11763: The Future of z/OS Documentation: Going Green

Monday, August 6, 2012: 4:30 PM-5:30 PM
Grand Ballroom Salon G (Anaheim Marriott Hotel)
Speaker: Geoff Smith (IBM Corporation)
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Abstract

IBM will eliminate BookManager format in a future release of z/OS, and will focus on providing Internet only delivery of content. This session will provide an overview of the proposed changes for information distribution and preview the redesigned Internet Library website and electronic only distribution of softcopy collections. The speaker will discuss information currency and will solicit your requirements by asking questions such as:

• We have gotten so comfortable with pervasive Internet access, what do you do when it’s cut off?
• What features would you like to see in the future?
• What are your information delivery and currency requirements?
• If you are a mobile user what are your requirements for z/OS documentation?
Your Documentation Surveys at Work
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:

<table>
<thead>
<tr>
<th>Quality</th>
<th>1 Very Dissatisfied</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 Very Satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accuracy</td>
<td>7</td>
<td>80</td>
<td>134</td>
<td>61</td>
<td>46</td>
</tr>
<tr>
<td>Organization</td>
<td>0</td>
<td>46</td>
<td>23</td>
<td>130</td>
<td>61</td>
</tr>
<tr>
<td>Completeness</td>
<td>6</td>
<td>116</td>
<td>116</td>
<td>68</td>
<td>46</td>
</tr>
<tr>
<td>Clarity</td>
<td>1</td>
<td>110</td>
<td>110</td>
<td>62</td>
<td>62</td>
</tr>
<tr>
<td>Retrievability</td>
<td>16</td>
<td>84</td>
<td>51</td>
<td>62</td>
<td>64</td>
</tr>
<tr>
<td>Cross Book Linking</td>
<td>14</td>
<td>74</td>
<td>74</td>
<td>64</td>
<td>19</td>
</tr>
<tr>
<td>Cross Book Search</td>
<td>19</td>
<td>74</td>
<td>74</td>
<td>64</td>
<td>19</td>
</tr>
</tbody>
</table>

On a scale of 1-5 where:
- 1 = Very Dissatisfied
- 2
- 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.

2003 Survey Data

2009 Survey Data

On a scale of 1-5 where:

1 = Very Dissatisfied
2
3
4
5 = Very Satisfied
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

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

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

## Deliverables

- Optimize for Information Center delivery to improve information currency
- Continuing investment z/OS Basic Skills. Most recently we updated DB2 information in 11/2011
- Continuing investment in the Academic Skills Initiative
- Enhance Library Server with Personal Shelf search.
- Move to DITA
Review:
Changes for the z/OS V1R13 Library
Deleted/Changed Books

- z/OS Connection Scaling Reference

Starting in R13, Distributed Computing Environment (DCE) and Distributed Computing Environment Security Server (DCE Security Server) will no longer be shipped with z/OS; therefore, the following books have been deleted:

- z/OS DCE Administration Guide, SC24-5904
- z/OS DCE Application Development Guide: Core Components, SC24-5905
- z/OS DCE Application Development Guide: Directory Services, SC24-5906
- z/OS DCE Application Development Guide: Introduction and Style, SC24-5907
- z/OS DCE Application Development Reference, SC24-5908
- z/OS DCE Command Reference, SC24-5909
- z/OS DCE Configuring and Getting Started, SC24-5910
- z/OS DCE Introduction, SC24-5911
- z/OS DCE Messages and Codes, SC24-5912
- z/OS DCE Planning, SC24-5913
- z/OS DCE User’s Guide, SC24-5914

z/OS Distributed File Service Customization, SC24-5916, and z/OS Distributed File Service Administration, SC24-5915, are being deleted from the DFS library. They contained a high proportion of information about DCE, which is a product no longer supported by IBM. The remaining information from these books will be moved to z/OS Distributed File Service SMB Administration and z/OS Distributed File Service zFS Administration.
Changes to z/OS Library for V2R1

New information units:

- **IBM z/OS Management Facility: Programming**: This new book is intended for customer programmers who use the application programming interfaces provided with z/OSMF. In V2R1, these services are:
  - z/OS jobs REST interface services
  - Application Linking Manager interface services
- **z/OS Font Collection**: This book contains an overview, basic concepts, and describes the fonts in the z/OS Font Collection.

