

GC34-0099-5

File No. S1-37

IBM Series/1

Authorized Program Analysis Report (APAR)

User's Guide

Program Numbers: 5719-PC4
5719-U11
5719-U12
5719-U13
5719-U14
5719-U15
5719-XS1
5719-XS2
5719-XS3

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5719-U15
5719-XS1
5719-XS2
5719-XS3

Sixth Edition (August 1980)

Changes and additions are marked by vertical lines in the left margin.

Use this publication only for the purpose stated in the Preface.

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Preface

This Authorized Program Analysis Report (APAR) User's Guide assists you in the preparation and submission of in the preparation and submission of an APAR, Form G150-0180. The APAR form is designed to handle problem reporting for all IBM programs with Central Programming Services support. If you have any additional questions regarding APARs after reading this guide, contact your local IBM representative.

How to Use This Guide

This document tells you:

- Who can submit an APAR
- What requirements should be met when submitting an APAR
- When you should submit an APAR
- How to complete the APAR form in step-by-step detail
- Where to send your APAR form

Publications

The prerequisite and related publications are the Series/1 manuals pertaining to the application for which you are submitting the APAR. These publications are listed in the preface of each related manual.

APAR Guide

The Authorized Program Analysis Report (APAR), Form G150-0180, is designed for your use in reporting program logic errors, documentation logic error, or problems relating to program distribution (such as missing or wrong level modules).

Do not use the APAR to report:

- Comments, suggestions, or improvements. Use the Product and Support Requirements Request, form ZZ29-1702, and submit it through Systems Engineering or Marketing.
- Documentation errors and inadequacies such as format, punctuation, spelling, or style. Use the Reader's Comment Forms included at the rear of each publication for this purpose.
- Product packaging, quality, or missing items on program orders received from the Program Information Department (PID). Inform PID of any discrepancies.

Upon receipt of an APAR, IBM assigns an APAR number and returns this number to you when acknowledging receipt of the APAR. The assigned APAR number must be used in any further communication regarding your APAR.

Investigation regarding your APAR is accomplished using the modification level of the reported suspect program currently available from PID. For example, if your APAR is against Version 1 Modification 0 of a program and Version 1 Modification 1 is currently available from PID, Version 1 Modification 1 is used in an attempt to duplicate your reported problem.

Resolution of your APAR can result in one of the following actions:

- Corrections to the IBM-supplied code or documentation
- Documentation of a currently undocumented restriction (temporary or permanent)
- Notification that your problem was reported previously and is or will be corrected in the latest release level of the IBM-supplied program or documentation
- Notification that your problem is a result of incorrect usage, with an indication of what your problem is and where the correct procedure is documented

IBM's goal is to answer APARs as quickly as possible on a first-in, first-out basis. However, the length of time required to answer a specific APAR varies depending on the complexity of the problem. Your IBM representative can advise you of the status of a specific APAR.

If you have access to the Series/1 Customer Assistance Center, you can request the status of a specific APAR through the hotline.

Questions relating to Series/1 APAR procedures should be directed to your IBM marketing representative.

Who Submits an APAR

Authorized originators of an APAR against the Series/1 licensed programs are:

- Licensed users
- IBM customer engineers
- IBM system engineers

What the APAR Requirements Are

IBM investigates an APAR if it meets the following requirements. An APAR must be submitted:

- By an authorized originator.
- On the APAR form, with all applicable sections filled in.
- In English.
- On unmodified code. If you have made a modification to the code that prevents normal problem determination or causes other problems, you must remove the modification and attempt to recreate and document the problem using the unmodified IBM-supplied code.
- Against a current release of a program version. A program version modification is considered current for three months following the availability of the next maintenance release from PID or until central programming service is no longer available.
- Describing one problem per APAR form.
- With adequate supporting documentation to enable IBM to recreate the reported problem.

Supporting documentation (such as program listings) is not returned unless specifically requested. Diskettes are returned automatically when the APAR has been resolved.

