



VOLKSWAGEN

T··Systems···

rvsMVS

Release 04.08.00

Operation Manual

This documentation is valid for rvsMVS release 02.05 and higher.

For rvsMVS the following documentation are provided :

rvsMVS Installation Manual (English)
Installation of rvs. Useful for Systems Programmer

rvsMVS Benutzer Handbuch (German)
Manual for rvs Users

rvsMVS User Manual (English)
Manual for rvs Users

rvsMVS Operator Handbuch (German)
Manual for rvs Operator

rvsMVS Messages and Codes (English)
Overview about rvs messages and abend codes

Distribution information will be given kindly:

T-Systems Enterprise Services GmbH
Corporate Customers
Silke Peigert
Vertriebsassistentz - rvs
Goslarer Ufer 35
10589 Berlin
Tel. +49-30-3497-1165
Fax +49-30-3497- 4139
Email <mailto:Silke.Peigert@t-systems.com>

Technical information will be given kindly:

T-Systems Enterprise Services GmbH
rvs Systems
Goslarer Ufer 35
10589 Berlin
Tel. +49-30-3997-1777
Fax +49-30-3497- 4139
Email <mailto:rvs-service@t-systems.com>

Contents

Contents	3
1. Introduction	7
2. Description of a Data Transmission	9
2.1. Sending Data Sets	9
2.1.1. Prepare Data Sets for Transmission.....	9
2.1.2. Transmitting Data Sets.....	9
2.2. Receiving Data Sets	9
2.2.1. Standard Processing.....	10
2.2.2. Reception Control by Transmitting Station (Remote Options).....	10
2.2.3. Reception Control by Receiving Station (Resident Receive Records)	11
2.3. Transmission Control	11
2.4. Routing of Received Data Sets	12
2.5. Automatic Start of JOB Processing	12
2.5.1. Local JOB Processing.....	12
2.5.2. Remote JOB Processing.....	12
3. rvs Operating	13
3.1. Starting the rvs-Monitor and the Lines	13
3.2. Executing Transmissions	13
3.3. Handling of Tape Data Sets	14
3.4. Stopping (Cancel) the rvs-Monitor and the Lines	14
4. Handling of Error Situations.....	15
4.1. Line Errors	15
4.1.1. Line Errors on Switched Lines (BTAM/BSC)	15
4.1.2. Line Errors on SNA, X25, XOT, LU 6.2 or TCP/IP connections	15
4.2. Transmission Interrupts	16
4.3. ABEND of Subtasks	16
5. rvs Operator Commands	17
5.1. Starting and Stopping the rvs-Monitor.....	17
5.1.1. Starting the rvs-Monitor.....	17
5.1.2. Start time of rvs monitor	17
5.1.3. Stopping the rvs monitor	17
5.2. Starting and Stopping control programs for different components	18
5.2.1. Starting and Stopping the VTAM Control Program (SNA component)	18
5.2.2. Activating and Stopping of X25 Control Program	18
5.2.3. Activating and Stopping of XOT Control Program	18
5.2.4. Activating and Stopping of LU 6.2 Control Program	19
5.2.5. Activating and Stopping of TCP/IP Control Program	19
5.2.6. Starting and Stopping the FTP Control Program	20
5.2.7. Starting and Stopping of the Remote Operating Control Task (RMOP)	20
5.3. Activating and Stopping of BSC Lines, Automatic Dialing.....	20
5.3.1. Switched BSC Lines.....	20
5.3.2. Leased BSC Lines	21
5.3.3. Dialing a Station Automatically (BSC connections only).....	21

5.4.	Activating and Stopping of sessions	22
5.4.1.	Activating and Stopping of SNA-Sessions (SNA component)	22
5.4.2.	Activating and Stopping of X25-Sessions (X25 component)	22
5.4.3.	Activating and Stopping of XOT-Sessions (XOT component)	23
5.4.4.	Activating and Stopping of LU 6.2-Sessions (LU 6.2 component)	23
5.4.5.	Activating and Stopping of TCP/IP-Sessions (TCP/IP component)	23
5.4.6.	Activating and Stopping of FTP-Transmissions (FTP component)	23
5.4.7.	Collective Activation and Stop Commands	24
5.4.8.	Re-Activation Function	24
5.5.	Display of Line and Session Status	25
5.6.	Dispatcher Commands, Automatic Dialing	26
5.6.1.	Displaying and Changing the Dispatcher Time Interval	26
5.6.2.	Starting and Stopping the Dispatcher Subtask	26
5.6.3.	Dispatcher status commands	27
5.6.4.	Starting of Dispatcher Traces	27
5.6.5.	Stopping of Dispatcher Traces	28
5.6.6.	Send- and Receive- Dispatcher status commands	28
5.7.	Transmission Control	29
5.7.1.	Transmission of Data Sets	29
5.7.2.	Operator Message Interchange	30
5.7.3.	Putting Send Requests in the HOLD Status	30
5.7.4.	Deleting Send Requests or End-to-End Responses	30
5.7.5.	Receiving Data Sets	31
5.7.6.	Deleting Receive Requests	31
5.7.7.	Cancelling Transmissions	31
5.8.	Display of the Transmission Status	32
5.8.1.	Display of Data Sets to be transmitted or of End-to-End Responses	32
5.8.2.	Indication of already transmitted Data Sets	33
5.8.3.	Indication of Data Sets which are to be received	33
5.8.4.	Display of received Data Sets	33
5.8.5.	Display of active Transmissions and Status of active Lines/Sessions	33
5.9.	Display of the Transmission Speed	33
5.10.	Display the Line Error Recording Block (LERB)	34
5.11.	Display of station related Information	34
5.12.	Modification of Monitor Parameters	35
5.12.1.	Displaying and Changing the Time Intervals	35
5.12.2.	Changing other parameters	35
5.12.3.	Controlling the rvs Protocol Messages	36
5.13.	Modification of Station Parameters	37
5.14.	rvs Trace	48
5.14.1.	Trace Output	48
5.14.2.	Starting the Trace Function (for Tests and Error Situations)	48
5.14.3.	Stopping the Trace Function	49
5.14.4.	Internal Trace	50
5.15.	SNAP Dumps	50
5.15.1.	Printing SNAP-Dumps (only effected in case of Program Errors)	50
5.15.2.	Additional DUMP commands	51
5.15.3.	Printing SNAP Dumps depending on ABENDs	52
5.16.	Indication of Data Set Attributes and Data Set Size	52
5.17.	Indication of Resident Receive Entries	54
5.18.	Indication of not executed Copy Jobs	54
5.19.	Un-Allocation of Data sets	54
5.20.	Free rvs Job Output while Operating (before Monitor's end)	54

5.21.	Control of Console and remote Operating Messages	54
5.22.	Online Refresh of Station Table	55
5.23.	Online-Refresh of Code-Translation-Table	55
5.24.	SEND- and RECEIVE- DISPATCHER	56
5.24.1.	Send- and Receive- Dispatcher status commands.....	56
5.24.2.	Send- and Receive- Dispatcher send and hold commands.....	56
5.24.3.	Send- and Receive- Dispatcher delete commands	57
5.24.4.	Send- and Receive- Dispatcher commands to display send / receive queue ...	57
5.25.	Trace of external compression and security	57
5.26.	Administration of Job-Submit Cache	58
5.27.	Administration of RR-Entries Cache	58
Procedures for rvs Maintenance		59
5.28.	Re-Organization of the rvs Control Data Set	59
5.29.	Saving the rvs Control Data Set and the rvs Log Data Set	59
5.30.	Recovery of the rvs Control Data Set.....	60
Index		61

This page will be intentionally empty.

1. Introduction

This manual describes how to monitor and how to control rvsMVS. It makes the Operator familiar with rvs functions and with rvs commands.

Currently there are 7 different components available for rvsMVS (distinguished by the type of data link access (line procedure)):

- TCP/IP component (for IP networks)
- FTP-component (for IP networks)
- X25 component (for private and public X.25 networks).
- XOT component (X25 over TCP/IP)
- LU 6.2 component (for example for in-house SNA networks). This component uses SNA sessions with Logical Unit (LU) type 6.2.
- SNA component (for example for in-house SNA network). This component uses SNA sessions with Logical Unit (LU) type 0.
- BSC component (for example for telephone lines)

In general the communication with a definite station is done with exactly one of these components.

These components will be mentioned in the following descriptions several times because some of the commands are valid only for some of these components. Apart from that there are commands which are valid for all components but work a bit different within the different components.

The terms "BSC", "SNA", "TCP", "FTP", "X25", "XOT" and "LU 6.2" used in this manual mainly refer to these 7 components rather than to the protocol they are normally assigned to.

This page will be intentionally empty.

2. Description of a Data Transmission

The Volkswagen Rechner-Verbund-System (rvs) enables computers to exchange data sets. Data to be transmitted must be prepared as sequential disk or tape data set. In order to initiate a transmission the rvs Monitor must be informed of data sets for transmission by updating the rvs Control Data Set.

A detailed description of rvs-Monitor Functions is documented in the rvsMVS User's Manual.

2.1. Sending Data Sets

2.1.1. Prepare Data Sets for Transmission

Sending and receiving is possible only from disk to disk. Tape data sets may be queued too, but there has to run a copy job from tape to disk in advance. The copy job can be generated by a special rvs-command.

A data set is queued for sending by adding a transmission request to the rvs Control Data Set.

2.1.2. Transmitting Data Sets

After starting, the rvs-Monitor searches the rvs Control Data Set for active transmission requests. The rvs-Monitor transmits each data set automatically in the order of data set's queuing time. (Queuing technique FIFO: 'first in, first out'). The Operator may change the order of queuing by using the command 'S sid,PRIO=nnn' (see 5.6.1).

After the data set has been completely transmitted, the data set disposition (KEEP, DELETE) is executed in that way as it has been defined by the user within the active transmission request.

When data sets reside on tapes, rvs generates jobs that transform the tape data sets into disk data sets before the transmission is started.

2.2. Receiving Data Sets

In case of receiving, the data set is generally placed on disk. As a basic rule, at the receiving station the data set is allocated with the attributes and size given by the transmitting station.

After transmission completion, rvs checks at the receiving station whether the number of bytes transmitted is equal to the number of bytes received. In this case a response record (rvs protocol record) is automatically sent back to the sending station.

Whether further processing steps take place after reception (i.e. renaming a data set or starting a job) or not, depends on the control information of the sending station (Remote Options) or of the receiving station (Resident Receive Entry). The control information is related to a specific data set name.

2.2.1. Standard Processing

If no control information is available for a received data set, the "standard processing" is executed. This "standard processing" is defined by the rvs start parameters (see Installation Manual).

There are two possibilities:

- the received data set remains on disk (DDEVTYPE=DISK)
- the rvs-Monitor starts a job in order to copy the received data set from disk to tape (DDEVTYPE=TAPE). Exception: a received PDS will always be kept on disk.

In both cases the data set is cataloged, if possible.

Remark:

Receiving of a file is rejected if a file with identical name is already existing and cataloged.

