




DB2 Space and SMS Pool Monitoring for z/OS (Control, Planning, Automation)


Presented by

softwareon
...a better way on z

AGENDA

-  **SPM**
 - The Companies / The Concept

- **Database problem areas**

-  **SPM**
 - Architecture
 - Orders

- **Demo**
 - Customization
 - STOGROUP drilldown for problem analysis
 - History and Trend Analysis
 - and



Software Development Company



Software Distribution Company

The keys for a well-managed Datacenter



Elaboration of a long-term z/Capacity Planning, reviewed and updated quarterly, with the goal of optimizing both the performance and the associated z/OS software costs.

zSPM Capacity Planning



Managing and Optimizing the z/Resource sharing.



Automation: to eradicate the manual constraint.

zSPM Automation

Tools for the Datacenter

- Monitor
- Utility Management
- Change Tools
- Explain Tools
- Catalog Manager
- ...

Strict supervision



Something is missing

- There is a gap between the Database/DBA, DASD Administration and Capacity Planners
- Information is available (DB2 RUNSTATS, DB2 STOSPACE, DB2 RTS, ICF Catalog, SMS Storage Groups), but is only a scattered snapshot that barely shows the full picture.
- Any view into the history has to be managed manually.

The age old question

“ why does DB2 space increase by XX%, when my business is not growing at the same pace”?

WebInt - Administration - Windows Internet Explorer

http://localhost/admin_main.php

Google

WebInt - Administration

Products Admin Update About Logout

z Systems

Products

z Sync **z SPM**

Drag Product Icon on DB2 Icon for Installation

Actions





Edit Add Delete

Access Point / DB2

SAMPLE SMPL

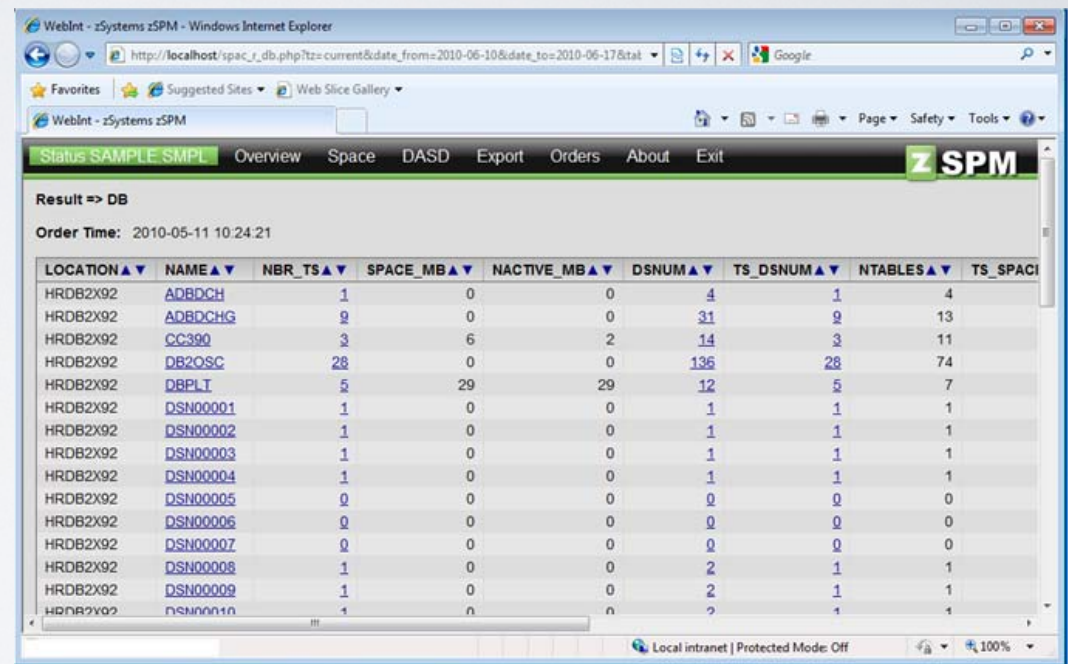
Local intranet | Protected Mode: Off 100%

SPM Features

-  **SPM** working from a GUI
-  **SPM** automates Space and DASD-Pool-Supervision of a z/OS system.
-  **SPM** saves historical data for DB2 Capacity Management and Trend Analysis.
-  **SPM** reports critical situations and escalates in different levels (Warnings, Errors, Alerts, Commands).

Space and DASD-Pool-Supervision

- SMS Storage Groups
- SMS Volumes
- DB2 Subsystem
- DB2 Database
- DB2 Tablespaces



The screenshot shows a web browser window displaying the zSPM interface. The browser address bar shows the URL: `http://localhost/spac_r_db.php?tz=current&date_from=2010-06-10&date_to=2010-06-17&stat`. The interface has a navigation menu with options: Status, SAMPLE, SMPL, Overview, Space, DASD, Export, Orders, About, Exit. The main content area shows the result of a query for DB2 tablespaces.

