

Series/1

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IBM Series/1 Software Service Guide

Eighth Edition (February 1984)

This is a major revision of, and makes obsolete, GC34-0099-6.

Chapter 1 is new and should be read in its entirety. Changes in Chapter 2 (previously Chapter 1) are indicated by a vertical line in the margin to the left of the change.

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International Business Machines Corporation 1978, 1979, 1980, 1983, 1984

About This Book

This *IBM Series/1 Software Service Guide* provides instructions to assist you in using services provided by the IBM Support Center and submitting an APAR. Use of the IBM Support Center is restricted to customers in the United States. Customers in other locations should continue to use the existing support provided.

The IBM Support Center will assist you in handling problems related to your system and will help you in preparing and in submitting an APAR (if needed). The APAR is designed to handle problem reporting for all IBM programs with Central Programming Services support.

If, after reading this guide, you have any additional questions regarding the IBM Series/1 support services, contact the IBM Support Center.

How this Guide is Organized

This Guide is organized in two chapters, as follows:

- Chapter 1, Series/1 Software Support, explains the software support services provided by the IBM Support Center. This chapter answers the following questions:
 - Who is eligible for service?
 - What services are available?
 - When is service available?
 - How do you select the appropriate support?
 - How do you identify the source of a problem?
 - What are your responsibilities?
 - How does the support center operate?
 - How is your incoming call handled?
 - How do IBM Series/1 software support personnel handle problems?
- Chapter 2, APAR Preparation, answers the following questions:
 - Who may submit an APAR?
 - What requirements should be met when submitting an APAR?
 - When should you submit an APAR?
 - How do you complete the APAR in step-by-step detail?
 - What materials should you submit?
 - Where do you send your APAR?

Publications

The prerequisite and related publications are the Series/1 manuals pertaining to your operating system. These publications are listed in the preface of each related manual.

For more specific information pertaining to problem analysis and reporting, refer to the following publications:

- IBM Series/1 Realtime Programming System Version 6: Problem Determination, SC34-0470
- IBM Series/1 Event Driven Executive Problem Determination Guide, SC34-0439
- IBM Field Engineering Programming System General (PSGIM) Information Manual, ZZ25-0511

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Summary of Amendments

Summary of Amendments for IBM Series/1 Software Service Guide, SC34-0099-7

Change in Book Title: The title of this book, formerly called the *IBM Series/1 Authorized Program Analysis (APAR) User's Guide*, was changed to reflect the scope and intent of the new software support strategy, as summarized in these amendments.

Series/1 Software Support, Chapter 1: This chapter was added to explain the services provided for the IBM Series/1 Event-Driven Executive Version 4, the Realtime Programming System Version 6, and associated licensed programs. **APAR Preparation, Chapter 2**: This chapter, previously called *Chapter 1, APAR Guide*, was revised to update the APAR procedures as they are affected by the new software support strategy.

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Chapter 1. Series/1 Software Support

IBM Series/1 software support comprises a variety of services designed to assist you in obtaining a high level of system availability for the Series/1 Event Driven Executive, the Series/1 Realtime Programming System, and supported licensed programs. The software support service is provided by the IBM Support Center. Other related services are provided by your Customer Service Representative, and your IBM Marketing Branch Office.

To maximize the effectiveness of the support and make the best use of its services, you should understand:

- Who is eligible for service
- What services are available
- When to call for service
- How to select the appropriate support
- What your responsibilities are
- How the IBM Support Center operates.

Who Is Eligible For Service?

Software services are available to licensed users of currently supported IBM Series/1 software products. Event Driven Executive (EDX) Version 4, the Realtime Programming System Version 6 and selected licensed programs will be supported. (To determine whether a specific product is currently supported, refer to the *Programming System General Information Manual.*)

What Services Are Available?

Figure 1-1 lists the kinds of service you can expect from the support organizations. The services available through these facilities are summarized as follows:

- The **IBM Support Center** helps you in resolving defect-related software problems associated with IBM products.
- The **IBM Marketing Branch Office** provides general information and support pertaining to IBM program products.
- The Customer Service Representative provides information and support pertaining to IBM hardware.