2.2.2. Reception Control by Transmitting Station (Remote Options)

The transmitting station has the possibility to influence the processing of a data set in the receiving station by defining "Remote Options" (Remote Options may be defined only by the sender - the equivalent on remote side is the "Resident Receive Entry")

Restriction:

"Remote Options" may always be specified during queuing of a file for transmission, but they are only supported if the remote station has installed rvsMVS and is connected using BSC or SNA LU 0.

There are the following possibilities:

- To copy the data set in a pre-defined 'Sysout Class'.
- To copy the received data to the 'Internal Reader Queue', that means the received data are to be interpreted as a Job. This Job is passed to the MVS Operating System by the rvs monitor.
- Definition of the 'Volumes' or the 'Unit Group' on which the data set is allocated at the receiving station.
- Definition of the 'Device Type' (Disk or Tape) on which the data set is to be allocated.
- To define whether an existing cataloged data set at the receiving station is to be replaced by the received data or not.

Note :

- Remote Options are only valid if they are permitted by the remote station (--> see Station parameter "OPTIONS" within the Installation Manual). If the authorization is missing, the 'Standard Processing' is performed. Additionally the rvs-Monitor issues a related message.
- If Remote Options are defined, the "Resident Receive Entry" of the receiving station is ignored in every case.

For more detailed information see rvsMVS User's Manual.

2.2.3. Reception Control by Receiving Station (Resident Receive Records)

The receiving station has - among others - the possibility to influence the processing of a data set (definition of a Resident Receive Entry). There are the following possibilities:

- Definition of a new data set name. This new data set name is used to allocate the file (Rename Function).
- Definition of the 'Volume' or the 'Unit Group' where the data set is to be allocated at the receiving station.
- Definition of the 'Device Type' (Disk or Tape) where the data set is to be stored.
- Definition of a job which is to be executed after reception of the data set. The JCL must be located in a member of a partitioned data set.

In every case a 'Resident Receive Entry' of the receiving station is ignored if the sender has specified "Remote Options".

2.3. Transmission Control

The transmission may be initiated automatically (automatic dial) or may be initiated by manual interaction (manual dial for BSC connections or operator commands for SNA, X25, XOT, LU 6.2, TCP/IP or FTP connections).

Normally the transmission of data starts as soon as the corresponding computers are in communication (if necessary, operator messages may be exchanged before starting data transmissions).

If data sets are queued for transmission on both sides, it depends on the logical transmission protocol which station starts first to transmit the data. The transmission protocols that can be handled by the rvs-Monitor are defined for each station within the rvs Stations Table.

Is there a data exchange between two rvs-Monitors and on both stations data sets are queued for transmission, in case of a BCS connection the data sets transmitted sequentially in an alternating way. In case of a VTAM, X.25, XOT, LU 6.2 and TCP/IP connection, several files may be transmitted parallel to the same station, depending on the defined session profile.

The completion of transmission is controlled by the rvs-Monitor. In case of a normal termination the transmission of a data set has been completed without an error.

In case of transmission failures the rvs-Monitor automatically restarts transmissions with the last block (or record) which has been confirmed by the receiving station. If multiple similar error situations occur, the reason of these errors must be analyzed. The rvs-Monitor stops restart processing for this specific data set or station for a certain time (temporary 'Hold Status').

A restart can only be processed if both sender and receiver support this restart function.

The Operator can monitor the data transmission - for example - in the following ways:

- Transmission of a specific data set, if more than one data set is queued for transmission (changing the priority).
- Cancel of a transmission

- Setting the transmission of a specific data set into the "Hold Status" or changing the priority. Deleting of transmission requests.
- Reading the control data set of opposite station (Q-Command, only with rvsMVS on the other side and connected by SNA LU 0).
- Exchanging messages with the Operator of the opposite station (M-Command, only with rvsMVS on the other side and connected by SNA LU 0).

2.4. Routing of Received Data Sets

The data exchange between stations which are not directly connected can be performed by passing data sets from one station to the next connected station. After reception of a data set the rvs-Monitor automatically inserts a send request in the control data set if the local (own) station is not the final receiver of the file as indicated within the 'Header Record'/SFID (rvs Control Record) during start of the transmission.

2.5. Automatic Start of JOB Processing

2.5.1. Local JOB Processing

Depending on the data set name and the 'SID' (SID=Station Identification) of the origin station the rvs-Monitor is able to start a job which processes the completely received data set. The JCL required for this job must be placed in a member of a partitioned data set by the user. The rvs-Monitor gets the name of the PDS and the member by a 'Resident Receive Record' (see rvs User's Manual). The Resident Receive Record is an entry within the rvs Control Data Set.

This is a technique which controls the processing of received data sets automatically without any manual activity of the sending or receiving station.

2.5.2. Remote JOB Processing

The rvs-Monitor is also able to start received JCL directly. In this case either the first statement of the received JCL must be equal to

```
//*SYSOUT=(I,INTRDR)
```

or the parameter "RJE=YES" must be coded when the data set is queued for sending. The statement '//*SYSOUT=(I,INTRDR)' is used by the rvs-Monitor for internal control and is removed before submission of the job.

rvs checks whether the first card of the job (except comment cards) is a valid JOB card, this means a card containing the character string 'JOB' in columns 12 - 14 (standard JOB Card).

This way of processing must be authorized by the receiving station (see RVS.TABLES(STATIONS), OPTIONS=RJOB parameter).

This technique is quite similar to the RJE processing, but rvs does not retransmit the JOB output to the origin station automatically.

Techniques to retransmit the JOB output are available on request. The Volkswagen AG offers an Output Writer which retransmits the JOB Output to the origin station (RJE Function).

3. rvs Operating

3.1. Starting the rvs-Monitor and the Lines

The start command of the rvs-Monitor depends on the installation.

During start of the monitor, start time, release level and some initialization parameters of the rvs monitor are displayed on console. When start of the monitor is complete, the control tasks, lines and sessions must be started (activated). Without activating of these resources no transmission can be executed.

Some 'Collector-'commands help you to activate groups of sessions/lines by a single command.

The commands used for activation also depend on the fact which of the components of rvs is used (BSC, SNA, TCP, FTP, X25, XOT or LU 6.2).

Note :

Commands that are performed every time after monitor start can be issued by rvs automatically see description of the "START" member of rvs Tables data set in the rvsMVS Installation Manual.

3.2. Executing Transmissions

After starting the lines (or sessions and control tasks) (and after establishing connections if switched BSC lines are used) the transmission of data sets starts automatically. Interventions by the operator are only necessary in case of an error or in case of a special request.

For a transmission on a switched BSC line without AutoDial function the following sequence of activities must be performed:

1. Activation of the BSC line (command "A-III" where "III" denotes the sub channel address of the line) if the line is not already active.
2. dialing the remote station manually
3. switching of the telephone line from voice to data (press the data button of the telephone or the modem).

The rvs-Monitor scans the control data set for active send requests and transmits the queued data sets in the order of queuing. By using the command 'S-SID' particular data sets may be selected for station 'SID'. By using the command 'H-SID' data sets which are queued for transmission may be set in the 'Hold Status'. The transmission for these data sets will only start after entering the command 'S-SID' by the transmitting (own) station.

With certain prerequisites the remote station may also get the send request out of the hold status by entering the command 'R-SID' (receive command). This may be done for example if the remote station has also installed rvsMVS and if the BSC- or the SNA-component is used for the communication with the remote station. By a sequence of rvs commands the status of a transmission may be monitored.

3.3. Handling of Tape Data Sets

As a basic rule the rvs-Monitor only transmits data sets from disk to disk. For tape data sets a copy job starts automatically initiated by the rvs-Monitor to copy the data set to disk. In order to get a balanced tape unit load, copy jobs are started by the rvs-Monitor only in 5 minute intervals.

The command 'S-SID' initiates copy jobs immediately.

If received files are to be stored on tape (this is for example the case if neither the transmitter nor the receiver has any control specifications for the file and if the rvs start parameter DDEVTYPE=TAPE has been specified during rvs installation) the rvs-Monitor will start a job which copies the file from disk to tape after complete reception.

3.4. Stopping (Cancel) the rvs-Monitor and the Lines

The rvs-Monitor is stopped by entering the command 'C-RVS'. But single lines, sessions or control tasks may be stopped separately, too.

In order to get a fast close down of lines or sessions or of the whole rvs-Monitor, single transmissions may be interrupted (cancelled) by the cancel command 'C-...'.

Remark:

The cancel command does not always result in stopping of the specified resource. For example the cancel command "C III" related to a BSC line only interrupts a just active transmission on the line, but the line itself is kept active. So it may sometimes be necessary to enter both, a stop and a cancel command.

4. Handling of Error Situations

4.1. Line Errors

4.1.1. Line Errors on Switched Lines (BTAM/BSC)

In case of line error occurrences on switched lines the data transmission is interrupted under special conditions. If this happens, additionally the line is switched to voice. The line control task remains active.

In case of an interruption of a transmission the rvs error recovery branches into:

- errors with initiation of a BTAM internal error recovery (for instance if the error occurs on execution of READ/WRITE continue macros) and
- errors without initiation of a BTAM internal error recovery (for instance if the error occurs on execution of READ/WRITE initial macros).

In case a) the rvs-Monitor interrupts the transmission immediately. In case b) the rvs-Monitor tries to recover the error situation and terminates if the error situation is not recoverable. After interruption in case of manual dialing the line control task restarts with a WRITE TC Macro or READ TC Macro. In case of automatic dialing a WRITE TI Macro is activated.

If a transmission is restarted (manual dialing) a new line connection should be established in order to continue the transmission on a line with a higher quality. In every case the data button must be pressed again.

If you use automatic dial the restart is processed automatically. A new line connection is established under control of the Dispatcher Task (timer controlled). A manual access is not necessary.

Remark:

In case of an interrupted transmission of a file to be sent the send request is set in a temporary hold status. An automatic restart is not initiated before a certain amount of time has passed (see rvs start parameter HLDRESET within the rvsMVS Installation Manual).

4.1.2. Line Errors on SNA, X25, XOT, LU 6.2 or TCP/IP connections

In case of line errors VTAM or TCP/IP issues error messages. Under certain circumstances such errors may cause the inactivation of SNA-, X25-, XOT-, TCP/IP- or LU 6.2-sessions or sessions can not be activated. In these cases the sessions must be activated again after the error has been recovered.

For automatic session establishment of SNA connections see Stations Table parameter "AUTOACT" within the rvsMVS Installation Manual.

For SNA-, X25-, XOT-, LU 6.2- or TCP/IP-connections the rvs monitor controls "timeout" situations, that means the monitor controls whether a send or receive request is executed by the access method within a certain time. If rvs detects such a timeout situation, the transmission is terminated and an error message is displayed.

Depending on the used component (SNA, X25, XOT, LU 6.2, TCP/IP) and depending on other station related definitions, the connection (session) remains active or not.

4.2. Transmission Interrupts

In case of an interrupted transmission, it is possible to display the number of transmitted records (blocks) (see command "N-SID").

For SNA-, X25-, XOT-, LU 6.2 or TCP/IP-connections a restart is initiated and performed automatically. For BSC-connections there may be a problem after an abended transmission in a special case:

A data set is completely transmitted (sent) but within the termination phase of the transmission the confirmation of the receiver of the file about the successful reception is not transmitted back to the sender.