Result => DB
Order Time: 2010-05-11 10:24:21

LOCATION	NAME	NBR_TS	SPACE_MB	NACTIVE_MB	DSNUM	TS_DSNUM	NTABLES	TS_SPACI
HRDB2X92	ADBDCH	1	0	0	4	1	4	
HRDB2X92	ADBDCHG	9	0	0	31	9	13	
HRDB2X92	CC390	3	6	2	14	3	11	
HRDB2X92	DB2OSC	28	0	0	136	28	74	
HRDB2X92	DBPLT	5	29	29	12	5	7	
HRDB2X92	DSN00001	1	0	0	1	1	1	
HRDB2X92	DSN00002	1	0	0	1	1	1	
HRDB2X92	DSN00003	1	0	0	1	1	1	
HRDB2X92	DSN00004	1	0	0	1	1	1	
HRDB2X92	DSN00005	0	0	0	0	0	0	
HRDB2X92	DSN00006	0	0	0	0	0	0	
HRDB2X92	DSN00007	0	0	0	0	0	0	
HRDB2X92	DSN00008	1	0	0	2	1	1	
HRDB2X92	DSN00009	1	0	0	2	1	1	
HRDB2X92	DSN00010	1	0	0	2	1	1	

Capacity Planning

- Capacity planning needs current and historical information about:

- SMS Storage Groups

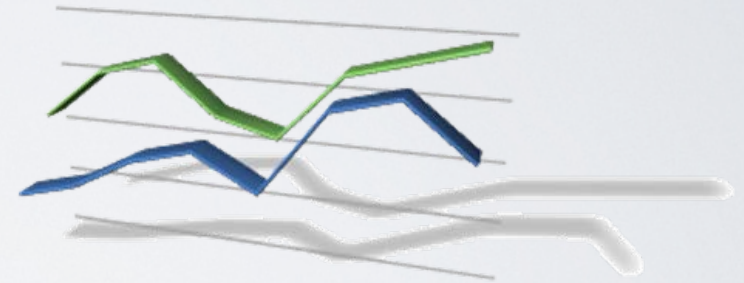
- SMS Volumes

- DB2 Subsystem

- DB2 Database

- DB2 Tablespace

} Table, Index, Total

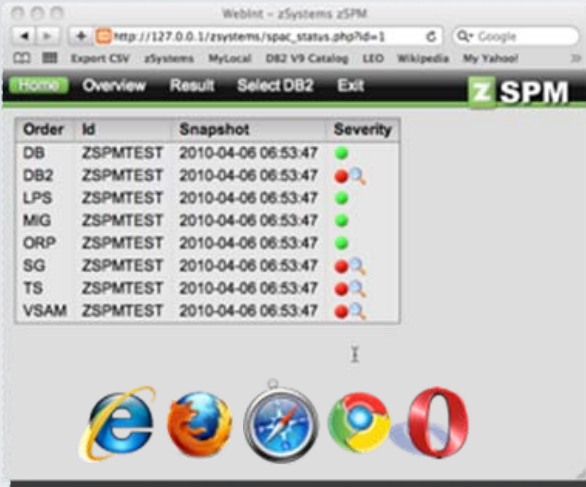


Alerts

- **Z SPM** recognizes a possible shortage in space and automatically sends a message (email)
- **Z SPM** has a TSO command interface, that allows to execute commands like SEND, DELETE, HMIGRATE or any REXX procedure
- **Z SPM** handles special tasks, like WTOs are handled by the TSO command processor included in the tool
- Additional DD cards report alarms into datasets that might be used by customer's own procedures



Architecture



http
https



DB2
connect



8 Orders for SPM

1. Space display and monitoring of a **DB2** system.
2. Space display and monitoring of **Databases**.
3. Space display and monitoring of the **Tablespaces** (and **Indices**).
4. Display and monitoring of the **Storage Groups** and the associated volumes of a DB2 system. (Data, Workfile, Image Copies, Logs, Archives, Sort/Work etc.)
5. **VSAM** display of all Tablespaces and Indices (Used, Allocated, Primary and Secondary Quantity, Volumes) and monitoring of Extents (physical and logical).

8 Orders for SPM

6. Display of the **Linear Page Sets** of Tablespaces and Indices, that reach their maximum size (part. objects, DBSIZE) resp. the maximum number of datasets (non-part. objects, PIECESIZE).
7. **Intelligent HSM Migration** of Image Copy Backup Data Sets, that are not used for a local recovery (to CURRENT), as well as datasets older than the last Full Image Copy (Dual and Remote Backups)
8. Delete of **Image Copy Backup** datasets of a DB2 system that are no longer needed because of DROP, DROP/CREATE or MODIFY TABLESPACE ('orphaned', not listed in SYSIBM.SYSCOPY).

