



# Where's the Best z/VM Information?

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# Acknowledgements

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- Jacob Gagnon
- John Franciscovich
- Arielle Goldberg
  
- Bill Bitner (retired)

# Agenda

Resource	z/VM Tourist	z/VM User
Education Roadmaps	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
z/VM Education Links	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
z/VM How-To Videos	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
z/VM-related Live Virtual Classes		<input checked="" type="checkbox"/>
Online Help		<input checked="" type="checkbox"/>
z/VM Documentation		<input checked="" type="checkbox"/>
Key Books		<input checked="" type="checkbox"/>
Product Alerts & Status Information Webpages		<input checked="" type="checkbox"/>
Community Resources		<input checked="" type="checkbox"/>

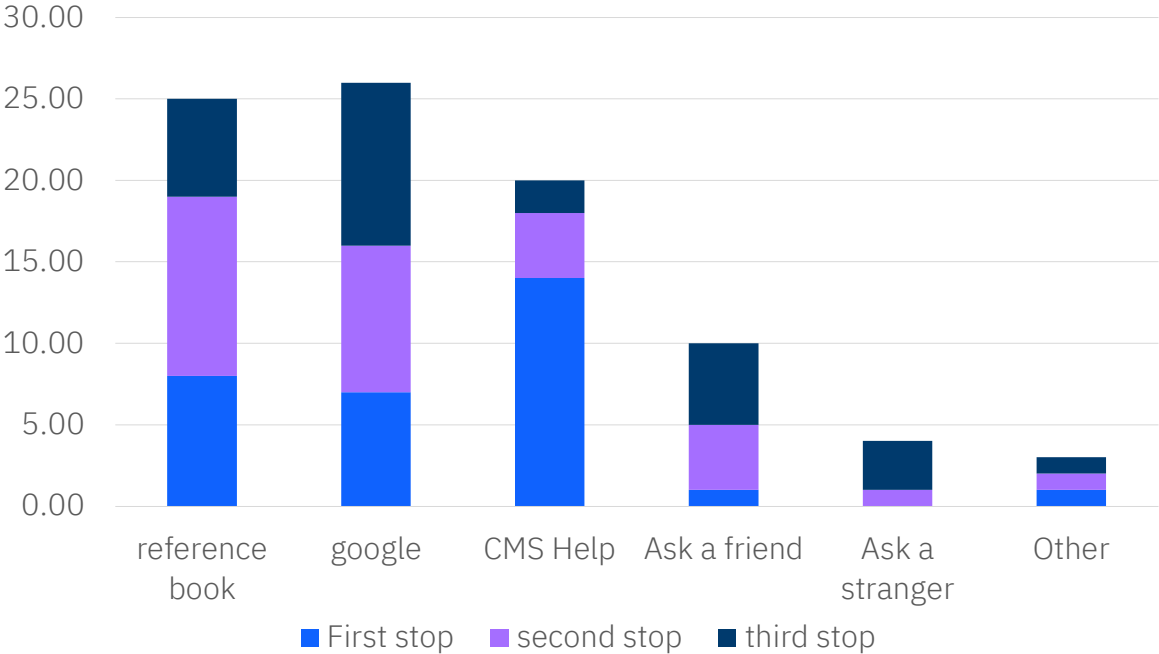
Where do YOU go to  
find z/VM  
information?



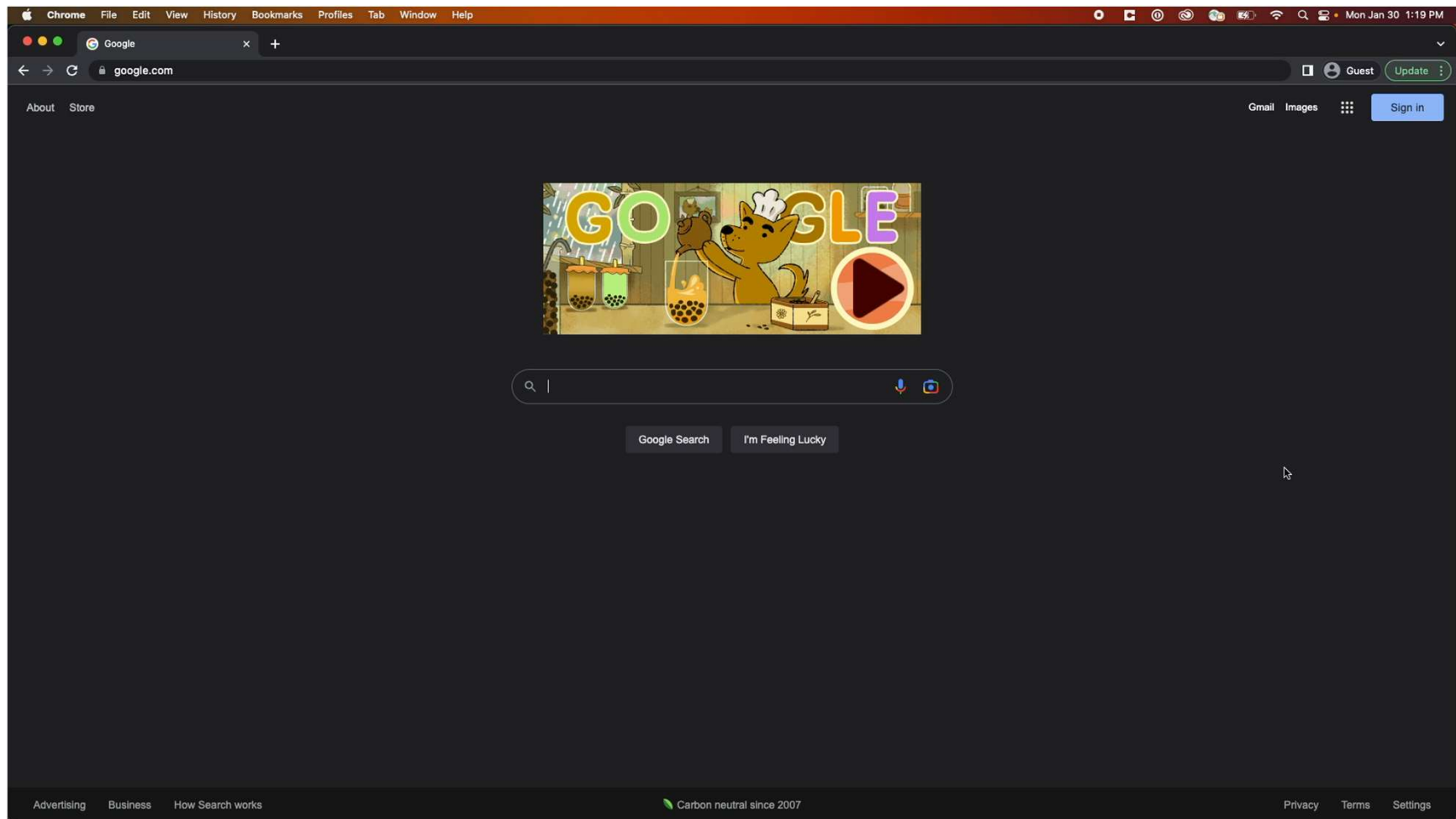
# Survey Says.....

- Many folks leverage help facilities right from their terminal
- Written references are preferred, with google being one way to navigate to the proper publication
- It's preferred to consult a written doc over a human being

Where do People go for z/VM information?



