfeiff@us.ibm.com
Jennifer Ash, jrash@us.ibm.com

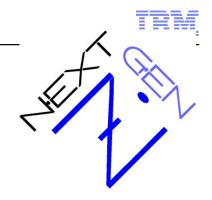




zNextGen

- SHARE's community for new mainframe professionals.
- Mission:
- To serve as the gateway for newcomers, to leverage the experience of mainframe veterans and to expedite their professional development in this crucial segment of the IT workforce.
- zNextGen is geared especially around the needs of two professional segments:
 - Students just embarking on their careers in enterprise technology
 - Established IT professionals expanding their responsibilities to include support and administration of mainframe systems
- Why zNextGen?
- To give new mainframers a forum for networking
- To enhance the experience of newer SHARE attendees
- To provide feedback to SHARE about existing and potential technical sessions
- To attract new users to SHARE

zNextGen Activities



- What's happening in Boston?
- http://www.share.org/Volunteers/ProgramsandProjects/MVSProgram/ zNextGenProject/tabid/486/Default.aspx
- Contacts
 - Kristine Harper, Project Manager Kristine. Harper@neonesoft.com
 - Iris Rivera, Lead IBM Representative irivera@us.ibm.com
- Where can I find more information?
- http://www.share.org/Volunteer Center/programs/zNextGen.cfm



18 Information Tools and Tips for z/OS Systems Programmers

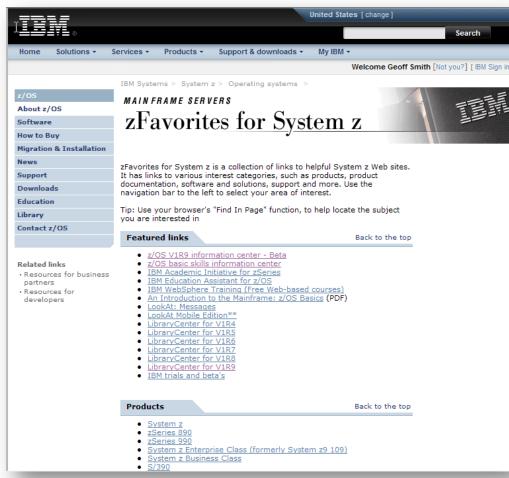






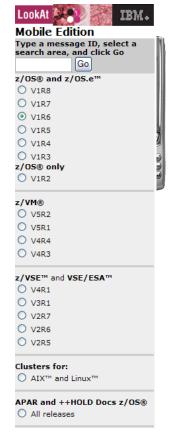
Tip 1. Wherever you are, GOOGLE "zFavorites" to take you to all things Z

- zFavorites isn't just available as a mini CD.
- It's available on the web too.
- zFavorites was designed to be a consolidated index of all things "z"
- There are links to documentation, product information, education, service and many more...
- Just enter "zfavorites" on GOOGLE and take the first hit to bring you to the online version of zFavorites for System z





Tip 2. Use LookAt Mobile Edition to look up z/OS message explanations on your PDA





http://www-03.ibm.com/servers/eserver/zseries/zos/bkserv/lookat





Tip 3. Use Library Server's handheld support to search and view all z/OS information on your iPhone or PDA with browser.

- 1. Simply pick the releases of z/OS you're interested in.
- 2. Cut and paste the link into an e-mail to yourself
- 3. Open the e-mail and the link on your PDA and bookmark it

Once you have them, bookmark them for easy access to z/OS documentation on the go!



z/OS V1R11

http://publibz.boulder.ibm.com/cgi-bin/bookmgr_OS390/handheld/Connected/CASES/zosv1r11

z/OS V1R10

http://publibz.boulder.ibm.com/cgi-bin/bookmgr_OS390/handheld/Connected/CASES/zosv1r10

z/OS V1R9

http://publibz.boulder.ibm.com/cgi-bin/bookmgr OS390/handheld/Connected/CASES/zosv1r90





Tip 5. RSS for z/OS keeps you up-to-date



RSS

RSS or Really Simple Syndication, can help keep current on what's new.

