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CICS Update

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Editor

Robert Burgess

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Reducing CICS use of the JES2 spool

BACKGROUND

With today's extended availability, CICS messages can occupy a significant portion of the JES2 spool buffers. A noteworthy culprit is the MSGUSR SYSOUT dataset, which receives output for the extrapartition transient data queue CSSL.

Typically, CSSL is the indirect destination for all sorts of messages from signon/signoff, file allocation, program and transaction manager, terminal I/O errors, ZNAC, LE/370, dump manager, user-generated application messages, and a host of others.

This queue can become quite large over the weeks or even months that CICS remains continuously active.

METHOD

This article describes a way to return MSGUSR spool space to JES for reuse, thereby reducing CICS use of the spool buffers.

The method has two requirements:

- That you code 'FREE=CLOSE' on your MSGUSR SYSOUT DD statement.
- That you initiate the included NEWCSSL program at desired intervals.

Without FREE=CLOSE, SYSOUT datasets are mapped by the job's common Track Group Map (TGM). As such, the spool space they occupy cannot be freed until the entire job (in this case CICS) is purged.

On the other hand, SYSOUT DDs allocated with FREE=CLOSE (or SPIN=UNALLOC) receive their own TGM, so that space can be freed when the dataset is purged.

The program NEWCSSL performs three operations. Firstly, it closes

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the extrapartition queue CSSL, freeing the MSGUSR SYSOUT dataset; next, the program dynamically allocates another JES dataset to MSGUSR; and it ends by re-opening the CSSL queue.

At this point, the dataset previously allocated to MSGUSR can be printed, deleted, or turned over to SYSOUT archival software, depending on your needs, and the JES spool space is available for reuse.

We have found it convenient to invoke NEWCSSL each midnight to accommodate daily SYSOUT archival of CSSL messages. NEWCSSL uses the DYNALLOC macro to issue dynamic allocation requests.

Recent IBM publications documenting this service are:

- GC28-1763-05 *MVS Programming: Authorized Assembler Services Guide.*
- GC28-1764-05 *MVS Programming: Authorized Assembler Services Reference, Volume 1.*

I also benefitted from two previous *CICS Update* articles in unravelling the sometimes arcane details of DYNALLOC. These articles are *Dynamic allocation of datasets within CICS/ESA* (Issue 106, September 1994) and *Dynamic dataset allocation in CICS* (Issue 93, August 1993).

NEWCSSL

```
*ASM XOPTS(CICS,SP)
         PRINT ON,NOGEN
*
         DFHREGS
*
DFHEISTG DSECT
DYNARET  DS    F                          DYNALLOC RETURN CODE
DYNAERR  DS    F                          DYNALLOC ERROR
DYNAINF  DS    F                          DYNALLOC INFO
*
XLWRK3   DS    CL3                        3 BYTE WORK FOR DIAGNOSTICS
XLWRK5   DS    CL5                        5 BYTE WORK FOR DIAGNOSTICS
*
WTOMSG   DS    CL1Ø6                      WTO MSG
         ORG   WTOMSG
```


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```
WTOMID1  DS    CL1Ø
WTOMID2  DS    CLØ9
WTOTXT1  DS    CL18
WTOTXT2  DS    CL38
WTOTXT3  DS    CL31
WTOMSGL  EQU   *-WTOMSG
*
CVDA     DS    F                          CVDA HOLDER
RESP     DS    F                          CICS API RESP
LENG     DS    F                          WTO MSG LENGTH
*
SVCBLD   DS    CL2ØØ                      SVC99 BUILD AREA
SVCTXT   DS    CL(LENAREA)                SVC99 TEXT UNITS
*
NEWCSSL  CSECT
NEWCSSL  AMODE 31
NEWCSSL  RMODE ANY
*
         LA    R7,WTOMSGL                 INIT COMMON WTO FIELDS
         ST    R7,LENG
         MVI   WTOMSG,X'4Ø'
         MVC   WTOMSG+1(L'WTOMSG-1),WTOMSG
         EXEC  CICS ASSIGN                                       -
               PROGRAM(WTOMID1)                                  -
               APPLID(WTOMID2)
         MVC   CVDA,DFHVALUE(CLOSED)      CLOSE TDQ
         EXEC  CICS SET                                          -
               TDQUEUE('CSSL')                                   -
               OPENSTATUS(CVDA)                                  -
               RESP(RESP)
         CLC   RESP,DFHRESP(NORMAL)       CLOSED?
         BE    DYNOCATE                   Y - GO DO DYNALLOC
         MVC   WTOTXT1,TXTTDQC            N - BUILD WTO MSG
         MVC   WTOTXT2,TXTWRN1
         MVC   WTOTXT3,TXTDIAG1
         MVC   XLWRK3(2),RESP+2
         UNPK  XLWRK5,XLWRK3
         TR    XLWRK5,XLTAB
         MVC   WTOTXT3+7(4),XLWRK5
         EXEC  CICS WRITE OPERATOR                               -
               TEXT(WTOMSG)                                      -
               TEXTLENGTH(LENG)                                  -
               EVENTUAL
         B     RETURN                     EXIT
*
DYNOCATE DS    ØH
         LA    R8,SVCBLD                  POINT TO DYN STG SVCAREA
         USING S99RBP,R8                  DESCRIBE WITH INPUT RB DSECT
         MVC   SVCTXT(LENAREA),DDNTU      PUT TEXT UNITS IN RE-ENT STG
```

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```
LA    R4,S99RBPTR+4               GAIN ADDRESSABILITY TO SVC99
USING S99RB,R4                    ... INPUT REQUEST BLOCK
ST    R4,S99RBPTR                 LOAD PTR VALUE IN RB
OI    S99RBPTR,S99RBPND           INDICATE ONE AND ONLY ONE RB
XC    S99RB(RBLEN),S99RB          CLEAR REQUEST BLOCK
MVI   S99RBLN,RBLEN               SET RB LENGTH
MVI   S99VERB,S99VRBAL            SVC99 REQUEST = ALLOCATE
MVI   S99FLG11,S99JBSYS           ASK FOR JOB SYSOUT
LA    R5,S99RB+RBLEN              GET BEGINNING ADDR PTRLIST
USING S99TUPL,R5
ST    R5,S99TXTPP                 STORE ADDR OF TUP LIST IN RB
LA    R6,SVCTXT                   BUILD TEXT UNIT POINTER LIST
ST    R6,S99TUPTR                     -> DDNAME TU
LA    R5,S99TUPL+4
LA    R6,SVCTXT+(BLKSZTU-DDNTU)
ST    R6,S99TUPTR                     -> BLKSZ TU
LA    R5,S99TUPL+4
LA    R6,SVCTXT+(LRECLTU-DDNTU)
ST    R6,S99TUPTR                     -> LRECL TU
LA    R5,S99TUPL+4
LA    R6,SVCTXT+(RECFMTU-DDNTU)
ST    R6,S99TUPTR                     -> RECFM TU
LA    R5,S99TUPL+4
LA    R6,SVCTXT+(SYSOUTU-DDNTU)
ST    R6,S99TUPTR                     -> SYSOUT TU
LA    R5,S99TUPL+4
LA    R6,SVCTXT+(CLOSETU-DDNTU)
ST    R6,S99TUPTR                     -> CLOSE TU
USING S99TUNIT,R6
LA    R5,S99TUPL+4
OI    S99TUPTR,S99TUPLN           MARK END TU PTRLIST
LR    R1,R8                       MACRO NEEDS R1 -> SVCAREA
DYNALLOC
C     R15,=F'Ø'                   SUCCESS?
BE    TDQOPEN                     Y - GO REOPEN TDQ
ST    R15,DYNARET                 N - LOAD DIAGNOSTICS
MVC   DYNAERR,S99ERROR
MVC   DYNAINF,S99INFO
MVC   WTOTXT1,TXTDYNA             BUILD WTO MSG
MVC   WTOTXT2,TXTERR1
MVC   WTOTXT3,TXTDIAG2
MVC   XLWRK3(2),DYNARET+2
UNPK  XLWRK5,XLWRK3
TR    XLWRK5,XLTAB
MVC   WTOTXT3+5(2),XLWRK5+2
MVC   XLWRK3(2),DYNAERR
UNPK  XLWRK5,XLWRK3
TR    XLWRK5,XLTAB
MVC   WTOTXT3+15(4),XLWRK5
```


