Automated Operations

via FAQS

@ Hanes Companies

FAQS overview

- Job scheduling
- Message handling
- Notification
- Example REXX imod

- Hanes' implementation is BIM-FAQS/PCS and ASO 5.0a

Job Scheduling

- Event definitions
  - Jobs from various library structures
  - IMODs (REXX procedures)
  - AR Commands
  - Manual work tasks
- Master and Current events

Current Event Directory

- Selection criteria
- Event name
- Organized by time
- Grouping by a name and/or CPUid
- Status

Event Definition

- Name, grouping and description
- Specific command
- Times
  - Clock - begin, late, abort
  - Date
- Multiple runs

- 8 When conditions
- 30 Successors
- Variables
- Data Set status
- Resource weighting
- Event/Job exclusion

When Conditions

- Primary condition trigger can be:
  - POWER, VSE or event name
  - Specific phase along primary qualifier for a name
  - Global variable altered, etc.
- Primary qualifier can be a POWER, VSE or event name.
- Secondary qualifier can be IBM cancel code, return code, CPUid or time range.

Message Handling via FAQS/ASO

- Console message value trigger
- Time range
- Can be partition specific
- Actions for a trigger:
  - Message manipulation (highlight, suppress, etc.)
  - IMODs (REXX)
  - Reply
  - Issue an AR command

Notification

- FAQS/Call
  - PC based using an emulated 3270 session with the HLLAPI interface
  - Makes phone calls to notify someone of status
  - Can "speak" to operator via speaker
  - Can be numeric pager or home and leave a message
  - Can require a response or continued notification

```
JOLBEEP .4 **      BIM-FAQS/PCS Online       V5.0A    ** ID=VSEESA23.5AW
===>

                    ** BIM-FAQS/CALL DEFINITION PANEL **

     Condition ID   ===> 98
     PC Call List   ===> @-BEEPER
     Description     ===> PASS MESSAGE TO VARIOUS MIS PAGERS
     Voice Data
     @ @ @ @ @ @ @ @ @

                         Free Form Description
     ===>    THE 1st PARAMETER IS THE PREFIX FOR THE BEEPER LIST. SHOULD BE ONE
     ===> of "SYSPROG", "HDF", "HCI" OR "OPER".
     ===>    THE 2nd PARAMETER IS THE NUMERIC DATA TO PASS IN THE FORMAT
     ===> SNUM(NNNNNNNNN) WHERE N = THE NUMBER TO APPEAR ON THE PAGER DISPLAY.
     ===>    THE 3rd - Nth PARAMETERS ARE ANY VOICE CLIPS AND/OR LITERAL ITEMS
     ===> OF DATA THAT ARE STORED AS PART OF THE RECORDED MESSAGE THAT IS
     ===> PLAYED BACK DURING CONFIRM INCIDENT.
     ===>
     ===>
     ===>
     ===>
     PF1=Help PF3=Return PF4=Update
     4B0               1:51                    02,06  00:00.351 10:19 09/11/00
```

Notification

- E-mail
  - With TCP/IP
  - Accompanying E-mail function
  - E-mailer can be scheduled by FAQS

Example: System Shutdown

```
/*   This REXX IMOD will issue all commands for the shutting down   */
/*   of our system.                                */

parse upper arg pend
pid = pidlist('B')            /* get busy partitions and jobnames */
j = (length(pid)%2) - 1
n = 0
do i = 0 to j
  p = substr(pid,i*2+1,2)
  jnm = jobname(p)
  if jnm ¬= 'NO NAME' then do
    n = n + 1
    x.n = jnm               /* jobname & pid into stem vars   */
    y.n = p
  end
end

(continued)
```

Example: Shutdown (continued)

```
do i = 1 to n
  if substr(x.i,1,4) == 'CICS' then do
    call shutcics x.i PEND
    if result='1' then do
      say 'ZFAQS: halting termination,' x.i 'still active' TIME()
      exit
    end
  end
  if x.i == "M4VAPRNT" then m4va = x.i
  if x.i == "EXPLCICS" then do
    expc = x.i
    expcp = y.i
  end
  if x.i == "NETTST02" then nettst = x.i
  if x.i == "NETFTP01" then netftp = x.i
  if x.i == "EVSEIBAT" then evse = x.i
  if x.i == "NETTEL00" then nettel = x.i
end

(continued)
```

Example: Shutdown (continued)

```
CALL $EVENT DELETE ABNDVPRT      /* delete event that monitors   */

if m4va == "M4VAPRNT" then call shutvprt

if expc == "EXPLCICS" then ADDRESS CONSOLE 'MSG' expcp

if nettst == "NETTST02" then call shuttcp nettst

if netftp == "NETFTP01" then call shuttcp netftp

call TERMINAT NOTIFY           /* start FAQS shutdown        */

ADDRESS CONSOLE 'Z NET,QUICK'    /* terminate vtam            */

if evse == "EVSEIBAT" then ADDRESS CONSOLE 'A RDR,EVSEPBAT,DISP=K,CLASS=S'

if nettel == "NETTEL00" then call shuttcp nettel

ADDRESS CONSOLE 'V NET,INACT,ID=H04NCP0,FORCE'  /* sometimes NCP  */
                              /* hangs VTAM     */
```

Example: Shutdown *(continued)*

```
ADDRESS CONSOLE 'PEND'                    /* terminate POWER */

ADDRESS CONSOLE 'SIR'
ADDRESS CONSOLE 'QUERY TD'
ADDRESS CONSOLE 'SYSDEF TD,RESETCNT'

say 'ZFAQS: done! ... at' TIME()

call TERMINAT SHUT          /* finish FAQS shutdown        */

EXIT
```

Example: SHUTTCP imod

```
/*    SHUTTCP REXX IMOD WILL find the partition running 'jobname' */
/*    and issue the commands to shut that job down                */

Parse upper arg jnm junk
jnm = strip(jnm)

pid = pidlist('B')
j = (length(pid)%2) - 1
do i = 0 to j
 y = substr(pid,i*2+1,2)
 x = jobname(y)
 if rc = 0 then do
  if x = jnm then do  /* if jnm then shut it down */
   say 'SHUTTCP: continuing at' TIME()
   x = replid(y)          /* is there a message outstanding */
   if rc = 0 then do
    if x = ' ' then do    /* no, then request one */
     ADDRESS CONSOLE 'MSG' y
    end
(continued)
```

Example: SHUTTCP imod

```
if rc = 0 then do
     call getptnid      /* try until there is a message */
     z = substr(x,5,3)
     ADDRESS CONSOLE z 'SHUTDOWN'
     if rc = 0 then do
       call getptnid      /* try until there is a message */
       z = substr(x,5,3)
       ADDRESS CONSOLE z 'YES'
       EXIT
      end
     end
     else do
      say 'REPLID failed rc='||rc
      EXIT
     end
    end
   end

(continued)
```

Example: SHUTTCP imod

```
    else do
       say 'REPLID failed rc='||rc
       EXIT
     end
    end
   end
  end
 end
EXIT

getptnid:
 do forever until x ¬= ' ' /* try until there is a msg */
   x = wait('2')
   x = replid(y)          /* is there a msg outstanding now */
  end
 return
```

Automated Operations

FAQS Finis