

ISPF 3.14 Failure Resolved using ISPVCALL.

Recently I was called by a user who reported the following issues when executing ISPF 3.14 to search for certain strings in members of a partitioned dataset.

ISPF system data set allocation error – press Enter to continue.

Temporary control card data set cannot be allocated.

DAIR RC = 12 dec, DARC = 970C hex.

ISPF system data set allocation error – press Enter to continue.

Temporary control card data set cannot be allocated.

DAIR RC = 12 dec, DARC 970C hex.

The user then tried the utility in batch and received:-

```
IEF033I  JOB/SRCHFORX/STOP 2016061.0853
          CPU:   0 HR   00 MIN       00.00 SEC SRB:  0 HR  00 MIN  00.00 SEC
          ISRSUPC – MVS/PDF FILE/LINE/WORD/BYTE/SFOR  COMPARE UTILITY- ISPF FOR z/OS
                   SRCH DSN: --- DATA SET NAME UNAVAILABLE
ISRS056E "SRH" FILE/DATA SET NAME/MEMBER IS INVALID OR AN ERROR WAS ENCOUNTERED
DURING OPEN. OPERATION TERMINATED.
```

Initially when reported the first thing I checked was if the user had an existing userd.srchfor.list dataset allocated. They did so I deleted it. However when we tried the process again we received the same error. I then checked the PDS that was being scanned but it worked fine from my userid.

After checking SMS allocation routines I was a little stumped but decided to use the ISPVCALL trace program. This utility which is rarely used is a very useful tool to see what is occurring in ISPF.

The process can be invoked by issuing TSO ISPVCALL from the ISPF command line. Like this:-

```

Vista TN3270 Session A
File Edit Font Transfer Macro Options Window Help
-----
Menu Utilities Compilers Options Status Help
-----
MKTA          ISPF Primary Option Menu
Option ==> tso ispvcall

0 Settings      Terminal and user parameters      < Calendar >
1 View          Display source data or listings    March 2016
2 Edit          Create or change source data      Su Mo Tu We Th Fr Sa
3 Utilities     Perform utility functions         1 2 3 4 5
4 Foreground    Interactive language processing   6 7 8 9 10 11 12
5 Batch         Submit job for language processing 13 14 15 16 17 18 19
6 Command       Enter TSO or Workstation commands 20 21 22 23 24 25 26
7 Dialog Test   Perform dialog testing            27 28 29 30 31
9 IBM Products  IBM program development products
10 SCLM         SW Configuration Library Manager  Time . . . . : 10:05
11 Workplace   ISPF Object/Action Workplace     Day of year.  : 068
12 z/OS System  z/OS system programmer applications
13 z/OS User    z/OS user applications

Enter X to Terminate using log/list defaults

*ISR@PRI

```

MA 0.0 03/08/16.068 10:07AM 127.0.0.1 a 4,14

When started it will report back to the screen stating tracing started:-

```

Vista TN3270 Session A
File Edit Font Transfer Macro Options Window Help
-----
Menu Utilities Compilers Options Status Help
-----
MKTA          ISPF Primary Option Menu
Option ==> tso ispvcall

0 Settings      Terminal and user parameters      < Calendar >
1 View          Display source data or listings    March 2016
2 Edit          Create or change source data      Su Mo Tu We Th Fr Sa
3 Utilities     Perform utility functions         1 2 3 4 5
4 Foreground    Interactive language processing   6 7 8 9 10 11 12
5 Batch         Submit job for language processing 13 14 15 16 17 18 19
6 Command       Enter TSO or Workstation commands 20 21 22 23 24 25 26
7 Dialog Test   Perform dialog testing            27 28 29 30 31
9 IBM Products  IBM program development products
10 SCLM         SW Configuration Library Manager  Time . . . . : 10:05
11 Workplace   ISPF Object/Action Workplace     Day of year.  : 068
12 z/OS System  z/OS system programmer applications
13 z/OS User    z/OS user applications

Loading CALL trace. To end, reinvoke this command.
*** _

```

MA 1.3 03/08/16.068 10:08AM 127.0.0.1 a 21,6

At this point I then performed the 3.14 search online.