Note: Care should be taken by the APAR submitter to ensure that the Series/1 user is aware of the support material being submitted. Use of confidential technical data or programs which contain proprietary or sensitive information should be avoided, where possible, by substituting sample data that produces the same error symptoms. Confidential and proprietary technical data and programs will be accepted by IBM only upon the execution of a written agreement, setting forth terms acceptable to the customer and IBM.

The customer wishing confidential treatment of financial and business data accompanying an APAR should include a copy of the written agreement with his APAR submission.

All customer confidential material is to be labeled by the customer (that is, stamped on the first page of a dump, listing, or other printed material, or externally labeled if diskette or other).

An APAR which does not meet the preceding requirements may be rejected or returned for additional information. In this case, the APAR submitter receives notification explaining why the APAR cannot be processed.

When to Submit an APAR

Submit an APAR after you have:

- Researched all currently available product News Bulletins.
- Applied available patches or program temporary fixes (PTFs)
- Exhausted the recommendations presented in the system reference manuals.
- Completed problem determination and isolated the problem to a particular component of the system and believe the problem to be IBM's responsibility. Although isolation of the problem to a particular module or instruction may speed IBM's resolution of your problem, you need not analyze the problem to that depth in order to submit an APAR.
- Gathered sufficient supporting documentation from the system for inclusion with the APAR (see Section *P* under "How to Complete the APAR Form").

How to Complete the APAR Form

You can obtain the APAR form (G150-0180) from your local IBM representative or copy the APAR form included at the rear of this document. If you elect to use copies of the included APAR form, please enter a unique number for identification purposes in the *Preassigned APAR Serial No.* field (located at the upper right corner) on each APAR you submit.

Fill in *only* the following items on the APAR form (see the sample in the rear of this document). Type or print all information legibly. The circled letters on the APAR form correspond to the circled letters below:

A Customer Name

Full name of licensed user.

B Customer Number

Identification number assigned by IBM to licensed user. This number is included with each shipment from PID.

C Customer Mailing Address

Your complete mailing address.

D IBM Representative Name and Address

Complete this item *only* if you wish all APAR correspondence to be sent to your IBM representative instead of to you.

G ITPS Code

Required for IBM internal users.

L Operating Environment

Not required for Series/1.

M Hardware Configuration

Type of processor, its storage size, and the I/O units used for system residence, system input, and system output (for example, 4955, 64K, 4962, 4979, 4974).

N Program Identity and Change Level

Use this area to describe the licensed program order number and component (if applicable); its version and modification level; and if the failing program executes under control of a monitor or control program, the level of that program. For example, if Version 2 Modification 3 of FORTRAN IV (5719-FO2) fails while executing under control of the Realtime Programming System Version 4 (5719-PC4), this area should read:

COMPONENTS OR PROGRAM IN ERROR/SUSPECTED PROGRAM IDENTITY AND CHANGE LEVEL															
(N) COMPONENT ID NUMBER										COMPONENT LEVEL		5719-PC4(P02) PTF diskette SCPC4 LEVEL			
5	7	1	9	-	F	O	2	Ø	Ø	Ø	2	3	Ø	4	1

Both Realtime Programming System and Event Driven Executive (EDX) users should indicate the PTF(s) level applied to their system (for example, P02).

Since 5719-FO2 also runs with EDX, EDX users should indicate the appropriate EDX version instead of 5719-PC4.

P Material Submitted

Provide supporting documentation so that APAR processing can reproduce and analyze the condition. Submit any items you used to arrive at your diagnosis that you feel will help to evaluate the problem. *Be sure to include everything necessary to recreate or demonstrate the problem.*

Submit a list of the exact steps to load, execute, and examine the reported problem (that is, list the utilities and commands used and make note of or print the screen responses). Include as many of the following as possible:

- Abnormal end (ABEND) dumps.
- Stand-alone storage-to-diskette dumps.

