

Working Knowledge Series

Tips on tracking back job errors on the i5

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Ground Rules

- Please set cell phones to 'stun'
- Feel free to ask questions as we go along, I may defer to later in the session or offline.
- Not all slides in handout may be included, they are included for your reference only.

Cleindori Consulting, LLC

- New Consulting Firm
- Specializing in IBM i and JD Edwards
 - Performance & System Health Checks
 - Administration
 - CNC
 - Contract programming

Speaker Bio

- 26+ years on the i5, developer the whole time
- IBM ILE Certification
- 10+ years of performance tuning
- Now consulting, specialties include JD Edwards, performance tuning, sizing, and contract programming

Agenda

- Overview
- Decoding a message display
- Reading a joblog
- Tools
- Problems from the QSYSOPR message queue
- Problems in jobs that are active
- Problems in jobs that have ended

Overview

- Errors can occur for a variety of reasons
- All errors throw a message, not all messages are errors.
- F1 is your friend.
- The sooner you become aware of an error the easier it is to solve.

Decoding a Message Display

```
*****
*                                     Additional Message Information                                     *
*                                                                                                                                           *
* Message ID . . . . . :  RNQ0907          Severity . . . . . :  99          *
* Message type . . . . . :  Sender copy          *
* Date sent . . . . . :  10/26/07          Time sent . . . . . :  09:04:08  *
*                                                                                                                                           *
* Message . . . . . :  Decimal-data error occurred (C G D F).          *
* Cause . . . . . :  RPG procedure WMCPAERR3 in program DAVIDSONT/WMCPAERR3 *
*   found a decimal-data error at statement 3. A packed or zoned value does not *
*   contain valid numeric data. A digit and/or sign is not valid.          *
* Recovery . . . . . :  Contact the person responsible for program maintenance to *
*   determine the cause of the problem. A response of 'D' will cause an RPG *
*   formatted dump which may be useful in determining which field has the *
*   decimal-data error. However, it may be an intermediate value that has the *
*   error, if the error occurred in an expression.          *
* Possible choices for replying to message . . . . . :          *
*   D -- Obtain RPG formatted dump.          *
*   S -- Obtain system dump.          *
*   G -- Continue processing at *GETIN.          *
*   C -- Cancel.          *
*   F -- Obtain full formatted dump.          *
*                                                                                                                                           *
* Reply . . . . . :  C          *
* Press Enter to continue.          *
*                                                                                                                                           *
* F3=Exit  F6=Print  F9=Display message details  F12=Cancel          *
* F21=Select assistance level          *
*****
```


Reading a joblog

- A joblog is really just a listing of the program message queues.
- If NOTHING shows, don't worry, you can normally use CHGJOB to get it back.
- Joblogs are created as the job progresses, therefore are normally read from the bottom up.

Reading a joblog

- Joblogs can be in one of two states:
 - Active – The job is still running
 - Finished – The job has ended, the joblog is now a spool file like any other
- Accessing joblogs:
 - Active Jobs
 - Use option 10 from DSPJOB
 - F10 to display detailed messages
 - F18 to go to the end of the joblog

Reading a joblog

- Accessing joblogs (continued):
 - Finished Jobs
 - Use option 4 from DSPJOB
 - Name of file is QPJOBLOG
 - Use option 5 to display the spoolfile
 - Go to the end of the joblog

Reading a joblog (Sample Joblog)

- See Accompanying Word documents
 - Working Knowledge Series - Tracking Back Job Errors - Sample Joblog 1.doc

Tools

- DSPMSG – Displays messages on a queue. If you do not already have assistance level set to Intermediate you can press F21 to change it.
- CHGJOB/CHGJOBDB – Changes attributes of a job.
 - LOGLVL() – What to log
 - LOGCLPGM() – Put many (not all) executed commands in the joblog.
- DSPLOG – Displays the history log

Tools

CHGJOB/CHGJOBBD Joblog

- See Accompanying Word documents
 - Working Knowledge Series - Tracking Back Job Errors - Sample Joblog 2.doc

Problems Found on QSYSOPR (Message Queue)

- Normally 2 types of messages on QSYSOPR
 - Informational
 - No response needed. May be information about system events, or warnings of potential problems
 - Error
 - Normally need a response

Problems Found on QSYSOPR (Message Queue)

- Messages needing a reply, show as such.
- End of message lists valid responses
- Job is waiting for a response

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Display Messages
Queue . . . . . : QSYSOPR          System:  ISERIES1
Library . . . . : QSYS            Program . . . . : *DSPMSG
Severity . . . . : 70              Library . . . . :
Delivery . . . . : *HOLD

