Migrating to CICS Transaction Server 2.2: User Experience

Steve Ware – UF

SHARE 99
(SHARE in San Francisco, CA)

Session 1028
Migrating to CICS Transaction Server 2.2:
User Experience

By the time this session occurs, the University of Florida will have completed its migration to CICS Transaction Server release 2.2. The speaker will relate his experiences from this conversion from CICS/ESA 4.1 to CICS TS 2.2.

This presentation is also available in PDF format at URL:


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The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/index.html>.

Last updated on August 5, 2002, by Steve Ware, <mailto:sfw@nersp.nerdc.ufl.edu>.
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The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/toc.html>.

Last updated on August 2, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
NERDC at UF operates as a service bureau. UF is our "host" institution. We run CICS on a "pseudo" IBM 9672–R36. We actually bought an IBM 9672–R46, and then paid IBM ~$10K to "neuter" a processor (to MVS), due to IBM and OEM vendor software costs.

- Primary customers are UF, UNF, FCLA, and IFAS.
- Our primary/production MVS LPAR includes CICS TS 2.2, z/OS 1.2, DB2 7.1, RACF, etc. During the conversion to CICS TS 2.2, we converted from OS/390 2.10 to z/OS 1.2, and from DB2 V5 to V7 (adding to the CICS conversion excitement ;−).  
- We currently do over a million CICS tasks daily in 11 CICS development, test, and production regions, with over 50% of these tasks CICS Socket Interface related, primarily to provide web access to CICS.
- CICS TS 2.2 went GA on January 25, 2002, and we ordered it on January 29, 2002. We received the order (tapes) on February 7, 2002. As of June 30, 2002, we no longer run CICS/ESA 4.1.
The Northeast Regional Data Center (NERDC) at the University of Florida (UF) operates as a service bureau (formerly a State University System or SUS auxiliary) with our primary CICS customers being the Florida Center for Library Automation (FCLA), the University of Florida (UF − our host institution), the University of North Florida (UNF − located in Jacksonville, FL), and the UF Institute of Food and Agricultural Sciences (IFAS).

Our current production environment on our IBM 9672−R46 is CICS TS 2.2, z/OS 1.2, DB2 7.1, RACF, IBM's IP stack, etc. In CICS, we're presently supporting applications written in COBOL and Assembler. We have support in CICS for C/C++ application development.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/intro.notes.html>.

Last updated on August 8, 2002, by Steve Ware, <mailto:sfw@nersp.nerdc.ufl.edu>.
Migration Contributors:

- SHARE, the SHARE CICS Project, and SHARE Proceedings.
  - SHARE technical sessions very helpful in migration.
  - SHARE proceedings very helpful in migration.

- IBM CICS Level 2 and CICS Hursley Development.
  - CICS Level 2 very helpful in problem resolution, etc.
  - CICS Hursley Development continues to enhance product and support "Classic" CICS.
  - CICS TS 2.2 "quickest/cleanest" install yet.
  - CICS TS 2.2 scheduled availability is currently ~100% at our site.

- !Candle − Omegamon II for CICS V520.
  - Support in product available on (or before) CICS TS 2.2 GA date.
  - !Candle continues to support and enhance "Classic" interface.

Display Migration Contributors Notes, or Jump to Migration Inhibitors, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/contributors.html>.

Last updated on July 8, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.

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• IBM – Cost.
  ♦ CICS TS 2.2 license cost increased ~30%.
  ♦ Subset of CICS TS 2.2 hardcopy publications are "extra cost".
  ♦ CICS TS 2.2 online ordering information is "interesting".

• IBM – MVS Logger.
  ♦ MVS logger is required – would like option for "Classic" logging/journaling. (We're not holding our breath – you shouldn't either! Note that we're currently a MVS logger DASD-only log streams site.)
  ♦ Auto/Forward Recovery/User journals add to the whole MVS logger "experience". (We'd rather be working on exploiting new CICS technology instead of reworking CICS logging/journaling.)
  ♦ Wrote a JOURNAL FLUSH shutdown PLT program (see Appendix).
  ♦ DFHLSCU and logger sizing issues.
    ◊ CICS/ESA 4.1 system log: 5 3390–3 cylinders.
    ◊ DFHLSCU: 8000+ 3390–3 cylinders with INTERVAL(0) – yikes!

