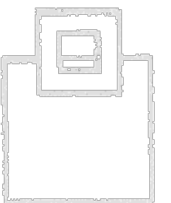
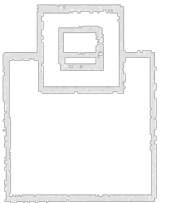
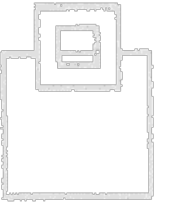


Must have ZOWE Apps

—

The Future of Db2 for z/OS tools with SEGs ZOWE Suite



Ulf Heinrich
SOFTWARE ENGINEERING

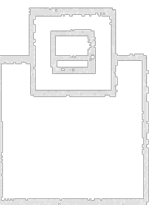
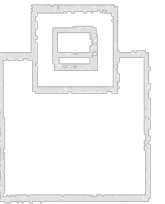
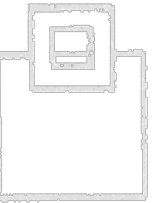
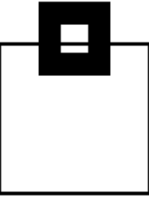
ZOWE Extensions Overview

- As an IBM Partner in Development, we offer Db2 z/OS products since the beginning of Db2
 - SQL Workload Management
 - Database Access Monitoring
 - Object and System Cloning
 - Db2 Space & Resource Management
 - Database Maintenance
 - Access Path & Performance Management
 - Plus lots of Freeware HealthCheck tools
- With the announcement of Zowe, we started to integrate into the Zowe Ecosystem, to exploit the powerful and modern capabilities of the Zowe Desktop.
- In 2021, our first Apps have been approved Conformant for the App Framework

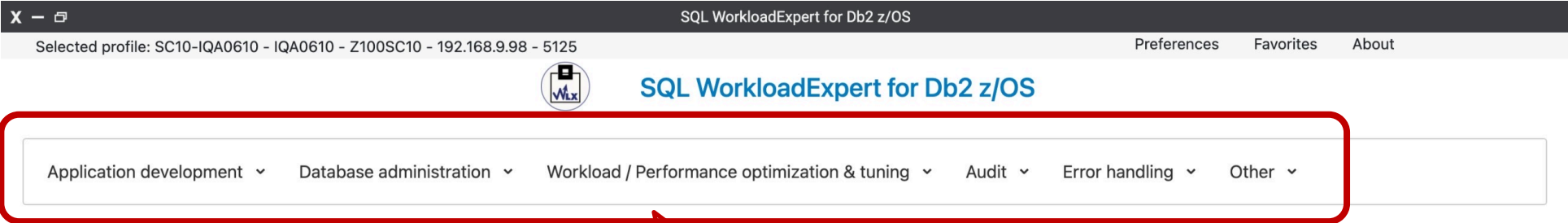


ZOWE Extensions Overview

- Using our Zowe App GUI frontends, daily Db2 tasks become an easy and efficient experience
 - Powerful, enterprise-wide workload analysis, exploiting predefined Use Cases
 - Reliable, full-picture Db2 auditing with pre-canned, customizable reporting
 - Highly efficient, proactive Db2 resource monitoring and management
- Like the entire Zowe Ecosystem, our Db2 Zowe Apps are built on rock solid, proven z/OS technology, enriched by HTML5 and Angular-powered front-ends.
- Our Db2 products have been used for decades by Db2 experts and are loved by younger mainframe folks, who appreciate easy-to-use solutions for their daily work.
 - Check <https://www.seg.de/en> for further information.



SQL WorkloadExpert ZOWE extension



1st showcase:
SQL workload analysis:

WLX comes with more than 70
prepared Use Cases,
categorized into six areas of
interest for quick and easy
workload analysis scenarios.


SQL WorkloadExpert ZOWE extension

X —

SQL WorkloadExpert for Db2 z/OS

Selected profile: SC10-IQA0610 - IQA0610 - Z100SC10 - 192.168.9.98 - 5125

Preferences Favorites About

 SQL WorkloadExpert for Db2 z/OS

Application development Database administration Workload / Performance optimization & tuning Audit Error handling Other

CPU intensive SQLs

CPU usage of packages

Delay detection

Disk I/O

DSC/SSC flush rates





PKLIST problem detection




SELECT only detection

Up and Down scaling

WLX KPIs and summaries

Here is an example about finding the most expensive SQL queries.





9:13 AM
8/1/23

SQL WorkloadExpert ZOWE extension

SQL WorkloadExpert for Db2 z/OS

Selected profile: DD10SEC-IQA061QB - IQA061QB - Z100DD10 - 192.168.9.98 - 15151

Preferences Favorites About

SQL WorkloadExpert for Db2 z/OS

Application Workload

Projection Selection Sorting Preferences Favorites

Available Columns		
Label	Description	Add
PROGRAM	Package	>
PACKAGE_COLLID	Collection ID	>
STMT_ORIGIN	Statement Origin	>
NUMBER_OF_STATEMENTS	Number of Statements	>
TOTAL_CPU_TIME	Sum of CPU Time	>
HIGHEST_CPU_TIME	Highest CPU Time	>
TOTAL_ELAPSED_TIME	Sum of Elapsed Time	>
HIGHEST_ELAPSED_TIME	Highest Elapsed Time	>
TOTAL_GETPAGES	Sum of GETPAGES	>
HIGHEST_GETPAGES	Highest GETPAGES	>
TOTAL_SYNC_BUFFER_READS	Sum of Synchronous Buffer Reads	>
TOTAL_SYNC_BUFFER_WRITES	Sum of Synchronous Buffer Writes	>
TOTAL_ROWS_EXAMINED	Sum of Rows examined	>
TOTAL_ROWS_PROCESSED	Sum of Rows processed	>
TOTAL_INDEX_SCANS	Sum of Index scans	>