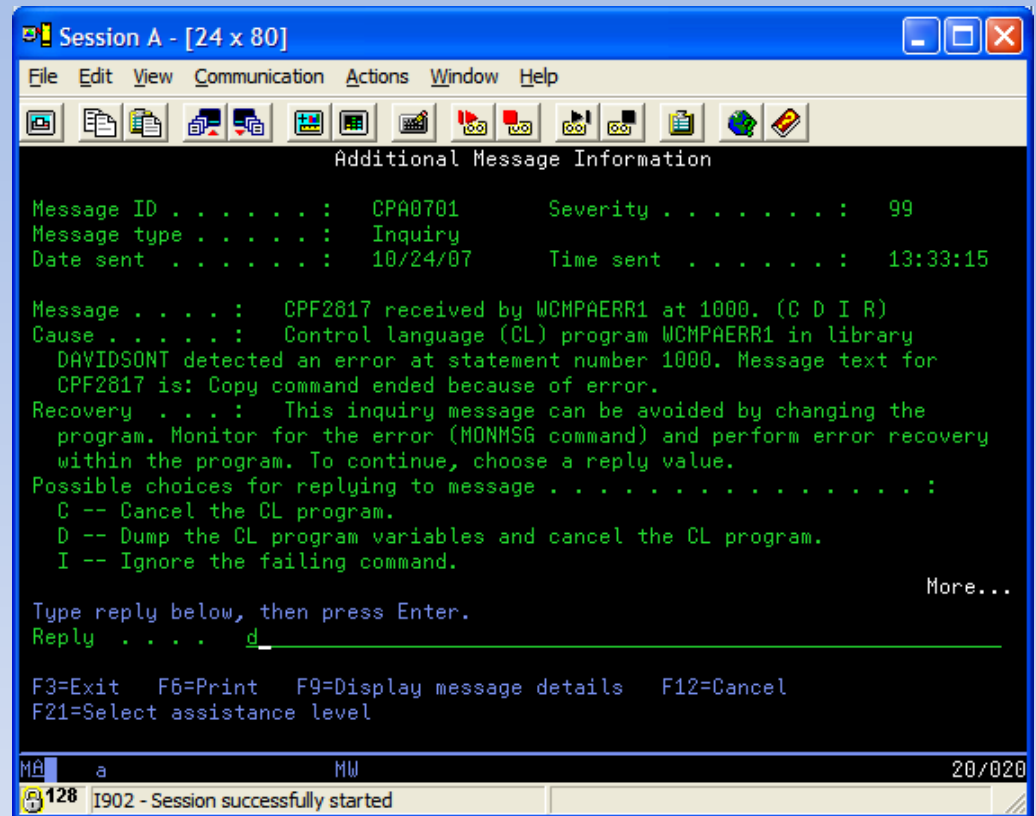
Type reply (if required), press Enter.
000004 of 000035 messages deleted from ZENDADMIN.
Cleanup of user messages successfully completed.
Cleanup of system journals and system logs started.
Cleanup of system journals and system logs successfully completed.
Cleanup has completed.
Service Agent is analyzing your system product activity log entries.
Service Agent is analyzing your system product activity log entries.
TCP/IP connection to remote system 198.150.119.224 closed, reason code 1.
Service Agent is analyzing your system product activity log entries.
TCP/IP connection to remote system 67.15.86.106 closed, reason code 1.
Service Agent is analyzing your system product activity log entries.
CPF2817 received by WCPAERR1 at 1000. (C D I R)
Reply . . .

Bottom
F3=Exit          F11=Remove a message      F12=Cancel
F13=Remove all   F16=Remove all except unanswered  F24=More keys

M@ a MW 24/023
128 I902 - Session successfully started
```


Problems Found on QSYSOPR

- Use F1 to display the message.
- Note the cause and recovery
- Reply 'R' is almost always safe
- 'I' should only be done with the vendor/programmer on the phone
- I normally take 'D' for dump



The screenshot shows a terminal window titled "Session A - [24 x 80]". The window has a menu bar with "File", "Edit", "View", "Communication", "Actions", "Window", and "Help". Below the menu bar is a toolbar with various icons. The main content area displays the following text:

```
Additional Message Information
Message ID . . . . . : CPA0701      Severity . . . . . : 99
Message type . . . . . : Inquiry
Date sent . . . . . : 10/24/07      Time sent . . . . . : 13:33:15

Message . . . . . : CPD2817 received by WCPAERR1 at 1000. (C D I R)
Cause . . . . . : Control language (CL) program WCPAERR1 in library
                  DAVIDSONT detected an error at statement number 1000. Message text for
                  CPD2817 is: Copy command ended because of error.
Recovery . . . . . : This inquiry message can be avoided by changing the
                  program. Monitor for the error (MONMSG command) and perform error recovery
                  within the program. To continue, choose a reply value.
Possible choices for replying to message . . . . . :
C -- Cancel the CL program.
D -- Dump the CL program variables and cancel the CL program.
I -- Ignore the failing command.

