# RAPID

# Version 3 Release 4.3

# **Problem Determination**



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# **Introduction**

# **Audience for this book**

This manual describes the transaction flow and messages of the Realtime Application Program Interface to DISOSS (RAPID), which provides a generalised interface between DISOSS and other applications.

RAPID is the generic term for RAPID/Base (which is the actual interface software), RAPID/TSO, RAPID/Batch and RAPID/CICS (which are sub-systems to interface to different environments).

The manual is intended for the System Programmer responsible for the maintenance of CICS based Office Systems software. It details the transaction flow within RAPID and provides a stepby-step guide to diagnosing problems and correcting them. It also lists the return codes used by the RAPID system.

Users should also refer to their interface documentation for additional information, or to the RAPID User Guide for RAPID/TSO, RAPID/Batch or RAPID/CICS.

# Other books you may need

There are 3 volumes that accompany the RAPID system software:

- *RAPID Installation and Administration* manual, which explains how to install, customize and administer the RAPID system.
- *RAPID Problem Determination* manual, which describes the detailed working of RAPID, and lists messages and codes.
- *RAPID User Guide*, which provides information on how to develop and install an interface between RAPID and other systems.

# **The RAPID System**

In this document the RAPID transactions are referred to as ZAPA, ZAPI etc. The first three characters of the RAPID transaction names are customisable. If your installation has customised the transaction names then you will need to bear this in mind when reading this document.

ZAPA, ZAPI and ZAPZ are the only RAPID transactions started without any start data. All the rest have some correlation data within which the message number for the request is located. The message number is used by RAPID to keep track of the requests, updating the message file as the requests are processed.

# ZAPI (APIMASTR) - Process MAIL/STATUS notification from DISOSS

ZAPI is started by DISOSS whenever mail is sent to a RAPID user or when the status of mail sent by a RAPID user changes. It is also started internally, for a repeat list request, by the transactions ZAPJ, ZAPM, ZAPN and ZAPS. A start from DISOSS will have a return code of 115, whereas an internal RAPID start will have a return code of

For each user specified in the start data a DISOSS LIST command is performed, unless a LIST is already in progress for that user. The LIST(s) will be performed using the first user on the control file SYSTEM record (usually APIMASTR). For each list requested, an 'M' record will be written to the message file with the reply return code being set to 800 and the next transaction id set to ZAPM. If a list was already in progress the record will be written as an 'X' record with a reply return code of 601, and the 'new list' flag set. If the user specified in the start data does not have a corresponding control file USER record then no list is performed for that user, an 'X' record is written to the message file with a reply return code of 106 and a warning message written to the CICS log.

# ZAPM (APIRDIST) - Process LIST document for a RAPID user

ZAPM is initiated by DISOSS with a LIST document generated as a reply to a LIST command issued by ZAPI. The LIST command is in two parts; the first gives a list of documents sent to the user, the second gives the COD information for documents sent by the user.

The list document is examined first for the names of the documents awaiting delivery to the user. These are then stored on the RAPID control file, after which the list document is examined for confirmation messages for all distributions from the user. Each distribution name is in the format 'RAPIDxxxx' where xxxx is the message number in COBOL S9(8) COMP format. The 'M' record from the message file is read for this message number and if the COD flag is set to a 'Y' then a confirmation ('C') record is set up on the mailsack containing all of the confirmation details received for the user. The 'M' record is then updated to have a reply return code of 700 and transaction ZAPQ started. During this processing if a non-RAPID distibution is encountered a warning message will be written to the CICS log.

Before processing the COD list, the control file is read to retrieve the list warning limit value. As the COD information is processed, if the number of COD items retrieved exceeds this value a warning message is written to the CICS log. The warning message is then repeated each time the total COD's processed exceeds the original limit value by 10%.

If there are no documents awaiting delivery to the user, but RAPID requires a repeat list for the user or the DISOSS level from the ZAPTABL is 3.2, ZAPI is started. With DISOSS 3.2 this will be after the interval specified on the control file USER record. The 'M' record on the message file for the LIST command is updated to an 'X' record and rewritten with a reply return code of

If there were documents awaiting delivery to the user, the 'M' record on the message file for the LIST command is updated to have a reply return code of 700 and a start issued for ZAPL.

# ZAPL (APIPOBTN) - Issue an OBTAIN command for a user

ZAPL is initiated by the RAPID transaction ZAPM to perform an OBTAIN command for a user.

The USER record on the control file is read and from this the destination obtained. The INTERFACE record can then be read to find the signed on user (the INTERFACE record is keyed on destination-id).

If the obtain type on the USER record is set to cancel mail then a CANCEL command is issued to DISOSS to cancel the first document in the list. The reply return code on the message file 'M' record is then set to 800. On replying to the CANCEL command DISOSS will then start ZAPS.

If the user is not set up to have mail cancelled, RAPID issues an OBTAIN ALL command to DISOSS. The reply return code is then set to 800. On replying to the OBTAIN ALL command DISOSS will start transaction ZAPN.

# ZAPN (APIGDOC) - Process document obtained from DISOSS

ZAPN is initiated by DISOSS with a document or documents which have been OBTAINed from the delivery queue. As RAPID has issued an OBTAIN ALL command there may be zero or more documents which are to be processed by this transaction.

If the reply from DISOSS is a non-zero NAK code then the message file 'M' record is rewritten as an 'X' record and the reply return code set to 97. A message is also written to the CICS log.

For each document obtained the DDN is removed from the list on the control file record and an 'M' record written to the message file. If RDRF processing is required then the RDRF record keyed on the destination code and DDN is updated with the date, time and the new mailsack key. The return codes on the message file are set to 111 and 700 and a start for ZAPQ issued. If the document is obtained with a non zero NAK code then an 'X' record is written to the message file with return codes 112 and 122 and an error message written to the CICS CSMT and the transaction processing ended.

If there are no more DDN's on the list and either the new list required flag is set (i.e. ran out of space on record in ZAPM) or the DISOSS level is 3.2 then a start is issued for ZAPI (after the interval specified on the USER record in the case of DISOSS level 3.2). Also, for no more entries left, the 'M' record is rewritten as an 'X' record with a reply return code of

After the above processing any DDN left on the control file record must be for documents that cannot be OBTAINed. RAPID will issue a CANCEL command for the first DDN in this list and set the reply return code on the message file to 800. DISOSS will reply to the CANCEL command by starting transaction ZAPS.

# ZAPS (APICDOC) - Cancel un-delivered documents from DISOSS

ZAPS is initiated by DISOSS with the reply to a CANCEL command for a document issued by ZAPL or ZAPN.

If the NAK code from the reply is zero then an 'X' message is written to the message file with return codes 137 and 122, otherwise for a non zero NAK code the return codes are 138 and

If there are further DDN's in the list on the control file record then a CANCEL command is issued to DISOSS for the next one in the list. The reply return code on the message file set to 800. DISOSS will respond to the cancel by restarting this transaction.

