

Basics of System Admin for Programmers



Pete Massiello

petem592@gmail.com

Petem@Peteandi.com



How did you get so lucky?

- Who was doing it? What happened?
- Is there any documentation?
- Will you continue or is this temporary?
- This is a 7x24 hour on-call?
- Hardware service?
- Security?
- PTFs?
- OS Upgrades?
- Backups/Restores?
- Disaster Recovery and High Availability?
- Performance Problems?
- Tums

Daily Care and Feeding: DSPMSG QSYSOPR

Work with Messages

System: HOSTP9

Messages in: QSYSOPR

Type options below, then press Enter.

4=Remove 5=Display details and reply

Opt	Message
—	Cleanup of user messages successfully completed.
—	000007 of 000050 messages deleted from QSRVAGT.
—	000007 of 000050 messages deleted from QSRV.
—	000006 of 000045 messages deleted from QPGMR.
—	Cleanup of job logs and other system output successfully completed.
—	Cleanup of operator and work station messages successfully completed.
—	User cleanup program successfully completed.
—	User cleanup program started.
—	Cleanup of job logs and other system output started.
—	Cleanup of operator and work station messages started.
—	Cleanup of user messages started.
—	Cleanup has started.

More...

F1=Help F3=Exit F5=Refresh F16=Remove messages not needing a reply
F17=Top F18=Bottom F24=More keys

Daily Care and Feeding: WRKACTJOB

```
                                Work with Active Jobs                                HOSTP9
                                03/06/23  16:37:37 EST
CPU %:      .0      Elapsed time:  00:00:00      Active jobs:   191

Type options, press Enter.
  2=Change   3=Hold   4=End   5=Work with   6=Release   7=Display message
  8=Work with spooled files 13=Disconnect ...

Current
Opt  Subsystem/Job  User      Type  CPU %  Function      Status
---  ---
1  QBATCH          QSYS      SBS    .0      DEQW
   QCMN            QSYS      SBS    .0      DEQW
   QCTL            QSYS      SBS    .0      DEQW
   DSP01           ITECHSOL  INT     .0      CMD-WRKACTJOB  RUN
   QSYSSCD         QPGMR     BCH     .0      PGM-QEZSCNEP  EVTW
   QHTTPSVR        QSYS      SBS     .0      DEQW
   ADMIN           QTMHHTTP  BCH     .0      PGM-QZHBMAIN  SIGW
   ADMIN           QTMHHTTP  BCI     .0      PGM-QZSRLOG   SIGW
   ADMIN           QTMHHTTP  BCI     .0      PGM-QZSRHTTP  SIGW

More...

Parameters or command
===>
F3=Exit   F5=Refresh   F7=Find   F10=Restart statistics
F11=Display elapsed data  F12=Cancel  F23=More options  F24=More keys
```


Daily Care and Feeding: WRKSYSSTS

```
Work with System Status                                HOSTP9
                                                    03/06/23 16:38:55 EST
% CPU used . . . . . :          3.0   Auxiliary storage:
Elapsed time . . . . . :    00:00:09   System ASP . . . . . :    2837 G
Jobs in system . . . . . :          242   % system ASP used . . . :    13.1149
% perm addresses . . . . . :         .012   Total . . . . . :    2837 G
% temp addresses . . . . . :         .062   Current temporary used :    11045 M
                                           Peak temporary used . :    11689 M
```

Type changes (if allowed), press Enter.

System	Pool	Reserved	Max	-----DB-----	-----Non-DB-----		
Pool	Size (M)	Size (M)	Active	Faults	Pages	Faults	Pages
1	877.63	442.02	+++++	.0	.0	.0	.0
2	6348.30	6.86	144	.0	.0	.9	2.6
3	811.87	.00	203	.0	.0	.0	.0
4	81.18	.00	5	.0	.0	.0	.0

Bottom

Command

===>

F3=Exit F4=Prompt F5=Refresh F9=Retrieve F10=Restart F12=Cancel
F19=Extended system status F24=More keys

Daily Care and Feeding: WRKDSKSTS

Work with Disk Status

HOSTP9

03/06/23 16:41:09 EST

Elapsed time: 00:00:05

Unit	Type	Size (M)	% Used	I/O Rqs	Request Size (K)	Read Rqs	Write Rqs	Read (K)	Write (K)	% Busy
1	5B41	257949	13.5	58.0	12.0	58.0	.0	12.0	.0	2
2	5B41	257949	13.0	64.5	12.2	64.5	.0	12.2	.0	4
3	5B41	257949	13.0	62.5	12.7	62.3	.1	12.7	16.0	5
4	5B41	257949	13.0	64.7	12.8	63.1	1.5	12.5	25.0	4
5	5B41	257949	13.0	62.5	12.5	62.3	.1	12.5	20.0	4
6	5B41	257949	13.0	63.3	12.5	62.7	.5	12.6	5.3	4
7	5B41	257949	13.0	64.9	12.7	64.7	.1	12.7	4.0	4
8	5B41	257949	13.0	61.9	12.8	61.3	.5	12.9	8.0	4
9	5B41	257949	13.0	60.3	13.0	59.7	.5	12.9	24.0	5
10	5B41	257949	13.0	60.9	12.8	60.1	.7	12.6	26.0	5
11	5B41	257949	13.0	57.0	12.4	56.8	.1	12.4	28.0	4

Bottom

Command

==> █

F3=Exit F5=Refresh F12=Cancel F24=More keys

Daily Care and Feeding: WRKDSKSTS

Work with Disk Status

HOSTP9

03/06/23 16:41:09 EST

Elapsed time: 00:00:05

```
--Protection--
Unit  ASP  Type  Status  Compression
   1     1  DPY   ACTIVE
   2     1  DPY   ACTIVE
   3     1  DPY   ACTIVE
   4     1  DPY   ACTIVE
   5     1  DPY   ACTIVE
   6     1  DPY   ACTIVE
   7     1  DPY   ACTIVE
   8     1  DPY   ACTIVE
   9     1  DPY   ACTIVE
  10     1  DPY   ACTIVE
  11     1  DPY   ACTIVE
```

Bottom

Daily Care and Feeding: WRKPRB

```
                                Work with Problems
                                System:  HOSTP9

Position to . . . . . █ _____ Problem ID

Type options, press Enter.
  2=Change   4=Delete   5=Display details   6=Print details
  8=Work with problem   9=Work with alerts   12=Enter text

Opt  Problem ID  Status      Problem Description

      (No problem records available containing requested data.)
```

```

                                                                Bottom
F3=Exit      F5=Refresh   F6=Print list      F11=Display dates and times
F12=Cancel   F16=Report prepared problems  F24=More keys
```


Daily Care and Feeding: SND SRVRQS

Send Service Request (SND SRVRQS)

Type choices, press Enter.

Action	<u>*test</u>	*PREPARED, *OPENED, *TEST...
Remote control point	<u>*IBMSRV</u>	Name, *IBMSRV, *CIM, *SELECT
Remote network identifier	<u>*NETATR</u>	Name, *NETATR

Bottom

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display

F24=More keys

Connecting to remote system - please wait

Daily Care and Feeding: SND SRVRQS

Send Service Request (SND SRVRQS)

Type choices, press Enter.

Action	<u>*test</u>	*PREPARED, *OPENED, *TEST...
Remote control point	<u>*IBMSRV</u>	Name, *IBMSRV, *CIM, *SELECT
Remote network identifier . . .	<u>*NETATR</u>	Name, *NETATR

Bottom

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys
Sign-on to service support system in progress.

Daily Care and Feeding

- DSPMSG QSYSOPR
- WRKSYSACT
- WRKSYSSTS
- WRKDSKSTS
- WRKPRB
- Checking your backup job
 - Did it end successfully?
 - Is it still running?
 - What's changed that hasn't been backed up?

Daily Care and Feeding

- Checking your backup job
 - Did it end successfully?
 - Is it still running?
 - What's changed that hasn't been backed up?
- Is the attention light on?
- Service Tools – Do you have a valid user?