In this situation the send request is marked with status "END" (display of "N-SID" command) and rvs does not perform any restart without manual activities.

It has to be checked whether the file has been completely received in the remote station or not. Depending on this the command "D-sid,S=dsn" (delete send request) must be entered if the file was completely received by the remote station. Otherwise the command "S-sid,dsn" (retransmit data set) must be entered in order to allow a restart of the transmission.

4.3. ABEND of Subtasks

In case of an abnormal end (for example of the data I/O routine) the send request (for a file to be sent) is set into a temporary hold status and some error messages are displayed on console.

The reasons for such abends (which should normally not occur) may be very different (software, failure during access to the file to be sent...), they have to be checked in any case.

If these abends are very frequent, the line control for the related line (or the session) should be stopped and reactivated. Is this procedure not suitable to solve the problem the whole monitor should be stopped and restarted. The related System Programmer should be informed.

5. rsv Operator Commands

5.1. Starting and Stopping the rvs-Monitor

5.1.1. Starting the rvs-Monitor

The rvs monitor may run as job or as 'started task'. It cannot be described in general how the monitor is to be started from MVS console because this depends on the particular installation (installation dependent names).

After start the rvs monitor displays some messages, for example

- date and time of monitor start
- release level and included components of rsvMVS
- processed initializations (e.g. table generations)
- automatically processed rvs commands during start phase

If the monitor is ready, the message

```
nn DF3001A *** RVS OC READY ***
```

is displayed ('nn' is the reply number leading the rvs commands).

The rvs commands are executed or initiated by the control program. As soon as the control program is ready to accept new commands the message reappears.

From Version 1.1.06 on rvs commands may be entered via the MVS command 'MODIFY' (F taskname, rvs command). If rvs is started as job the task name has to be replaced by the job name.

So, replies may be specified without using the reply number, but it is still possible to use the reply numbers as shown above.

5.1.2. Start time of rvs monitor

DB Displays the start date and the start time of the monitor as well as the run time. Additional the Expiration Date of the License Key, the used components, the environment and the own station identification are displayed.

5.1.3. Stopping the rvs monitor

C-RVS Stops the rvs monitor. This command includes cancel (interrupt) of all just active transmissions.

5.2. Starting and Stopping control programs for different components

5.2.1. Starting and Stopping the VTAM Control Program (SNA component)

The VTAM control task is necessary to support the SNA component of rvs. SNA sessions can not be established without activation of the VTAM control task.

A-RVSVTAM or A-RVSV	Starts the VTAM control program. The successful start of this task is displayed by the message DF9005I.
C-RVSVTAM or C-RVSV	Stops the VTAM control program. Running transmissions on SNA sessions are cancelled.
B-RVSVTAM or B-RVSV	Immediate break of the VTAM control program (no controlled termination of sessions). This command should be used only if there is no other chance to stop the task.

5.2.2. Activating and Stopping of X25 Control Program

The X25 control task is necessary to support the X25 component of rvs. X25 sessions can not be established without activation of the X25 control task.

A-RVSVX25[,ALL] or A-RVSVX[,ALL]	Starts all defined X25 control programs (CTCP).
A-RVSVX25,Cnn or A-RVSVX,Cn n	Starts the X25 control program No. nn. The successful start of each task is indicated by message DF9501I.
C-RVSVX25[,ALL] or C-RVSVX[,ALL]	Stops all active X25 control programs.
C-RVSVX25,Cnn or C-RVSVX,Cnn	Stops the X25 control program No. nn. Running transmissions are cancelled.
B-RVSVX25[,ALL] or B-RVSVX[,ALL]	Immediate break of all active X25 control programs (no controlled termination of sessions)
B-RVSVX25,Cnn or B-RVSVX,Cnn	Immediate break of the X25 control program No. nn. (no controlled termination of sessions) This command may be used if there is no other chance to stop the task.

nn: 1..32, depending on rvs start parameters (see Installation Manual)

5.2.3. Activating and Stopping of XOT Control Program

The XOT control task is necessary to support the XOT component of rvs. XOT sessions can not be established without activation of the XOT control task.

A-RVSVX25[,ALL] or A-RVSVX[,ALL]	Starts all defined XOT control programs (CTCP).
A-RVSVX25,Cnn or A-RVSVX,Cn n	Starts the XOT control program No. nn.
P-RVSVX25[,ALL] or	Stops all active XOT control programs.

P-RVSVX[,ALL] P-RVSVX25,Cnn or P-RVSVX,Cnn	Stops the XOT control program No. nn. Running transmissions are cancelled.
B-RVSVX25[,ALL] or B-RVSVX[,ALL] B-RVSVX25,Cnn or B-RVSVX,Cnn	Immediate break of all active XOT control programs (no controlled termination of sessions) Immediate break of the XOT control program No. nn. (no controlled termination of sessions) This command may be used if there is no other chance to stop the task.

nn: 1..32, depending on rvs start parameters (see Installation Manual)

5.2.4. Activating and Stopping of LU 6.2 Control Program

The LU 6.2 control task is necessary to support the LU 6.2 component of rvs. LU 6.2 sessions can not be established without activation of the LU 6.2 control task.

A-RVSLU62 or A-RVSL	Starts the LU 6.2 control program. The successful start of this task is displayed by message DF9701I.
------------------------	---

Note:

If VTAM waits for any notification (partner or own), the LU62 control task is not terminated (active line driver task may be displayed by the 'DS LU62' command). In this case you can force termination of this active task by a sequence of 'C RVSL' commands (up to three).

B-RVSLU62 or B-RVSL	Immediate break of the LU 6.2 control program (no controlled termination of sessions). This command may be used if there is no other chance to stop the task
------------------------	--

5.2.5. Activating and Stopping of TCP/IP Control Program

The TCP/IP control task is necessary to support the TCP/IP component of rvs. TCP/IP sessions can not be established without activation of the TCP/IP control task.

A-RVSTCP or A-RVST	Start of all defined TCP/IP control tasks (CTs).
A-RVSTCP,Cnn A-RVST,Cnn	Start of the TCP/IP control task for TCP/IP stack with index nn. Successful start of the control task is indicated by message DF8301I (TCP/IP of IBM) or message DF8351I (TCP/IP of INTERLINK).
C-RVSTCP or C-RVST	Stop of all active TCP/IP control tasks. Running transmissions are cancelled.
C-RVSTCP,Cnn or C-RVST,Cnn	Stop of the TCP/IP control task for IP stack with index nn. Running transmissions are cancelled.
B-RVSTCP or B-RVST	Immediate break of all active TCP/IP control tasks (no controlled termination of sessions). This command should be used only if there is no other chance to stop the task.
B-RVSTCP,Cnn or B-RVST,Cnn	Immediate break of the TCP/IP control program for IP stack with index nn.

5.2.6. Starting and Stopping the FTP Control Program

The FTP control task is necessary to support the FTP component of rvs. FTP sessions can not be established without activation of the FTP control task.

A-RVSFTP or A-RVSF	Starts the FTP control program. The successful start of this task is displayed by the message DF8900I.
C-RVSFTP or C-RVSF	Stops the FTP control program.
B-RVSFTP or B-RVSF	Immediate break of the FTP control programs (no controlled termination of FTP subtasks). This command should be used only if there is no other chance to stop the task.

5.2.7. Starting and Stopping of the Remote Operating Control Task (RMOP)

The RMOP control task is necessary to support the remote operating function of rvs. This function enables rvs operating from every 3270 terminal. For a detailed description see Appendix H of rvsMVS Installation Manual. Remote operating is not possible without an active RMOP control task.

A-RMOP	Starts the RMOP control program. The successful start of this task is displayed by message DF9605I.
P-RMOP	Stops the RMOP control program.
B-RMOP	Immediate break of the RMOP control program (no controlled termination of session). This command should be used only if there is no other chance to stop the task.

5.3. Activating and Stopping of BSC Lines, Automatic Dialing

5.3.1. Switched BSC Lines

A-III	Activation of the line control program for the line 'III' (sub channel). Switched lines should be activated always by this command.
A-sid,III	Activation of the line control program for the line 'III' (sub channel address). In this case the line is activated with the program profile defined within the stations definition of station 'SID'. The possible line addresses are displayed by using the command 'X-sid,L'.
P-III	The line control of line 'III' is stopped. A just running transmission is completed before stop.
P-sid,III	The line control of line 'III' to station 'SID' is stopped. This command can be used if more than one line is used for the same station. A just running transmission is completed before stop.

C-sid	The transmission to station 'SID' is cancelled immediately. The line control program is not stopped.
B-III	Immediate break of line control for line 'III'. This command should be used only if there is no other chance to stop the line (multiple using of the break command may lead to errors).
B-sid,III	Immediate break of line control for line 'III' switched to station 'SID'. This command should be used only if there is no other chance to stop the line (multiple using of the break command may lead to errors).

5.3.2. Leased BSC Lines

A-sid	Activation of the line control program for the leased BSC line associated with station 'SID'. This short command can be used only for stations linked by a leased line (not necessary to declare the sub channel address).
C-sid	The transmission for station 'SID' is cancelled immediately. The line control is not stopped.
B-sid	Immediate break of line control for the BSC line connected with station 'SID'. This command should be used only if there is no other chance to stop the line (multiple use can lead to errors).

5.3.3. Dialing a Station Automatically (BSC connections only)

DIAL sid or DIAL sid,III	This command initiates a single automatic dialing to the BSC-station "SID". Prerequisite is the specification of the DIALNUM parameter for "SID" within the rvs stations table and the definition of at least one line for use of "SID" as an "AutoDial" line (see rvsMVS Installation Manual, rvs Stations Table).
-----------------------------	---

In case of different AutoDial lines a specific line "III" may be selected for execution of the dial request.

After entering the DIAL command a message is displayed which informs whether the command is executed or not. If the DIAL command is not executed an error message is displayed. The automatic dialing is not executed immediately, because it depends on different things:

- The dispatcher time interval
- Whether an auto dial line has been activated respectively an auto dial line is waiting for work
- From the number of stations which are also to be dialed automatically at this time.

5.4. Activating and Stopping of sessions

5.4.1. Activating and Stopping of SNA-Sessions (SNA component)

A-sid or A-sid,V or A-sid,VTAM	Activation of all SNA sessions which are defined for station "SID". In this case several parallel sessions are established to station "SID". Number and types of these sessions are defined within the sessions profile (see rvs Sessions Table in the rvsMVS Installation Manual).
A-sid,mn or A-sid,m	This command activates only a part of the defined SNA sessions. "m" type of session (o - operator session, s - send session, r - receive session) "n" relative session number Example : A-sid,S2 : Activation of the second send session to station "SID". The command "X-sid,S" displays all sessions which are defined for station "SID".
P-sid or P-sid,V or P-sid,VTAM P-sid,m or P-sid,mn	Stopping of all SNA sessions to station "SID". Just running transmissions are completed before session stop. Specification of the session type and/or the session number allows stopping of only a part of the sessions or single sessions.
C-sid or C-sid,m or C-sid,mn	The transmission(s) for station 'SID' are cancelled immediately. The session(s) are not stopped. Single SNA sessions can be selected by session type 'm' and session number 'n'.