1. Choose your tool:

Browsers: Firefox and Safari have

built in RSS capabilities

Mail clients: Outlook 2007, Notes 8

have built in RSS capabilities

Dedicated RSS clients:

FeedDemon 2.7 For Windows NetNewsWire 3.1 for Mac OS X Many others

2. Search for RSS feeds that interest you.

Some suggested feeds for System z:

IBM Redbooks

http://www.redbooks.ibm.com/rss.html



IBM Software Support

http://www.ibm.com/software/support/rss/other/852.xml?rss=s852&ca=rssother

WebSphere for z/OS

http://www.ibm.com/software/support/rss/websphere/ 404.xml?rss=s404&ca=rsswebsphere

DB2 for Z/OS Forum

http://www.ibm.com/developerworks/forums/rss/rssmessages.jspa?forumID=293

Rational Application Developer for z

http://www.ibm.com/developerworks/forums/rss/rssmessages.jspa?forumID=1131

DeveloperWorks for z

http://www.ibm.com/developerworks/blogs/rss/ systemzblogger?flavor=atomdw

Find more here:

http://www.rssmountain.com/directory_search.php?q=z/os&select_source=title&offset=20





Tip 6: Getting the Latest Product Documentation Information

z/OS and z/OS.e DOC APAR and PTF ++HOLD Documentation

- http://publibz.boulder.ibm.com/cgi-bin/bookmgr_OS390/Shelves/ZDOCAPAR
 - Updated <u>weekly</u> (with closures from prior week)
 - Incorporates DOC APARs and ++HOLD for documentation changes
 - You can searching for changes using IBM BookManager search

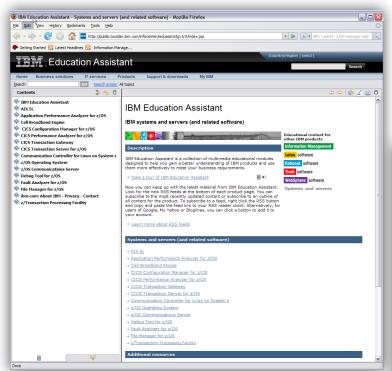






Tip 7: Get FREE education designed for the **experienced systems programmer** - direct from z/OS development via the **z/OS Education Assistant** Website

http://publib.boulder.ibm.com/Information Centers/ieduasst/stgv1r0/index.jsp



Get technical information quickly as little as 5 minutes of your time.

Many presentations in multimedia format to make it easy to get up to date on technical topics

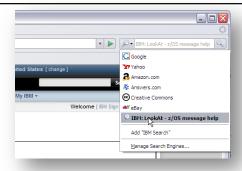




Tip 8. Add LookAt search to Firefox bar



First, install the Add to Search Bar plug-in for Firefox:



- 1. Open your Mozilla Firefox Web browser.
- 2. Copy the following Web address into your Firefox location bar: https://addons.mozilla.org/en-US/firefox/addon/3682.
- 3. Install the Add to Search Bar plugin by clicking Add to Firefox. In the confirmation window, click Install Now.
- 4. After the plug-in is installed, restart Firefox to make the plug-in available.

Next, add the LookAt Web site to your Firefox search bar:

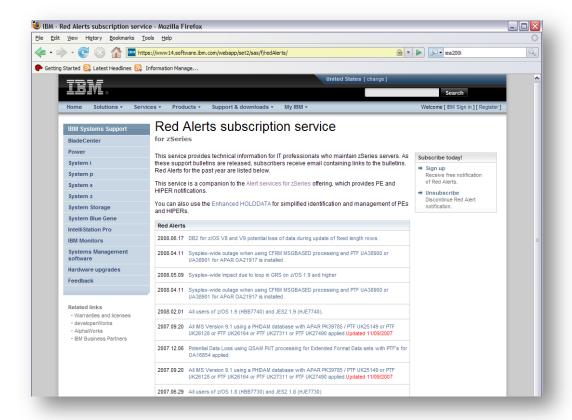
- 1. Go to the LookAt Web page: ibm.com/systems/z/os/zos/bkserv/lookat/.
- Right-click in the Message ID input box.
- 3. From the list of options, select Add to Search Bar.
- 4. In the confirmation window, click OK to make LookAt active on your Firefox search bar
- 5. Give it a try.