New problem determination information

- **z/OS Problem Management** now contains new and improved component-specific problem determination. Check out the new RRS-specific material in V1R13 and look for much more soon.

Consolidated information units:

- **z/OS Introduction and Release Guides** will incorporate **DFSMS Using New Function** and **Communications Server Using New Function**. Now find all the new features and functions in one location.
- **z/OS MVS Product Management** will include **z/OS Product Registration** as an appendix.

Removed from library:

- **z/OS Information Roadmap**
- **DFSMS Optimizer Messages and Codes** and **DFSMS Optimizer User’s Guide**
- **DFSMS/MVS Support for the Magstar 3590 E1x Tape Drive**
With z/OS V2.1, our product documentation is planned to "go green" with electronic delivery of documentation over the Internet, replacing delivery of documentation using physical DVDs. This change is intended to result in higher quality documentation and better information currency. To meet customer requirements for easier search and access of information and to modernize our documentation delivery processes, we will focus on Information Center delivery of the z/OS product documentation and discontinue the use of BookManager® format.

Among the many advantages of information centers are that their content can be found using search engines such as Google and often represent the most current content. For customers requiring offline access to documentation, IBM plans to provide a downloadable version of the documentation in the Information Center. For users who do not need the entire product library, IBM plans to continue to provide PDFs for individual documentation download. The local Information Center provides built-in functions to keep content up-to-date and is also planned to contain a predefined search scope for z/OS Elements and Features message information.
z/OS Documentation Authoring and Delivery Strategy

- z/OS V1R13
  - Authoring:  
    - IBMIDDOC (SGML)  
    - IBM Proprietary
  - Delivery Formats  
    - PDF  
    - Information Centers (HTML)  
    - BookManager  
    - BookManager via Library Server
  - Delivery Mechanisms  
    - Internet  
    - Physical DVD collections

- z/OS V2.1
  - Authoring  
    - DITA (XML)  
    - Oasis industry standard makes interchange easy
  - Delivery Formats  
    - ALS Indexed PDF  
    - Information Centers
  - Delivery Mechanisms  
    - Internet website  
    - Electronic download ZIPs HTML plugins and PDF
DITA (Darwin Information Typing Architecture)

- DITA has well structured information types or templates that help reinforce that authors provide all the information needed to complete a task. The message specialization is a good example. If the authors complete all the required fields in the message templates, the reader should have the information needed to resolve the problem.

- DITA article based information has other advantages too:
  - They are designed to be concise as well as complete (no rambling prose)
  - Information is modular so it can be re-used much like code and subroutines in code.
  - Information typing helps narrow the scope so of a search which improves information retrieval.

- DITA is open. Although it was developed by IBM, it has been adopted by the open source community and various companies have adopted it.

- Companies like Adobe, Arbortext, Oxygen and others support it in their products.

- DITA makes it easier for ISVs to use the same tools that IBM uses and over time should make easy to integrate information for better solution based documentation.
Why Articles?

- Articles are easier to repurpose than books. This is helpful when you are need to create documentation for rapidly emerging solutions.

- If you use an Open markup language like DITA, it makes it even easier when a solution consists of a combination of IBM and non-IBM ISV offerings.

- The advent of the internet has shown us all the advantages of article based information. Where would we be without WIKIPEDIA?

- Articles have always been know to be good for reference information such as messages or commands, but well structured articles are good for creating task too. Most people do not have the time to read through all sorts of conceptual information to perform a simple task. This is the reason why Redbooks and cook books are so popular. They do not make you read the history of baking before you attempt to make bread.
Benefits of the change:

The move to DITA will improve information quality over time:
- IBMIDDOC’s book structure makes information reuse difficult and makes it hard to create solutions documentation
- IBMIDDOC had no inherit structures or information types to ensure completeness
- DITA uses information types or templates that help ensure that all the information needed to do a complete a task is present. For example, the message specialization requires that authors and development provide enough information to make diagnosis and error resolution easier.
- DITA is article based and that makes information easier to reuse and repurpose for new solutions.
- DITA is an industry standard that ISVs and business partners can use so we have information coded in a common format

Two output formats: ALS indexed PDF and HTML based Information Centers
- ALS Indexed PDFs are PDFs with linguistic search index built in
- Information Centers are based on an IBM variant of the open source Eclipse help system. All information is in HTML doc.zip files that are easily indexed by Google and similar search engines.
- IBM corporate information development is investing in DITA, information centers and other emerging technologies and z/OS documentation will benefit

Electronic delivery (only):
- Because we do not have a physical manufacturing process for DVDs, we have more time and can work on improvements to technical content (6 week weeks from GA instead of our current 6 months).
- Electronic only makes it easier to update our information and improve information currency.
Why Drop BookManager?

