



VM/ESA and VSE/ESA
TECHNICAL CONFERENCE

VSE/ESA Hot Topics



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Objectives



- Provide you with useful tips you can take home and use
- Get you to share your tips with the rest of us

Undocumented Commands Revisited



- Axel's Famous "Undocumented Commands"
 - Some old favorites
 - | SIR
 - | STACK
 - | LOCATE
 - | REIPL
 - Some recent additions
 - | SUSPEND and RESUME
 - | VOLUME extensions
 - | TAPE

Undocumented Commands...



■ SIR Command

■ System Information Report

■ Useful information about system status

- | Environment: VM or not, processor, cpuid
- | IPL: when, where (cuu), PROCs used, supervisor
- | Table usage: copy-blocks, channel queue
- | Paging

Undocumented Commands...

SIR ? or SIR HELP

```
sir ?
AR 0015      SIR COMMAND HELP
AR 0015  SIR  (<RESET|SYS>)          RESET/DISPLAY SYSTEM INFO
AR 0015  SIR  SMF((,VSE)=<ON|OFF|cuu>) SUBSYSTEM MEASUREMENT DATA
AR 0015  SIR  MON(=<<id|ON(,NOSYM)>|OFF>(option)) MONITORING DATA
AR 0015  SIR  MIH(=<nnnnnn|ON|OFF>)  DISPLAY/CHANGE MIH SETTING
AR 0015  SIR  CHPID(=chpid)          DISPLAY CHPID INFORMATION
AR 0015  SIR  VENDOR                 DISPLAY VENDOR PRODUCT INF
AR 0015  SIR  CRWMSG(=<ON|OFF>)      DSPLY/CHANGE CRW MSG-REPORTING
AR 0015 1I40I  READY
```

Undocumented Commands...

SIR

sir

```
AR 0015 CPUID VM = 1100000174900000          VSE = FF00000174900000
AR 0015 VM-SYSTEM = VM/ESA                    2.4.0          9903
AR 0015 PROCESSOR = 7490-11                  USERID        = CLASS240
AR 0015 PROC-MODE = ESA                      IPL(150)      14:44:38      03/28/2000
AR 0015 SYSTEM    = VSE/ESA                  2.4.0          06/23/1999
AR 0015           VSE/AF                     6.4.0          @DY45103      06/09/1999
AR 0015           VSE/POWER                  6.4.0          DY45131       07/19/1999
AR 0015 IPL-PROC  = $IPLESA4                 JCL-PROC     = $$JCL4
AR 0015 SUPVR     = $$A$SUPX                 TURBO-DISPATCHER (18) ACTIVE ←
AR 0015           HARDWARE COMPRESSION ENABLED ←
AR 0015 SEC. MGR. = BASIC                    SECURITY      = ONLINE
AR 0015 VIRTCPU   = 0003:59:09.950          CP = 0000:20:46.266
AR 0015 CPU-ADDR. = 0000(IPL) ACTIVE
```

Undocumented Commands...

SIR

```
AR 0015    ACTIVE    = 0003:31:37.232    WAIT = 0357:08:07.852
AR 0015    PARALLEL= 0001:24:45.138    SPIN = 0000:00:00.000
AR 0015 CPU timings MEASUREMENT INTERVAL    0361:42:51.783
AR 0015 TASKS ATT.= 00023                HIGH-MARK = 00024    MAX = 00180
AR 0015 DYN.PARTS = 00001                HIGH-MARK = 00002    MAX = 00032
AR 0015
AR 0015 COPY-BLKS = 00003                HIGH-MARK = 00051    MAX = 01500
AR 0015 CHANQ USED= 00026                HIGH-MARK = 00033    MAX = 00119
AR 0015 PGIN  TOT.= 0000000482          EXP.AVRGE.= 0000000000/SEC
AR 0015 PGOUT TOT.= 0000000958
AR 0015      UNC.= 0000000700            EXP.AVRGE.= 0000000000/SEC
AR 0015      PRE = 0000000258            EXP.AVRGE.= 0000000000/SEC
AR 0015 LOCKS EXT.= 0000004592          LOCKS INT.= 0000015370
AR 0015      FAIL = 0000000118            FAIL = 0000000008
AR 0015 LOCK I/O = 0000000000          LOCK WRITE= 0000000000
AR 0015 1I40I  READY
```

Undocumented Commands...