Tip 9. Subscribe and receive FREE notifications of Red Alerts

https://www14.software.ibm.com/webapp/set2/sas/f/redAlerts/

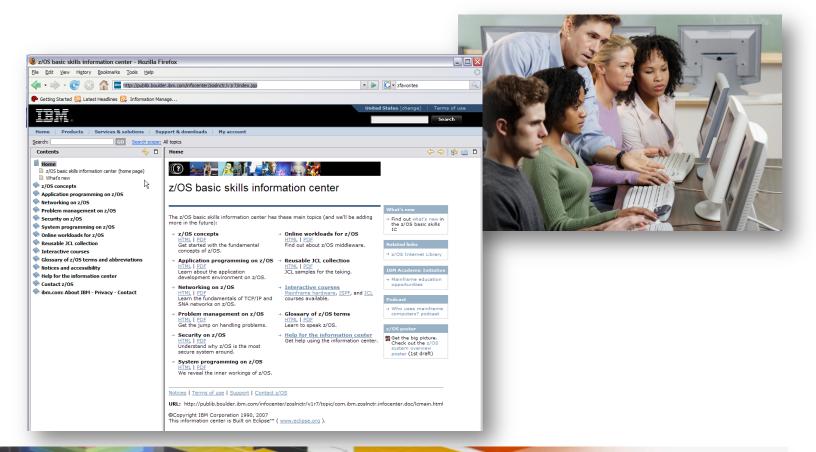






Tip 10. Get FREE education for people new to System z at the z/OS basic skills information center

http://publib.boulder.ibm.com/infocenter/zoslnctr/v1r7/index.jsp







Tip 11. Connect with others in the mainframe community at Destination z

http://www-03.ibm.com/systems/z/destinationz/index.html



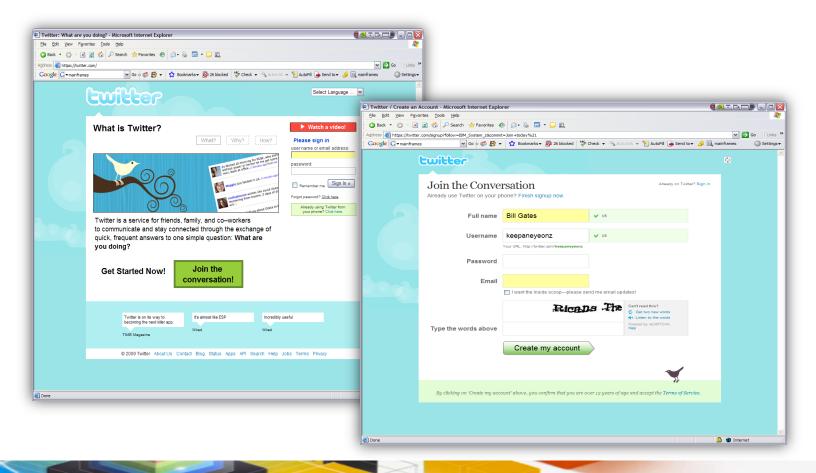






Tip 12. Follow twitter for the latest news and activities

https://twitter.com/signup?follow=IBM_System_z&commit=Join+today%21

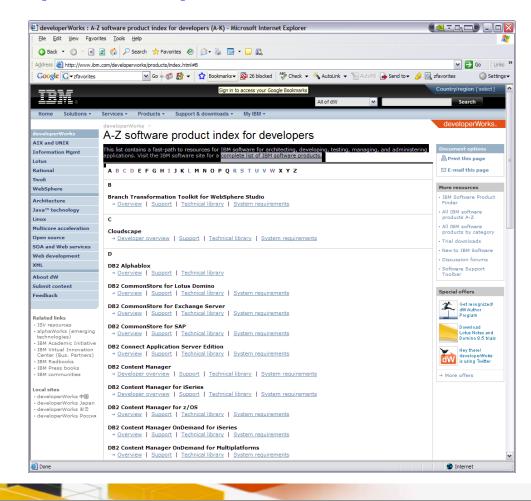




Tip 13. An A-Z software product index for developers

http://www.ibm.com/developerworks/products/index.html#B

This list contains a fast-path to resources for IBM software for architecting, developing, testing, managing, and administering applications. Visit the IBM software site for a complete list of IBM software products.