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```
         MVC   XLWRK3(2),DYNAINF+2
         UNPK  XLWRK5,XLWRK3
         TR    XLWRK5,XLTAB
         MVC   WTOTXT3+27(4),XLWRK5
         EXEC  CICS WRITE OPERATOR                                    -
               TEXT(WTOMSG)                                           -
               TEXTLENGTH(LENG)                                       -
               CRITICAL
         B     RETURN                      EXIT
*
TDQOPEN  DS    ØH
         MVC   CVDA,DFHVALUE(OPEN)         REOPEN TDQ
         EXEC  CICS SET                                               -
               TDQUEUE('CSSL')                                        -
               OPENSTATUS(CVDA)                                       -
               RESP(RESP)
         CLC   RESP,DFHRESP(NORMAL)        OPEN?
         BE    RETURN                      Y - WE'RE DONE
         MVC   WTOTXT1,TXTTDQO             N - BUILD WTO MSG
         MVC   WTOTXT2,TXTERR1
         MVC   WTOTXT3,TXTDIAG1
         MVC   XLWRK3(2),RESP+2
         UNPK  XLWRK5,XLWRK3
         TR    XLWRK5,XLTAB
         MVC   WTOTXT3+7(4),XLWRK5
         EXEC  CICS WRITE OPERATOR                                    -
               TEXT(WTOMSG)                                           -
               TEXTLENGTH(LENG)                                       -
               CRITICAL
         B     RETURN                      EXIT
*
RETURN   DS    ØH
         EXEC  CICS RETURN
*
RBLEN    EQU   (S99RBEND-S99RB)
*
DDNTU    DC    AL2(DALDDNAM)
         DC    X'ØØØ1'
         DC    X'ØØØ8'
DDNAME   DC    CL8'MSGUSR'
BLKSZTU  DC    AL2(DALBLKSZ)
         DC    X'ØØØ1'
         DC    X'ØØØ2'
BLKSZ    DC    X'ØØ88'                     136
LRECLTU  DC    AL2(DALLRECL)
         DC    X'ØØØ1'
         DC    X'ØØØ2'
LRECL    DC    X'ØØ84'                     132
RECFMTU  DC    AL2(DALRECFM)
```

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```
         DC    X'0001'
         DC    X'0001'
RECFM    DC    X'40'                       V
SYSOUTU  DC    AL2(DALSYSOU)
         DC    X'0001'
         DC    X'0001'
SYSOUT   DC    C'D'                        SITE-DETERMINED SYSOUT CLASS
CLOSETU  DC    AL2(DALCLOSE)
         DC    X'0000'                     FREE=CLOSE
LENAREA  EQU   *-DDNTU
*
XLTAB    DC    240X'00'
         DC    C'0123456789ABCDEF'
*
TXTTDQC  DC    CL18'TDQ clse failed.  '
TXTTDQO  DC    CL18'TDQ open failed.  '
TXTDYNA  DC    CL18'DYNALLOC failed.  '
TXTWRN1  DC    CL38'TDQ CSSL resumes on last JES SYSOUT.  '
TXTERR1  DC    CL38'Contact the CICS Systems Programmer!  '
TXTDIAG1 DC    CL31'Resp =     .'
*                   00000000001111111111222222222 3
*                   0123456789012345678901234567890
TXTDIAG2 DC    CL31'RC =   , Err =     , Inf =     .'
*
         LTORG
         IEFZB4D0
         IEFZB4D2
         END   NEWCSSL
```

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Analysing abended transactions – part 4

This month we conclude the article that describes how to store and analyse abends that occur in a CICS region, as well as obtaining an immediate description using the CICS file DFHMAC.

```
*>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
*
* DFHPEP program
*
         PRINT NOGEN
         TITLE  'MACRO DEFINITIONS'
         MACRO                     MACRO HEADER
```


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```
         PGMID &MEMBER,&R=         PROTYPE STATEMENT
         AGO   .PGNAME
.PGNAME  ANOP
.*
.*       THIS VARIABLE FOR TIME AND DATE STAMPING
         LCLC  &VMTMDT             TIME/DATE STAMP
         LCLC  &RELEASE            VERSION
.*
.*
        AIF  (T'&R NE 'O').SETR
&RELEASE     SETC 'Ø1Ø1'
        AGO  .DROP
.SETR   ANOP
&RELEASE     SETC '&R'
         SPACE 1
.DROP   ANOP
         PUSH PRINT
         PRINT GEN
*********************************************************************
         DC    C'*',C' '
         DC    C'PROGRAM NAME:'
         DC    CL8'&MEMBER'  NAME
         DC    C' ',C'*',C' '
         DC    C'PROGRAM VERSION:'
         DC    CL4'&RELEASE'
         DC    C' '
         DC    C'*',C' '
         SPACE
         DC    C'ASSEMBLY TIME(HH.MM):'
&VMTMDT  SETC  '&SYSTIME'
         DC    C'&VMTMDT'          ASSEMBLY TIME (HH.MM) AND
         DC    C' '
         DC    C'ASSEMBLY DATE(MM/DD/YY):'
&VMTMDT  SETC  '&SYSDATE'
         DC    C'&VMTMDT'          DATE (MM/DD/YY) SAME AS LISTING
*********************************************************************
         POP   PRINT
         MEXIT
         MEND
*————————————————————————————
         MACRO
*
*
*
*        PROTOTYPE STATEMENT
         CSNAME &NAME
         GBLC  &CSECT
         AIF ('&NAME' EQ '').NONAME
&CSECT   SETC  '&NAME'
```

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```
         AGO   .SC
.NONAME  ANOP
&CSECT   SETC  '&SYSECT'
.SC      ANOP
         PUSH  PRINT
         PRINT GEN
*=========================================*
*                                         *
*                                         *
CSNAME   DC    CL8'&CSECT'
*                                         *
*                                         *
*=========================================*
         POP   PRINT
         MEND
         DFHCOVER
PEP      TITLE 'CUSTOMER INFORMATION CONTROL SYSTEM   P R O G R A M  E *
               R R O R  P R O G R A M'
DFHEISTG DSECT
*
* EXEC CICS Error Code Program COMMAREA (DERCODE)
*
DEERRØAI DS    ØH
ERFUNCOD DS    CL2  FUNCTION CODE
ERERRCOD DS    CL6  ERROR CODE
ERRESNAM DS    CL8  RESOURCE NAME
ERTDQNAM DS    CL4  TD NAME
*              CL4'XXXX'   TD QUEUE NAME SPECIFIED BY CALLER
*              X'ØØØØØØØØ' DEFAULT TD QUEUE (CSMT)
*              CL4' '      DEFAULT TD QUEUE (CSMT)
*              X'FF'       DO NOT SEND MSG TO TD QUEUE
ERPGMCAL DS    CL8  CALLING PROGRAM
ERMSGS   DS    CL36 ERROR MSG
*
DEERRØAF EQU   *
         ORG   DEERRØAI
DEERRØAG DS    CL(DEERRØAF-DEERRØAI)
DEERRØAL EQU   L'DEERRØAG
*
DOUBLE   DS    D
CRESP    DS    F
YEAR     DS    F   CENTURY FROM CICS
DATE     DS    CL8 YYYYMMDD
CENTURY  DS    CL2 CENTURY ZONED
LEN      DS    H   RECORD LENGTH
FILENAME DS    CL8 FILE NAME
*
TDAREA   DS    ØCL1Ø4
TDNAMEC  DS    CL4
```


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```
MSGAREA  DS    CL100
*
         COPY  TACBREC
*
         PUSH  PRINT
         PRINT GEN
         DFHPCOM TYPE=DSECT
         POP   PRINT
*****************************************************************
* * * * *             P R O G R A M   E R R O R             * * * * *
* * * * *                   P R O G R A M                   * * * * *
*****************************************************************
DFHPEP   DFHEIENT CODEREG=(R4),DATAREG=(R6),EIBREG=(R11)
DFHPEP   AMODE 31                                              @P1A
DFHPEP   RMODE ANY
         DFHREGS
RCOM     EQU   R8                     EQUATE REGISTERS
RWKR1    EQU   R1
RWKR2    EQU   R2
RWKR3    EQU   R3
RWKR14   EQU   R14
RWKR15   EQU   R15
         B     APGMID
         PGMID DFHPEP,R=0001
APGMID   DS    0H
         SR    RWKR1,RWKR1
         ICM   RWKR1,B'0011',EIBCALEN  Get COMMAREA length
         BZ    RETURNX                 ...no COMMAREA; exit
         MVC   FILENAME,FILENAMC       Set File Name
*
* Acquire COMMAREA Address
*
         EXEC CICS ADDRESS COMMAREA(RCOM)
*
         USING DFHPEP_COMMAREA,RCOM    Tell to ASM
*
* Get Time
*
         EXEC  CICS ASKTIME ABSTIME(DOUBLE) RESP(CRESP)
*
         CLC   CRESP,DFHRESP(NORMAL)   Response OK ?
         BNE   ERROR                   ...No
*
* Format Time
*
         EXEC  CICS FORMATTIME ABSTIME(DOUBLE) YEAR(YEAR)             *
               YYMMDD(TACBREC_DATE) RESP(CRESP)
*
         CLC   CRESP,DFHRESP(NORMAL)    Response OK ?
```

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```
         BNE   ERROR                   ...No
*
* BUILD FILE CICSAB KEY
*
         MVC   DOUBLE,TACBREC_DATE FORMAT DATE
         MVC   TACBREC_DATE+2(6),DOUBLE
         L     RWKR1,YEAR              FORMAT CENTURY
         CVD   RWKR1,DOUBLE            XXXXXXXXXXX1997+
         UNPK  DOUBLE(5),DOUBLE+5(3)
         MVC   CENTURY,DOUBLE+1
         MVC   TACBREC_DATE(2),CENTURY
         UNPK  DOUBLE,EIBTIME          ØHHMMSS+
         OI    DOUBLE+L'DOUBLE-1,X'FØ' XXXXFHFHFMFMFSFS
         MVC   TACBREC_TIME,DOUBLE+2
*
* Get Abending Program EIB
*
         LR    RWKR15,DFHEIBR          SAVE CURRENT EIB
         LA    DFHEIBR,PEP_COM_USERS_EIB
         MVC   TACBREC_TRX,EIBTRNID    Get Tran-id
         MVC   TACBREC_TSKN,EIBTASKN   Get Task Number
         LR    DFHEIBR,RWKR15          RESTORE CURRENT EIB
*
* Get Current Abend code from COMMAREA
*
         MVC   TACBREC_CABC,PEP_COM_CURRENT_ABEND_CODE
         OC    TACBREC_CABC,BLANK
*
* Get CICS Applid & Startcode
*
         EXEC  CICS ASSIGN APPLID(TACBREC_APPLID)                      *
               STARTCODE(TACBREC_STC) RESP(CRESP)
*
         CLC   CRESP,DFHRESP(NORMAL)   Response OK ?
         BNE   ERROR                   ...No
*
* Get Information from COMMAREA
*
         MVC   TACB_COM_STANDARD,PEP_COM_STANDARD
         MVC   TACB_COM_FUNCTION,PEP_COM_FUNCTION
         MVC   TACB_COM_COMPONENT,PEP_COM_COMPONENT
         MVC   TACB_COM_RESERVED,PEP_COM_RESERVED
         MVC   TACB_COM_CURRENT_ABEND_CODE,PEP_COM_CURRENT_ABEND_CODE
         OC    TACB_COM_CURRENT_ABEND_CODE,BLANK
         MVC   TACB_COM_ORIGINAL_ABEND_CODE,PEP_COM_ORIGINAL_ABEND_CODE
         OC    TACB_COM_ORIGINAL_ABEND_CODE,BLANK
         MVC   TACB_COM_USERS_EIB,PEP_COM_USERS_EIB
         MVC   TACB_COM_ABPROGRAM,PEP_COM_ABPROGRAM
         OC    TACB_COM_ABPROGRAM,BLANK
```