<< >>

Selected Columns		
Label	Description	Remove
PRIM_AUTHOR	Primary Authorization ID	x
TOTAL_EXECUTIONS	Sum of Executions	x
AVERAGE_CPU_TIME	Average CPU Time	x
AVERAGE_ELAPSED_TIME	Average Elapsed Time	x
AVERAGE_GETPAGES	Average GETPAGES	x

< >

Cancel

OK

Each Use Case chosen guides you through some customization to fit exactly your needs

First we select the data we want to report (Projection)...

SQL WorkloadExpert ZOWE extension

SQL WorkloadExpert for Db2 z/OS

Selected profile: DD10SEC-IQA061QB - IQA061QB - Z100DD10 - 192.168.9.98 - 15151

Preferences Favorites About

SQL WorkloadExpert for Db2 z/OS

Application Workload

Projection Selection Sorting Preferences Favorites

Available Columns

Label	Description	Add
AVERAGE_CPU_TIME	Average CPU Time	>
AVERAGE_ELAPSED_TIME	Average Elapsed Time	>
AVERAGE_GETPAGES	Average GETPAGES	>
PACKAGE_COLLID	Collection ID	>
CPU_TIME	CPU Time	>
CURRENT_DEGREE_SW	Current Degree special register	>
CUR_PRECISION_SW	Current Precision special register	>
CURRENT_RULES_SW	Current Rules special register	>
CUR_SQLID	Current SQL ID	>
CURRENT_DATA_SW	CURRENTDATA option	>
CURSOR_HOLD_SW	Cursor prepared with hold indicator	>
DYNAMIC_RULE_SW	DYNAMICRULES option	>
ELAPSE_TIME	Elapsed Time	>
END_USERID	End User ID	>
EXECUTIONS	Executions	>

Selected Columns

Label	Operation	Value	Description	Remove
WLX_TIMESTAMP	=	newest	WLX Key	x
STMT_ORIGIN	=	D	Statement Origin	x

Cancel

OK

... then we can apply some filtering for the result set of interest (Selection) ...


SQL WorkloadExpert for Db2 z/OS

9:42 AM 8/1/23

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7



Selected Columns			
Label	Description	Direction	Remove
AVERAGE_CPU_TIME	Average CPU Time	DE... ▾	

Any of this can be kept and/or shared for later execution, or even automatic reporting.

Cancel

OK

SQL WorkloadExpert ZOWE extension



SQL WorkloadExpert for Db2 z/OS

Application Workload

Edit QueryBack to Use Cases

Primary Authorization ID	Sum of Executions	Average CPU Time	Average Elapsed Time	Average GETPAGES
IZPDBA	1300	0.008495	0.069707	2899
ZOWEWOZ	1322	0.006954	0.085869	789
BOXWELL	8	0.002841	0.023865	135
OPCC	23	0.002279	0.057974	39
ELEQUNT	43	0.000324	0.016551	18
	18	0.000320	0.017214	30
	44	0.000309	0.030680	16
	36	0.000309	0.007527	33
	5	0.000256	0.026901	5
	42778	0.000080	0.001192	4

The result set can be used for further in-depth drill down analysis, cross-reference reporting, exporting into a pdf/excel, or ...

SQL WorkloadExpert ZOWE extension

SQL WorkloadExpert for Db2 z/OS

Selected profile: DD10SEC-IQA061QB - IQA061QB - Z100DD10 - 192.168.9.98 - 15151

Preferences Favorites About

SQL WorkloadExpert for Db2 z/OS

Application Workload

Edit Query

Back to Use Cases

Primary Authorization ID	Sum of C	Examined	Sum of Rows processed
IZPDBA		11421000	2636900
ZOWEWOZ		3751245	118815
		121433	287297
		1286	943
		11931	990
		2847	83
		4035	159
		3297	340
		146	149
		23	0

Create Report

Profile

No Profile Saved

Category Column

Primary Authorization ID

Value Columns

Sum of CPU Time, Sum of Ela...