- For over 10 years The IBM corporate information development strategy has been to invest in article based information and over time the investment in BookManager and book based documentation has slowly disappeared.

- At one time it was easy to create platform wide indices, because everything was in BookManager. But for many years now, software products that run on system z have gradually stopped producing bookmanager so that they could invest DITA, information centers and Internet inspired article based information.

- With the coming of a new version of z/OS, it was time to take a look at how we could better adapt to the new applications on the horizon for the platform.

- As we move to newer technologies, we want to encourage our customers to move also.

- We are preparing to withdraw MVS Build.

- We are considering removing Read MVS, but are looking for input from you.

- For customers who want to host our documentation on the platform, Library Server will continue to be enhanced with XKS search, and improved XHTML plug-in support, and improved PDF indexing.
Discussion Questions:

– How many customers will still need or want READ MVS?

– If you require information on the green screen, why?

– Is the need limited to a subset of information such as messages and commands?

– How many customers have a need to host their content on z/OS, or is it okay to rely on Information centers on the Internet and windows workstations?

– What do you do to ensure access to our documentation in situations where you have no internet or where you lose access?

– Does your company use IBM Library Server?

– Does your company have a central repository of product documentation and if so where (distributed or mainframe) and how is it hosted (Library Server, Eclipse Information Centers, vanilla http server or something else?)
What About LookAt?

- Since LookAt is BookManager based, we are looking at newer technologies to replace it.
- We will continue to host lookat for the releases that are already out there.
- For newer releases, we will have a replacement based on newer technology.
- IBM software products have gradually stopped producing BookManager format, so the integrity of its search was degraded.
- We are experimenting with pre-defined “message search scopes” in information centers.
- Our process allows us to know what “books” or plugins have message information.
- There is work at the corporate level too that may solve this problem.
IBM z/OS Softcopy Collections Kit Changes

- In the past our DVD collection kits were used:
  - As the basis for our Internet Library
  - By customers to populate local repositories
  - For individuals, standalone access, and emergencies access

- For z/OS V2, our kits:
  - Will no longer provide BookManager format.
  - Will no longer manufacture physical DVDs
  - Instead of we will create Softcopy Collection Kit ZIPS
The New Softer Softcopy

Today we produce primarily 2 DVDs for z/OS customers:

1. The z/OS and Software Products Collection DVDs
2. The z/OS Information Center DVDs

- For the future we will produce collections that have all the same content, except BookManager formatted files, but instead of being distributed as ZIP files that you can download.
  - The Collection ZIP files will contain:
    - All z/OS Indexed ALS PDFs
    - XKS shelves
  - Instead of physical DVDs, we provide kits as zip files that can be downloaded from our Internet Library or directly from the publications center
  - We will still use form numbers as we do today to identify and manage updates (SA23-4567-02)

- Softcopy Librarian is still available and can be used to download the zip files if you choose.
No DVD Means More Time for Better Information

- Because we do not have a physical manufacturing process for DVDs, we have more time and can work on improvements to technical content (see chart)
- Electronic only makes it easier to update our information and improve information currency.
We Continue to invest in ALS PDFs

- What are ALS Indexed PDFs?

  Advanced Linguistic Search was developed by IBM as a result of SHARE feedback where customers wanted a PDF with its superior print capabilities and a more robust BookManager like search.

- Over time we have refined the indexing. The ALS indexing function is part of IBM Library Server. PDFs must have a Table of Contents to be indexed and it helps if the source was a well-structured tag-based document (DITA).

- All PDFs in the z/OS base library have been indexed using the IBM Advanced Linguistic Search technology.

- To use it, you download and install the ALS plug-in to the appropriate Adobe Acrobat reader.

- Using newer XKS shelves you will be able to search across collections of PDFs similar to BookManager shelves.