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```
         MVC   TACB_COM_PSW,PEP_COM_PSW
         MVC   TACB_COM_REGISTERS,PEP_COM_REGISTERS
         MVC   TACB_COM_KEY,PEP_COM_KEY
         MVC   TACB_COM_STORAGE_HIT,PEP_COM_STORAGE_HIT
         MVC   TACB_COM_PADDING,PEP_COM_PADDING
         MVC   TACB_COM_RETURN_CODE,PEP_COM_RETURN_CODE
*
* Verify table before writing to file
*
         LA    RWKR15,TABNOTRX
NEXTTRX  DS    ØH
         CLI   Ø(RWKR15),X'FF'             end table ?
         BE    FTTRX                         .. yes
         CLC   TACBREC_TRX,Ø(RWKR15)       exclude abend ?
         BE    NOWRITEA                      .. yes
         L     RWKR15,L'TABNOTRX(RWKR15)
         B     NEXTTRX                       .. yes
FTTRX    DS    ØH
         LA    RWKR15,TABNOABN
NEXTABND DS    ØH
         CLI   Ø(RWKR15),X'FF'             end table ?
         BE    WRITEA                        .. yes
         CLC   TACBREC_CABC,Ø(RWKR15)      exclude abend ?
         BE    NOWRITEA                      .. yes
         L     RWKR15,L'TABNOABN(RWKR15)
         B     NEXTABND                      .. yes
WRITEA   DS    ØH
*
* Add to CICSAB File
*
         MVC   LEN,=Y(TACBRECL)            SET RECORD LENGTH
         MVC   ERRESNAM,FILENAME           SET RESOURCE
*
         EXEC  CICS WRITE FROM(TACBREC) FILE(FILENAME)                 *
               LENGTH(LEN) RIDFLD(TACBREC_KEY) RESP(CRESP)
*
         CLC   CRESP,DFHRESP(NORMAL)   Response OK ?
         BNE   ERROR                   ...No
         XC    ERRESNAM,ERRESNAM       Reset Resource
*
NOWRITEA DS    ØH
         MVI   MSGAREA,C' '
         MVC   MSGAREA+1(L'MSGAREA-1),MSGAREA
         MVC   MSGAREA(Ø7),=CLØ7'Program'
         MVC   MSGAREA+8(8),PEP_COM_ABPROGRAM
         MVC   MSGAREA+17(24),=CL24'ABEND-Current Abendcode:'
         MVC   MSGAREA+42(4),PEP_COM_CURRENT_ABEND_CODE
         MVC   MSGAREA+47(19),=CL19'Original Abendcode:'
         MVC   MSGAREA+66(4),PEP_COM_ORIGINAL_ABEND_CODE
```

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```
         CLI   PEP_COM_STORAGE_HIT,PEP_COM_NO_HIT No storage Hit
         BE    NOHIT
         MVC   MSGAREA+71(8),=CLØ8'Storage:'
         MVC   MSGAREA+79(4),=CLØ4'CDSA'
         CLI   PEP_COM_STORAGE_HIT,PEP_COM_CDSA_HIT
         BE    NOHIT
         MVC   MSGAREA+79(5),=CLØ4'ECDSA'
         CLI   PEP_COM_STORAGE_HIT,PEP_COM_ECDSA_HIT
         BE    NOHIT
         MVC   MSGAREA+79(5),=CLØ4'ERDSA'
NOHIT    DS    ØH
         MVC   MSGAREA+85(7),=CLØ7'Tranid:'
         MVC   MSGAREA+92(4),TACBREC_TRX
         MVC   TDAREA(L'TDNAME),TDNAME
*
         EXEC  CICS WRITEQ TD QUEUE(TDNAMEC) FROM(TDAREA+4)           *
               LENGTH(=Y(L'TDAREA-4)) NOHANDLE
*
RETURNOK DS    ØH
         LA    RWKR1,PEP_COM_RETURN_OK
         B     RETURN
         DFHEJECT
*
RETURNER DS    ØH                  Return for error cases
         LA    RWKR1,PEP_COM_RETURN_DISABLE
RETURN   DS    ØH
         ST    RWKR1,PEP_COM_RETURN_CODE
RETURNX  DS    ØH
*
         EXEC CICS RETURN
*
         TITLE 'CICS ERROR ROUTINE'
ERROR    DS    ØH
         MVC   ERFUNCOD,EIBFN             SET FUNCTION CODE
         MVC   ERERRCOD,EIBRCODE          SET ERROR CODE
         MVC   ERPGMCAL,CSNAME            SET MY NAME
*
         EXEC  CICS IGNORE CONDITION ERROR
*
         EXEC  CICS LINK PROGRAM('DERCODE') COMMAREA(DEERRØAI)        *
               LENGTH(=Y(DEERRØAL))
*
         B     RETURN
* DEFAULTS
FILENAMC DC    CL8'CICSAB'
TDNAME   DC    CL4'CSMT'
BLANK    DC    CL8' '
*
* Table trx abend: do not write into CICSAB
* 4 BYTE tranid
```


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```
TABNOTRX DS    ØCL4
* Insert Your Excluded Transaction codes
         DC    X'FF'
*
* Table abend codes: do not write into CICSAB
* 4 BYTE abend
TABNOABN DS    ØCL4
* Insert Your Excluded Abend Codes
         DC    X'FF'
*-----------------------------------
         CSNAME
*-----------------------------------
*
         END   DFHPEP
*>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
*>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
***************************************************************/
*     DELETE-DEFINE CICSAB DATASET                            */
***************************************************************/
//CREATE EXEC PGM=IDCAMS,REGION=1Ø24K
//SYSPRINT DD SYSOUT=*
//SYSIN    DD *
 DELETE (CICØ.CICSAB.VSK) PURGE  CLUSTER
                         /**/
 DEFINE CLUSTER (NAME(CICØ.CICSAB.VSK) -
                 VOLUMES(......) -
                 KEYS(34 Ø) -
                 RECSZ(2ØØ 5ØØ)  -
                 CYLINDERS(1Ø 1Ø) CISZ(512) -
                 UNIQUE -
                 FREESPACE(5 5) -
                 SHR(2 3) INDEXED) -
        DATA    (NAME(CICØ.CICSAB.VSK.DATA)) -
        INDEX   (NAME(CICØ.CICSAB.VSK.INDEX))
                         /**/
 REPRO IFILE(RECØ) ODS(CICØ.CICSAB.VSK)
                         /**/
//* RECØ Contain a record filled with X'FF'
//RECØ  DD *
ˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇˇ
/*
*>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>
```

Giuseppe Rallo
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Sicilcassa (Italy) © Xephon 1999

CICS system generator

We use CICS/ESA Version 4.1 on different LPARs for a wide variety of work and we have to create a lot of CICS regions on all of these systems. Because of this requirement, we have developed a tool that generates CICS regions on different LPARs.

The tool is made for CICS/ESA Version 4.1 (MVS/ESA).

Some options are not in use yet (eg the RACF part), but I have left them in the panel structure for future use. The tool is menu-driven.

Before you can use this tool, the rest of the system must be ready to run CICS on your MVS system (eg SubSystemName table entries, security attributes, SMS entries, VTAM definitions, etc).

You should be very careful not to delete existing datasets before the new datasets are created!

The main menu can be called from a PANEL with the following statements:

```
+4 |CICS SYSTEM GENERATOR
4,'PANEL(CICSBUIL)'
```

The system generator main menu is shown in Figure 1.

The steps must all end in a return code zero. When there is a problem, it is best to delete the datasets you have created, solve the problem, and then start again at the beginning.

CICS GENERATOR PANEL DEFINITIONS

The following panels are invoked:

CICSBUIL

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(RED)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW) HILITE(REVERSE)
```


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```
CICSBUIL ———————— CICS SYSTEM GENERATOR   ———————— Enter option
OPTION  ===>

          1 -  RACF definitions  ONLY SECADM (for future use)
          2 -  Global and LOCAL catalog,CSDFILE
          3 -  Dump and Trace datasets
          4 -  Work files
          5 -  Journal datasets (system and user)
          6 -  Restart datasets (restart and XRF)
          7 -  Sample file FILEA (optional)
          8 -  CICS procedure in SYS1.PROCLIB.CICS
          9 -  CICS : JCLLIB, TABLOAD, TABSRC (inclusive SITOVER)
                      and DFHJPDS (inclusive DFHARCH)
          1Ø-  Initial filling tabsrc (macro table sources)


          IV-  IVP  (CICS must be started)