If there are no more documents remaining in the list on the record, the 'M' record on the message file is rewritten as an 'X' record with a reply return code of 110. If the list flag is set for a new list required or the DISOSS level is 3.2 then ZAPI is started (after an interval in the case of DISOSS 3.2).

# ZAPQ (APIOUT) - Write documents to an Outtray

This transaction is initiated by RAPID to move a document placed on the mailsack by ZAPN (documents obtained), ZAPM (COD documents written), ZAPK (non-DISOSS requests) or ZAPR (reply to commands sent to DISOSS) to an outtray or to submit JCL to the internal reader.

If there are no mailsack records for the request an 'X' record is written to the message file with a reply return code of

If RDRF processing is required for the interface then an attempt is made to read the RDRF file with a key built from the destination code and DDN. If the mailsack key on the RDRF file does not match the current mailsack key then the superfluous mailsack records are deleted and 'X' records written to the message file with a reply return code of

If the outtray is a batch outtray then the program will check for a JCL record and schedule the JCL submission by starting the transaction ZAPP using the specified interval on the control file SYSTEM record, also an 'M' message will be written to the message file with return codes 162 and

When an 'X' record with a reply return code of 135 is written this indicates that the document has been succesfully copied to the out-tray.

Any transaction specified on the control file INTERFACE record is started on copying the mailsack data to the outtray.

# ZAPP (APICOPY) - Submit JCL to the Internal Reader

ZAPP is started by ZAPQ when records are copied on to a batch outtray from the mailsack for a user who has associated control file JCL record.

The JCL is obtained from the control file and written to the internal reader, togther with any JCL substitutions specified.

# ZAPK (APIMAIL) - Send requests into DISOSS

ZAPK is intiated by itself on an interval and by ZAPJ after signing on all of the RAPID users. It may also be initiated by a user transaction.

The name of the file (which can be the mailbox or mailsack) containing the data of the request to be sent to DISOSS is included in the START data, in the case of this being the RAPID mailbox then an MVS ENQ is issued and the file opened. The file is then read for the first record beginning with a 'Z'.

If no 'Z' records are found then, in the case of the mailbox, an MVS DEQ is issued and the file closed. If the transaction was started by RAPID and the associated message file entry indicates a request has been processed then an 'X' record is written to the message file with a reply return code of 84 and a new 'M' record written to the file with return codes 400 and 700. If the transaction was started by RAPID and the message file entry indicated that no requests have been processed then the message file entry is kept as an 'M' record with a reply return code of 700. In both the previous cases ZAPK is restarted on the interval specified in the control file SYSTEM record.

If a 'Z' record has been found, the destination code of the record is examined. If the destination code is 'I1' this indicates the item is a request to be sent to DISOSS. The control file USER record is read for the reply-system (defaults to DISOSSPS, if none is given), and from this the INTERFACE record is identified to find the appropriate RAPID user who will be used for the DISOSS request. The request is then sent into DISOSS. An 'M' record is written to the message file with return codes 81 and 800. DISOSS will reply to the command by issuing a start for ZAPR. Otherwise, if the destination code from the record is not 'I1' then the records are written to the mailsack as 'D' records, a start issued for ZAPQ and a message file 'M' record written with return codes 136 and

As data is copied from the file it is deleted. If requests have been found on the file, the number of requests processed is incremented on the message file 'M' record that originated the request, the reply return code set to 700 and an immediate start issued for ZAPK.

If an incomplete request is found on the file, a message is written to the CICS log and the request is deleted. Processing then continues with the next request.

# ZAPR (APIANSWR) - Process replies to a command sent to DISOSS

ZAPR is initiated by DISOSS with the reply to a command sent into DISOSS.

If the NAK code from the reply is zero and COD was set to 'Y' then, (if the command is not a request distribution) the reply return code on the message file is set to 700 and a start issued for ZAPQ. Otherwise the control file USER record is read for the requestor and if it is not found, ZAPQ is started and the reply return code set to 700. If the user is found then there is a COD pending (handled by ZAPI performing a list at some stage) so the reply return code is set to 148 and the mailsack records deleted.

If the NAK code from the reply is zero and COD was not requested then the message file 'M' record for this request is rewritten as an 'X' record with the reply return code set to 122 and the mailsack records deleted.

If the NAK code from the reply is non-zero then, for a destination on the mailsack which is not low-values, the reply return code on the message file is set to 700 and ZAPQ started, otherwise, for the destination which is low values, the mailsack records are deleted and the 'M' record rewritten as an 'X' record with a 151 return code.

# ZAPA (APIINIT) - Process start-up request for RAPID system

ZAPA is invoked by either a user entering ZAPA on a screen or by the program APIRAPID in the PLT. A CICS CEMT command is issued to enable all of the RAPID transactions (i.e. all transactions ZAP\*).

The message file is read for 'M' records with return codes of (startup), 500 (sign-on) or (400 mail process) these are rewritten as 'X' records with a reply return code of 999 (request cancelled). The last-update date on all message file 'X' records is examined. If this is less than the retain date (calculated from a parameter table value subtracted from the current date) then the record is deleted.

A list on the control file SYSTEM record is built up by reading the control file INTERFACE records to obtain all the RAPID users to be signed-on. The first user on the SYSTEM is kept and should be APIMASTR (or the installation's equivalent).

The mailsack is browsed and for each record found whose key does not begin with a 'Z' the corresponding message file 'M' record is read. If this does not exist then the mailsack records are deleted for this request and a disaster message 97 written to the CICS log.

Finally, an 'M' record is written to the message file with return codes of 900 and 700, a start issued for transaction ZAPO and a sign on message written to the screen (if the transaction was initiated on a screen).

### ZAPO (APIPSIGN) - Issue a sign-on command to DISOSS

ZAPO firstly examines the APIQ 'L' records for the user and restarts DISOSS for any outstanding requests <sup>1</sup>. The control file USER record is then read and the destination specified on this is used to read the INTERFACE record. This contains the list of GCIDs and DCA levels that the user will be signed on for. The control file USER record is also read to obtain the password for the user. A command is then issued to DISOSS to sign on the user. DISOSS will reply by starting transaction ZAPJ. The reply return code is set to 800 on the message file.

### ZAPJ (APISGNON) - Process reply from DISOSS to sign-on command

ZAPJ is started by DISOSS to process the reply to a sign-on command

The APIQ is examined for 'O' records for the user <sup>1</sup>. If any are found then the correlation data is located and from this the message number extracted. The associated message file 'M' record can then be read, if it is found then the start is reissued otherwise the APIQ records deleted.

If the NAK code from the sign-on is not zero then the message file 'M' record is rewritten as an 'X' record with a reply return code of 120. A disaster message is also written to the CICS log and RAPID stops processing.