SPM Demo

In Summary.....

- **zSPM** reviews the DASD periphery of a DB2 z/OS systems and its datasets. The goals are:
 - Data collection for an improved capacity planning
 - Securing production availability
 - Alerts in case of shortages / potential errors
 - Automated action in case of shortages / potential errors / superfluous datasets
 - Hints for possible savings

Customer Reactions

“Every DB2 site needs a tool like that“

“I wonder why nobody else build a tool like that before“

“We have homegrown solutions that cover parts of what zSPM does, but it may be more cost effective to buy zSPM“

Questions ?



Email: info@z-dbs.com
<http://www.z-dbs.com>



Email: info@softwareonz.com
<http://www.softwareonz.com>

Customization

The screenshot displays the zSPM web interface for editing SMS Storage Group parameters. The browser address bar shows the URL: `http://127.0.0.1/zdev/spac_order_edit.php?id=1&a=new`. The navigation menu includes: **Status AP1.DEMO**, Overview, Space, DASD, Mail, Orders, About, and Exit. The main content area is divided into three sections:

- Parameter Description:** A list of links for different settings: SETTING, LICENSE, SG, DB2, DB, IS, VSAM, LPS, MIG, ORP, SNAPSHOT, SNAPSHOT_HIST, RETPD, and RETPD_HIST.
- Parameter Editor:** A text area containing configuration parameters for three storage groups: [SG_0], [SG_1], [DB2_0], [DB_0], and [TS_0]. Each group has parameters for NAME, ERR_ALLOC, WRN_ALLOC, ERR_MIN_FREE, WRN_MIN_FREE, ALARM, and COMMAND.
- Buttons:** "Upload to Host" and "Download to PC" buttons are located at the bottom of the parameter editor.

A **Help - SG** dialog box is open, titled "SMS Storage Group - Order SG". It explains that the SG section contains an order of the type SG (SMS Storage Group) and provides a detailed list of parameters and their values:

- `{SG_#}` ; (# must be a unique number)
- `NAME=name1, ... ,name8` ; (up to 8 SMS storage groups)
- `RETPD` ; (wildcards are ? and *)
- `RETPD_HIST` ; (default is *)
- `ERR_ALLOC`=total allocated MB
- `WRN_ALLOC`=total allocated MB
- `ERR_MIN_FREE`=% SMS ENABLED free space or -1 ; (no check if -1, required)
- `,SMS ENABLED free space or -1` ; (no check if -1, required)
- `WRN_MIN_FREE`=% SMS ENABLED free space or -1 ; (no check if -1, required)
- `,SMS ENABLED free space or -1` ; (no check if -1, required)
- `ALARM=1` ; (issue alarm if error)
- `COMMAND=command` ; (issue command if error)

Note: The parameter COMMAND specifies the command which is executed in case of an error (e.g. TSO command SEND, REXX procedure etc.). The length of the command including replaced variables should not exceed 274 bytes. Possible variables are: &NAME, &MSG

Status Display

The screenshot shows a web browser window titled "WebInt - zSystems zSPM" with the URL "http://127.0.0.1/zdev/spac.php?id=2". The browser's address bar and search bar are visible. The web application has a navigation menu with items: "Status AP2.DBA", "Overview", "Space", "DASD", "Mail", "Orders", "About", and "Exit". The "zSPM" logo is in the top right corner.

The main content area is divided into two sections based on location:

- Location: ZDEV**
- Location: ZSYS**

Each section contains a table with the following columns: Order, Id, Snapshot, and Severity. The Severity column uses colored circles to indicate status: red for critical, green for good, and yellow for warning. A magnifying glass icon is next to each severity indicator.

Order	Id	Snapshot	Severity
DB2	ZSPMTEST	2010-06-18 06:02:01	Critical
DB	ZSPMTEST	2010-06-18 06:02:01	Good
TS	ZSPMTEST	2010-06-18 06:02:01	Good
SG	ZSPMTEST	2010-06-18 06:02:01	Critical
VSAM	ZSPMTEST	2010-06-18 06:02:01	Critical
LPS	ZSPMTEST	2010-06-18 06:02:01	Good
ORP	ZSPMTEST	2010-06-18 06:02:01	Warning

Order	Id	Snapshot	Severity
DB2	ZSPMTEST	2010-06-18 06:02:01	Critical
DB	ZSPMTEST	2010-06-18 06:02:01	Good
TS	ZSPMTEST	2010-06-18 06:02:01	Good
SG	ZSPMTEST	2010-06-18 06:02:01	Critical
VSAM	ZSPMTEST	2010-06-18 06:02:01	Critical
LPS	ZSPMTEST	2010-06-18 06:02:01	Good
ORP	ZSPMTEST	2010-06-18 06:02:01	Warning