5.4.2. Activating and Stopping of X25-Sessions (X25 component)

A-sid[,ALL] or A-sid,X[25][,ALL]	Activation of a connection (switched virtual circuit) within the X.25 network to station "SID". rvsMVS automatically looks for the next free control program defined for this station.
A-sid,Cnn ,Nmm or A-sid,X[25],Cnn ,Nmm	Activation of a connection (switched virtual circuit) within the X.25 network to station "SID" using the X25 control program No. Nn. If there are more than one partner numbers specified for this station you may select a special partner number by using the parameter "Nmm". In this case mm indicates the partner number index defined in the rvsMVS station table. Otherwise the partner number is selected by rvsMVS automatically. (If the connection fails, rvsMVS continues dialing the next number.)
C-sid[,ALL] or C-sid,X[25][,ALL]	Cancel of the just active transmission to station "SID". The command is routed to all active X25 control programs.
C-sid,Cnn or C-sid,X[25],Cnn	Cancel of the just active transmission to station "SID". The command is routed to the X25 control program No. nn. This command includes stopping of the X25 session to "SID".
B-sid,X[25][,ALL]	Immediate break of the X25 session to station "SID". The command is routed to all active CTCPs
B-sid,Cnn or B-sid,X 25 ,Cnn	Immediate break of the X25 session to station "SID" The command is routed to the X25 control program No. nn.
	This command acts like C-sid, but also affects inactive sessions with status CALLING, CLOSING etc. Please be cautious, the command may cause hang-ups within the CTCP definitions in the NPSI or VTAM (perhaps to recover by inactivation/activation of the respective line LU/PU).

5.4.3. Activating and Stopping of XOT-Sessions (XOT component)

A-sid	Activation of a connection within the XOT network to station "SID". rvsMVS automatically looks for the next free control program defined for this station.
A-sid,Cnn	Activation of a connection within the XOT network to station "SID" using the XOT control program No. Nn.
C-sid	Cancel of the just active transmission to station "SID". The command is routed to all active XOT/X25 control programs.
C-sid,Cnn	Cancel of the just active transmission to station "SID". The command is routed to the XOT control program No. nn. This command includes stopping of the XOT session to "SID".

5.4.4. Activating and Stopping of LU 6.2-Sessions (LU 6.2 component)

A-sid	Activation of LU 6.2 sessions to station "SID"
A-sid,LU62	
A-sid,L	
C-sid	Cancel of transmissions to station "SID".
C-sid,LU62	This command includes stop of all specified sessions to "SID".
C-sid,L	

5.4.5. Activating and Stopping of TCP/IP-Sessions (TCP/IP component)

A-sid	Activation of TCP/IP sessions to station "SID"
A-sid,TCP	
A-sid,T	
C-sid	Cancel of transmissions to station "SID".
C-sid,TCP	This command includes stop of all specified sessions to "SID".
C-sid,T	

5.4.6. Activating and Stopping of FTP-Transmissions (FTP component)

A-sid	Activation of a new FTP job submitter task for station "SID".
A-sid,F	
A-sid,FTP	
C-sid	Cancel of all active FTP job submitter tasks. Active FTP transmissions are not cancelled.
C-sid,F	
C-sid,FTP	

5.4.7. Collective Activation and Stop Commands

The following commands may be used to activate/stop multiple resources (BSC lines, SNA sessions, X25 sessions, XOT sessions, LU 6.2 sessions, FTP sessions, TCP Sessions) by a single command.

For "collective activation" the stations/lines need a special activation mode defined within the Stations Table (see Installation Manual, Stations Table, parameter ACTMODE). Stop-all and Cancel-all commands work independent of the station tables definitions.

A-ALL or
A-ALL,B or
A-ALL,V or
A-ALL,X or
A-ALL,T or
A-ALL,F or
A-ALL,L

Activation of all control tasks, sessions/lines defined for 'collective activation'. By coding B, V, X, L, T or F the command is limited to BSC lines (B), SNA sessions (V), X25/XOT sessions (X), LU 6.2 sessions (L), TCP/IP sessions (T) or FTP sessions (F)

P-ALL or
P-ALL,B or
P-ALL,V or

Stopping of all control tasks, sessions and lines. Just running transmissions are completed before stop. Use the extensions B for BSC lines or V for VTAM sessions.

C-ALL or
C-ALL,B or
C-ALL,V or
C-ALL,X or
C-ALL,T or
C-ALL,F or
C-ALL,L

Cancel of all control tasks, sessions or lines. Just active transmissions are cancelled. The control tasks of SNA, X25/XOT, TCP/IP, LU 6.2 and FTP are stopped by coding B, V, X, T, L or F the command is limited to BSC lines (B), SNA sessions (V), X25/XOT sessions(X), TCP/IP sessions (T), LU 6.2 sessions (L) or FTP connections (F).

5.4.8. Re-Activation Function

The components SNA (LU0), LU6.2, X.25, TCP/IP and FTP have a re-activation function: If an activation command for a control task for one (or more) of the above components has been entered and the control task(s) do not become active (e.g. VTAM APPLID or other resources are not active), the rvs monitor tries to re-activate these control task(s) every minute. These attempts are continued until the subtask(s) has (have) been activated successfully or a stop command is entered.

The re-activation function becomes also active if an already active control task terminates without stop command (e.g. VTAM APPLID is set inactive or TCP/IP address is stopped,...). In this case the rvs monitor also tries to re-activate the terminated control task every minute.

Thus a temporary breakdown of required resources will be completely recovered by the rvs monitor.

5.5. Display of Line and Session Status

DS	Displaying the status of all active BSC lines SNA sessions, X25 sessions, LU 6.2 sessions and TCP/IP sessions.
DS BFPOOL	Displaying the status of the rvs-internal bufferpool (summary).
DS BFPOOL,ALL	Displaying the status of the rvs-internal bufferpool (detail).
DS BTAM	Displaying the status of all active BSC lines.
DS VTAM	Displaying the status of all active SNA sessions.
DS X25 [,ALL]	Displaying the status of all X25 control programs and all active X25 sessions.
DS X25,Cnn	Displaying the status of the X25 control program No. nn and all active X25 sessions.
DS LU62	Displaying the status of the LU 6.2 control program
DS LU62,ALL	Displaying the status of the LU 6.2 control program and of all active LU 6.2 sessions.
DS LU62,ANT	Displaying the status of the LU 6.2 control program and of the "APPC Node Table" (for test only).
DS TCP	Display of status of all defined TCP/IP control tasks (CTs).
DS TCP,Cnn	Display of status of the TCP/IP control task for IP stack with index nn.
DS FTP	Displaying the status of the FTP control program
DS SID	Displaying the status of all active BSC lines, SNA sessions, X25 sessions, XOT sessions, TCP/IP sessions and LU 6.2 sessions for station 'SID'.
DS sid,Cnn	Displaying the status of X25/XOT session of the X25/XOT control program No. nn for station 'SID'.

nn: 1..32, depending on rvs start parameters (see Installation Manual)

5.6. Dispatcher Commands, Automatic Dialing

5.6.1. Displaying and Changing the Dispatcher Time Interval

DSPTI	<p>This command may be used to display the current value of the dispatcher time interval in seconds. 'nn' may be a value between 5 and 999. This value determines the time interval, after which the rvs dispatcher task refreshes the list of send requests from the rvs controldataset. Every 'nn' seconds this task looks to the rvs control data set for send requests, which are to be processed.</p> <p>If there are send requests for certain stations and if the connection to these stations are defined as</p> <ul style="list-style-type: none"> • An SNA connection or • An LU 6.2 connection or • An X25 connection or • An XOT connection or • A TCP/IP connection or • A BSC line connection using automatic dial <p>The dispatcher task initiates processing of the send request(s) (if a send session or an AutoDial line is active and waiting for work). For X25, FTP, TCP/IP and LU 6.2 a session is automatically established, if necessary. During start of the rvs-Monitor, the value for this time interval is defined by the rvs start parameter 'DSPTI' (see Installation Manual).</p>
DSPTI=nn	Changing the dispatcher time interval. 'nn' specifies the new value (in seconds). For 'nn' a value in the range of 5 - 999 may be specified.
DSPTIW	Removed with version 2.2.05
DSPTIW=nn	Removed with version 2.2.05

5.6.2. Starting and Stopping the Dispatcher Subtask

A DSP	<p>Starting the Dispatcher Subtask. Normally this task is started automatically. Even if the dispatcher task abends, the dispatcher is restarted automatically. The dispatcher subtask may only be started with this command if it has been stopped with the command 'P-DSP' previously.</p> <p><u>Caution :</u> All active SNA send sessions must be cancelled before the dispatcher can be started again (command 'C-SID'). Otherwise double transmissions are possible. (For SNA connections the serialization of queued data sets is managed in the dispatcher subtask. If the task is started during running monitor processing the serialization of the active SNA send sessions is disturbed).</p>
P DSP	Stopping the dispatcher subtask. This command is required only for functional tests.

Attention:

After stopping the dispatcher subtask no data sets are transmitted to stations which are connected via

- BSC switched line with automatic dial function
- SNA session
- X25 session
- XOT session
- TCP/IP session
- LU 6.2 session
- FTP connection

In order to restart this subtask the command 'A DSP' is to be used.

5.6.3. Dispatcher status commands

Remark: In order to get all responding messages of the following commands (5.6.3-5.6.4), issue the command „PMSG ON“ prior to the following commands (see 5.12.3).

DD sid	Displays all send requests for the remote station "SID". For each send request, the data set name (up to 26 chars) and the status of the send request is listed.
DD {sid/**}, {I/E/A}	Displays all send requests for the specified station "SID" or for all stations ("***"). Additional you can specify one of the following extensions: I: Displays all send requests which are ready for transmission (internal KD) E: Displays all send request which are not ready for transmission at this time (hold state etc., external KD) A: Displays all send requests (I + E)
DD {INT/EXT/ALL/**}	Displays all send requests for the specified station "SID" or for all stations ("***"). Additional you can specify one of the following extensions: INT: Displays all send requests which are ready for transmit (internal KD) EXT: Displays all send request which are not ready for transmit at this time (hold state etc., external KD) ALL/**: Displays all send requests (INT + EXT)
DD ACT	Displays all active send requests (transmission in progress)
DD REFR	Immediately search for new send requests.
DD EERP	View status of EEPK KD records.

5.6.4. Starting of Dispatcher Traces

T DISP	Starting of the Dispatcher trace.
T DISPALL	Starting of all Dispatcher traces (additional options)

5.6.5. Stopping of Dispatcher Traces

- O DISP Stopping of the Dispatcher trace.
- O DISPALL Stopping of all Dispatcher traces (additional options)

5.6.6. Send- and Receive- Dispatcher status commands

Remark: In order to get all responding messages of the following commands, issue the command „PMSG ON“ prior to the following commands (see 5.12.3).
For a detailed description of these commands see chapter 5.24.