# A Quick Orientation



# For the z/VM Tourist

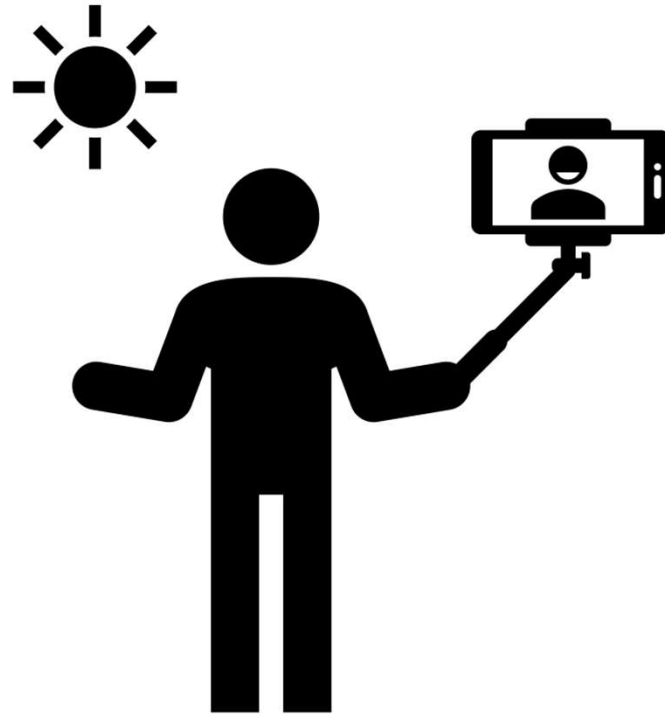


tour·ist

*/ˈtʊərɪst/*

*noun*

1. a person who is traveling or visiting a place for pleasure.  
"the pyramids have drawn tourists to Egypt"





# Education Resources

# z/VM Education Information

<https://www.vm.ibm.com/education/>

*Education content developed directly by the IBM z/VM Development organization that is intended to be used by anyone who is interested in learning more about z/VM*

# Navigating to Education Roadmaps

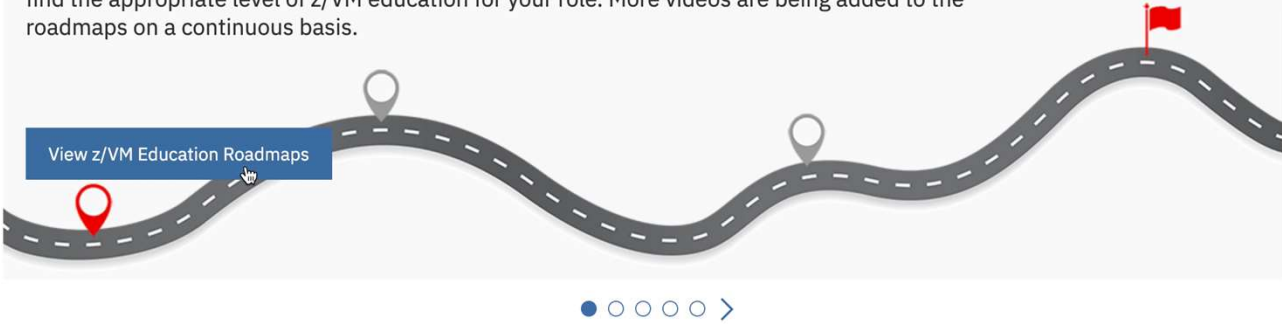
- z/VM
- News
- About z/VM
- Events calendar
- Products and features
- Downloads
- Technical resources
- Library
- How to buy
- Install
- Service
- Support
- Education**
- Site map
- Site search
- Printer-friendly
- Notify me
- Contact z/VM

Last Updated: 13 January 2022

Welcome to the overview page for z/VM Education. The education content has been developed directly by the IBM z/VM Development organization, and is intended to be used by anyone that is interested in learning more about z/VM. Find a [z/VM video education roadmap](#) that delivers a custom level of instruction for your current role.

## z/VM education roadmaps

New z/VM education videos are now available. These videos have been created by the IBM z/VM Development team along with others within the IBM zSystems organization. Videos range from basic introductory courses to more advanced z/VM topics. Several roadmaps have been created for you to find the appropriate level of z/VM education for your role. More videos are being added to the roadmaps on a continuous basis.



## More z/VM education resources



# Education Roadmaps

## 1. [Basic z/VM Knowledge Roadmap](#)

- *This track assumes you have little or no experience with the IBM mainframe, and your role will only require a basic knowledge of the product. The courses in this roadmap will touch on the basics, but will not include some of the advanced courses intended for z/VM System Programmers.*

- Examples of this role may include: **Architect, Sales, Manager, General Operator**

## 2. [New z/VM System Programmer Roadmap](#)

- *This roadmap is intended to be followed by someone new to the IBM mainframe that needs to have a comprehensive knowledge of z/VM for their job. This education will start at fundamentals of z/VM and progress through the advanced topics. This is the longest roadmap and contains all education modules.*

- Examples of this role may include: **z/VM System Operator, z/VM System Programmer**

## 3. [Experienced z/VM System Programmer Roadmap](#)

- *The advanced roadmap assumes you have previous IBM mainframe experience. Perhaps you have a background in z/OS and would like to learn more about z/VM. The education in this track skips some of the basic education found in the other roles.*

- Examples of this role may include: **z/OS System Programmer, Current z/VM System Administrator**

# Other Education

- Additional z/VM education links: <https://www.vm.ibm.com/education/links.html>
- z/VM "How To" videos: <https://www.vm.ibm.com/education/howto.html>
- z/VM-related live virtual classes: <https://www.ibm.com/support/pages/node/6351445>

# z/VM Education from Other Vendors

- Other vendors besides IBM offer education resources
- VM Solution Developer and Service Provider links can be found at the following link:

<https://www.vm.ibm.com/vendor/>

- z/VM Independent Software Vendors can request to be added to the page using a form (linked on the page)

## VM Solution Developer and Service Provider Links

- [Ascent Solutions, Inc.](#)
- [BMC Software Inc.](#)
- [Broadcom, Inc. \(formerly CA Technologies\)](#)
- [Compute \(Bridgend\) Ltd](#)
- [Compuware, Inc. \(formerly FDR Innovation Data Processing\)](#)
- [CorVu Corporation](#)
- [Data Direct Technologies](#)
- [Dignus, LLC](#)
- [Fischer International Systems Corp](#)
- [Independent Systems Integrators](#)
- [Information Builders, Inc.](#)
- [Information Technology Systems, Inc.](#)
- [L-Soft international, Inc.](#)
- [Macro 4](#)
- [Merrill Consultant's MXG Software](#)
- [Rocket Software](#)
- [SAS Institute](#)
- [Select Business Solutions \(formerly Aonix\)](#)
- [Sine Nomine Associates](#)
- [Software Diversified Services](#)
- [Stonesoft Corporation](#)
- [Syncsort, Inc.](#)
- [TPF Software Inc.](#)
- [Velocity Software, Inc.](#)
- [Virtual Software System, Inc. \(VSSI\)](#)
- [VM Resources LTD.](#)

# For the z/VM User



us·er

*/ˈyoozər/*

*noun*

1. a person who uses or operates something, especially a computer or other machine.  
"the user should press return and a message will be displayed"



# Reference Sources



# CMS HELP Command

- Tasks
- Commands and subcommands
  - `help cmsset filepool`
  - `help cpset share`
- Messages and wait states
  - `help dms069e`
  - `help hcp003e`
  - `help hcp1670w`
- System configuration statements
- etc.

```
HELP TASKS                               Task Help Information                               line 1 of 39
(c) Copyright IBM Corporation 1990, 2022

z/VM HELP, main panel

The help panels listed below provide information about various
z/VM functions, topics, and tasks.
To view a help panel, move the cursor to any character of the name
or description and press the ENTER key or the PF1 key.

HELP      - z/VM HELP Facility topics
MENUS     - z/VM help menus
TASKS     - Basic z/VM tasks
AVS       - AVS commands
CMS       - CMS commands
CP        - CP commands
DIRECTORY - CP Directory Statements
DIRMAINT  - DirMaint commands
DIRMAINT  - DirMaint topics
DUMPS     - Dump commands, subcommands, and utilities
DYNIO     - Dynamic I/O tasks
LE        - Language Environment commands
MACROS    - CMS assembler macros (menu)
MACROS    - Assembler macros and functions (types)
MESSAGES  - Messages and codes
OPEN      - OpenExtensions services and APIs
PERFKIT   - Performance Toolkit topics
PIPE      - CMS Pipelines built-in programs and cmds
QUERYSET  - QUERY and SET commands and subcommands
ROUTINES  - CMS callable services (menu)
ROUTINES  - CMS routines (types)
RSCS     - RSCS Networking commands and link parms
STATEMTS  - REXX, EXEC 2, and EXEC statements
SUBCMDS   - Subcommand groups, such as XEDIT
SYSCONFIG - CP System Configuration Statements
TCP/IP    - TCP/IP commands
TCP/IP    - TCP/IP tasks
PF1= Help   2= Top       3= Quit       4= Return     5= Clocate   6= ?
PF7= Backward 8= Forward  9= PFkeys   10=          11=         12= Cursor

====> _

Macro-read 1 File
```

# Library Websites

## "IBM Documentation" pages

- PDFs for all publications by release
- Individual documents or search by topic/task