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/inhibitors.html>.

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Jump to Migration Inhibitors 2, or Jump to Table of Contents.

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Last updated on August 8, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
IBM – Language Environment.

♦ APAR PQ61345/PTF UQ67539:
  MSGDFHAP1200 ABENDAEC8 WITH A BAD LE RETURN CODE UPON RETURN
  FROM A RUNUNIT_END_INVOCATION CALL.

♦ ERROR DESCRIPTION:
  In CICS TS R2.2, customers may start seeing sporadic DFHAP1200 messages with
  undocumented LE/370 return codes. The transaction will abend with an AEC8.

♦ At our site, this affected an "older" IBM VisualGen COBOL II application that would simply
  not run in CICS TS 2.2 without UQ67539.

♦ As of 07/09/2002, PTF UQ67539 is superseded by UQ67579 (see APAR PQ53921 – affects
  IBM Debug Tool and CWA.)
IBM – CICS Socket Interface:
- APAR PQ58556/PTF UQ64119:
  ABEND SM0102 0D11 DURING GETHOSTBYNAME IN CICS TRUE EZACIC01
  DFHSM0102 TDXC01 A STORAGE VIOLATION (CODE X'0D11')
- ERROR DESCRIPTION:
  During GETHOSTBYNAME processing in the CICS TRUE EZACIC01 a storage overlay
  occurs. It is detected when the CICS storage manager does a storage verification during
  freemain processing. The following message is displayed. DFHSM0102 TDXC01 A storage
  violation (code X'0D11') has been detected by module DFHSMMF.
- Fought similar problem with TCP/IP 3.2C (OS/390 1.3 – PQ18907 from about August of
  1998).

Display Migration Inhibitors 3 Notes, or Jump to Migration Inhibitors 4, or Jump to Table of Contents.

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Jump to Migration Inhibitors 4, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/inhibitors3.notes.html>.

Last updated on August 8, 2002, by Steve Ware, <mailto:sfw@nersp.nerdc.ufl.edu>.
• CA–InterTest for CICS (now Advantage CA–InterTest for CICS).
  ♦ CA–InterTest for CICS 6.1 is required for CICS TS 2.2.
  ♦ As of 07/01/2002, CA–InterTest for CICS 6.1 was still beta.
    (CICS TS 2.2 went GA (Generally Available) on January 25, 2002.)
  ♦ On 07/18/2002, CA announced that Advantage CA–InterTest for CICS 6.1 was GA.
  ♦ CA–InterTest for CICS 6.1 GA is required for IBM Enterprise COBOL for OS/390 and z/OS support.

Display Migration Inhibitors 4 Notes, or Jump to MVS Logger Considerations, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/inhibitors4.html>.

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"Considerations when using DFHLSCU".

- DFHLSCU is the IBM supplied CICS log stream and coupling facility sizing utility.
- Various "considerations" may reduce usefulness of utility. (See CICS Operations and Utilities Guide.)
- Be careful with INTERVAL(0) (default is INTERVAL(30)).
- Be careful with LS_SIZE − DFHLSCU does not provide a recommendation, and your default might be 2 tracks, which is typically (always?) a little too small ;-).

- See IBMLink item RTA000164102:
  - USERS: All users of MVS Logger and CICS logstreams.
  - PROBLEM SUMMARY: Setup and performance tuning for MVS Logger in CICS.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/mvslogger.html>.