Drilling Down

Webint - zSystems zSPM

http://127.0.0.1/zdev/spac_message.php?id=2&ORDER=SG&ORDER_ID=ZSPMTEST&LOCATION=ZSYS&ORDER_TIME=2010-06-18+06%3A Google

Status AP2.DBA Overview Space DASD Mail Orders About Exit zSPM

Overview => Messages

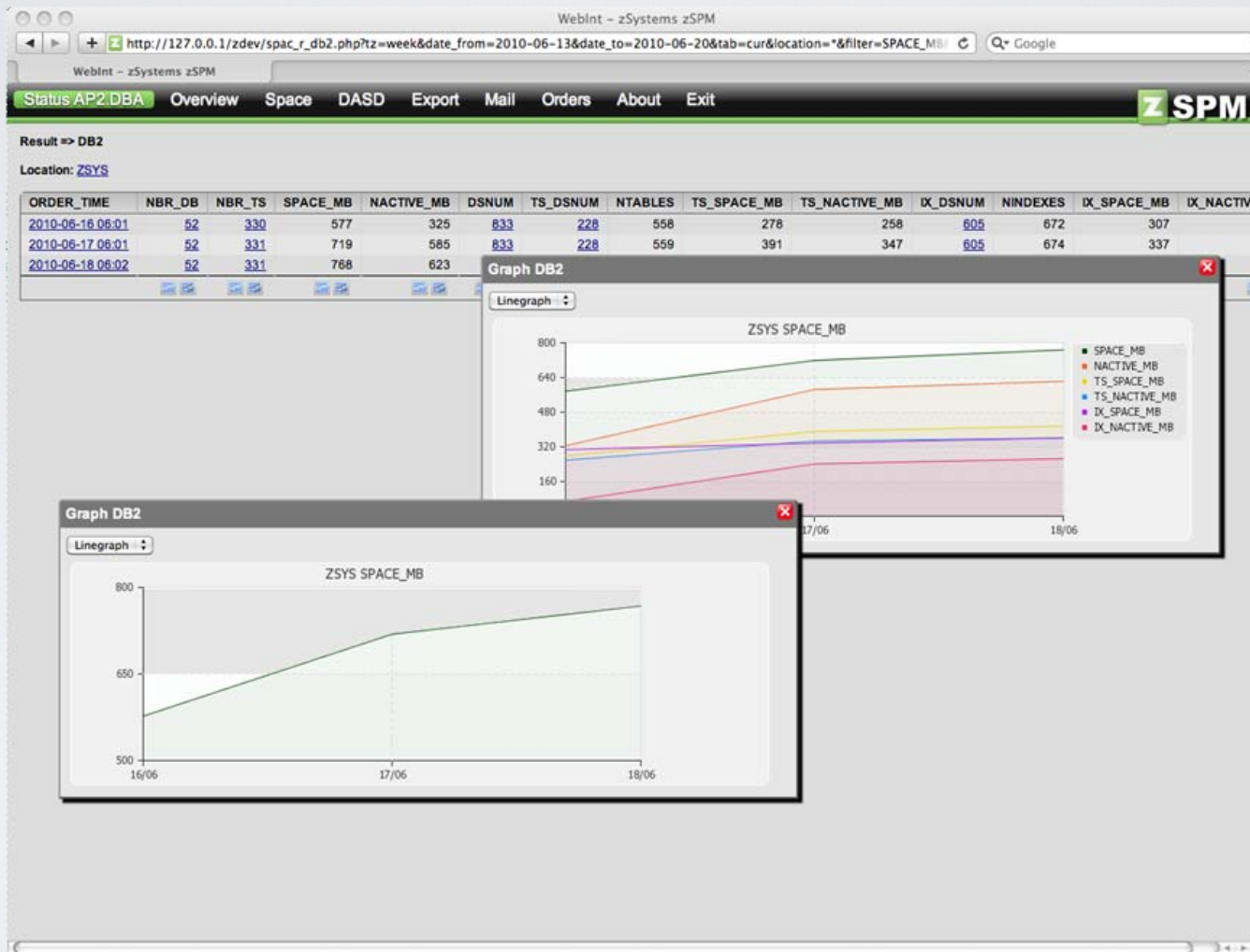
Order: SG
Location: ZSYS

ORDER_TIME	ORDER_ID	MESSAGE	COMMAND	NAME	ALARM
2010-06-18 06:02:01	ZSPMTEST	Error SG= DB2X92L : ALLOCATED_MB=363 Threshold ERR_ALLOC=25 exceeded	Y	DB2X92L	Y
2010-06-18 06:02:01	ZSPMTEST	Warning SG= DB2X92 : ALLOCATED_MB=1809 Threshold WRN_ALLOC=15 exceeded	Y	DB2X92	N
2010-06-18 06:02:01	ZSPMTEST	Error SG= DB2X92 : ALLOCATED_MB=1809 Threshold ERR_ALLOC=25 exceeded	Y	DB2X92	Y
2010-06-18 06:02:01	ZSPMTEST	Warning SG= DB2X92L : ALLOCATED_MB=363 Threshold WRN_ALLOC=15 exceeded	Y	DB2X92L	N
2010-06-18 06:02:01	ZSPMTEST	Error SG= DB2X92S : ALLOCATED_MB=1779 Threshold ERR_ALLOC=25 exceeded	Y	DB2X92S	Y
2010-06-18 06:02:01	ZSPMTEST	Warning SG= DB2X92S : ALLOCATED_MB=1779 Threshold WRN_ALLOC=15 exceeded	Y	DB2X92S	N

Drilling Down