Note: The contents of storage locations X'0C' to X'22' must be displayed and recorded prior to the IPL of the storage-to-diskette dump diskette to provide linkage into the dump. If either of the above dumps is of a customized system, it is essential to include one of the following with the dump:

- A listing of the customized system's TSRT data set or a copy of the data set on a diskette (Realtime Programming System)
- The application build map of the customized system
- A stand-alone dump in EDX requires the following:
 - ▣ A copy of EDXDFTS
 - ▣ A copy of LINKCNTL

- Sample input and/or output data.
- List of your modifications to the Realtime Programming System, EDX, the Program Preparation Subsystem, and any other IBM licensed program(s) used for the application.
- A console printout showing the sequence of events leading to the failure.
- List of news bulletin patches or PTFs currently applied to the operating system and the program product.
- Description of any circumvention or bypass found.
- Copies of the appropriate user programs and data files on diskette(s) along with source listings, control statements, and application build or link-edit map(s).

If a data file was destroyed, send us a copy of the good file, a listing of all transactions needed to destroy the file, and a copy of the destroyed file.

If the failing program is large and complex, reduce the problem to a small test case (if possible) to expedite analysis and correction.

- Copy of your system task set or supervisor on diskettes. This is extremely important if you are using a customized system instead of the starter system.
- Application build maps.
- Event Driven Executive \$LINK listing.
- System generation output listings.
- Error log output.
- I/O trace output.

Obviously, not all of the above items apply to all APARs. Enclose enough supporting documentation with the APAR to enable APAR Control to recreate the problem.

Ⓡ Symptom Code and Ⓢ Failure Keyword

Select the symptom code and keyword from the list that best describes the external symptom. Enter this symptom code in **Ⓡ** and enter the failure keyword (left-justified) in **Ⓢ**. If more than one symptom applies, enter the additional failure keyword(s) in **Ⓥ** (Error Description Text).

<i>Symptom Code</i>	<i>Failure Keyword</i>	<i>Explanation</i>
AB	ABEND	Abnormal termination of a task, no error message.
AB	PROGCK	Program check.
DD	DOC	Documentation error.
HL	HALTxxx	Halt (xxx=1 to 8 digits).
IN	INCORROUT	Incorrect output, exclusive of performance degradation.
LP	LOOP	Loop.
MC	MACHCK	Machine check.
MS	MSGxxx	Message, error, or other (xxx=1 to 8 digits).

<i>Symptom Code</i>	<i>Failure Keyword</i>	<i>Explanation</i>
PE	PATCHERR	Patch error.
PR	PERFM	Performance degradation.
WS	WAIT	Wait condition, undocumented.
WS	WAITxxx	System wait condition (xxx=1 to 8 digits).

T Abstract

Select a keyword from each of the following columns to define the failure. Separate the keywords with a dash (never with a slash). If you cannot provide a keyword from a column, omit the keyword but do not leave blank spaces—continue with the next word.

Use only the keywords from the following lists, in the following sequence:

- Component
- Activity
- I/O device

<i>Component</i>	<i>Explanation</i>
APBLD	Application builder
APPU	Application Program Preparation Utility (FC/PM only)
COBOL	COBOL
COMM	Communications
DMGMT	Data management
EDITIN	EDX Text Editor
EDXASM	EDX Assembler
FCPMxx	Facility Control/Power Management xx (FC/PM)
FICHE*	Microfiche
FLTEM	Floating point emulator
FOR	FORTRAN IV
FSEDIT	EDX Text Editor
GEN	General (when no other keyword is descriptive)
IAM	Indexed Access Method
JSP	Job stream processor
LINK	EDX linkage editor
MASM	Macro assembler (EDX and Realtime Programming System)
MTM	Multiple Terminal Manager (PRPQ)
PLI	PL/I
PLM*	Program logic manual
PRPQ	Programming request for price quotation (PRPQ)
SORT	Basic Sort
SPOOL	Disk Spooling (PRPQ)
SRL*	Systems reference library manual
SUBR	Subroutine
SUPVR	Supervisor/resident monitor
TAPE	Tape
TXTED	Text editor (Realtime Programming System)
UPD	EDX Update
UTIL	System utility/stand-alone utility