Last updated on July 23, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
Sample DASD–only CICS system log streams RDO definitions:

CEDA  EX  GR(NERLOGT1)
NAME     TYPE         GROUP
DFHLGLOG JOURNALMODEL NERLOGT1
DFHLOG   JOURNALMODEL NERLOGT1
DFHSHUNT JOURNALMODEL NERLOGT1

OBJECT CHARACTERISTICS    CICS RELEASE = 0620
CEDA  View Journalmodel( DFHLGLOG )
Journalmodel    : DFHLGLOG
Group           : NERLOGT1
Description     : DEFINE DFHLGLOG LOG AS DUMMY
Journalname     : DFHLGLOG
Type            : Dummy            Mvs | Smf | Dummy
Streamname      : 

Display MVS Logger Considerations 2 Notes, or Jump to MVS Logger Considerations 3, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/myslogger2.html>.

Last updated on July 26, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
Migrating to CICS Transaction Server 2.2:
User Experience – MVS Logger Considerations 3

• Sample DASD–only CICS system log streams RDO definitions:

  OBJECT CHARACTERISTICS    CICS RELEASE = 0620
  CEDA  View Journalmodel( DFHLOG )
  Journalmodel    : DFHLOG
  Group          : NERLOGT1
  Description    : DEFINE SYSTEM LOG AS MVS
  Journalname    : DFHLOG
  Type           : Mvs              Mvs | Smf | Dummy
  Streamname     : .

  OBJECT CHARACTERISTICS    CICS RELEASE = 0620
  CEDA  View Journalmodel( DFHSHUNT )
  Journalmodel    : DFHSHUNT
  Group          : NERLOGT1
  Description    : DEFINE SYSTEM LOG AS MVS
  Journalname    : DFHSHUNT
  Type           : Mvs              Mvs | Smf | Dummy
  Streamname     : .

Display MVS Logger Considerations 3 Notes, or Jump to MVS Logger Considerations 4, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/mvslogger3.html>.

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Jump to MVS Logger Considerations 4, or Jump to Table of Contents.

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Last updated on August 8, 2002, by Steve Ware, <mailto:sfw@nersp.nerdc.ufl.edu>.

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Sample DASD–only CICS user journal log streams define JCL:

CEDA  EX  GR(NERLOGT1)
NAME   TYPE       GROUP
DFHJ07  JOURNALMODEL NERLOGT1

OBJECT CHARACTERISTICS  CICS RELEASE = 0620
CEDA  View Journalmodel( DFHJ07  )
Journalmodel  : DFHJ07
Group          : NERLOGT1
Description    : DEFINE DFHJ07 LOG AS MVS
Journalname    : DFHJ07
Type           : Mvs              Mvs | Smf | Dummy
Streamname     : .

Display MVS Logger Considerations 4 Notes, or Jump to MVS Logger Considerations 5, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/mvslogger4.html>.

Last updated on July 26, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
• Sample DASD–only log streams define JCL:

```
//LOGDEFN EXEC PGM=IXCMIAPU
//STEPLIB DD DSN=SYS1.MIGLIB,DISP=SHR
//SYSPRINT DD SYSOUT=A
//SYSIN DD *
  DATA TYPE(LOGR) REPORT(NO)
  DEFINE LOGSTREAM NAME(CICSRGN.NERCICST.DFHLOG)
   DASDONLY(YES) LS_SIZE(1000)
   MAXBUFSIZE(64000) STG_SIZE(500)
   LOWOFFLOAD(40) HIGHOFFLOAD(80)
   OFFLOADRECALL(NO)
  DEFINE LOGSTREAM NAME(CICSRGN.NERCICST.DFHSHUNT)
   DASDONLY(YES) LS_SIZE(1000)
   MAXBUFSIZE(64000) STG_SIZE(500)
   LOWOFFLOAD(0) HIGHOFFLOAD(80)
   OFFLOADRECALL(NO)
  DEFINE LOGSTREAM NAME(CICSRGN.NERCICST.DFHJ07)
   DASDONLY(YES) LS_SIZE(1000)
   MAXBUFSIZE(64000) STG_SIZE(500)
   LOWOFFLOAD(0) HIGHOFFLOAD(80)
   OFFLOADRECALL(NO)
/*
```

Display MVS Logger Considerations 5 Notes, or Jump to MVS Logger Considerations 6, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/mvslogger5.html>.