If the NAK code is zeros then the control file SYSTEM record is read.

If there are still users to sign-on then the current message file 'M' record is rewritten as an 'X' record with a reply return code of 121, a new message file 'M' record is written with return codes of 500 and and a start issued for transaction ZAPO.

When all of the users have been successfully signed-on RAPID rewrites the current message file 'M' record as an 'X' record with a reply return code of 132. Also, the message file 'M' records are browsed and those with a reply return code of 700 have their request reissued by reSTARTing the appropriate RAPID transaction.

The control file USER records are also read through and any repeat list commands issued. Furthermore, the mailsack and/or mailbox processing is started as required, 'M' record(s) are written to the message file with return codes of 400 and 700 and a start issued for transaction ZAPK.

The example outlines step by step the return codes that can be expected on the message file for a document sent from DISOSS to a RAPID user pointing to a RAPID outtray. Each RAPID transaction that is executed is given together with, apart from the return codes, examples of some

<sup>&</sup>lt;sup>1</sup> The APIQ is only read to check for the existence of the 'old' style APIQ records ie prior to PTF's UP80775 - 'APIQ Out-of-sync' and UN90019 - 'Performance PTF'. Before these APIQ PTF's have been applied DISOSS cannot recover any unprocessed requests on the APIQ. To address this problem RAPID bypassed the API module and read the APIQ directly during its startup processing. By doing this it was able to recover these requests. Once these PTF's have been applied this processing is no longer necessary - RAPID will still perform the reads but will not find any records. All processing is now done via the API modules.

of the other message file fields set up, some of which may only be viewed by requesting further information when on the main message file enquiry screen.

1. ZAPI

On sending a document, this is the first RAPID transaction to be initiated and issues a LIST command. The next available message number is obtained and a message file 'M' record written with the following fields set up as shown:

- RETURN CODE: 115 (Notification from DISOSS of documents awaiting delivery)
- REPLY RETURN: 800 (Awaiting reply from DISOSS)
- ISSUE PROG: APIMASTR
- DETECT PROG: APIMASTR
- COMMAND ISSUED: LIST
- NEXT TRAN: ZAPM
- 2. ZAPM

This transaction is initiated by DISOSS with the reply to the LIST command generated by ZAPI. ZAPM will issue a start for ZAPL. The above fields are changed as follows:

- REPLY RETURN: 700 (RAPID start for the next transaction)
- DETECT PROG: APIRDIST
- NEXT TRAN: ZAPL
- 3. ZAPL

This transaction is initiated to obtain the mail for the user. It issues an OBTAIN ALL command to DISOSS. The message file fields are changed as follows:

- REPLY RETURN: 800 (Awaiting reply from DISOSS)
- DETECT PROG: APIPOBTN
- COMMAND ISSUED: OBTAIN
- OPTIONS: ALL
- NEXT TRAN: ZAPN
- 4. ZAPN

This transaction will be initiated by DISOSS with the reply to the OBTAIN command issued by ZAPL for the document. The message file record 'M' record will be rewritten as an 'X' record and some of the fields changed:

- REPLY RETURN: 110 (List completed successfully)
- DETECT PROG: APIGDOC
- COMMAND ISSUED: LIST

A new 'M' record is then created for each document obtained using a new unique message number. The fields are set up as follows:

- RETURN CODE:
- REPLY RETURN:
- ISSUE PROG: APIGDOC
- DETECT PROG: APIGDOC
- NEXT TRAN ID: ZAPQ

A start is then issued for the transaction ZAPQ.

5. ZAPQ

This transaction is initiated to copy the document to the outtray. If a user transaction is specified on the control file INTERFACE record then this will be started. The 'M' record created by ZAPM will then be rewritten as an 'X' record with the following:

- REPLY RETURN: 135 (Document successfully copied to the destination file)
- DETECT PROG: APIOUT
- NEXT TRAN ID: User transaction (If specified) or ZAPQ

The example outlines step by step the return codes that can be expected on the message file for a document sent from a RAPID system to DISOSS without COD (Confirmation of Delivery).

Each RAPID transaction that is executed is given together with, apart from the return codes, examples of some of the other message file fields set up, some of which may only be viewed by requesting further information when on the main message file enquiry screen.

1. ZAPK

This transaction starts itself on a timer. On discovering an item on the mailbox/mailsack, a SEND command is issued to DISOSS and a new 'M' record is written to the message file, with fields set up as:

- RETURN CODE: 81 (Command issued to DISOSS)
- REPLY RETURN: 800 (Awaiting reply from DISOSS)
- ISSUE PROG: APIMAIL
- DETECT PROG: APIMAIL
- COMMAND: SEND
- NEXT TRAN: ZAPK

ZAPK is then restarted by the transaction. On restart the message originating the request is rewritten as an 'X' record with a reply return code of 84. A new message file 'M' record is then rewritten with return codes 81 and 800 and an interval start issued for ZAPK.

2. ZAPR

This transaction is initiated by DISOSS with the reply to the send command. As confirmation of delivery has not been requested the 'M' record is rewritten as an 'X' record with the following:

• REPLY RETURN: 122 (Command completed successfully)

**Note:** If confirmation of delivery had been requested then the reply return code would have been set to 148. RAPID would then wait until it had received a confirmation from DISOSS that the recipients had received the document, then generate a confirmation document and issue a start for ZAPQ.

3. ZAPQ

Started by ZAPR, ZAPQ will check if all recipients have been confirmed. If they have then an 'X' record is written as follows:

- REPLY RETURN: 135 (Command completed successfully)
- NEXT TRAN: From INTERFACE record or ZAPQ

If confirmations are outstanding, then:

- REPLY RETURN: 148 (Command completed successfully)
- NEXT TRAN: ZAPI then repeat as above

Most of the RAPID files are very volatile with records constantly being added and deleted. As a consequence it is possible that the files may become disorganised. This disorganisation may cause a performance degradation of RAPID or at worst it may cause RAPID to terminate.

It is, therefore, imperative that the RAPID files be monitored on a regular basis. The regularity will depend on the level of activity and this can only be judged by monitoring RAPID in its production environment.

This monitoring should be sensitive to the number of CI/CA splits, the availability of freespace and extents. Ideally, there should be no CI/CA splits and there should be no extents (i.e. the file should be within it's primary space allocation).

Should the number of splits become excessive, the freespace reduce significantly or the extents become excessive, a reorganisation of the file is recommended using the standard VSAM utilities. The reorganisation itself may not, for example, remove all the extents. In these cases the files should be backed up, the cluster definition changed, the cluster deleted and redefined and the file restored from the backup.

For futher information on the RAPID system files, their contents and volatility, see the RAPID Installation and Administration Guide chapter titled The RAPID System Files.

# **RAPID Problems**

RAPID can extract documents from DISOSS and 'wrap' JCL around them, using document profile data as substitution JCL, and submit the 'job' to an internal reader.