          I -  Information
```

Figure 1: System generator main menu

```
! TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW)
# TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|——————————'CICS SYSTEM GENERATOR  |——————————
%OPTION  ===>_zcmd
+
          ~1 -  RACF definitions ?ONLY SECADM (for future use)+
          ~2 -  Global and LOCAL catalog,CSDFILE ¢
          ~3 -  Dump and Trace datasets
          ~4 -  Work files
          ~5 -  Journal datasets (system and user)
          ~6 -  Restart datasets (restart and XRF)
          ~7 -  Sample file FILEA (optional)
          ~8 -  CICS procedure in SYS1.PROCLIB.CICS
          ~9 -  CICS : JCLLIB, TABLOAD, TABSRC (inclusive SITOVER)
          ~             and DFHJPDS (inclusive DFHARCH)
          ~1Ø-  Initial filling tabsrc (macro table sources)
+
```

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```
+
+
          ~IV-  IVP  (CICS must be started)
+
          !I -  Information
+
)INIT
  .HELP = TUTORPAN             /* insert name of tutorial panel    */
/*&zcmd=' '  */
/*)REINIT    */
/*  &zcmd=&z Refresh(zcmd)  */
)PROC
   &ZSEL=TRANS(TRUNC(&ZCMD,'.')
/*           1,'CMD(CICSRACF)'          */
             2,'CMD(CICSDEFC)'
             3,'CMD(CICSDEFD)'
             4,'CMD(CICSDEFW)'
             5,'CMD(CICSDEFJ)'
             6,'CMD(CICSDEFR)'
             7,'CMD(CICSDEFS)'
             8,'CMD(CICSDEFP)'
             9,'CMD(CICSDEFA)'
             1Ø,'CMD(CICSDEFI)'
             IV,'CMD(CICSIVPB)'
             I,'PGM(ISPTUTOR) PARM(BGBØØØØØ)'
             X,'EXIT'
             ' ',' '
             *,'?')
  &ZTRAIL = .TRAIL
  &PFKEY  = .PFKEY
)END
```

SUBMIT

```
)ATTR
   _ TYPE(INPUT) CAPS(OFF) INTENS(HIGH) FORMAT(&MIXED)

)BODY  WIDTH(&ZWIDTH) EXPAND(||)
%&CIVER EDIT ————————————————|-|————————————————+
%COMMAND ===>_ZCMD                          | |                 %SCROLL
===>_Z   %
+ **** IF YOU WISH TO SUBMIT THIS JOB NOW, TYPE 'SUBMIT' AND PRESS
ENTER. **** %
)INIT
  .HELP  = ISR2ØØØØ
  .ZVARS = 'ZSCED'

  &MIXED = MIX
  IF (&ZPDMIX = N)
    &MIXED = EBCDIC
```


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```
)PROC
)END
```

CICSDEFC

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
$ TYPE(INPUT) INTENS(LOW)  PAD(_)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(LOW)  JUST(ASIS) COLOR(YELLOW)
# TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|----------------'CICS SYSTEM GENERATOR|----------
%COMMAND ===>_ZCMD
+
+
+   Catalogs and initial CSDFILE
+
+
+   CICS system id   ....$z +
+   Volume           ....$vol   +
+   Lpar             ....$lpar+
+
+   CICS VRM         ... $vrm+ (optional, you can leave this field blank
+                              if you do not use VRM in your CICS
+                              dataset naming convention)
+
+   PF3 = Exit
+
)INIT
  .ZVARS = 'SYSID'
  .HELP = TUTORPAN           /* Insert name of tutorial panel    */
    &sysid=' '
    &vol=' '
    &lpar=' '
    &pfkey=.pfkey
)PROC
    VER (&SYSID,NB,MSG=cicst001)
    VER (&vol,NB,MSG=cicst001)
    VER (&lpar,NB,MSG=cicst001)
    &pfkey=.pfkey
)END
```

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CICSDEFD

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
$ TYPE(INPUT) INTENS(LOW)  PAD(_)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(LOW)  JUST(ASIS) COLOR(YELLOW)
# TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|----------------'CICS SYSTEM GENERATOR|----------
%COMMAND ===>_ZCMD
+
+
+   Dump and Trace datasets
+
+
+   CICS system id   ....$z +
+   Volume           ....$vol   +
+   LPAR             ....$lpar+
+
+
+
+
+
+   PF3 = Exit
+
)INIT
  .ZVARS = 'SYSID'
  .HELP = TUTORPAN          /* Insert name of tutorial panel    */
    &sysid=' '
    &vol=' '
    &lpar=' '
    &pfkey=.pfkey
)PROC
    VER (&SYSID,NB,MSG=cicst001)
    VER (&vol,NB,MSG=cicst001)
    VER (&lpar,NB,MSG=cicst001)
    &pfkey=.pfkey
)END
```

CICSDEFW

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
```


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```
$ TYPE(INPUT) INTENS(LOW)  PAD(_)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(LOW)  JUST(ASIS) COLOR(YELLOW)
# TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|----------------'CICS SYSTEM GENERATOR|-----------
%COMMAND ===>_ZCMD
+
+
+   Work files  (TEMP INTRA)
+
+
+   CICS system id   ....$z +
+   Volume           ....$vol   +
+   Lpar             ....$lpar+
+
+
+
+
+
+   PF3 = Exit
+
)INIT
  .ZVARS = 'SYSID'
  .HELP = TUTORPAN           /* Insert name of tutorial panel    */
    &sysid=' '
    &vol=' '
    &lpar=' '
    &pfkey=.pfkey
)PROC
    VER (&SYSID,NB,MSG=cicst001)
    VER (&vol,NB,MSG=cicst001)
    VER (&lpar,NB,MSG=cicst001)
    &pfkey=.pfkey
)END
```

CICSDEFJ

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
$ TYPE(INPUT) INTENS(LOW)  PAD(_)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
```

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```
? TYPE(TEXT)   INTENS(LOW)  JUST(ASIS) COLOR(YELLOW)
# TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|----------------'CICS SYSTEM GENERATOR|----------
%COMMAND ===>_ZCMD
+
+
+   Journal datasets
+
+
+   CICS system id   ....$z +
+   Volume           ....$vol   +
+   Lpar             ....$lpar+
+
+   CICS VRM         ... $vrm+ (optional, you can leave this field blank
+                              if you do not use VRM in your CICS
+                              dataset naming convention)
+
+   PF3 = Exit
+
)INIT
  .ZVARS = 'SYSID'
  .HELP = TUTORPAN           /* Insert name of tutorial panel    */
    &sysid=' '
    &vol=' '
    &lpar=' '
    &vrm=' '
    &pfkey=.pfkey
)PROC
    VER (&SYSID,NB,MSG=cicst001)
    VER (&vol,NB,MSG=cicst001)
    VER (&lpar,NB,MSG=cicst001)
    &pfkey=.pfkey
)END
```

CICSDEFR

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
$ TYPE(INPUT) INTENS(LOW)  PAD(_)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(LOW)  JUST(ASIS) COLOR(YELLOW)
# TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
```


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```
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|————————————'CICS SYSTEM GENERATOR|————————————
%COMMAND ===>_ZCMD
+
+
+   Recovery datasets (RSD XRCTL XRMSG)
+
+
+   CICS system id   ....$z +
+   Volume           ....$vol   +
+   Lpar             ....$lpar  +
+
+   CICS VRM         ... $vrm+ (optional, you can leave this field blank
+                              if you do not use VRM in your CICS
+                              dataset naming convention)
+
+   PF3 = Exit
+
)INIT
  .ZVARS = 'SYSID'
  .HELP = TUTORPAN           /* Insert name of tutorial panel    */
    &sysid=' '
    &vol=' '
    &lpar=' '
    &pfkey=.pfkey
)PROC
    VER (&SYSID,NB,MSG=cicst001)
    VER (&vol,NB,MSG=cicst001)
    VER (&lpar,NB,MSG=cicst001)
    &pfkey=.pfkey
)END
```

CICSDEFS

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
$ TYPE(INPUT) INTENS(LOW)  PAD(_)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(LOW)  JUST(ASIS) COLOR(YELLOW)
# TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
```

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```
|-----------------'CICS SYSTEM GENERATOR|------------
%COMMAND ===>_ZCMD
+
+
+   Sample dataset (optional)
+
+
+   CICS system id   ....$z +
+   Volume           ....$vol   +
+   Lpar             ....$lpar  +
+
+   CICS VRM         ... $vrm+ (optional, you can leave this field blank
+                              if you do not use VRM in your CICS
+                              dataset naming convention)
+
+   PF3 = Exit
+
)INIT
  .ZVARS = 'SYSID'
  .HELP = TUTORPAN           /* Insert name of tutorial panel    */
    &sysid=' '
    &vol=' '
    &lpar=' '
/*  &pfkey=.pfkey        */
)PROC
    VER (&SYSID,NB,MSG=cicst001)
    VER (&vol,NB,MSG=cicst001)
    VER (&lpar,NB,MSG=cicst001)
/*  &pfkey=.pfkey        */
)END
```

CICSDEFP

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
$ TYPE(INPUT) INTENS(LOW)  PAD(_)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(LOW)  JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|-----------------'CICS SYSTEM GENERATOR|------------
%COMMAND ===>_ZCMD
+
+
+   Procedure (stored in the SYS1.PROCLIB.CICS)
```


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```
+
+
+   CICS system id   ....$z +
+   LPAR             ....$lpar+
+
+   CICS VRM         ... $vrm+ (optional, you can leave this field blank
+                              if you do not use VRM in your CICS
+                              dataset naming convention)
+
+
+   PF3 = Exit
+
)INIT
  .ZVARS = 'SYSID'
  .HELP = TUTORPAN           /* Insert name of tutorial panel    */
    &sysid=' '
    &lpar=' '
    &pfkey=.pfkey
)PROC
    VER (&SYSID,NB,MSG=cicst001)
    VER (&LPAR,NB,MSG=cicst001)
    &pfkey=.pfkey
)END
```

CICSDEFA

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
$ TYPE(INPUT) INTENS(LOW)  PAD(_)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(LOW)  JUST(ASIS) COLOR(YELLOW)
# TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|----------------'CICS SYSTEM GENERATOR|-----------
%COMMAND ===>_ZCMD
+
+
+   Allocate several libraries (JCLLIB TABSRC TABLOAD .....)
+
+   CICS system id   ....$z +
+   Volume           ....$vol   +
+   Lpar             ....$lpar+
+   Connects to DB2  ....$db2sys+   (required)
+   Connects to MQ   ....$mqm + (optional)
```