Terms

- BRMS – Backup Recovery Media Services
- Restricted State – All Subsystems ended
- PTFs – Program Temporary Fixes
- SST – System Service Tools
- DST – Dedicated Service Tools
 - Differences between Function 21 or Manual IPL
- Load Source – Disk with License Internal Code (LIC)
- ASP – Auxiliary Storage Pools
- iASP – Independent Auxiliary Storage Pools

Generate List of Files



```
SELECT SYSTEM_TABLE_SCHEMA, SYSTEM_TABLE_NAME, SYSTEM_TABLE_MEMBER, NUMBER_DELETED_ROWS, NUMBER_ROWS AS  
NUMBER_ACTIVE_ROWS, NUMBER_DELETED_ROWS + NUMBER_ROWS AS TOTAL_ROWS,  
CASE NUMBER_ROWS WHEN 0 THEN 100.00  
ELSE  
(CAST(NUMBER_DELETED_ROWS AS DEC(10, 0)) /  
(CAST(NUMBER_DELETED_ROWS AS DEC(10, 0)) +  
CAST(NUMBER_ROWS AS DEC(10, 0)))) * 100  
END AS Percent_Deleted, DATA_SIZE / 1000000 AS Data_Size_in_MB,  
(DATA_SIZE / 1000000) *  
(CAST(NUMBER_DELETED_ROWS AS DEC(10, 0)) /  
(CAST(NUMBER_DELETED_ROWS AS DEC(10, 0)) +  
CAST(NUMBER_ROWS AS DEC(10, 0)))) AS Data_Size_in_MB_to_Reclaim  
FROM QSYS2.SYSPARTITIONSTAT WHERE NUMBER_DELETED_ROWS > 0  
ORDER BY NUMBER_DELETED_ROWS DESC
```


Generate List of Files

Display Data

Position to line _____ Data width : 222
Shift to column _____
.....1.....2.....3.....4.....5.....6.....7.....

System	System	System	Number	NUMBER_A
Table	Table	Table	Deleted	
Schema	Name	Member	Rows	
AMFLIB	MBA2CPP	MBA2CPP	4,567,356	
EDI4XXDTA	EDINBX	EDINBX	2,308,940	
EDI4XXDTA	EDOTWK	EDOTWK	1,6	
AMFLIB	NMSMWK	NMSMWK	1,3	
MIMIX	MX3200P	MX3200P	1,2	
AMFLIB	MNHHDR	MNHHDR	1,2	
FMFLIB	FBKOREP	FBKOREP	1,2	
EDI4XXDTA	EWMPSTYPF	EWMPSTYPF	1,1	
EDI4XXDTA	EDMPSTYPF	EDMPSTYPF	1,1	4,803,909
EDI4XXDTA	EWCPSSPF	EWCPSSPF	1,1	1,368,937
AMFLIB	ORDLNE	ORDLNE	1,0	2,359,159
AMFLIB	PSTDTL	PSTDTL	9	1
QSYS	QADBIFLD	QADBIFLD	9	1,366,598
EDI4XXDTA	EDSSLK	EDSSLK	8	28,935,300

F3=Exit F12=Cancel F19=Left F20=Right

Display Data
Position to line _____ Data width : 222
Shift to column _____
8.....9.....10.....11.....12.....13.....14.....15.....
CTIVE_ROWS TOTAL_ROWS PERCENT_DELETED

140	1,206,553	99.988396697036930826900
837	1,146,638	99.927003989053214702400
623,193	1,757,406	64.539042201972680188800
731,921	1,860,941	60.669306549750905590200
58,263	1,131,806	94.852209654304712998500
265,014	1,255,445	78.890831537821250632200
1,553,345	2,464,171	36.962775716457989319700
17	849,899	99.997999762324699758400

More...
F3=Exit F12=Cancel F19=Left F20=Right F21=Split

Generate List of Files

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Submit Job (SBMJOB)

Type choices, press Enter.

Command to run > DSPFD FILE(*ALL/*ALL) TYPE(*MBR) OUTPUT(*OUT
FILE) FILEATR(*PF) OUTFILE(PETEM/DSPFDPF)

Job name *JOBBD Name, *JOBBD
Job description *USRPRF Name, *USRPRF
Library Name, *LIBL, *CURLIB
Job queue *JOBBD Name, *JOBBD
Library Name, *LIBL, *CURLIB
Job priority (on JOBQ) *JOBBD 1-9, *JOBBD
Output priority (on OUTQ) *JOBBD 1-9, *JOBBD
Print device *CURRENT Name, *CURRENT, *USRPRF...

More...

F3=Exit F4=Prompt F5=Refresh F10=Additional parameters F12=Cancel
F13=How to use this display F24=More keys

MA a 05/037

I902 - Session successfully started

Create Query



Select input file as yourlib/DSPFDPF

Select these fields: MBLIB, MBFILE, MBNAME, MBNRCD, MBNDTR, MBDSZ2

Sort by MBDSZ2 Descending

Select records by: MBNDTR GT 0 and MBFILE NLIKE 'QADB%'

List to Work On

183

Session B - [24 x 80]

File Edit View Communication Actions Window Help

Display Report

Position to line Report width : 88
Shift to column

Line	Library	File	Member	Current Number Of Records	Number Of Deleted Records
000001	TSTMODSDTA	VSADETL	VSADETL	500,862	172,582
000002	QUSRSYS	QAFQSD	QAFQSD	320	159,346
000003	R36M020711	VSADETL	VSADETL	514,734	57,633
000004	R36MODSDTA	VSADETL	VSADETL	447,374	53,471
000005	TSTMODSDTA	VSAHEAD	VSAHEAD	170,373	60,266
000006	WEBTEST	WTDPRDCTG	WTDPRDCTG	8,203	8,499,716
000007	R36M020711	VSAHEAD	VSAHEAD	176,509	20,248
000008	R36FILES	VARCASH	VARCASH	791,934	1
000009	R36MODSDTA	VSAHEAD	VSAHEAD	149,467	18,477
000010	TSTFILES	VARCASH	VARCASH	715,382	1
000011	R36F020711	VARCASH	VARCASH	654,544	1
000012	R36FILES	VINITMB	VINITMB	62,943	1
000013	TSTFILES	VINITMB	VINITMB	61,767	38
000014	TSTFILES	VSAHOLD	VSAHOLD	13	70,862

F3=Exit F12=Cancel F19=Left F20=Right F21=Split More...

MA B 18/054

1902 - Session successfully started

RGZPFM

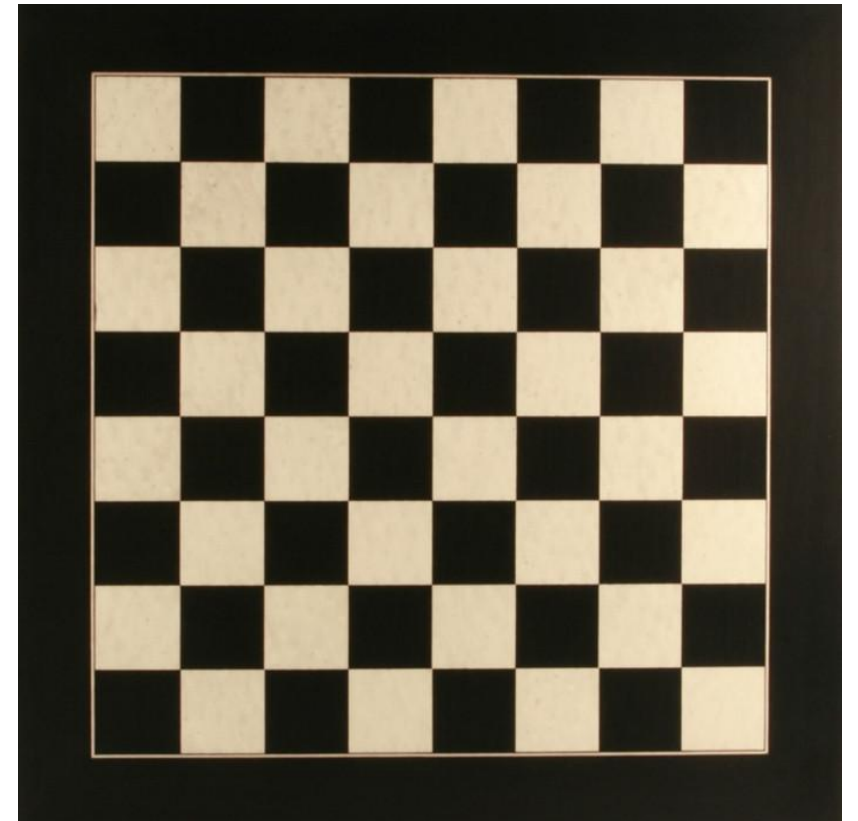
All Records are stored in pages. Think of a page as a chess board containing:

Deleted records

Active records

KeyFile

- *NONE
- *RPLDLTRCD
- *FILE



Reorganize While Active

Session B - [24 x 80]

File Edit View Communication Actions Window Help

MAIN OS/400 Main Menu System: OSS103

Select one of the following:

1. User tasks
2. Office tasks
3. General system tasks
4. Files, libraries, and folders
5. Programming
6. Communications
7. Define or change the system
8. Problem handling
9. Display a menu
10. Information Assistant options
11. iSeries Access tasks

90. Sign off

Selection or command

==> RGZPFM FILE(ITECHDB/BIGFILE) RBDACCPH(*OPTIMIZE) ALWCANCEL(*YES) LOCK(*SHRUPD)

F3=Exit F4=Prompt F9=Retrieve F12=Cancel F13=Information Assistant
F23=Set initial menu

Reorganize operation was unable to truncate file BIGFILE in library ITECH... +

MA b 20/007

Printed 1 screen(s). Win2PDF on PDFFILE:



Requires file to be journaled. And, let's discuss the LOCK Parameter.