Type reply below, then press Enter.
Reply . . . . . d_____

F3=Exit  F6=Print  F9=Display message details  F12=Cancel
F21=Select assistance level
```

At the bottom of the window, there is a status bar showing "MA a MW 20/020" and a system tray icon with the number "128" and the text "I902 - Session successfully started".

Problems Found on QSYSOPR

- Check message queue for any new messages (F10)

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
[Icons]
Display Messages
Queue . . . . . : QSYSOPR          System:  ISERIES1
Library . . . . : QSYS             Program . . . . : *DSPMSG
Severity . . . . : 70              Library . . . . :
Delivery . . . . : *HOLD

Type reply (if required), press Enter.
000004 of 000035 messages deleted from ZENDADMIN.
Cleanup of user messages successfully completed.
Cleanup of system journals and system logs started.
Cleanup of system journals and system logs successfully completed.
Cleanup has completed.
Service Agent is analyzing your system product activity log entries.
Service Agent is analyzing your system product activity log entries.
TCP/IP connection to remote system 198.150.119.224 closed, reason code 1.
Service Agent is analyzing your system product activity log entries.
TCP/IP connection to remote system 67.15.86.106 closed, reason code 1.
Service Agent is analyzing your system product activity log entries.
CPF2817 received by WCPAERR1 at 1000. (C D I R)
Reply . . . :  D

Bottom
F3=Exit          F11=Remove a message  F12=Cancel
F13=Remove all   F16=Remove all except unanswered  F24=More keys

MA a MW 19/020
128 I902 - Session successfully started
```

Problems on Jobs that are running

- Normally find via the QSYSOPR message queue, or via WRKACTJOB
- We will cover 3 scenarios
 - Command failure
 - Allocation failure
 - Program failure

Problems on Jobs that are running

Command failure

- Normally show up as status MSGW
- May also show up as very high CPU

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Active Jobs
CPU %: .0 Elapsed time: 00:00:00 Active jobs: 329
Current
Opt Subsystem/Job User Type CPU % Function Status
---
ICEBREAK QSYS SBS .0
ADMIN BLUEBOXUSR BCH .0 PGM-SVC010 TIMW
CORE BLUEBOXUSR ASJ .0 DLY-600 DLYW
QASE5 QSYS SBS .0
QASE51 QSYS SBS .0
IWAEXP QEJBSVR BCH .0 PGM-QAESTRSVR JYAW
QBATCH QSYS SBS .0
DAVIDSONTJ DAVIDSONT BCH .0 PGM-WCMPAERR1 MSGW
QCMN QSYS SBS .0
QCTL QSYS SBS .0
QSYSSCD QPGMR BCH .0 PGM-QEZSCNEP EYTW
QHTTPSVR QSYS SBS .0
ADMIN QTMHHTTP BCH .0 PGM-QZHBMAIN SIGW
ADMIN QTMHHTTP BCI .0 PGM-QZSRLOG SIGW
ADMIN QTMHHTTP BCH .0 PGM-QLWISVR JYAW
More...
===>
F21=Display instructions/keys
128 I902 - Session successfully started 06/002
```

Problems on Jobs that are running

Command failure

Step 1 – Work with the job (Opt 5)

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Active Jobs
ISERIES1 10/24/07 13:39:04
CPU %: .0 Elapsed time: 00:00:00 Active jobs: 329
Current
Opt Subsystem/Job User Type CPU % Function Status
---
ICEBREAK QSYS SBS .0 DEQM
ADMIN BLUEBOXUSR BCH .0 PGM-SYC010 TIMM
CORE BLUEBOXUSR ASJ .0 DLY-600 DLYU
QASE5 QSYS SBS .0 DEQM
QASE51 QSYS SBS .0 DEQM
IWAEXP QETBSVR BCH .0 PGM-QAESTRSVR JYAW
QBATCH QSYS SBS .0 DEQM
8 DAVIDSONTJ DAVIDSONT BCH .0 PGM-WCHPAERR1 HSGM
QCHM QSYS SBS .0 DEQM
QCTL QSYS SBS .0 DEQM
QSYSSCD QPGMR BCH .0 PGM-QEZSCNEP EYTW
QHTTSPVR QSYS SBS .0 DEQM
ADMIN QTHHHTTP BCH .0 PGM-QZHBMAIN SIGM
ADMIN QTHHHTTP BCI .0 PGM-QZSRLOG SIGM
ADMIN QTHHHTTP BCH .0 PGM-QLWISVR JYAW
More...
===>
F21=Display instructions/keys
MA a MM 13/003
128 I902 - Session successfully started
```

Step 2 – Look at the joblog (Opt 10)