Chart Type

Horizontal bar

Vertical bar

Pie

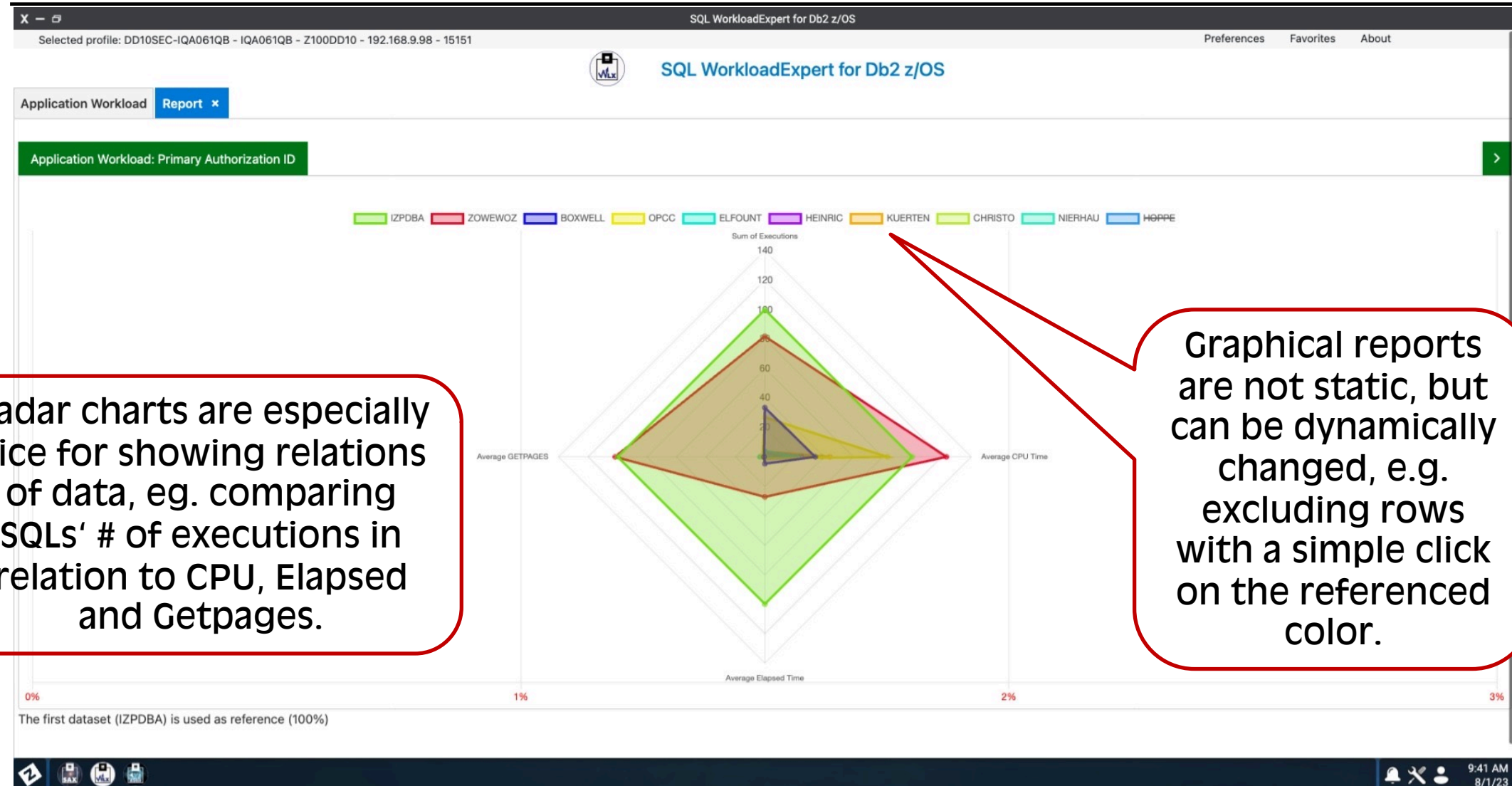
Line

Radar

Create Report

... to generate a graphical report of many kinds (bars, pies, lines, or radar charts ...)

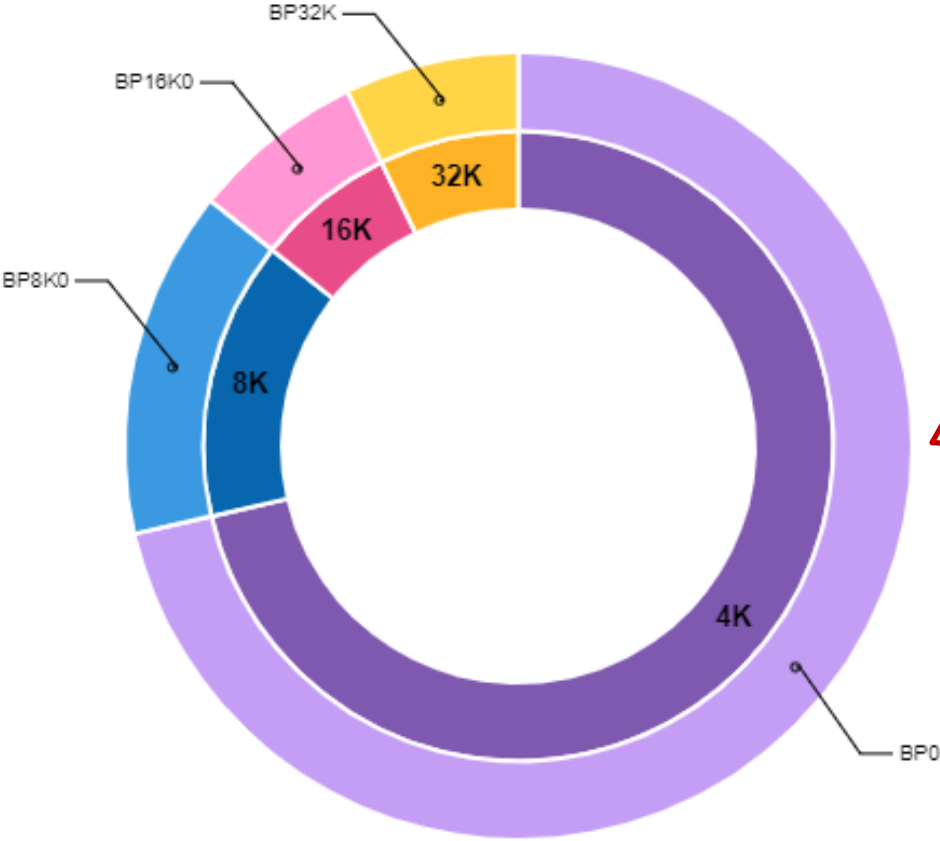
SQL WorkloadExpert ZOWE extension



SQL WorkloadExpert ZOWE extension

Summary

Overall allocation : 109.38 MB



Another example of interactive graphics is this modern sunburst of WLXs **BUFFER POOL** Use Case chart, enabling drill through buffer pool allocation

