

Developing and Debugging CICS Programs Using Rational Developer for System z (RDz)

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Agenda

- Introduce Rational Developer for System z (RDz)
- Configuring Debug Tool for CICS
- Live Demo!
- Benefits of RDz over ISPF programming

Rational Developer for System z (RDz)

- Eclipse based Integrated Development Environment (IDE)
- One stop portal for coding and deploying CICS applications
 - Supports COBOL, PL/I, C, Assembler, Java
- Remotely manage mainframe resources
MVS datasets, USS files
- Remotely debug CICS applications
- Deploy CICS applications as Web services
- Generate CICS code for invoking Web services
- See for yourself....

Configuring CICS to use the Debug Tool

- Follow the steps:
 1. Add Debug Tool library to CICS JCL
 2. Create debugging profiles data sets
 3. Upgrade CSD with debug definition
 4. Configure EQA group to install on CICS startup
 5. Enable debug mode in CICS

Add Debug Tool library to CICS JCL

- Add the Debug Tool SEQAMOD data set to DFHRPL
 - DSN=PP.DEBUG.V910.SEQAMOD
- Ensure LE run-time libraries are in DFHRPL
 - DSN=CEE.SCEECICS
 - DSN=CEE.SCEERUN

Create debugging profiles data sets

- Use IDCAMS to create and initialize the VSAM data sets
 - DFHDPFMB – base data set
 - DFHDPFMP – path data set
 - DFHDPFMX – alternate index data set
- Create file definitions for the data sets
 - Sample JCL in CICS TS 4.1 InfoCenter for:
 - VSAM RLS
 - VSAM non-RLS
 - Remote files
- File resources need to be installed at CICS initialization
 - Add to a group in a group list

Upgrade CSD with debug definitions

- Locate member EQACCSD in Debug Tool's SEQASAMP data set
- Follow instructions in EQACCSD and uncomment definitions as necessary
- Upgrade CSD with new definitions - creates Group(EQA)

Configure EQA group to install on CICS startup

- Group(EQA) must be installed at CICS bring up so add to a group list
 - Add Group(EQA) to a group list
 - `CEDA ADD GROUP(EQA) LIST(MYLIST)`
 - Add group list to GRPLIST SIT parameter
 - `GRPLIST=(*FHLIST, MYLIST),`

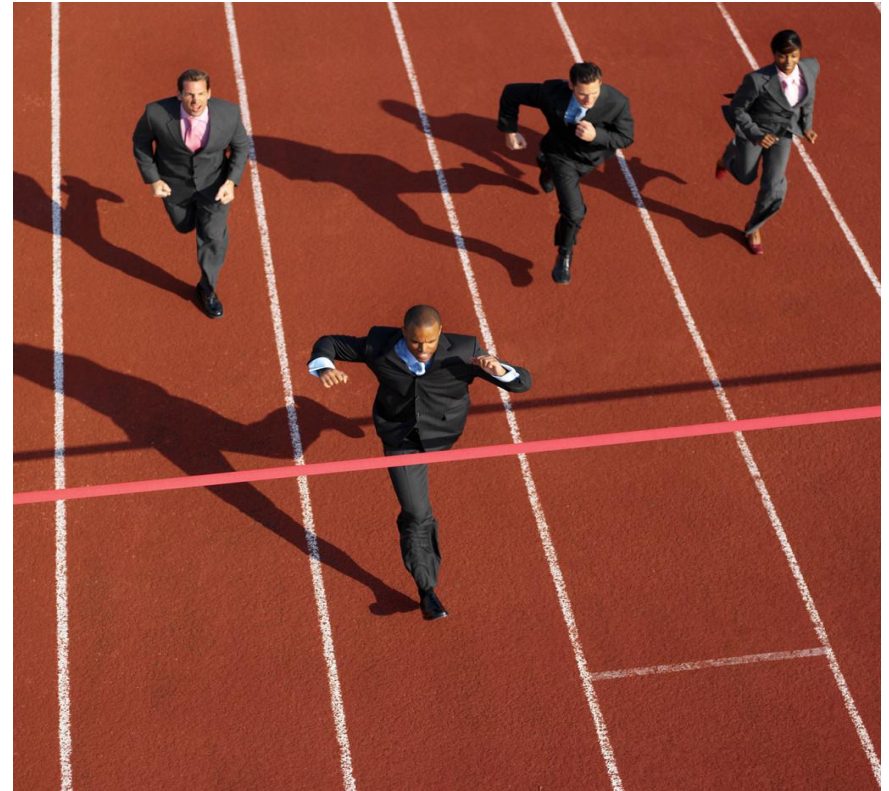
Enable debug mode in CICS

- Specify as a SIT parameter
 - `DEBUGTOOL=YES`
- Or enable in run-time using
 - `CEMT SET SYSTEM DEBUG`

Configuring programs to use the Debug Tool

- Include the TEST option in compiler parameters
 - **PL/I**
 - PARM(..., TEST)
 - **COBOL**
 - PARM(..., TEST(ALL, SEPARATE))
 - //SYSDEBUG DD DISP=OLD,DSN=SCOTTC.SYSDEBUG(SWITCH)
 - **C**
 - PARM(TEST)
 - Source from translation step must be saved and passed to the compiler
- Locations of source files are stored in the compiled modules

Live demo!



Benefits of RDz over ISPF programming

- Doesn't tie up your TSO userid
- Simultaneously edit multiple programs in varying languages
- Windowing style copy and paste
- Auto-complete of EXEC CICS commands
- Drag and drop files between PC, MVS & USS
- More screen real estate
- Code, debug, Web service enable, create service flows (SFF) all from the one tool
- The whole of this demo was being done remotely from a machine in Hursley!

Summary

- Introduce Rational Developer for System z (RDz)
- Configuring Debug Tool for CICS
- Live Demo!
 - z/OS Projects perspective
 - Debug perspective
 - Enterprise Service Tools perspective
 - CICS Explorer
 - CADP
- Benefits of RDz over ISPF programming

References

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- Problem determination tools
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- CICS Explorer
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