

Watson & Walker zRoadshow Session 28640



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Welcome

Who are we?

- Watson & Walker founded in 1988 by **Cheryl Watson & Tom Walker**.
- Publisher of *Cheryl Watson's Tuning Letter* and *CPU Charts* since 1991.
- After the *Tuning Letter*, our primary focus has been helping our customers reduce their software costs.
- We are completely independent, not beholden to any vendor, so we can offer objective information based on our collective experience, what we see in other customers, helping clients to make a fully informed decision.
- In addition to our publications, our team provides consulting on performance, capacity and upgrade planning, sysplex, and software pricing.
- For more information, see www.watsonwalker.com.



Watson & Walker zRoadshow

The objective of this session is to make you aware of important announcements, fixes, new functions, and user experiences since the last Virtual SHARE, in September 2020.

We have lots to cover, so let's get straight into it...

z/OS 2.5

Just announced this week.

Requires z13 or newer.

Install will require z/OSMF – **but** Cheryl has more on that later.

This is the last release of z/OS that will include IBM JES3.

Still sifting through the announcement material to separate out items that have already been announced/delivered through the Continuous Delivery stream.

- MANY of the new functions are rolled back to previous releases, so even if you don't plan on going to z/OS 2.5 soon, make sure you review the announcement.

For more info about z/OS2.5, see **Gary Puchkoff's** 126-slide (!) *What's New in z/OS V2R5: Winter 2021 Virtual Edition* session [28678](#) from today and the [z/OS 2.5 Preview announcement letter](#) and the next issue of the Tuning Letter.

Not related to z/OS 2.5, but make sure that you check out the upcoming [DFSMS Academy FREE classes](#). And if you use IBM storage, see the long list of [IBM ATG Storage podcasts](#).

Important Dates

End of Support dates:

- **z/OS 2.2 09/30/20** (already passed).
- **IMS V14 11/30/2020** (already passed).
- **CICS TS 5.2 12/31/2020** (already passed) (**CICS TS 5.3 EoS is 12/31/2021**).
- Db2 V11 3/31/2021 – just **27** days away!
- MQ V9.0 9/30/2021.

- Withdrawal from Mktg of HW upgrades to z14 - **6/30/21**
- Withdrawal from Mktg of HW upgrades to z14 ZR1 - **9/30/21**
- **Note** – z/OS 2.5 (GA September 2021) does not support zEC12

New releases/versions:

- **NEW** - CICS Vx.x – see Open Beta information at: <https://www.ibm.com/support/pages/ibm-cics-transaction-server-zos-open-beta-program-january-2021-introduced>
 - Requires z/OS 2.3 and zEC12 or later. IEP support requires z/OS 2.3 and z14 or later.

HW Instrumentation

In her *z/OS Performance Hot Topics* session ([28649](#)), **Kathy Walsh** pointed out the importance of enabling Hardware Instrumentation on all systems.

- Instrumentation (aka 'CPU MF' or 'HIS' or 'SMF Type 113') was introduced on the z10 generation (2008), so it is now officially safely out of the 'bleeding edge' category.
- The information provided is invaluable, there is *no* reason not to enable it. And make sure that you keep it, ideally for as long as you keep your SMF Type 70 records.

z15 had a bug whereby some Instrumentation data was intermittently not available.

- We believe that this bug is fixed by MCL P46601.099 for Driver 41C.
- Kathy's presentation also mentioned an issue with %CMPR busy in RMF getting bad Instrumentation data – this was fixed by MCL P46601.120 (Bundle S35 – if you have a z15, speak to your hardware engineer).

z15 Z Sort

Link to Jeff
Suarez' Z Sort
session

Support for the [z15 Z Sort Accelerator](#) is available in DFSORT (see [PH03207](#) and see [PDF](#)).

- Disabled by default. Controlled using ICEPRMxx member or ICEMAC or DFSPARM OPTION stmt.
- We haven't been able to determine the status of Syncsort ('[Precisely](#)') support for Z Sort.
- Use support in IBM's zBNA tool to identify potential candidates for Z Sort.

Z Sort exploitation in Db2 V12 added by Db2 APAR [PH31684](#). This APAR delivers internal Db2 support for the new zSort Accelerator on the z15 CPCs, for example, when an SQL statement specifies ORDER BY or GROUP BY. Exploitation is automatic, based on record length, key length, and CPC type. Additional information in the Db2 IFCID 2 and IFCID 96 records to report on the use of this capability. Exploitation by the IBM Db2 tools will be delivered in separate APARs.


- There is also a Z Sort-related Db2 APAR, [PH28183](#), but that is for potential use by Db2 REORG TABLESPACE utility, *not* internal Db2 use. This requires the UTILS_USE_ZSORT parm (delivered by this APAR) to be specified in Db2 ZPARM.