Performance — Expert Cache

- Part of IBM i
- Look ahead cache
- Used only with Shared Pools
- *CALC Paging Option
- CHGSBSD to use Shared Pools
- WRKSHRPOOL

WRKSYSSTS

```
Work with System Status                                HOSTP9
                                                    03/06/23 16:48:19 EST

% CPU used . . . . . :          13.5   Auxiliary storage:
Elapsed time . . . . . :    00:09:32   System ASP . . . . . :    2837 G
Jobs in system . . . . . :          240   % system ASP used . . . :    13.1142
% perm addresses . . . . . :         .012   Total . . . . . :    2837 G
% temp addresses . . . . . :         .062   Current temporary used :    11024 M
                                           Peak temporary used . :    11689 M
```

Type changes (if allowed), press Enter.

System Pool	Pool Size (M)	Reserved Size (M)	Max Active	Paging Option
1	877.63	442.00	+++++	*FIXED
2	6348.30	6.86	144	*CALC
3	811.87	.00	203	*CALC
4	81.18	.00	5	*CALC

How to Activate

Bottom

Command

==>

F3=Exit F4=Prompt F5=Refresh F9=Retrieve F10=Restart F12=Cancel
F19=Extended system status F24=More keys

WRKSHRPOOL

Work with Shared Pools

System: ITECH07

Main storage size (M) . : 8119.00

Type changes (if allowed), press Enter.

Pool	Defined Size (M)	Max Active	Allocated Size (M)	Pool ID	-Paging Defined	Option-- Current
*MACHINE	566.16	+++++	566.16	1	*FIXED	*FIXED
*BASE	6856.97	1047	6856.97	2	*CALC	*CALC
*INTERACT	614.67	100	614.67	3	*CALC	*CALC
*SPOOL	81.18	10	81.18	4	*CALC	*CALC
*SHRPOOL1	.00	0			*FIXED	
*SHRPOOL2	.00	0			*FIXED	
*SHRPOOL3	.00	0			*FIXED	
*SHRPOOL4	.00	0			*FIXED	
*SHRPOOL5	.00	0			*FIXED	
*SHRPOOL6	.00	0			*FIXED	

More...

Command

===>

F3=Exit F4=Prompt F5=Refresh F9=Retrieve F11=Display tuning data
F12=Cancel

QPFRA DJ

- 0 No Adjustment
- 1 Adjustment at IPL
- 2 Adjustment at IPL & Automatically
- 3 Automatically

Save Files



Can be a big payoff, BUT ...

You need to decide which ones to keep and which ones to delete.

Find out Date last used, Date when created, and by what UserID.

Don't delete any of them in Q libraries.

DSPSAVF to help you decide.

Backup to Special Tape before delete.



Generate List of Files on the System

Session A - [24 x 80]

File Edit View Communication Actions Window Help

Submit Job (SBMJOB)

Type choices, press Enter.

Command to run > D SPOBJD OBJ(*ALLUSR/*ALL) OBJTYPE(*FILE) OUT
PUT(*OUTFILE) OUTFILE(PETEM/DSPSAVFS)

Job name *JOB _____ Name, *JOB

Job description *USRPRF _____ Name, *USRPRF

Library _____ Name, *LIBL, *CURLIB

Job queue *JOB _____ Name, *JOB

Library _____ Name, *LIBL, *CURLIB

Job priority (on JOBQ) *JOB 1-9, *JOB

Output priority (on OUTQ) *JOB 1-9, *JOB

Print device *CURRENT _____ Name, *CURRENT, *USRPRF...

More...

F3=Exit F4=Prompt F5=Refresh F10=Additional parameters F12=Cancel
F13=How to use this display F24=More keys

MA a 05/037

I902 - Session successfully started

Create Query



Select input file as yourlib/DSPSAVFS

Select these fields: ODLBNM, ODOBNM, ODOBSZ,
ODOBOW, ODLDAT , ODUDAT

Sort by ODOBSZ Descending

Select records by:

ODOBAT EQ 'SAVF'

List of Save Files

57

Session B - [24 x 80]

File Edit View Communication Actions Window Help

Display Report

Position to line Shift to column : 69

Line	Library	Object	Object Size	Object Owner	Change Date	Last Used Date
000001	SVPRD2TST	SV_PRODF	7,219,994,624	VAIGROUP	032512	032612
000002	SVPRD2TST	SV_TESTF	6,915,907,584	VAIGROUP	032612	032612
000003	RES	SV_TSFILS	5,815,427,072	VAIGROUP	032612	032612
000004	SVPRD2TST	SV_PRODM	1,535,139,840	VAIGROUP	032512	032612
000005	SVPRD2TST	SV_TESTM	1,490,575,360	VAIGROUP	032612	032612
000006	RES	SV_TSMODSD	1,285,054,464	VAIGROUP	032612	032612
000007	QWEBQRY76	QPZ1DIRPRD	851,533,824	PETEM	080911	
000008	QGPL	QSI41053	486,375,424	QSECOFR	080911	110513
000009	QJVM6064	QPZA002348	432,177,152	QSYS	092913	092413
000010	QSYSDIR	QPZA021350	410,025,984	QSYS	092913	092413
000011	QWEBQRY76	DIRPRD	401,113,088	QSYS	080911	
000012	QGPL	SPOOLFLEX	364,736,512	VAIGROUP	103113	110213
000013	CHARLIE	DRVSF1113	314,859,520	VAIGROUP	110213	110213
000014	QSYSDIR	QPZA021356	262,307,840	QSYS	092913	092413
000015	QSYSDIR	QPZA021352	248,676,352	QSYS	092913	092413

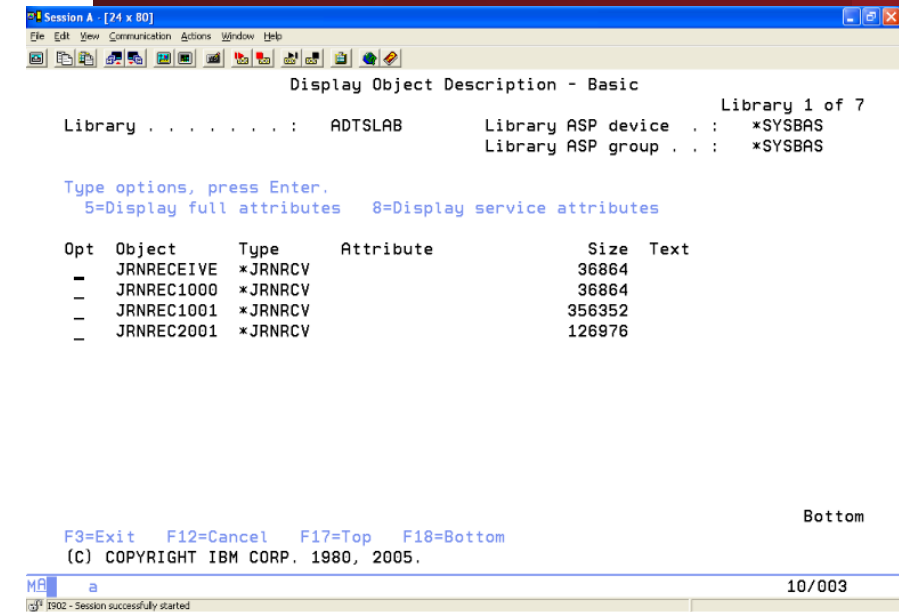
F3=Exit F12=Cancel F19=Left F20=Right F21=Split

MA B 03/032

1902 - Session successfully started

Old Journal Receivers

- DSPOBJD OBJ(*ALL/*ALL)
OBJTYPE(*JRNRCV)
- Ones people forgot about and they just grow.
- Sequence number jump.