SQL WorkloadExpert ZOWE extension

Bufferpool overview new

Overview

KPIs

New BP

BP history

Current Status

63 OK _ no violations

—

4 Warning

—

25 Critical

+

BP0

BP16K0

BP32K

BP8K0

>

Change frame size to 1M or 2G to fit the buffer pool size

?

→

Prefetch size (62.50MB): Increase BP size to reach at least 320MB for prefetch unless there is no desire for prefetch in this pool.

?

→

Pagefix Attribute: Alter to PGFIX(YES).

?

→

Calculated VPSEQT Size, the VPSEQT should be altered from 80 to 10.

?

→

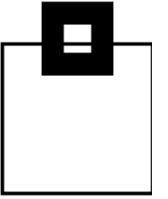
Number of Page ins for read

?

→

Overview shows a traffic light style of all results from WLXs BP checks for instant problem finding

SQL WorkloadExpert ZOWE extension



Bufferpool Advisor

Hit Ratio should be > 90%

System hitratio should be > 90%

Prefetch size should be >= 320 MB

Raise checkpoint times or increase active log sizes

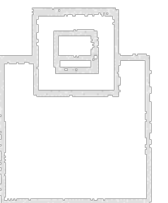
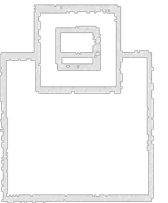
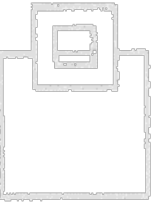
Buffer is not correctly sized on boundary

Change Frame size to match number of buffers

Pagefix Attribute better to be YES

Fixed with PGFIX(YES)

Our Zowe Apps
come with a
variety of
advisors and
wizards to assist
with many tasks,
like summarizing
and highlighting
what requires
your attention



SQL WorkloadExpert ZOWE extension

Bufferpool overview new

Overview

KPIs

New BP

BP history

BP0

BP16K0

BP32K

BP8K0

Bufferpool BP0 details:

Size :

System Residency Time :

Random Residency Time :

Sequential Residency Time :

Hit Ratio :

Application :

System :

20000

7716

59189

6337

95.13

99.75

90.52

Last Extract : 2024-03-11-08.46.05.003049

...or certain coloring,
like a yellow band
telling you that
simulation is running
in this buffer pool

SQL WorkloadExpert ZOWE extension

Calculated VPSEQT Size:	10
Random sync I/Os per second :	0.06
Prefetch size :	62.50
Number of page updates for each page written :	23.45
Number of pages written for each write I/O :	27.04
Page arrival rate (I/Os per sec) :	2.59
I/O intensity :	1574.38
Buffer Reduction :	32
Frame Sizing :	YES
Frame LFAREA :	NO
Pagefix Attribute :	NO
Number of Page ins for read :	30583
Number of page ins for write :	0
Bufferpool paging Page ins > BP size :	YES

Whenever drill down is used, you dive deeper and context sensitive actions are offered – let's try them...

Resize

Details

Change

Object List

Simulate

VPSEQT

SQL WorkloadExpert ZOWE extension

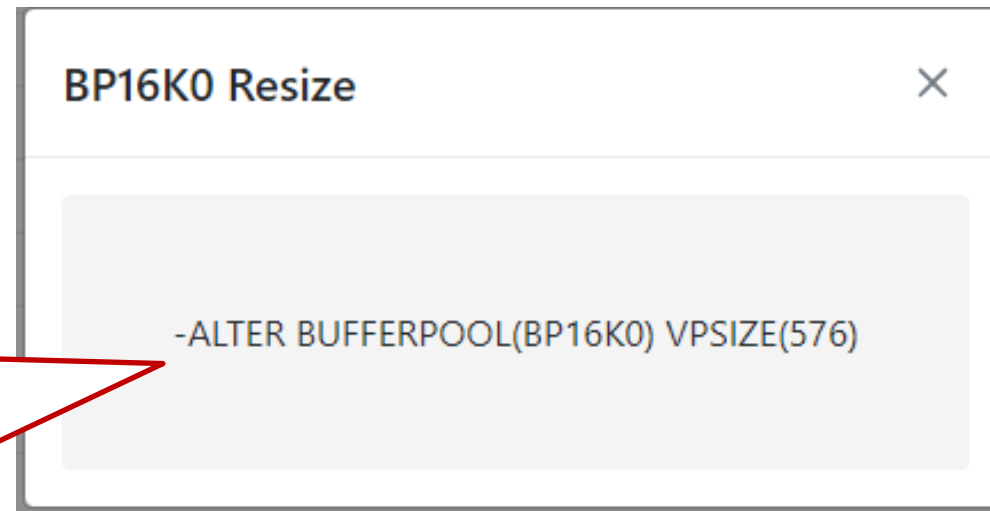
BP16K0 Resize

Current Size: **500** 16K Pages

New BufferPool Size :

576

1st *Resize* a BP:
Here you get the
Current Size and the
new calculated,
suggested size. If you
action it, a pop-up
appears with the
ALTER command.