Defining an internal reader to RAPID, the steps involved are:

- Define an internal reader to CICS
- Create an interface record with the internal reader fields defined
- Set up a user record and associate it with the interface record
- Set up the JCL records to be associated with the user

Once the JCL has been submitted by RAPID it has no way of knowing whether the JCL ran successfully or not. So, as far as the originator is concerned the document has been transmitted though in actuality it may have failed.

This is an area which may cause problems if the JCL or internal reader definitions are incorrectly set up.

Where either of these are a source of error, JES will flush the job with varying levels of error notification depending on the severity of the error.

So, where documents are not being delivered, and the JCL/internal reader mechanism is being used to deliver the document:

- Check the machine log to see whether the job is failing due to an illegal job card or because of invalid JCL. If the job is available on an output queue, check the printout to determine the error. If a printout is not available, then the source JCL definition in RAPID will have to be checked. Correct the JCL accordingly.
- Check the definition of the internal reader. Ensure the name of the reader used matches that in the RAPID customisation table and that there is an entry for it in the CICS JCL. Ensure that the record length is sufficient for the type of document being sent within the JCL.
- Check the RAPID user record and ensure that the interface id points to an interface record with the internal reader specified as expected.
- Check the RAPID interface record and ensure the internal reader fields are specified and that the line width does not exceed the record length of the CICS internal reader definition.

For more details on setting up JCL jobs and internal readers, see the RAPID User Guide, chapter Outbound - Using the Internal Reader.

In the discussions which follow any reference to PS/CICS applies equally to the Personal Services component of OfficeVision/MVS.

This chapter is intended as a guide to some of the problems which can occur within RAPID or DISOSS. Some of the problems will be common to PS/CICS as this also uses the API.

The first realisation of the problem will probably occur when a command sent either from PS/CICS or a RAPID interface fails to complete after a reasonable amount of time. The first step is to identify the area in which the problem is occuring. This will be treated as two separate cases to assist in locating the problem.

- PS/CICS to DISOSS/RAPID problems....goto <u>"STEP1 PS/CICS STATUS"</u>
- RAPID to DISOSS/PSCICS problems.....goto <u>"STEP4 RAPID problems"</u>

# **STEP1 - PS/CICS STATUS**

Firstly, it is necessary to determine how far the command got before the error occurred. This can be accomplished by checking PS/CICS status information.

- 1. PS/CICS release
  - a. status set to PENDING command not yet processed by DISOSS
  - b. status set to ERROR error processing command (check NAK code)
  - c. status set to COMPLETE command processed by DISOSS
- 2. PS/CICS release 2/3 and OV/MVS
  - a. status set to PENDING command not yet processed by DISOSS
  - b. status set to ACCEPTED command being processed by DISOSS
  - c. status set to PROBLEM a minor error has occurred (message)
  - d. status set to ERROR a major error has occurred (message)
  - e. status set to COMPLETE command processed by DISOSS

If the status is COMPLETE/ACCEPTED then goto <u>"STEP2 - Enquiring On The Delivery</u> <u>Queue"</u>.

If the status is PENDING then goto "STEP5 - PS/CICS errors".

If the status is ERROR/PROBLEM then goto <u>"STEP6 - DISOSS errors"</u>.

# **STEP2 - Enquiring On The Delivery Queue**

The item should have at least reached the delivery queue. The delivery queue may be inquired upon by typing DSVF DQREC, this will give a list of all the documents on the delivery queue for all users. Check the ORIGINATOR and RECIPIENT fields to identify your document. Use commands 'P/N' and 'P/P' to page through display if necessary. Commands should be entered in the top left corner (overwriting the DSVF).

- If the document is on queue LOCALQUE DSV9ROUT or LOCALQUE DSVAROUT then goto <u>"STEP6 - DISOSS errors"</u>.
- If the recipient is a PS/CICS user
  - 1. If the document is on the delivery queue then goto <u>"STEP5 PS/CICS errors"</u>.

- 2. If the document is not on the delivery queue then the document has probably got caught somewhere in PS/CICS or DISOSS, so it looks as if may be a PS/CICS DISOSS problem.
- If the recipient is a RAPID user
  - 1. If the document is on the delivery queue then goto <u>"STEP3 DISOSS delivery queue"</u>.
  - 2. If the document is not on the delivery queue then goto <u>"STEP4 RAPID</u> problems".

# **STEP3 - DISOSS delivery queue**

If the document is on the delivery queue and has not been picked up by RAPID then there may be a RAPID problem.

• Check that the RAPID recipient is defined correctly in the DISOSS HUP. The user MUST be defined as a USERTYPE=API user with a DDN which matches the HOSTNODE parameter (in the DISOSS HOSTDEF) and a TRANSID=ZAPI (or customised equivalent).

NOTE: If the HUP entry is defined as a USERTYPE=USERSET then the OBTAINID parameter for the userset must point to a user defined as specified above.

• Using transaction ZAPY enquire on the RAPID message file to determine how far RAPID has got in processing the request.

Check for a 115 return code with the recipient (or OBTAINID) in the user-name field, this may be either an 'M' or 'X' record.

If no 115 message is found then go to "STEP7 - RAPID disaster messages".

- Check the reply return code field of the message code
  - **97** LIST/OBTAIN for document failed due to a DISOSS error. This message will be an 'X' record and will have a non-zero NAK. The NAK code should be checked in the DISOSS DIAGNOSIS GUIDE; common ones are:
    - $\circ$  NAK code = C30509 the user password is incorrect.
    - NAK code = C40B17 one of the DISOSS datasets is full or corrupt etc. Check DSVDELQ, DSVAPIQ, etc and reorganise as necessary.
  - **601** LIST already in progress. This message will be an 'X' record and indicates that RAPID thinks a LIST command is already being processed for this user. The reply number field gives the message number of the LIST. Check this message for any of the return codes listed here.
  - 800 Awaiting DISOSS reply. This means that RAPID has sent a request to DISOSS and

has not received the reply. Check for DISOSS and RAPID errors as described in "STEP6 - DISOSS errors" and "STEP7 - RAPID disaster messages".

• Check for a message with return code 112 and the recipient in the requestor field (this will be an 'X' record). This message indicates that RAPID was unable to OBTAIN the document from DISOSS. The NAK code field will be non-zero and will indicate why the error occurred. The DISOSS message journal (usually J15) should contain a message giving further information about the error (only if TJ2 flag is ON in HOSTDEF).

A common error that occurs is if a document created in DW/4 is sent to a RAPID user. This document may contain cursor draw characters which cannot be translated by DISOSS. This problem can be corrected by creating a Print/translate fidelity table (see the Host Utilities Reference manual for instructions on this).