Note: See CLOSED **HIPER** DFSORT APAR [PH33837](#) - INCORRECT SORTOUT When Sorting the Entire LRECL as the Key when ZSORT Function Is Enabled. Also see similar OPEN APAR PH32037.

Compressed Info About Db2 Compression

z14 [improved the compression hardware accelerator](#) (Huffman Compression), with the intent that this would be exploited by Db2. Expected to deliver 30% better compression.

Db2 support was delivered in stages:

1. [PH04424](#) – (2019) Positioning APAR to add Huffman support.
2. [PH07672](#) – (2019 - Db2 FL504) Enable Huffman with new TS_COMPRESSION_TYPE ZPARM. Applies to *all* tables, tablespaces, partitions (except LOBs – they use zEDC).
3. [PH19242](#) – (2020) Enhanced DSN1COMP utility to predict savings from Huffman.
Note: This currently only works for *uncompressed* tablespaces. If TS is already compressed using old compression, DSN1COMP won't help.
4. [PH31729/30/31](#) – (2021 - Db2 FL509 [PH33015](#)) Add ability to specify compression type at table, tablespace, or partition level. 

For more info on Db2 and Huffman Compression, refer to IBM White Paper at <https://www.ibm.com/support/pages/node/6355813> and Broadcom paper [Huffman Data Compression in Db2 for IBM z/OS - Broadcom](#)

Moving SMF Data to Distributed Systems

Who doesn't love SMF? No self-respecting Z software product would be seen dead without its own SMF records.

- We have clients that produce over 2.5TB of SMF data per *day*.
- *Every* client that we work with moves at least some of their SMF records to distributed systems for post-processing.

SMF data tends to compress very well, with compression ratios > 7:1 being normal, and 10:1 not being unusual.

If you want to copy large volumes of SMF data to distributed systems for further processing, good compression is key, especially if you are sending the data offsite.

- The most common tool to compress SMF records is AMATERSE. Unfortunately, there is no distributed system equivalent of AMATERSE to uncompress the files.
- There is also no IBM-provided tool that will compress SMF records on z/OS using zEDC in a manner that it can be decompressed on distributed systems.

Moving SMF Data to Distributed Systems

There *is* an old DOS-based program called PCTERSE, however it doesn't support files > 2GB, and it doesn't support tersed copies of VBS files.

- The decompress function of TERSE was recently ported to Java by IBM and it is available under the Apache 2.0 license [here](#). However, it doesn't support VBS format either.

To address this gap, our colleague **Mario Bezzi** wrote a program called WWUNTERSE that decompresses files created by AMATERSE/TRSMAIN and:

- Supports files greater than 2GB.
- Runs on both Windows and Linux (64-bit in both cases).
- DOES support VBS files (as well as V, VS, VB, F, and FB).
- Keeps the Block Descriptor Word that is required by MXG/SAS on distributed systems.
 - But also provides the option to exclude the BDW from the output file.
- Is available now, at no charge, in the [Free Software section](#) of the Watson & Walker public website.

Processing SMF Data with R

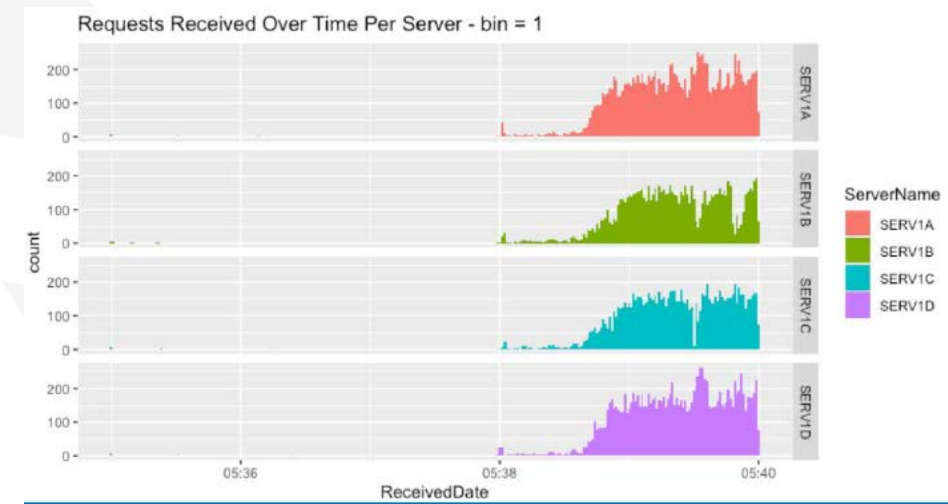
Speaking of SMF data on distributed systems, IBM's **Dave Follis** recently published a [White Paper](#) about his experiences with using R to analyze SMF data.

R is an open source (free) statistical analysis language and graphical environment.

- It was not designed with SMF data in mind, and it does not support reading raw SMF data.