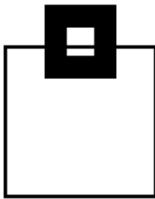
SQL WorkloadExpert ZOWE extension

BP16K0 Details										
SUBSYSTEM_MEMBER		DD10	B401_BUFFERPOOL_ID		120	B401_BUFFERPOOL_NAME		BP16K0		
B402_BUFFERPOOL_SIZE		500	B402_BPOOL_ALLOCATED		500	B404_THRESHOLD_VP_SEQUENTIAL		80		
B404_T	B420_ASYNC_WRITE_IO		7349	B420_SYNC_WRITE_IO		1674	B421_DWT_HIT		0	
B404_T	B421_DWT_HIT/sec		0.00	B421_VERTICAL_DWT_HIT		1352	B421_VERTICAL_DWT_HIT/sec		0.00	
B411_V	B431_SIMULATED_BUFFERPOOL_SIZE		0	B432_AVOID_RDPG_SYNC_DASD_R		0	B432_AVOID_RDPG_SYNC_DASD_S		0	
B411_S	B432_AV		B546_PREFERRED_FRAME_SIZE_2		B546_USED_FRAME_SIZE_2		B546_BUFFERS_ALLOCATED_2			
	B432_AV		B546_PREFERRED_FRAME_SIZE_3		B546_USED_FRAME_SIZE_3		B546_BUFFERS_ALLOCATED_3			
	B546_PR		SYSTEM_HIT_RATIO		69.55	APPLICATION_HIT_RATIO		99.04	SYSTEM_PAGE_RESIDENCY	9350
	RANDOM_		PAGEU_PER_WRITEIO		4	RUN_TIMESTAMP		2024-03-11-08.45.58.050000	SECONDS_ACTIVE	2757597
			THRESHOLD_DEFERRED_WRITE		30	THRS_VRT_DEFERRED_WRT_PCT		5	RANDOM_GETPAGE	253877
					1853	SEQ_GETPAGE		230422	SYNC_READ_IO_S	2813
					9658	SEQ_PREFETCH_IO		9147	SEQ_PREFETCH_PAGES_READ	138719
					1	LIST_PREFETCH_IO		0	LIST_PREFETCH_PAGES_READ	0
					4573	DYNAMIC_PREFETCH_IO		1200	DYN_PREFETCH_PAGES_READ	4079
					0	B415_PREF_DISABLED_NO_READ_ENG				0

2nd *Details* of a BP:
Reports can always be customized and any details you might be looking for are there

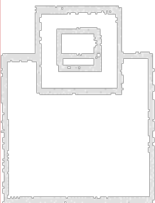
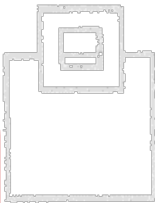
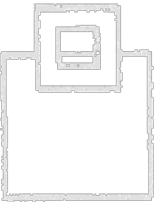
2nd *Details* of a BP:
Reports can always be
customized and any
details you might be
looking for are there

SQL WorkloadExpert ZOWE extension



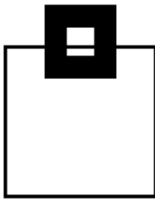
BP16K0 Change ✕

VPSIZE <input type="text" value="576"/>	VPSIZEMIN <input type="text" value="0"/>	VPSIZEMAX <input type="text" value="0"/>
VPSEQT <input type="text" value="13%"/>	VPPSEQT <input type="text" value="80%"/>	AUTOSIZE <input type="text" value="NO"/>
PGSTEAL <input type="text" value="LRU"/>	FRAMESIZE <input type="text" value="4K"/>	DWQT <input type="text" value="30%"/>
VDWQT <input type="text" value="5%"/> <input type="text" value="0"/>	PGFIX <input type="text" value="NO"/>	SPSIZE <input type="text"/>
SPSEQT <input type="text"/>		



3rd *Change* a BP:
shows all
changeable
attributes with
built-in logic
checks to stop
any inadvertent
settings

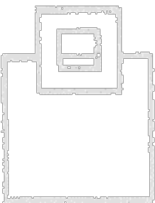
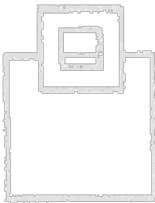
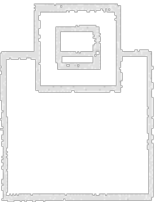
SQL WorkloadExpert ZOWE extension



BP0 Object List ×

BPOOL	DBNAME	INDEXSPACE	OBJECT_TYPE	PARTITIONS	SPACEF
BP0	DSN00010	PLANRTAB	T	1	720
BP0	DSN00011	DSNR1CZY	I	0	720
BP0	DSN00011	DSNRSTAT	T	1	720
BP0	DSN00012	DSNR1R9Y	I	0	720
BP0	DSN00012	DSNRPREP	T	1	720
BP0	DSN00013	DSNR12LZ	I	0	720
BP0	DSN00013	DSNRFILT	T	1	720
BP0	DSN00014	DSNR16RZ	I	0	720

4th *Objects* in a BP:
Shows all the objects that are associated and using a chosen BP



