

SmartTest  
==> flow from 299 soc7 modified backward

000298 P005-VAL-PARM.  
>>>>>  
000300 IF DBA-DEPT-CODE > 24  
PERFORM P999-ABEND-PROGRAM  
BREAK.

.....1  
.....2  
.....3  
.....4

000301

~~000302~~

000303

000304

000305

000306 \*

000307 \*

000308 \*

000309 \*

IF DBA-DEPT-CODE < 16  
PERFORM P999-AB  
MOVE '3130' TO  
MOVE 3130-MESSA  
CALL 'ABNEXIT'

O P E N A L

STATUS: DATA EXCEPTION (0C7)

# VIA/SmartTest™

Bringing intelligence  
to Software Testing.

## A new generation of testing and debugging software.

Today's testing and debugging techniques are manual, time consuming and error-

prone. And current software tools that attempt to support this task require comprehensive test data — and a lot of your skill and intuition.

### Introducing SmartTest.™

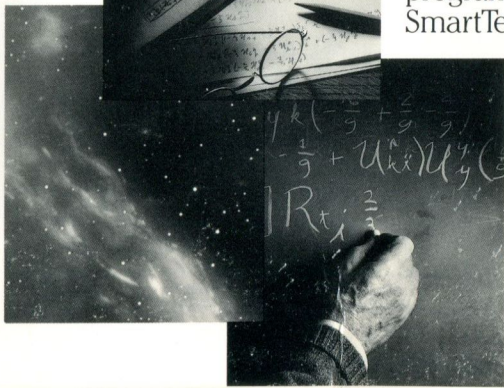
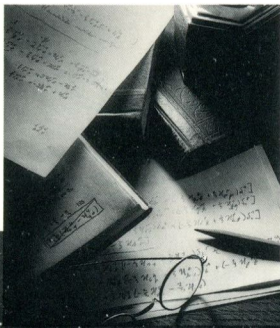
SmartTest reduces this uncertainty by delivering the single most important ingredient to a successful test — program knowledge. SmartTest under-

stands the program it's testing, and reveals this

knowledge to you automatically.

The net result? Fix problems faster because you see the true cause of the error. Test enhancements more rigorously because you understand the impact of the change.

The uncertainty is gone; **SmartTest brings intelligence to software testing.**



## **VIASOFT, Inc.**

VIASOFT is a leader in the field of Re-Engineering existing COBOL systems, and the first to apply CASE-level technology to this strategic area. We are committed to automating and enhancing this process by providing quality software products for each major task in the Re-Engineering Cycle.

The foundation of these solutions is VIA/CENTER™ technology that uses a unique Analytical Engine™ to interactively capture detailed knowledge about your existing programs. VIA/CENTER provides an interface to this information through its Application Knowledge Base™ and a suite of productivity tools for programmers. These products bring intelligence to the analysis, editing, testing and documentation phases of the Re-Engineering Cycle.

VIA/CENTER represents the most advanced application of Re-Engineering technology available today.

## **VIASOFT Offices**

### *Corporate*

3033 N. 44th St.  
Phoenix, AZ 85018  
(602) 952-0050  
(800) 622-6682  
From Canada call:  
(800) 543-1578

Atlanta, GA  
Boston, MA  
Chicago, IL  
Columbus, OH  
Dallas, TX  
Los Angeles, CA  
Minneapolis, MN  
Morristown, NJ  
New York, NY  
Phoenix, AZ  
San Francisco, CA  
Washington, D.C.

# VIA/SmartTest™

Bringing intelligence  
to Software Testing.

Technical Requirements: IBM PC or compatible, DOS version 2.0 or later,  
256K memory, hard disk drive

## USAGE INSTRUCTIONS

### Hard Disk

1. Boot System
2. Install on VIASOFT Directory  
Type: **C:** <enter>  
Type: **MD VIASOFT** <enter>  
**CD VIASOFT** <enter>  
Insert Disk into Drive A  
Type: **COPY A:\*. \* <enter>**
3. To Run Demo:  
Type: **CD\VIASOFT** <enter>  
Type: **ST** <enter>