IBM Support Center	IBM Marketing Branch Office	Customer Service Representative
Problem Source Identifica- tion ¹	Hardware and software installation planning ¹	Hardware installation planning ¹
Problem diagnosis ¹ APAR preparation and sub- mission ¹ Temporary bypass/circumvention ¹ Problem and APAR status Corrective service Program Temporary Fix (PTF) and preventive service information	Education Ordering assistance Performance guidance Conversion planning Operations guidance Modification guidance Products not on central service	Hardware related prob- lems Problem determination ¹

Figure 1-1. Summary of Series/1 Support Services

If your installation includes the communications equipment required to enable a Remote Support Link, the following additional services are provided:

- Remote diagnosis using operator facilities, error logs, and problem determination tools.
- Transmission of APAR documentation from your location to the IBM central service location.
- Transmission of APAR fixes to your system, if required.

(For more information on the requirements for a Remote Support Link, call the IBM Support Center.)

1 Assistance only.

When Is Service Available?

The **IBM Support Center** is available 24 hours a day, seven days a week, for problem reporting, problem management and status information. Support for problem correction and/or circumvention is provided in callback mode from 8:30 a.m. to 6:00 p.m., Eastern time, Monday through Friday (except national holidays).

How Do You Select the Appropriate Support?

To provide prompt and accurate advice to you, IBM depends on you to carefully identify the kind of service you need, and in the case of a programming problem, the problem source. Answer the questions in Figure 1-2 to determine the type of service you need and the type of support that is available to assist you.

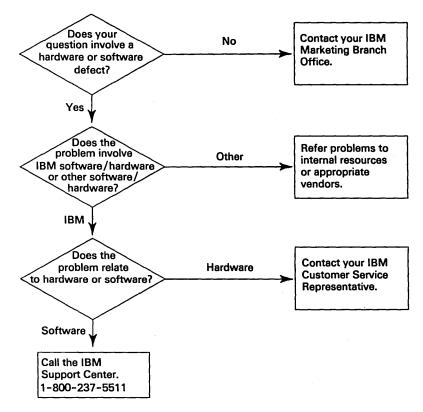


Figure 1-2. How to Select Support Available

What Are Your Responsibilities?

The IBM service requires that you remain responsible for the following:

- Problem Determination an assessment as to whether a problem is caused by hardware or software. The Customer Service Representative will help you if necessary.
- Problem Source Identification assessment as to where in your software the problem exists. This process begins only after you have determined that the source of the problem is in the software. The IBM Support Center will help you if necessary.
- Severities the impact that a problem has on your operation.
- Information Feedback You may be asked to supply data and information that is available at your location; respond to suggestions or questions pertaining to problem resolution, such as applying a fix and relating the results.
- Documentation You may be asked to submit documentation by mail or via the Remote Support Link.

Security/Integrity — User management is responsible for evaluating security and integrity requirements for data and software resident in the system, prior to allowing IBM access via the Remote Support Link. Every precaution will be taken by IBM to insure the integrity of user data and software, but IBM assumes no responsibility in this regard.

How Do You Identify Problem Source?

Once you detect a software problem, try to identify the source of your problem by following the procedures outlined in the *Problem Determination* book for your operating system. The procedure for problem source identification is basically the same for all problems. You begin by gathering enough information so that a meaningful search can be made against the problem to determine whether it (or a similar problem) has already been reported to the IBM Support Center. Statistically, the problem is likely to have occurred previously. If that is the case, the symptoms you report will lead to the known solution sooner.

- Observe all the symptoms error messages, abnormal end-of-job, loops, wait state, program check, or incorrect output.
- Make a note of all special conditions associated with the failure; for example, these conditions may have a bearing on the failure:
 - A new job running
 - A recent system generation
 - A change in system configuration
 - A new procedure being used
 - Any changes made since the last successful run.
- Document the symptoms and conditions you observed.

If you are unable to identify the problem source, the IBM Support Center will help you determine which component is failing and assist you in getting the necessary documentation to resolve the problem.