The screenshot shows a terminal window titled 'Session A [24 x 80]'. The command 'DSPOBJD OBJ(*ALL/*ALL) OBJTYPE(*JRNRCV)' has been executed. The output displays the 'Display Object Description - Basic' for the ADTSLAB library. It lists four objects: JRNRECEIVE, JRNREC1000, JRNREC1001, and JRNREC2001, all of type *JRNRCV. The sizes are 36864, 36864, 356352, and 126976 respectively. The terminal also shows the library ASP device and group as *SYSBAS. At the bottom, it indicates 'F3=Exit F12=Cancel F17=Top F18=Bottom' and '(C) COPYRIGHT IBM CORP. 1980, 2005.' The status bar at the bottom shows 'MB a' and '10/003'.

```
Session A [24 x 80]
File Edit View Communication Actions Window Help

Display Object Description - Basic
Library . . . . . : ADTSLAB      Library 1 of 7
                                   Library ASP device . : *SYSBAS
                                   Library ASP group . . : *SYSBAS

Type options, press Enter.
5=Display full attributes 8=Display service attributes

Opt Object      Type      Attribute      Size      Text
-  JRNRECEIVE   *JRNRCV
-  JRNREC1000   *JRNRCV      36864
-  JRNREC1001   *JRNRCV      36864
-  JRNREC1001   *JRNRCV      356352
-  JRNREC2001   *JRNRCV      126976

F3=Exit  F12=Cancel  F17=Top  F18=Bottom
(C) COPYRIGHT IBM CORP. 1980, 2005.

MB a 10/003
IBM i902 - Session successfully started
```


Collect Disk Information



You can run RTVDSKINF to Collect Disk Information, or you can use the DISKTASKs Menu.

You will want to run the RTVDSKINF command in Batch.

Using the DISKTASKs menu, you can select option 1 to automate the collection of the RTVDSKINF information on a selected interval (Daily, Weekly, or monthly).

GO DISKTASKS

DISKTASKS

Disk Space Tasks

System: ITECH07

To select one of the following, type its number below and press Enter:

1. Collect disk space information
2. Print disk space information

10. Work with libraries
11. Work with folders
12. Work with objects by owner

Type a menu option below

—

F1=Help F3=Exit F9=Command line F12=Cancel

Collect Disk Information

Collect Disk Space Information

ITECH07

04/14/21 13:05:54

Information collected : 04/11/21 06:00:00

A job will be submitted to collect disk space information. This job may take several hours to complete, depending on the size of your system.

Type choice below, then press Enter.

When to collect information . . . _ 1=Date/time
2=Weekly
3=Monthly

F1=Help F3=Exit F12=Cancel

Weekly collection scheduled on *SUN, 04/18/21, at 06:00:00.

Print Disk Information

```
Print Disk Space Information                                ITECH75
                                                    02/09/23  15:57:32 EST
Information collected . . . . . : 02/09/23  15:49:48
```

```
Select one type of report below, then press Enter.
1=Select
```

Opt	Type of Report
<u>1</u>	Library
—	Folder
—	Owner
—	Specific object
—	System summary information

Bottom

F1=Help F3=Exit F5=Refresh F12=Cancel

Library Level

Session B - [24 x 80]

File Edit View Communication Actions Window Help

Display Spooled File

File : : : : : QPEZDISK Page/Line 4/1
Control : : : : : Columns 1 - 78
Find : : : : :
*...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...
Disk Space Report

5761SS1 V6R1M0 080215

Library	Owner	% of Disk	Size in 1000 bytes	Library Last Change	Information Last Use	
SVPRD2TST	VAIGROUP	1.76	17161642.0	03/26/12	03/26/12	D
R36FILES	VAIGROUP	.81	7920349.2	11/02/13	11/03/13	S
TSTFILES	VAIGROUP	.76	7400800.3	05/30/13	08/08/13	T
RES	VAIGROUP	.74	7186464.6	10/30/13	10/30/13	
R36F020711	VAIGROUP	.67	6517284.9	08/09/11	11/01/11	
QSPL	QSPL	.40	3935539.2	11/03/13	11/03/13	S
CWMPPGM	PETEM	.27	2660261.9	08/09/11		H
QSYS	QSYS	.23	2256136.7	11/03/13	11/03/13	S
QSYSDIR	QSYS	.22	2187878.4	09/29/13	11/03/13	
QGPL	QSYS	.20	1908817.9	11/03/13	11/03/13	G
QWEBQRY76	QSYS	.17	1633198.1	08/09/11	11/02/13	

More...

F3=Exit F12=Cancel F19=Left F20=Right F24=More keys

MA B MW 03/022

1902 - Session successfully started

All objects Over 10 MB

73

```
Customize Object Report                                ITECH75
                                                    02/09/23 16:50:17 EST
Information collected . . . . . : 02/09/23 15:49:48
```

Type choices below, then press Enter.

```
Objects and object types to include:
  Objects . . . . . *ALL      Name, generic*, *ALL
  Object types . . . . . *ALL  Name, *ALL
  _____
  _____
  _____

Size of smallest object . . . . 9999      Size in 1000 bytes
                                     (1=1000)
```

More...

F1=Help F3=Exit F5=Refresh F12=Cancel

All Objects Over 10 MB (cont.)

Session B - [24 x 80]

File Edit View Communication Actions Window Help

Display Spooled File

File : : : : : QPEZDISK Page/Line 4/1
Control : : : : : Columns 1 - 78
Find : : : : :
*...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...

Disk Space Report

5761SS1 V6R1M0 080215

Object	Library	Type	Owner	% of Disk	Specific Object Information Size in 1000 bytes	Last Changed
SV_PRODF	SVPRD2TST	*FILE	VAIGROUP	.74	7219994.6	03/
SV_TESTF	SVPRD2TST	*FILE	VAIGROUP	.71	6915907.6	03/
SV_TSFILES	RES	*FILE	VAIGROUP	.60	5815427.1	03/
SV_PRODMM	SVPRD2TST	*FILE	VAIGROUP	.16	1535139.8	03/
SV_TESTMM	SVPRD2TST	*FILE	VAIGROUP	.15	1490575.4	03/
VARGLMP	R36FILES	*FILE	VAIGROUP	.14	1325473.8	11/
SV_TSMODSD	RES	*FILE	VAIGROUP	.13	1285054.5	03/
VARGLMP	TSTFILES	*FILE	VAIGROUP	.12	1191252.0	03/
VARGLMP	R36F020711	*FILE	VAIGROUP	.11	1079984.1	08/
QPZ1DIRPRD	QWEBQRY76	*FILE	PETEM	.09	851533.8	08/
VSAANAL	R36FILES	*FILE	VAIGROUP	.07	676470.8	11/

More...

F3=Exit F12=Cancel F19=Left F20=Right F24=More keys

MA B MW 03/022

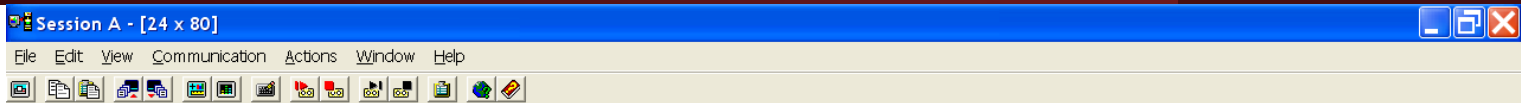
1902 - Session successfully started

Get the Directory Information

- The Retrieve Directory Information (RTVDIRINF) command is used to collect attributes for directories and files in the Integrated File System. The collected information is stored in database files that are named using the information file prefix specified by the INFFILEPFX parameter. The files are created in the library specified by the INFLIB parameter, defaults to QUSRSYS.
- You will want to run this in batch.
- You can run the Print Directory Information (PRTDIRINF) command to print reports using the retrieved directory information.

Get the Directory Information (cont.)

77



Retrieve Directory Information (RTVDIRINF) Level: 2

Type choices, press Enter.

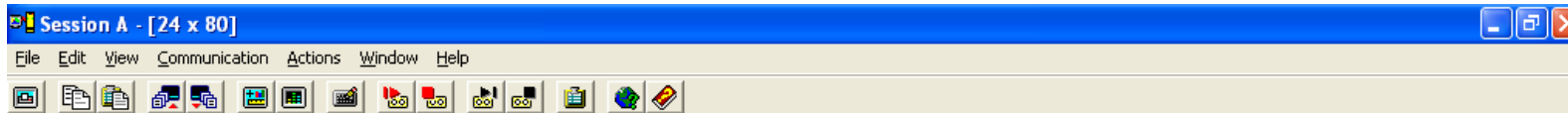
Directory	/	
Directory subtree	*ALL	*ALL, *NONE
Information file prefix	*GEN	Name, *GEN
Information library	QUSRSYS	Name

Bottom

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys

Print Directory Information

78



Print Directory Information (PRTDIRINF)

Type choices, press Enter.