SIR RESET

```
sir reset
.
.
.
AR 0015 TASKS ATT.= 00023          HIGH-MARK = 00024      MAX = 00180
AR 0015 DYN.PARTS = 00001          HIGH-MARK = 00002      MAX = 00032
AR 0015
AR 0015 COPY-BLKS = 00003          HIGH-MARK = 00003      MAX = 01500
AR 0015 CHANQ USED= 00026          HIGH-MARK = 00026      MAX = 00119
AR 0015 PGIN  TOT.= 0000000000    EXP.AVRGE.= 0000000000/SEC
AR 0015 PGOUT TOT.= 0000000000
AR 0015      UNC.= 0000000000      EXP.AVRGE.= 0000000000/SEC
AR 0015      PRE = 0000000000      EXP.AVRGE.= 0000000000/SEC
AR 0015 LOCKS EXT.= 0000000000    LOCKS INT.= 0000000000
AR 0015      FAIL = 0000000000      FAIL = 0000000000
AR 0015 LOCK I/O  = 0000000000    LOCK WRITE= 0000000000
```


Undocumented Commands...

SIR COMMAND

CANCEL	NOASSGN	SYSECHO	LIBSERV	SETDF	QDISPL
ATTN	OFFLINE	TAPE	LOG	SETMOD	QSHUT
AUTOIPL	ONLINE	TESTMON	LUCB	SIZE	QPWROFF
CACHE	OPERATE	TIME	← MAP	START	QIPLPRIM
DEBUG	PFKEY	← #CP	MODE	STOPSD	QIPLALT
← DOIO	PRTYIO	*	MPXGTN	STRTSO	← QWAITFFF
DUMP	PWROFF	ALLOC	MSG	STARTSD	
ECHO	READY	ALLOC	NEWVOL	SYSDEF	
EXPLAIN	REIPL	← ALTER	NOLOG	TPBAL	
GETVIS	RESUME	← BANDID	ONLINE	TRACE	
HCLOG	SHOW	BATCH	OUTDEV	UNLOCK	
IXFP	SHUT	DSPLY	PAUSE	VOLUME	
← LOCATE	SIM3540	DUMP	PRTY	QSTART	
LOCK	SIR	ENDSD	QUERY	QSTOP	
MTC	STACK	← FREE	READY	QEND	
MSECS	STATUS	IGNORE	RESERV	QLOGON	
NOAVR	SUSPEND	← LFCB	SDAID	QLOGOFF	

Undocumented Commands...



- SIR COMMAND Command...
 - Some valid AR commands not listed
 - | RC
 - | REDISPLAY
 - | REPLID
 - | * CP
 - | RESERV

Undocumented Commands...

■ STACK Command

■ Useful to

- | Execute a sequence of commands by entering one
- | Suppress or change the meaning of a command
- | Abbreviate long commands to short ones

```
STACK  
STACK CLEAR  
STACK CLEAR=name  
STACK SHOW  
STACK SHOW=name  
STACK name | [command | reply] [ | ...] ...
```

Undocumented Commands...

STACK Command

```
stack q|d q
AR 0015 1I40I  READY
q
AR 0015 1I40I  READY
AR 0015 D Q
AR 0015 1C39I  COMMAND PASSED TO VSE/POWER
F1 0001 1R49I   612 FREE QUEUE RECORDS - QUEUE FILE 029% FULL
F1 0001 1R49I   348 FREE DBLK GROUPS - DATA FILE 079% FULL
F1 0001 1R49I  CURRENT DBLK SIZE=07548, DBLK GROUP SIZE=00008
F1 0001 1R49I  ACCOUNT FILE 55 % FULL

stack t|d t
AR 0015 1I40I  READY
t
AR 0015 1I40I  READY
AR 0015 D T
AR 0015 1C39I  COMMAND PASSED TO VSE/POWER
F1 0001 1R46I  TIME IS 17:19:45, DATE IS 04/12/2000
F1 0001 1R46I  018 PAGES FIXED, 022 CURRENT TASKS
```

Undocumented Commands...