SQL WorkloadExpert ZOWE extension

BP16K0 Simulation



Current Size: **500** 16K Pages , Simulated Size : **0**

New Simulated Size :

100

SPSEQT :

5th *Simulate* a BP sizing:
simulation is like *Resize*, but to
simulate the change before
really applying it

BP16K0 Simulate



✓ Confirm

-ALTER BUFFERPOOL(BP16K0) SPSIZE(100)

SQL WorkloadExpert ZOWE extension

BP16K0 VPSEQT

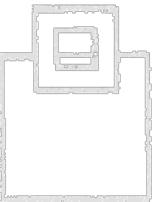
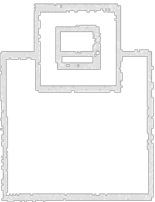
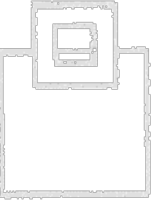
Current VPSEQT : 80 %

Calculated VPSEQT : 13 %

New VPSEQT :

6th *VPSEQT*
change:
the new VPSEQT
is calculated and
suggested for
adjustment

Remember that you can dynamically change the VPSEQT. For example, before heavy batch (normally sequential) change it up to say 80 – 90 and before start of normal business with CICS and DDF transactions change it down to 30 – 40 for more random page usage in the buffer pool!



WLX Audit ZOWE extension

WLX Audit for Db2 z/OS

Access to audited tables

Administrative authorities

Audit (DML)

Authorization compatibility settings

Authorization failures

CREATE, ALTER, DROP (DDL)

CREATE, ALTER, DROP (DDL) audited tables

Db2 commands

Db2 console messages - Details

Db2 console messages - Overview

Distributed translation

DBADM data updates

DBADM object update

End of identify

WLX Audit for Db2 z/OS

Selected profile: DD10SEC-IQA061QB - IQA061QB - Z100DD10 - 192.168.9.98 - 15151

Preferences Favorites About

Administrative authorities

Projection

Selection

Sorting

Preferences

Favorites

Available Columns

Label	Description	Add
WLX_TIMESTAMP	WLX Key	>
STMT_GROUP_SSID	WLX Db2 SSID	>
IFCID_NO	IFCID No.	>
AUTHID	Authorization ID	>
AUTHORITY_TYPE_TEXT	Authority type plaintext	>
AUTHID_TYPE	Type of Authorization ID	>
AUTHID_TYPE_TEXT	Type of Authorization ID plaintext	>
AUTHORITY_TYPE	Authority type	>
OBJECT_FLAG	Object flag	>
PRIVILEGE_CHECKED	Privilege checked	>
SRC_OBJ_QUALIFIER	Source object qualifier	>
SRC_OBJ_NAME	Source object name	>
TRG_OBJ_QUALIFIER	Target object qualifier	>
TRG_OBJ_NAME	Target object name	>
OTHER_OBJECT	Other object name	>

Selected Columns

Label	Description	Remove
IFCID_TIMESTAMP	IFCID Timestamp	x
CORR_ID	Job name or logon ID	x
CORR_AUTH_ID	Authorization ID	x
PRIVILEGE_CHECKED_TEXT	Privilege checked plaintext	x
OBJECT_FLAG_TEXT	Object flag plaintext	x
STMT_TEXT	Statement text	x

<<

>>

Cancel

OK

Let's find out who is using Db2 administrative authorities and what is done with it ...

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24

WLX Audit ZOWE extension

WLX Audit for Db2 z/OS

Access to audited tables

Administrative authorities

Audit (DML)

Authorization compatibility settings

Authorization failures

CREATE, ALTER, DROP (DDL)

CREATE, ALTER, DROP (DDL) audited tables

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Db2 console messages - Details

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DBADM object update

End of identify

WLX Audit for Db2 z/OS

Selected profile: DD10SEC-IQA061QB - IQA061QB - Z100DD10 - 192.168.9.98 - 15151

Preferences Favorites About

Administrative authorities

Search keyword

Edit Query

Back to Use Cases

IFCID Timestamp	Authorization ID	Job name or logon ID	Privilege checked plaintext	Object flag plaintext	Statement text
2023-07-05-17.57.04.103055	HOPPE	WLXBDD10	DELETE	TABLE OR VIEW	DELETE FROM IQA061QB.WLX_USE_C
2023-07-05-17.57.04.103096	HOPPE	WLXBDD10	SELECT	TABLE OR VIEW	DELETE FROM IQA061QB.WLX_USE_C
2023-07-05-17.57.05.098117	IQA061QB	WLXBDD10	DELETE	TABLE OR VIEW	DELETE FROM IQA061QB.PLAN_TABL
2023-07-05-17.57.05.309668	IQA061QB	WLXBDD10	DELETE	TABLE OR VIEW	DELETE FROM IQA061QB.DSN_STATE
2023-07-05-17.57.05.353747	IQA061QB	WLXBDD10	DELETE	TABLE OR VIEW	DELETE FROM IQA061QB.DSN_PREDI
2023-07-05-17.57.05.550322	IQA061QB	WLXBDD10	DELETE	TABLE OR VIEW	DELETE FROM IQA061QB.DSN_FILTER
2023-07-05-17.57.05.614765	IQA061QB	WLXBDD10	DELETE	TABLE OR VIEW	DELETE FROM IQA061QB.DSN_DETCC
				TABLE OR VIEW	DELETE FROM IQA0610.WLX_USE_CA
				TABLE OR VIEW	DELETE FROM IQA0610.WLX_USE_CA