How the IBM Support Center Operates

The IBM Support Center operations are shown in Figure 1-3. When you call the center, you first contact the customer service coordinator; depending on your specific needs, your call is routed to the most appropriate person available to assist you.

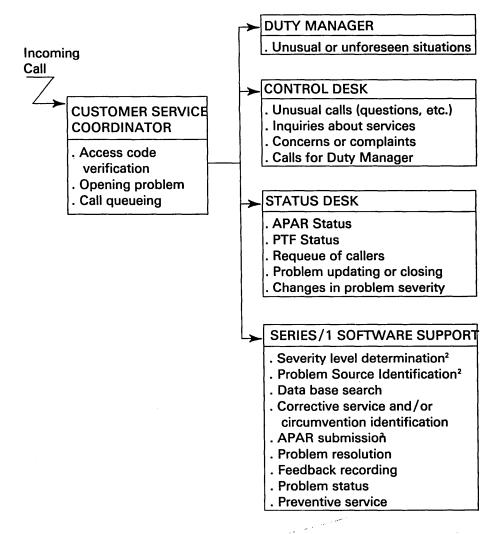


Figure 1-3. How the IBM Support Center Operates

² Assistance only.

How Is Your Incoming Call Handled?

When the service coordinator answers your call, be prepared to supply the following:

- Your name and phone number
- access code a unique, confidential code that identifies your installation as an authorized user of the IBM Support Center. This code is provided by your IBM Marketing Representative.
- problem number (if available):
 - If you are reporting a new problem, the customer service coordinator assigns a number.
 - If your call pertains to an old problem (number assigned), the Customer Service Coordinator transfers your call to a Series/1 Support representative or to the Status Desk, as appropriate.
- operating system either the Event Driven Executive or Realtime Programming System.

At this point, the customer service coordinator creates (or updates) a Problem Management Record (PMR). This PMR is then queued to a Series/1 support representative who will return your call. The representative will require the following additional information:

- processor type and serial number
- failing component the name of the functional part of the operating system that failed (for example utilities, text editor).
- severity the impact the problem has on your operation, according to the following:
 - Severity 1 unable to use system; critical impact on operations.
 - Severity 2 able to use program; operations severely impacted.
 - Severity 3 able to use program with some restrictions; no critical impact.
 - Severity 4 problem circumvented; little or no impact.

How Do Series/1 Software Support Personnel Handle Problems?

The Series/1 software support personnel operate in call-back mode. After your call is queued for support, a representative responds with a call back to you.

During the problem resolution process, your problem may be worked on by multiple representatives. This approach allows your problem to be directed to the most appropriate person at any given point during the diagnosis and resolution process. Redirection of problems is accomplished with the queueing process. When your problem is redirected, the representative to whom the problem is queued will respond with a telephone call back to you. While working on your problem, a representative may:

- Ask you to gather additional data and/or perform further problem analysis locally and then call back (reinstate the problem via the Customer Service Coordinator).
- Request a Remote Support Link to diagnose the problem, transmit APAR documentation from your location, or transmit a fix to your location.
- Request feedback on fixes or circumvention supplied.

The support center representative will maintain an on-going account of the problem progress in the problem management record.

When the representative feels that the problem is a new (previously unknown) defect in currently supported IBM software and sufficient documentation is available, an APAR is created for you. You may be asked to mail in documentation in support of the APAR. Optionally, you may prepare and mail a hard copy APAR. (Refer to "Chapter 2, APAR Preparation," for instructions on how to prepare an APAR.)

If the representative concludes that the problem:

- Is caused by IBM hardware, you will be asked to contact your IBM Branch Office Customer Service Representative.
- Requires marketing assistance, you will be referred to your IBM Marketing Branch Office.
- Is caused by something that is in your realm of responsibility, you will receive an explanation and be asked for your concurrence in closing the problem.