## "z/VM Library" pages

- PDFs for all publications by release
- Indexed PDFs
  - » Search offline by topic/task
- Current presentations



# IBM Documentation

## CP SET SHARE Command

<https://www.ibm.com/docs/en/zvm/7.3>

**Note:** Make sure you go to the page that matches the release that you are running.

The screenshot shows the IBM Documentation website interface. At the top, there is a search bar with the text "set share" and a search icon. Below the search bar, the breadcrumb navigation reads "All products / z/VM / 7.3 /". The main heading is "z/VM 7.3". On the left side, there is a navigation menu with the following items: "z/VM", "Change version" (set to 7.3), "Show full table of contents" (checked), "Filter on titles" (input field), "z/VM 7.3 documentation (February 2023)", "z/VM 7.3 PDFs", "z/VM 7.3 help file updates", "z/VM videos", "About the z/VM 7.3 documentation", "What's in the z/VM 7.3 documentation", "System Overview", "Installation, Migration, and Service", "Planning and Administration", "Customization and Tuning", "Operation and Use", "Application Programming", "Diagnosis", "Data Facility Storage Management System for z/VM", and "Directory Maintenance Facility for z/VM". On the right side, there is a "Trending documentation" section with three blue tiles: "System Overview" (with a circular arrow icon), "Installation, Migration, and Service" (with a wrench and screwdriver icon), and "Planning and Administration" (with a gear icon).

# IBM Documentation

## CP SET SHARE Command

The screenshot shows the IBM Documentation search interface. The search query is "set share" and the results are filtered for z/VM 7.3. The left sidebar contains a navigation menu with the following items:

- IBM Documentation (selected)
- IBM Developer
- Support Technotes
- Technical books - IBM Redbooks
- IBM Announcement letters
- IBM Training
- IBM API Hub
- IBM.com

The main content area displays 80 results for the search query. The first three results are:

- Setting SHARES** (z/VM / 7.3): There are three ways to **set** a virtual machine's **SHARE**: Accept the default value CP assigns Use the SHARE directory statement to specify a value in the virtual machine's directory entry Use the **SET SHARE** command to **set** a value.,To reset a virtual machine's **share**, use the **SET SHARE** command. A share... (3 Minutes)
- SET SHARED** (z/VM / 7.3): **Set SHARED** ON OFF FOR rdev rdev1 rdev2 Authorization Privilege Class: B Purpose Use **SET SHARED** to control whether a full-pack minidisk is to be shared by the users of many real and virtual systems.,HCP2004E **Shared** not **set** for type rdev; does not support reserve/release. HCP2006E **Shared** not **set** for DASD... (2 Minutes)
- SET SHARE** (z/VM / 7.3): **Set SHARE** userid TYPE ALL TYPE ALL CP ZIIP IFL ICF INITial ABSolute nnn% RELative nnnn NOLimit LIMITSoft LIMITHard ABSolute mmm % LIMITSoft LIMITHard RELative mmmmm LIMITSoft LIMITHard NOLimit LIMITSoft LIMITHard Authorization Privilege Class: A Purpose Use **SET SHARE** to change the system-resource-access,For example, if you **SET**... (11 Minutes)
- SET SHARE Command** (z/VM / 7.3): The **SET SHARE** command and the SHARE directory statement allow you to control the percentage of processor time a user receives. With z/VM®, a virtual machine receives its proportion of processor time according to its **SHARE setting**.,Both the normal **share** and the maximum **share** can be **set**. Normal **share**—The... (3 Minutes)

A "Site feedback" button is visible on the right side of the page.

# IBM z/VM Library Pages

## CP SET SHARE Command

<https://www.vm.ibm.com/library/pdfzip.html>

To search the library offline:

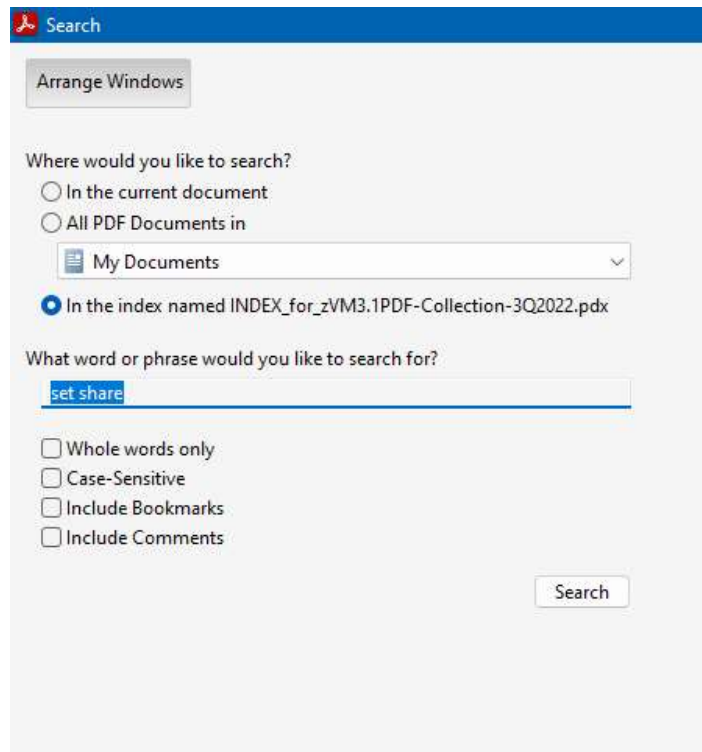
1. Download zip file and extract to a folder
2. Open .PDX file in extracted folder

The screenshot displays the IBM z/VM Library website. The top navigation bar includes the IBM logo and links for 'Let's Create', 'Products & Solutions', 'Consulting & Services', 'Learn & Support', and 'Explore more'. The main header area is dark blue with the text 'z/VM > Library >' and 'Indexed PDF collections'. Below this is a horizontal menu with tabs for 'Overview', 'z/VM 6.x PDFs', 'z/VM 7.1 PDFs', 'z/VM 7.2 PDFs', 'z/VM 7.3 PDFs', 'z/VM Related PDFs', 'Indexed PDFs' (which is selected), and 'Presentations'. On the left side, there is a vertical navigation menu with categories: 'z/VM', 'News', 'About z/VM', 'Events calendar', 'Products and features', 'Downloads', 'Technical resources', and 'Library'. Under 'Library', there are sub-links for 'z/VM 6.x PDFs', 'z/VM 7.1 PDFs', 'z/VM 7.2 PDFs', 'z/VM 7.3 PDFs', 'z/VM Related PDFs', and 'Indexed PDFs' (which is highlighted). The main content area on the right shows 'Last Updated: 21 May 2023'. It contains three paragraphs of text explaining the indexed PDF collections and their usage. Below the text is a section titled '+ Instructions on how to use the indexed PDF collection' which contains a table. The table has four columns: 'Filename', 'Description', 'Size (MB)', and 'Latest Content'. It lists several collections with their respective filenames, descriptions, sizes, and latest content dates.

Filename	Description	Size (MB)	Latest Content
<a href="#">2023 May zVM730 Collection.zip</a>	<a href="#">z/VM 7.3 2023 May PDF collection</a> - View more information below for APARs in this collection. <a href="#">+ More information</a>	263	7.3 - 2023 2Q NFA
<a href="#">2022 September zVM730 GA Collection.zip</a>	<a href="#">z/VM 7.3 2022 September PDF collection</a> - View more information below for APARs in this collection. <a href="#">+ More information</a>	253	7.3 - 2022 3Q GA
<a href="#">2022 May zVM720 Collection.zip</a>	<a href="#">z/VM 7.2 2022 May PDF collection</a> - View more information below for APARs in this collection. <a href="#">+ More information</a>	257	7.2 - 2022 2Q NFA
<a href="#">2021 December zVM720 Collection.zip</a>	<a href="#">z/VM 7.2 2021 December PDF collection</a> - View more information below for APARs in this collection. <a href="#">+ More information</a>	256	7.2 - 2021 4Q NFA
<a href="#">2021 September zVM720 Collection.zip</a>	<a href="#">z/VM 7.2 2021 September PDF collection</a> - View more information below for APARs in this collection. <a href="#">+ More information</a>	254	7.2 - 2021 3Q NFA
<a href="#">2021 August zVM720 Collection.zip</a>	<a href="#">z/VM 7.2 2021 August PDF collection</a> - View more information below for APARs in this collection.	255	7.2 - 2021 2Q NFA

# IBM z/VM Library Pages

## *CP SET SHARE Command*



Search

Arrange Windows

Where would you like to search?