However, if you can get your SMF data into CSV format, R provides support for quickly visualizing it and performing statistical analysis against it.

His excellent 63-page(!) White Paper (**Updated on 3/2/21**), provides a step-by-step guide to how he used R to analyze WebSphere SMF data, complete with working examples to help you get up and running quickly, AND provides the sample CSV file that the paper is based on.



SMF Overdose

Another interesting development in the open source and SMF area is an Open Mainframe Project incubator project called ZEBRA, based on Zowe.

- The ZEBRA project was run by **Alex Kim** from [Vicom Infinity](#), and most of the coding was done by **Salisu Ali**, a medical student (and Master the Mainframe winner) working remotely in Nigeria.

ZEBRA has a vision to make SMF data *easily* accessible to any program, running on any platform, that can use its API.

Alex and Salisu have a working demo that consumes XML data from RMF (both Monitor III real time data and Postprocessor historical reports), converts it into JSON, and presents it using a very crisp and clean open source graphical tool called Grafana.

Why would you be interested in ZEBRA?

- Many of our customers complain they can't get young mainframers interested in performance. Maybe ZEBRA would pique their interest (at no cost to you) and build their performance and SMF experience in the process.
- Think of the benefit to you and your tools vendors if SMF data was more accessible.
- This is an excellent showcase for your execs of how z/OS supports open source.
- It is really cool!



If you would like more information, including a demo, see their [YouTube video](#).

There is a SHARE session on ZEBRA – Session [28539](#), *Proposed ZOWE Incubator - ZEBRA*, on Wednesday, March 17th, at 15:00 Central Time.

RMF DDS AT-TLS Changes

As part of IBM's continuing focus on making z/OS even more secure, RMF in z/OS 2.4 *changed its default* so that RMF PM client and RMF DDS now *require* AT-TLS. Per RMF User's Guide:

“Unsecure communication with the DDS is no longer possible and will fail.”

However, later in the same manual it describes the new HTTPS parameter in GPMSRVxx that can be used to enable unsecure communications.

- If you don't need AT-TLS for RMF reports, this can help you get by until you have AT-TLS set up.

Related to this new 'requirement' for AT-TLS are two new RMF Health Checks:

- [OA60403](#) (RMF_DDS_ATTLS) verifies that if HTTPS(ATTLS) is enabled by default or explicitly that a corresponding AT-TLS policy is active.
- [OA60404](#) (RMF_DDS_OPTS) Health Check messages will be issued if (deprecated) DDS options previously used by pre-z/OS 2.4 RMF PM client are specified in the GPMSRVxx Parmlib member.

Data Set Best Practices

Everyone knows that efficient data set block sizes are important, and that old, unreferenced data sets should be cleaned up. But is it *really* worth spending any time on?

- It can help you save disk space:

Dataset Name	Create Date	Last-Ref Date	Recfm	Blksize	DSORG	Space Alloc (MB)	Space wasted (MB)
ADCDMST.TEST.FB80.B3200	27JAN2021	30JAN2021	F	3200	PS	77	15
ADCDMST.TEST.FB80.B32720	27JAN2021	27JAN2021	F	32720	PS	106	43
ADCDMST.TEST.FB80.B6160	27JAN2021	27JAN2021	F	6160	PS	70	8
ADCDMST.TEST.FB80.B800	27JAN2021	27JAN2021	F	800	PS	111	48
ADCDMST.TEST.FB80.B8000	27JAN2021	27JAN2021	F	8000	PS	72	10
ADCDMST.TEST.FB80	26JAN2021	26JAN2021	F	80	PS	2918	2554