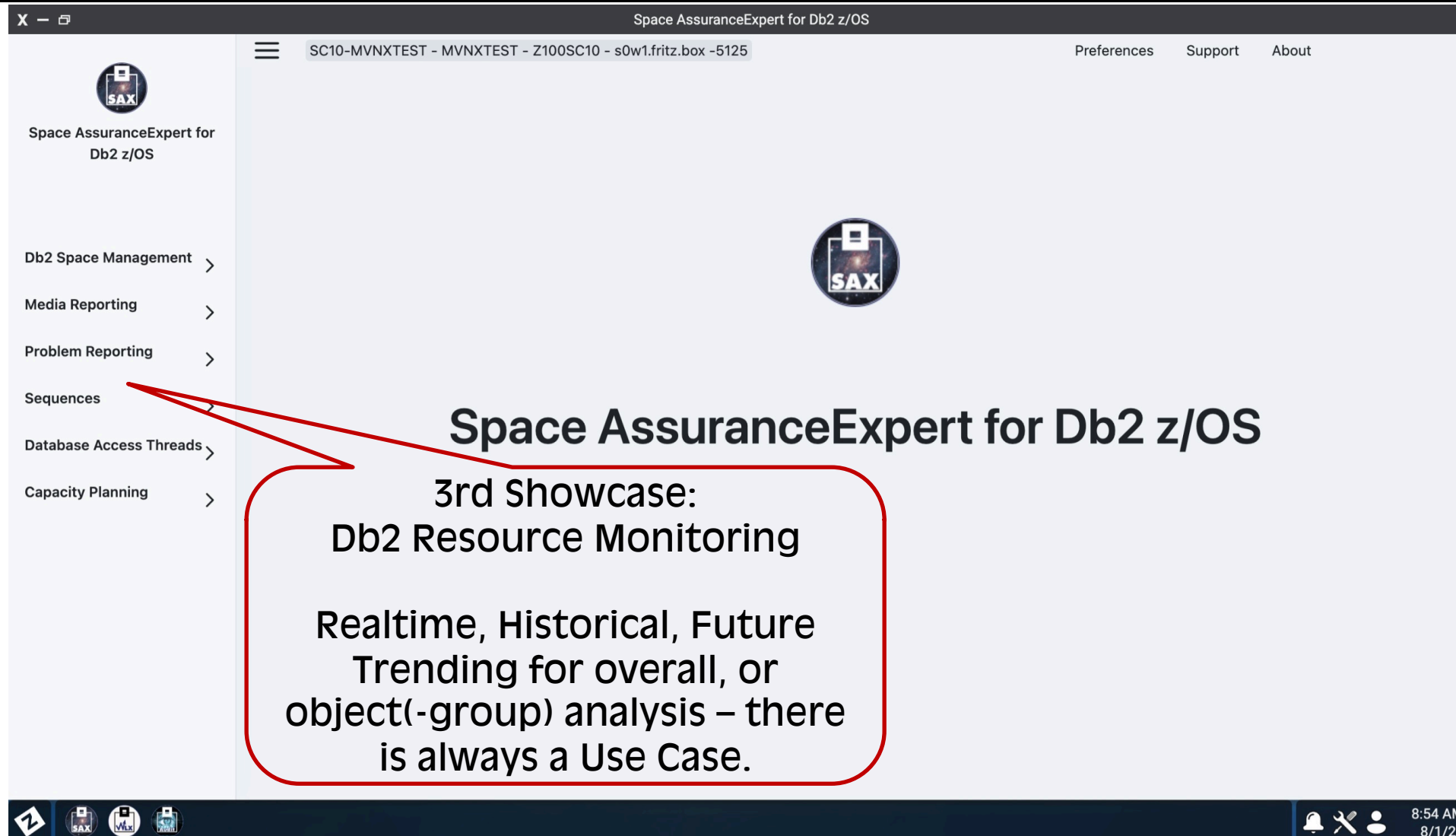
...

...and there we are, with a nice report showing the timestamp, the original and the correlation ID along with the activity, including the SQL that was executed.


Reports can be exported or prepared for report automation.

10:09 AM 8/1/23

Space AssuranceExpert ZOWE extension



Space AssuranceExpert ZOWE extension



Space AssuranceExpert for Db2 z/OS

Db2 Space Management >

Media Reporting >

Problem Reporting >

Sequences >

Database Access Threads >

Capacity Planning >

SC10-MVNXTEST - MVNXTEST - Z100SC10 - s0w1.fritz.box -5125

PreferencesSupportAbout

Preferences

Profile

SC10-MVNXTEST

Profile Details

Location

Z100SC10

Schema

MVNXTEST

Host

s0w1.fritz.box

Port

5125

Lines Limit

300

Timeout

60

Locale

EN


User Preference




+ Import

↑ Export

< Back to Use Cases


This time I'd like to run my analysis against a different system. All Db2 systems defined can easily be chosen from the App's preferences.