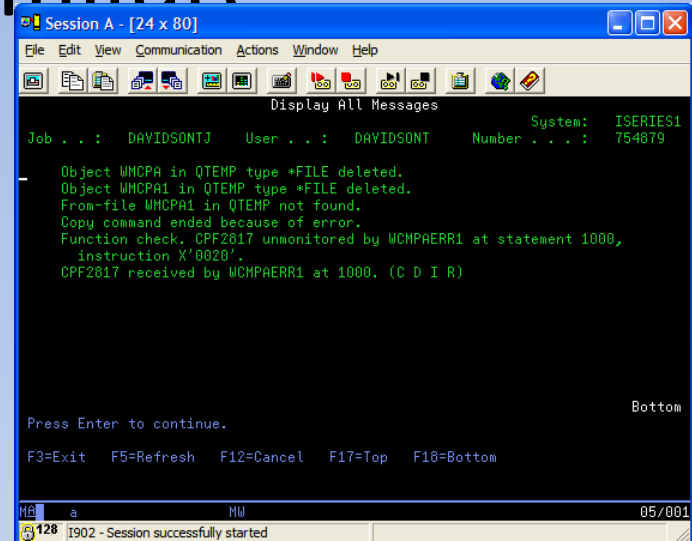
```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Job
System: ISERIES1
Job: DAVIDSONTJ User: DAVIDSONT Number: 754879
Select one of the following:
1. Display job status attributes
2. Display job definition attributes
3. Display job run attributes, if active
4. Work with spooled files
10. Display job log, if active, on job queue, or pending
11. Display call stack, if active
12. Work with locks, if active
13. Display library list, if active
14. Display open files, if active
15. Display file overrides, if active
16. Display commitment control status, if active
More...
Selection or command
===> 10_
F3=Exit F4=Prompt F9=Retrieve F12=Cancel
MA a MM 21/009
128 I902 - Session successfully started
```

Problems on Jobs that are running

Command failure

Step 3 – Determine action you should take

Step 4 – Execute action, answer message (Opt 7)



Session A - [24 x 80]

File Edit View Communication Actions Window Help

Display All Messages

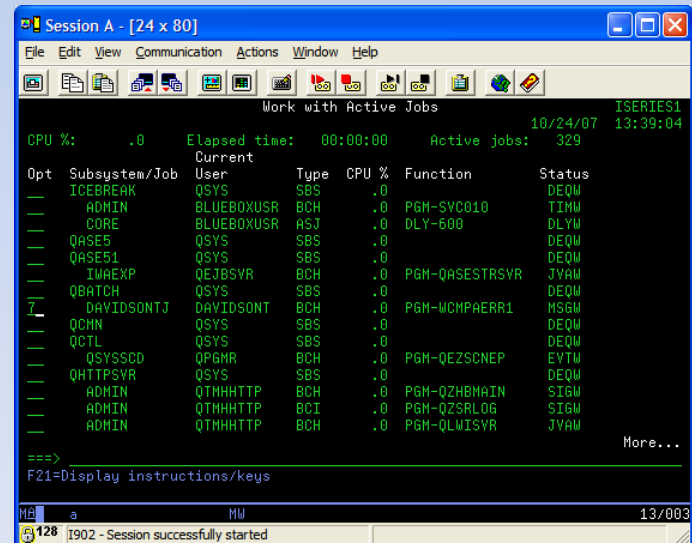
```
Job . . . : DAVIDSONTJ  User . . . : DAVIDSONT      System: ISERIES1
Number . . . : 754879

Object WMCPR in QTEMP type *FILE deleted.
Object WMCPR1 in QTEMP type *FILE deleted.
From-file WMCPR1 in QTEMP not found.
Copy command ended because of error.
Function check. CPF2817 unmonitored by WMCPRERR1 at statement 1000,
instruction X'0020'.
CPF2817 received by WMCPRERR1 at 1000. (C D I R)

Press Enter to continue.

F3=Exit  F5=Refresh  F12=Cancel  F17=Top  F18=Bottom
```

MA a MM 05/001
128 I902 - Session successfully started



Session A - [24 x 80]

File Edit View Communication Actions Window Help

Work with Active Jobs

```
CPU %: .0 Elapsed time: 00:00:00 Active jobs: 329 10/24/07 ISERIES1
Current 13:39:04

Opt Subsystem/Job User Type CPU % Function Status
---
ICEBREAK QSYS SBS .0
ADMIN BLUEBOXUSR BCH .0 PGM-SYC010 TIMW
CORE BLUEBOXUSR ASJ .0 DLY-600 DLYW
QASE5 QSYS SBS .0 DEQW
QASE51 QSYS SBS .0 DEQW
IWAEXP QEJBSVR BCH .0 PGM-QASESTRSVR JWAW
QBATCH QSYS SBS .0 DEQW
7 DAVIDSONTJ DAVIDSONT BCH .0 PGM-WMCPRERR1 MSGW
QCHN QSYS SBS .0 DEQW
QCTL QSYS SBS .0 DEQW
QSYSSCD QPGRM BCH .0 PGM-QEZSCNEP EYTW
QHTTFSVR QSYS SBS .0 DEQW
ADMIN QTHHTTP BCH .0 PGM-QZHBMAIN SIGW
ADMIN QTHHTTP BCI .0 PGM-QZSRLOG SIGW
ADMIN QTHHTTP BCH .0 PGM-QLWISVR JWAW

===>
F21=Display instructions/keys
```

MA a MM 13/003
128 I902 - Session successfully started

Problems on Jobs that are running

Allocation failure

- Job normally found in WRKACTJOB with a status of LCKW
- Take Opt 5 to display the job