# **STEP4 - RAPID problems**

At this stage it may be that it is a RAPID problem. Check for the following conditions:

• Has RAPID started successfully today. This can be checked examining ZAPY to see if there is an 'X' record with a return code of 116 for today. This may be followed by a series of records with return code The signon process is completed by an 'X' record with reply return code

If these messages cannot be located then check for

- An entry for 'APIRAPID' (or customised equivalent) in the CICS PLTPI.
- The RAPID transactions are enabled and the files open (except for ZPMAILBX which should be closed).
- 'M' records with return code 116 or 500. These records will have reply return code 800. Check for DISOSS and RAPID errors as described in <u>"STEP6 - DISOSS</u> errors" and <u>"STEP7 - RAPID disaster messages"</u>.
- 'X' record for today with reply return code 120. This means that RAPID could not sign-on one of its users and so could not start up correctly. Check the NAK code in the DISOSS DIAGNOSIS GUIDE; common ones are:
  - NAK code = C30309 user is not defined to DISOSS.
  - NAK code = C30509 user password is incorrect.
- Is RAPID still processing? This can be checked from the last updated time on the message file 'M' records with return code 400. This should be a time in the future.

NOTE: If you are not using the ZPMAILBX file there will only be one 'M' record with return code

If the return code is not in the future then this may mean that a request on the input file is invalid. If you select the message then the REPLY DESTN field will indicate which input file was being accessed.

Check for RAPID errors as described in <u>"STEP7 - RAPID disaster messages"</u>. Either alter or delete the request from the input file using CECI.

• Is RAPID waiting for a reply from DISOSS? This can be determined from the RAPID message file by an 'M' record with a reply return code of 800. If this is the case goto <u>"STEP6 - DISOSS errors"</u>.

If none of the above have solved the problem then continue to <u>"STEP7 - RAPID disaster</u> messages".

# **STEP5 - PS/CICS errors**

Here it looks as though it is a PS/CICS problem.

• Unable to sign-on to DISOSS from PS/CICS.

Use the PS/CICS administrator function to reset the API status of the user who cannot sign-on.

- Check the log for PS/CICS errors. DIAGNOSING PROBLEMS WITH PS/CICS gives instructions on finding the message pool which will gives reasons for the abend.
- Check the CICS log for any DISOSS abends. If one is found then goto <u>"STEP6 DISOSS</u> errors".

# **STEP6 - DISOSS errors**

Check the CICS log for any DISOSS abends. The DISOSS DIAGNOSIS GUIDE gives instructions for finding the message pool which gives reasons for the abend.

- Check that all DISOSS files are open and enabled, particularly DSVSOCB, DSVSOCBA/DSVSOCBP, DSVAPIQ, DSVDELQ, DSVDELQA/DSVDELQP and DSVHUP.
- Check the delivery queue using DSVF DQREC. If there is a record on LOCALQUE DSV9ROUT with no recipient then delete it from file DSVFDCB (it should be the first record).
- Setting up a RAPID user with no password but having a password in DISOSS will cause a DISOSS abend. The abend will re-occur every time RAPID makes a request. The APIQ must be cleaned down to stop the abends.
- A check can be made for the problem being within DISOSS by sending documents around the system. Note, PS/CICS to PS/CICS communication does NOT pass through DISOSS unless document transformation is required. To invoke document conversion send an RFT document to a user who is not set up to receive RFT.
- RAPID contains many recovery techniques, and a simple restart will usually be sufficient once the DISOSS problem has been corrected.

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# **STEP7 - RAPID disaster messages**

RAPID disaster messages are written to the CSMT log or to the operator console, depending on installation. The messages will all be in the form RAPIDxxx, where xxx is the return code. If MRO/ISC is in use then you have to look in the CICS log of the transaction owning region.

The message will give details of the RAPID return code together with a description. Where applicable, the request number (which matches that on the message file enquiry) will be given, and in the case of serious errors the transaction will be abended. The return code can be checked against those shown in .

# **STEP8 - CLEANDOWN RAPID**

- To clean down the RAPID system
  - 1. Delete/redefine the mailsack.
  - 2. Delete/redefine the message file.

**Note:** The cleaning down of RAPID may result in lost RAPID requests and/or documents sent to RAPID users.

- Other datasets which may be cleaned down
  - Delete/redefine the DISOSS API queue
  - Delete/redefine the DISOSS delivery queue

**Note:** The cleaning down of the APIQ/DELQ may cause a loss of documents in DISOSS, incomplete requests and undeletable documents on the HDL. These files should only be deleted/redefined as a last resort.

Check through the following list before embarking on a more detailed investigation.

# • After migrating to from a release of RAPID prior to 3.3 RAPID168W error messages are being printed on the CICS log, tending to appear in batches.

This means that the DSVDELQ file has just been cleaned down, at some time, but not the DSVDRF file. The files are out of synchronisation and there are confirmations on this file for requests which will never be confirmed. Note the message number of the request from the error message - this can then be found on the message file. By checking this message the user can be identified and the problem solved by deleting the entries for this user on the DSVDRF file. Note that this will delete any COD's for that user.

# • When using RAPID/TSO and asking for confirmations to go to a PS/CICS user, requests seem to be carried out successfully but no confirmations are received.

Confirmations cannot be routed back to a PS/CICS user as PS/CICS will ignore unsolicited confirmations. The confirmations could be routed back to a dataset or TSO userid.

# • When sending to a TSO dataset, the document arrives but with some additional data at the front of it.

The document is probably in RF or FF TEXT format. The RAPID user (probably set up as DATASET) needs to be changed to receive only print image documents.

#### • All documents sent from DISOSS to a RAPID user are cancelled.

This will occur if the RAPID USER record is set up to cancel mail. RAPID will also cancel documents which are of a document type that the user is not set up to receive or if DISOSS cannot convert to a document type the user is set up to receive, e.g. PC FILE sent to a user set up to only receive print image.

#### • Documents sent to a RAPID user do not look correct.

This may mean that the document is received in the wrong DCA level. If you want an application to receive documents from DISOSS it is best to set up new user and destination records, using the new user as the signed on user. RAPID allows signed-on users to be shared between destinations but this causes problems because the DCA levels received are determined by the destination of the signed-on users.

# • When sending a document to a newly created RAPID user a list command takes place but when RAPID does the OBTAIN it never gets completed.

This implies that the RAPID user has not been signed on. A RAPID002 message on the CICS log or viewing the SYSTEM screen in RAPID Control File Maintenance will confirm this. To sign the user on restart RAPID (transaction ZAPA).

• On starting RAPID, it begins to sign on users and then stops.

This will occur if there is a NAK code returned from one of the sign-ons. The request with the NAK code will be high-lighted on message file enquiry. Check that the user is set up correctly in the DISOSS HUP and the password is the same as that given in the RAPID USER record.

# • Having just upgraded from DISOSS 3.3 to DISOSS 3.4, DISOSS is abending with a C40B17 NAK code when attempting a LIST command.