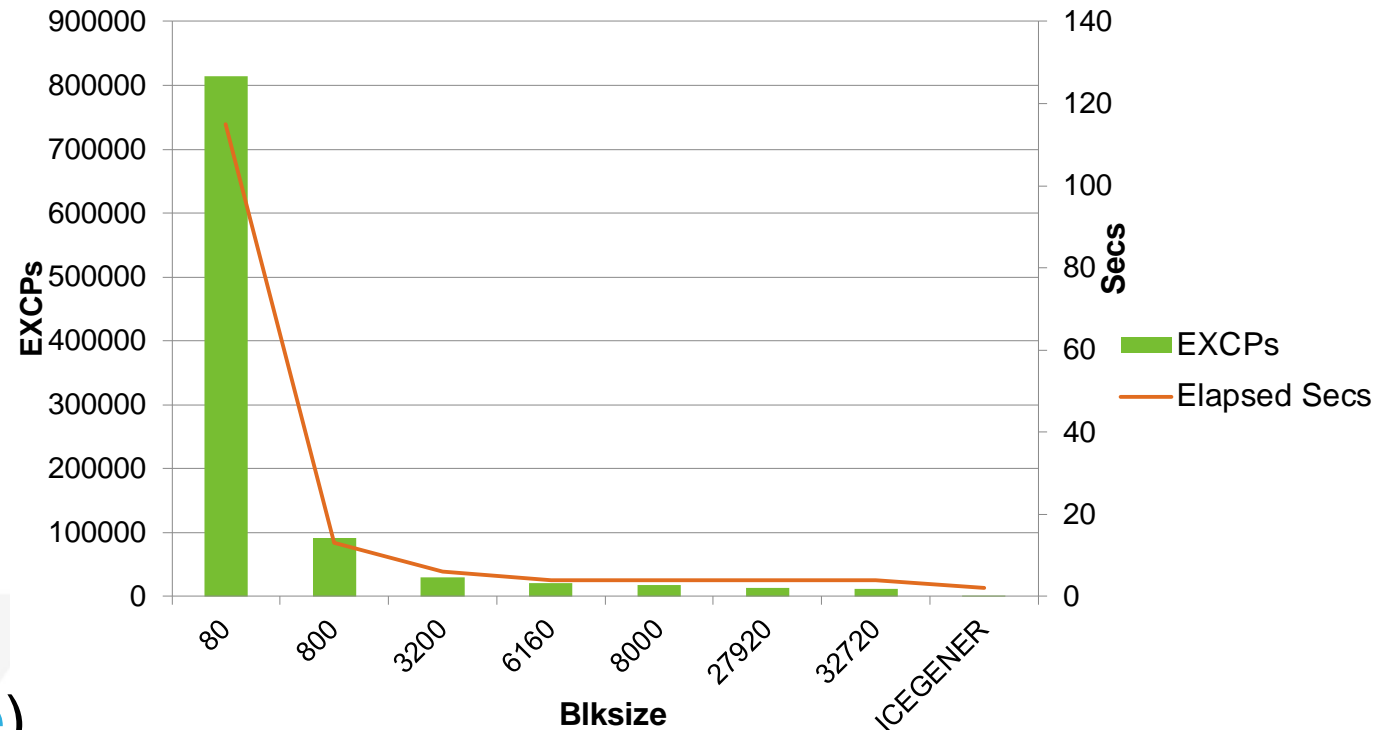
All of these data sets contained exactly the same data, and all were 100% full

This data comes from DCOLLECT. The DCDNMBLK (or DCDNMBLX) field reports the number of KB of additional data that could be stored in that data set if it used more efficient block sizes and empty tracks.

Data Set Best Practices

The cost of starting *each* I/O and processing an interrupt is the same, regardless of the amount of data transferred.

- Use BLKSIZE=0 to get System Determined Blocksize.
- Use SDB=YES in Data Class
 - This only overrides JCL BLKSIZE if program doesn't open the data set. Works for IEFBR14, TSO ALLOC, *not* for ISPF 3.2.
- Use LBI for tape data sets (Data Class, DEVSUP, and JCL).
- Use BUFNO intelligently.
- Use DCOLLECT and MXG*, DFSORT*, or other tools to monitor (* samples available on [our website](#))



Recent zHyperLink Enhancements

IBM continues to roll out additional zHyperLink exploitation.

Latest enhancement is Media Manager Dual Logging (parallel write) support ([OA57833](#) / [OA58134](#) / [OA59581](#)).

- Not to be confused with zHyperWrite, which allows exploiters to issue writes to primary and secondary mirrored volumes in parallel.

First exploiter is Db2 12, via APAR [PH29407](#). With this support, a single write request to Media Manager results in writes to both Db2 ‘dual copy active logs’ in parallel.

See [z/OS Documentation Updates for APARs OA57833, OA58134, and OA59581 \(Media Manager Dual Logging\)](#) for information about changes to system commands and new SMF 42.6 fields.

Also, [OA56723](#) and DS8900F 9.1 adds support for writes on zHyperlinks to Global Mirror primary device and primary and secondary of MGM config if primary and secondary are both within 150 meters of CPC.

Previous Watson & Walker SHARE Presentations



- [What's New for Sysprogs, Security, and Tuning in SYS1.PARMLIB*](#) (SHARE Virtual, September 2020)
- [Real World Experiences With IBM's TFP](#) (SHARE in Fort Worth, March 2020)
- [The Watson & Walker zRoadshow*](#) (SHARE in Fort Worth, March 2020)
- [Customer Experiences Saving MSUs Through CPC Optimization](#) with Todd Havekost of IntelliMagic (SHARE in Pittsburgh, August 2019)
- [Real World Experiences With IBM's Newest Software Pricing Options for z/OS – Part 1 \(TFP\)](#) (SHARE in Pittsburgh, August 2019)
- [Real World Experiences With IBM's Newest Software Pricing Options for z/OS – Part 2 \(DevTest\)](#) (SHARE in Pittsburgh, August 2019)
- [The Watson & Walker zRoadshow](#) (SHARE in Pittsburgh, August 2019)
- [The Watson & Walker zRoadshow](#) (SHARE in Phoenix, March 2019)
- For previous conferences, see <https://watsonwalker.com/publications/presentations/>

* SHARE Best of the Best Sessions Award Recipient

IBM Announcements Search

- See new, MUCH IMPROVED site:

<https://prod-oix.mybluemix.net/#/common/ssi/SearchResult.wss>

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Note: There is a bug in Acrobat. When we create a PDF from the ppt, Acrobat deletes the '#' in the URL above. The URL is correct, however we can't make it into a hot link. To use the URL, you need to copy/paste it from the slide. Sorry.