NAME▲▼	VOLUME_TOT▲▼	CAPACITY_MB▲▼	ALLOCATED_MB▲▼	PERC_FREE▲▼	ENABLED_CAPACITY_MB▲▼	ENABLED_ALLOCATED_MB▲▼	ENABLED_PERC_FREE▲▼	SMS_VO
DB2X92S	1	2.707	1.779	35	2.707	1.779		35
	1	2.707	1.779		2.707	1.779		

Space DB2



Space DB Filter

The screenshot shows a web browser window with the URL `http://127.0.0.1/zdev/spac_r_db2.php?tz=week&date_from=2010-06-13&date_to=2010-06-20&tab=cur&location=*&filter=SPACE_MB`. The application is titled "Webint - zSystems zSPM" and has a navigation menu with "Status AP2.DBA", "Overview", "Space", "DASD", "Export", "Mail", "Orders", "About", and "Exit". The main content area displays a table with the following data:

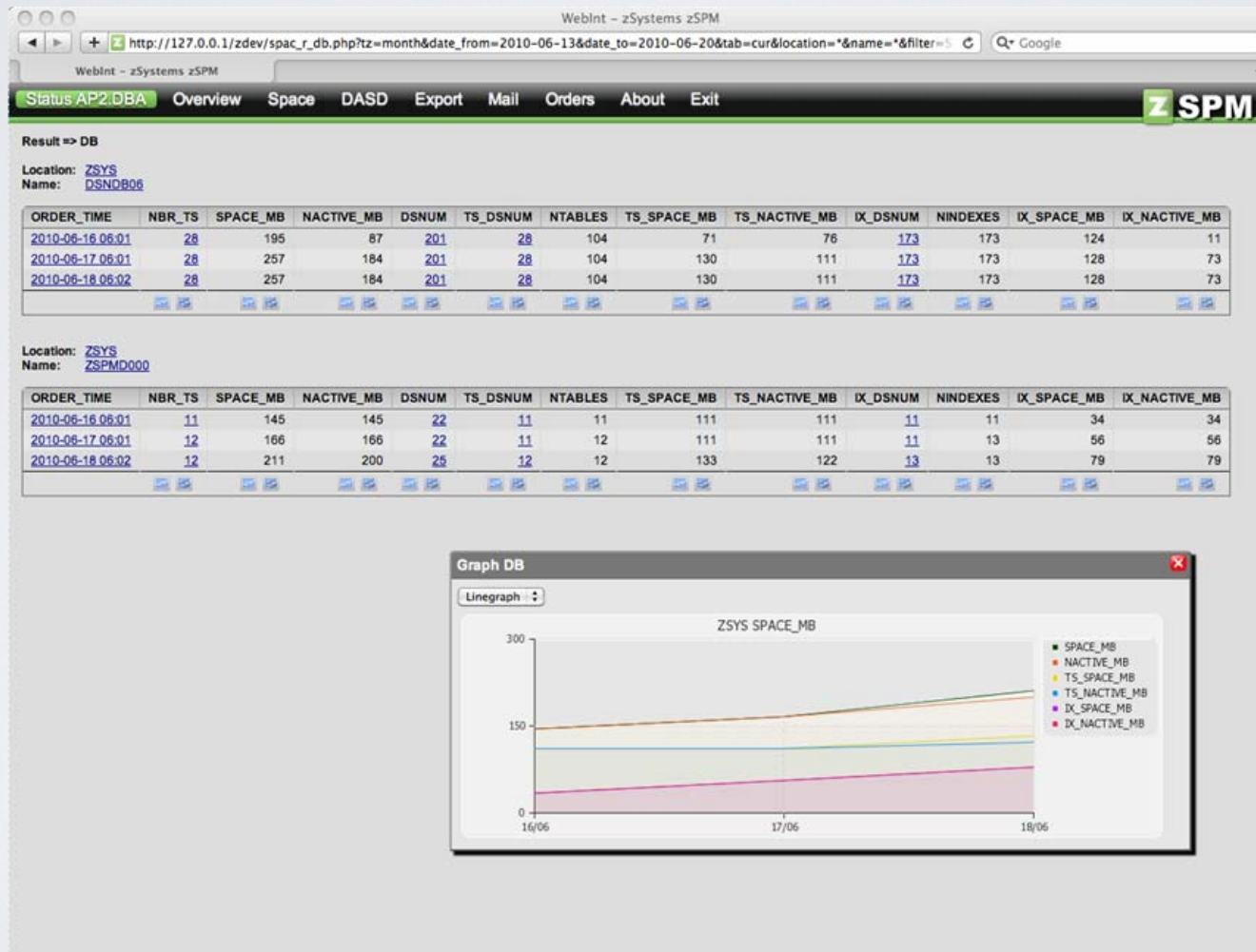
ORDER_TIME	NBR_DB	NBR_TS	SPACE_MB	NACTIVE_MB	DSNUM	TS_DSNUM	NTABLES	TS_SPACE_MB	TS_NACTIVE_MB	IX_DSNUM	NINDEXES	IX_SPACE_MB	IX_NACTIVE_
2010-06-16.06.01	52	330	577	325	833	228	558	278	258	605	672	307	
2010-06-17.06.01	52	331	719	585	833	228	559	391	347	605	674	337	
2010-06-18.06.02	52	331	768	623	836	229	559	416	361	607	674	361	