This is a DISOSS problem corrected by applying the PTF UP80711.

• Documents sent into DISOSS disappear without trace. The document is not received and there is no entry on the delivery queue.

Check that the DSVROUT contains an entry for your DISOSS node.

• Output from RAPIDGT3 or APIGT3 is corrupt.

Check that the APIOUT format flag on the RAPID control file interface record is set to 'Y'.

If after reference to this guide it is still not possible to resolve a problem it will be necessary to contact Technical Support - the following information should be obtained before doing so:

- 1. Details of any CICS abends, including times, transactions involved and abend codes.
- 2. Details of RAPID, DISOSS, CICS and PS/CICS levels.
- 3. It may be necessary to use the following transactions; please check that you have the relevant security clearance:
  - a. ZAPX
  - b. ZAPY
  - c. CEDF
  - d. CECI
  - e. CEMT
  - f. DSVF
- 4. Access to the CICS log/operator console display

Initial contact should be made using the appropriate telephone number or e-mail address printed on the front of this manual.

When through to Technical Support:

- 1. The Support Team will first determine whether you have a maintenance agreement or if the product is still under warranty; if neither of these applies all support activities are chargeable on a time and materials basis.
- 2. The Support Team will then attempt to resolve the problem over the telephone.
- 3. If it is not possible to resolve the problem on the telephone, the Support Team may need to do further investigative work into the problem.
- 4. If it is still not possible to resolve the problem additional information, such as CICS dumps may need to be sent.

# **<u>Return Codes</u>**

All RAPID actions have an associated code; these are indicated on either the CICS CSMT log, the RAPID message file (ZPMESSG) or the operator console, depending on installation parameters and/or the severity of the message.

The RAPID message file may be browsed from CICS using the message file browse system, described in more detail in the RAPID Installation and Administration Guide.

**Note:** When the return codes are displayed in message file enquiry program and associated printouts only the numeric code is displayed i.e. the RAPID prefix is omitted.

The meaning of each code is as follows:

### RAPID002E RAPID user @S not signed-on to DISOSS request @M

*Explanation:* A error has occurred in processing request @M because user @S is not signed-on to DISOSS. This may occur if a destination record is added/changed while RAPID is running and a request is made which uses the new destination. This may also occur if a destination is removed and there are still incomplete requests for that destination.

*User response:*Check the request on the message file (request number 0 indicates an inbound request on the mailsack). If the destination has been added then restart RAPID. If a destination has been removed then delete the message and restart RAPID.

### RAPID003E Unexpected end of data on APIQ request @M

*Explanation:* The API program returned an end-of-data condition when RAPID was expecting more data. This probably means that the APIQ is corrupt.

Note: This return code may occur if the CICS system and/or the FCT is not AUTO started.

*User response:*Check that the CICS system is AUTO started. Check that the request on the APIQ is complete. Delete the message and restart RAPID.

### RAPID012E API error (invalid command) request @M

*Explanation*: RAPID has issued an invalid command to the API program. The request is terminated with a dump. The most likely cause for this return code is a storage violation in CICS.

User response: Check the dump for any evidence of a storage violation. Restart RAPID.

# RAPID015E API error (I/O error) request @M

*Explanation:* API program encountered an error writing to/ reading from the APIQ. The request is terminated with a dump.

*User response:*Check the CICS log for any error messages concerning the APIQ. Check the trace table in the dump for a last APIQ return code.

### RAPID016E API error (protocol error) request @M RAPID017E API error (DISOSS start invalid) request @M RAPID018E API error (Control block address invalid) request @M RAPID020E API error (Data length invalid) request @M RAPID022E API error (API parameters invalid) request @M

*Explanation:* RAPID has invoked the API program incorrectly. The request is terminated with a dump. The most likely cause for this return code is a storage violation in CICS.

User response: Check the dump for any evidence of a storage violation. Restart RAPID.

### RAPID023E API error (APIQ dataset full) processing request @M

*Explanation:* The APIQ is full. The APIQ dataset is used as a temporary store of every request going into/out of DISOSS and is therefore very volatile.

User response: RE-ORGANISE the dataset and restart RAPID.

### RAPID061E DIU prefix missing from reply command. Request @M

*Explanation:* The response from DISSOS did not contain a prefix field. This indicates a serious error in the DIU. Processing is terminated with a dump.

*User response:* Check the response on the APIQ.

### RAPID062E DIU suffix missing from reply command. Request @M

*Explanation:* The response from DISSOS did not contain a suffix field. This indicates a serious error in the DIU. Processing is terminated with a dump.

User response: Check the response on the APIQ.

### RAPID063E Reply DIU is not of NRR type. Request @M

*Explanation:* The response from DISSOS is not a No Reply Required command. This indicates a serious error in the DIU. Processing is terminated with a dump.

*User response:* Check the response on the APIQ.

### RAPID064E Reply DIU @X not recognised. Request @M

*Explanation:* RAPID has received a DIU from DISOSS which it does not recognise. This indicates a serious error in the DIU. Processing is terminated with a dump.

*User response:* Check the response on the APIQ.

### RAPID071E Correlations of reply (@X) does not match request @M

*Explanation:* The correlation field in one of the reply commands does not match the correlation field from the start data. Processing is terminated with a dump.

*User response:* Check the response on the APIQ.

### **RAPID081I** Command sent to **DISOSS**

*Explanation:* The command has been written to the APIQ for processing by DISOSS. The replyreturn-code field indicates whether or not DISOSS has processed the request.

User response: No action required.

### RAPID083W Specified mailsack record not found. Request @M

*Explanation:* While processing a request RAPID has found that the mailsack record for this request no longer exists. No further processing of the request can be done. This indicates that the mailsack has been deleted without cleaning down the message file.

User response: No action required.

### **RAPID084I End of input file**

*Explanation:* While processing requests on the input file RAPID has reached the end of the file. All requests on the input file have been processed by RAPID.

User response: No action required.

### **RAPID087W Invalid START of RAPID. Data @X.**

*Explanation:* A RAPID transaction has been started with invalid START data @X. No processing is performed by RAPID.

User response: Identify and correct the program that started RAPID.

### RAPID094W Mailsack record @X with no message deleted.

*Explanation*: RAPID has found a record on the mailsack with no corresponding message file record. The mailsack record is deleted and processing continues. This will occur if the request has been cancelled (from message file enquiry) or the file has been deleted.

User response: No action required.

# RAPID097E Error during mail/status processing for user.\User @U. NAK @X.

*Explanation:* A DISOSS NAK code has been returned during processing of either new mail sent to a user or recipient information for requests sent from a user. All mail/status processing for this user will be stopped.

*User response:*Check the NAK code in the DISOSS Diagnosis Guide and correct the error. Restart RAPID when the error has been corrected.