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```
+
+   CICS VRM         ... $vrm+ (optional, you can leave this field blank
+                              if you do not use VRM in your CICS
+                              dataset naming convention)
+
+   When you substitute an MQSeries connection, you also have to
+   execute option 6 from the extra functionality option.
+
+   PF3 = Exit
+
)INIT
  .ZVARS = 'SYSID'
  .HELP = TUTORPAN           /* Insert name of tutorial panel    */
    &sysid=' '
    &vol=' '
    &lpar=' '
    &db2sys=' '
    &mqm=' '
    &pfkey=.pfkey
)PROC
    VER (&SYSID,NB,MSG=cicst001)
    VER (&vol,NB,MSG=cicst001)
    VER (&lpar,NB,MSG=cicst001)
    VER (&db2sys,NB,MSG=cicst001)
    &pfkey=.pfkey
)END
```

CICSDEFI

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
$ TYPE(INPUT) INTENS(LOW)  PAD(_)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(LOW)  JUST(ASIS) COLOR(YELLOW)
# TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|----------------'CICS SYSTEM GENERATOR|----------
%COMMAND ===>_ZCMD
+
+
+   Initial filling TABSRC : SIT, DCT, JCT, MCT, PLTPI, PLTSD
+
+
+   CICS system id   ....$z +
```


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```
+   Volume           ....$vol   +
+   Lpar             ....$lpar+
+
+
+   After the allocation and filling of the dataset, you must generate
+   the macro tables (not included in this tool).
+
+   PF3 = Exit
+
)INIT
  .ZVARS = 'SYSID'
  .HELP = TUTORPAN           /* Insert name of tutorial panel    */
    &sysid=' '
    &vol=' '
    &lpar=' '
    &pfkey=.pfkey
)PROC
    VER (&SYSID,NB,MSG=cicst001)
    VER (&vol,NB,MSG=cicst001)
    VER (&lpar,NB,MSG=cicst001)
    &pfkey=.pfkey
)END
```

CISIVPB

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
$ TYPE(INPUT) INTENS(LOW)  PAD(_)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(LOW)  JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|————————————'CICS SYSTEM GENERATOR|———————————
%COMMAND ===>_ZCMD
+
+
+   Installation Verification Procedure (CICS must be started)
+
+
+   CICS system id   ....$z +
+   LPAR             ....$lpar+
+
+   CICS VRM         ... $vrm+ (optional, you can leave this field blank
+                              if you do not use VRM in your CICS
+                              dataset naming convention)
```

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```
+
+
+   PF3 = Exit
+
)INIT
  .ZVARS = 'SYSID'
  .HELP = TUTORPAN           /* Insert name of tutorial panel    */
    &sysid=' '
    &lpar=' '
    &pfkey=.pfkey
)PROC
    VER (&SYSID,NB,MSG=cicst001)
    VER (&LPAR,NB,MSG=cicst001)
    &pfkey=.pfkey
)END
```

BGB00000

```
)ATTR
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
$ TYPE(OUTPUT) INTENS(LOW)  CAPS(OFF)  JUST(ASIS)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(TURQ)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(LOW)  JUST(ASIS) COLOR(YELLOW)
# TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  CAPS(ON)
)body
|-------------'CICS SYSTEM GENERATOR  |---------------
%OPTION ===>_ZCMD
+
%
+
               This tutorial gives some online help about the

                          'CICS SYSTEM GENERATOR+

              %C+ CICS SYSTEM GENERATOR

              %R+ RACF

)PROC
   &ZSEL = TRANS(&ZCMD
                 C,BGB000C0
                 R,BGB000R0
                 )
)END
```


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BGB000R0

```
)ATTR default(¬,%)
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
¬ TYPE(TEXT) INTENS(LOW)  SKIP(ON) COLOR(TURQ)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW) HILITE(REVERSE)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|─────────────'CICS SYSTEM GENERATOR  |──────────────

¬  Not in use yet (for future use)

                            (continued on next page)
)PROC
/* &ZCONT=BGC000R1*/
)END
```

BGB000C0

```
ATTR default(¬,%)
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
¬ TYPE(TEXT) INTENS(LOW)  SKIP(ON) COLOR(TURQ)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW) HILITE(REVERSE)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|─────────────'CICS SYSTEM GENERATOR  |──────────
¬ With this panel/clist structure you can create a CICS system
  with mostly default settings.
  You have to follow the steps in sequence.
  You have to generate the macro tables on the destination LPAR.
  Before you can start the CICS region  be sure that all the other
  components are ready (MVS VTAM HSM/SMS RACF ....)
  The CICS system that will be generated has a form of CICxx  where
  xx is a variable (eg CICAP or CICAD) to make a difference between
  production and development, and a follow-up character (A  B  C ...)

                                                 (continued on next page)
)PROC
```

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```
  &ZCONT=BGB000C1
)END
```

BGB00C1

```
)ATTR default(¬,%)
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
¬ TYPE(TEXT) INTENS(LOW)  SKIP(ON) COLOR(TURQ)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW) HILITE(REVERSE)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|————————————'CICS SYSTEM GENERATOR  |————————————

¬ The following datasets will be allocated :

  Optie 2 :  CICS Global Catalog Dataset
             CICS Local  Catalog Dataset
             CICS CSD (CICS SYSTEM DEFINITION Dataset)
                  - At the same time there will be made a CSD LIST with
                    default groups

  Optie 3 :  CICS Trace Datasets (DFHAUXT and DFHBUXT)
             CICS Dump  Datasets (DFHDMPA and DFHDMPB)

  Optie 4 :  CICS Temporary Dataset
             CICS INTRA-PARTITION TRANSIENT Dataset

  Optie 5 :  CICS Journal Datasets (J01A J01B J01X J02A)
             CICS Automatic Journal Archive Control Dataset

  Optie 6 :  CICS Restart Dataset
             CICS XRF Datasets

                                                 (continued on next page)

)PROC
 &ZCONT=BGB000C2
)END
```

BGB000C2

```
)ATTR default(¬,%)
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
```


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```
¬ TYPE(TEXT) INTENS(LOW)  SKIP(ON) COLOR(TURQ)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW) HILITE(REVERSE)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
| TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
|————————————'CICS SYSTEM GENERATOR  |————————————

¬ The following datasets will be allocated :

  Optie 7 :  CICS Sample Dataset FILEA

  Optie 8 :  CICS Procedure (in the SYS1.PROCLIB.CICS)

  Optie 9 :  CICS related datasets
                - CICxx.JCLLIB
                - CICxx.TABSRC (inclusive SITOVER)
                - CICxx.TABLOAD
                - CICxx.DFHJPDS Automatic Journal Archiving
                  (inclusive DFH$ARCH)

  Optie 1Ø:  CICS Initial TABSRC with macro sources
                - SIT DCT JCT MCT PLTPI PLTSD
                                              (continued on next page)

)PROC
  &ZCONT=BGBØØØC3
)END
```

BGB000C3

```
)ATTR default(¬,%)
@ TYPE(OUTPUT) INTENS(HIGH) CAPS(OFF)  JUST(LEFT)
¬ TYPE(TEXT) INTENS(LOW)  SKIP(ON) COLOR(TURQ)
% TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(GREEN)
¢ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(red)
~ TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(WHITE)
? TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(YELLOW) HILITE(REVERSE)
' TYPE(TEXT)   INTENS(HIGH) JUST(ASIS) COLOR(green) HILITE(REVERSE)
* TYPE(TEXT)   INTENS(high)  JUST(ASIS) COLOR(blue)
+ TYPE(TEXT)   INTENS(LOW) color(white)
_ TYPE(INPUT)  INTENS(LOW)
)BODY
*————————————'CICS SYSTEM GENERATOR  *————————————

¬ Additional  actions:
```

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```
  Responsible¢| ¬Action
  Department ¢| ¬
¢ ————————————————————————————
¬ RCGCM      ¢|¬ Change  SYS1.PARMLIB  -  IEAICS00
             ¢|¬                       -  IEAIPS00
             ¢|¬
¬ RCGNET     ¢|¬ Change CICS  VTAM ACB (SYS1.VTAMLST)
             ¢|¬
¬ RCGOM      ¢|¬ Change AOC
             ¢|¬
¬ RCGSM      ¢|¬ Change SMS
             ¢|¬
¬ RCGSECM    ¢|¬ Change RACF


)PROC
/*  &ZCONT=BGB000C3 */
)END
```

CICS GENERATOR EXEC DEFINITIONS

The following EXECs are invoked:

CICSDEFA

```
/* REXX */
ADDRESS TSO
"ALLOC F(ISPFILE) DA('your.JCL.libray') SHR REUSE"
USERID=USERID()
ADDRESS ISPEXEC
"LIBDEF ISPSLIB DATASET ID('your.skel.libray')"
DO
"DISPLAY PANEL (CICSDEFA)"
SYS='CIC'||SYSID
MQHAAK  =")"
 IF MQM ¬= ''
   THEN
   DO
    MQHAAK  =","
    MQSERIE1="CSCQPARM='SN="
    MQSERIE2=MQM
    MQSERIE3=",TN=001,IQ="
    MQSERIE4=".INITQ')"
    MQSYS='CIC'||SYSID
   END
 ELSE NOP
'FTOPEN'
```


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```
'FTINCL CICSDEFA'
'FTCLOSE NAME(CICSDEFA)'
"EDIT DATASET('your.JCL.library(CICSDEFA)') PANEL(SUBMIT)"
END
/* "DISPLAY PANEL (CICSBUIL)" */
```

CICSDEFC

```
/* REXX */
ADDRESS TSO
"ALLOC F(ISPFILE) DA('your.JCL.library') SHR REUSE"
USERID=USERID()
ADDRESS ISPEXEC
"LIBDEF ISPSLIB DATASET ID('your.skel.library')"
DO
"DISPLAY PANEL (CICSDEFC)"
SYS='CIC'||SYSID
ENV=SUBSTR(SYS,4,1)
'FTOPEN'
'FTINCL CICSDEFC'
'FTCLOSE NAME(CICSDEFC)'
"EDIT DATASET('your.JCL.library(CICSDEFC)')  PANEL(SUBMIT)"
END
/* "DISPLAY PANEL (CICSBUIL)" */
```

CICSDEFD