A "Specify Filter for DB" dialog box is open, showing the following configuration:

- Time: 1Month
- Table: Current History
- Location: *
- Name: *
- Filter: SPACE_MB, % grown: *
- Columns (Numbers): NBR_TS, TS_DSNUM, DSNUM, NTABLES, NINDEXES, IX_DSNUM, [All / None](#)
- Columns (Space): SPACE_MB, NACTIVE_MB, TS_SPACE_MB, TS_NACTIVE_MB, IX_SPACE_MB, IX_NACTIVE_MB, [All / None](#)

Buttons: Submit, Cancel

Space DB Filter



Space TS

Webint - zSystems zSPM

http://127.0.0.1/zdev/spac_r_ts.php?tz=pit&date_from=2010-06-18+06%3A02%3A01&date_to=2010-06-20&tab=cur&location=ZSYS6

Webint - zSystems zSPM

Status AP2.DBA Overview Space DASD Export Mail Orders About Exit

Result => TS

Location: ZSYS
Order Time: 2010-06-18 06:02:01

DBNAME	NAME	SPACE_MB	NACTIVE_MB	DSNUM	TS_DSNUM	NTABLES	TS_SPACE_MB	TS_NACTIVE_MB	IX_DSNUM	NINDEXES	IX_SP
DSNDB06	SYSDBASE	121	90	33	1	13	60	35	32	32	
DSNDB06	SYSOBJ	15	4	33	1	12	1	3	32	32	
DSNDB06	SYSPKAGE	24	20	14	1	7	15	15	13	13	
DSNDB06	SYSHIST	0	0	13	1	11	0	0	12	12	
DSNDB06	SYSDDF	3	1	10	1	8	1	1	9	9	
DSNDB06	SYSSTATS	15	8	10	1	9	5	5	9	9	
DSNDB06	SYSCTX	1	1	8	1	3	0	0	7	7	
DSNDB06	SYSPLAN	10	6	7	1	5	6	6	6	6	
DSNDB06	SYSVIEWS	22	23	7	1	4	16	23	6	6	
DSNDB06	SYSJAVA	2	1	6	1	4	1	1	5	5	
DSNDB06	SYSSEQ2	2	1	6	1	2	1	1	5	5	
DSNDB06	SYSDBAUT	5	3	5	1	2	3	3	4	4	
DSNDB06	SYSSTR	4	1	5	1	4	1	1	4	4	
DSNDB06	SYSXML	0	0	5	1	2	0	0	4	4	
DSNDB06	SYSROLES	0	0	4	1	2	0	0	3	3	
DSNDB06	SYSRTSTS	0	0	4	1	2	0	0	3	3	
DSNDB06	SYSGRTRS	0	0	4	1	2	0	0	3	3	
DSNDB06	SYSCOPY	25	25	3	1	1	17	17	2	2	
DSNDB06	SYSSEQ	2	1	3	1	1	1	1	2	2	
DSNDB06	SYSALTER	0	0	3	1	1	0	0	2	2	
DSNDB06	SYSTARG	1	1	3	1	1	1	1	2	2	
DSNDB06	SYSUSER	3	1	3	1	1	3	1	2	2	
DSNDB06	SYSGPAUT	9	5	3	1	1	5	5	2	2	
DSNDB06	SYSJAUXB	0	0	2	1	1	0	0	1	1	
DSNDB06	SYSPLUXA	0	0	2	1	1	0	0	1	1	
DSNDB06	SYSGROUP	1	1	2	1	2	1	1	1	1	
DSNDB06	SYSJAUXA	0	0	2	1	1	0	0	1	1	
DSNDB06	SYSEBCDC	1	1	1	1	1	1	1	0	0	
		266	194	201	28	104	139	121	173	173	