Chapter 2. APAR Preparation

The Authorized Program Analysis Report (APAR) is designed to report program logic errors, documentation logic errors, or problems relating to program distribution (such as missing or wrong level modules). The IBM Support Center creates APARs electronically, when appropriate, during the problem resolution process. Optionally, APARs may be created and submitted on an APAR form, G150-0180, by authorized originators. (See the section *Who Submits an APAR?*.)

The APAR is not used to report the following:

- Comments, suggestions, or improvements. Use the Product Application and Support Requirement (PASR), form Z125-9011, 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 back of each publication for this purpose.
- Product packaging, quality, or missing items on program orders received from the European Program Library (EPL) and Program Information Department (PID). Inform EPL/PID of any discrepancies.

For each APAR submitted, IBM assigns an APAR number which must be referred to in any further communication regarding your program problem.

Your APAR is investigated using the modification level of the current program available from EPL/PID. For example, if your APAR is against Version 1 Modification 0 of a program and Version 1 Modification 1 is available from EPL/PID, Version 1 Modification 1 is used in an attempt to duplicate your reported problem.

Your resolved 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 severity basis. However, the length of time required to answer a specific APAR varies depending on the complexity of the problem. Your IBM Support Center can tell you the status of a specific APAR.

Who Submits an APAR?

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

- IBM Support Center
- Licensed users
- IBM Customer Service Representatives
- IBM System Engineers.

What Are the APAR Requirements?

The submitted APAR must meet the following requirements:

- It must be submitted by an authorized originator.
- It must be submitted on the APAR form, with all applicable sections filled in.
- The form must be completed in English.
- It must be submitted on unmodified code only. 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.
- The form must be accompanied with adequate supporting documentation and data to enable IBM to diagnose and/or recreate the reported problem.
- It must be submitted against a current release of a program version.
- It must describe one problem per APAR.

Diskettes are returned automatically to the originator when the APAR has been resolved. However, you must specifically request the return of supporting documentation (such as program listings).

Note: You should be aware of the support material you submit. Avoid using confidential technical data or programs which contain proprietary or sensitive information. Where possible, use sample data that produces the same error symptoms. IBM accepts confidential and proprietary technical data and programs only through a written agreement, setting forth terms acceptable to the customer and IBM.

If you want confidential treatment of financial and business data accompanying an APAR, include a copy of the written agreement with your APAR submission. Label customer material confidential (that is, stamp "confidential material" on the first page of a dump, listing, or other printed material, or on the label of a diskette or tape).

Note: For information on how to obtain a written agreement, contact your Marketing Branch Office.

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

When Is an APAR Submitted?

Submit an APAR after you have performed the following:

- Discussed the problem with an IBM Support Center Representative.
- Researched all currently available product Program Temporary Fix (PTF) cover letters.
- Applied available patches or PTFs.
- Exhausted the recommendations presented in the Problem Determination manuals.
- Consulted the Program Directory of the failing component to ensure that the product is still under Central Support.
- 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 is an APAR Form Completed?").

How Is an APAR Form Completed?

You can obtain the APAR form (G150-0180) from your local IBM representative or copy the APAR form in the back of this document. If you elect to use copies of the included APAR form, 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 Figure 2-5 on page 2-11). Type or print all information legibly. The circled letters on the sample APAR form correspond to the circled letters below:

A Customer Name

Your full name

B Customer number

Your identification number that IBM assigned to you. This number is included with each shipment from EPL/PID.

Customer Mailing Address

Your complete mailing address.

IBM Representative Name and Address

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

K Severity

The impact the problem has on your operation, according to the definitions supplied under "How Is Your Incoming Call Handled?" on page 1-6.



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Hardware Configuration

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

Program Identity and Change Level

P

B

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The licensed program order number and component (if applicable), its version and modification level and, if the failing program executes under control of an operating system, the level of that program. For example, if Version 1 Modification 0 of QUERY (5719-XR1) fails while executing under control of the Event Driven Executive (5719-XS3), this area should read:

COMPONENT OR PROGRAM IN ERROR/SUSPECTED																	
Component ID Number Component 5719-XS3(P08) Level Diskette Level																	
5	7	1	9	-	х	R	1	0	0		0	1	0		0	3	2

Both Realtime Programming System and Event Driven Executive (EDX) users should indicate the PTF level applied to their system (for example, P08), as shown in the above example.