Type of report	> <u>*DIR</u>	*DIR, *OBJ, *OWN
Information file prefix	<u>*LAST</u>	Name, *LAST
Information library	<u>*LAST</u>	Name, *LAST
Directory subtree	<u>*ALL</u>	*ALL, *NONE

Bottom

F3=Exit F4=Prompt F5=Refresh F12=Cancel F13=How to use this display
F24=More keys

Directory: Size, Number, Subdirectories

79

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
[Icons]

Display Spooled File

File . . . . . : QPEZDIR                      Page/Line 3/14
Control . . . . . : W22                      Columns 22 - 99
Find . . . . . : _____
...+...3...+...4...+...5...+...6...+...7...+...8...+...9...+...
stream files type 2                                0
objects being journaled                            0
stream file with sever digital signatures           0
files checked out                                  0

-----
/QOpenSys/QIBM/ProdData/OS400

Number of
Objects

this directory                                     2
objects in this directory and subdirectories          2210
storage freed files                                0
local files                                         1
hidden files                                        0
stream files type 2                                0
objects being journaled                            0
stream file with sever digital signatures           0
More...

F3=Exit  F12=Cancel  F19=Left  F20=Right  F24=More keys

MA a 03/022
I902 - Session successfully started
```


IPL Types

- Normal (Unattended)
- Manual (Attended)
- PWRDWN SYS
 - Restricted State
 - ENDSBS *ALL
 - *IMMED vs *CNTRL D
- GO POWER

Sides of the Microcode

- A – Permanent
- B – Permanent and Temporary

Bezel



Bezel



PTFs Different Types

- Cumulative
- Technology Refresh
 - Group (7.5 SF99757)
 - Marker (7.5 MF994xx)
- Groups
- Individual
 - MF & MJ
 - SI & SJ
 - MH

PTFs

Temp Apply & Perm Apply

Display PTF Status

System: ITECH75

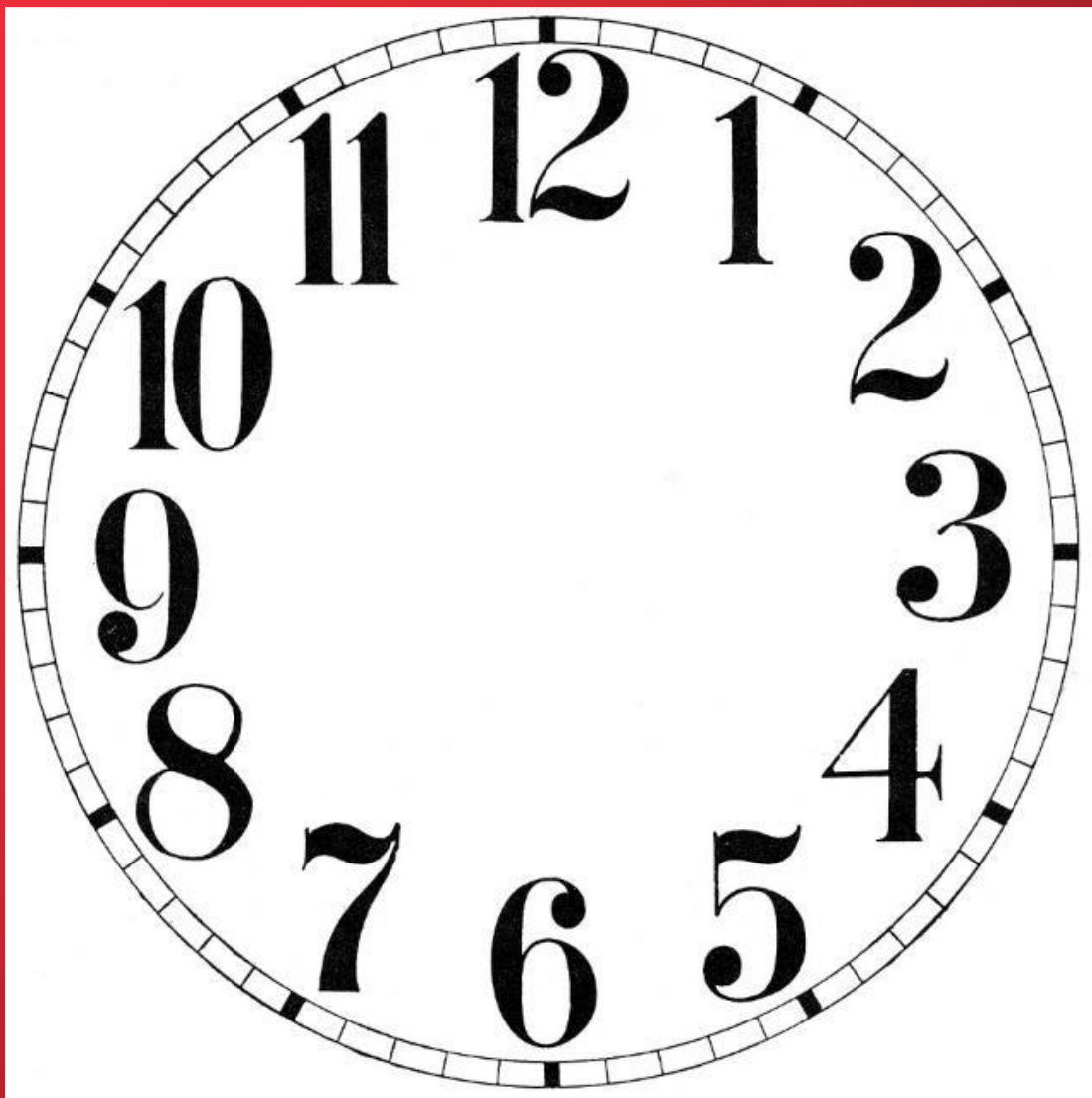
Product ID : 5770999
IPL source : ##MACH#B
Release of base option : V7R5M0 L00

Type options, press Enter.
5=Display PTF details 6=Print cover letter 8=Display cover letter
10=Display PTF apply information

PTF	IPL
Opt ID Status	Action
TL22321 Temporarily applied	None
TL22104 Permanently applied	None
RE22082 Permanently applied	None
RE22025 Permanently applied	None
MF99401 Permanently applied	None
MF70511 Temporarily applied	None
MF70508 Temporarily applied	None

More...

F3=Exit F11=Display alternate view F17=Position to F12=Cancel



PTFs

- How Often Should You Apply?
- How often do you IPL
- Perm apply before loading new PTFs

Group PTFs - WRKPTFGRP

Work with PTF Groups

System: ITECH75

Type options, press Enter.

1=Order 4=Delete 5=Display 6=Print 8=Display special handling PTFs
9=Display related PTF groups 10=Display PTF apply information

Opt	PTF Group	Level	Status
█	SF99959	17	Installed
—	SF99959	9	Installed
—	SF99958	11	Installed
—	SF99958	6	Installed
—	SF99957	1	Installed
—	SF99955	3	Installed
—	SF99955	2	Installed
—	SF99954	5	Installed
—	SF99954	2	Installed
—	SF99953	2	Installed
—	SF99953	1	Installed
—	SF99952	4	Installed
—	SF99952	3	Installed

More...

F3=Exit F6=Print F11=Display descriptions F12=Cancel
F22=Display entire field

Group PTFs - WRKPTFGRP

Work with PTF Groups

System: ITECH75

Type options, press Enter.

1=Order 4=Delete 5=Display 6=Print 8=Display special handling PTFs
9=Display related PTF groups 10=Display PTF apply information

Opt	PTF Group	Text
█	SF99959	GROUP HIPER
—	SF99959	GROUP HIPER
—	SF99958	GROUP SECURITY
—	SF99958	GROUP SECURITY
—	SF99957	TECHNOLOGY REFRESH
—	SF99955	JAVA
—	SF99955	JAVA
—	SF99954	BACKUP RECOVERY SOLUTIONS
—	SF99954	BACKUP RECOVERY SOLUTIONS
—	SF99953	PERFORMANCE TOOLS
—	SF99953	PERFORMANCE TOOLS
—	SF99952	IBM HTTP SERVER FOR I
—	SF99952	IBM HTTP SERVER FOR I

More...

F3=Exit F6=Print F11=Display status F12=Cancel
F22=Display entire field

PTFs Display Firmware Status