In the current document

All PDF Documents in

My Documents

In the index named INDEX\_for\_zVM3.1PDF-Collection-3Q2022.pdx

What word or phrase would you like to search for?

set share

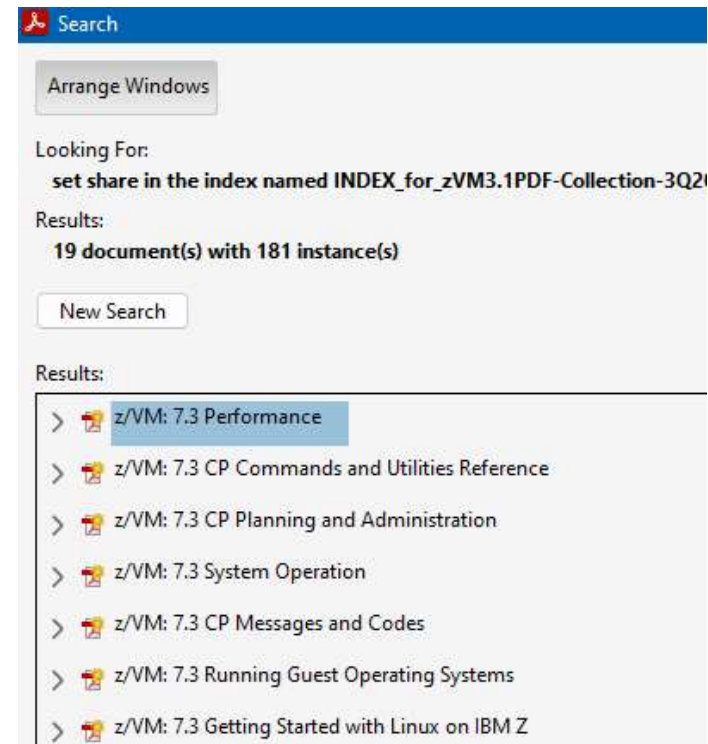
Whole words only

Case-Sensitive

Include Bookmarks

Include Comments

Search



Search

Arrange Windows

Looking For:

**set share in the index named INDEX\_for\_zVM3.1PDF-Collection-3Q2022.pdx**

Results:

**19 document(s) with 181 instance(s)**

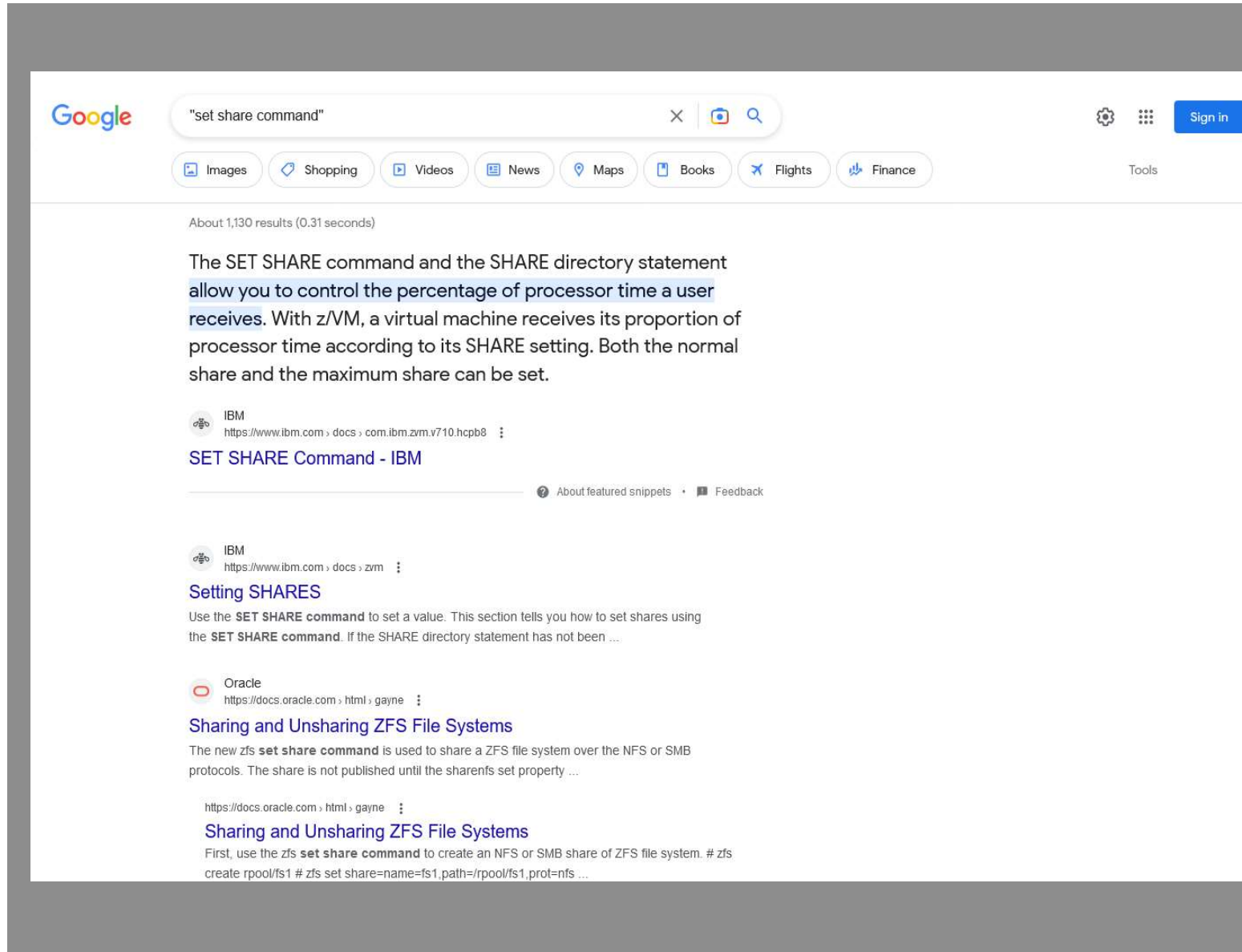
New Search

Results:

- > z/VM: 7.3 Performance
- > z/VM: 7.3 CP Commands and Utilities Reference
- > z/VM: 7.3 CP Planning and Administration
- > z/VM: 7.3 System Operation
- > z/VM: 7.3 CP Messages and Codes
- > z/VM: 7.3 Running Guest Operating Systems
- > z/VM: 7.3 Getting Started with Linux on IBM Z

# Web Search

## CP SET SHARE Command




The screenshot shows a Google search for "set share command". The search bar contains the query, and the results page displays several snippets. The first snippet is a featured snippet from IBM, explaining that the SET SHARE command and the SHARE directory statement allow controlling the percentage of processor time a user receives. Below this are three search results from IBM and Oracle, each with a title and a brief description of the command's use.

Google "set share command" × 📷 🔍 Sign in

[Images](#) [Shopping](#) [Videos](#) [News](#) [Maps](#) [Books](#) [Flights](#) [Finance](#) Tools


About 1,130 results (0.31 seconds)

The SET SHARE command and the SHARE directory statement allow you to control the percentage of processor time a user receives. With z/VM, a virtual machine receives its proportion of processor time according to its SHARE setting. Both the normal share and the maximum share can be set.

 IBM  
<https://www.ibm.com/docs/com.ibm.zvm.v710.hcplb8>


**SET SHARE Command - IBM**

[About featured snippets](#) [Feedback](#)

 IBM  
<https://www.ibm.com/docs/zvm>

**Setting SHARES**

Use the **SET SHARE command** to set a value. This section tells you how to set shares using the **SET SHARE command**. If the SHARE directory statement has not been ...

 Oracle  
<https://docs.oracle.com/html/gayne>

**Sharing and Unsharing ZFS File Systems**

The new zfs **set share command** is used to share a ZFS file system over the NFS or SMB protocols. The share is not published until the sharenfs set property ...