Material Submitted

Provide supporting documentation so that IBM can recreate 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.* (See "What Materials Should You Submit?" on page 2-9 for additional information.)

Symptom Code and S Failure Keyword

Select the symptom code and keyword from Figure 2-1 that best describes the external symptom. Enter this symptom code in \bigcirc and enter the failure keyword (left-justified) in \bigcirc . If more than one symptom applies, enter the additional failure keyword(s) in \bigcirc (Error Description Text).

Abstract

From Figure 2-2 on page 2-6, Figure 2-3 on page 2-7, and Figure 2-4 on page 2-8, select a keyword to define the failure. Separate the keywords with a dash (never with a slash).

Use only the keywords from the tables in the following sequence:

- Component (from Figure 2-2)
- Activity (from Figure 2-3)
- I/O device (from Figure 2-4)

Note: If you cannot provide a keyword from a column, omit the keyword but do not leave blank spaces – continue with the next field

After the keywords in **①**, enter an abstract that describes the external symptoms and summarizes the problem. The abstract in **①** is limited to 66 characters, so be sure to insert only one character, blank, or space in each block.

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Symptom Code	Failure Keyword	Explanation
AB	ABEND	Abnormal termination of a task, no error message.
AB	ABENDxxxx	Abnormal termination of a task $(xxxx = completion code)$.
AB	PROGCK	Program check.
DD	DOC	Documentation error that caused program to fail.
HL	STOPxx	Stop ($xx =$ number of stop 01 to FF).
IN	INCORROUT	Incorrect output, exclusive of performance degradation.
LP	LOOP	Loop.
МС	MACHCK	Machine check.
MS	MSGxxx	Message, error, or other (xxx=1 to 8 digits).
PE	PTFERR	PTF error
PR	PERF	Performance degradation.
WS	WAIT	Wait condition - undocumented.
WS	WAITxx	System wait condition (xx=01 to FF)

Figure 2-1. Symptom Code and Failure Keywords

O Re-IPL Required

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

Regression

Check this box 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 PTF.

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.



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Submitter's Name and Signature

Print your name; then sign below.

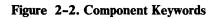
Pre-screening

A support representative will provide you with the content of this field, if required. If you have not discussed the APAR with a support representative, leave this field blank.

APAR Submitted

The date the APAR is submitted.

Component	Explanation
APBLD	Application builder (Realtime Programming System)
CLF	Command language facility (Realtime Programming System)
COBOL	Cobol
СОММ	Communications
DMGMT	Data or device management
EDIT1N	EDX text editor
EDXASM	EDX assembler
EDXLINK	EDX linkage editor #2
FICHE ¹	Microfiche
FLTEM	Floating point emulator
FORT	Fortran
FSEDIT	EDX or Realtime Programming System full screen editor
GEN	General (when no other keyword is descriptive)
IAM	Indexed access method
JSP	Job Stream Processor (Realtime Programming System)
LINK	EDX linkage editor #1
МАСР	Macro preprocessor
MASM	Macro assembler
MTM	Multiple terminal manager
PAS	Pascal
PLI	PL/I
PRPQ	Programming request for price quotation
RJE	Remote Job Entry
SORT	Sort/Merge
SPOOL	Disk spooling
SRL ¹	Systems reference library manual
SUBR	Subroutine
SUPVR	Supervisor/resident monitor
TAPE	Таре
TXTED	Text editor (Realtime Programming System)
UPD	EDX update
UTIL	Any EDX or Realtime Programming System utility



¹ Use with DOC keyword only.