- DDS sid Displays all send requests for the remote station "sid".
- DDR sid Displays all receive entries for the remote station "sid".
- DDS Displays all send requests for all stations.
{ACT/ALL/REFR}
- DDR Displays all receive entries for all stations.
{ACT/ALL/REFR}}

5.7. Transmission Control

5.7.1. Transmission of Data Sets

S-ALL	Clearing of the transmission status of all data sets which are queued for sending. Especially this command can be used to release all queued data sets from 'HOLD Status'.
S-sid[,name]	<p>Clearing the transmission status of all data sets which are to be transmitted to station 'SID' respectively which are to be transmitted to station 'SID' starting with the dsname 'name'. If some of the data sets which relate to this command are on tape, a copy job will be started automatically to copy the data set from tape to disk.</p> <p>Especially this command can be used to release data sets from 'HOLD Status'. A later restart is not influenced, because no transmission counters are changed by this command. Is a full qualified data set name specified, the rvs-Monitor asks for the volume serial number (message DF3302A). This specification is necessary if several data sets with same names are in 'HOLD-Status' in order to</p> <ul style="list-style-type: none"> • Release a specific data set from 'HOLD Status'. • Reactivate (retransmit) a data set which has been already transmitted, but the transmission is not confirmed by the receiving station ('END' in Message DF5001I). If specified, 'name' must be full qualified in every case. <p><u>Warning:</u> Use the retransmit function only after discussion with the receiving station in order to prevent a second transmission of the same data set.</p>
S-sid [,name [,volume]],R	Equal to 's-SID', respectively 's-sid,name'. Additionally all counters are deleted. The control data set entry is initiated like an entry created during queuing a new data set for transmission. If several data sets with same dsnames are to be transmitted to station 'SID', the volume serial number may be specified for identification.
S-sid [,name [,volume]], P[RIO]=nnn	Same as "S SID", respectively "S sid,name". Additionally the priority for transmitting a data set is changed to the value 'nnn'. ('nnn' may be a value between '0' and '255').
S-sid [,name [,volume]], NEWVOL=volume1	Same as "S SID" respectively "S sid,name". Additionally, the volume specification within the send request is replaced by 'volume1'. The name of the data set and the volume serial number must be specified in the full length.
S-sid [,name [,volume]], NEWSID=sid2	Same as "S SID" respectively "S sid,name". Additionally, the destination address of the send request is changed from 'SID' to 'sid2'.
S-sid [,name [,volume]], NEWDSN=name2	Same as "S SID" respectively "S sid,name". Additionally, the data set name of the send request is changed from 'name' to 'name2'.

5.7.2. Operator Message Interchange

M-sid,text The message 'text' is issued on the operator console of the opposite station (operator – operator – communication). In case of a BTAM connection, the messages are of course not transmitted during a running data transmission. The message interchange is not supported by all stations. The support depends on the used transmission protocol (only BSC or SNA LU 0).

5.7.3. Putting Send Requests in the HOLD Status

H-ALL All data sets which are queued for sending are placed in HOLD status. Queued data sets in HOLD status are not sent until one of the commands S-SID or S-ALL releases these data sets from the HOLD status.

H-sid,name[,volume] The data set with the dsname 'name' shall not be transmitted (put in HOLD status). To differ between data sets with same name the volume number may be coded additionally.
In order to transmit the data set later on, an explicit request is required (enter "S-sid,name"). All data sets with the attribute 'H' (HOLD - see DF5001I message) may be released by the operator of the receiving station by the command "R-sid,DSN=name" (only valid for MVS respectively VSE operating systems connected via BSC or SNA LU 0).

5.7.4. Deleting Send Requests or End-to-End Responses

D-sid,S=name The transmit request related to the station 'SID' and the data set name 'name' is to be deleted. The monitor displays the complete dsname and volume serial number for each transmit request to be deleted and waits for a confirmation of the delete request (see message DF2510).
rvs commands may be entered via the MVS command MODIFY. The confirmation DF2510 then is not related to an extra reply any longer; just give a response via MODIFY or via the normal rvs reply. To redisplay the message give an invalid reply to rvs (e.g.: '?'). The confirmation message is then displayed on the console again.
When 'name'='ALL' has been specified, all transmit requests of the station 'SID' are deleted after confirming the request (DF2590).

D-sid,N=name The End-to-End Response (EERP) queued for 'sid' and corresponding to the file with name 'name' is to be deleted. The monitor displays the complete dsname and queuing date and time for each EERP to be deleted and waits for a confirmation of the delete request (see message DF2510).
rvs commands may be entered via the MVS command MODIFY. The confirmation DF2510 then is not related to an extra reply any longer; just give a response via MODIFY or via the normal rvs reply. To redisplay the message give an invalid reply to rvs (e.g.: '?'). The confirmation message is then displayed on the console again.
When 'name'='ALL' has been specified, all EERPs queued for station 'SID' are deleted after confirming the request (DF2590).

Commands connected with the Send-Dispatcher:

D-sid,S=name/ALL Please refer to chapter 5.24

5.7.5. Receiving Data Sets

R-sid[,name] Receiving the data set with the (starting) dsname 'name'.
This function is only supported if the remote station has installed rvsMVS or rvsVSE and if a BSC or an SNA connection is used.
Required for the processing of this receive command is that the data set(s) to be received have been queued for transmission in the remote station. The command may be used to get files of the remote send queue out of the hold status.

5.7.6. Deleting Receive Requests

D-sid,R=name The receive request related to data set 'name' is to be deleted. The rvs-Monitor displays the complete dsname and volume serial number for each receive request which is to be deleted and is waiting for a confirmation of the delete request (see message DF2510).
From rvs-Version 1.1.06 on rvs commands may be entered via the MVS command MODIFY. The confirmation DF2510 then is not related to an extra reply any longer; just give a response via MODIFY or via the normal rvs reply. To redisplay the message give an invalid reply to rvs (e.g.: '?'). The confirmation message is displayed on the console again.
When 'name'='ALL' has been specified, all receive requests of the station 'SID' are deleted after confirming the request (DF2590).

Commands connected with the Send-Dispatcher:

D-sid,R=name/ALL Please refer to chapter 5.24

5.7.7. Cancelling Transmissions

C-sid Aborts the current transmission to station 'SID'. Line control remains active. The transmit request for the aborted transmission is placed into the 'HOLD status' i.e. the transmission of the data set only continues when the command 'S-sid,name' has been entered at the transmitting station or the command 'R-sid,name' has been entered at the receiving station in order to initialize the transmission.

For more information see also sections activating and stopping of

- BSC lines
 - SNA sessions (LU type 0)
 - X25 sessions
 - XOT sessions
 - LU 6.2 sessions
 - TCP/IP sessions
 - FTP transmissions
- within this manual.

5.8. Display of the Transmission Status

5.8.1. Display of Data Sets to be transmitted or of End-to-End Responses

DQ Indicates the number of data sets to be transmitted for each station.

DQ cmp Indicates the number of data sets to be transmitted for each component 'cmp'.

<u>cmp</u>	<u>station</u>
B	BTAM
V	VTAM
X	X.25/XOT
L	LU 6.2
T	TCP/IP
F	FTP

In addition to that the difference of the active send entries for each station since the last 'DQ cmp' command has been entered, is indicated (see also message DF4903I).

DQ A Indicates the number of data sets to be sent for each active component.

DQ Q Indicates all changes of active send entries within the active rvsMVS.

DQ K Indicates the number of active send entries for which there is no entry in the station table.

DQ B,O Indicates the number of data sets to be sent to BTAM stations with 'no-AutoDial'.

DQ B,A Indicates the number of data sets to be sent to BTAM stations with 'AutoDial'.

DQ sid Indicates the number of AS-records (KD-file) still to be sent for the SID mentioned. Additional indication of the component.

DQ=name Indicates all (maximum=200) outstanding transmissions whose data set names start with 'name'.

DQ=HRS=nn Indicates all (maximum=200) outstanding transmissions of data sets, which are queued for transmission for more than 'nn' hours

DQ=name,HRS=nn Indicates all (maximum=200) outstanding transmissions of data sets, which are queued for transmission for more than 'nn' hours. The data set names starts with 'name'.

N sid,Q[=name][,ALL] Displays all (maximum=200) transmissions which are queued for station 'SID' (for data sets which start with 'name').
'ALL' displays all available data set information.

N sid,N[=name] Displays all (maximum=200) End-to-End Responses which are queued for station 'SID' (for data sets which start with 'name').

5.8.2. Indication of already transmitted Data Sets

DS=name Indicates all (maximum=200) data sets which have been transmitted at all and whose dsnames start with 'name'.

N sid,S[=name][,ALL] Indicates all (maximum=200) data sets (whose ds-names start with 'name') which have been transmitted to station 'SID' during the last 24 hours. If the entire name of the data set is specified, all transmissions of the last 7 days are displayed.
'ALL' displays all available data set information.

Commands connected with the Send-Dispatcher:

N-sid,SQ ALL/ERR Please refer to chapter 5.24

5.8.3. Indication of Data Sets which are to be received

This command is only supported by BSC and SNA LU 0 protocol.

Q-sid Inquiry from the receiving station to the transmitting station 'SID' which data sets are destined for the receiving station.

Q-sid,name Inquiry from the receiving station to the transmitting station 'SID' which data sets are destined for the receiving station, starting with 'name'.

5.8.4. Display of received Data Sets

DR=name Display of all (maximum=200) data sets which have been received during the last 24 hours, starting with 'name'.

N sid,{E}[=name][,ALL] Display of all data sets (maximum=200) which have been received during
 {R} the last 24 hours from station 'SID' (, starting with 'name'). Is the data set name specified in the total length, all transmissions of the last 7 days are indicated.

Commands connected with the Receive-Dispatcher:

N-sid,RQ ALL/ERR Please refer to chapter 5.24

5.8.5. Display of active Transmissions and Status of active Lines/Sessions

DA Display of the status of all running transmissions and all active BSC lines.

DS Display of the status of all active control tasks, lines and sessions.

For more information see also section "Display of Line and Session Status" within this manual.

5.9. Display of the Transmission Speed

In case of displaying the transmission speed you have to realize that not only transmitted (sometimes compressed) data bytes are counted, but also control records and control characters. Apart from that it must be considered that data buffers not yet transmitted are sometimes used for the calculation of the transmission speed.

The displayed transmission speed is always calculated as the average value since start of the transmission.

sid	Displays the status and the transmission speed for all BSC lines and SNA sessions to stations "sid".
III	Displays the status and the transmission speed for line "III".
DV	Displays the transmission speed for all active transmissions
DV BTAM	Displays the transmission speed for all active BSC lines.
DV VTAM	Displays the transmission speed for all active SNA sessions.
DV X25 [,ALL]	Displays the transmission speed for all active X.25 sessions.
DV X25,Cnn	Displays the transmission speed for all active X.25 sessions of the X25 control program No. nn.
DV TCP	Displays the transmission speed for all active TCP/IP transmissions.
DV TCP,Cnn	Displays the transmission speed for all active TCP/IP transmissions of TCP/IP control task with index nn.
DV-sid	Displays the transmission speed for all lines / sessions to station "sid".
DV-sid,Cnn	Displays the transmission speed for all X25/XOT sessions to station "sid" on CTCP No. nn.

nn: 1..32, depending on rvs start parameters (see Installation Manual)

5.10. Display the Line Error Recording Block (LERB)

LERB	Display of the LERBs for all lines.
L-sid	Display of the LERBs for all lines to "sid".
L-sid,III	Display of the LERBs for all lines "III" to station 'sid'.