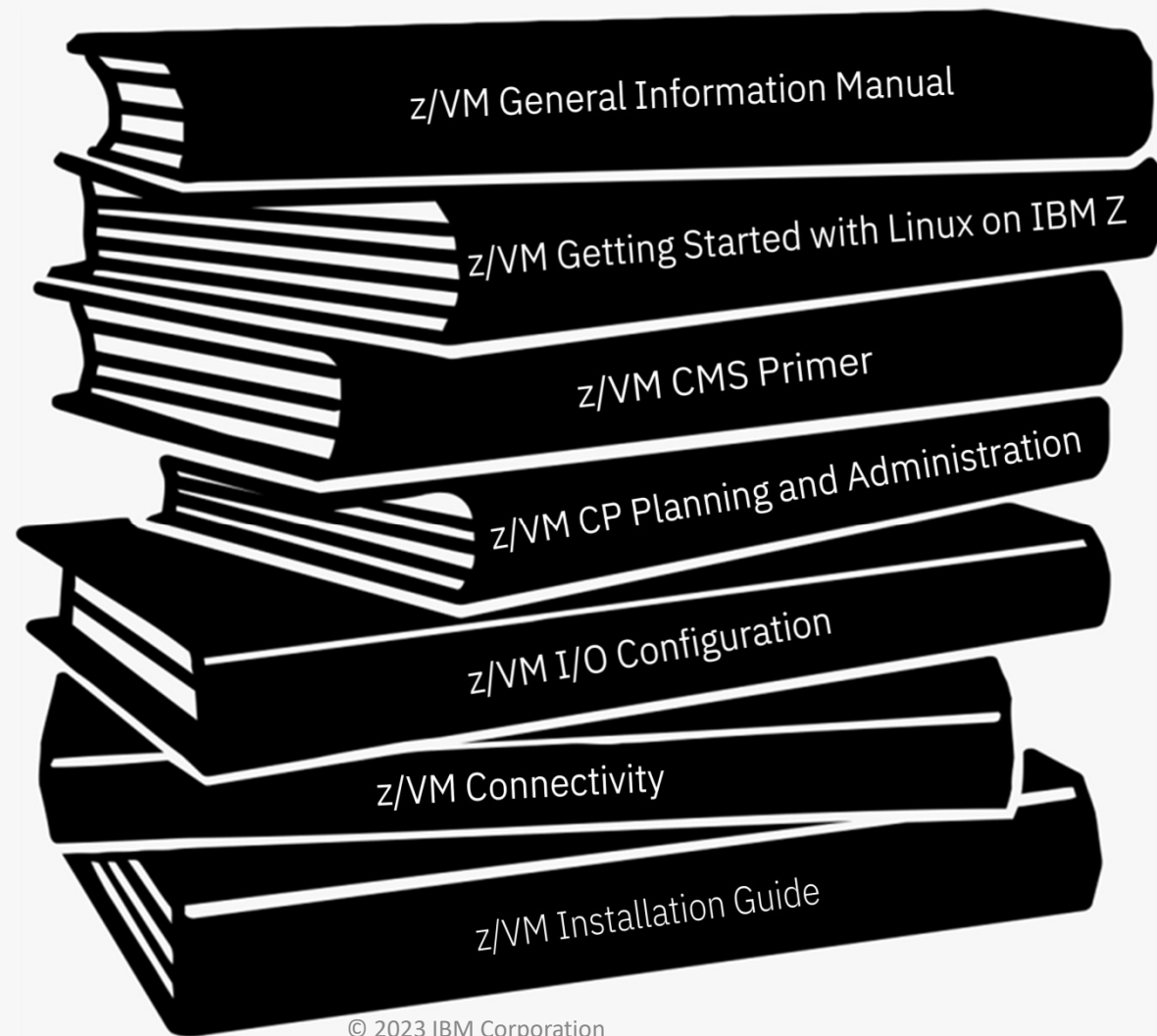
<https://docs.oracle.com/html/gayne>

**Sharing and Unsharing ZFS File Systems**

First, use the zfs **set share command** to create an NFS or SMB share of ZFS file system. # zfs create rpool/fs1 # zfs set share=name=fs1,path=/rpool/fs1,prot=nfs ...



## Some Key Books *if you are new to z/VM*



# z/VM General Information Manual

GC24-6286

Often referred to as the “GIM”

One of the first books updated and made available for a new release or enhancements in service stream

## Key Content:

- *Overview of z/VM and value (a little marketing)*
- *What has changed in the most current release*
- *Requirements*
- *Appendices on Support Levels*
  - *IBM servers supported by z/VM*
  - *IBM operating systems supported as guests of z/VM*
  - *IBM devices supported*

# Getting Started with Linux on IBM Z

SC24-6287

Sometimes abbreviated “GSWL”

More about z/VM than about Linux, but written with Linux as the primary workload for z/VM

Meant as a bridge between the simple installation process and many books in the library with pointers to other books for more details

## Key Content:

- *Planning for Linux usage*
- *Configuring DirMaint (Directory Maintenance Feature)*
- *Configuring TCP/IP*
- *Cloning of Linux guests*

# z/VM CMS Primer

SC24-6265

Walks through getting started with CMS

## Key Content:

- *Logging on and off z/VM*
- *CMS minidisk file system and SFS (Shared File System) background*
- *Editing files using XEDIT*
- *Managing files and related several productivity aids included in CMS*
  - *Like other platforms, there is often more than one way to do things*

Content you can probably skip when you read for first time:

- *Printing from CMS*
- *NAMES files*

# z/VM CP Planning and Administration

SC24-6271

Also known as “CP P&A” or “Planning and Admin”

- There are separate planning and administration books for other components

Not just a book for first time install/configuration

- z/VM systems are dynamic and may grow – revisit for paging space and other considerations

Key Content:

- *Details behind planning and configuring a z/VM system*
- *Formulae for:*
  - *Memory required*
  - *Disk page space*
  - *Dump space*
- *Details behind User Directory (where virtual machines are defined)*

# z/VM I/O Configuration

SC24-6291

Explains planning, defining, and managing your I/O configuration

## Key content:

- *How to generate dynamic I/O configuration changes from z/VM*
- *How to enable z/VM to respond to dynamic I/O configuration changes*
- *Hardware Configuration Definition (HCD)*
- *Dynamic I/O configuration commands*

## NOTE:

- *Does not include information about using Dynamic Partition Manager (DPM)*

# z/VM Connectivity

SC24-6267

Connectivity book is good book and often overlooked

Introduction/Overview of z/VM Connectivity

All about z/VM virtual networks

- Virtual switches
- Guest LANs

Other communication protocols or functions in z/VM

- Advanced Program-to-Program Communications (APPC)
- Inter-System Facility for Communications (ISFC) – backbone of SSI clustering

# z/VM Installation Guide

GC24-6292

Often known simply as the “Install Guide”

## Hints

- Read through entirely before starting to install z/VM
- Watch for common looking tables

## Key Content:

- *Step by step details on installation of z/VM*
- *Various installation techniques*
  - *Traditional*
  - *Upgrade*
- *Information about preinstalled licensed products and features*
  - *Performance Toolkit, DirMaint, etc.*



# Redbooks

<https://www.redbooks.ibm.com/>

<https://www.vm.ibm.com/pubs/redbooks/>

Result of collaborative residency work with IBMers and others

<https://www.redbooks.ibm.com/residencies>

Great source of information

- Practical
- Hands on
- Combines different products
- Usage based instead of reference based

Use some caution

- Some Redbooks have not been updated in a long time
  - Information is still relevant, but details might be different on recent releases
- Show a specific solution, but might not be the best option for all scenarios

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# Product and Service Information

# Product Alerts and Status Information

The following webpages/resources contain key information to keep you up-to-date with all you need to know to upgrade, service, and maintain your z/VM systems.

Pages to Subscribe to:

- Continuous Delivery page: <https://www.vm.ibm.com/newfunction/index.html>
- New Function Variable page: <https://www.vm.ibm.com/newfunction/varlist.html>
- Latest RSU information: <https://www.vm.ibm.com/service/RSU/RSUPLAN.HTML>
- Red Alert page: <https://www.vm.ibm.com/service/redalert/>
- PTF Support pages: <https://www.ibm.com/support/pages/apar/VM66265>
  - NOTE: You need to subscribe to each component individually (eg. Dirmaint vs. CP)

## *Statement of Direction – z/VM Linear Service*

z/VM 7.3 is the last z/VM release planned to support the ability to apply service in a selective fashion. Currently, PTFs within the same component can be applied without requiring all previous service to also be applied, based on requisite rules. A future z/VM release intends to implement a linear service model whereby applying one PTF will require all previous service for the same component to be installed.