STACK Command

```
stack vs|getvis &0,all
AR 0015 1I40I  READY
vs f1
AR 0015 1I40I  READY
AR 0015 GETVIS F1,ALL
AR 0015 GETVIS USAGE      F1-24      F1-ANY      F1-24      F1-ANY
AR 0015  AREA SIZE:      812K      812K
AR 0015  USED AREA:      416K      416K MAX.  EVER USED:      476K      476K
AR 0015  FREE AREA:      396K      396K LARGEST FREE:      376K      376K
AR 0015 SUMMARY REPORT
AR 0015 SUBPOOL          REQUEST  <---F1-24-AREA---  ---F1-ANY-AREA-->
AR 0015 Default                          328K      0K
AR 0015 IPWGEN                          68K      0K
AR 0015 INLG004F                          8K      0K
AR 0015 SUBPOOL TOTALS                    404K      0K
```

Undocumented Commands...

STACK Command

```
stack lserv|r rdr,pausef5|5 exec lserv|5
AR 0015 1I40I  READY
lserv
F1 0001 1R88I  OK
F5 0001 1Q47I  F5 PAUSEF5 02417 FROM (SYSA) , TIME=17:31:30
F5 0005 // JOB PAUSEF5
          DATE 04/12/2000, CLOCK 17/31/30
F5-0005 // PAUSE
5 EXEC LSERV
F5-0005 1I00D  READY FOR COMMUNICATIONS.
5
AR 0015 1I40I  READY
AR 0015 R RDR,PAUSEF5
AR 0015 1C39I  COMMAND PASSED TO VSE/POWER
F5 0005 EOJ PAUSEF5
          DATE 04/12/2000, CLOCK 17/31/33, DURATION  00/00/02
F5 0001 1Q34I  F5 WAITING FOR WORK
```

Undocumented Commands...

STACK Command

```
prty
AR 0015 PRTY Y,P,C,BG=FA=F9=F8=F6=F5=F4,F2,F7,Z,FB,F3,F1
AR 0015
AR 0015 SHARE BG= 100, FA= 100, F9= 100, F8= 100, F6= 100, F5= 100, F4= 100
AR 0015 1I40I  READY
stack prty
AR 0015 1I40I  READY
prty
AR 0015 1I40I  READY
stack
AR 0015 1I40I  READY
stack prty|* PRTY command not allowed
AR 0015 1I40I  READY
prty
AR 0015 1I40I  READY
AR 0015 * PRTY COMMAND NOT ALLOWED
```

Undocumented Commands...

STACK Command

```
stack show
AR 0015 Q|D Q

AR 0015 T|D T

AR 0015 LSERV|R RDR,PAUSEF5|5 EXEC LSERV|5

AR 0015 VS|GETVIS &0,ALL

AR 0015 PRTY

AR 0015 1I40I  READY
```


Undocumented Commands...

Automating the STACK Command

```
* $$ JOB JNM=STACK,DISP=D,CLASS=0
// JOB STACK
// EXEC DTRIATTN,PARM='STACK CLEAR'
// EXEC DTRIATTN,PARM='STACK VS|GETVIS &&0,ALL'
// EXEC DTRIATTN,PARM='STACK PRTY|* PRTY COMMAND NOT ALLOWED'
// EXEC DTRIATTN,PARM='STACK LSERV|R RDR,PAUSEF5|5 EXEC LSERV|5'
// EXEC DTRIATTN,PARM='STACK STACK|*' ←
/*
/&
* $$ EOJ
```

Undocumented Commands...