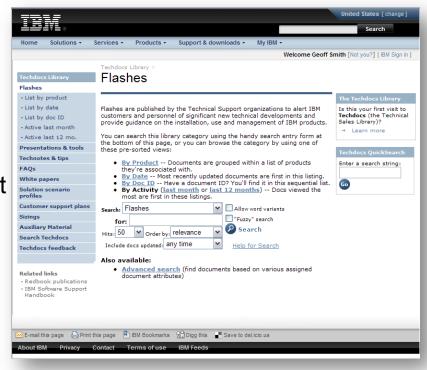






Tip 14. Get help in a Flash!

Flashes are published by the Technical Support organizations to alert IBM customers and personnel of significant new technical developments and provide guidance on the installation, use and management of IBM products.



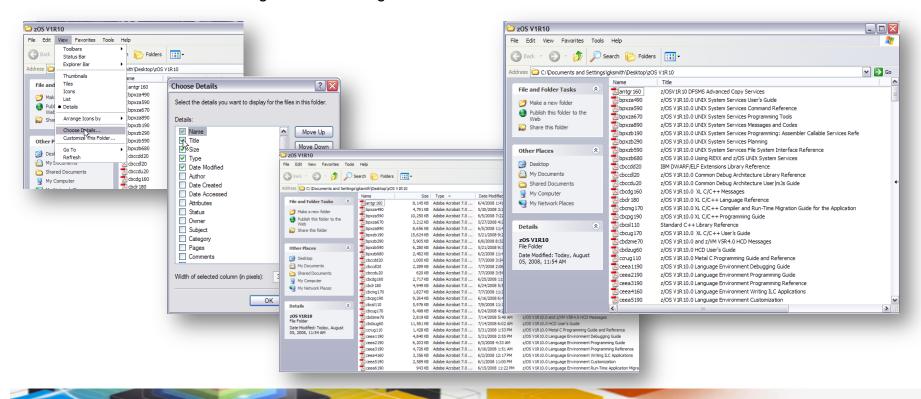
http://www-03.ibm.com/support/techdocs/atsmastr.nsf/ Web/Flashes





Tip 15. See the titles of your z/OS manuals on your hard drive

- Many people keep a local repository of frequently used z/OS PDF publications manuals on their laptop or workstation. Unfortunately, the default is to view just the 8 character file name for the manual – not very helpful!
- z/OS PDF files have the title encoded as metadata in the file and to change your view all you need do is:
- 1. Click View, Choose Details, pick title, click OK.
- 2. You can also drag the title to be right next to the filename to make it easier to read.







Tip 16. Got problems? Try the z/OS Problem Management Book

- z/OS Problem Management is a system level book that can help you diagnose problems on z/OS, its subsystems, its components, and problems in applications running under the system. Using z/OS Problem Management, you can:
- Identify the problem type
- Determine the failing subsystem, component, job, or application
- Collect the correct data needed to diagnose the problem
- Develop a search argument for searching problem reporting databases
- Know what problem data to collect before reporting the problem to IBM or the independent software vendor.
- Tasks are easier to perform because the required information is in a single book, which eliminates the need to jump from book to book when looking for relevant information.