```

-                                     Display Firmware Status

Service partition . . . . . : Yes
Firmware update policy . . . . . : *OPSYS
Server IPL source . . . . . : Temporary
Firmware product ID/release . . . . . : 5733909 V1R1M0
Update access key expiration date . . . . . : 08/24/23
Server IPL required . . . . . : No

--Server firmware--  -Operating system--
Fix      PTF      Fix      PTF      Update
Copy     pack     ID      pack     ID      Status
*ACTIVE  VL940_050  MH01849
          FW940.10
*TEMP    VL940_050  MH01849  *NONE    *NONE    None
          FW940.10  *NONE
*PERM    VL940_050  MH01849  *NONE    *NONE    None
          FW940.10  *NONE

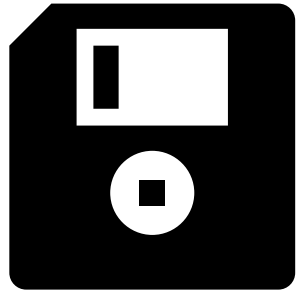
                                     Bottom

Press Enter to continue

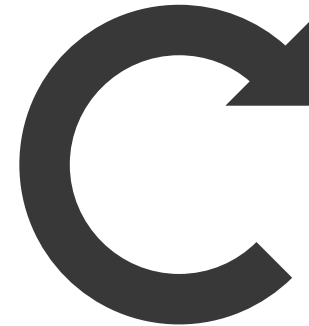
F3=Exit  F5=Refresh  F12=Cancel  F14=Display firmware PTFs

```


Save Restore



Your Recovery is only as good as your Backups



When did you last try a full system restore?

Console

- HMC or LAN Console
- System Console – In Controlling Subsystem
- Some Saves and Restores performed from here

Sign On

System : HOSTP9
Subsystem : QCTL
Display : DSP01

User _____
Password _____

Program/procedure _____
Menu _____
Current library _____

Restricted State



From Console: ENDSBS SBS(*ALL) OPTION(*CNTRL D) DELAY(60)

```
Work with Active Jobs                               ITECH75
09/19/22 13:06:05 EDT
CPU %: 320.7   Elapsed time: 00:00:49   Active jobs: 42

Type options, press Enter.
 2=Change  3=Hold  4=End  5=Work with  6=Release  7=Display message
 8=Work with spooled files 13=Disconnect ...

Opt Subsystem/Job  User      Type  CPU %  Function  Status
---
QCTL  DSP01        ITECHSOL  INT    2.6  CMD-WRKACTION  RUN
QALERT  QALERT       QSYS      SYS     .0  DEQW
QCMNARB01 QCMNARB01   QSYS      SYS     .0  EVTW
QCMNARB02 QCMNARB02   QSYS      SYS     .0  EVTW
QCMNARB03 QCMNARB03   QSYS      SYS     .0  EVTW
QDBFSTCCOL QDBFSTCCOL  QSYS      SYS     .0  EVTW
QDBSRVXR  QDBSRVXR    QSYS      SYS     .0  CNDW
QDBSRVXR2 QDBSRVXR2   QSYS      SYS     .0  CNDW

Parameters or command
===>
F3=Exit  F5=Refresh  F7=Find  F10=Restart statistics
```

Mor

```
display messages
Queue . . . . . : QSYSOPR      System: ITECH09
Library . . . . : QSYS        Program . . . . : *DSPMSG
Severity . . . . : 99         Delivery . . . . : *HOLD

Type reply (if required), press Enter.
- Subsystem QSERVER ended.
  IBM Tivoli Directory Server instance QUSRDIR ended successfully.
  Job 032554/QDIRSRV/QUSRDIR completed normally on 10/05/19 at 16:23:59.
  Subsystem QSYSWRK ended.
  Subsystem QHTTPSVR ended.
  System ended to restricted condition.
  TCP/IP is ending.
  IPv6 interface ended successfully.
  User QSYS in job 032448/QSYS/QTCPWRK ended TCP/IP *LOOPBACK interface
  127.0.0.1.
  User QSYS ended IP interface 172.29.6.3 on ETHLINE.
  A request to end TCP/IP has completed.
  TCP/IP is ending.
```


Size of my system



```
Work with System Status                                ITECH75
                                                    09/19/22  13:09:49 EDT
% CPU used . . . . . :          1.8      Auxiliary storage:
Elapsed time . . . . . :      00:00:04      System ASP . . . . . :      572.6 G ←
Jobs in system . . . . . :          137      % system ASP used . . . :      9.9413
% perm addresses . . . . . :        .007      Total . . . . . :      572.6 G ←
% temp addresses . . . . . :        .007      Current temporary used :      3422 M
                                           Peak temporary used . :      7068 M
```

Type changes (if allowed), press Enter.

System	Pool	Reserved	Max	-----DB-----		-----Non-DB-----	
Pool	Size (M)	Size (M)	Active	Faults	Pages	Faults	Pages
1	1218.86	624.40	+++++	.0	.0	.0	.0
2	2767.63	1.85	70	.0	.0	4.8	10.3

Bottom

Command
==>

F3=Exit F4=Prompt F5=Refresh F9=Retrieve F10=Restart F12=Cancel

Userids



- IBM i QSECOFR password or equivalent userid/password
- DST/SST QSECOFR DST Password
- Other ids – Setting up Encryption or Encryption KeyStore

Tapes

- Number of tapes for backups
- Types of Tapes – Capacity & Speed
- How many Sets
- How do they move
- Where are they Stored
- Encryption
- Virtual Tape Libraries
- Tape Labels

Save Commands

- SAVSYS – Saves Licensed Internal Code, QSYS, Security and Configuration object. - Restricted
- SAVSECDTA – Saves all Security information - Unrestricted
- SAVCFG – Saves all configuration & System Resource management objects -Unrestricted

Save Library Commands



- SAVLIB – Can save one or more libraries. The special values for libraries are:
 - *NONSYS – All libraries (Except QDOC, QSPL, QTEMP, QRPL OBJ, QSYS) are saved. Must be restricted state.
 - *ALLUSR – All User Libraries are saved. Can be run without being in restricted state. All libraries that don't begin with Q are saved. None of the # System libraries are saved. Some Q libraries that contain “user data” are also saved ie QSYS2, QGPL, QUSRSYS, QMPGDATA, QPFRDATA, QS36F, QUSRBRM, and a few others.
 - *IBM – Saves the IBM libraries except those noted above, and can be run without being in restricted state.

Save Library Options

- Save Active - Objects can be saved while others are writing to them. Various Checkpoint options (*SYSDFN, *LIB, or SYNCLIB).
- Save Access Paths – Can speed up backup and kill restore.
- Spool File Data – Default is *NO.
- ASP Device – Defaults to System ASP, basic ASPs (2-32), and all iASPs in the ASP Group. (Set your ASP Group if you have them).

Save Document Library Objects

SAVDLO – Saves a copy of the specified documents, folders, and distribution objects (mail). When specifying DLO(*ALL) FLR(*ANY) all document library objects are saved.

Save of the IFS

- Saves the Integrated File System.
- Sometimes forgotten.
- Omit /QDLS & /QSYS.LIB
- Devices specified as DEV('/QSYS.LIB/TAP01.DEVD')
- If you ever need to save to a *SAVF
DEV('/QSYS.LIB/MYLIB.LIB/MYSAVF.FILE')
- ASYNCBRING(*YES)

SAVE

Save

System: ITECH09

Select one of the following:

Save System and User Data

20. Define save system and user data defaults
21. Entire system
22. System data only
23. All user data

Save Document Library Objects

30. All documents, folders, and mail
31. New and changed documents, new folders, all mail
32. Documents and folders
33. Mail only

More...

Selection or command

===>

Go Save Menu

21 – Save the entire System

Save the Entire System

What this option will do

- o End all subsystems
- o Save the Licensed Internal Code
- o Save the operating system
- o Save the security data
- o Save the device configuration objects
- o Save all user libraries (including libraries for licensed programs)
- o Save all documents and folders
- o Save all distribution and mail objects
- o Save all directories
- o Start the controlling subsystem

What this option will not do

- o Save the contents of job queues or data queues that exist on the system

21 – Save the entire System

Specify Command Defaults

Type choices, press Enter.


Devices	<u>TAP01</u>	Names
Prompt for commands	<u>Y</u>	Y=Yes, N=No
Check for active files	<u>Y</u>	Y=Yes, N=No
Message queue delivery	<u>*BREAK</u>	*BREAK, *NOTIFY
Start time	<u>*CURRENT</u>	*CURRENT, time
Start date	<u>*CURRENT</u>	*CURRENT, date
Vary off network servers	<u>*ALL</u>	*ALL, *NONE

More...

21 – Save the entire System

Specify Command Defaults

Type choices, press Enter.

Unmount file systems	<u>Y</u>	Y=Yes, N=No
Print system information . . .	<u>N</u>	Y=Yes, N=No
Use system reply list	<u>N</u>	Y=Yes, N=No
Spooled file data	<u>*NONE</u>	*NONE, *ALL
End TCP/IP wait time	<u>300</u> 	*NONE, 1-9999 seconds
Print joblog	<u>Y</u>	Y=Yes, N=No
Start controlling subsystem	<u>Y</u>	Y=Yes, N=No

Bottom

Work with Objects

Type options, press Enter.

2=Edit authority 3=Copy 4=Delete 5=Display authority 7=Rename
8=Display description 13=Change description

Opt	Object	Type	Library	Attribute	Text
—	QSAVALLUSR	*DTAARA	QSYS		S/R DIRECTORY INFO FOR SAVE
—	QSAVCFG	*DTAARA	QSYS		S/R DIRECTORY INFO FOR SAVE
—	QSAVIBM	*DTAARA	QSYS		S/R DIRECTORY INFO FOR SAVE
—	QSAVLIBALL	*DTAARA	QSYS		S/R DIRECTORY INFO FOR SAVE
—	QSAVSYs	*DTAARA	QSYS		S/R DIRECTORY INFO FOR SAVE
—	QSAVUSRPRF	*DTAARA	QSYS		S/R DIRECTORY INFO FOR REST

When did you last Save

When did you last Save