**Note:** In a future release of z/VM, some of these webpages may change to accommodate the shift to linear service.

# Product Alerts and Status Information (continued)

The following webpages/resources contain key information to keep you up-to-date with all you need to know to upgrade, service, and maintain your z/VM systems.

Key pages to bookmark/reference:

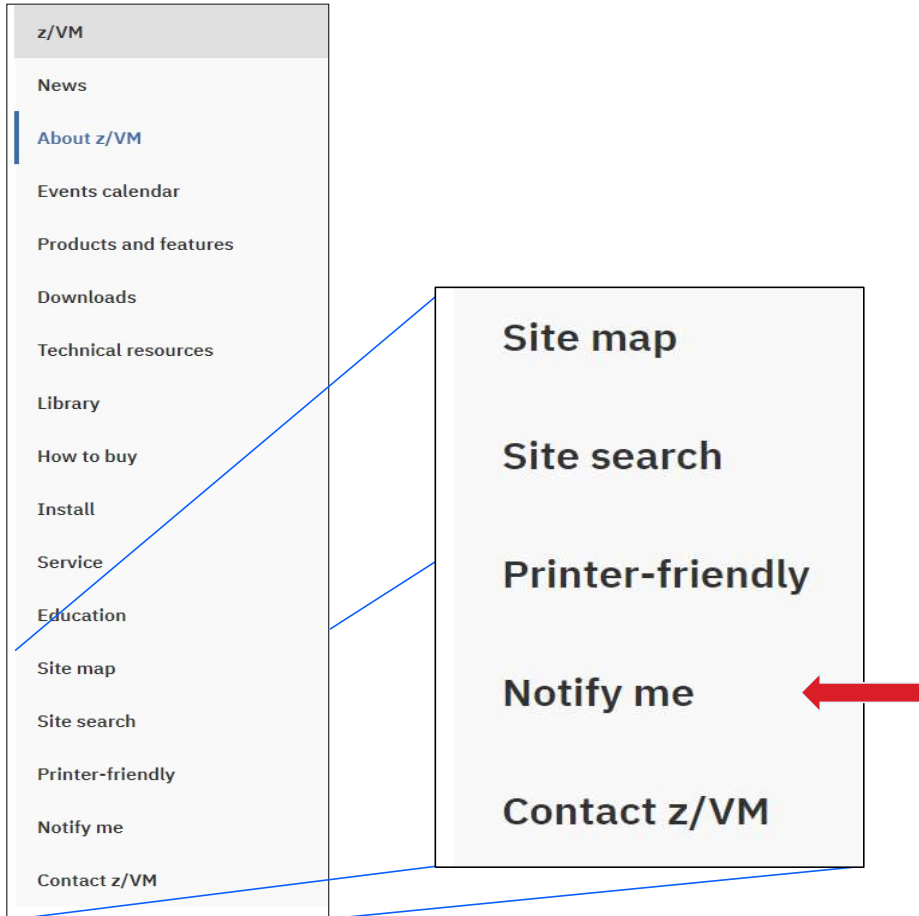
- Technical Resources: <https://www.vm.ibm.com/techinfo/>
- z/VM Downloads page: <https://www.vm.ibm.com/download/>
- z/VM Service news: <https://www.vm.ibm.com/service/>
- z/VM Support pages: <https://www.vm.ibm.com/support/>

## ***Statement of Direction – z/VM Linear Service***

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**Note:** In a future release of z/VM, some of these webpages may change to accommodate the shift to linear service.

# How to Subscribe to z/VM Pages



- From any vm.ibm.com site, click “Notify Me” on side panel.

# How to Subscribe to z/VM Pages

The fields indicated with an asterisk (\*) are required to complete this transaction; other fields are optional. If you do not want to provide us with the required information, please use the "Back" button on your browser to return to the previous page, or close the window or browser session that is displaying this page.

<b>* Action:</b> (choose one)	<input checked="" type="radio"/> Enroll <input type="radio"/> Unenroll <input type="radio"/> Query
<b>* Your e-mail address:</b> (for example, <b>you@yourcompany.com</b> )	<input type="text"/>
<b>* File:</b> (for example, <b>/service</b> <b>/rsu/rsu_eso.html</b> ) (required for enroll and unenroll) (ignored for query)	<input type="text" value="/service/redalert/index.html"/>

IBM does not use the information you provide here to keep you informed through other ways. The information you provide here is used only for the purpose articulated on this form.

By clicking "Submit", you agree that IBM may process your data in the manner indicated above and as described in our Privacy policy.

**Submit**

- File is filled in automatically.
- Query is great for seeing what you've already subscribed to.

# Querying existing subscriptions

## Query Response

User jpgagnon@us.ibm.com is enrolled for change notices for the following files on our site:

File	Action
<a href="/service/rsu/index.html">/service/rsu/index.html</a>	Unenroll
<a href="/service/redalert/index.html">/service/redalert/index.html</a>	Unenroll
<a href="/service/rsu/rsuplan.html">/service/rsu/rsuplan.html</a>	Unenroll
<a href="/newfunction/index.html">/newfunction/index.html</a>	Unenroll
<a href="/newfunction/varlist.html">/newfunction/varlist.html</a>	Unenroll

[Return](#) to the notification menu.

Thanks,  
The VM Team

# z/VM Continuous Delivery Webpage

- <http://www.vm.ibm.com/newfunction/>
- Provides information on new function that is being considered
  - Description
  - Status
  - Effect
  - Compatibility
- Allows an early insight into future enhancements and for those where there is interest, a client can contact IBM to be involved with the item as a ‘sponsor user’.
- Recommend you get on the notify list for this page.

## New Function APARs

New function in progress	Target date	Last updated
Active Drain for PAGE Volumes	TBD	August 4, 2022
CPU Measurement Facility Host Sampler Exploitation	TBD	September 28, 2022
Greater than 1TB Guest Support	June 2023	April 4, 2023
Large Guest LOGOFF Reset Time Mitigation	June 2023	April 4, 2023
Performance Data Pump	July 2023	May 17, 2023
Query z/VM System Security Settings	June 2023	May 12, 2023
REXX Sockets Enhancements	TBD	September 28, 2022
Support Larger NVMe EDEVICE Page Space Allocations	August 2023	May 17, 2023
System SSL 2.5 Uplift	TBD	November 18, 2022
Thin Stack Adapter Interrupt Support	TBD	March 17, 2023
Timing Enhancements*	TBD	February 4, 2021
Warning Track Interruption Facility	TBD	November 18, 2022

\* Denotes the z/VM team is seeking Sponsor Users. See New Function APAR for more information.

Available new function	Date released	Last updated
Automatic-STANDBY Memory for Guests	March 3, 2021	March 4, 2021
Centralized Service Management	September 18, 2020	September 24, 2020
CP New Feature Interrogation API	October 15, 2020	March 31, 2021
CP Query Devices	December 8, 2020	March 31, 2021
Crypto Stateless-Command Filtering	May 12, 2023	May 12, 2023
CSM Fixpack	September 16, 2022	September 16, 2022
Direct to Host Service Transfer	August 31, 2021	March 10, 2022
DIRMAINT Automatic Sensing of Disk Volume Sizes	September 16, 2022	October 24, 2022
DirMaint Health Checker	December 11, 2020	March 4, 2021
DirMaint Performance Enhancements	March 16, 2022	March 21, 2022
Dynamic Memory Downgrade	August 6, 2021	August 12, 2021
EDEVICE Path Management	August 31, 2021	September 1, 2021
ESM Control of DEFINE.MDISK Command	September 16, 2022	September 16, 2022
Fast z/VM Dump Distiller	March 1, 2021	March 10, 2022



# New Function Variable Webpage

- <http://www.vm.ibm.com/newfunction/varlist.html>
- Provides a list of variables which are programmatically introduced with CP New Function in the service stream.
- Can be used to augment automation.
- Can be used to conveniently see the list of functional capabilities on your running system.
- Recommend you get on the notify list for this page.