z/OS V1R11.0 Problem Management

PDF: http://publibz.boulder.ibm.com/epubs/pdf/e0z1k110

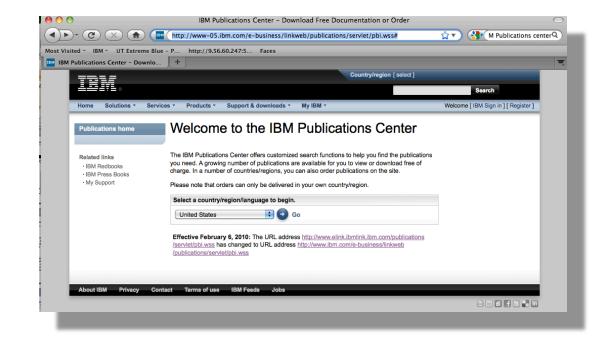






Tip 17: Get the Information You Need at the IBM Publication Center

- Google "IBM Publication Center"
- It's usually the top hit.
- Fill in your country
- Search by titles, order number or filename
- You can download PDF or BOO
- You can often search the book online



http://www.ibm.com/e-business/linkwebpublications/servlet/pbi.wss#





Tip: 18. Catch IBM System z on You Tube

This site provides an entertaining easy way to learn about new function and technologies related to System z



http://www.youtube.com/user/IBMSystemZ#





Tip 19: Follow System z on Your iPhone









Tip 20: Keep Current with IBM Podcasts

Podcasts > Technology > Software How-To > IBM



Subscribe Free ▼

Category: Software How-To Language: English ® & © 2010 IBM Corporation

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Did you say mainframe?!

Podcast Description

Listen to host Richard Szulewskifrom the WebSphere System z Software Marketing Team talk to the experts, as he discovers how IBM, with the help of a great product range, is revitalizing the mainframe as the platform of choice for modern services-based infrastructures, such as Service-Oriented Architecture (SOA).

	Name	Time	Released	Description	Popularity	Price
1.	CICS Transaction Gateway V8	9:41	4/30/10	Hear about the recently announced CICS Transac i		FREE
2.	Smarter Banking with CICS Transaction Server	8:21	4/12/10	Hear about how you can unlock business data in $\dots i$		FREE
3.	CICS Configuration Manager	14:00	2/22/10	Hear about how with modern business growth mor i		FREE
4.	CICS TS V4.1 WLM Sysplex Optimised Workloads	16:55	2/15/10	Hear about how Sysplex Optimisation addresses $\dots i$		FREE
5.	CICS Configuration Manager, Part II	12:10	1/28/10	Listen to Joe Winchester, from the CICS Explorer $\ i$		FREE
6.	CICS Configuration Manager, Part I	9:11	1/28/10	Listen to Joe Winchester, from the CICS Explorer $\dots i$		FREE
7.	Achieving Business Resilience with the new capabiliti	7:09	1/18/10	Listen to Paul Johnson from CICS Worldwide Dev $\ i$		FREE
8.	Maintaining Service Level Agreements with dynamic	5:53	1/17/10	Listen to Paul Johnson from CICS Worldwide Dev i		FREE
9.	Integrated Event Processing with CICS 4.1	12:39	1/11/10	Listen to Catherine Moxey from the CICS Worldwi i		FREE
10.	Application Agility with CICS and ILOG BRMS	9:15	12/9/09	Listen to Daniel Donnelly from the WebSphere IL i		FREE
11.	CICS Explorer Version 1.0.0.2 - The latest version of	8:34	10/23/09	In this podcast, Matthew Webster will talk about th i		FREE
12.	Business Value of TXSeries for Multiplatforms V7.1	11:29	8/3/09	In this podcast, Sharad Deshpande will talk about $\dots \ i$		FREE
13.	Compete, Comply, and Control with CICS Transactio	10:52	7/7/09	Hear about CICS TS V4.1 and its new capabilities i		FREE
14.	New PHP Support for CICS Transation Server	13:48	5/18/09	Hear about the new SupportPac that has been intr i		FREE
15.	IBM Application Foundation on System z	8:19	1/27/09	In this podcast, Rich Szulewski talks about IBM Ap i		FREE 🔻

Listeners also subscribed to







David Hardman



Billy Newport



Chris Arges, Tom G... Unknown





Inside SOA from S...



IBM developerWorks Eric Green





Thank you!