Last updated on July 26, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
Migrating to CICS Transaction Server 2.2: User Experience – MVS Logger Considerations 6

DASD–only CICS log streams displays:

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STATUS: RESULTS - OVERTYPE TO MODIFY
Jou(DFHJ07 ) Mvs Ena Str(CICSRGN.NERCICST.DFHJ07 )
Jou(DFHLGLOG) Dum Ena
Jou(DFHLOG ) Mvs Ena Str(CICSRGN.NERCICST.DFHLOG )
Jou(DFHSHUNT) Mvs Ena Str(CICSRGN.NERCICST.DFHSHUNT )

dsat 'ixlogr.cicsrgn.nercicst'

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585  585  16 DATA SETS DISPLAYED

Note that the "NERPLEX" datasets do not exist when CICS is down. Also note that our site is currently using 2 3390–3 type DASD volumes for MVS logger datasets (SYSG01 and SYSG02).

Display MVS Logger Considerations 6 Notes, or Jump to MVS Logger Considerations 7, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/myslogger6.html>.

Last updated on July 26, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
User Journals:

```/*
//CPYJ07A EXEC PGM=DFHJUP
//STEPLIB DD DSNAME=CICS.V620.SDFHLOAD,DISP=SHR
//SYSPRINT DD SYSOUT=A,DCB=RECFM=FBA
//SYSUT1 DD DSNAME=CICSRGN.NERCICST.DFHJ07,
//     SUBSYS=(LOGR,DFHLGCNV,LOCAL,COMPAT41),
//     DCB=BLKSIZE=32760
//SYSUT4 DD DSNAME=FCLA.NOTIS.TEST.DFHJ07A,DISP=SHR,
//     DCB=(DSORG=PS,RECFM=VB,BLKSIZE=32760,LRECL=32756)
//SYSIN DD *
OPTION COPY,NEWDCB
END
*/

/*
//CHKJ07A IF (CPYJ07A.RC = 0) THEN
//IEFBR14 EXEC PGM=IEFBR14
//LOGSTRM DD DSNAME=CICSRGN.NERCICST.DFHJ07,
//     SUBSYS=(LOGR,DFHLGCNV,,DELETE)
//CHKJ07A ENDIF
*/
```

SERIAL ALLOC USED EX DSORG −DCB ATTRIBUTES− CR. DATE −DSNAME−
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Display MVS Logger Considerations 7 Notes, or Jump to MVS Logger Considerations 8, or Jump to Table of Contents.

The URL for this document is `<http://nersp.nerdc.ufl.edu/~sfware/share99/myslogger7.html>`.

Last updated on July 30, 2002, by Steve Ware, `<mailto:sfw@nersp.nerdc.ufl.edu>`.
Our CICS customers required that they be provided with V620 MVS logger data that is *identical* to V410 user journal data. Key DFHJUP items for our site were LOCAL for LOCAL time instead of GMT time, COMPAT41 (obviously), and the explicit DCB specifications.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/myslogger7.notes.html>.

*Last updated* on August 8, 2002, by *Steve Ware*, <mailto:sfw@nersp.nerdc.ufl.edu>.
Some MVS logger resources:

- **SHARE Online Resources:**

- **OS/390 Logger / CICS − Performance and Common Problems**

  "Abstract: Two presentations are provided. The first is on evaluating the performance of the z/OS logger when used by CICS. The second deals with overcoming common problems encountered when defining CICS to use the z/OS Logger. This material was developed by Jim Grauel of the CICS Level 2 organization and has been presented at user group meetings such as the Transaction and Messaging (CICS) Technical Conference, and SHARE. This material is being re-published with a publication date of 4/16/02."

http://www-1.ibm.com/support/techdocs/atsmastr.nsf/PubAllNum/PRS183

- **IBMLink search keywords:**
  - cics logger

Display MVS Logger Considerations 8 Notes, or Jump to Coexistence Considerations, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/mvslogger8.html>.