Cheryl's Section

Sarasota, Florida also had a bad winter...we got down to 49F for two nights in a row!
☹️ It was 81F on Monday.
Sorry!

- SMF Topics
- Where to ask questions
- SDC Change
- Some Final Notes



What's New in z/OS 2.5 SMF?

- More zHyperLink write failure information added to SMF 42.6 (with APARs [OA57717](#), [OA57718](#), [OA58230](#), 2.2+)
- RACF PassTicket to add more information and diagnostics to SMF; stronger crypto algorithm (APARs [OA59196](#), [OA59197](#), 2.3+)
- RACF RACDCERT certificate signatures stored in SMF
- Digital signature support for SMF includes second digital signature (APAR [OA57371](#), 2.4+)
- Support for separate recording interval for zERT aggregation records to reduce number of SMF 119.12 records and improve performance (APARs [PH25049](#), [PH24543](#), [PH24492](#), [PH24494](#), 2.3+)
- Password syscall will add caller's Port of Entry IP address to SMF 80 to help resolve network setup issues (APAR [OA59444](#), 2.3+)
- SMF 119.73 and 119.74 enhanced to simplify validation of IPsec-related X.509 certificate configurations

SMF Documentation

- Notice new manual naming:
 - [SA38-0667-40](#) - z/OS 2.4 MVS Management Facilities (SMF), 2021-01-24
 - [SA38-0667-30](#) - z/OS 2.3 MVS Management Facilities (SMF), 2019-07-01
 - [SA38-1380-40](#) - z/OS 2.4 MVS Initialization and Tuning Reference, 2021-01-24
 - [SA38-1380-30](#) - z/OS 2.3 MVS Initialization and Tuning Reference, 2019-06-24
- We just updated our SMF Reference Summary
 - <https://watsonwalker.com/publications/#smf>
 - 219 SMF record types from IBM and vendors
 - Please contribute if you know of others

Note: Most of following SMF information was taken from our *Cheryl Watson's Tuning Letter 2020 No 3*

Extended SMF Record Header

- SMF record type is one byte, so can't exceed 255
- z/OS 2.3 extended the maximum to 2047, but uses type 126 to indicate there is an extended SMF header that contains the real record type over 255
- No products currently use over 255, but some will very soon
- **RECOMMENDATION:**
 - Confirm with every product owner that processes SMF that they can handle record types over 255
 - Change SMFPRMxx to account for record types over 255; where will they go?
 - Consider changing all IEFU83/84/85 exits to IEFU86 (next slide)

New SMF User Exit

- SMF User Exit IEFU86
 - An exit can be called before the SMF record is written
 - Name of the exit depends on how SMF record is written (e.g., which macro) and can be IEFU83, IEFU84, IEFU85
 - Exits specified in SMFPRMxx in SYS and SUBSYS parameters as EXITS(IEFACTRT,IEFUJV,IEFU83,IEFU84)
 - Mistakes are made when exits are different or not called
 - New exit, IEFU86, created to support extended SMF headers, is now called for every record
 - **RECOMMENDATION:**
 - Create IEFU86 to perform all work of IEFU83/84/85
 - Change SMFPRMxx to specify only IEFU86

What's New in SMF 2.3? (and 2.4)

- SMF Types 14/15 (Data Set Activity)
 - z/OS 2.3 added Type 9 to the extension for DASD Data Set Encryption Information
 - **RECOMMENDATION:**
 - For any client starting to use data set encryption, this will identify every job and step accessing the encrypted files.
- SMF type 30 (Step and Job Completion)
 - z/OS 2.3 added flag to indicate whether zIIP-eligible work was offloaded to general purpose CPs
 - **RECOMMENDATION:**
 - If software costs are based on TFP and you need to reduce the consumed MSUs, an easy method is to specify WLM Honor Priority as NO for low importance work

What's New in SMF 2.3? (and 2.4)

- SMF Type 42 (DFSMS Statistics and Configuration)
 - z/OS 2.3 added neat sections to subtypes 5 (storage class) and 6 (data set statistics)
 - List of jobs with the highest I/O response times
 - Volume Cloud Activity – number of requests, tracks, elapsed time for activity to and from cloud storage (called 'disk background I/O statistics')
 - z/OS 2.3 also added response times in microseconds for higher precision
 - z/OS 2.3 added a new section to subtype 6 for reads/writes – number of bytes, number of encrypted bytes, and number of VSAM CIs or physical blocks