- In z/OS V2, IBM Library Server is being enhanced to provide cross PDF search using XKS shelves.
IBM Library Server Enhancements
PDFs with Search Hits in Indexed XKS

Search Results for a Shelf

Search results for shelf: DEMOMIX "Demo Mix Extended Shelf"
5 Documents have matches for: bound

- CEEA000: z/OS V9R3 Language Environment Programming Guide
- CEEA010: z/OS V9R3 Language Environment Run-Time Messages
- CEEA110: z/OS V9R3 Language Environment Debugging Guide
- CEEA110: z/OS V9R3 Language Environment Programming Reference

2 of 8 PDF file(s) on the extended shelf could not be searched.
To search these PDF files, use the links to open the PDF file and use the PDF viewer’s search or find facility.

- FMU100: File Manager for z/OS V9R1 Customization Guide
- FMU100: File Manager for z/OS V9R1 User’s Guide
As the complexity in managing many environments increases, this function provides automated management of server tasks running in the server space. Workload Manager can dynamically vary the number of server threads active to process work requests.

- **TCP/IP resolver enhancement**
  - DNS and **BIND** transform conversions are provided for Communications Server.
  - `pread()` and `pwrite()`
  - The new `pread()` and `pwrite()` functions perform the same actions as `read()` and `write()`, except that they read or write from a given position in a file without changing the file pointer. This reduces system overhead and improves performance.

- **Reusable enclaves for CICS scalable Java Virtual Machine (JVM)**
  - Java™ programs can initialize once and then allow subsequent Java programs to begin running. A Language Environment enclave (CICS thread) remains active as needed.

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**What's New in Language Environment for z/OS Version 1 Release 1**

Enhancements for z/OS Language Environment include the following Reliability, Availability, and Serviceability improvements:

- **LEDATA improvement to show backtraces for all threads**
  - Provided by APAR PQ40654, the `NTHREADS(value)` parameter on VERBEXIT LEDATA lets you specify a number of threads for which Language Environment traceback data will be displayed. For more information, see [z/OS Language Environment Debugging Guide](http://www.ibm.com/support/docview.wss?uid=swg21435344).

- **Addition of IPCS ANALYZE exit for latches, mutexes and condition variables**
  - Provided by APAR PQ40654, Language Environment provides support for the
Questions for the Audience

- How many people rely exclusively on the Internet to access our information?
- How many people here have local corporate repositories of our documentation?
- If you have a corporate repository is it hosted on
  - Windows,
  - z/OS,
  - Linux or
  - something else?
- How many people have their own personal repository on their laptop or workstation?
- What format do you rely on most?
  - Information centers
    - On the internet
    - On a local workstation
  - PDF files
  - BookManager
Hot Topics – Commercial Break
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.

- Latest issue: GA22-7501-22, issue 26
  Learn about how z/OS is making a smarter planet.

Hot Topics is updated annually.
Hundreds of articles online at the Hot Topics website

http://www.ibm.com/systems/z/os/zos/bkserv/hot_topics.html
Need to replace with updated Web site for Hot Topics
IBM_USER, 2/16/2011
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)
Proposed Changes for the Internet Library
First, How to Find the z/OS Internet Library

- Google “zFavorites” and pick the top hit
- Scroll or click Product Documentation
- Pick 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.

The top search boxes highlighted in turquoise use Information Center search to locate information.

The bottom section shown in green, uses BookManager technology.
The Internet library mirrors the z/OS collection kits using IBM Library Server

We offer both Information Centers (our strategic format) and BookManager via Library Server
Faceted Search with BookManager

- Bookshelves provide a way to filter and search our large library
- We produce many of these and expose them all which complicates the current library interface
BookManager Shelves

- The internet library is based on our collection kits. There are 50+ 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.
Various Search Scopes Offered Today Using BookManager

- **Search by Element/Feature**: provides a shelf for every element. Lets you search just the books in an element library such as all the books in JES2, or MVS, or Comm Server.

- **Search by reference category**: Lets you search by command or message.

- **Search by task**: Lets you search against all the installation/migration books, or problem diagnosis and so on.

- **Search by form number**: If you are familiar enough with the library, some people do a search by form number (minus the suffix lets you see what level is most current).