BACKUP



Simplifying Application Development on System z

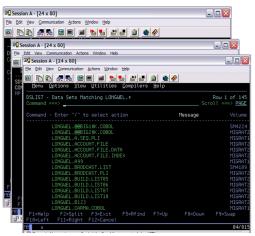




The New Face of Application Development

- Rational Developer for System z
- provides a <u>modern, efficient, Eclipse-based</u> <u>environment</u> for developing:
 - Dynamic Web applications including Java[™] and Java 2 Enterprise Edition, JSF, JSP, HTML, and more;
 - Traditional COBOL and PL/I applications;
 - CICS[®] and IMS[™] Web services using integrated SOA tools.
- Offers advantages over the traditional mainframe development environment:
 - Single environment for programming tasks: design, code, debug from the same UI
 - Productivity features like syntax-checking, JCL generation, visual debugging
 - Integrated user assistance
- http://www.ibm.com/software/ awdtools/rdz

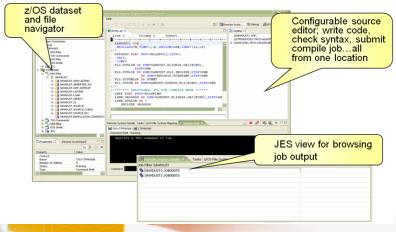
Before IBM Rational Developer for z



Correcting an error in COBOL source file

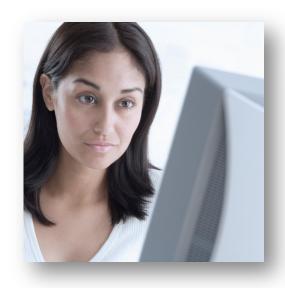
- Start 3270 emulator
- Logon to the z/OS system
- Navigate to the dataset and member using ISPF
- · Select the member for editing
- · Locate the line in the source code
- Change the source code and save the member
- Switch to the JCL that is used to submit and schedule the compile job
- Submit the JCL job
- Switch to SDSF to monitor the job and review the output
- Repeat 5-9 until program runs correctly

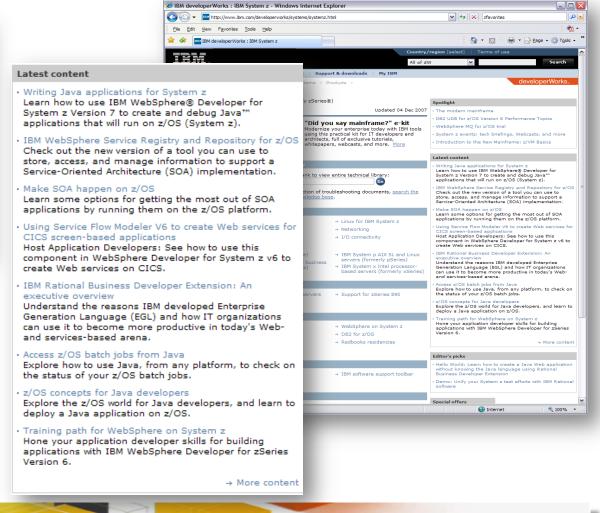
After IBM Rational Developer for z





Resources for developing applications for z •http://www.ibm.com/developerworks/systems/systemz.html







<u>Simplifying</u> and <u>Modernizing</u> the Mainframe for IT Professionals

Helping to reduce z/OS complexity

- Improve productivity for current users
- Make it easier to develop experts
- Eliminate, automate, and simplify complex tasks
- Modernize the "face" of z/OS
 - ► Maintain current "faces" for experienced users
- Leverage mainframe's centralized management



Fill the pipeline with new talent:

- Academic initiative
- z/OS Basic Skills Information Center for new and experienced users
- IBM Education Assistant (IEA)
 - ▶ Online education on z/OS performance, tuning, and best practices tips.



