



ASG-SmartTest™

Quick Reference Card

Version 6.0

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|------------------------------------|-----------------|
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Testing Commands

Controlling Execution

TEST | RUN | MONITOR
(**RUN**)

Execute the program until an abend, a breakpoint, or normal completion.

TEST | STEP | OPTIONS: *n*, AUTO
(**STEP *n* AUTO**)

Execute *n* COBOL verbs. Show each verb as it executes.

TEST | STEP | OVER
(**STEP OVER**)

Execute a PERFORMed or CALLEd routine and stop at the statement following the PERFORM or CALL.

TEST | STEP | LABEL
(**STEP LABEL**)

Execute code until the next paragraph.

TEST | GO | *target*
(**GO *target***)

Reposition the chevrons to the specified target where execution will continue.

(**PA1** or **ATTN**)

Interrupt program execution and return control to the programmer (non-CICS).

Rerunning a Test

TEST | CANCEL
(**CANCEL**)

End the current test session. Use RUN or STEP to restart a test.

Setting Breakpoints

TEST | BREAK | DATA, BEFORE | *dataitem*, MOD, ALL
(**BR *dataitem* MOD ALL**)

Set a breakpoint before each modification to *dataitem* and its aliases.

TEST | BREAK | SUBSET, BEFORE | IO, ALL
(**BR IO ALL**)

Set a breakpoint before all IO verbs.

TEST | BREAK | SUBSET, AFTER | CALL, NEXT
(**BR AFTER CALL**)

Set a breakpoint after the next CALL.

(**BR *line command***)

Set a breakpoint on a specific line.

TEST | TESTPOINT
(**TESTPOINT**)

Set breakpoints with an impact dataset.

Displaying Data Values

(**ZD, ZG *line commands***)

Display dataname definitions, values, and addresses.

(**ZO *line command***)

Remove lines displayed as a result of ZD,ZG commands.

(**K, KG, KH *line commands***)

Keep specified items displayed at top of the screen for monitoring or changing data.

Data window displays are affected by the DATA, HEX, KEEP, VALUES, SCALE, and ZEROFILL operands. To change, use:

OPTIONS | MODES

The values of a data field can be changed by typing over the value displayed in the data window.

Detecting Storage Modification

TEST | STOP | *dataname*
(**STOP *dataname***)

Stop execution before the dataname value is modified.

Adding Logic (Pseudo Code)

ADD IF/ELSE *pslabel*.

MOVE SUBTRACT *77 level name*

GO TO Define label NEXT SENTENCE

&COUNT Contains the number of times a line of pseudo code is executed.

BREAK Suspend program execution.

Recording Single Program Coverage

LIST | TEST SESSION TAILORING | COUNTS YES
(**LI TAILOR**)

Start the recording of statement counts.

LIST | EXECUTION COUNTS | SOURCE
(**LI COUNTS**)

Display a summary showing how many times each line of code was executed.

LIST | EXECUTION COUNTS | PAR | DESCENDING
(**LI COUNTS PAR**)

Display a summary showing how many times each paragraph was executed.

(**LP COUNTS**)

Copy the entire statement counts of a program to the List file for printing.

Recording the Execution Path

LIST | EXECUTION TRACKING | FORMAT
(**LI TRACKING**)

Display the execution path taken by the program paragraph and source statement in execution sequence.

(**LP TRACKING**)

Copy the execution path taken to the List file for printing.

Viewing Multiple Programs

VIEW | QUALIFY | *module.program*
(**Q *module.program***)

Qualify to the load module and program for viewing.

(**Q ***)

Display program being tested after viewing another program.

VIEW | QUALIFY | CANCEL ALL QUALIFICATIONS
(**Q CAN ALL**)

End viewing of programs that have been qualified.

Reviewing Execution History

OPTIONS | MODES | BACKTRACK ON
(**SET BACKTRACK ON**)

Turn the Backtrack recording mode ON. The Backtrack Recording and Review facilities provide a complete picture of execution history, with data values.

LIST | BACKTRACK HISTORY
(**LI BACKTRACK**)

List the statements in execution history that modified a specified data item.

TEST | RUN | BACKWARD, *dataitem*
(**RUN BACK TO *dataitem***)

Review execution history to identify the previous modification to the data item named *dataitem*. Backtrack recording must be on to use this function.

The direction of the Backtrack Review facility can be set using the RUN and STEP facilities.

Viewing CUA-generated Commands

OPTIONS | MODES | LEARN ON
(**SET LEARN ON**)

Show commands built from the CUA pull-down and pop-ups.

Program Understanding Commands

Finding a Dataname

SEARCH | DATA | *dataitem*
(**FX *dataitem* / LP *dataitem***)

Locate all references to the dataname including all aliases (upper and lower level group items, redefines, and renames).