- **Search publication titles**: Lets you search by words in titles provides a list of all the books with “install” in the title.

- **Search by bookshelf title**: Lets you search for specific bookshelves.

- **Search by filename**: If you happen to know the filename of the book, this search might be handy.

*We have come to SHARE to get your opinion. What search scopes do you use? What search scopes do you want us to preserve?*
The Basics: Using the z/OS Base Library Information Centers

- All information centers have a listing of all PDFs for all the books.
- All of the PDFs in the z/OS Base Library are indexed and searchable using the IBM Advance Linguistic Search.
- This search was developed by BookManager and was requested on many surveys. Customers liked the visual presentation that PDFs offered, but wanted the robust search that BookManager format offered.
- Note: z/OS Library Server can be used to index well structured PDFs that have a table of contents.
- Library Server also has the ability to index eclipse information plug-ins.

http://www-01.ibm.com/support/docview.wss?uid=swg24024554
Navigating the z/OS V1R12 Information Center

- Much like the BookManager based Library Centers, we architected our Information Center to be structured by element or feature.
  - This helps users who are familiar with the z/OS library.
  - The arrangement by element and feature makes it easy to do scoped searches that correspond to BookManager shelf search by element.
  - Each “plug-in” includes all the information for that element arranged by their corresponding book titles for familiar navigation.
  - Familiar and popular BookManager Library Server functions such as page forward and backward, PDF download from the menu bar have been added to the z/OS information center to make the transition to Information centers easier.
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 automatically synchronized with the table of contents pane so you always know where you are.
- Page URL clearly displayed at the bottom of each page makes it easy to bookmark or e-mail the exact location in the Information Center.
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.
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.

6. 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.

You can create as many search scopes as you wish. Delete them when you don’t need them anymore.
Use the quick menus to search or review and print just one plug-in.
<table>
<thead>
<tr>
<th>Product</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>WebSphere</td>
<td><a href="http://www-01.ibm.com/software/webservers/appserv/was/library/v70/was-zos/">http://www-01.ibm.com/software/webservers/appserv/was/library/v70/was-zos/</a></td>
</tr>
</tbody>
</table>
### What Features Do You Need From BookManager?

<table>
<thead>
<tr>
<th>Type of Search or search by</th>
<th>1=Not Important, 5=Very important, ?=Do not know</th>
</tr>
</thead>
<tbody>
<tr>
<td>z/OS Release (V1R12)</td>
<td>1 2 3 4 5 ?</td>
</tr>
<tr>
<td>Book Filename</td>
<td>1 2 3 4 5 ?</td>
</tr>
<tr>
<td>Form Number</td>
<td>1 2 3 4 5 ?</td>
</tr>
<tr>
<td>Book Title</td>
<td>1 2 3 4 5 ?</td>
</tr>
<tr>
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<tr>
<td>Other:_________________________</td>
<td>1 2 3 4 5 ?</td>
</tr>
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</table>
How Do You Access Information “On The Go”

Mobile computing has become pervasive, almost everyone has some mobile device that they use to access content on the go.

- Smartphone
- Tablet
- Laptop
- e-Readers (Kindle, Nook)

Do you use them to access z/OS documentation?

- Quick search with WiFi/Cellular?
- Do you download for offline reading?
Creating Custom Libraries

February 2010 update
Most people have their own private “stash” of documentation for various reasons.

– There are company or department local area libraries or LALs
– Many people have their own personal area library or PALs
– They help:
  – Filter the content to information you need so you can access it faster
  – Local hard drive or flash drive copies are handy for occasions when there is no network or internet access.

– We will discuss tips for three types of local custom repositories

– File system based using simple PDF repositories (LAN, intranet or local)
– Library Server based
  • Easily installed and maintained native on z/OS
  • However, BookManager format is no longer a strategic format
  • Updates are done via softcopy librarian
– Information Center based
  • Typically installed on a windows workstation
  • It is the current strategic means for information delivery
  • Updates capability is built into the IC framework
PDF repositories

- A set of PDF files in a subdirectory (probably the most popular actually) Two tips here:

  • The z/OS base library has indexed all the PDFs on our collection kits to use the IBM Advanced Linguistic search. Included in each PDF is its own search index. To use it, you will need to add the IBM ALS plug-in to your Acrobat reader. For more information see [http://www-01.ibm.com/support/docview.wss?uid=swg24024554](http://www-01.ibm.com/support/docview.wss?uid=swg24024554)

  • The z/OS PDF files on our collection kits have metadata for book titles included. Change your view options for directories to turn on titles and you will be able to see the title of the PDF rather than just the filename.
Steps to Setting Your Own Repository

### Library Server

- Note: It’s highly recommended that you start to use Information Centers when you create a repository because they are the strategic direction.