*Use with DOC keyword only

<i>Activity</i>	<i>Explanation</i>
ASSY	Assembly/processing assembler source statements
BUILD	Building a task set
CMPL	Compile
DENSITY	Density
EDIT	Edit
ERP	Error recovery procedure
EXEC	Execute
FICHE#*	Order number of the microfiche
FMT	Format
GEN	General activity (when no other keyword is descriptive)
INIT	Initialize
IPL	Initial program load
LINK	Linking modules
LOAD	Load
PATCHERR	Patch error
PERSN	Personalization (use for FC/PM only)
PLM#*	Form number of the Program Logic Manual
RELOAD	Reload
RSTRT	Restart
RW	Rewind
SRL#*	Form number of the System Reference Library manual
SYSGEN	System generation
TRACE	Trace
XLAT	Translator (use for FC/PM only)
<i>I/O device</i>	<i>Explanation</i>
CONSOLE	Console panel switches, for example
DISK	Disk
DISKET	Diskette
INTGDIDO	Integrated digital input/digital output
OEM	Other equipment manufacturer
PROC	Process I/O
RPQ	RPQ device not identifiable by device number
TAPE	Tape
TIMER	Timer
TPASC	Teleprocessing asynchronous mode
TPBSC	Teleprocessing binary mode
xxxx	The number of the device (4966, 4978)
TTYATCH	Teletypewriter attachment

After the keywords in **T**, enter a free-form abstract which describes the external symptoms and summarizes the problem. The abstract in **T** is limited to 66 characters, so be sure to insert only one character, blank, or space in each block. See the sample APAR form in the rear of this document.

U Re-IPL Req

If you must re-IPL to recover from the problem, check this box.

Regression

If the problem is in an area that was operating without error before the installation of a maintenance release, a news bulletin patch, or a program temporary fix, check this box.

*Use with DOC keyword only.

Y Error description

Completely describe the problem, including the operating environment and the sequence of commands and operations required to produce the failure. Identify any bypass or circumvention. Provide enough information to allow IBM to *recreate* the problem.

W Submitter's Name and Signature

Print your name; then sign below.

X Ret APAR No

If you are submitting additional documentation for an APAR previously closed by returning (RET), enter the six-character number of the returned APAR.

Y Pre-Screening

If you discuss this problem with a Customer Assistance Center representative, ask the representative for a prescreening number to place in this field. This number enables APAR Control Department personnel to notify you (through the Customer Assistance Center) if they have problems processing your APAR as submitted.

Z APAR Submitted

The date the APAR is submitted.

XX GSDSE Time Spent

For IBM SE use only.

Where to Send an APAR

- For APARs relating to the following programs:
 - Facility Control/Power Management (program numbers 5719-U11, 5719-U12, 5719-U13, 5719-U14, and 5719-U15)
 - Communications Monitor (program number 5799-TCX)

mail the form to:

IBM Corporation
APAR Processing
Dept. 20H
2800 Sand Hill Road
Menlo Park, California 94025

- For APARs relating to the following program numbers:

5719-AM1	5719-FO2	5719-PL6	5799-TDE
5719-AM3	5740-LM2	5719-SC2	5799-TDG
5719-ASA	5719-LM3	5719-SF1	5719-UT3
5719-AS4	5740-LM3	5719-SF2	5719-UT4
5719-CA1	5740-LM4	5719-SM1	5719-UT5
5719-CB1	5719-LM5	5719-SM2	5719-XS1
5719-CB2	5719-LM6	5719-TA1	5719-XS2
5719-CB3	5719-MS1	5719-TA4	5719-XS3
5719-CB4	5719-MS2	5799-TBY	5719-XX2
5719-CR1	5719-PC4	5799-TCB	5719-XX3
5719-CR2	5719-PL2	5799-TCE	5719-XX4
5719-CS2	5719-PL4	5799-TCH	
5719-ED1	5719-PL5	5799-TCY	

mail the form to:

IBM Corporation
Series/1 APAR Control
P. O. Box 1328
Boca Raton, Florida 33432

IBM		APAR Authorized Program Analysis Report		Preassigned APAR Serial No. 5237	
(A) CUSTOMER NAME XYZ COMPANY		(B) CUSTOMER NO 99999-99		(J) PROBLEM NUMBER	
(C) CUSTOMER MAILING ADDRESS XYZ COMPANY 4955 BANYAN TRAIL BOCA RATON, FLORIDA ATTN: JOHN DOE		ZIP CODE 99999		(K) SEVERITY CODE 1 2 3	
(D) NAME IBM REPRESENTATIVE—NAME AND ADDRESS		EMPLOYEE SERIAL NO		(L) OPERATING ENVIRONMENT	
MAILING ADDRESS					
ZIP CODE					
(E) FE REGION		(F) BRANCH OFF NO		(G) WORLD TRADE COUNTRY	
(H) ITPS CODE		(I) AREA CODE & NO IBM BRANCH OFF PHONE		(M) CPU STORAGE SIZE SYS RES SYS IN SYS OUT 4955 64K 4962 4979 4974	
				(N) COMPONENT OR PROGRAM IN ERROR / SUSPECTED COMPONENT ID NUMBER 5 7 1 9 - F 0 2 0 0 0 2 3 0 4 1	
				(P) MATERIAL SUBMITTED WITH APAR	
				<input checked="" type="checkbox"/> STORAGE DUMP <input type="checkbox"/> STORAGE MAP <input type="checkbox"/> TAPE DUMP <input type="checkbox"/> DASD DUMP / Q <input type="checkbox"/> SOURCE DECK / TAPE <input type="checkbox"/> OBJECT DECK / TAPE <input type="checkbox"/> PROGRAM LISTING <input type="checkbox"/> OTHER 1 DISKETTE	
				<input type="checkbox"/> CONTROL CARDS / JCL <input checked="" type="checkbox"/> CONSOLE LOG <input type="checkbox"/> CONSOLE CONDITIONS <input type="checkbox"/> SYSTEM LOG <input type="checkbox"/> SYSTEM OUTPUT <input type="checkbox"/> TEST DATA <input type="checkbox"/> DIAGNOSTIC OUTPUT <input type="checkbox"/> PTF LIST <input type="checkbox"/> USER'S ROUTINE <input type="checkbox"/> TP CONF LIST	
(R) SYMPTOM		(S) FAILURE KEYWORD		(U) RE-IPL REQ <input type="checkbox"/>	
MS / MSG \$ F T 0 0 9 T				REGRESSION <input type="checkbox"/>	
(T) ABSTRACT		FOR-CMPL-MSG \$FT009T OPEN ERROR O N OBJOUT WHEN LPRINTER USED			
(V) Error description text—Note variations between expected and actual output—differences from previous successful runs—suspected problem area—verify EC level as adequate for program (PSM)—special configuration, teleprocessing, I/O switching, multi-systems, etc. Identify any bypass, circumvention, or relief given. PRINT PROGRAM NAME: USING V04M1 OF 5719-AS4 AND 5719-PC4 — WHEN USING THE FORTRAN 'QUICK-INSTALL' SYSTEM, A MESSAGE \$FT009T 'OPEN ERROR ON OBJOUT, RC= -132 (GETSTG FAILED)' OCCURS WHEN THE LINEPRINTER IS SPECIFIED AS THE OUTPUT DEVICE FOR THE FORTRAN COMPILER, AND EITHER SOURCIN OR OBJOUT ARE POINTING TO A MEMBER WITHIN A DATA SET WITHIN A VOLUME. CIRCUMVENTION: THE PROBLEM CAN BE CIRCUMVENTED BY OMITTING THE DATA SET NAME (DSN) FROM THE BUILD P FOR THE LINE PRINTER.					
(W) SUBMITTER'S NAME (PRINT OR TYPE) JOHN DOE		SUBMITTER'S SIGNATURE <i>John Doe</i>		DATE 4/4/80	
				(XX) GSDSE TIME SPENT HOURS MINUTES MO DAY YR 4 4 80	
				(Z) APAR SUBMITTED FE DP CUST OTHER X	
				PAGE 1 OF 1	
DISTRIBUTION PARTS 1 & 2 APAR PROCESSING PART 3 ORIGINATOR PART 4 APAR PROCESSING/OR AS DIRECTED IN PSM GEN NO 4 G150-0180-19 (U/M 010) REV. 3/79 APAR PROCESSING					

Note: If you require more space to adequately describe a problem, use another APAR form referencing your preassigned number or any separate sheet of paper.