### RAPID100E Record @X found on @R with no page 0.

*Explanation:* A record has been found on the input file @R with no page 0. The page 0 record contains control information required to process the request. If the current transaction is ZAPN, then all request processing for input file @R will be stopped. If the current transaction is ZAPK, the request is deleted and processing continues.

*User response:* If the current transaction is ZAPN, delete the request from the specified input file and restart RAPID. Otherwise, there is no action.

If this message is accompanied with abend code U100 in transaction ZAPN or abend code U200 with DUPREC in any transaction and CICS 2.1.2 is being used, ensure that PTF UN56003 is applied.

# RAPID1011 Incomplete request found on @R. Key @X.

*Explanation:* A record has been found on the input file @R which does not have a trailer record (ie page = X'FFFF'). The trailer record is required for documents only. This may mean that the document is incomplete. A possible cause of this message is where an attempt is made to transfer a document which exceeded the permitted maximum document size. The request is deleted and processing continues.

User response: No action required.

# RAPID106W User not defined on RAPID control file. User @U.

*Explanation*: RAPID has been notified by DISOSS of mail/status information for a user but the user is not defined on the RAPID control file. No action is taken by RAPID.

User response: Define the user on the RAPID control file and send another item to the user.

# RAPID107I Document no longer required (request deleted).

*Explanation:* A document has been sent to more than one RAPID user on a destination using RDRF processing. The distribution is rationalised so that only one copy of the document is written to the outtray. All other copies of the document are deleted and this return code is issued.

User response: No action required.

# **RAPID110I End of mail/status processing for user.**

*Explanation:* RAPID has completed mail/status processing for the user. No further action is taken by RAPID.

User response: No action required.

# **RAPID1111 Document obtained successfully from DISOSS.**

*Explanation*: RAPID has received a document from DISOSS for a user and copied it to the mailsack. The next action is determined from the reply-return-code field.

User response: No action required.

# **RAPID112I Error obtaining document from DISOSS.**

*Explanation*: RAPID has found an abnormal termination suffix when receiving a document from DISOSS. The received document is incomplete and the sender is notified of an error (by DISOSS). The request is deleted by RAPID.

User response: No action required.

## RAPID120E Sign-on of user failed.RAPID unable to operate. User @U.

*Explanation*: RAPID received a DISOSS NAK in response to its SIGNON command for a user. RAPID requires all its signed-on users in order to operate correctly. The SIGNON processing is terminated and RAPID stops processing.

*User response:*Check the NAK code in the DISOSS Diagnosis Guide and correct the error. Restart RAPID when the error has been corrected.

### RAPID121I User successfully signed-on to DISOSS.

*Explanation:* The user has been successfully signed-on to DISOSS. RAPID proceedes to to SIGNON the next user until all users have been signed-on.

User response: No action required.

### RAPID122I Command completed successfully. Reply deleted.

*Explanation:* The request processing has been completed and the request has been deleted.

User response: No action required.

### **RAPID126S Error returned from CEMT: @D.**

*Explanation:*RAPID was attempting to access a batch file (Mailbox or Out-tray) and the CEMT command to open the dataset failed. RAPID issues an MVS ENQ command before attempting to open the dataset to ensure that it has exclusive access to the dataset. If the open of the dataset fails then CICS cannot access the dataset either because another task is using it or the operating system cannot access it (eg RACF). Users of multiple CPUs could experience this abend due to the MVS ENQ not being shipped across.

*User response:* A return code of x'644b' indicates that RAPID is not authorised to access the batch file. Ensure that RAPID has authorised access.

Otherwise, if you have multiple CPU's check that the Global ENQ table contains an entry for major name RAPID.

### RAPID127E Error returned by formatting module request @M. Return code @D.

*Explanation:* While writing a request to the internal reader (using the fomat option) an error was returned by the formating module. The processing of the request is terminated and a dump is produced.

User response: Contact Technical Support.

### RAPID128I JCL to process request submitted to internal reader.

Explanation: RAPID has submitted some JCL to the internal reader to process a request.

User response: No action required.

### RAPID132I All users signed-on. RAPID start-up processing completed.

*Explanation*: RAPID has signed-on all its users and started input file processing. RAPID is ready to receive inbound and outbound requests.

User response: No action required.

### RAPID135I Request copied onto outtray.

*Explanation:* The request has been copied onto the outtray file. The request may be a confirmation (if return-code is 81) or a distribution to the user (if return code is 111 or 136).

User response: No action required.

#### **RAPID136I** Request to copy data to outtray.

*Explanation:*Request on input file to copy document from input file to an outtray.

User response: No action required.

#### RAPID137I Un-obtainable request successfully cancelled.

*Explanation:* A document sent to a RAPID user was cancelled by RAPID because the recipient was unable to receive that type of document. The sender is notified that the document was cancelled (by DISOSS).

*User response:*Check what type of document was sent. If the document type is valid then alter types of document the RAPID user can receive. (see RAPID user guide - INTERFACE record)

#### **RAPID138W Error returned from cancel command.**

*Explanation*: RAPID received a NAK code from DISOSS when attempting to CANCEL a document from the DELQ. Processing continues with the next document.

*User response:*Check the NAK code in the DISOSS Diagnosis Guide and correct the error. If the NAK code is C30709 then the DELQP is defined incorrectly and so it needs re-building.

### **RAPID148I** Waiting for recipient information from DISOSS.

*Explanation:* A send request has been processed by RAPID which requested COD. RAPID has to wait until DISOSS returns the recipient information before it can generate a confirmation message.

User response: No action required.

# RAPID1511 Unable to create reply. No reply details given.

*Explanation:* RAPID is unable to generate a reply to return to the sender because either no reply details were supplied or the reply details were invalid. If a command is sent into DISOSS which fails RAPID will always attempt to generate a reply (whether or not REPLY is specified).

*User response:* Change program which issued request to include REPLY details if you require a reply or correct the reply details if they are invalid.

### **RAPID162I** Request to submit JCL to process batch outtray.

*Explanation:* A request has been copied onto a batch outtray and RAPID is submitting JCL to process the file.

User response: No action required.

### **RAPID167E** No header record on the message file.

*Explanation:* There is no header record on the message file. This record is used by RAPID to generate the next message number. RAPID cannot operate without this record.

User response: Correct the message file and restart RAPID.

# **RAPID168W Recipient confirmation received for non-RAPID request.**

*Explanation:* RAPID has received recipient information for a request which it did not originate. The information is ignored and RAPID continues processing the next request. If this occurs regularly, then it may indicate that the DSVDRF and DSVDELQ files are out of synchronisation.

User response: No action required.

### RAPID169W Too many signed-on users on system-D record.

*Explanation:* During start-up processing RAPID has found more users to sign-on than it can store. The additional users are not signed-on to DISOSS and processing continues.

User response: Contact Technical Support.