What's New in SMF 2.3? (and 2.4)

- SMF Type 84 (JES Monitoring Facility Data) (changed to Type 1153 in z/OS 2.5)
 - z/OS 2.3 added subtype 21 records for JES2 Health Monitor data – excellent for tuning JES2!
 - Written at the top of every hour
- SMF Type 92 (File System Activity)
 - z/OS 2.3 added subtypes 50-59 with fantastic data for tuning and managing zFS files with less overhead than before
 - More of the times are now in microseconds for higher precision
 - Provides much the same information as the **F ZFS,QUERY,ALL** command

What's New in SMF 2.3? (and 2.4)

- SMF Type 119 (TCP/IP Statistics)
 - z/OS 2.3 added many new subtypes for zERT (11, 12), SMC-D (38-40), ISM (45), VTAM 3270 Intrusion Security (81)
 - I can't even spell TCP/IP, but I've been told that your network team will go ga-ga over this data
- SMF Type 62/64 (VSAM Component or Cluster Opened or Closed)
 - z/OS 2.4 added Job ID and sysplex name to allow matching to an SMF type 30 record
 - **NEVER GIVE UP!** This was my 20-year-old SHARE requirement

What's New in SMF 2.4?

- SMF Type 74 (RMF Activity of Several Resources)
 - z/OS 2.4 added nine fields to subtype 4 (Coupling Facility Activity) with statistics relating to CF monopolization avoidance
- SMF Type 98 (Workload Interaction Correlator and High-Frequency Throughput Statistics)
 - z/OS 2.4 added subtype 2 and higher for zWIC, and forces HFTSINTVL to 5 seconds
 - See zWIC sessions for more information...BUT
 - IBM indicates that these could be very high volume and recommends that you direct these to their own SMF log stream...OTOH
 - Kathy Walsh in 'z/OS Performance Hot Topics', slide 27, says this is overly cautious and alarming...she suggests it's only between 17K to 34K records per day

Where Do YOU Ask a Question?

- IBM-Main

- Original Q&A with several important and helpful contributors, including IBM

- <https://listserv.ua.edu/cgi-bin/wa?A0=IBM-MAIN>

LISTSERV 16.0
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IBM-MAIN Home Page

IBM-MAIN@LISTSERV.UA.EDU LISTSERV Archives

Latest Messages

Re: Serverpac installs January 2022 and beyond	Ed Jaffe <edjaffe@PHOENIXSOFTWARE.COM>	Wed, 3 Mar 2021 18:47:44 -0800
Re: Acquire Storage	Brian Chapman <bchapman22@GMAIL.COM>	Wed, 3 Mar 2021 21:38:39 -0500
Re: z/OS v2r5 - Cert fingerprint	Charles Mills <charlesm@MCN.ORG>	Wed, 3 Mar 2021 16:27:37 -0800

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Advanced Options
Search

Options
Log Out
Change Password
Search Archives
Subscribe or Unsubscribe
Post New Message
Newsletter Templates
Preferences