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Active Jobs
CPU %: 4.4 Elapsed time: 01:57:24 Active jobs: 348
Current
10/24/07 15:36:29 I SERIES1
Opt Subsystem/Job User Type CPU % Function Status
---
--- ICEBREAK QSYS SBS .0 DEQW
--- ADMIN BLUEBOXUSR BCH .0 PGM-SVC010 TIMW
--- CORE BLUEBOXUSR ASJ .0 DLY-600 DLYW
--- QASE5 QSYS SBS .0 DEQW
--- QASE51 QSYS SBS .0 DEQW
--- IWAEXP QEJBSVR BCH .0 PGM-QASESTRSVR JYAW
--- QBATCH QSYS SBS .0 DEQW
--- LOCKWMCPA DAVIDSONT BCH .0 DLY-600 DLYW
--- WMCPAERR2B DAVIDSONT BCH .0 PGM-WMCPAERR2B LCKW
--- QCMN QSYS SBS .0 DEQW
--- QCTL QSYS SBS .0 DEQW
--- QSYSSCD QPGMR BCH .0 PGM-QEZSCNEP EVTW
--- QHTTPSVR QSYS SBS .0 DEQW
--- ADMIN QTHHHTTP BCH .0 PGM-QZHBMAIN SIGW
--- ADMIN QTHHHTTP BCI .0 PGM-QZSRLOG SIGW
More...
===>
F21=Display instructions/keys
MPE a 06/002
128 I902 - Session successfully started
```

Problems on Jobs that are running

Allocation failure

- Take option 12 to display the locks

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Job
Job: WMCPAERR2B User: DAVIDSONT Number: 755138 System: ISERIES1
Select one of the following:
  1. Display job status attributes
  2. Display job definition attributes
  3. Display job run attributes, if active
  4. Work with spooled files
 10. Display job log, if active, on job queue, or pending
 11. Display call stack, if active
 12. Work with locks, if active
 13. Display library list, if active
 14. Display open files, if active
 15. Display file overrides, if active
 16. Display commitment control status, if active
More...
Selection or command
==> 12_
F3=Exit F4=Prompt F9=Retrieve F12=Cancel
Mâ a 21/009
128 I902 - Session successfully started
```


Problems on Jobs that are running Allocation failure

- Page down until you see a lock in 'WAIT' status.
- If it is a file use 5, otherwise an 8

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Job Locks
Job: WMCPAERR2B User: DAVIDSONT Number: 755138 System: ISERIES1
Job status: ACTIVE
Type options, press Enter.
5=Work with job member locks 8=Work with object locks

  Opt  Object      Library      Object      Lock      Status      Member  ASP
  ---  -
  -    QTEMP       QSYS        *LIB        *SHRRD    HELD        -
  -    QUSRSYS    QSYS        *LIB        *SHRRD    HELD        -
  -    WEBADMIN   QSYS        *USRPRF     *SHRRD    HELD        -
  -
  8    WMCPADTAA   DAVIDSONT   *DTAARA     *SHRUPD   WAIT        -
  -
  Bottom
F3=Exit  F5=Refresh  F10=Display job record locks  F11=Display thread data
F12=Cancel  F16=Job menu
MA a MW 12/003
128 I902 - Session successfully started
```

Problems on Jobs that are running Allocation failure

- This screen should show you which job holds the lock

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Work with Object Locks
Object . . . . : WMCPADTAA           Type . . . . . : *DTAARA
Library . . . . : DAVIDSONT           ASP device . . : *SYSBAS
System:        ISERIES1
Type options, press Enter.
4=End job     5=Work with job     8=Work with job locks
Opt  Job      User      Lock      Status     Scope      Thread
---  ---      ---      ---      ---      ---      ---
R   LOCKWMCPA  DAVIDSONT *EXCL     HELD       *JOB
S   WMCPAERR2B DAVIDSONT *SHRUPD   WAIT       *THREAD    00000005
Bottom
F3=Exit     F5=Refresh   F12=Cancel
MA a MW 10/003
128 I902 - Session successfully started
```

Problems on Jobs that are running

Program failure

- Most program failures are irrecoverable, normally just dump the job and contact the programmer
- Types of program failures
 - Invalid data
 - Level checks
 - File not found

Problems on Jobs that are running Program failure

- Message shows on QSYSOPR Message queue
- Remember F1 is your friend

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
[Icons]
Display Messages
Queue . . . . . : QSYSOPR          System:  ISERIES1
Library . . . . : QSYS             Program . . . . : *DSPMSG
Severity . . . . : 70              Library . . . . :
Delivery . . . . :                  *HOLD