Filter:

Release	APAR	APAR name	Environment variable name	Data type	Variable value	Variable value description
7.3	N/A	SSI 8-Member Clusters	<b>CP.LIMIT.SSI.MEMBERS</b> <a href="#">+ More information</a>	decimal integer	8	The variable is a decimal integer with a value of 8. This means that the level of CP code on the system supports up to eight members in an SSI cluster when it is properly enabled. Prior to the existence of this variable, four members were supported.
7.2	<a href="#">VM66271</a>	Dynamic Memory Downgrade	<b>CP.LIMIT.MEMORY.RECONFIG</b> <a href="#">+ More information</a>	decimal integer	50	Value indicates the maximum percentage of a system's real memory can be reconfigured. 0 = No reconfigurable memory. 50 = 50% of memory is designated as reconfigurable.
7.2	<a href="#">VM66173</a>	Dynamic Memory Downgrade	<b>CP.LIMIT.MEMORY.RECONFIG</b> <a href="#">+ More information</a>	decimal integer	0	VM66173 introduces the new function variable. The variable value is initially fenced at 0 which means no reconfigurable memory. APAR

# Latest RSU Information

- <https://www.vm.ibm.com/service/RSU/RSUPLAN.HTML>
- Provides notification for the “next RSU” (Recommended Service Upgrade)
- Helps you stay current on the latest service
- Provides details on the content of an RSU (helpful for verification and planning)

## RSU Plans

We receive many inquiries about the timing of the "next RSU". As a result, we are providing information here about potential RSU deliveries.

Because schedules may change for various reasons, we might need to deliver something sooner or later than anticipated.

To be notified when changes occur please [subscribe](#) to this page.

### Note:

When ordering an RSU, be aware that you will also receive a link to the RSU PSP Bucket. This PSP Bucket has fix items, including PE resolutions, that normally would be included as part of an RSU. However, some of those items pull significant new function updates (for example, APAR VM66173 -- Four Terabyte Main Memory Support) that have not met the z/VM development organization's criteria for RSU content (although these updates likely have been identified as candidates for a subsequent RSU).

It is advised that you verify the PSP Bucket sent with your RSU order, and download and install it only if you want the new function APARS applied to your system.

z/VM RSU Planned and Actual Delivery Dates (mm/dd/yyyy)			
z/VM Release	RSU Level	RSU (mm/dd/yyyy)	Comments
2023 Plans			
7.3.0	7303RSU	3Q2023	
7.2.0	7205RSU	2Q2023	
7.3.0	7302RSU	03/15/2023	
2022			
7.1.0	7106RSU	12/13/2022	Last RSU prior to end of service
7.3.0	7301RSU	09/16/2022	7.3.0 GA RSU
7.2.0	7204RSU	03/29/2022	
2021			
7.2.0	7203RSU	10/04/2021	
7.1.0	7105RSU	07/01/2021	
7.2.0	7202RSU	03/31/2021	
2020			
6.4.0	6407RSU	12/16/2020	Last RSU prior to end of service
7.2.0	7201RSU	09/18/2020	7.2.0 GA RSU
7.1.0	7104RSU	01/23/2020	

# z/VM Service : Red Alerts

- <https://www.vm.ibm.com/service/redalert/>
- This page documents critical service information, examples:
  - APARs that are important though the abstract might not be obvious as to why you would need it.
  - Problems related to different factors (e.g. millicode change and unrelated z/VM feature)
  - Potential high-impact problems where APAR or PTF may not be available yet.
- Low number of red alerts, ~ 1 to 3 per year
- Highly recommend you subscribe for notification of changes to this page.

## z/VM Service: Red Alerts

This page is intended to provide information about potential high-impact items and in some cases prior to the opening of an APAR. Note that when a release level reaches the **end of service**, we intend to remove the item from the list.

Date	Description
14 April 2023	GskNoCiphers errors may occur in z/VM SSL connections including CMS Pipelines and GetShopz.
19 September 2022	The z/VM 7.3 RAMDISK system will configure less storage than specified in the LPAR activation profile during a first level z/VM installation.
01 July 2021	APAR VM66173 (PTF UM35834) for 4TB REAL MEMORY SUPPORT is in error
29 June 2021	VMSES/E PTF is now available for issue involving VM66173 from 22 March 2021
22 March 2021	RACF users applying VM66173 (PTF UM35834) will encounter VMSES/E errors - Fixing PTF now available
22 July 2020	Linux server fails after Live Guest Relocation (LGR) Contact IBM Service to install the appropriate bundle.
30 March 2020	APAR VM66219 (PTF UM35465) for VSwitch Priority Queuing is in error. Apply PTF for APAR VM66363.
20 July 2018	Upcoming required changes to uploading documentation for z/VM problems due to GDPR compliance
30 Mar 2018	APAR VM65943 is in error (PTF UM35187). Apply PTF for APAR VM66140.
13 Dec 2017	Avoid IPL Failures - Reminder to update the Stand Alone Program Loader (SAPL) for z14 ( <i>Updated 10 April 2018</i> )
10 July 2017	APAR VM66026 is in error. Apply PTF for APAR VM66036.

---

# IBM Support: PTF Information

- <https://www.ibm.com/support/pages/apar/VM66560> (example)
- Provides information on specific PTFs
- Can subscribe to get:
  - Updates on individual fixes
  - Updates for ALL APARS for the applicable component.
- NOTE: you must subscribe to each component individually. (eg. CP vs. DirMaint, etc)

IBM | Search

Support Downloads Documentation Forums Cases Monitoring Manage support account

## VM66560: PRESERVE PARTIAL DUMP ACROSS INITIAL PROGRAM LOAD

**A fix is available**  
[Obtain the fix for this APAR.](#)

**APAR status**  
Closed as new function.

**Error description**  
This APAR changes CP to preserve a partial dump if a partition is re-IPLed before an abend dump completes. Currently, the dump process is terminated by a re-IPL and none of the dump is preserved.

**Local fix**  
N/A

**Problem summary**  
\*\*\*\*\*  
\* USERS AFFECTED: All users of z/VM CP Abend dumps \*  
\*\*\*\*\*  
\* PROBLEM DESCRIPTION: \*  
\*\*\*\*\*  
\* RECOMMENDATION: APPLY PTF \*  
\*\*\*\*\*

**Document Information**  
Software version: 720  
Operating system(s): z Systems  
Document number: 6483945  
Modified date: 09 January 2023

**Subscribe**  
You can track all active APARs for this component.  
Notify me when an APAR for

# z/VM Service

- <https://www.vm.ibm.com/service/>
- Important service news
- Links to program directories and other important information
  - “Program Directories” are documents intended for the system programmer responsible for program installation, covering such topics as: Support, Installation, and Service.
- Links to other IBM service-related pages
  - PSP (Preventive Service Planning) Buckets: contain information about important PTFs
  - IBM Support Portal
- Details on GetShopz – Direct-to-Host Service Download

The screenshot shows the IBM z/VM Service website. At the top, there is a navigation bar with the IBM logo and links for 'Let's Create', 'Products & Solutions', 'Consulting & Services', 'Learn & Support', and 'Explore more'. A search icon and a menu icon are also present. Below the navigation bar, there is a secondary menu with links for 'Query Service', 'Centralized Service', 'Preventive Service', 'Corrective Service', 'GetShopz Utility', 'Tips', 'Resources', and 'News'. The main content area is titled 'Service for a z/VM System' and contains the following text: 'You are encouraged to keep your z/VM system at a healthy service level. To do this, it is recommended that you stay on a supported z/VM release and service level. z/VM offers two releases in service from which to choose. The most current release (z/VM 7.2) offers new function that is delivered on a continuous basis, through its service stream. The previous release (z/VM 7.1) will be functionally stabilized, but will continue to receive the latest service.' Below this, there are sections for 'z/VM 7.3 now available' and 'z/VM 7.2', each with a list of bullet points. The 'Installing Service' section provides links for 'Version 7 service' and 'Version 6 service'. The 'Direct to host service utility' section includes a 'New' badge and a link to 'Direct to host service utility - GetShopz is now available as APAR VM66540 with z/VM 7.2.' The 'Types of service' section lists two types: 'Preventive Service' and 'Corrective Service'. A sidebar on the left contains a list of links: 'z/VM', 'News', 'About z/VM', 'Events calendar', 'Products and features', 'Downloads', 'Technical resources', 'Library', 'How to buy', 'Install', 'Service', 'Support', 'Education', 'Site map', 'Site search', 'Printer-friendly', 'Notify me', and 'Contact z/VM'.

# z/VM Support

- <https://www.vm.ibm.com/support/>
- Set of pages geared towards preventing customer problems where possible.
  - Best practices
  - Set-up activities
  - Ongoing activities
- Information on what to do when a problem arises
  - Must Gather Information to reduce mean-time to resolution
- Instructions on how to send various types of data to IBM for analysis.