Hide Latest Messages

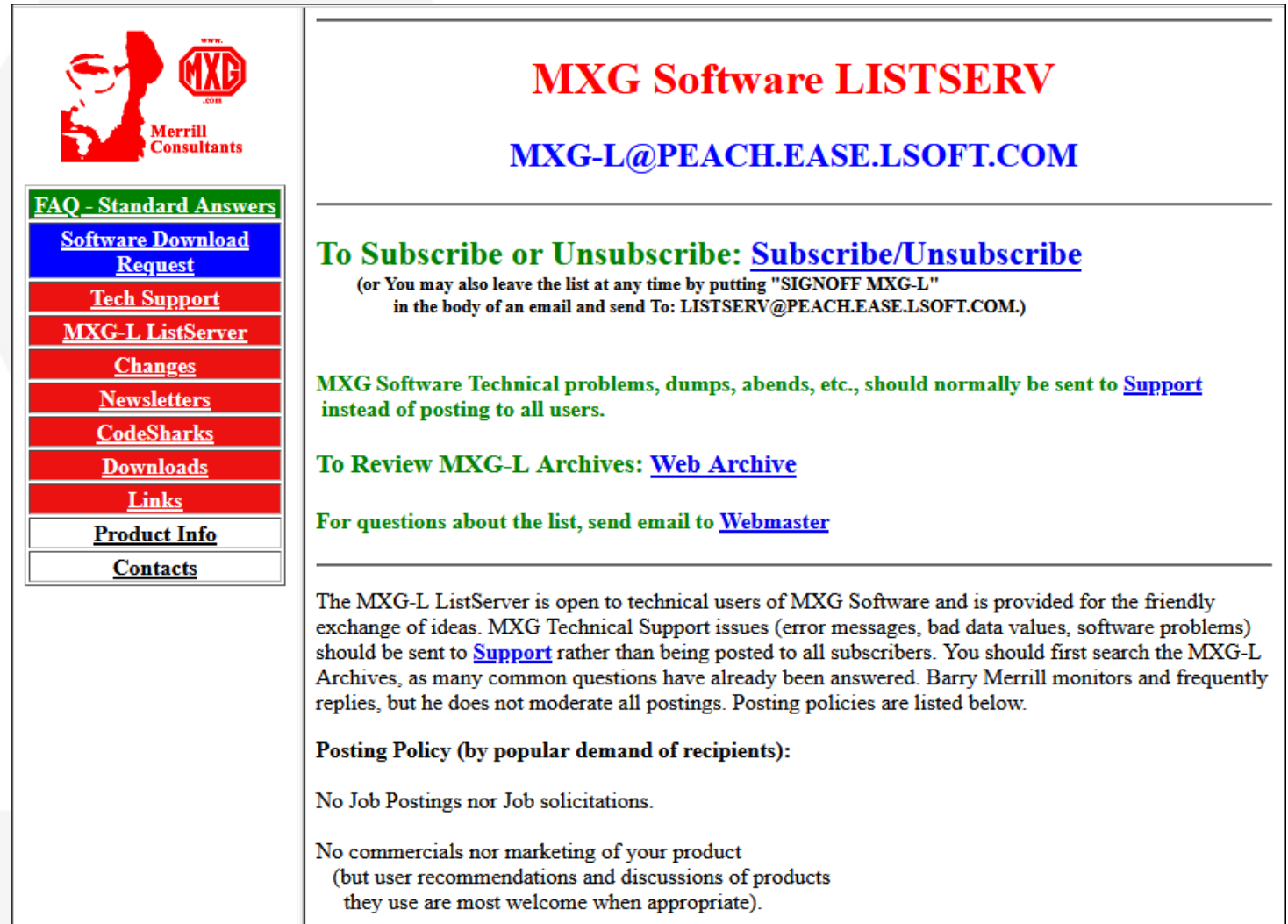
- March 2021
- February 2021
- January 2021
- December 2020
- November 2020
- October 2020
- September 2020
- August 2020
- July 2020
- June 2020
- May 2020

Where Do YOU Ask a Question?

The screenshot shows the LISTSERV 16.0 web interface. At the top, there is a blue header bar with the text "LISTSERV 16.0" and a question mark icon. Below the header, there are navigation links: "Subscriber's Corner", "Email Lists", "Preferences", and "Log Out". The main content area is titled "IBM-MAIN Archives" and features a "February 2021" section. On the right side of this section, there are icons for "LISTSERV Archives" and "IBM-MAIN Home". Under the "View:" heading, there are links for "Show Author | Hide Author" and "Show Table of Contents | Hide Table of Contents". The "Table of Contents:" section lists various topics with the number of messages in parentheses, such as "a Way to stop receiving Post email from my Yahoo email. (5 messages)", "Allowing a user to change password (2 messages)", "Any way to anticipate failure messages (20 messages)", "Anyway to save ISRDDN output? (40 messages)", "Are these auditors competent? was Re: Anyway to save ISRDDN output? (28 messages)", "Assembler - Authorized program debug (26 messages)", "AW: X3270 or c3270 on mac (3 messages)", "BLS18160D Response (3 messages)", "CA OPSMVS batch job (2 messages)", "Collecting SMF data with Logstreams (5 messages)", "Colours on screen (mainframe history question) (21 messages)", "Colours on screen (mainframe history question) [EXTERNAL] (1 message)", "Compiling CICS COBOL 6 Programs with No EXEC CICS Commands (2 messages)", "Compuware comic book (7 messages)", "Coupling Facility and z/OS SysPlex LPARs moving to new hardware (6 messages)", "CUCI V1R5 now available at http://www.cbttape.org/ftp/updates/CBT967.zip (1 message)", "Datasets with - in HLQ (23 messages)", and "DB2 member to start on different LPAR (9 messages)".

Where Do YOU Ask a Question?

- MXG ListServer
 - Managed by Merrill Consultants for technical users of MXG software
 - https://www.mxg.com/mxg-l_listserver/
 - Most questions relate to MXG, but often questions are simply SMF questions, and the community (as well as Barry Merrill) is extremely polite and helpful



MXG Software LISTSERV

MXG-L@PEACHEASE.LSOFT.COM

To Subscribe or Unsubscribe: [Subscribe/Unsubscribe](#)
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MXG Software Technical problems, dumps, abends, etc., should normally be sent to [Support](#) instead of posting to all users.