5.11. Display of station related Information

DL	Display of the actual allocation of BSC line addresses respectively LU names to stations.
DX	Display of all stations which are defined within the rvs stations table.
X-sid	Display of phone number and address for station "sid".

X-sid,L[ines]	Display of the defined BSC line addresses respectively LU names for station "sid".
X-sid,P[rogprof]	Display of the defined line program profile for station "sid".
X-sid,S[essions]	Display of the defined SNA sessions for station "sid" (see member SESSIONS in the Tables data set). This is only possible if the VTAM control task is activated (see 'A RSVVTAM').
X-sid,R[elais]	Display of the routing stations for station "sid" defined in member STATIONS in TABLES data set.
X-sid,ALL	Display of all specified parameters for station "sid"

5.12. Modification of Monitor Parameters

5.12.1. Displaying and Changing the Time Intervals

TIME=nn	Display of the time interval, afterwards the transmission status is to be indicated automatically. 'nn' must be a two digit value between 01 and 59. It represents the time in minutes. The transmission status is to be displayed for all active lines. (DA-Command and eventually the DQ-Command). Default: Value of the rvs start parameter "TIME".
TIME=00	No automatic display of status information.
TIME	Display of the used TIME Interval.
STORAC	Display of the actual time interval in minutes afterwards the main storage used by rvs is to be displayed (Message DF2000P) automatically.
STORAC=*	Immediate display of main storage used by rvs without changing the STORAC interval.
STORAC=nn	Changing the time interval in minutes. If "STORAC=0 is specified, display of used main storage is no longer performed.

5.12.2. Changing other parameters

ROUT=nn	Changing the Routing Code for rvs Monitor messages. Default: Value of the rvs start parameter "ROUT".
ROUT	Display of the current routing code.
VOLUME=volume	Modifying of the disk volume onto which received data sets are to be stored. This command is accepted only if the rvs start parameter "VOLUME" was specified during start of rvs. Default: Value of rvs start parameter "VOLUME".
VOLUME	Display of the current used receive volume or blank (VOLUME start parameter was not specified).

XAPPLID=name	Modification of VTAM-Application-ID used by X.25-Component (in case of use of only one X.25 control program).
XAPPLID.nn=name	Modification of VTAM-Application-ID used by specified X.25 Component.
XAPPLID[.nn]	Display of VTAM-Application-ID used by (specified) X.25 Component
XLUNAME[.nn]=name	Modification of LU-Name for (specified) X.25 multi channel.
XLUNAME[.nn]	Display of LU-Name for specified X.25 multi channel.
X25GROUP	Display of all defined X.25 groups

nn: 1..32, depending on rvs start parameters (see Installation Manual)

5.12.3. Controlling the rvs Protocol Messages

PMSG ON	All rvs messages with a 'P' in position 7 of the message key, which are normally printed on the rvs-Protocol (DD-Name: SYSWTO), are to be displayed on system console.
PMSG OFF	All rvs messages with a 'P' in position 7 of the message key, shall no longer be displayed system console.

5.13. Modification of Station Parameters

The modify command ("F-sid,...") may be used to change all important parameters of the rvs stations table within the running monitor. These changes only remain active until the end of the monitor job.

Not possible to change is the type of the stations table entry (separated by the different access methods (components) as BSC, SNA, X25, LU 6.2, TCP/IP, FTP and BSC line entries).

Most of the parameters are only to be used for test purposes or in cases of error detection. They should therefore not be used without any significant reason.

The syntax of nearly all sub parameters is identical with the syntax of the corresponding stations table parameters (see rvsMVS Installation Manual).

If more than one entry is specified for one station id, e.g. a BTAM-entry and an X25 entry, each entry can be modified separately:

F sid,B,function for BTAM entry
 F sid,V,function for VTAM entry
 F sid,X,function for X.25/XOT entry
 F sid,LU,function for LU 6.2 entry
 F sid,T,function for TCP/IP entry
 F sid,F,function for FTP entry

If you leave this supplement out the command affects all entries of the station id.

The following table gives an overview which sub parameters of the modify command are valid or significant for the different types of station table entries:

Sub parameter	Abbreviation	BSC Entry	SNA Entry	X.25/XOT Entry	LU 6.2 Entry	TCP/IP Entry	FTP Entry	Line Entry
ACTMODE	ACTM	X	X	X	X	X	X	X
ACTOPTS	---	-	X	-	-	-	-	-
ADDEVICE	ADDV	-	-	-	-	-	-	X
APPLID	---	-	X	-	X	-	-	-
AUTOACT	AA	-	X	-	-	-	-	X
AUTODIAL	AD	X	X	X	X	X	X	-
CONTALG	---	X	-	-	-	-	-	-
CONVTYP	---	-	-	-	X	-	-	-
CREDIT	---	-	-	X	X	X	-	-
DBID	---	X	-	-	-	-	-	-
DIALNUM	DNUM	X	-	-	-	-	-	-
DIALOPTS	DOPTS	X	X	X	X	X	X	-
DIALOPT2	DOPT2	X	X	X	X	X	X	-
DIALOPT3	DOPT3	X	X	X	X	X	X	-
DIRECT	---	X	X	X	X	X	X	-
DIRECTN	---	-	-	X	X	X	X	-
FLOPT	---	-	X	-	-	-	-	-
FTP	---	X	-	-	-	-	-	-
FTPERSP	---	-	-	-	-	-	X	-
FTPFILE	---	-	-	-	-	-	X	-
FTPNAME	---	-	-	-	-	-	X	-
FTPPASS	---	-	-	-	-	-	X	-
FTPPORT	---	-	-	-	-	-	X	-
FTPPREF	---	-	-	-	-	-	X	-
FTPSESS	---	-	-	-	-	-	X	-
FTPREFN	---	-	-	-	-	-	X	-

Sub parameter	Abbreviation	BSC Entry	SNA Entry	X.25/XOT Entry	LU 6.2 Entry	TCP/IP Entry	FTP Entry	Line Entry
FTPRES P	---	-	-	-	-	-	X	-
FTPUI D	---	-	-	-	-	-	X	-
ISTATUS	---	X	X	X	X	X	-	X
LBLKSIZE	LSIZE	X	X	X	X	X	-	-
LINE	---	-	-	-	-	-	-	X
LINETYPE	LT	X	-	-	-	-	-	X
LOGMODE	---	-	X	-	-	-	-	-
LUNAME 1)	LU	-	X	-	X	-	-	-
LU62FTP	---	-	-	-	X	-	-	-
LU62MODE	LUMD	-	-	-	X	-	-	-
ODETID	OID	X	X	X	X	X	X	-
OPTIONS	OPTS	X	X	X	X	X	X	-
PACING	---	-	X	-	-	-	-	-
PGM1	---	-	X	-	-	-	-	-
PGM2	---	-	X	-	-	-	-	-
PROGPROF	PP	X	-	-	-	-	-	X
PWMOD	PWM	X	X	-	-	-	-	-
RECVPW	RPW	X	X	X	X	X	-	-
SENDPW	SPW	X	X	X	X	X	-	-
SESSNUM	---	-	-	-	X	-	-	-
SFIDEXTS	SFS	-	-	X	X	X	-	-
SFIDEXTR	SFR	-	-	X	X	X	-	-
SID	---	X	X	X	X	X	X	-
SIZE 2)	---	X	X	X	X	X	-	-
SLAVE	---	-	-	-	-	-	-	X
SPCLOGIC	---	-	-	X	X	X	-	-
SSIDEXTS	SSS	-	-	X	X	X	-	-
SSIDEXTR	SSR	-	-	X	X	X	-	-
SSOPT	---	-	X	-	-	-	-	-
SUBCHANL	SCNL	X	-	-	-	-	-	X
SYNCLVL	---	-	-	-	X	-	-	-
TIME	---	-	X	-	-	-	-	-
TCPIPADR	---	-	-	-	-	X	-	-
TCPIPCHK	---	-	-	-	-	X	-	-
TCPPORT	---	-	-	-	-	X	-	-
TCPSESS	---	-	-	-	-	X	-	-
TPN	---	-	-	-	X	-	-	-
TYP	---	X	X	X	X	X	X	-
USFIELD	---	-	-	X	X	X	X	-
VIA	---	X	X	X	X	X	X	-
X25CUD	---	-	-	X	-	-	-	-
X25FAC	---	-	-	X	-	-	-	-
X25NUM	---	-	-	X	-	-	-	-
X25SESS	---	-	-	X	-	-	-	-
XNUMCHCK	---	-	-	X	-	-	-	-

Note:

- 1) Alias name for "APPLID"-sub parameter
- 2) Alias name for "LBLKSIZE"-sub parameter

Description of the sub parameters of the modify command:

F-sid,ACTMODE= $\left\{ \begin{array}{l} \text{N[ORMAL]} \\ \text{A[LL]} \\ \text{S[PECIAL]} \end{array} \right\}$

Specification which activation commands may be used for activation of station "sid":

ACTMODE=NORMAL: station "sid" may be activated with every activation command except "A-ALL".
 ACTMODE=ALL: station "sid" may be activated with every activation command incl. "A-ALL".
 ACTMODE=SPECIAL: station "sid" may only be activated with command "A-sid,III" where "III" denotes the BSC line to be used (only for BSC station entries).

F-sid,ACTOPTS={ (at,rt) | (at1,rt1,at2,rt2,at3,rt3,at4,rt4) }

Options for automatic activation of SNA sessions and BSC line adapters (see AUTOACT parameter).

at, at1, at2,... denote time intervals in which the AUTOACT-function is active. Start time and end time must be specified in hours and minutes. Syntax: at=ss:mm-ss:mm.
 rt, rt1, rt2,... denote the retry time which is to be waited after an unsuccessful activation until the next attempt is done. The retry time must be specified in minutes, the value must be in the range of 1 and 255.

Example: ACTOPTS=(07:30-12:00,30,14:00-22:00,30).

F-III,ADDEVICE={ YES | NO }

Specification whether an ACU (automatic calling unit) is installed for BSC line "III" (ADDEVICE=YES) or not (ADDEVICE=NO).

F-sid,APPLID=name

"Application-ID" respectively "Logical Unit" of station "sid", to which SNA sessions (LU type 0 or LU type 6.2) are to be established.

For stations with several LU names (for example node type 2 computers) it is possible to specify several LU's: F-sid,APPLID=(lu1,lu2,lu3...).

F-sid,AUTOACT={ ON | OFF }

Specification whether the SNA session(s) to station "sid" respectively the BSC line are (is) to be activated automatically (AUTOACT=ON) or not (AUTOACT=OFF). The AUTOACT function is mainly intended for (re-) activation after errors.