_Last updated_ on July 30, 2002, by _Steve Ware_. <mailto:sfw@nersp.nerdc.ufl.edu>.
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The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/myslogger8.notes.html>.

Last updated on August 8, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.

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Running CICS V410 and V620 with "hybrid" LPA and LINKLIB datasets:

- Build CICS LINKLIB with V620 .prefix.SDFHLINK, and include V410 modules DFHPD410, DFHTG410, DFHTR410.
- Build CICS LPA with existing V410 modules and include V620 .prefix.SDFHLPA.
- CICS V410 can still run with SIT LPA=YES, and V620 must run with LPA=NO.
- For additional guidance, see the CICS "Installation Guide" and the "Program Directory for CICS Transaction Server for z/OS".

Display Coexistence Notes, or Jump to Coexistence Considerations 2, or Jump to Table of Contents.

The URL for this document is http://nersp.nerdc.ufl.edu/~sfware/share99/coexist.html.

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The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/coexist.notes.html>.

Last updated on August 8, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
Sharing the DFHCSD (the CICS System Definition VSAM File):

- Create and initialize a new DFHCSD with V620 DFHCSDUP.
- Copy your local CSD definitions to new DFHCSD with V620 DFHCSDUP.
- Create a new RDO list (V4COMPL) for old CICS release:
  
  ```
  CEDA EX LI(V4COMPL)
  ```
  
<table>
<thead>
<tr>
<th>NAME</th>
<th>TYPE</th>
<th>LIST</th>
</tr>
</thead>
<tbody>
<tr>
<td>DFHCOMP9</td>
<td>GROUP</td>
<td>V4COMPL</td>
</tr>
<tr>
<td>DFHCOMP8</td>
<td>GROUP</td>
<td>V4COMPL</td>
</tr>
<tr>
<td>DFHCOMP7</td>
<td>GROUP</td>
<td>V4COMPL</td>
</tr>
<tr>
<td>DFHCOMP6</td>
<td>GROUP</td>
<td>V4COMPL</td>
</tr>
<tr>
<td>DFHCOMP5</td>
<td>GROUP</td>
<td>V4COMPL</td>
</tr>
</tbody>
</table>

- Add new LIST(V4COMPL) to old CICS SIT GRPLIST:
  - GRPLIST=(BASELIST,TST1LIST,V4COMPL), for a V410 region.
  - GRPLIST=(NERLIST,DFHLIST,BASELST6,TST1LST6), for a V620 region, which does not have LIST(V4COMPL).

Display Coexistence 2 Notes, or Jump to Coexistence Considerations 3, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/coexist2.html>.

Last updated on August 7, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
Our site prefers to run with a single CSD for administrative simplicity, etc.


The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/coexist2.notes.html>.

_Last updated_ on August 8, 2002, by _Steve Ware_.
Reusing old CICS release files:

- CICS transaction dump datasets – ok.
- CICS aux. temp. stor. VSAM datasets – ok.
- CICS aux. trace VSAM datasets – ok.
- CICS global catalog – NOT ok.
- CICS local catalog – NOT ok.

Assemble old CICS release tables with V620 libraries:

- DCT (Destination Control Table)
- MCT (Monitoring Control Table)
- PLT (Program List Table(s))
- RCT (DB2 Resource Control Table – see DB2 Considerations)
- SIT (System Initialization Table)
- SRT (System Recovery Table)
- TCT (Terminal Control Table – for sequential terminals)
- TLT (Terminal List Table for CEST access)
- XLT (Shutdown Transaction List Table)

Display Coexistence 3 Notes, or Jump to Coexistence Considerations 4, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/coexist3.html>.

Last updated on August 6, 2002, by Steve Ware, <mailto:sfw@nersp.nerdc.ufl.edu>.