IBM Let's Create Products & Solutions ▾ Consulting & Services ▾ Learn & Support ▾ Explore more ▾

## z/VM Support Overview

Overview Preparation Troubleshooting Must Gather Sending Data

z/VM Last Updated: 2 December 2020

News Welcome to the Overview page for z/VM Support. This information is intended to be used by both customers and z/VM Support personnel to help prevent, identify, and fix customer problems. It is arranged in a series of sections selected by the corresponding tab above. It covers information on:

About z/VM

Events calendar → Perform preparation and best practices activities  
Here, we describe the various activities and processes that you should complete in order to say you're "ready". This includes setup and on-going activities that will help you avoid problems and/or allow for the appropriate information to be collected should you have a problem in the future. If you wait until you have an actual problem to do these things, it may be too late.

Products and features

Downloads

Technical resources → Troubleshoot problems  
This section describes the common types of problems and symptoms and describes what you should do for that particular case. It will also include a list of the 'Must Gather' information.

Library

How to buy → Identify and collect "Must Gather"  
Here, we will provide step by step procedures for collecting the various types of "Must Gather" information. Use this section if you are unfamiliar with how to collect something mentioned in other sections.

Install

Service

Support → Send the data to z/VM Support  
Finally, we describe the procedures to use for sending various types of data to IBM for analysis.

Education This information covers multiple product components and features of z/VM as well as some related products. In general, you should have reviewed and implemented the recommendations in the Preparation section. Then when you experience a problem, review the Troubleshoot section. Follow the procedures listed there and utilize the Must Gather Details and Sending Data pages if the processes are unfamiliar to you.

Site map

Site search For those that want to learn more about problem determination and analyzing the data, various components of z/VM have a Diagnosis Guide. Please see the z/VM Library for the guides related to your z/VM release.

# z/VM Community Resources

# z/VM Downloads

- <https://www.vm.ibm.com/download/>
- This page contains a repository of z/VM tools, documentation, and gadgets for z/VM system programmers.
- Download packages from IBM and non-IBMers
- Instructions for how to upload and download content

## VM Download Packages

Read the [license agreement](#) before downloading, and if you need instructions on how to unpack what you download, visit the [download page](#).

On this page is the **Entire Library** view of the library. If the list appears truncated or corrupted, flush your browser's memory and disk caches and then reload this page.

Toggle among views by clicking on:

[Entire library](#) | [Monthly favorites](#) | [All-time favorites](#)

To download from here, follow these easy instructions:

**To download the package's...Click on...**

VMARC archive      The [v-](#) link  
 ZIP archive        The [z-](#) link  
 TAR archive        The [t-](#) link  
 Description        The [\(+\)](#)

Note that the link also tells you the size of the file in KB.

List of Entire Library (502 total)

Name	Types	Date	Abstract	More...
<a href="#">SFCOUNTR</a>	v-7K	2023-03-29	SFCOUNTR makes a list of users with more than a requested number of spool files.	(+)
<a href="#">FCXTREND</a>	v-12K z-102K	2023-03-06	Pruning aid for IBM Performance Toolkit's FCXTREND files	(+)
<a href="#">SFLIST</a>	v-49K	2022-11-07	z/VM tool to manipulate (view, receive, purge, transfer) spool files.	(+)
<a href="#">CP3KVMXT</a>	v-600K	2022-10-31	v2.9d Create an input file for zPCR or zCP3000 from monitor data.	(+)
<a href="#">CP1STLVL</a>	v-30K	2022-10-17	CP exit allowing 2nd-level user to invoke 1st-level commands	(+)
<a href="#">CHKAPARS</a>	v-40K	2022-09-12	CHKAPARS EXEC - Evaluates system APAR data for a selected z/VM component or all such components	(+)
<a href="#">R4MON</a>	v-20K	2022-08-29	Report on VM66095 EDEV FCP chpid and device records.	(+)
<a href="#">DR_DRCT</a>	v-66K	2022-07-12	Directory fix-it tools: Move/expand DRCT area; find CMS minidisks; more.	(+)
<a href="#">MONWATCH</a>	v-7K	2022-07-08	Feed CP Monitor records to a user-written Pipelines stage	(+)
<a href="#">CPUMF</a>	v-41K	2022-06-28	Report on D5 R13 MRPRCMFC CPU Measurement Facility counters.	(+)
<a href="#">CALCENT</a>	v-16K	2022-05-25	Calculate LPAR entitlement table from a MONWRITE file	(+)
<a href="#">DOR16TOP</a>	v-13K	2022-05-23	Draws machine topology from a MONWRITE File	(+)
<a href="#">LISTSG</a>	v-92K	2022-05-23	A series of FILELIST-like tools <b>V1.8</b>	(+)
<a href="#">INSTPROD</a>	v-49K z-103K	2022-05-11	Automated install of IBM products for z/VM including Operations Manager, Backup and Restore Manager, Tape Manager, zSecure, and OMEGAMON VE	(+)



# Events and Local User Groups

- z/VM Events: <https://www.vm.ibm.com/events/>
- Local User Groups around the world: <https://www.vm.ibm.com/events/usergrps.html>

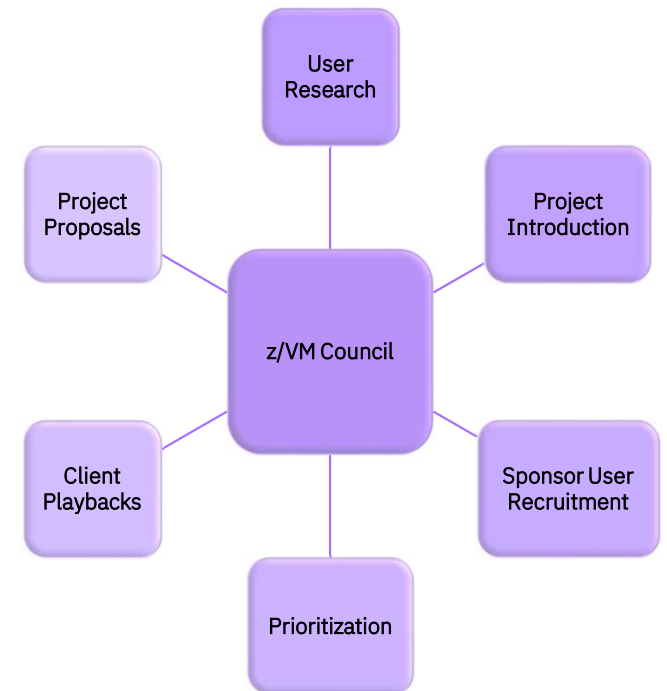


# Mailing Lists

- There are two very helpful mailing lists: <https://www.vm.ibm.com/techinfo/listserv.html>
  - IBMVM
  - LINUX-390
- Experts available 24 x 365
- Can subscribe to get each message as an email or daily digest form
- Recommend subscribing even if you don't have a question!
- People all over the world available to help answer questions

# z/VM Council : Client Communication and Collaboration

- z/VM-centric community started in June 2018
  - Meeting about once a month via telephone and web conferencing
  - Other collaboration done via membership website
- Membership Requirements
  - IBM Z Feedback Program Agreement (FPA)
  - Regular participation
  - Sponsor User for at least one project per year
  - Homework assignments
- Additional details:
  - [https://www.vm.ibm.com/sponsor\\_user/zvm\\_council.html](https://www.vm.ibm.com/sponsor_user/zvm_council.html)
  - Contact: Kerry Wilson – [kerryw@us.ibm.com](mailto:kerryw@us.ibm.com)



# Summary

- There are many sources and types of z/VM information
  - Education
  - Reference
  - Community
- Depth and quantity of information you need depends on your interest or role
  - "Tourist"
  - User
- Subscribing to the recommended web pages will keep you current and informed
- Take advantage of the experience and camaraderie of the z/VM Community

Resource	z/VM Tourist	z/VM User
Education Roadmaps	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
z/VM Education Links	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
z/VM How-To Videos	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
z/VM-related Live Virtual Classes		<input checked="" type="checkbox"/>
Online Help		<input checked="" type="checkbox"/>
z/VM Documentation		<input checked="" type="checkbox"/>
Key Books		<input checked="" type="checkbox"/>
Product Alerts & Status Information Webpages		<input checked="" type="checkbox"/>
Community Resources		<input checked="" type="checkbox"/>

**IBM**