Other simplification work





Enhancements with z/OS 1.7

- Library Server
 - Enhanced PDF support and improved search capabilities
 - Excellent integration with Library Center ibm.com/servers/eserver/zseries/zos/bkserv/
- SMS
 - · SMS provides more information to help provide easier analysis and improved storage utilization
- RMF, ISPF, z/OS UNIX System Services, zFS
 - · Improved function, more commands

Enhancements with z/OS 1.8

- Infoprint[®] Central
 - · Improved Infoprint Central Web-based print management GUI
 - Improved operations and diagnosis: real time status information, remote printer online, offline, and reset, remote cancel print, and network connectivity problem resolution.
- ISPF
 - · Easier search, auto-discover of workstation IP addresses, improved alias processing
 - Display and process z/OS UNIX files and directories (reduced need to go into UNIX shell)
- RRS
 - A new SHUTDOWN command is designed to allow you to end RRS instead of doing a CANCEL.
 This helps avoid unnecessary abnormal termination and provide clearer shutdown messages.
- RMF



- Enhancements for z/OS 1.9
- NEW System REXX (SYSREXX) component
 - Allows execution of REXX routines in an authorized environment. SYSREXX execs can be used to automate complex operator commands and other system functions.
- z/OS Communications Server adds new and improved Network Management Interfaces (NMIs)
 - Collects more information on network security associations faster Tivoli exploiters
- CF management improvements
 - CF maintenance REALLOCATE process shortened
 - Improved reporting for performance and problem determination
- ISPF improvements
 - Edit and browse UNIX and ASCII files with ISPF one editor does it
 - Share profile variables across multiple systems in a Parallel Sysplex cluster
 - Provide support for using system symbols in data set names on ISPF panels.
 - Edit recovery improvements
- RRS improvements
 - Allows you to collect RRS information when needed and use this information for problem determination if any failure should occur later
- DFSMShsm™ additional SMF data for management and tuning
- DFSMSdfp™ OAM (Object Access Method) additional level of storage hierarchy



Enhancements for z/OS V1.10

- SDSF now provides job and output management for, including display and control of jobs and spool data sets. This new support is designed to allow you to use SDSF in both JES3 and JES2 environments.
- Language Environment[®] new parmlib syntax checks Syntax checking is expected to help you prevent errors from being made in CEEPRMxx parmlib members
- ISPF
 - The ability to specify multiple targets for the ISPF EDIT move and copy line commands. This can help you eliminate repetitious use of these commands when copying or moving lines that will have multiple destinations.
 - New DIRLIST and UDLIST to display and list z/OS UNIX directory.
 - Enhanced Screen Swapping. This new support is intended to make it easier to navigate within an ISPF session and to supplement the existing SWAP LIST and SWAP NEXT support.
- System logger administrative data utility to help you set up system logger resources and in problem determination involving log stream data sets.
- DFSMS, DFSMShsm, DFSMSrmm, DFSORT[™] many improvements



For z/OS V1.11

- SMF log stream dump utility now has relative date processing records can be 'today', 'yesterday', '9 days ago', '3 weeks ago' etc
- Improved messaging for Message Flood Automation intended to make z/OS systems more available by responding to a wider array of system and workload errors.
- Improved STP messaging helps improve problem determination
- RMF reports New report types and XML format makes reports easier and faster to display using a sread sheet.
- Lots of ISPF updates and DFSMSrmm updates
- z/OS Management Facility V1.11!



Planned for z/OS V1.12*

- New parmlib option to help substantially reduce the probability of this JCL error without the need to change JCL.
- New Language Environment non-overridable options specify Language Environment options without user modifications, eliminating a repetitive migration task.
- New Interactive Storage Management Facility (ISMF) volume list for pool-type storage groups - This allows you to copy entire storage groups from one configuration to another without having to add their volumes to the destination CDS afterward.
- The IDCAMS DEFINE RECATALOG command is planned to be enhanced for multivolume and striped data sets. This new function will be designed to automatically create catalog entries with correctly ordered volume lists while eliminating any duplicate volumes that might have been specified. This will make it easier to recatalog multivolume and striped VSAM data sets.
- IDCAMS is planned to be enhanced to allow you to delete all members of a partitioned data set in a single operation by specifying a wildcard character (*) as the member name for a data set when using the DELETE command. This new support allows you to remove all members of a PDS or PDSE data set in a single command.

And more