# **RAPID170E** Unable to find correlation field in APIQ record @X.

*Explanation:* During start-up processing RAPID has reads the APIQ to find any unprocessed requests. RAPID found a request but it could not locate the correlation data field and so could not process the request. Processing terminates with a dump.

User response: Contact Technical Support.

# RAPID1711 RDRF record @D with no message deleted.

*Explanation:* During start-up processing RAPID found an RDRF record which had no corresponding entry on the message file. The RDRF record is deleted and processing continues. This entry may occur if the message file has been initialised.

User response: No action required.

### RAPID172W APIQ format not recognised. Processing continues.

Explanation: This message is no longer used.

User response: No action required.

### RAPID173I @U list request returned @D items. Request number @M.

*Explanation:* A status list request issued by the user has returned a number of items the total of which exceeded the list warning limit.

*User response:* Processing continues, but the status list for the user should be investigated as excessive list sizes could cause CICS to go short on storage. Examine the DISOSS 'DSVDRF' file to determine which requests are not being confirmed.

### RAPID200E CICS error @C processing @F @R. Key @X Request @M.

*Explanation:* A CICS error has occurred while RAPID was processing a request. Processing is terminated with a dump.

User response: Correct the error and restart RAPID.

If this message is accompanied with abend code U100 in transactions ZAPK/ZAPN or abend code U200 with DUPREC in any transaction and CICS 2.1.2 is being used, ensure that PTF UN56003 is applied.

### **RAPID300E Length error in DIU field @X.**

*Explanation:* RAPID has detected a DIU field which has an invalid length value. Processing cannot continue because RAPID cannot locate the start of the next field. Processing is terminated with a dump.

User response: Contact Technical Support.

## RAPID3011 DIU field @X not recognised. Field ignored.

*Explanation*: RAPID has detected a DIU field which it does not recognise. The field is ignored and processing continues with the next field.

User response: No action required.

### **RAPID400I Request to process input file.**

*Explanation:* During start-up processing RAPID initiates requests to process its input files. These requests scan the input files at intervals during the day. The time of the next scan can be found from the last updated time.

User response: No action required.

### **RAPID500I Sign-on command issued for user.**

*Explanation:*During start-up processing RAPID issues a SIGNON command for each of its signed-on users.

User response: No action required.

### **RAPID600I RAPID** internally generated request for a LIST.

*Explanation:* If notification of new mail/status occurs while RAPID is processing a previous notification then RAPID will complete the previous request and then generate an internal request for a new LIST.

User response: No action required.

### **RAPID6011** No list performed. LIST command already in progress

*Explanation:* This notification from DISOSS was ignored because a LIST was already in progress. When the LIST is completed an internal request for a new LIST will be generated.

User response: No action required.

### **RAPID700I Interval control START command issued.**

*Explanation*: RAPID has issued a START command for the next transaction to process the request.

User response: No action required.

## **RAPID800I** Awaiting **DISOSS** reply.

*Explanation:* RAPID has written a command to the APIQ and is waiting for a reply from DISOSS.

User response: No action required.

#### **RAPID900I Shut-down request for RAPID system.**

*Explanation:* RAPID has received a shut-down request. This may have been as a result of either the APIRAPID program in the PLTSD table or ZAPZ being typed at a terminal.

User response: No action required.

#### **RAPID999I Request cancelled.**

*Explanation:* The request has been cancelled. This may have been done by RAPID (on start-up) or from message file enquiry.

User response: No action required.

# **RAPIDGS3 Return codes**

If RAPIDGS3 is invoked from batch JCL then a return code (and when appropriate, an error message) are given. If RAPIDGS3 is invoked from a TSO CLIST then only the return code is given.

The possible return codes are:

- 0000 Okay, processing completed.
- 0099 Program parameter incorrect.
- **0100** Unable to access LISTDSN.
- 0101 LISTDSN empty.
- 0102 Logic error in LISTDSN.
- 0103 Error reading LISTDSN.
- 0104 Function sequence error.
- **0105** Function invalid.
- 0106 Parameter sequence error.
- 0107 Unsupported parameter.
- 0150 Permitted document size exceeded.
- 02xx Invalid parameter data, xx is the parameter number.
- 03xx Parameter invalid for request, xx is the parameter number.
- 04xx Subparameter invalid for request, xx is the parameter number.
- **05xx** Mandatory parameter missing, xx is the parameter number.
- **06xx** Mandatory subparameter missing, xx is the parameter number.
- 07xx ZPMAILBX error, xx is the VSAM return code.
- **08xx** Rejected by user exit, xx is the return code from RAPUSRCK.
- **09xx** CONTROL error, xx is the VSAM return code.
- **10xx** CARDFILE error, xx is the VSAM return code.

See <u>"COBOL file status codes"</u> for the meanings of the COBOL return codes.

# **RAPIDGT3 return codes**

This program will display a message and issue a return code if invoked from batch. If invoked from a CLIST then only the return code is issued.

The possible return codes from this program are:

- 0099 Invalid PARM value
- 07xx Error accessing OUTTRAY, xx is COBOL return code
- 0900 Error accessing LISTDSN
- 10xx Error accessing CARDFILE, xx is COBOL return code

See <u>"COBOL file status codes"</u> for the meanings of the COBOL return codes.

# **COBOL file status codes**

Below is a list of the COBOL file status return codes:

- 10 End of file
- 22 Duplicate record
- 23 Record not found
- 90 File empty on open input or not empty on open output
- 91 File is password protected
- 92 Logic error in program
- 96 No DD card for file
- **97** File requires VERIFY

# **Abend Codes**

# **RAPID abend codes**

If a serious error is encountered in the RAPID CICS programs then they will issue an error message and ABEND producing a transaction dump.

The abend codes which may be issued are:

# **UTAB**

*Explanation:* The RAPID transaction was unable to load the RAPID customisation table (default name ZAPTABA). The customisation table contains the name of the RAPID datasets and program prefixes. RAPID cannot operate without this table.

*User response:*Check the trace table in the dump to determine why RAPID could not load the table. Check that the table is on the RAPID load library and the name has been changed to reflect any customisation on the transaction prefix which may have been made.

Note: The customisation table prefix should match the transaction prefix, not the program prefix.

# **UMSG**

*Explanation:* The RAPID transaction was unable to link to the error message module (default name APIMSGFL). This module is used to generate a message when an error occurs. Since RAPID cannot link to the module the error cannot be reported and so the transaction is abended.

*User response:*Check the trace table in the dump to determine why RAPID could not link to the program. Check that the program name has been changed to reflect any customisation made to the program prefix on the RAPID customisation table.

### **U000-U999**

*Explanation:* RAPID has detected a serious error and the transaction is being terminated with a dump. The dump code corresponds to the number of the error message generated. The error message is written to the disaster queue (default name CSMT).

*User response:*Check error message produced and take the actions indicated for the appropriate message number. The RAPID error messages are described in .

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