Activity	Explanation
ASSY	Assembly/processing assembler source statements
BUILD	Building a task set
CMPL	Compile
EDIT	Edit
ERP	Error recovery procedure
EXEC	Execute
FMT	Format
form num	Form number of the System Reference Library manual
GEN	General activity (when no other keyword is descriptive)
INIT	Initialize
IPL	Initial program load
LINK	Linking modules
LOAD	Load
order num	Order number of the microfiche
PATCHERR	Patch error
RELOAD	Reload
RSTRT	Restart
RW	Rewind
SYSGEN	System generation
TRACE	Тгасе

Figure 2-3. Activity Keywords

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I/O device	Explanation
ACCA	Asynchronous I/O attachment
CONSOLE	Console panel switches, for example
DISK	Disk
DISKET	Diskette
DISP	Display
FLT	Floating Point Feature
FPMLA	Feature Programmable Multi Line Attachment
INTGDIDO	Integrated Digital Input/Digital Output
LCC	Local Communications Controller
MFA	Multi-Function Attachment
OEM	Other Equipment Manufacturer
PRINT	Printer
PROC	Process I/O
RPQ	RPQ device not identifiable by device number
S1S1	Series/1 to Series/1 attachment
TAPE	Таре
TIMER	Timer
TPASC	Teleprocessing asynchronous mode
TPBSC	Teleprocessing binary mode
TPSDLC	Synchronous Data Link Control
ТТҮАТСН	Teletypewriter attachment
xxxx	The number of the device (4966, 4978)

Figure 2-4. I/O Device Keywords

What Materials Should You Submit?

Submit a list of the exact steps to load, execute, and examine the reported problem. (That is, list the utilities and commands used. Make a note of or print the screen responses). For all APARs, include as many of the following as possible:

- A copy of the system task set on diskette(s).
- A console printout (or hand-written/typed description) showing the sequence of events leading to the failure.
- Sample input and/or output data.
- A description of any modifications to any component of the EDX or Realtime Programming System, or any other IBM licensed program(s) used for the application. (See "What Are the APAR Requirements?" on page 2-2 for information on labeling user confidential material.)
- Copies of the appropriate user programs and data files on diskette(s) along with source listings, control statements, application build, or link-edit maps.
- A copy, on diskette, of all non-IBM modules used in the system generation.
- If a data file was destroyed, send a copy of the good 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.
- For terminal related problems, list the following:
 - Terminal definitions
 - Type of terminal
 - Switch settings (when applicable)
 - Type of adapter
 - Type of interface.
- A description of any circumvention or bypass found.

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

For Realtime Programming System — APAR Support Documentation

In addition to the material listed for all APARs, include the following for Realtime Programming System:

• Stand-alone storage to diskette dumps.

Note: The dump program uses some system registers and the first 256 bytes of storage. If you feel that this information is pertinent for the APAR, refer to the *Realtime Programming System Problem Determination* section "Take a Stand-Alone Dump" for information on how to supply IBM with this data.

• Abnormal end (ABEND) dumps (printout or diskette).

If either of the above dumps is for a customized system, you must include one of the following with the dump:

• A REPORT, TSRT from the customized system task set.

• The application build map of the customized system.

Also include the following:

- A listing of your PTF Log data set(s)
- System generation output listings, if you are reporting a problem during system customization
- A REPORT, LISTLOG of the system error log data set
- Any trace output (SVC, I/O, ICF), when applicable.

For Event Driven Executive – APAR Support Documentation

In addition to the material listed for all APARs, include the following for Event Driven Executive:

- Trap dumps
- Stand-alone storage to diskette dumps.

A stand-alone or trap dump requires the following:

- A copy of the LINK MAP of the system
- A copy of \$EDXDEFs
- A copy of LINKCNTL
- A list of PTFs currently applied to the operating system and the program product
- The error log.

Where Do You Send an APAR?

To find the mailing address for APARs, consult the appropriate Program Directory under "APAR Procedures," or check with the IBM Support Center for this information. Also, you may refer to the IBM Field Engineering PSGIM handbook under the component identification section.