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Migrating to CICS Transaction Server 2.2: User Experience – Coexistence Considerations 4

- Migrate macro tables to RDO:
  - DCT (Destination Control Table)
    (Note: We found that CICS will not re–install a TDQUEUE in CICS startup GRPLIST processing – we modify the IBM supplied definition for CSDL for local processing requirements. Also, we had to rename local DFH* prefix named entries. Our site was using DFHPS* for CICS Physical Sequential TD queues – they were renamed to NERPS*.)
  - JCT (Journal Control table – see Migration Inhibitors ;–)
  - RCT (DB2 Resource Control Table – see DB2 Considerations)

*Display Coexistence 4 Notes, or Jump to Application Programming Considerations, or Jump to Table of Contents.*

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/coexist4.html>.

_Last updated_ on August 7, 2002, by Steve Ware, <mailto:sfw@nersp.nerdc.ufl.edu>.
Migrating to CICS Transaction Server 2.2:  
User Experience – Application Programming  
Considerations

- See [http://www.lemon-tree.co.uk/Articles/migotcha.htm](http://www.lemon-tree.co.uk/Articles/migotcha.htm) for an excellent "CICS migration gotchas" page.

- **READQ TS – INVREQ not QIDERR**
  - CICS TS will now return an INVREQ for an EXEC CICS READQ TS QUEUE('queue') – where 'queue' is low-values. CICS V410 returned QIDERR. Some Application programs test for QIDERR to identify that the variable 'queue' has not been set yet. Application logic needs to be changed or the Global User Exit XTSEREQC could be used to set EIBRESP to QIDERR and emulate the CICS V410 response.

- **EXEC CICS START with REQID – IOERR**
  - EXEC CICS START FROM(xxxx...) REQID(xxxx...) no longer operates like it used to under CICS V410. The Response of IOERR can now be given when a duplicate REQID is used – this was not checked under CICS/ESA V410 (although the results would be unpredictable if a duplicate REQID already existed).

*Display Application Programming Notes, or Jump to DB2 Considerations, or Jump to Table of Contents.*

The URL for this document is [http://nersp.nerdc.ufl.edu/~sfware/share99/appl.html](http://nersp.nerdc.ufl.edu/~sfware/share99/appl.html).

*Last updated* on August 2, 2002, by Steve Ware, [mailto:sfw@nersp.nerdc.ufl.edu](mailto:sfw@nersp.nerdc.ufl.edu).

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Our site experienced the above 2 gotchas in 3 different CICS application programs – they were easily updated for this conversion.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/appl.notes.html>.

Last updated on August 8, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
DB2 macro RCT tables are no longer supported at CICS runtime. 
Assemble RCTs with CICS V620 libraries. 
Run DFHCSDUP MIGRATE TABLE(DFHRCTT1) TOGROUP(NERRCTT1). 
Add RDO GR(NERRCTT1) to a LIST in SIT GRPLIST=. 
Specify SIT DB2CONN=YES. 
Check DB2 status with CEMT INQ DB2Conn (or CEMT I DB2C). 
♦ CEMT I TAS no longer shows long running DSNC task. 
♦ Omegamon shows CEX2 task in USERWAIT for resource CDB2TIME. 
Check SIT MAXOPENTCBS= if DB2 V6 or higher – should be greater than RDO DB2CONN “TCblimit” value according to IBM doc. 
DSNC STRT transaction processing has changed: 
♦ DSNC STRT xxxx is used to start the DB2 connection to the xxxx DB2 subsytem, not the xxxx RCT suffix. Simply DSNC STRT to connect to the DB2CONN specified subsystem (DB2Id).

Display DB2 Considerations Notes, or Jump to USS Considerations, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/db2.html>.

Last updated on August 7, 2002, by Steve Ware. <mailto:fw@nersp.nerdc.ufl.edu>.

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Our DB2 sysprogs made minor RCT macro source code modifications to continue with "No Statements Flagged" assemblies due to DB2 RCT macro changes, etc.