1. Get a copy of the appropriate level of the z/OS softcopy collection. The softcopy collection includes all the base plus software products.

2. Install IBM Library Server on z/OS according to instructions in the program directory.

3. How you set up your file system is up to you. Typically, you’d have these directories
   - Books
   - PDFs
   - Shelves
   - Cases

4. Copy the files from the DVD to your file system

5. Run Catalog to re-catalog the add the new BookManager and PDF files. See LS Demo 1.

6. If you want to add IC plug-ins to your repository see the IBM Library Server User’s Guide (on your DVD for this session)

### Information Centers (Recommended)

- Note: Nearly all software products publish only PDF and Information Center format, so it’s best to begin to use Information Centers to become familiar with them.

1. If you are going to be working with z/OS, get a copy of the z/OS IC DVD for the level of z/OS you are running. See “How to get content for Information Centers”

2. Install the base per instructions on either your own workstation or a department server. The DVDs all use the Windows version of the IC code.

3. If you want to add other software products to this instance, use “How to get content for Information Centers”

4. See the Appendix article on editing topic maps

5. There is no catalog or indexing step. The first search will invoke an indexing of the materials.
Getting CD/DVDs to populate your local repository

- No matter what technology you use to set up a local repository, you order CD and DVDs from the IBM Publication Center.

- Once there, you pick a language, then:
  - For BookManager and PDF do a search on “Softcopy Collection”
  - For Information Centers, do a search on “Information Center” (notice no “s”)
  - In both situations you can continue to narrow down your choices by picking search within results and choosing terms like z/OS,
  - Place an order for the CD/DVDs you need.
  - Once they arrive install them according to instruction.
Customizing Your Local Repository

- **Library Server**

  With a Library Server instance adding new content to a repository is as easy as copying the files and re-cataloging it.

- If you are using IBM Library Server, refer to the IBM Library Server getting started guide to customize your content. Library Server lets you incorporate Information Center plug-ins too.

- **IBM Library Server Getting Started**

- **Information Centers**

  If you decide to use Information Center technology for your repository. You may decide to create one master repository of just the content you need. Information plug-ins can be taken from any information center and using topic maps, arranged in any order you desire.

- Once in place, you don’t have to create search indexes. The first time you invoke a search it gets built for you. For information on incorporating other plug-ins see the appendix: Editing Information Centers.

- **Note:**

  - Most people use the internet to look up information, but there are still many z/OS shops rely on a central corporate repository of documentation as backup.
  - Library Server runs on z/OS and many systems programmers want whatever they depend on to be on the z/OS platform.
Tip for the z/OS Centric

The CICS information center DVD SK4T-2578 contains a distribution of Information Center framework that runs on z/OS. It’s not the most current version, but it can probably be used to seed a z/OS based Information Center.

You can then add z/OS Information Center plug-ins from other information center distributions. To create a consolidated Information Center that is running on z/OS.

Question: Would you like to see a standard distribution of the Information Center framework that runs native on z/OS?
Bonus:
Demo of New Library Server Search for ALS PDFs
**IBM System z**

**XKS+BKI with Searchable and Unindexed PDFs**

---

**Extended Shelf: Demo Mix Extended Shelf**

Find documents with titles, names, or document numbers containing:

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Search the Indexed XKS for “bound”
PDFs with Search Hits in Indexed XKS

Search Results for a Shelf

Search results for shelf: DEMOMIX "Demo Mix Extended Shelf"

6 Documents have matches for: bound

- CEEA0190  z/OS V9R3 J Language Environment Programming Guide
- CEEA0190  z/OS V9R3 J Language Environment Run-Time Messages
- CEEA1180  z/OS V9R3 J Language Environment Debugging Guide
- CEEA1180  z/OS V9R3 J Language Environment Concepts Guide
- CEEA1180  z/OS V9R3 J Language Environment Programming Reference

2 of 8 PDF file(s) on the extended shell could not be searched.
To search these PDF files, use the links to open the PDF file and use the PDF viewer's search or find facility.