- STACK limitations
 - Command cannot exceed 126 characters
 - Maximum of 32 commands in the stack
 - A command can contain up to 10 variables
 - &0 through &9
 - Stack is lost at IPL
 - Automate during BG ASI processing
 - Entering STACK STACK disables the STACK command

Undocumented Commands...

■ LOCATE Command

- Scans virtual storage for
 - | Character string (16 characters max)
 - Indicated by ' before string
 - | Hex string (32 hex digits max)
- Displays location and contents on VSE console

```
LOCATE [id,][']string [(FROM=start)[,TO=end][,RUN]]
```

Undocumented Commands...

LOCATE Command

```
locate f8,'tcp/ip
AR 0015 NOT ONE MATCH FOUND
AR 0015 AREA WAS CHECKED FROM 00600000 TO 011FFFFFF
locate 0,'vse
AR 0015 MATCH FOUND AT 000002CE
V000002C0 .....E5E2 06 *.....VS* R000002C0
V000002D0 C561C1C6 40F5F6F8 F6F0F6F6 F0F640F3 06 *E/AF 568606606 3* R000002D0
V000002E0 F5C34040 F6F3F040 C4E8F4F4 F6F8F040 06 *5C 630 DY44680 * R000002E0
V000002F0 E5E2C54B C5E2C14B E2E4D7E7 40404040 06 *VSE.ESA.SUPX * R000002F0
AR+0015
15
AR 0015 MATCH FOUND AT 000002F0
V000002F0 E5E2C54B C5E2C14B E2E4D7E7 40404040 06 *VSE.ESA.SUPX * R000002F0
V00000300 40404040 40404040 40404040 40404040 06 * * R00000300
V00000310 40404040 40404040 40404040 40404040 06 * * R00000310
V00000320 40404040 40404040 40404040 40404040 06 * * R00000320
AR+0015
15 end
AR 0015 1I40I READY
```

Undocumented Commands...

LOCATE Command..

```
locate e5e2c5
AR 0015 MATCH FOUND AT 000002CE
V000002C0 .....E5E2 06 *.....VS* R000002C0
V000002D0 C561C1C6 40F5F6F8 F6F0F6F6 F0F640F3 06 *E/AF 568606606 3* R000002D0
V000002E0 F5C34040 F6F3F040 C4E8F4F4 F6F8F040 06 *5C 630 DY44680 * R000002E0
V000002F0 E5E2C54B C5E2C14B E2E4D7E7 40404040 06 *VSE.ESA.SUPX * R000002F0
AR+0015
15 end
AR 0015 1I40I READY
locate 0,'vse (from=100,to=500,run
AR 0015 MATCH FOUND AT 000002CE
AR 0015 MATCH FOUND AT 000002F0
AR 0015 NO MORE MATCH FOUND
AR 0015 AREA WAS CHECKED FROM 00000100 TO 00000500
```

Undocumented Commands...



■ REIPL Command

■ Software IPL

■ Should shut *everything* down before issuing command

■ CICS

■ VTAM

■ TCP/IP

■ VSE/POWER

Undocumented Commands...

■ REIPL Command...

```
REIPL [cuu] [NOPROMPT]
```

- Same IPL/JCL PROCs used
- cuu required if IPL is to be from different device

```
reipl  
AR+0015 1IxxD RE-IPL FROM CUU=150? REPLY YES OR NO  
  
==> 15 yes
```

- NOPROMPT eliminates operator response

Undocumented Commands...

■ SUSPEND Command

- If you have runaway partition
- Until problem is diagnosed

```
SUSPEND partid
```

■ RESUME Command

- Restart suspended partition

```
RESUME partid
```


Undocumented Commands...