DB2 RDO components are DB2CONN, DB2ENTRY, and DB2TRAN.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/db2.notes.html>.

Last updated on August 8, 2002, by Steve Ware, <mailto:sfw@nersp.nerdc.ufl.edu>.
"Some CICS facilities require access to OS/390 UNIX System Services." These include TCP/IP support provided by the CICS sockets domain, JVM, EJB deployment, etc. CICS TS has an "OMVS Requirement". "Before running the installation jobs: Ensure the MVS image was IPLed with OMVS full–function mode. Ensure the userid under which you are running the jobs has superuser authority." We circumvented this superuser requirement as follows:

- CICS sysprog (me) does not want (or need) superuser authority on MVS sysprog (spousal unit ;−) system.

- MVS sysprog allocated HFS file with CICS sysprog ownership of /usr/lpp/cicsts mount point. The CICS sysprog userid does not have superuser authority, but has drwxr−xr−x (octal 755) file permissions to /usr/lpp/cicsts.

- MVS sysprog wrote execs to allow CICS sysprog mount and umount "privileges" for /usr/lpp/cicsts, for SMP/E maint., HFS backups, etc.

- All SMP/E work for CICS TS done with non−superuser CICS sysprog userid.

Display USS Considerations Notes, or Jump to Surprises, etc., or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/uss.html>.

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CICS sysprog and MVS sysprog continue to live in harmony ("marital bliss" ;-) with this USS superuser circumvention.

Jump to Surprises, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/uss.notes.html>.

Last updated on August 8, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
• NETNAMES and Surrogate (remote) Terminal Entries (Barry Brooks from UF will comment).
  ♦ EXEC CICS INQ TERM or INQ NETNAME used to return blanks in the NETNAME field for a surrogate (remote) TCTTE.
  ♦ NETNAME is now filled in for surrogate TCTTE’s
  ♦ Potential problem for application programs?
  ♦ Satisfies a long-standing SHARE requirement (be careful what you ask for; you might just get it)
  ♦ Created a logic problem in our locally written terminal autoinstall program because we were assuming blanks in NETNAME field meant the TCTTE was a surrogate.
  ♦ Corrected the logic as noted in the handout notes.

Display Surprises Notes, or Jump to Surprises 2, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/surprises.html>.

Last updated on August 7, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
Old code:

* CHECK TO SEE IF THE LU (NETNAME) ALREADY HAS A TCTTE
SPACE
NETNAMCK EXEC CICS HANDLE CONDITION x
  TERMIDERR(SELECT1) x
  ERROR(RETURN)
SPACE
EXEC CICS INQUIRE , Normal return, already exists X
  NETNAME(NETNAME) , ..If not, go to SELECT1 X
  TERMINAL(DUPTRMID) X
  ACQSTATUS(ACQSTAT) X
  SERVSTATUS(SERVSTAT)
SPACE
MVC SELECTED_TERM_ID,DUPTRMID Pick up TERMID from TCTTE
MVI SELECTED_RETURN_CODE,RETURN_OK Indicate all is OK
B RETURN and exit
DFHEJECT ,
* SELECT TERMID FROM TABLE (ENQ to force single threading)
SPACE
SELECT1 EQU *

New Code:

NETNAMCK EXEC CICS HANDLE CONDITION x
  TERMIDERR(SELECT1) x
  ERROR(RETURN)
SPACE
EXEC CICS INQUIRE , Normal return, already exists X
  NETNAME(NETNAME) , ..If not, go to SELECT1 X
  TERMINAL(DUPTRMID) X
  REMOTENAME(REMOTEID) X
  ACQSTATUS(ACQSTAT) X
  SERVSTATUS(SERVSTAT)
SPACE
CLC REMOTEID(4),=CL4' ' REMOTE TERMINAL ENTRY?
BNE SELECT1 ..YES, DO NOT REUSE
SPACE
* REUSE LOCAL TERMINAL ENTRY FOR THIS NETNAME
SPACE
MVC SELECTED_TERM_ID,DUPTRMID Pick up TERMID from TCTTE
MVI SELECTED_RETURN_CODE,RETURN_OK Indicate all is OK
B RETURN and exit
DFHEJECT ,
* SELECT TERMID FROM TABLE (ENQ to force single threading)
SPACE
SELECT1 EQU *