```
/* REXX */
ADDRESS TSO
"ALLOC F(ISPFILE) DA('your.JCL.library') SHR REUSE"
USERID=USERID()
ADDRESS ISPEXEC
"LIBDEF ISPSLIB DATASET ID('your.skel.library')"
DO
"DISPLAY PANEL (CICSDEFD)"
SYS='CIC'||SYSID
'FTOPEN'
'FTINCL CICSDEFD'
'FTCLOSE NAME(CICSDEFD)'
"EDIT DATASET('your.JCL.library(CICSDEFD)')  PANEL(SUBMIT)"
END
/* "DISPLAY PANEL (CICSBUIL)" */
```

Editor's note: this article will be continued next month.

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Systems Programmer
Interpay (The Netherlands)

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Further CICS V3.3 shutdown statistics

The following programs were developed after we submitted the programs for the article entitled *Gathering CICS V3.3 shutdown statistics* published in *CICS Update*, Issue 144, November 1997, and Issue 145, December 1997.

These programs accumulate the statistics for DTB, dumps, ISC/IRC, Task Class, VTAM, and Transient Data Queues. The necessary EXEC CICS LINK statements were added to the 'driver' program to accommodate the additional programs. The definitions were added to the Resource Definition File as needed. The driver program has also been expanded to include the task count.

After one of the busier production regions was converted to Version 3.3, we discovered that the Transaction Statistics program (STATTRAN) did not accommodate a transaction total of more than 99,999. The definition for variable TRPTA was changed to PL4, a new edit pattern was defined, and the total line was re-defined to accommodate the larger number.

(EXPANDED) DRIVER PROGRAM

```
        TITLE ' STATØ1 - SPOOL STATISTICS AT END OF DAY'
*********************************************************************
*  THIS PROGRAM GETS THE DATE, TIME, JOBNAME, SYSID, AND APPLID, AND *
*  OPENS THE SPOOL FOR STATISTICS COLLECTION. IT PASSES THAT         *
*  INFORMATION, VIA A COMMAREA, TO THE COLLECTION PROGRAMS.          *
*  AFTER THE OTHER PROGRAMS FINISH, THIS PROGRAM CLOSES THE SPOOL.   *
*  THE LINKED-TO PROGRAMS DO THE ACTUAL STATISTICS COLLECTION AND    *
*  WRITE TO THE SPOOL.                                               *
*********************************************************************
DFHEISTG DSECT
*
COMMFLDS DS    ØCL44
CAPPLID  DS    CL8
CSYSID   DS    CL4
CJOBNAME DS    CL8
CDATE    DS    CL8
CTIME    DS    CL8
CSTOKEN  DS    CL8
*
ABSTIME  DS    PL8
```


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```
APPLID   DS    CL8
SYSID    DS    CL4
JOBNAME  DS    CL8
DATE     DS    CL8
TIME     DS    CL8
         DS    ØF
STOKEN   DS    CL8
RESP     DS    F
CVRTAREA DS    D
ZAPTAREA DS    PL4
R3       EQU   3
R4       EQU   4
R5       EQU   5
R6       EQU   6
R7       EQU   7
R8       EQU   8
R9       EQU   9
R1Ø      EQU   1Ø
*
*                        **  TASK CONTROL STATISTICS DSECT **
         COPY  DFHAØ1DS
*
STATØ1   CSECT
*
*
**   GET DATE, TIME, APPLID, SYSID, JOBNAME ....
**
         EXEC CICS ASKTIME ABSTIME (ABSTIME)
         EXEC CICS FORMATTIME ABSTIME(ABSTIME)                        -
               DATESEP('/') MMDDYY (DATE)                             -
               TIME (TIME) TIMESEP
**
         EXEC CICS ASSIGN APPLID(APPLID) SYSID (SYSID)
         EXEC CICS INQUIRE SYSTEM JOBNAME (JOBNAME)
**
**   OPEN THE SPOOL AND GET THE TOKEN  **
         EXEC CICS SPOOLOPEN OUTPUT TOKEN(STOKEN) USERID('*')         -
               NODE('*') CLASS(OUTCLAS) ASA PRINT NOHANDLE
**
**   MOVE THE INFORMATION TO THE COMMUNICATON AREA  **
         MVC    CAPPLID(8),APPLID
         MVC    CSYSID(4),SYSID
         MVC    CJOBNAME(8),JOBNAME
         MVC    CDATE(8),DATE
         MVC    CTIME(8),TIME
         MVC    CSTOKEN(8),STOKEN
**
**     WRITE OUT THE HEADING INFORMATION
HDNG     EQU   *
         MVC   HJOBNM(8),JOBNAME
```

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```
         MVC   HAPPLID(8),APPLID
         MVC   HSYSID(4),SYSID
         MVC   HDATE(8),DATE
         MVC   HTIME(8),TIME
         MVC   PRINTLN(133),HEADING
         BAL   R1Ø,WRITESPL
         MVC   PRINTLN(133),UNDRSCOR
         BAL   R1Ø,WRITESPL
         MVC   PRINTLN(133),BLANKS
         BAL   R1Ø,WRITESPL
*
**     COLLECT AND WRITE OUT NUMBER OF TASKS
*
         USING DFHAØ1DS,R9
         EXEC CICS COLLECT STATISTICS TASKCONTROL SET (R9)
*
*
         L     R6,AØ1KCTTA
         CVD   R6,CVRTAREA
         ZAP   ZAPTAREA(4),CVRTAREA+4(4)
         OI    ZAPTAREA+3,X'ØF'
         MVC   TASKS(8),PTRN
         ED    TASKS(8),ZAPTAREA
         MVC   KCJOB(8),JOBNAME
         MVC   KCDATE(8),DATE
         MVC   KCTIME(8),TIME
         MVC   PRINTLN(133),KCLNE1
         BAL   R1Ø,WRITESPL
         MVC   PRINTLN(133),BLANKS
         BAL   R1Ø,WRITESPL
         MVC   PRINTLN(133),KCLNE2
         BAL   R1Ø,WRITESPL
         MVC   PRINTLN(133),BLANKS
         BAL   R1Ø,WRITESPL
         MVC   PRINTLN(133),UNDRSCOR
         BAL   R1Ø,WRITESPL
*
*
**     LINK TO OTHER STATISTICS COLLECTION PROGRAMS
*
**
**       *   LINK TO JOURNAL STATISTICS COLLECTION PROGRAM *
         EXEC CICS LINK PROGRAM ('STATJOUR') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
**       *   LINK TO FILE STATISTICS COLLECTION PROGRAM *
         EXEC CICS LINK PROGRAM ('STATFILE') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
**       *   LINK TO LSR POOL STATISTICS COLLECTION PROGRAM *
```


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```
         EXEC CICS LINK PROGRAM ('STATLSRP') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
**       *   LINK TO VTAM STATISTICS COLLECTION PROGRAM *
         EXEC CICS LINK PROGRAM ('STATVTAM') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
**       *   LINK TO AUTOINSTALL STATISTICS COLLECTION PROGRAM *
         EXEC CICS LINK PROGRAM ('STATAUTO') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
**       *   LINK TO TERMINAL STATISTICS COLLECTION PROGRAM *
         EXEC CICS LINK PROGRAM ('STATTERM') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
**       *   LINK TO ISC/IRC STATISTICS COLLECTION PROGRAM *
         EXEC CICS LINK PROGRAM ('STATISCS') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
**       *   LINK TO TASK CLASS STATISTICS COLLECTION PROGRAM *
         EXEC CICS LINK PROGRAM ('STATTCLS') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
**       *   LINK TO TRANSACTION STATISTICS COLLECTION PROGRAM *
         EXEC CICS LINK PROGRAM ('STATTRAN') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
**       *   LINK TO TRANSIENT DATA STATISTICS COLLECTION PROGRAM *
         EXEC CICS LINK PROGRAM ('STATTDQS') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
**       *   LINK TO DUMP STATISTICS COLLECTION PROGRAM *
         EXEC CICS LINK PROGRAM ('STATDUMP') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
**       *   LINK TO DYNAMIC TRANSACTION BACKOUT COLLECTION PROGRAM *
         EXEC CICS LINK PROGRAM ('STATDTBS') COMMAREA (COMMFLDS)       -
               LENGTH(44)
**
*
**
EXIT     EQU   *
**                       ** CLOSE THE SPOOL AND EXIT  **
         EXEC  CICS SPOOLCLOSE TOKEN(STOKEN) NOHANDLE
         EXEC  CICS RETURN
*
*                        ** WRITE THE SPOOL RECORD  **
WRITESPL EQU   *
         EXEC CICS SPOOLWRITE TOKEN(STOKEN) FROM(PRINTLN)              -
               FLENGTH(LINELEN) NOHANDLE
```