SUSPEND/RESUME Commands

```
BG 0000 // JOB PAUSEBG
          DATE 02/09/2000, CLOCK 14/40/33
BG-0000 // PAUSE
suspend bg
AR 0015 1I40I  READY
0
status bg
AR 0015 M21 BG PAUSEBG  51 STOPPED, WAITING TO BE RESTARTED
AR 0015      SCB=00049284 PCB=0004B040 TCB=00051A40 TIB=0004BC80 SAV=00400000
AR 0015 1I40I  READY
resume bg
AR 0015 1I40I  READY
BG 0000 EOJ PAUSEBG
          DATE 02/09/2000, CLOCK 14/49/53, DURATION  00/09/19
BG 0001 1Q34I  BG WAITING FOR WORK
```

Undocumented Commands...



- VOLUME Command extensions
 - VOLUME TAPE
 - | Displays list of all tape devices known to VSE
 - VOLUME ALL
 - | Displays list of all I/O devices known to VSE
- Device Type codes are documented in Appendix C of VSE Supervisor DRM

Undocumented Commands...

VOLUME Command Extensions

volume tape									
AR	CODE	DEVICE-ID	VOLID	USE/STATUS	INFORMATION	CAPACITY			
AR 0015	CUU	5400	3480-22	BG	SYNC	0	BLK		
AR 0015	571	5400	3480-22	F5	SYNC	0	BLK		
AR 0015	1I40I	READY							
volume all									
AR	CODE	DEVICE-ID	VOLID	USE/STATUS	INFORMATION	CAPACITY			
AR 0015	CUU	1100		UNUSED					
AR 0015	00D	2100		UNUSED					
AR 0015	00E	4000		UNUSED					
AR 0015	01F	B000	0000-00	SYSTEM					
AR 0015	150	6E	3390-0A	DOSRES	USED	1113	CYL		
AR 0015	151	6E	3390-0A	SYSWK1	USED	1113	CYL		
AR 0015	152	6E	3390-0A	SYSWK2	SYSTEM	100	CYL		
AR 0015	153	6E	3390-0A	SYSWK3	UNUSED	1113	CYL		
AR 0015	200	B000		F3					
AR 0015	201	B000		F3					
.									
AR 0015	400	DF00	0000-00	Z1					
AR 0015	401	DF00	0000-00	Z1					
.									
AR 0015	F01	90	FBA0-00	VDIF01	UNUSED	57600	BLK		
AR 0015	F02	90E5	FBAV	UNUSED	DOWN				
AR 0015	FDF	90	FBA0-00	VDIDLA	BG	2880	BLK		
AR 0015	FEC	1200		UNUSED					

Undocumented Commands...

■ TAPE Command

- Prevent unloading of tape
 - | Rewind instead of unload
- Display VOL1 *and* jobname alternately on LED
 - | 3480, 3490, and 3590 only

```
TAPE [UNL={UNL | REW}] [, DSPLY={JNM | VOL}]
```

Undocumented Commands...

TAPE Command

```
tape
AR 0015 TAPE    RUN=OFF,UNL=UNL,DSPLY=VOL
tape unl=rew
AR 0015 1I40I  READY
tape dsply=jnm
AR 0015 1I40I  READY
tape
AR 0015 TAPE    RUN=OFF,UNL=REW,DSPLY=JNM
```

Enhanced AR Commands

■ MSG Command

- Can now use "msg jobname" in addition to "msg part_id"

```
MSG TCPSTART
```

- Especially useful with CICS or other programs that support DATA=

```
MSG CICSICCF,DATA=CEMT P SHUT
```

- Only works if jobname is unique in system

Enhanced AR Commands...