- FMU1200  File Manager for z/OS V9R3 Customization Guide
- FMU1200  File Manager for z/OS V9R3 User's Guide
As the complexity in managing many environments increases, this function provides automated management of server tasks running in the server space. Workload Manager can dynamically vary the number of server threads active to process work requests.

- **TCP/IP resolver enhancement**
  
  DNS and **BIND** transform conversions are provided for Communications Server.

- **read() and write()**
  
  The new `read()` and `write()` functions perform the same actions as `read()` and `write()`, except that they read or write from a given position in a file without changing the file pointer. This reduces system overhead and improves performance.

- **Reusable enclaves for CICS scalable Java Virtual Machine (JVM)**
  
  Java™ programs can initialize once and then allow subsequent Java programs to begin running. A Language Environment enclave (CICS thread) remains active as needed.

---

**What’s New in Language Environment for z/OS Version 1 Release 1**

Enhancements for z/OS Language Environment include the following Reliability, Availability, and Serviceability improvements:

- **LEDATA improvement to show backtraces for all threads**
  
  Provided by APAR PQ40654, the NTHREADS=value parameter on VERBEXIT LEDATA lets you specify a number of threads for which Language Environment traceback data will be displayed. For more information, see z/OS Language Environment Debugging Guide.

- **Addition of IPCS ANALYZE exit for latches, mutexes and condition variables**
  
  Provided by APAR PQ40654, Language Environment provides support for the
XKS with Searchable/Unsearchable PDFs
Search the non-indexed XKS for “bound”
PDFs with Search Hits in non-indexed XKS

Search results for shelf: DEMOMIXU *Demo Mix Unindexed Extended Shelf*

5 Documents have matches for: bound

- CEEA3190 z/OS V9R3 Language Environment Programming Guide
- CEEA9190 z/OS V9R3 Language Environment Run-Time Messages
- CEEA1190 z/OS V9R3 Language Environment Debugging Guide
- CEEA3190 z/OS V9R3 Language Environment Programming Reference
- CEEA8190 z/OS V9R3 Language Environment Concepts Guide

2 of 8 PDF file(s) on the extended shelf could not be searched.
To search these PDF files, use the links to open the PDF file and use the PDF viewer's search or find facility.

- FNM1460 File Manager for z/OS V9R1 Customization Guide
- FNM1300 File Manager for z/OS V9R1 User's Guide

© 2012 IBM Corporation
As the complexity in managing many environments increases, this function provides automated management of server tasks running in the server space. Workload Manager can dynamically vary the number of server threads active to process work requests.

- **TCP/IP resolver enhancement**
  DNS and **BIND** transform conversions are provided for Communications Server.

- **pread() and pwrite()**
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- **Addition of IPCS ANALYZE exit for latches, mutexes and condition variables**
  Provided by APAR PQ40654, Language Environment provides support for the
# Collection of PDFs and Books in an HFS Directory

## Collection of PDFs and BookManager Books: Demo Collection

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- **Name**  
- **Date/Version**  
- **Document**

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PDFs with Search hits in the Collection

Search Results for a Collection

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5 Documents have matches for: bound

- cpea2100  z/OS V9R5 OPL Language Environment Programming Guide
- cpea2100  z/OS V9R5 OPL Language Environment Run-Time Messages
- cpea1100  z/OS V9R5 OPL Language Environment Debugging Guide
- cpea2100  z/OS V9R5 OPL Language Environment Programming Reference
- cpea2100  z/OS V9R5 OPL Language Environment Concepts Guide

2 of 8 PDF file(s) in the collection could not be searched. To search these PDF files, use the links to open the PDF file and use the PDF viewer's search or find facility.

- fmez100  File Manager for z/OS V9R1 Customization Guide
- fmez190  File Manager for z/OS V9R1 User's Guide
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- **Addition of IPCS ANALYZE exit for latches, mutexes and condition variables**
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Appendix A.
Update Education and Skills Material
What is the IBM System z Academic Initiative?

An IBM program that partners with academic institutions and System z clients and partners *worldwide* to build a pipeline of skilled enterprise system students for the IT jobs of tomorrow.