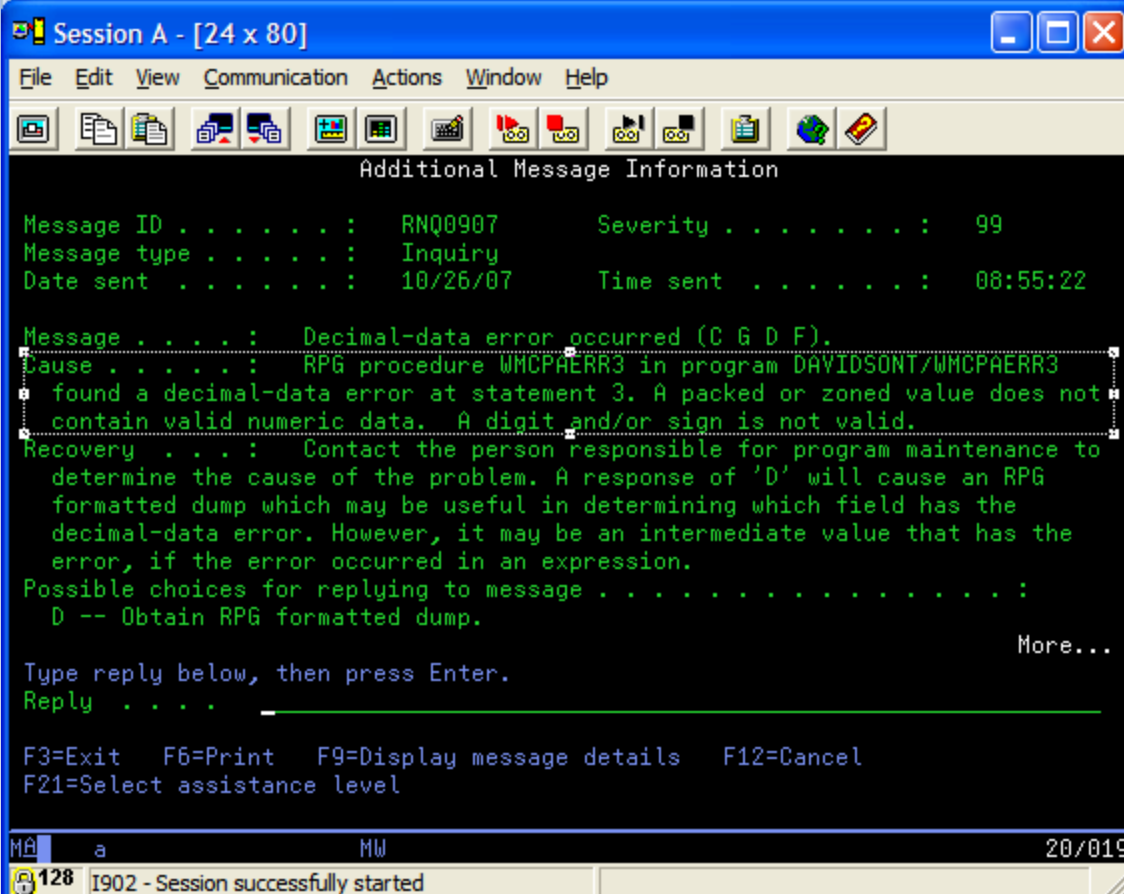
Type reply (if required), press Enter.
000006 of 000056 messages deleted from QSRVAGT.
Cleanup of job logs and other system output successfully completed.
000005 of 000084 messages deleted from QTCP.
000004 of 000035 messages deleted from ZENDADMIN.
Cleanup of user messages successfully completed.
Cleanup of system journals and system logs started.
Cleanup of system journals and system logs successfully completed.
Cleanup has completed.
Service Agent is analyzing your system product activity log entries.
Service Agent is analyzing your system product activity log entries.
Service Agent is analyzing your system product activity log entries.
Decimal-data error occurred (C G D F).
Reply . . .

Bottom
F3=Exit          F11=Remove a message      F12=Cancel
F13=Remove all   F16=Remove all except unanswered  F24=More keys

M@ a MW 20/020
128 I902 - Session successfully started
```

Problems on Jobs that are running Program failure

- The cause tells you what happened
- The recovery tells you what you can do about it



The screenshot shows a terminal window titled "Session A - [24 x 80]". The window has a menu bar with "File", "Edit", "View", "Communication", "Actions", "Window", and "Help". Below the menu bar is a toolbar with various icons. The main content area displays the following text:

```
Additional Message Information

Message ID . . . . . : RNQ0907      Severity . . . . . : 99
Message type . . . . . : Inquiry
Date sent . . . . . : 10/26/07      Time sent . . . . . : 08:55:22

Message . . . . . : Decimal-data error occurred (C G D F).
Cause . . . . . : RPG procedure WMCPAERR3 in program DAVIDSONT/WMCPAERR3
                  found a decimal-data error at statement 3. A packed or zoned value does not
                  contain valid numeric data. A digit and/or sign is not valid.
Recovery . . . . . : Contact the person responsible for program maintenance to
                  determine the cause of the problem. A response of 'D' will cause an RPG
                  formatted dump which may be useful in determining which field has the
                  decimal-data error. However, it may be an intermediate value that has the
                  error, if the error occurred in an expression.
Possible choices for replying to message . . . . . :
D -- Obtain RPG formatted dump.