Space TS Filtered

Webint - zSystems zSPM

http://127.0.0.1/zdev/spac_r_ts.php?tz=month&date_from=2010-06-13&date_to=2010-06-20&tab=cur&location=ZSYS&name=%2A&f... Google

Webint - zSystems zSPM

Status AP2.DBA Overview Space DASD Export Mail Orders About Exit

Result => TS

Location: ZSYS
DB Name: DSNDB06
TS Name: SYSDBASE

ORDER_TIME	SPACE_MB	NACTIVE_MB	DSNUM	TS_DSNUM	NTABLES	TS_SPACE_MB	TS_NACTIVE_MB	IX_DSNUM	NINDEXES	IX_SPACE_MB	IX_NACTIVE_MB
2010-06-16 06:01	62	11	33	1	13	0	0	32	32	62	11
2010-06-17 06:01	121	90	33	1	13	60	35	32	32	62	56
2010-06-18 06:02	121	90	33	1	13	60	35	32	32	62	56

Location: ZSYS
DB Name: DSNDB06
TS Name: SYSSTATS

ORDER_TIME	SPACE_MB	NACTIVE_MB	DSNUM	TS_DSNUM	NTABLES	TS_SPACE_MB	TS_NACTIVE_MB	IX_DSNUM	NINDEXES	IX_SPACE_MB	IX_NACTIVE_MB
2010-06-16 06:01	12	5	10	1	9	5	5	9	9	7	0
2010-06-17 06:01	15	8	10	1	9	5	5	9	9	10	3
2010-06-18 06:02	15	8	10	1	9	5	5	9	9	10	3

VSAM

WebInt - zSystems zSPM

http://127.0.0.1/zdev/spac_r_vsam.php?tz=month&date_from=2010-06-13&date_to=2010-06-20&tab=cur&location=ZSYS&name=%20