```

Display Object Description - Full
Library 1 of 1
Object . . . . . : QSAVSYS      Attribute . . . . . :
Library . . . . . : QSYS        Owner . . . . . : QSYS
Library ASP device . . : *SYSBAS  Library ASP group . . : *SYSBAS
Type . . . . . : *DTAARA        Primary group . . . . : *NONE

Journaling information:
Currently journaled . . . . . : NO
Save/Restore information:
Save date/time . . . . . : 01/26/22 17:24:21
Restore date/time . . . . . : 08/17/22 19:33:50
Save command . . . . . : SAVOBJ
Device type . . . . . : Optical
Volumes . . . . . : B_GROU
File label ID . . . . . : /Q5770SS1/Q75000M

Press Enter to continue.
F3=Exit  F12=Cancel
Bottom
```


Saves

- Daily, Weekly, Monthly – What's right?
- SAVCHGOBJ vs Full Library Save
- Save Files
- Update History
- Spool Files
- Journals, Journal Receivers, Physical files, and Logical files.

Restore



- Where are your tapes
- I_BASE_01 DVD or USB
- SAVSYS
- Encryption
- Console
- How long will it take
- System restore (Bare metal restore) or just a library

Managing your IBM i

IBM Navigator for i

Disk Status

Work Management

- Active Jobs
- Server Jobs
- Job Descriptions
- Subsystem Descriptions
- Active Subsystems
- Active Prestart Jobs
- Active JVM Jobs
- Active Job Queues
- Output Queues
- Memory Pools
- Message Queues
- Printers

	% Used ↑↓	% Busy ↑↓	I/O Requests ↑
	Filter	Filter	Filter
	58.295%	0%	0
	58.293%	0%	0
	58.294%	0%	0
	58.302%	0%	0
	58.295%	0%	0
	58.296%	0%	0
	0%	0%	0

1 100

Total Rows: 7

Add New Node

iTech09 - Active

CPU %: 16.90

System ASP %: 58.29

Wile E. Coyote - Active

CPU %: 2.50

System ASP %: 9.15

Active jobs: 204

ptf71 - Active

CPU %: 0.70

System ASP %: 41.49

File Shares

IBM Navigator for i

☆ Search itech09.office.itechsol.com itechsol

File Shares

Actions

Server Share Name ↑↓	Path Name ↑↓	Path Availability ↑↓	Current Users ↑↓	Permissions ↑↓	Encryption Required ↑↓	Share Type ↑↓	Description ↑↓
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
DIRECTORY	/directory	Available	0	*R	NO	FILE	Share of Directory
ROOT	/	Available	0	*RW	NO	FILE	Not a good idea
HALPROD	/Halcyon/HALPROD	Available	0	*RW	NO	FILE	Halcyon Production Environment
HALDFLT	/Halcyon/HALDFLT	Available	0	*RW	NO	FILE	Halcyon Default Installation DO NOT CHANGE
HALITECH	/Halcyon/HALITECH	Available	0	*RW	NO	FILE	iTech Template

File System

File Shares

<< < 1 > >> 100

Selected Rows: 1 | Total Rows: 5

Who is using File Share

ROOT Properties

Simple and complex conversion

Coded character set ID:

Browse...

File extensions for automatic text conversion:

Input file extension and press Enter to confirm

Sessions

Actions

SQL

Workstation Name ↑↓	Session ID ↑↓	User Name ↑↓	Time Active ↑↓	Time Idle ↑↓	Number of connections ↑↓	Number of files opened ↑↓	Used guest user for logon ↑↓
<div>Filter</div>	<div>Filter</div>	<div>Filter</div>	<div>Filter</div>	<div>Filter</div>	<div>Filter</div>	<div>Filter</div>	<div>Filter</div>
No records found							
<div><div><<</div><div><</div><div>1</div><div>></div><div>>></div><div>100</div><div></div></div>							
Total Rows: 0							

OK

ROOT Properties

General

IBM i Support for Windows Network Neighborhood

Share name:

ROOT

Description:

Not a good idea

Access:

Read/Write

Encryption required:

NO

Path name:

/

Maximum number of users

No maximum

Maximum users (0 - 2147483647):

0

Text Conversion

Allow file text conversion

Simple conversion

OK

Cancel

Function usage

IBM Navigator for i

Search

itech09.office.itechsol.com

itechsol

Function Usage

Actions

SQL

Function ID ↑↓	Function Name ↑↓	Default Usage ↑↓	All Object Indicator ↑↓	Profiles Allowed / Denied ↑↓	Category ↑↓	Product ID ↑↓	Group ID ↑↓	Description
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
QIBM_NAV_WRK_MGT	WORK MANAGEMENT	ALLOWED	USED	NO	Navigator for i	QIBM_NAV	*NONE	
QIBM_NAV_CONF_SRV	CONFIGURATION AND SERVICE	ALLOWED	USED	NO	Navigator for i	QIBM_NAV	*NONE	
		ALLOWED	USED	NO	Navigator for i	QIBM_NAV	*NONE	
		ALLOWED	USED	NO	Navigator for i	QIBM_NAV	*NONE	
		ALLOWED	USED	NO	Navigator for i	QIBM_NAV	*NONE	
		ALLOWED	USED	NO	Navigator for i	QIBM_NAV	*NONE	
		ALLOWED	USED	NO	Navigator for i	QIBM_NAV	*NONE	