Once I received the error again I turned the trace off by re-issuing TSO ISPVCALL.

```

Vista TN3270 Session A
File Edit Font Transfer Macro Options Window Help
-----
File Edit Edit_Settings Menu Utilities Compilers Test Help
-----
MKT01      MKT01.SRCHFOR.LIST                      Columns 00001 00072
Command ==> tso ispvcall                          Scroll ==> CSR
***** ***** Top of Data *****
000001 1  ISRSUPC - MVS/PDF FILE/LINE/WORD/BYTE/SFOR COMPARE UTILITY- ISPF
000002 LINE-# SOURCE SECTION                      SRCH DSN: MEERKAT.BETTER.JCL
000003
000004
000005 BCTA001L ----- STRING(S) FOUND -----
000006
000007 9 //ASM1 EXEC PGM=ASMA90,PARM='OBJ,NODECK,XREF(SHORT)'
000008 20 // COND=(0,NE,ASM1),PARM='AMODE=31,RMODE=24'
000009 24 //SYSLIB DD DSN=*.ASM1.SYSLIN,DISP=(OLD,DELETE)
000010
000011 BCTP001 ----- STRING(S) FOUND -----
000012
000013 10 //BASMLKED PROC
000014 11 //ASM1 EXEC PGM=ASMA90,PARM='OBJ,NODECK,XREF(SHORT)'
Unloading CALL trace...
***
-----
MA 2.2 03/08/16.068 10:09AM 127.0.0.1 a 21,7

```

This then takes you into a trace dataset showing any errors:-

```

Vista TN3270 Session A
File Edit Font Transfer Macro Options Window Help
-----
File Edit Edit_Settings Menu Utilities Compilers Test Help
-----
MKT01      MKT01.SYSMKTA.ISPVCALL.TRACE           Columns 00001 00072
Command ==> _                                       Scroll ==> CSR
***** ***** Top of Data *****
000001 ===== ISPF Diagnostic Trace System ===== 2016.068 10:08:13 GMT ==
000002 ZENVIR: ISPF 6.1MVS TSO ZOS390RL:z/OS 01.11.00
000003 ZISPFOS:ISPF FOR z/OS 01.11.00
000004 MVS: SP7.1.1 HBB7760 JES: JES2 z/OS1.11 TSO: 3.11.0
000005 ISPF: 6.1.0000 DFSMS: 1.11.00 CPU: 2086(4 CPUs)
000006 RACF: 7.76.0 HSM: INACTV Region: 500M
000007 Max <16M: 9192K In Use: 664K Avail: 8528K
000008 Max >16M: 512000K In Use: 1056K Avail: 510944K
000009 Default unit: 3390 Trace type: WRITE
000010 GRS Options: NONE z/Architecture: Yes
000011 ISPF Exit Flags: 0000 Test Status: Inactive
000012 Ext data stream: No Max screen size: 080x24
000013 Language: ENGLISH Terminal Type: 3278
000014 Loaded Char set mod: ISP3278 ISPVCALL Exit: *None*
000015 TSO Prefix: MKT01
000016 Multi-logon support: Enabled
000017 ISPVCALL Version: ISPVCALL 2008.353 z/OS 1.11 BASE
000018 ISPVCALL Command: ISPVCALL
*SRCHFOR
-----
MA 0.0 03/08/16.068 10:10AM 127.0.0.1 a 4,15

```

I then did a similar trace with a working session from my userid and compared the two for any anomalies.

I could see that the issue appeared to be related to the users' session being unable to allocate the userid.SPFTEMP1.CNTL dataset. I checked via 3.4 and noticed they already had an existing userid.SPFTEMP1.CNTL dataset. I then questioned the user who said the previous day they had a session fail while performing 3.14 searches. It would appear what had happened is that when allocating the SPFTEMPx datasets ISPF increases the number using a stored variable but when the users' session had failed ISPF had failed to increase the number from 1 to 2 in the variable. This resulted in subsequent allocation attempts to try and allocate SPFTEMP1 again but it already existed. I deleted the current userid.SPFTEMP1.CNTL dataset and then we retried the operation. This time the system allocated the dataset as expected and the 3.14 worked.

An easy solution but not so easily identified without the ISPVCALL trace utility.