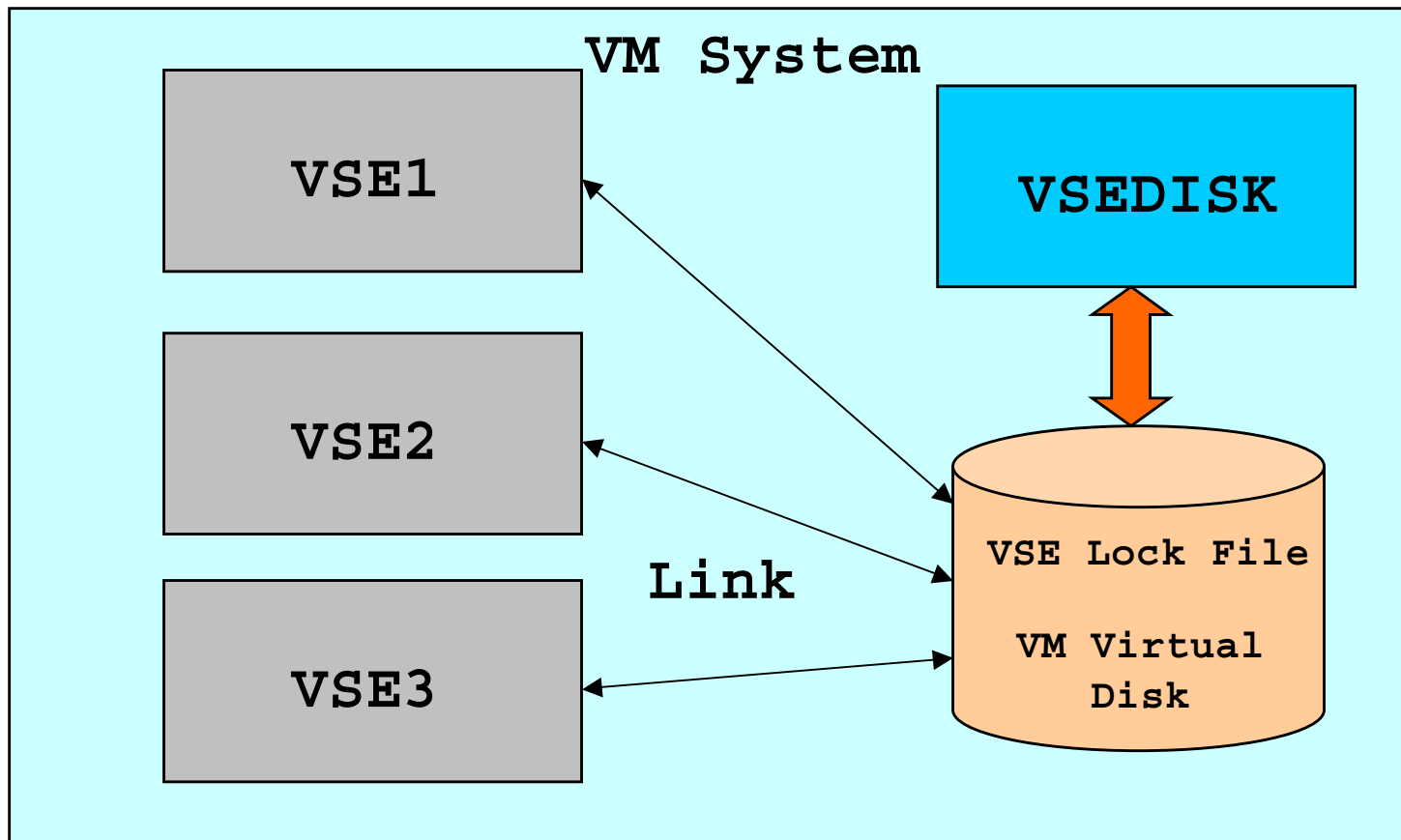
- MTC Command

- Limited use as AR command

- No longer need to release "pause" job

```
MTC {RUN | REW | WTM} , cuu
```

Lock File on VM Virtual Disk



Lock File on VM Virtual Disk...

- Create VM user VSEDISK with VM VDISK

```
MDISK 900 FB-512 V-DISK 1960 MWV ALL
```

- Choose your own cuu (900)
- Create PROFILE EXEC for VSEDISK
- Autolog VSEDISK
- All VSE Guests sharing Lock File link to cuu

```
LINK TO VSEDISK 900 AS 900 MW
```

- DLF points to Virtual Disk (900)

Lock File on VM Virtual Disk...