[ibm.com/university/systemz](http://ibm.com/university/systemz)

Contact us at [zskills@us.ibm.com](mailto:zskills@us.ibm.com)
Fundamental to the Academic Initiative program is ...

... Flexibility

- Participation continues to increase
  - 2011 – 1,067 membership schools

- 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
How can IBM clients and business partners participate?

- A strong local relationship between schools and the Mainframe community can provide valuable insights into business demands and future education requirements.

- View IBM Academic Initiative web site for participating schools and educators teaching the Mainframe (ibm.com/university/systemz)

- Contact the IBM Academic Initiative team at zskills@us.ibm.com to recruit new schools

- Post your jobs on SystemzJobs.com
Introducing SystemzJobs.com

The IBM System z Job Board at SystemzJobs.com is a new resource that connects IBM System z Clients, Partners, and businesses with students learning the Mainframe and professionals seeking System z job opportunities.

Benefits of using SystemzJobs.com

- Free, secure, and easy to use
- Specialized audience of Mainframe educated students and experienced professionals
- Global pool of Mainframe talent

Getting started

Follow these steps at SystemzJobs.com to get started:

1. Create a secure account (optional)
2. Put in your job description
3. Connect with qualified candidates

Sponsored by the IBM Academic Initiative, System z
Visit: ibm.com/university/systemz

Questions? Contact zskills@us.ibm.com
System z Learning Resources for People on the Job

- z/OS Basic Skills Information Center
- Redbooks
  - ABCs of System Programming
  - Series of introductory books with “New Mainframe”
Appendix B: Tips and tools for Finding Information
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.
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#
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
85 results in Redbooks, Redpapers, Drafts and Technotes

1. **Introduction to the New Mainframe: Large-Scale Commercial Computing**, SG24-7175-00
   Redbooks, published 14 December 2006, last updated 3 January 2007, Rating: ★★★★★ (based on 1 review)

2. **Introduction to the New Mainframe: z/OS Basics**, SG24-6366-02
   Redbooks, published 29 March 2011, last updated 4 January 2012, Rating: ★★★★★ (based on 8 reviews)

3. **Security on the IBM Mainframe**, SC24-7803-00
   Redbooks, published 30 April 2010, Rating: ★★★★★ (based on 1 review)

4. **Introduction to the New Mainframe: Networking**, SC24-6772-00
   Redbooks, published 11 August 2000, last updated 7 November 2000, Rating: ★★★★★ (based on 5 reviews)

5. **Introduction to the New Mainframe: z/VSE Basics**, SG24-7430-00
   Redbooks, published 27 March 2007, last updated 8 August 2007, Rating: ★★★★★ (based on 3 reviews)

6. **Introduction to the New Mainframe: Security**, SG24-5776-00
   Redbooks, published 3 April 2007, last updated 26 April 2007, Rating: ★★★★★ (based on 1 review)

7. **Introduction to the New Mainframe: z/VM Basics**, SG24-7316-00
   Redbooks, published 26 November 2007, last updated 10 January 2008, Rating: ★★★★★ (based on 14 reviews)

8. **Configuring Red Hat Enterprise Linux for the Summit Kernel**, TIPS0175
   Web Doc, published 16 May 2003, Rating: ★★★★★ (based on 1 review)

9. **Deploying a Cloud on IBM System z**, REDP-4711-00
    Redpapers, published 28 February 2011, last updated 3 May 2011
Use LookAt Mobile Edition to look up z/OS message explanations on your Smartphone or tablet

RSS for z/OS keeps you up-to-date

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

WebSphere for z/OS

DB2 for Z/OS Forum

Rational Application Developer for z

DeveloperWorks for z

Find more here:
Subscribe and receive FREE notifications of Red Alerts

Connect with others in the mainframe community at Destination z

- [http://www-03.ibm.com/systems/z/destinationz/index.html](http://www-03.ibm.com/systems/z/destinationz/index.html)
Follow us on twitter for the latest news and activities

- https://twitter.com/signup?follow=IBM_System_z&commit=Join+today%21
This site provides an entertaining easy way to learn about new function and technologies related to System z

http://www.youtube.com/user/IBMSystemZ#
Follow System z on Your iPhone