		ALLOWED	USED	NO	Navigator for i	QIBM_NAV	*NONE	
		DENIED	USED	NO	Navigator for i	QIBM_NAV	*NONE	
QIBM_NAV_CUSTOM_CHARTS	CUSTOM CHARTS	ALLOWED	USED	NO	Navigator for i	QIBM_NAV	*NONE	
QIBM_NAV_ALL_FUNCTION	USE OF IBM NAVIGATOR FOR i FUNCTIONS	ALLOWED	USED	NO	Navigator for i	QIBM_NAV	*NONE	

Security

- Security Configuration Info
- Authorization Lists
- Function Usage
- > Network Authentication Service
- > Enterprise Identity Mapping (EIM)
- IBM Digital Certificate Manager for i

<<

<

1

2

>

>>

100

Lockout & Control FTP usage

IBM Navigator for i

Search itech09.office.itechsol.com itechsol

Function Usage

Actions

Function ID ↑↓	Function Name ↑↓	Default Usage ↑↓	All Object Indicator ↑↓	Profiles Allowed / Denied ↑↓	Category ↑↓	Product ID ↑↓	Group ID ↑↓	Descript...
Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter	Filter
QIBM_QTMF_CLIENT_REQ_6	Send Files	ALLOWED	NOT USED	NO	Host	QIBM_QTM_TCPIP	QIBM_QTMF_FTP_CLIENT_RE	Use of c APPEND
QIBM_QTMF_CLIENT_REQ_7	Receive Files	ALLOWED	NOT USED	NO	Host	QIBM_QTM_TCPIP	QIBM_QTMF_FTP_CLIENT_RE	Use of c receive f
QIBM_QTMF_CLIENT_REQ_9	CL Commands	ALLOWED	NOT USED	NO	Host	QIBM_QTM_TCPIP	QIBM_QTMF_FTP_CLIENT_RE	Use of c CL comr
QIBM_QTMF_CLIENT_REQ_10	Clear Command Channel	ALLOWED	NOT USED	NO	Host	QIBM_QTM_TCPIP	QIBM_QTMF_FTP_CLIENT_RE	Use of C encrypti
QIBM_QTMF_SERVER_REQ_0	Logon Server	DENIED	NOT USED	YES	Host	QIBM_QTM_TCPIP	QIBM_QTMF_FTP_SERVER	Permiss allowed
QIBM_QTMF_SERVER_REQ_1	Create Directory/Library	ALLOWED	NOT USED	NO	Host	QIBM_QTM_TCPIP	QIBM_QTMF_FTP_SERVER_R	Use of s director
QIBM_QTMF_SERVER_REQ_2	Delete Directory/Library	ALLOWED	NOT USED	NO	Host	QIBM_QTM_TCPIP	QIBM_QTMF_FTP_SERVER_R	Use of s director
QIBM_QTMF_SERVER_REQ_3	Change Directory	ALLOWED	NOT USED	NO	Host	QIBM_QTM_TCPIP	QIBM_QTMF_FTP_SERVER_R	Use of s current c
QIBM_QTMF_SERVER_REQ_4	List Files	ALLOWED	NOT USED	NO	Host	QIBM_QTM_TCPIP	QIBM_QTMF_FTP_SERVER_R	Use of s

<< < 1 > >> 500

Selected Rows: 1 | Total Rows: 200

Lockout & Control FTP usage by Userid

Change Function Usage

Function ID	Description	Default Usage	All Object Indicator
QIBM_QTMF_SERVER_RE	Permission to logon to the FTP Server. Must be allowed to use other server operations.	DENIED	NOT USED

<< < 1 > >>

Usage options for the selected function IDs

Default authority:

Denied

*ALLOBJ special authority:

Not used

Usage options for specified user and group profile(s) for the the selected function

Profile(s) :

Browse Profiles

Access Allowed

Add

Remove

Access Denied

Add

Remove

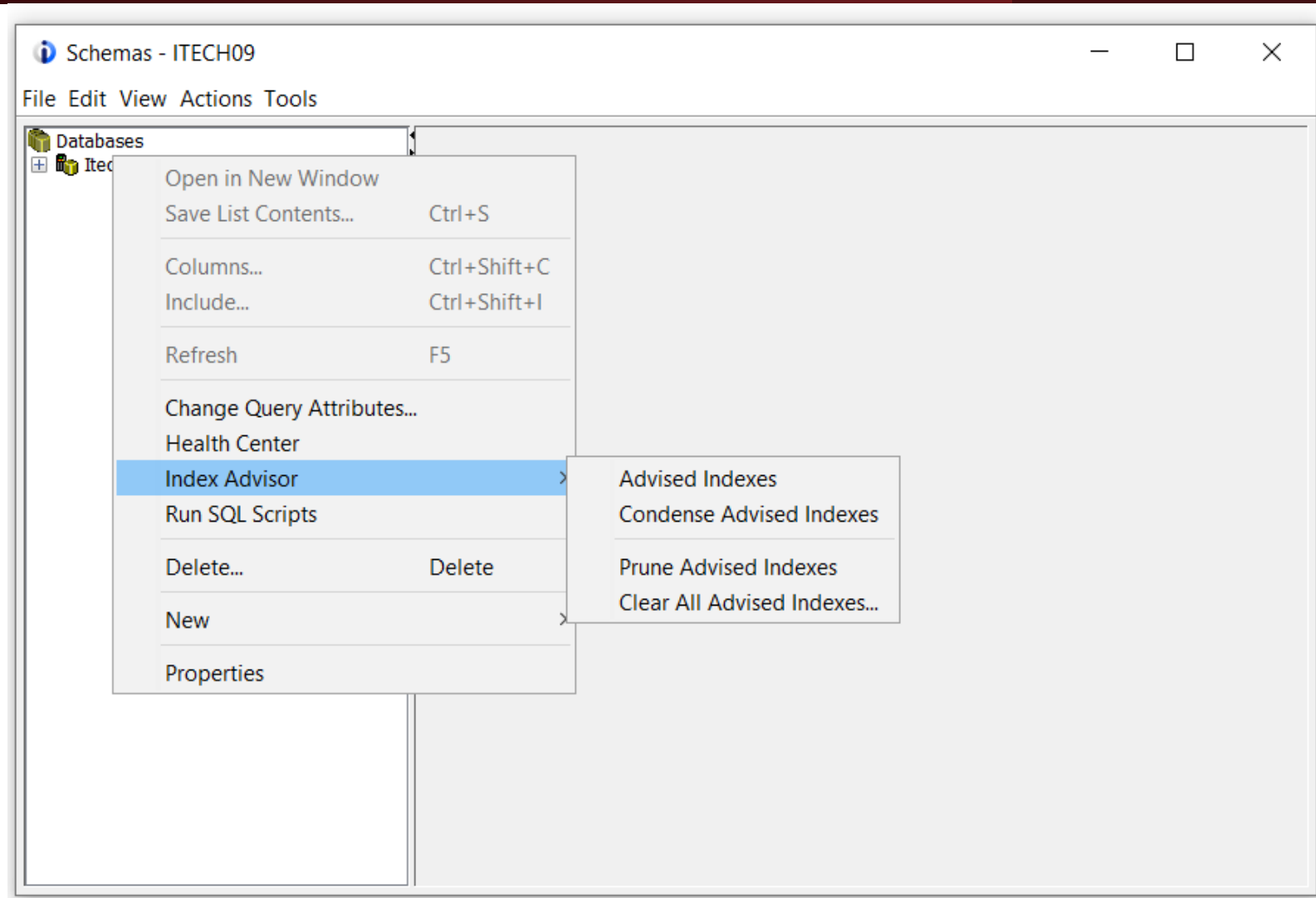
ITECHSOL

No results found

OK

Cancel

Index Advisor



Index Advisor

Welcome	System Status	Summary	Resource Utilization Overview	Databases	Index Advisor
Index Advisor - Itech09					
No filter applied					
<input type="checkbox"/>	Table for Which Index was Advised	Schema	Keys Advised	Times Advised for Query Use	Estimated Index Creation
<input type="checkbox"/>	QINAVMNTRG	QNAVSRV	OBSOLETE	2961645	00:00:01
<input type="checkbox"/>	QDBRGZ_QUSRSYS_QASXFRU_QASXFRU	QRECOVERY	STEP	5827	00:00:01
<input type="checkbox"/>	QASJSNDHST	QSRVAGT	RIGSMGID, ADDTIME	2526	00:00:01
<input type="checkbox"/>	QDBRGZ_QUSRSYS_QASXPROB_QASXPROB	QRECOVERY	STEP	881	00:00:01
<input type="checkbox"/>	QALWIRR	QLWIRADM	REQUESTNAME	469	00:00:01
<input type="checkbox"/>	LDAP_ENTRY	QUSRDIRDB	DN_TRUNC, DN	461	00:00:01
<input type="checkbox"/>	QDBRGZ_QUSRSYS_QA1PONE_QA1PONE	QRECOVERY	STEP	451	00:00:01
<input type="checkbox"/>	QDBRGZ_QUSRSYS_QASXCALL_QASXCALL	QRECOVERY	STEP	422	00:00:01
<input type="checkbox"/>	QINAVMNTCMD	QUSRSYS	RECEIVER, RESULT	319	00:00:01
<input type="checkbox"/>	QA1AHS	QUSRBRM	BKHSYS, BKHSWT, BKHGRP, BKJNBR, BKMFB	276	00:00:01
<input type="checkbox"/>	ITDSRDBMHISTORY	QUSRDIRDB	FEATURE	265	00:00:01
<input type="checkbox"/>	ITDSRDBMHISTORY	QUSRDIRDB	RELEASE, FEATURE	265	00:00:01
<input type="checkbox"/>	QASZRAIRD	QUSRSYS	COMPID, FULLPATH	234	00:00:01
<input type="checkbox"/>	QASJSNDHST	QSRVAGT	RIGSMGID, ADDTIME	210	00:00:01
<input type="checkbox"/>	LDAP_DESC	QUSRDIRDB	AEID, DEID	168	00:00:01
Total: 250 Selected: 0					

List is incomplete. Total number of items not known yet.



Questions?

Petem592@gmail.com

PeteM@Peteandi.com