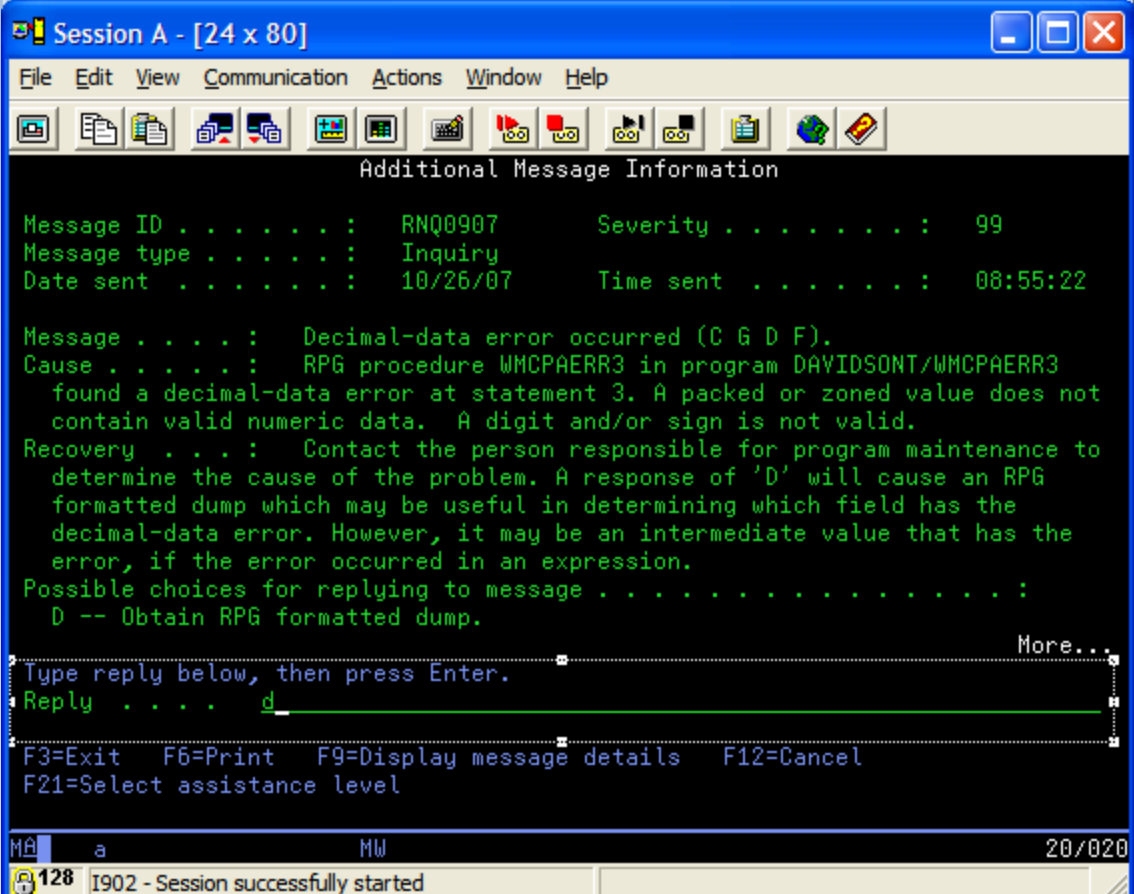
Type reply below, then press Enter.
Reply . . . . . : _____

F3=Exit  F6=Print  F9=Display message details  F12=Cancel
F21=Select assistance level

M@ a MW 20/019
128 I902 - Session successfully started
```

Problems on Jobs that are running Program failure

- Give a response to the message.



The screenshot shows a terminal window titled "Session A - [24 x 80]". The window has a menu bar with "File", "Edit", "View", "Communication", "Actions", "Window", and "Help". Below the menu bar is a toolbar with various icons. The main area of the terminal displays the following text:

```
Additional Message Information  
  
Message ID . . . . . : RNQ0907      Severity . . . . . : 99  
Message type . . . . . : Inquiry  
Date sent . . . . . : 10/26/07      Time sent . . . . . : 08:55:22  
  
Message . . . . . : Decimal-data error occurred (C G D F).  
Cause . . . . . : RPG procedure WMCPAERR3 in program DAVIDSONT/WMCPAERR3  
                  found a decimal-data error at statement 3. A packed or zoned value does not  
                  contain valid numeric data. A digit and/or sign is not valid.  
Recovery . . . . . : Contact the person responsible for program maintenance to  
                  determine the cause of the problem. A response of 'D' will cause an RPG  
                  formatted dump which may be useful in determining which field has the  
                  decimal-data error. However, it may be an intermediate value that has the  
                  error, if the error occurred in an expression.  
Possible choices for replying to message . . . . . :  
D -- Obtain RPG formatted dump.  
  