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```
         BR   R1Ø
*
*****************************************************************
OUTCLAS  DC    CL1'Q'
PTRN     DC    X'4020202020202020212Ø'
PRINTLN  DS    CL133
LINELEN  DC    F'133'
**
TASKNO   DC    PL4'Ø'
*
BLANKS   DS    ØCL133     ** BLANK LINE  **
         DC    CL1'Ø'
         DC    CL132' '
UNDRSCOR DS    ØCL133     ** UNDERSCORE LINE  **
         DC    CL1'Ø'
         DC    132C'_'
*                         ** HEADING LINE DEFINITION **
HEADING  DS    ØCL133
         DC    CL1'1'
         DC    CL8'JOBNAME:'
HJOBNM   DC    CL8' '
         DC    CL1Ø'   APPLID:'
HAPPLID  DC    CL8' '
         DC    CL9'   SYSID:'
HSYSID   DC    CL4' '
         DC    CL8'   DATE:'
HDATE    DC    CL8' '
         DC    CL8'   TIME:'
HTIME    DC    CL8' '
         DC    CL53' '
** **
*
* ***************** START TASK COUNT DEFINITIONS ************
*                         ** TASK COUNT DETAIL LINE **
KCLNE1   DS    ØCL133
KCDCNTL  DC    CL1'Ø'
KCJOB    DC    CL8' '
         DC    CL2' '
KCDATE   DC    CL8' '
         DC    CL2' '
KCTIME   DC    CL8' '
         DC    CL2' '
         DC    CL1Ø2' '
*                         ** TASK COUNT DETAIL LINE **
KCLNE2   DS    ØCL133
KCDCNTL2 DC    CL1'Ø'
         DC    CL2' '
KCHEAD   DC    CL17' NUMBER OF TASKS:'
         DC    CL4' '
TASKS    DC    CL8' '
```


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```
         DC    CL1Ø1' '
* ******************** END TASK COUNT DEFINITIONS   ************ **
*
*
         LTORG
         END
```

DTB STATISTICS PROGRAM

```
         TITLE ' STATDTBS - DYNAMIC TRANSACTION BACKOUT STATISTICS'
DFHEISTG DSECT
*
         DS    ØF
RESP     DS    F
CVRTAREA DS    D
ZAPTAREA DS    PL3
R2       EQU   2
R3       EQU   3
R4       EQU   4
R5       EQU   5
R6       EQU   6
R7       EQU   7
R8       EQU   8
R9       EQU   9
R1Ø      EQU   1Ø
*
COMMFLDS DSECT
APPLID   DS    CL8
SYSID    DS    CL4
JOBNAME  DS    CL8
DATE     DS    CL8
TIME     DS    CL8
STOKEN   DS    CL8
*
*                **  DTB GLOBAL STATISTICS  **
         COPY  DFHAØ5DS
*
STATDTBS DFHEIENT CODEREG=(3),DATAREG=(13),EIBREG=11
*
         L    R2,DFHEICAP
         USING COMMFLDS,R2
*
         BAL   R4,HDNG          PAGE HEADINGS
         BAL   R4,FRSTHEAD       DTB STATISTICS HEADINGS
         BAL   R8,DTBS           DTB STATISTICS DETAIL
*
HDNG     EQU   *
         MVC   HJOBNM(8),JOBNAME
         MVC   HAPPLID(8),APPLID
```

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```
         MVC   HSYSID(4),SYSID
         MVC   HDATE(8),DATE
         MVC   HTIME(8),TIME
         MVC   PRINTLN(133),HEADING
         BAL   R1Ø,WRITESPL
         MVC   PRINTLN(133),UNDRSCOR
         BAL   R1Ø,WRITESPL
         MVC   PRINTLN(133),BLANKS
         BAL   R1Ø,WRITESPL
         ZAP   LNECNT,=P'3'
         BR    R4
**  **
*
****>>>>>>>>> **** START PROCESS DTB STATISTICS ****** <<<<<<<<*******
FRSTHEAD EQU    *
*        MVI   VTCNTL,C'1'
         MVC   PRINTLN(133),DTBHDT
         BAL   R1Ø,WRITESPL
         MVC   PRINTLN(133),BLANKS
         BAL   R1Ø,WRITESPL
         AP    LNECNT,=P'2'
*
DTBS     EQU   *
         USING DFHAØ5DS,R9
         EXEC CICS COLLECT STATISTICS DTB SET (R9)
*
*
*   RECORDS LOGGED BY DTB
         L     R6,AØ5DBLA
         CVD   R6,CVRTAREA
         ZAP   ZAPTAREA(3),CVRTAREA+5(3)
         OI    ZAPTAREA+2,X'ØF'
         MVC   DTLN1D+2(6),PTRN3
         ED    DTLN1D+2(6),ZAPTAREA
         MVC   PRINTLN(133),DTBHD1
         BAL   R1Ø,WRITESPL
*
*   RECORDS SPILLED BY DTB
         L     R6,AØ5DBSA
         CVD   R6,CVRTAREA
         ZAP   ZAPTAREA(3),CVRTAREA+5(3)
         OI    ZAPTAREA+2,X'ØF'
         MVC   DTLN2D+2(6),PTRN3
         ED    DTLN2D+2(6),ZAPTAREA
         MVC   PRINTLN(133),DTBHD2
         BAL   R1Ø,WRITESPL
*
DTBEND   EQU   *
         MVC   PRINTLN(133),UNDRSCOR
         BAL   R1Ø,WRITESPL
```


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```
*
EXIT     EQU   *
*                        ** RETURN  **
         EXEC  CICS RETURN
*
****>>>>>>>>>>>>>> END PROCESS DTB STATISTICS  *******<<<<<<<<<<<<<<<
*                        ** WRITE THE SPOOL RECORD  **
WRITESPL EQU   *
         EXEC CICS SPOOLWRITE TOKEN(STOKEN) FROM(PRINTLN)             -
               FLENGTH(LINELEN) NOHANDLE
*
         BR    R1Ø
*****************************************************************
*
LNECNT   DC    PL2'Ø'
MAXLNE   DC    P'6Ø'
PTRN3    DC    X'4Ø2Ø2Ø2Ø212Ø'
OUTCLAS  DC    CL1'Q'
LINELEN  DC    F'133'
PRINTLN  DS    CL133
*
BLANKS   DS    ØCL133     ** BLANK LINE  **
         DC    CL1'Ø'
         DC    CL132' '
UNDRSCOR DS    ØCL133     ** UNDERSCORE LINE  **
         DC    CL1'Ø'
         DC    132C'_'
*                        ** HEADING LINE DEFINITION **
HEADING  DS    ØCL133
         DC    CL1'1'
         DC    CL8'JOBNAME:'
HJOBNM   DC    CL8' '
         DC    CL1Ø'   APPLID:'
HAPPLID  DC    CL8' '
         DC    CL9'   SYSID:'
HSYSID   DC    CL4' '
         DC    CL8'   DATE:'
HDATE    DC    CL8' '
         DC    CL8'   TIME:'
HTIME    DC    CL8' '
         DC    CL53' '
** **
*
* ***************** START DTB STATISTICS DEFINITIONS  ************ **
DTBNM    DS    CL8
*                        ** DTB HEADING LINES **
DTBHDT   DS    ØCL133
DTHCNTLA DC    CL1'Ø'
         DC    CL5Ø'***   DYNAMIC TRANSACTION BACKOUT STATISTICS   ***'
         DC    CL82' '
```

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```
*
DTBHD1   DS    ØCL133
DTHCNTL  DC    CL1'Ø'
DTLN1H   DC    CL38' NUMBER OF RECORDS LOGGED BY DTB'
DTLN1D   DC    CL94' '
*
DTBHD2   DS    ØCL133
         DC    CL1'Ø'
DTLN2H   DC    CL38' NUMBER OF RECORDS SPILLED BY DTB'
DTLN2D   DC    CL94' '
*
* ******************* END DTB STATISTICS DEFINITIONS   ************ **
*
         LTORG
         DFHEISTG
         DFHEIEND
         END
```

DUMP STATISTICS PROGRAM

```
         TITLE ' STATDUMP - DUMP STATISTICS COLLECTION PROGRAM'
DFHEISTG DSECT
*
         DS    ØF
RESP     DS    F
CVRTAREA DS    D
ZAPTAREA DS    PL3
R2       EQU   2
R3       EQU   3
R4       EQU   4
R5       EQU   5
R6       EQU   6
R7       EQU   7
R8       EQU   8
R9       EQU   9
R1Ø      EQU   1Ø
*
COMMFLDS DSECT
APPLID   DS    CL8
SYSID    DS    CL4
JOBNAME  DS    CL8
DATE     DS    CL8
TIME     DS    CL8
STOKEN   DS    CL8
*
*                **  DUMP DOMAIN TRANSACTION DUMP STATISTICS  **
         COPY  DFHSDRDS
         COPY  DFHTDRDS
*
```


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```
STATDUMP DFHEIENT CODEREG=(3),DATAREG=(13),EIBREG=11
*
         L    R2,DFHEICAP
         USING COMMFLDS,R2
*
         BAL   R4,HDNG          PAGE HEADINGS
         BAL   R4,FRSTHEAD       DUMP STATISTICS HEADINGS
         BAL   R7,DUMPS          DUMP STATISTICS DETAIL (SYSTEM)
         BAL   R7,DUMPT          DUMP STATISTICS DETAIL (TRANSACTION)
         B     EXIT
*
HDNG     EQU   *
         MVC   HJOBNM(8),JOBNAME
         MVC   HAPPLID(8),APPLID
         MVC   HSYSID(4),SYSID
         MVC   HDATE(8),DATE
         MVC   HTIME(8),TIME
         MVC   PRINTLN(133),HEADING
         BAL   R10,WRITESPL
         MVC   PRINTLN(133),UNDRSCOR
         BAL   R10,WRITESPL
         MVC   PRINTLN(133),BLANKS
         BAL   R10,WRITESPL
         ZAP   LNECNT,=P'3'
         BR    R4
**  **
*
****>>>>>>>>> **** START PROCESS DUMP STATISTICS ****** <<<<<<<<*******
FRSTHEAD EQU    *
*        MVI   DUCNTL,C'1'
         MVC   PRINTLN(133),DUMPHDT
         BAL   R10,WRITESPL
         MVC   PRINTLN(133),BLANKS
         BAL   R10,WRITESPL
         AP    LNECNT,=P'2'
DUMPHEAD EQU    *
         MVC   PRINTLN(133),DUMPHD1
         BAL   R10,WRITESPL
         MVC   PRINTLN(133),DUMPHD2
         BAL   R10,WRITESPL
         MVC   PRINTLN(133),UNDRSCOR
         BAL   R10,WRITESPL
         AP    LNECNT,=P'3'
         BR    R4
*
DUMPTHEA EQU    *
         MVC   PRINTLN(133),DUMPHD3
         BAL   R10,WRITESPL
         MVC   PRINTLN(133),DUMPHD4
         BAL   R10,WRITESPL
```