### Floppy Disk

1. Boot System
2. Insert Disk into  
Drive A
3. Type: **A:** <enter>
4. Type: **ST** <enter>

## FEATURE/FUNCTION OVERVIEW

STAND ALONE TEST/DEBUG OFFERING	WITH EXTENDED ANALYSIS	
<p><b>Basic Debug Facilities</b></p> <p>Breakpoint command to automatically stop execution at any statement</p> <p>Step command allows program to execute one (or more) lines at a time</p> <p>Display any data in the Data Division</p> <p>Display data in hexadecimal format</p> <p>Monitor data changes as the program executes</p> <p>Temporarily change data during the course of program execution</p> <p>Display/highlight lines as they are executed (trace)</p> <p>Set counts on statements, paragraphs</p> <p>Temporarily add pseudo code to program</p> <ul style="list-style-type: none"> <li>• Branch around bad code</li> <li>• Add new code</li> </ul> <p>Intercept abends</p> <ul style="list-style-type: none"> <li>• Break on all program errors</li> <li>• Captureabend information</li> <li>• Leaves user in SmartTest™ to investigate cause of abend</li> </ul> <p>Automatically capture and run test scripts</p> <p>Conversion routines for setting up TSO/ISPF tests</p> <p>ISPF compatibility to eliminate learning curve</p> <ul style="list-style-type: none"> <li>• Split screen compatibility</li> <li>• Uses PF Keys</li> <li>• ISPF equivalent line commands and functions</li> <li>• Move, Copy, Insert, Delete, Find, Exclude, Scrolling, etc.</li> </ul>	<p><b>Smart Testing Functions</b></p> <p>Uses ANALYTICAL ENGINE™ to analyze source program logic.</p> <p>APPLICATION KNOWLEDGE BASE™ stores detailed program information:</p> <ul style="list-style-type: none"> <li>• Execution paths</li> <li>• Logic and data relationships</li> </ul> <p><i>Understands</i> COBOL:</p> <p>Sets Cobol logic-sensitive breakpoints:</p> <ul style="list-style-type: none"> <li>• On all I/O, conditionals</li> <li>• On all occurrences of a string</li> <li>• Over selected portions of code</li> <li>• On data changes (even redefinitions)</li> </ul> <p>Pseudo code is COBOL code</p> <ul style="list-style-type: none"> <li>• Exactly like entering COBOL code</li> <li>• Create and use new variables</li> <li>• Automatic syntax checking on entry</li> </ul> <p>Test session changes automatically update source and script</p> <p>Dynamic breakpoint control facility:</p> <ul style="list-style-type: none"> <li>• Breakpoints can be set, reset individually and globally</li> <li>• Session Tailoring allows defaults on a per module basis</li> </ul> <p>Automatic scrolling to targets of GOTOs and PERFORMs, and back</p> <p>Two options for setup:</p> <ul style="list-style-type: none"> <li>• Automatic JCL conversions and program expansions for TSO setup option</li> <li>• Batch Connect program initiation option <i>eliminates</i> all setup</li> </ul> <p>Integrated Application Testing allows maximum flexibility:</p> <ul style="list-style-type: none"> <li>• Works with COBOL, Assembler, PL/I and all other translated languages</li> <li>• Display and change storage by address, offset or pointer</li> <li>• Examine and modify registers</li> <li>• Inspect and alter control blocks</li> </ul> <p>Screen format aids understanding, controlling the test:</p> <ul style="list-style-type: none"> <li>• Familiar ISPF format</li> <li>• Source Window functions like ISPF Edit</li> <li>• Status Window always visible</li> <li>• In-stream viewing of displayed lines</li> <li>• Fixed data display window if desired</li> </ul>	<p><b>Integrated Analysis &amp; Testing</b></p> <p>SEAMLESS Analysis Integration — access to facilities that understand the program being tested, exposing:</p> <ul style="list-style-type: none"> <li>• Data Relationships COBOL Intelligent Find command. Find all occurrences, modifications, definitions and redefinitions of variable</li> <li>• Data Flow Display paths of data modifications</li> <li>• Logic Flow Display all potential execution paths</li> <li>• Program Organization Display program outline, mainline and call flows</li> <li>• Control Flow Online paragraph cross-reference listing. Display flow between any two modules.</li> <li>• Automatic Source Update Temporary test session logic (pseudo code) can be dynamically merged into source.</li> <li>• Logic Testing Simulates path flows without data to show intended execution paths.</li> </ul>