IBM APAR Authorized Program Analysis Report	Preassigned APAR Serial No.
XYZ COMPANY 9999999	1 2 3 4
XYZ COMPANY	
4955 BANYAN TRAIL	
BOCA RATON, FL 33432	
ATTN: JOHN DOE	(W) CPU STORAGE SIZE SYS RES SYS IN SYS OUT 4955 64K 4962 4978 4974
IBM REPRESENTATIVE/CUSTOMER REPRESENTATIVE—NAME AND ADDRESS	COMPONENT OR PROGRAM IN ERROR/SUSPECTED 57/9-XS3
MAILING ADDRESS	5719-CB500020032
	MATERIAL SUBMITTED WITH APAR STORAGE DUMP CONTROL CARDS/JCL
ZIP COLE	TAPE DUMP CONSOLE LOG CONSOLE CONDITIONS
	DASD DUMP/Q SYSTEM LOG SOURCE DECK/TAPE SYSTEM OUTPUT
	OBJECT DECK/TAPE TEST DATA DROGRAM LISTING DIAGNOSTIC OUTPUT
© ITPS CODE (H) AREA CODE & NO IBM BRANCH OFF PHONE	
	DISKETTE USER'S ROUTINE TP CONF LIST
(B) SYMPTICIN (S) FAILURE KEYWORD (U) RE-IPL REQ. PRPER FM REGRESSION (C)	
TABSTRACT COBOL-CMPL-4974	
© Error description text-Note variations between expected and actu	
pected problem area—verify EC level as adequate for program (PSM systems, etc. Identify any bypass, circumvention, or relief given PRIN)-special configuration, teleprocessing, I/O switching, multi-
USING 5719-CB5 AND 5719-CB	6. THIS COBOL STATEMENT
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Figure 2-5. Sample of Completed APAR Form

Note:

If you require more space to adequately describe a problem, use another APAR form or any separate paper. Make sure you reference your preassigned number.

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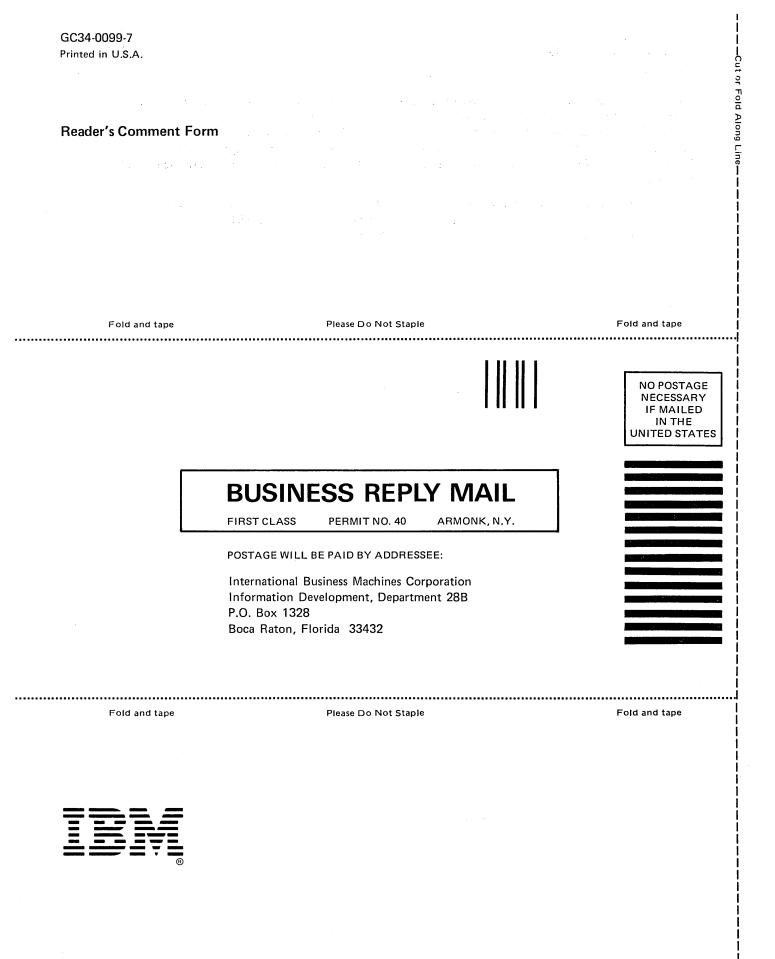
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