F-sid,AUTODIAL={ Y(ES) | N(O) }

Specification whether station "sid" is to be dialed automatically (respectively whether sessions to "sid" are to be established automatically) (AUTODIAL=YES) or not (AUTODIAL=NO).

F-sid,CONTALG={ ALG1 | ALG2 }

Specification which algorithm is to be executed after occurrence of a "contention situation" on a BSC line.

ALG1 the first operation after contention is a write operation.

ALG2 the first operation after contention is a read operation.

F-sid,CONVTYP={ BASIC | MAPPED }

Specification of the "Conversation Type" to be used for communication with station "sid".

F-sid,CREDIT=n

Credit value (in the range between 1 and 999). This parameter is used for the "flow control" if the ODETTE File Transfer Protocol is used.

F-sid,DBID=name

Station-ID for "sid" for the communication with the DAKS-System of Daimler-Benz.

F-sid,DIALNUM=cc

Number (telephone) of the line for station "sid" if this station is to be dialed automatically. cc may be a string of max 20 characters. For more details see rvsMVS Installation Manual, description of the rvs Stations Table.

F-sid,DIALOPTS={ (at,rt) | (at1,rt1,at2,rt2,at3,rt3,at4,rt4) }

Options for the automatic dialing of station "sid" (see AutoDial parameter).

at, at1, at2,... denote time intervals, in which the AutoDial function is to be performed if there is (at least) one file which is queued for transmission. Start time and end time must be specified in hours and minutes.
Syntax: at=ss:mm-ss:mm.

rt, rt1, rt2,... denote the retry time which is to be waited after an unsuccessful dialing until the next attempt is done. The retry time must be specified in minutes, the value must be in the range of 1 and 255.

Example: DIALOPTS=(07:30-12:00,30,14:00-22:00,30).

F-sid,DIALOPT2={ dt | (dt1,dt2,dt3,dt4) }

Options for the automatic dialing of station "sid" (see AUTODIAL parameter).

dt, dt1, dt2,... denote points in time when station "sid" is to be dialed automatically independent of the fact whether a file is queued for transmission or not.
Syntax: dt=ss:mm

Example: DIALOPT2=07:30 or DIALOPT2=(08:10,14:00)

F-sid,DIALOPT3=(at,rt)

Options for the automatic dialing of station "sid" (see AutoDial parameter).

at	denotes time intervals, in which the AutoDial function is to be performed independent of the fact whether a file is queued for transmission or not. Start time and end time must be specified in hours and minutes. Syntax: at=ss:mm-ss:mm.
rt	denotes the retry time which is to be waited for after an unsuccessful dial attempt. The retry time must be specified in minutes, the value must be in the range of 1 and 255.

Example: DIALOPT3=(07:30-12:00,30).

F-sid,DIRECT

Opposite of the VIA function. The routing traffic (backup route to station "sid") switched on with the VIA parameter is switched off again (see VIA parameter).

F-sid,DIRECTN={ S | R | B }

Transmission direction if the ODETTE File Transfer Protocol is used.

DIRECTN=S	it is only possible to send files.
DIRECTN=R	it is only possible to receive files.
DIRECTN=B	files may be sent and received.

F-sid,FLOPT=cc

Modification of 'File Options' for SNA sessions (for test only).

F-sid,FTP=ftpname

Type of transmission protocol used for station "sid" (e.g. FTP-MVS). This parameter is alternate to the PROGPROF parameter. For more details see rvsMVS Installation Manual, description of the rvs Stations Table.

F-sid,FTPERSP={YES|NO}

Specifies whether the End-to-End response after file transmission is to be sent (FTPERSP=YES) or not (FTPERSP=NO). If the parameter FTPERSP=NO then FTPERSP is set to value NO automatically.

F-sid,FTPFILE={YES|NO}

Specifies whether in addition to the data file an information file is to be transmitted (FTPFILE=YES) or not (FTPFILE=NO). If this parameter is set to NO, the parameters FTPERSP and FTPERSP is set to NO automatically.

F-sid,FTPNAME=name

Modification of the host name or TCP/IP address of the FTP station 'sid'.

F-sid,FTPPASS=text

Modification of the FTP password for station 'sid'.

F-sid,FTPSPORT={nnnnn|X'xxxx'}

Modification of the FTP port number for station 'sid'.

F-sid,FTPREF=name

Modification of the FTP prefix name for station 'sid'.

F-sid,FTPSESS=nn

Modification of the FTP session limit for station 'sid'.

F-sid,FTPREFN={YES|NO}

Specifies whether an additional stamp is to be used for the construction of the FTP transmission file name (FTPREFN=YES) or not (FTPREFN=NO). This parameter is used for MVS-MVS (FTP) transmissions only.

F-sid,FTPRESF={YES|NO}

Specification whether a response file after file transmission is to be sent (FTPRESF=YES) or not (FTPRESF=NO). If this parameter is set to NO the parameter FTPERESP is set to NO automatically.

F-sid,FTPUID=user-id

Modification of the user-id for the FTP station 'sid'

F-sid,ISTATUS={ I | A }

'Initial Status' for the station "sid".

ISTATUS=I all attempts (from the local or remote station) to activate station "sid" are rejected.

ISTATUS=A station "sid" may be activated normally.

F-sid,LBLKSIZE=n

Modification of the line buffer size if data are sent to station "sid". n must be a value between 400 and 2000.

F-III,LINE=II2

Modification of the sub channel address for a BSC line from "III" to "II2".

F-sid,LINETYPE={ L | S }

Type of the BSC line. L for leased line, S for switched line.

F-sid,LOGMODE=name

Modification of the logmode for the SNA station "sid".

F-sid,LUNAME=name

see APPLID parameter.

F-sid,LU62FTP=name

Name of the file transfer protocol to be used on LU 6.2 connections. For more details see rvsMVS Installation Manual, description of the rvs Stations Table.

F-sid,LU62MODE={{mode1,mode2,mode3}}

LOGMODE names for the LU62 sessions with the following order:

- mode1 modename for low priority session
- mode2 modename for medium priority session
- mode3 modename for high priority session.

All names must be defined in the LOGMODE table of VTAM for the used application-ID. The names must be precisely 8 characters long.

Note:

This LU62MODE names defined in the LU62 station table entry have a higher priority than the names of the rvs start parameter. If coded, the LU62 station table entry LU62MODE name is used.

If your partner station is running 'portable rvs' for non-MVS machines, only one mode is presently supported.

F-sid,ODETID=cc

Identification of station "sid" by rules of the ODETTE File Transfer Protocol.

F-sid,OPTIONS={ NO | RJOB | RJE | ROPT | REPL | ALL }

(Authorization-) options for reception of files. Several values may be specified. For more details see rvsMVS Installation Manual, description of the rvs Stations Table.

F-sid,PACING=n

"Pacing" value. n may be a value between 0 and 100. The pacing value determines after how many transmitted (sent) data buffers a 'definite response' is required from station "sid".

PACING=0 all data are sent without requiring a 'definite response' (used only for SNA (LU type 0) connections).

F-sid,PGM1=name

Name of the line driver module specified in SESSIONS.

F-sid,PGM2=name

Name of the file transfer protocol module specified in SESSIONS.

F-sid,PROGPROF=name

Name of the program profile.

F-sid,PWMOD={ N(O) | R(ECEIVE) | E(XCHANGE) }

Password modus during the initial phase of the transmission.

PWMOD=NO no passwords are used.

PWMOD=RECEIVE only a password from the remote station is required (valid only for the rvs-RJE procedure on switched BSC lines).

PWMOD=EXCHANGE exchange of passwords is required.

F-sid,RECVPW={ pw | (pw1,pw2) }

Modification of the receiving passwords. 1 or 2 passwords may be specified.

F-sid,SENDPW=pw

Modification of the send password.

F-sid,SESSNUM=(n1,n2,n3)

Session limit for the station "sid" if the LU 6.2 component is used.

n1, n2, n3 denote the maximum number of sessions with low, medium respectively high priority, which may be established with station "sid".

F-sid,SFIDEXTS=exitname

Name of the SFID_send_user_exit. See Appendix A.6 Installation Manual for more details of using the exit.

F-sid,SFIDEXTR=exitname

Name of the SFID_receive_user_exit. See Appendix A.6 Installation Manual for more details of using the exit.

F-sid,SID=sid2

Modification of the stations identification from "sid" to "sid2".

F-sid,SIZE=nn

see parameter LBLKSIZE.

F-III,SLAVE= { YES | NO }

Modification of the behavior of the BSC line "III" from "slave" to "master" or vice versa. This should only be done if the line is not active.

F-sid,SPCLOGIC={ YES | NO }

Support of the 'special logic' algorithm (SPCLOGIC=YES) or not.

F-sid,SSIDEXTS=exitname

Name of the SSID_send_user_exit. See Appendix A.6 Installation Manual for more details of using the exit.

F-sid,SSIDEXTR=exitname

Name of the SSID_receive_user_exit. See Appendix A.6 Installation Manual for more details of using the exit.

F-sid,SSOPT=cc

Modification of 'session options' on SNA sessions (only for test).

F-sid,SUBCHANL= { sch | (sch1,sch2,...) }

Modification of sub channel addresses of BSC lines, which are defined for station "sid".

F-sid,SYNCLVL={ NONE | CONFIRM }

Modification of the "synchronization level" from "NONE" to "CONFIRM" or vice versa.

F-sid,TCPIPADR=(cc,name)

Remote IP address. The address ,cc' may be specified either in dotted decimal notation (for example TCPIPADR=10.211.036.20) or as a symbolic name (length up to 24 bytes), for example TCPIPADR=VWrvsB. ,name' specifies the name of the TCP/IP stack which is to be used for this connection, it corresponds with the rvs start parameter TCPSTKID (see rvs Installation Manual).

F-sid,TCPIPCHK={ YES | NO }

Check of incoming remote IP address. If incoming IP address does not correspond with IP address in parameter TCPIPADR, the transfer of file will be rejected with RC=12 (Access Method Error). Note:Remote IP address. This address may be specified either in dotted decimal notation (for example TCPIPADR=10.211.036.20) or as a symbolic name (length up to 60 bytes), for example TCPIPADR=VWrvsB

F-sid,TCPPORT=cc

Remote IP port number.

F-sid,TIME=nn

Session timer on SNA sessions used to control TIMEOUT situations. nn denotes a value in units of seconds, this value may be in the range of 15 and 999.

F-sid,TPN=name

Transaction program name for LU 6.2 connections.

F-sid,TYP={ MVS | VSE | AS400 | PC | VAX | SINIX | PAD }

Type of partner.

F-sid,USFIELD=cc

User field if the ODETTE File Transfer Protocol is used.

F-sid,VIA=sid2

Modification of the transmission path (Routing function). The routing station "sid2" may only be specified if it is defined as a backup station for "sid" within the rvs Stations Table.