More...  
Type reply below, then press Enter.  
Reply . . . . . d_
```

At the bottom of the terminal, there are function key instructions: "F3=Exit F6=Print F9=Display message details F12=Cancel F21=Select assistance level". The status bar at the bottom shows "MA a MW 20/020" and "128 I902 - Session successfully started".

Problems on Jobs that are running Program failure

- Go back to message queue and press F10
- It is not uncommon to have 'cascading' errors

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Display Messages
Queue . . . . . : QSYSOPR          System:  ISERIES1
Library . . . . : QSYS           Program . . . . : *DSPMSG
Severity . . . . : 70            Library . . . . :
Delivery . . . . :                *HOLD

Type reply (if required), press Enter.
000006 of 000056 messages deleted from QSRVAGT.
Cleanup of job logs and other system output successfully completed.
000005 of 000084 messages deleted from QTCP.
000004 of 000035 messages deleted from ZENDADMIN.
Cleanup of user messages successfully completed.
Cleanup of system journals and system logs started.
Cleanup of system journals and system logs successfully completed.
Cleanup has completed.
Service Agent is analyzing your system product activity log entries.
Service Agent is analyzing your system product activity log entries.
Service Agent is analyzing your system product activity log entries.
Decimal-data error occurred (C G D F).
Reply . . . : D

Bottom
F10=Display all          F21=Select assistance level
F22=Display list details F24=More keys

M@ a MW 19/020
128 I902 - Session successfully started
```

Problems in jobs that have ended

- Much harder than on active jobs.
- Your main tools are the joblog, history log, and possibly the QSYSOPR message queue.

Problems in jobs that have ended

- Sample Joblog

```
CPF1063  Escape                40  10/24/07  15:42:15.952728  QWCCCHVC  QSYS      02D5  WMCPAERR2B  DAVIDSONT  000C
      Message . . . . :  Cannot allocate data area WMCPADTAA in library DAVIDSONT.
      Recovery . . . . :  Try the command again when the data area is available.
CPA0701  Sender copy              99  10/24/07  15:42:15.961016  QCLXERR  QSYS      00DA  QCLXERR  QSYS      00DA
      Message . . . . :  CPF1063 received by WMCPAERR2B at 200. (C D I R)

      Cause . . . . . :  Control language (CL) program WMCPAERR2B in library
      DAVIDSONT detected an error at statement number 200. Message text for
      CPF1063 is: Cannot allocate data area WMCPADTAA in library DAVIDSONT.
      Recovery . . . . :  This inquiry message can be avoided by changing the
      program. Monitor for the error (MONMSG command) and perform error recovery
      within the program. To continue, choose a reply value. Possible choices for
      replying to message . . . . . :  C -- Cancel the CL
      program. D -- Dump the CL program variables and cancel the CL program. I --
      Ignore the failing command. R -- Try the failing command again.
*NONE    Reply                10/24/07  15:42:28.130800  QMHSCVLV  QSYS      068A  QCLXERR  QSYS      00E7
      Message . . . . :  C
```

Problems in jobs that have ended

- DSPLOG PERIOD(('15:00' '10/24/07'))

Potential job holding lock ->
Our job started ----->

```
Session A - [24 x 80]
File Edit View Communication Actions Window Help
Display History Log Contents

Job 755133/DAVIDSONT/WMCPAERR2B started on 10/24/07 at 15:34:34 in subsystem
Job 755133/DAVIDSONT/WMCPAERR2B ended on 10/24/07 at 15:34:34; 1 seconds used
Job 755135/DAVIDSONT/WMCPAERR2A started on 10/24/07 at 15:35:34 in subsystem
Job 755135/DAVIDSONT/WMCPAERR2A ended on 10/24/07 at 15:35:35; 1 seconds used
Job 755137/DAVIDSONT/LOCKWMCPA started on 10/24/07 at 15:36:08 in subsystem Q
Job 755138/DAVIDSONT/WMCPAERR2B started on 10/24/07 at 15:36:22 in subsystem
Job 755140/CIS011D/LAB06MPB started on 10/24/07 at 15:36:47 in subsystem QBAT
Job 755140/CIS011D/LAB06MPB ended on 10/24/07 at 15:36:47; 1 seconds used; en
Job 755142/CIS011D/LAB06MPB started on 10/24/07 at 15:37:58 in subsystem QBAT
Job 755142/CIS011D/LAB06MPB ended on 10/24/07 at 15:37:58; 1 seconds used; en
CPF1063 received by WMCPAERR2B at 200. (C D I R)
Job 755144/CIS011D/LAB06MPB started on 10/24/07 at 15:39:12 in subsystem QBAT
Job 755144/CIS011D/LAB06MPB ended on 10/24/07 at 15:39:13; 1 seconds used; en
CPF1063 received by WMCPAERR2B at 200. (C D I R)
R
CPF1063 received by WMCPAERR2B at 200. (C D I R)
Log version QHST07296A in QSYS closed and should be saved.

More...

Press Enter to continue.

F3=Exit F10=Display all F12=Cancel

M@ a MW 01/001
128 I902 - Session successfully started
```

Summary

How to track back errors

- Know how to read a message
- Know how to read a joblog
- F1 is your friend
- Use your tools: CHGJOB, DSPLOG, DSPMSG, F1

For More Information

- System Administrators Companion
<http://www.redbooks.ibm.com/abstracts/sg242161.html>
- Replication and reference guide
<http://webdocs.caspur.it/ibm/udb-6.1/db2e0/db2e0148.htm> Look for the 'Capture' subheading