WebInt - zSystems zSPM

Status AP2.DBA Overview Space DASD Export Mail Orders About Exit

z SPM

Result => VSAM

Location: ZSYS
Order Time: 2010-06-20 16:02:20

TYPE	DBNAME	TSNAME	IXCREATOR	IXNAME	SP_NAME	SP_PRIQTY_KB	SP_SECQTY_KB	DSN	DSN_SEQ
TS	DSNDB06	SYSDBASE			SYSDBASE	60.480	60.480	DB2X92.DSNDBD.DSNDB06.SYSDBASE.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNACX01	DSNACX01	2.880	2.880	DB2X92.DSNDBD.DSNDB06.DSNACX01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNATX01	DSNATX01	3.600	3.600	DB2X92.DSNDBD.DSNDB06.DSNATX01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNATX02	DSNATX02	12.240	12.240	DB2X92.DSNDBD.DSNDB06.DSNATX02.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNATX03	DSNATX03	9.360	9.360	DB2X92.DSNDBD.DSNDB06.DSNATX03.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNATX04	DSNATX04	11.520	11.520	DB2X92.DSNDBD.DSNDB06.DSNATX04.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDCX01	DSNDCX01	9.360	9.360	DB2X92.DSNDBD.DSNDB06.DSNDCX01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDCX02	DSNDCX02	5.760	5.760	DB2X92.DSNDBD.DSNDB06.DSNDCX02.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDKX01	DSNDKX01	1.440	1.440	DB2X92.DSNDBD.DSNDB06.DSNDKX01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDLX01	DSNDLX01	240	240	DB2X92.DSNDBD.DSNDB06.DSNDLX01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDLX02	DSNDLX02	240	240	DB2X92.DSNDBD.DSNDB06.DSNDLX02.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDLX03	DSNDLX03	240	240	DB2X92.DSNDBD.DSNDB06.DSNDLX03.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDPX01	DSNDPX01	240	240	DB2X92.DSNDBD.DSNDB06.DSNDPX01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDPX02	DSNDPX02	240	240	DB2X92.DSNDBD.DSNDB06.DSNDPX02.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDPX03	DSNDPX03	240	240	DB2X92.DSNDBD.DSNDB06.DSNDPX03.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDPX04	DSNDPX04	240	240	DB2X92.DSNDBD.DSNDB06.DSNDPX04.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDRH01	DSNDRH01	240	240	DB2X92.DSNDBD.DSNDB06.DSNDRH01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDRX01	DSNDRX01	336	336	DB2X92.DSNDBD.DSNDB06.DSNDRX01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDRX02	DSNDRX02	240	240	DB2X92.DSNDBD.DSNDB06.DSNDRX02.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDSX01	DSNDSX01	240	240	DB2X92.DSNDBD.DSNDB06.DSNDSX01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDTX01	DSNDTX01	576	576	DB2X92.DSNDBD.DSNDB06.DSNDTX01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDTX02	DSNDTX02	672	672	DB2X92.DSNDBD.DSNDB06.DSNDTX02.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDTX03	DSNDTX03	624	624	DB2X92.DSNDBD.DSNDB06.DSNDTX03.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDXX01	DSNDXX01	336	336	DB2X92.DSNDBD.DSNDB06.DSNDXX01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDXX02	DSNDXX02	240	240	DB2X92.DSNDBD.DSNDB06.DSNDXX02.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDXX03	DSNDXX03	240	240	DB2X92.DSNDBD.DSNDB06.DSNDXX03.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDXX04	DSNDXX04	240	240	DB2X92.DSNDBD.DSNDB06.DSNDXX04.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	DSNDYX01	DSNDYX01	576	576	DB2X92.DSNDBD.DSNDB06.DSNDYX01.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	FIELDSX	FIELDSX	100	100	DB2X92.DSNDBD.DSNDB06.FIELDSX.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	FORKEYSX	FORKEYSX	100	100	DB2X92.DSNDBD.DSNDB06.FORKEYSX.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	RELSX	RELSX	100	100	DB2X92.DSNDBD.DSNDB06.RELSX.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	TABLESX	TABLESX	100	100	DB2X92.DSNDBD.DSNDB06.TABLESX.I0001.A001	
IX	DSNDB06	SYSDBASE	SYSIBM	TABLESXS	TABLESXS	100	100	DB2X92.DSNDBD.DSNDB06.TABLESXS.I0001.A001	

Export

WebInt - zSystems zSPM

http://127.0.0.1/zdev/spac_r_vsam.php?tz=month&date_from=2010-06-13&date_to=2010-06-20&tab=cur&location=ZSYS&name=%2F

WebInt - zSystems zSPM

Status AP2.DBA Overview Space DASD Export Mail Orders About Exit

Result => VSAM

Location: ZSYS
Order Time: 2010-06-20 16:02:20

zSPM_VSAM_2010_06_20.csv

TYPE	DBNAME	ORDER_TIME	LOCATION	TYPE	DBNAME	TSNAME	IXCREATOR	IXNAME	SP_NAME	SP_STORTYPE	SP_PRIORITY	SP_SECQTY	K	DSN	DSN_SEQ
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNACX01	DSNACX01	E		60480	60480	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNACX01	DSNACX01	E	2880	2880	2880	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNATX01	DSNATX01	E	3600	3600	3600	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNATX02	DSNATX02	E	12240	12240	12240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNATX03	DSNATX03	E	9360	9360	9360	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNATX04	DSNATX04	E	11520	11520	11520	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDCX01	DSNDCX01	E	9360	9360	9360	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDCX02	DSNDCX02	E	5760	5760	5760	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDKX01	DSNDKX01	E	1440	1440	1440	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDLX01	DSNDLX01	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDLX02	DSNDLX02	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDLX03	DSNDLX03	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDPX01	DSNDPX01	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDPX02	DSNDPX02	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDPX03	DSNDPX03	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDPX04	DSNDPX04	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDRH01	DSNDRH01	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDRX01	DSNDRX01	E	336	336	336	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDRX02	DSNDRX02	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDSX01	DSNDSX01	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDTX01	DSNDTX01	E	576	576	576	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDTX02	DSNDTX02	E	672	672	672	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDTX03	DSNDTX03	E	624	624	624	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDXX01	DSNDXX01	E	336	336	336	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDXX02	DSNDXX02	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDXX03	DSNDXX03	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDXX04	DSNDXX04	E	240	240	240	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	DSNDYX01	DSNDYX01	E	576	576	576	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	FIELD5X	FIELD5X	I	100	100	100	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	FORKEY5X	FORKEY5X	I	100	100	100	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	RELSX	RELSX	I	100	100	100	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	TABLE5X	TABLE5X	I	100	100	100	DB2X92.DSNC	
IX	DSNDB06	20.06.10	16:02	ZSYS	DSNDB06	SYSDBASE	SYSIBM	TABLE5XS	TABLE5XS	I	100	100	100	DB2X92.DSNC	