APAR

Authorized Program Analysis Report

Preassigned APAR Serial No.

(A) CUSTOMER NAME															(B) CUSTOMER NO. <div style="display: flex; justify-content: space-between;"> 1234 </div>																													
CUSTOMER MAILING ADDRESS																									(K) SEVERITY CODE <div style="display: flex; justify-content: space-between;"> 1234 </div>																			
																									(L) OPERATING ENVIRONMENT																			
ZIP CODE																									(M) CPU STORAGE SIZE SYS RES SYS IN SYS OUT																			
IBM REPRESENTATIVE—NAME AND ADDRESS																									COMPONENT OR PROGRAM IN ERROR/SUSPECTED																			
(D) NAME															(N) COMPONENT ID NUMBER										COMPONENT LEVEL/SU					SCP CSP LEVEL														
MAILING ADDRESS																																												
ZIP CODE																									(P) MATERIAL SUBMITTED WITH APAR																			
																									<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> STORAGE DUMP STORAGE MAP TAPE DUMP DASD DUMP/Q SOURCE DECK/TAPE OBJECT DECK/TAPE PROGRAM LISTING </div> <div style="width: 45%;"> CONTROL CARDS/JCL CONSOLE LOG CONSOLE CONDITIONS SYSTEM LOG SYSTEM OUTPUT TEST DATA DIAGNOSTIC OUTPUT PTF LIST USER'S ROUTINE TP CONF LIST </div> </div>																			
<div style="display: flex; justify-content: space-between;"> <div style="width: 20%;">(E) FE REGION</div> <div style="width: 10%;">(H) BRANCH OFF NO</div> <div style="width: 10%;">(F) NO</div> <div style="width: 50%;">(F) WORLD TRADE COUNTRY NAME</div> </div>																																												
(G) ITPS CODE															(H) AREA CODE & NO IBM BRANCH OFF PHONE										(ALSO TIE-LINE NO. IF AVAILABLE)																			
(R) SYMPTOM										(S) FAILURE KEYWORD										(U) RE-IPL REQ. <input type="checkbox"/>					(Q) SPECIAL ACTIVITIES					(X) RET APAR NO					(Y) PRE-SCREENING									
) ABSTRACT																																												

⑤ Error description text—Note variations between expected and actual output—differences from previous successful runs—suspected problem area—verify EC level as adequate for program (PSM)—special configuration, teleprocessing, I/O switching, multi-systems, etc. Identify any bypass, circumvention, or relief given. **PRINT PROGRAM NAME:**

(W) SUBMITTER'S NAME (PRINT OR TYPE) _____	(XX) GSDSE TIME SPENT HOURS MINUTES		(Z) APAR SUBMITTED MO DAY YR			ORIGINATOR IS FE DP CUST OTHER			

SUBMITTER'S SIGNATURE

DATE _____

PAGE _____ OF _____

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PARTS 1 & 2:APAR PROCESSING. PART 3:ORIGINATOR. PART 4:APAR PROCESSING/OR AS DIRECTED IN PSM GEN. NO. 4

READER'S COMMENT FORM

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IBM Series/1 Authorized Program Analysis Report (APAR) User's Guide

Your comments assist us in improving the usefulness of our publications; they are an important part of the input used in preparing updates to the publications. IBM may use and distribute any of the information you supply in any way it believes appropriate without incurring any obligation whatever. You may, of course, continue to use the information you supply.

Please do not use this form for technical questions about the system or for requests for additional publications; this only delays the response. Instead, direct your inquiries or requests to your IBM representative or the IBM branch office serving your locality.

Corrections or clarifications needed:

Page	Comment
------	---------

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Please indicate your name and address in the space below if you wish a reply.

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