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The URL for this document is <http://kersp.nerd.c.ufl.edu/~sfware/share99/surprises.notes.html>.
• ASSIST/TS (formerly ASSIST/GT) releases prior to release 6.0 not supported in CICS Transaction Server releases (Barry Brooks from UF will comment).
  ♦ Only one application using this product
  ♦ Failed to check with GT Software ahead of time
  ♦ Not discovered during testing
  ♦ Running ASSIST/GT rel 4.6.5 at time of conversion
    ♦ appeared to be working most of the time
    ♦ occasional SM0102 dumps began occurring
  ♦ GT Software said the product had to be re-written for CICS TS due to large changes in architecture of CICS; therefore, releases prior to 6.0 are NOT SUPPORTED in CICS TS.
  ♦ With 6.0, product was renamed to ASSIST TS (I wonder why that name?)
  ♦ Moral of the story: Don't forget to check with ALL vendors up front

Display Surprises 2 Notes, or Jump to Surprises 3, or Jump to Table of Contents.

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Migrating to CICS Transaction Server 2.2: User Experience – Surprises Notes 2

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• Changed SIT DUMPDS=AUTO to DUMPDS=A to force to dump dataset A for local processing requirements.

• CICS DB2 CPU increased after DB2 V5 was converted to V7, or "Lies, Damn Lies, and Statistics":

  ♦ From the IBM Manual "CICS Transaction Server for z/OS(TM) CICS DB2 Guide Version 2 Release 2 Document Number SC34–6014–00 Program Number 5697–E93", in the section "9.11 Accounting for processor usage in a CICS DB2 environment", subsection " 9.11.2 DB2−generated processor usage information":

  "In a CICS environment, the processor time from the DB2 accounting records is typically much greater than the processor time reported in the DB2 statistical records, because most of the processor time used is in the thread TCB itself and in the DB2 address spaces using cross memory services."

Display Surprises 3 Notes, or Jump to Summary, or Jump to Table of Contents.

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CICS TS 2.2 was the "quickest/cleanest" install I've been involved with. We've had ~100% (aka "five nines" or 99.999%) scheduled availability of our production CICS environment since this conversion.

- With ~10K CICS application programs at our site, only 3 had to be modified for this conversion.
- Our migration was aided by the fact that we're currently a "Classic CICS" site. We're glad that IBM continues to enhance "Classic CICS" and extend the product functionality.
- MVS logger required more research, planning, resources, and implementation work than we would have liked. (This statement is a candidate for the "understatement of the year" ;−;).
- OEM/ISV CICS ancillary product support was a typical migration inhibitor, with the notable exception of !CANDLE Omegamon II for CICS V520.
- CICS is and has been a stable and robust server for us – plans are to continue to exploit CICS, the CICS Socket Interface, and some of the newer CICS functionality to provide even more CICS services at our site.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/summary.html>.

Last updated on July 31, 2002, by Steve Ware. <mailto:sfw@nersp.nerdc.ufl.edu>.
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Last updated on August 8, 2002, by Steve Ware, <mailto:sfw@nersp.nerdc.ufl.edu>.
• NERDC CICS assembler application program DCNEPLTS used to attempt to perform a SET
JOURNAL FLUSH command for each MVS logger user journal at PLT shutdown time. Note that
currently, error handing is minimal or non-existent (left as an exercise for the "student" ;−).

• IBM CICS electronic publications:


Display the Session Title Page, or Jump to Table of Contents.

The URL for this document is <http://nersp.nerdc.ufl.edu/~sfware/share99/appendix.html>.

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