PROFILE EXEC

```
/* THIS EXEC IS FOR AUTOMATIC STARTUP OF VSEDISK */  
Address 'COMMAND'  
TRACE (0)  
'CP SPOOL CONSOLE TO MAINT START'  
'ERASE INITLOCK OUTPUT A'  
QUEUE 'INIT UNIT(900) NOVFY PRG FBAVTOC(2,54,1024)  
VOLID(VSELOK)'  
QUEUE 'U'  
QUEUE 'END'  
'ICKDSF CONSOLE INITLOCK OUTPUT A'  
'CP SPOOL CONSOLE STOP CLOSE'  
Do Forever  
    'CP SLEEP 99 HRS'  
End  
Exit
```

Lock File on VM Virtual Disk...

- Have TYPE=N in VSE DLF IPL command
 - First VSE to come up will format lock file if not already formatted

```
DLF UNIT=900 ,VOLID=VSELOK ,BLK=2 ,NBLK=240 ,DSF=N ,TYPE=N
```

- Change cuu and volid to match your standards

Customizing the Console

```
==>
```

```
1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 12=RTRV
```

```
ACT_MSG:  HOLDRUN          PAUSE: 01  SCROLL: 1          MODE:  CONSOLE
```

- PAUSE: nn
 - nn - Interval between screen refreshes
 - Change on the fly
 - %SET PAUSE 0
- Default can be permanently set

Customizing the Console...

```
==>
1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD          12=RTRV
ACT_MSG: HOLDRUN          PAUSE: 01  SCROLL: 1          MODE:  CONSOLE
```

- SCROLL: n
 - n - Number of lines carried over to top of next screen
 - Change on the fly
 - %SET SCROLL 3
- Default can be permanently set

Customizing the Console...

```
SYSTEM:  VSE/ESA          CLASS VSE/ESA 2.4.0    TURBO (01)      USER:  TCPA
                                           TIME:  15:07:00
          DATE 04/13/2000, CLOCK 15/07/00, DURATION  00/00/06
BG 0001 1Q34I    BG WAITING FOR WORK
```

- "Naming" VSE consoles
 - Replace "VSE/ESA" at top center
 - | Update IJBEDEF.Z
 - Replace "System" value with VSE/POWER PNET node name
 - | Define PNET support even if you don't use it

Customizing the Console...

- Naming the console using PNET
 - Add PNET=phasename to POWER generation
 - | PNET=ISINDT
 - Generate a Network Definition Table (NDT)
 - | Skeleton SKPWRNET in ICCF Library 59
 - | Only one entry required (local entry)
 - | Value from NODE= parameter is displayed for "system" on console
 - Shut down POWER and restart (or re-IPL)

Customizing the Console...

VSE/POWER Network Definition Table

```
* $$ JOB JNM=NDT,CLASS=0,DISP=D
* $$ LST CLASS=Q
// JOB POWER NETWORK DEFINITION TABLE
LIBDEF PHASE,CATALOG=PRD2.CONFIG
// OPTION CATAL
// EXEC ASMA90,SIZE=(ASMA90,64K),PARM='EXIT(LIBEXIT(EDECKXIT)),SIZE(MAXC
        -200K,ABOVE)'
        PRINT NOGEN
ISINDT  PNODE NODE=ISICLASS,LOCAL=YES
        END
/*
// EXEC LNKEDT
/&
* $$ EOJ
```


Customizing the Console...

VSE Console with PNET

```
SYSTEM:  ISICLASS          CLASS VSE/ESA 2.4.0    TURBO (01)      USER:  TCPA
                                           TIME:  15:48:53

r rdr,pausebg
AR 0015 1C39I COMMAND PASSED TO VSE/POWER
F1 0001 1R88I  OK
BG 0001 1Q47I  BG PAUSEBG 02438 FROM (SYSA) , TIME=15:48:53
BG 0000 // JOB PAUSEBG
          DATE 04/13/2000, CLOCK 15/48/53
BG-0000 // PAUSE
```

Customizing the Console...