Action:

FIND - Highlight and tag all references
PRINT - Write information to the List file

Finding Functions in a COBOL Program

SEARCH | SUBSET | IO
(**FX IO / LP IO**)

Locate IO statements. Action:

- FIND - Highlight and tag all references
- PRINT - Write information to the List file for printing

Subsets

Predefined categories of subsets that can be applied to COBOL programs:

| ASsignment | DEBug | IO |
|-------------|------------|-----------------|
| Call | DEFinition | LABel |
| Cics | DIRective | MAINline |
| COBOL/370 | DIVision | MATH |
| COBOLII | DL/I | Output |
| COMment | DM | PARagraph |
| CONDitional | Entry | PERform |
| COPy | EXit | RETurn |
| DB2 | FALLthru | SECTION |
| DDL | Goto | SORTMerge |
| DEAD | IDMS | SQL |
| DEADCode | INclude | Structure |
| DEADData | Input | TESTed/UNTested |

LIST | COBOL INTELLIGENCE FEATURES | SUBSETS
(**LI SUB**)

Display the COBOL verbs for each subset.

Searching in Logical Sequence

(**FLOW** *dataitem* **MOD PREV**)

Search the program logic for the prior modification(s) of the dataname specified, beginning at the current cursor location.

Linking to Other ASG Products

TEST | ALLIANCE
(**ALLIANCE**)

Initiate a link to ASG-Alliance.

CICS Primary Commands

LIST | CICS FEATURES | EIB
(**LI EIB**)

Show a formatted display of the EXEC Interface Block (EIB) for viewing and updating.

LIST | CICS FEATURES | FILES
(**LI FIl**e)

Display the File Service Menu used to select the type of CICS File Records to be processed.

LIST | CICS FEATURES | LIMITS
(**LI LI**imits)

Display the Transaction Limits and Options screen where CICS testing restrictions and options can be viewed and maintained.

TEST | CICS FEATURES | TABLES
(**LI TAB**)

Provide access to the tables used to set monitoring rules.

TEST | CICS NEWCOPY | *module*
(**NEWCOPY**)

Perform a CICS NEWCOPY of the module specified in the PPT, in the current region.

TEST | RUN | *tran-id*
(**RUN** *tran-id*)

Initiate a transaction ID.

VIEW | CICS SHOW
(**SHOW**)

Redisplay last user application screen during an active test session.

VIEW | TOGGLE
(**TOGGLE**)

Switch from SmartTest session to connected CICS session.

OPTIONS | MODES | STOPEXEC ON
(**SET STOPEXEC**)

Stop program execution before each EXEC CICS request.

OPTIONS | MODES | STOPHAND ON
(**SET STOPHAND**)

Stop program execution after an EXEC CICS Handle condition is raised.

IMS Primary Commands

LIST | IMS/DC QUEUES
(**LI Q**ueue)

Display the Processing Queue List Screen, which lists categories of IMS processing queues.

VIEW | TOGGLE
(**TOGGLE**)

Switch from the SmartTest session to the IMS session.

SmartTest-supported IMS Commands

(**/EXIT**)

Exit a conversational transaction.

(**/FOR**)

Invoke Message Format Service (MFS) to display a screen format.

(**/RCL**)

Close or terminate IMS connection.

(**/TOGGLE**)

Switch from the IMS session to SmartTest.

Assembler Functions

OPTIONS | MODES | REGISTERS ON
(**SET REG ON**)

Display and/or modify contents of the general registers during a test session. Modified registers are highlighted.

TEST | STOP | *target*
(**STOP** *target*)

Suspend the test session before any modification of target (target can be a dataname or absolute address).

LIST | MEMORY | *area*
(**LI ME**)

Display and modify memory area.

LIST | ALL | INTERCEPTS
(**LI INT**)

Display the intercept list of LINKed, ATTACHed, and dynamically CALled modules (non-CICS tests).

(**ZA** *line command*)

Display the object code for a specific Assembler instruction or COBOL verb.

VIEW | ZOOMDATA | R13?+8
(**ZD R13?+8**)

Display the data at 8 bytes offset from the address in register 13, with the ? indicating 31-bit indirect addressing.

Changing Environments

FILE | SETUP TEST ENVIRONMENT | SELECT TEST ENV
(**ENV**)

Display the Environment Setup Menu screen.

LIST | TEST SESSION TAILORING
(**LI TA**ilor)

Display/change test features requested for specific modules and programs.

FILE | SETUP TEST ENVIRONMENT | SETUP CURRENT ENV
(**SETUP**)

Display the Test Session Setup screen.

LIST | PROFILES
(**LI PR**ofile)

Save, select, copy, or delete test session setups.

VIEW | PROGRAM SOURCE/OBJECT
(**VIEW**)

Display the Program View screen.

Compile/Analyze Source Code

Option 1

When your compile/link JCL resides in a PDS or sequential dataset:

1. FILE | ANALYZE
(**AN**)

Display the Analyze Submit screen.

2. Type the applicable dataset name in the Compile and Link JCL and AKR data set name fields. Make sure the ASG-SmartTest Analyze Feature and the Compile field contain a Y value.

3. Submit or Edit the temporarily altered JCL. **Note:** If you make changes while in the Edit option, type SUB within the Editor to save changes.

Option 2

From the edit session of the compile JCL, type VIASUB in the primary command area to display the Analyze Submit screen. Next, follow Steps 2 and 3 from Option 1. (You do not need to specify the compile/link JCL.)

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