To Review MXG-L Archives: [Web Archive](#)

For questions about the list, send email to [Webmaster](#)

The MXG-L ListServer is open to technical users of MXG Software and is provided for the friendly exchange of ideas. MXG Technical Support issues (error messages, bad data values, software problems) should be sent to [Support](#) rather than being posted to all subscribers. You should first search the MXG-L Archives, as many common questions have already been answered. Barry Merrill monitors and frequently replies, but he does not moderate all postings. Posting policies are listed below.

Posting Policy (by popular demand of recipients):

No Job Postings nor Job solicitations.

No commercials nor marketing of your product (but user recommendations and discussions of products they use are most welcome when appropriate).

Where Do YOU Ask a Question?

- IBM Community - <https://community.ibm.com/community/user/home>
 - This replaced the popular DeveloperWorks and connects “via forums, blogs, files and face-to-face networking”
 - I find this very difficult to navigate – there are over 100 “groups”, but none that interest me
 - There is a drop-down list labelled ‘Community’ that let me subscribe to ‘IBM Z and LinuxONE’ group where I saw a COBOL question, but was then told there is a COBOL group (but I had trouble finding it)
 - Most recent posts are several months old
 - This is not z/OS-friendly
 - Barb McDonald (What’s New in DFSMS) said that DFSMS Community has/will have online training

The screenshot shows the IBM Community website homepage. At the top, there is an IBM logo and a navigation bar with 'Community' and a search bar. Below the navigation bar, there are links for 'IBM Community Home', 'Browse', 'Events', 'Participate', and 'Resources'. The main content area features a large blue graphic with a network of nodes and lines. The text reads: 'Welcome to the IBM Community. Being part of a community means collaborating, sharing knowledge and supporting one another in our everyday challenges. Together, we can connect via forums, blogs, files and face-to-face networking to empower one another to put smart to work. Find your community.' A blue button labeled 'Join / Sign up' is positioned below the text. On the left side, there is a 'Welcome!' section with a link to 'Join / Log in'. On the right side, there is a 'News' section with a headline '2021 IBM Champions Selected' and a brief description of the announcement.

Where Do YOU Ask a Question?

- Others that we've heard of but don't use – please give us feedback if you use them:
 - IBM Mainframes – <https://ibmmainframes.com>
 - IBM Mainframe Forum – www.ibmmainframeforum.com
 - Mainframe, MVS & ZOS Discussion – www.zmainframes.com
 - Reddit Mainframe – www.reddit.com/r/mainframe/

How Do I Change My SDCs?

- SOD – WLM Service Definition Coefficients (SDCs) are removed after z/OS 2.4
- SDCs today:
 - IBM default: CPU=10.0, SRB=10.0, IOC=5.0, MSO=0.0
 - Our recommendation: CPU=1.0, SRB=1.0, IOC=0.5, MSO=0.0
 - z/OS 2.5 will assume: CPU=1.0, SRB=1.0, IOC=0.0, MSO=0.0
- Use of SDCs in multi-period service classes, reporting, chargeback:
 - $current_dur = (CPU * tcb_su) + (SRB * srb_su) + (IOC * ioc_su) + (MSO * msu_su)$
 - Service units consumed in SMF records are based on same calculation
- **RECOMMENDATION:**
 - Identify all users of service units in reporting and chargeback
 - Apply PTFs for APAR [OA59066](#) (WLM SDC Health Check) on z/OS 2.3+
 - Recalculate durations and change SDCs
 - Modify report programs

How Do I Change My SDCs?

- Multiple steps:

1. When is DUR most important? During peak period for that type of work.
2. Look at RMF type 72 (Workload Activity Report) for that peak period and determine percent of total service units by type.

```

---SERVICE---
IOC          5705
CPU          34880      34880/50885 = .685 (i.e. TCB is 68.5% of total)
MSO           678
SRB          9622      9622/50885 = .189
TOT          50885
  
```

3. Recalculate duration:

$$\text{New_dur} = ((.685 * \text{old_dur}) / \text{CPU_OLD}) + ((.189 * \text{old_dur}) / \text{SRB_OLD})$$

Use same technique for SU consumption in SMF records

Some Final Notes

- New Function APARs
 - Marna Walle kindly provided a web page for New Function z/OS APARs
 - She wrote about it in her SHARE blog post - <https://www.share.org/blog/new-function-apars-are-great-to-follow>
 - The web page is here - <https://www.ibm.com/support/pages/node/665131>
 - It contains two HTML links (NF APARs from last 12 months and last 5 years) and a CSV file (last 5 years)
 - But all three links use FTP, and Google removed FTP access from Chrome
 - <https://www.coywolf.news/productivity/chrome-removing-ftp/>
 - Marna is looking for another home for these; use another browser
- **Biggest News This Week**
 - You must order z/OS 2.5 between GA and December 31, 2021 if you want an ISPF ServerPac; otherwise, you MUST use z/OSMF to install ServerPac for 2.5

Your feedback is important!

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