8:51 AM
8/1/23

Space AssuranceExpert ZOWE extension



Space AssuranceExpert for
Db2 z/OS

Db2 Space Management >

Media Reporting >

Problem Reporting >

Sequences >

Database Access Threads >

Capacity Planning

Object forecast

SC10-MVNXTEST - MVNXTEST - Z100SC10 - s0w1.fritz.box -5125

PreferencesSupportAbout

Object forecast

Projection

Selection

Sorting

Preferences

Favorites

Available Columns

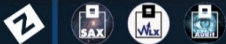
Label	Description	Add
DSCOUNT	DSCOUNT	>
OLD_CYL	Oldest CYLs	>
NEW_CYL	Newest CYLs	>
MAXDATE	Data from max. date	>
MINDATE	Data from min. date	>




Selected Columns

Label	Description	Remove
DB2	Db2 name	×
DBTSPA	DBNAME TSNAME PART	×
DELTA_CYL	CYL difference	×
CHANGED_PERC	Percentage difference	×
DELTA_DAYS	Days between values	×
CHANGE_CYL_PER_DAY	CYL difference per day	×
CYL_IN_A_YEAR_PRE	Calculated CYLs	×

I'd like to generate a report for capacity planning of my Db2 spaces, extrapolating last quarter's space growth for next year.


CancelContinue >





9:01 AM
8/1/23

Space AssuranceExpert ZOWE extension



Space AssuranceExpert for
Db2 z/OS

Db2 Space Management >

Media Reporting >

Problem Reporting >

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Capacity Planning

Object forecast

SC10-MVNXTEST - MVNXTEST - Z100SC10 - s0w1.fritz.box -5125

PreferencesSupportAbout

Object forecast

Projection

Selection

Sorting

Preferences

Favorites

Available Columns

Label	Description	Add
ALCCYL	Allo. Cyl	>
ALCKB	Allo. KB	>
ALCSPC	Allo. SPACE	>
ALCTRK	Allo. TRACKS	>
ALCTYPE	Allo. type	>
CYL_IN_A_YEAR_PRE	Calculated CYLs	>
CLONE	CLONE	>
CREABY	CREATEDBY	>
CREATOR	CREATOR	>
DELTA_CYL	CYL difference	>
CHANGE_CYL_PER_DAY	CYL difference per day	>
MAXDATE	Data from max. date	>
MINDATE	Data from min. date	>
DATE	DATE	>





Selected Columns




Label	Operation	Value	Description	Remove
DB2	=	SC1	Db2 name	🔒
LOCA_NAME	=	LOCAL	Location name	🔒

Customers may limit it to an application, database, or just do it for the entire system.

Cancel

Continue >






9:01 AM
8/1/23

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Space AssuranceExpert ZOWE extension



Space AssuranceExpert for
Db2 z/OS

Db2 Space Management >

Media Reporting >

Problem Reporting >

Sequences >

Database Access Threads >

Capacity Planning >

Object forecast

SC10-MVNXTEST - MVNXTEST - Z100SC10 - s0w1.fritz.box -5125

PreferencesSupportAbout

Object forecast

ProjectionSelectionSortingPreferencesFavorites

Available Columns

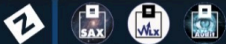
Label	Description	Add
CYL_IN_A_YEAR_PRE	Calculated CYLs	>
DELTA_CYL	CYL difference	>
MAXDATE	Data from max. date	>
MINDATE	Data from min. date	>
DELTA_DAYS	Days between values	>
DB2	Db2 name	>
DBTSPA	DBNAME TSNAME PART	>
DSCOUNT	DSCOUNT	>
NEW_CYL	Newest CYLs	>
OLD_CYL	Oldest CYLs	>
CHANGED_PERC	Percentage difference	>




Selected Columns

Label	Description	Direction	Remove
CHANGE_CYL_PER_DAY	CYL difference per day	DESC	X

I'd like to have the largest growth at the top of my report.


CancelContinue





9:02 AM
8/1/23

Space AssuranceExpert ZOWE extension



Space AssuranceExpert for Db2 z/OS

Db2 Space Management >

Media Reporting >





Problem Reporting >

Sequences >

SC10-MVNXTEST - MVNXTEST - Z100SC10 - s0w1.fritz.box -5125

PreferencesSupportAbout




Object forecast



Search keyword

Edit Query

Db2 name	DBNAME TSNAME PART	CYL difference	Percentage difference	Days between values	CYL difference per day	Calculated CYLs
SC1	IQAD06QC.IQASW006.1	1706	83	124	13.75806	8779
SC1	IQAD06QC.IQASW062.1	580	63	124	4.67741	3204
SC1	IQAD06QC.IQASW001.1	531	256	124	4.28225	2301
SC1	IQAD06QC.IQASW014.1	225	2045	124	1.81451	898
SC1	IQAD06QC.IQASW003.1	207	50	124	1.66935	1230
SC1	IQAD06QC.IQASW053.1	105	102	124	0.84677	516
SC1	IQAD06QC.IQASW059.1	89	45	124	0.71774	546
	AXW062.0	85	80	124	0.68548	440
	EE.0	75	96	124	0.60483	373
	7.1	68	97	124	0.54838	338
	3.1	67	37	124	0.54032	445
	1	52	89	124	0.41935	263
	5.1	44	122	124	0.35483	209
	04.1	42	53	124	0.33870	243
	9.1	42	52	124	0.33870	245
	7.0	40	266	124	0.32258	172
	0	40	266	124	0.32258	172
	Z.0	36	65	124	0.29032	196
	3.0	36	65	124	0.29032	196



9:19 AM
8/1/23

The report can be exported into a pdf/excel or kept for daily (automated, or manual) execution.

Various drill down capabilities deliver more details or we can generate a graphical report for the management.

Space AssuranceExpert ZOWE extension