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```
         MVC   PRINTLN(133),UNDRSCOR
         BAL   R1Ø,WRITESPL
         AP    LNECNT,=P'3'
         BR    R4
*
DUMPS    EQU   *
         USING DFHSDRDS,R9
*
         EXEC CICS INQUIRE SYSDUMPCODE START
NXTDUMP  EQU   *
         EXEC CICS INQUIRE SYSDUMPCODE (SYDUMPCD) NEXT RESP (RESP)     -
               CURRENT(CURRDMPS) SYSDUMPING(SYSDUMP)
         CLC   RESP(4),DFHRESP(END)
         BE    DUMPEND
         BAL   R8,DUMPSTAT
         B     NXTDUMP
*
         BAL  R8,DUMPSTAT
*
DUMPEND  EQU   *
         EXEC CICS INQUIRE SYSDUMPCODE END
*
         MVC   PRINTLN(133),UNDRSCOR
         BAL   R1Ø,WRITESPL
         BR    R7
*
DUMPSTAT EQU   *
*   SYSTEM DUMPS TAKEN
         L     R6,CURRDMPS
         CVD   R6,CVRTAREA
         ZAP   ZAPTAREA(3),CVRTAREA+5(3)
         OI    ZAPTAREA+2,X'ØF'
         MVC   DUTRATA+2Ø(8),SYDUMPCD
         MVC   DUTRATA(6),PTRN
         ED    DUTRATA(6),ZAPTAREA
*   SYSTEM DUMPS SUPRESSED
         CLC   SYSDUMP,DFHVALUE(NOSYSDUMP)
         BE    NODUMP
         MVC   DUTRASU(6),=C'NO    '
         B     DUMPFIN
NODUMP   MVC   DUTRASU(6),=C'YES   '
*
DUMPFIN  MVC   PRINTLN(133),DULNE1
         BAL   R1Ø,WRITESPL
*
DUBACK   BR    R8
*
DUMPT    EQU   *
         MVC   PRINTLN(133),BLANKS
         USING DFHTDRDS,R9
```


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```
         MVI   TRDUMPSW,C' '
         BAL   R4,DUMPTHEA
*
         EXEC CICS INQUIRE TRANDUMPCODE START
NXTDUMPT EQU   *
         EXEC CICS INQUIRE TRANDUMPCODE (TRDUMPCD) NEXT RESP (RESP)    -
               CURRENT(CURRDMPT) SYSDUMPING(TRNDUMP)
         CLC   RESP(4),DFHRESP(END)
         BE    DUMPENDT
         MVI   TRDUMPSW,C'1'             INDICATE TRANSACTION DUMP
         BAL   R8,DUMPSTT
         B     NXTDUMPT
*
         BAL  R8,DUMPSTT
*
DUMPENDT EQU   *
         EXEC CICS INQUIRE TRANDUMPCODE END
*
         CLI   TRDUMPSW,C'1'
         BE    TDUMP
         MVC   DULNE2(32),=C'            NO TRANSACTION DUMPS'
         MVC   PRINTLN(133),DULNE2
         BAL   R1Ø,WRITESPL
TDUMP    MVC   PRINTLN(133),UNDRSCOR
         BAL   R1Ø,WRITESPL
         BR    R7
*
DUMPSTT  EQU   *
*   TRANSACTION DUMPS TAKEN
         MVC   PRINTLN(133),BLANKS
         L     R6,CURRDMPT
         CVD   R6,CVRTAREA
         ZAP   ZAPTAREA(3),CVRTAREA+5(3)
         OI    ZAPTAREA+2,X'ØF'
         MVC   DUTRATAT+2Ø(4),TRDUMPCD
         MVC   DUTRATAT(6),PTRN
         ED    DUTRATAT(6),ZAPTAREA
*   TRANSACTION DUMPS SUPRESSED
         CLC   TRNDUMP,DFHVALUE(NOTRANDUMP)
         BE    NODUMPT
         MVC   DUTRASUT(6),=C'NO    '
         B     DUMPFINT
NODUMPT  MVC   DUTRASUT(6),=C'YES   '
*
DUMPFINT MVC   PRINTLN(133),DULNE2
         BAL   R1Ø,WRITESPL
*
DUBACKT  BR    R8
*
****>>>>>>>>>>>>>> END PROCESS DUMP STATISTICS  ********<<<<<<<<<<********
```

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```
*                        ** WRITE THE SPOOL RECORD  **
WRITESPL EQU   *
         EXEC CICS SPOOLWRITE TOKEN(STOKEN) FROM(PRINTLN)              -
               FLENGTH(LINELEN) NOHANDLE
*
         BR    R1Ø
*
EXIT     EQU   *
*                        ** RETURN  **
         EXEC  CICS RETURN
*****************************************************************
*
SYDUMPCD DS    CL8
CURRDMPS DS    F
SYSDUMP  DS    F
TRDUMPCD DS    CL4
CURRDMPT DS    F
TRNDUMP  DS    F
TRDUMPSW DS    CL1
LNECNT   DC    PL2'Ø'
MAXLNE   DC    P'6Ø'
PTRN     DC    X'4Ø2Ø2Ø2Ø212Ø'
OUTCLAS  DC    CL1'Q'
LINELEN  DC    F'133'
PRINTLN  DS    CL133
*
BLANKS   DS    ØCL133     ** BLANK LINE  **
         DC    CL1'Ø'
         DC    CL132' '
UNDRSCOR DS    ØCL133     ** UNDERSCORE LINE  **
         DC    CL1'Ø'
         DC    132C'_'
*                        ** HEADING LINE DEFINITION **
HEADING  DS    ØCL133
         DC    CL1'1'
         DC    CL8'JOBNAME:'
HJOBNM   DC    CL8' '
         DC    CL1Ø'   APPLID:'
HAPPLID  DC    CL8' '
         DC    CL9'   SYSID:'
HSYSID   DC    CL4' '
         DC    CL8'   DATE:'
HDATE    DC    CL8' '
         DC    CL8'   TIME:'
HTIME    DC    CL8' '
         DC    CL53' '
** **
*
* ***************** START DUMP STATISTICS DEFINITIONS  ************ **
DUMPNM   DS    CL8
```


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```
*                          ** DUMP HEADING LINES **
DUMPHDT  DS    ØCL133
DUHCNTLA DC    CL1'Ø'
         DC    CL132'***   DUMP STATISTICS   ***'
DUMPHD1  DS    ØCL133
DUHCNTL  DC    CL1'Ø'
         DC    CL132'      SYSTEM DUMPS'
DUMPHD2  DS    ØCL133
         DC    CL1'Ø'
         DC    CL132'        TAKEN  SUPPRESSED  CODE'
*                          ** DUMP DETAIL LINE **
DULNE1   DS    ØCL133
DUDCNTL  DC    CL1'Ø'
         DC    CL6' '
DUTRATA  DS    CL6
         DC    CL4' '
DUTRASU  DS    CL6
         DC    CL11Ø' '
DUMPHD3  DS    ØCL133
DUHCNTLT DC    CL1'Ø'
         DC    CL132'      TRANSACTION DUMPS'
DUMPHD4  DS    ØCL133
         DC    CL1'Ø'
         DC    CL132'        TAKEN  SUPPRESSED  CODE'
*                          ** DUMP DETAIL LINE **
DULNE2   DS    ØCL133
DUDCNTLT DC    CL1'Ø'
         DC    CL6' '
DUTRATAT DS    CL6
         DC    CL4' '
DUTRASUT DS    CL6
         DC    CL11Ø' '
*
* ******************* END DUMP STATISTICS DEFINITIONS  ************ **
*
         LTORG
         DFHEISTG
         DFHEIEND
         END
```

Editor's note: this article will be continued next month.

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CICS users can benefit from IBM's Millennium Runtime Windowing Tool for MVS and OS/390 for short-term Y2K fixes. Used to assess Y2K problems at execution time, it gives a predominantly automated fix to the load modules. The software helps to identify and fix date exposures in CICS, batch, STCs, and IMS application code, and can execute in existing application development environments, eliminating the need to dedicate an LPAR or special processor.

The tool can also run on multiple applications executing different jobs at the same time, allowing problems to be detected and changed in different applications concurrently. It uses standard mechanisms for control, such as JCL, ISPF panels, and user control statements, and operates with or without source code.

The tool has two main find and fix functions. Find Assist automatically produces a listing of actual and potential two-digit year occurrences that can be reviewed. If fixing is necessary, this can be done by either updating the source code using existing tools, or using the AdvancedFix Assist function.

For further information contact your local IBM representative.

* * *

UniKix Technologies has announced its 3270 Screen Bean for accessing multiple back-end CICS applications or systems. Results are delivered as a single screen to users. The 3270 Screen Bean can be configured to be part of client Java applications or as part of a mid-tier server side Java application. Field-level access methods allow navigation of hierarchical 3270 applications and allow modification and extraction of screen data without complex programming.

For further information contact:
UniKix Technologies, 8125 North 23 Avenue, Suite 195, Phoenix, AZ 85021, USA.
Tel: (602) 242 3300.
UniKix Technologies, The Solent Centre, 3500 Parkway, Whiteley, Hants, PO15 7AL, UK.
Tel: (01489) 585500.
URL: http://www.unikix.com.

* * *

IBM has announced functional enhancements to CICS Clients. Version 2.0.4 refresh includes the enhancements that were introduced in Version 2.0.3, previously only available via Internet download. Other enhancements include DCE RPC communication support for IBM TXSeries and password security management. Also included is CICS Universal Clients Version 3, which is extended to support AIX and Sun Solaris platforms.

For further information contact your local IBM representative.

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