- Making permanent changes
 - Real VSE console: update IJBEDEF.Z
 - | Name change and set defaults for real console here
 - IUI consoles: update IESEDEF.Z
 - | Only set defaults for IUI consoles here
 - Source for both in IJSYSRS.SYSLIB
 - | NLS versions available (IJBxDEF.Z and IESxDEF.Z)
- Documentation: VSE/ESA Administration, SC33-6705

New in VSE/POWER



■ New SET Options in Autostart

■ SET 1Q41I=NO

- | Eliminates "Wrong printer/punch" message

■ SET AUTONAME=FLUSH|HOLD

- | FLUSH deletes job immediately
- | HOLD places jobs in Hold status

■ SET **LINE=n

- | Influences length of the separator page
- | n = 1 to 8 perforation lines (default is 4)
- | Works with DLSEP= parameter on S LST command

New in VSE/POWER...

- Drop last separator page and shorten first

```
S LST, cuu, . . . ., DLSEP
```

- Better operation with laser printers
- D RDR now shows partition for active jobs

```
d rdr, tcp*  
AR 0015 1C39I COMMAND PASSED TO VSE/POWER  
F1 0001 1R46I READER QUEUE P D C S CARDS  
F1 0001 1R46I TCPSF7 00900 3 L 7 8 FROM= (TCPA)  
F1 0001 1R46I TCPSZ1 02436 3 * Z 14 PART=Z1 FROM= (SYSB)  
F1 0001 1R46I TCPSRED 00630 3 L Z 8 FROM= (TCPA)
```

New in VSE/POWER...



- Due Frequency for Job
 - Specifies how often job should run each day
 - Applies to jobs using Time Event Scheduling
 - Requires DUEDAY= Daily or Week-day list
 - DUEFRQ=(hhmm1, hhmm2)
 - hhmm1 interval after which job is to be rescheduled
 - hhmm2 TOD after which job is to no longer be scheduled

New in VSE/POWER...

DUEFRQ Examples

```
* $$ JOB JNM=..., ..., ..., DUETIME=0000, DUEDAY=DAILY, DUEFRQ=(0030, 2400)
```

- Schedule every day every 30 minutes

```
* $$ JOB JNM=..., ..., ..., DUETIME=0700, DUEDAY=(MON-FRI), DUEFRQ=(0100, 1700)
```

- Schedule every hour between 7:00 AM and 5:00 PM, Monday through Friday

One More VSE/POWER Item

- Turn off Data File DBLK Group Tracing
 - Poor performance when deleting large entries
 - Many, many extra I/O's
 - Can take many seconds to delete single entry
 - PSTOP DBLKTR
 - Check trace status with D STATUS command

```
d status
AR 0015 1C39I COMMAND PASSED TO VSE/POWER
F1 0001 1R46I VSE/POWER 6.4.0 STATUS FOR ISIPower ON 04/13/2000 TIME 17/40/04
.
F1 0001      DATA FILE DBLK GROUP TRACING                      DISABLED
```

CCW Fast Translate



- Originally developed for slow cpu's
 - Saves translated CCB and CCWs in buffers
 - Reused if unchanged
 - Saves (some) cpu cycles
- Inflated use of CCW translation buffers
 - `SYS BUFSIZE=nnn` in IPL proc (default 1500)
- CPU's are now much faster
- Removed from VSE/ESA 2.4

CCW Fast Translate...



- To disable in VSE/ESA 2.2 and 2.3
 - Add `STDOPT FASTTR=NO` to BG ASI proc
 - At or near the front
- Taking advantage
 - Use SIR to determine buffer use
 - After period of highest expected activity
 - Reduce `SYS BUFSIZE` value
 - Leave 100-300 unused for extra heavy activity
 - Saves 72 bytes in 24-bit shared area for each buffer removed

Now Its Your Turn...



**Anybody got anything
they want to contribute?**