F-sid,X25CUD.nn=cc**F-sid,X25CUD.nn='XX'**

Call User Data of X.25 call request packet.

cc = 1..16 characters

xx = 1..16 bytes (hex notation)

nn - see below

F-sid,X25FAC.nn='XX'

Facility fields of X.25 call request packet
xx = 1..16 bytes (hex notation)
nn - see below

F-sid,X25NUM.nn=n

Number of the X25 multichannel link of station "sid".
nn - see below

F-sid,X25NUM.nn=(n,x25group)

Number of the X25 multichannel link and X25GROUP of station "sid".
nn - see below

F-sid,X25SESS=n

Number of parallel X25/XOT sessions to station "sid".

F-sid,XNUMCHCK.nn={ YES | NO }

Check X.25 number of incoming X.25 call request packet.

nn - see below

Note:

nn - To support more than one X.25 number for one partner station, nn specifies the partner number index. If there is no index defined, the parameter is used for all X.25 numbers within this station table entry.

5.14. rvs Trace

5.14.1. Trace Output

TRACE=xxx Changing of the output class respectively output data set for the rvs trace data. If one character is specified, this character is interpreted as a Sysout class. If 2 - 8 characters are specified, these characters are interpreted as the first pointer of a data set name.
For the description of the data set names see rvsMVS Installation Manual, chapter "rvs Trace".

5.14.2. Starting the Trace Function (for Tests and Error Situations)

T sid Starting the trace for station 'sid'. This command may be used for stations that are connected with a BSC leased line or SNA sessions, X25 sessions, XOT sessions, TCP/IP sessions, LU 6.2 sessions or FTP connections.
If several parallel sessions to station "sid" are possible, a separate trace is started on every active session to "sid" (except FTP).
Notice for X25 and TCP/IP component:
You can decide two cases:
 1. For station "sid" there is no active session
 2. For station "sid" there is active session(s).
Case 1 - X25 Trace is active for all future session(s). Trace is to be stopped by command "O sid".
Case 2 - X25 Trace is activated only for all current active session. This trace starts immediately. With session end the suitable trace is also automatically finished. With renewed session start is this trace not activated automatically. To the trace activation for this session is new trace command necessary.

T sid,III Starting the trace for station 'sid' connected with BSC line "III".

T III Starting the trace for line "III" (switched lines only).

T sid,mn Starting the trace for the SNA session 'mn' defined to station 'sid'.

T sid,Cnn Starting the trace for the X25 session on specified X25 control program No. nn

T XMLU ,ALL
T XMLU,Cnn Only when the X25 component is used: switch on the trace for all/specified 'X25 Master Logical Unit'. With the trace of this session the building up of 'switched virtual circuits' may be traced. The trace is either started for all specified X.25 control programs or only for X25 control program No. nn

T VCLU ,ALL
T VCLU,Cnn Only when the X25 component is used: switch on the trace for all 'Virtual Circuit Logical Units' that are defined to all/specified X25 component(s). The trace is either started for all specified X.25 control programs or only for X25 control program No. nn

T LU62 Starting the trace for the LU 6.2 master session.

T RVSL	Trace internal work of LU6.2 component.
T RVSL1	Trace internal work of LU6.2 component (DF097A).
T RVSL2	Trace internal work of LU6.2 component (DF087A).
T RVSX[,ALL]	Starts the internal trace for all defined X.25 CTCPs. Trace output is written to the file assigned with DD-Statement SYSWTO.
T RVSX,Cnn	Starts the internal trace for the X.25 CTCP with index nn. Trace output is written to the file assigned with DD-Statement SYSWTO.
T RVSV	Trace internal work of SNA component.
T RVSB	Trace internal work of BTAM component.
T RVSF	Trace internal work of FTP components (main task, driver task and server task).
T RVSF1	Trace internal work of FTP main task.
T RVSF2	Trace internal work of FTP driver task.
T RVSF3	Trace internal work of FTP server task.
T RVSO	Trace internal work of RMOP component.
T DISP	Trace internal work of dispatcher.
T OFTP	Trace internal work of ODETTE file transfer protocol.
T TCPR	Starts the responder trace for all defined TCP/IP control tasks (CTs). The responder trace includes only the session setup phase of any connection.
T TCPR,Cnn	Starts the responder trace for the TCP/IP control task for IP stack with index nn.
T RVST	Starts the internal trace for all defined TCP/IP control tasks (CTs). Trace output is written to the file assigned with DD-Statement SYSWTO.
T RVST,Cnn	Starts the internal trace for TCP/IP control task for IP stack with index nn. Trace output is written to the file assigned with DD-Statement SYSWTO.

5.14.3. Stopping the Trace Function

Remark: If you stop SNA traces via "O – command", you have to stop the appropriate task with the command "P sid" or "P sid,nn", too. But now you can read the tracefiles.

O sid[,Cnn]	Stopping the trace for station 'sid'. Cnn specifies the 'X.25 Multi Channel Number'.
O sid,III	Stopping the trace for station 'sid' connected to line "III".
O III	Stopping the trace for line "III" (switched lines only).
O sid,mn	Stopping the trace for session 'mn' connected to station 'sid'.
O XMLU[,ALL]	Stopping the trace for all 'X25 Master Logical Units'.

O XMLU,Cnn	Stopping the trace for specified 'X25 Master Logical Unit'.
O VCLU[,ALL]	Stopping the trace for all 'Virtual Circuit Logical Units'.
O VCLU,Cnn	Stopping the trace for all 'Virtual Circuit Logical Units' defined for X25 control program No. nn.
O LU62	Stopping the trace for the LU 6.2 master LU.
O RVSF	Stopping the all traces of FTP components.
O RVSF1	Stopping the trace of FTP main task.
O RVSF2	Stopping the trace of FTP driver task.
O RVSF3	Stopping the trace of FTP server task.
O TCPR	Stopping of the responder trace of all defined TCP/IP control tasks (CTs).
O TCPR,Cnn	Stopping of the responder trace of the TCP/IP control task for IP stack with index nn.
O RVST	Stopping of the internal trace of all defined TCP/IP control tasks (CTs).
O RVST,Cnn	Stopping of the internal trace of the TCP/IP control task for IP stack with index nn.

5.14.4. Internal Trace

U sid	or	Displaying the data of the internal trace for SNA sessions to station 'sid'.
U sid,m	or	When processing more than one parallel sessions then individual sessions may be addressed by specifying session type (m) and session number (n). The internal trace for SNA sessions displays the last (maximum: 12) events of the present session (e.g. VTAM macros), see message DF9030I. The internal trace is always active for all SNA sessions.
U sid,mn		
U III		Displaying the data of the internal trace for BSC line "III" (only switched lines). The internal trace for BSC lines displays the last events of the line (e.g. BTAM macros), see message DF3047I. The internal trace for switched BSC lines is always active after activation of the line.

5.15. SNAP Dumps

5.15.1. Printing SNAP-Dumps (only effected in case of Program Errors)

Y sid	Printing SNAP dumps related to active subtasks, which are connected to station 'sid'.
Y III	SNAP dump for BSC line III
Y sid,mn	Printing SNAP dumps related to active subtasks, which are connected to station 'sid' and to session 'mn'.

Y RVSVTAM or Y RVSV	Printing SNAP dump for the VTAM control subtask.
Y RVSLU62 or Y RVSL	Printing SNAP dump for the LU 6.2 control program.
Y RVST Y RVST,Cnn	Printing SNAP dumps for all active TCP/IP control tasks. Printing a SNAP dump for the TCP/IP control task for IP stack with index nn.
Y RMOP	Printing SNAP dump for the remote operating control program.
Y RVS	Printing SNAP dump for the rvs main task.
Y STATIONS or Y STATIONS,A Y SESSIONS	rvs message DF1232P is used to display these data. Message DF1232P is a "print only" message, it is written only to the job protocol of the rvs monitor (DD statement "SYSWTOxx", where "xx" may be equal 01,02,... or blank). These commands allow in some cases a better listing of rvs internal control blocks than a snap dump of the rvs main task (Y RVS)
Y STATIONS,SID=sid	Display of the rvs internal stations table for "sid" station in dump format.
Y LINES	Display of the rvs internal lines table in dump format.

5.15.2. Additional DUMP commands

We recommend the use of the Y-DD-statement in the rvs start procedure.

General commands

Y GENPARAM	Display main control tables of rvs in dump format.
Y OALL	Display all control tables of rvs.
Y OALLX	Display all control tables of rvs and ODETTE.
Y OSESSIONS	Display all SCT control tables.
Y OSCTX	Display all SCT and ODETTE control tables.

X.25 commands

Y XALL	Display all X.25 control tables.
Y XALLX	Display all X.25 and ODETTE control tables.
Y XCCT	Display X.25 CCT control table.
Y XVCB	Display X.25 VCB control table.
Y XSCT	Display all X.25 SCT control tables.

Y XSCTX Display all X.25 SCT and ODETTE control tables.

LU 6.2 commands

Y LALL Display all LU 6.2 control tables

Y LALLX Display all LU 6.2 and ODETTE control tables.

Y LACT Display LU 6.2 ACT control table.

Y LASB Display LU 6.2 ASB control table.

Y LANT Display LU 6.2 ANT control table.

Y LSCT Display all LU 6.2 SCT control tables.

Y LSCTX Display all LU 6.2 SCT and ODETTE control tables.

FTP commands

Y FALL Display all FTP control tables.

Y FFTA Display FTP FTA control table.

Y FFTB Display FTP FTB control table.

Y FFST Display FTP FST control table.

Y FSCT Display all FTP SCT control tables

5.15.3. Printing SNAP Dumps depending on ABENDs

DUMP SCC=sss,sss,... Specifying of system completion codes respectively user completion codes which effects in case of occurrence a SNAP dump of the related subtask. This SNAP dump is edited on SYSPRINT.
 DUMP UCC=uuuu,uuuu,... sss= completion codes (hexadecimal f. system)
 uuuu= completion codes (decimal for user)

DUMP SCC Listing of system completion codes

DUMP UCC Listing of user completion codes specified above.

5.16. Indication of Data Set Attributes and Data Set Size

DF dsname The command 'DF' indicates information about the number of data records and data blocks as well as the record size, block size, record

format and data set organization (see message DF5101I).

Attention:

The information about the number of data records and the number of data blocks are approximate values. They may differ from the exact values.

5.17. Indication of Resident Receive Entries

N sid,RR =name Indicates resident receive entries connected to station 'sid' (and data set names which starts with 'name'). 'name' may be the complete data set name or a part of it.

5.18. Indication of not executed Copy Jobs

DJ Indication of all copy jobs which has been not yet terminated. (If a tape data set has been queued for transmission respectively if a data set is to be received on tape, before transmission or after reception, rvs starts a copy job tape - disk respectively disk - tape).

5.19. Un-Allocation of Data sets

FREE DSN=dsn Un-Allocation of the data set with name "dsn". This command should normally not be used. rvs executes Unallocation of all sent or received data sets after transmission independent whether the transmission ended normally or not. This command may be used if Unallocation once was not performed (for example because of uncontrolled subtask abend).

5.20. Free rvs Job Output while Operating (before Monitor's end)

MSGOUT With this command it is possible to free rvs job output while rvs is still running. This applies to all protocols that are allocated by the DDNAMES SYSWTO(xx) to JES Sysout classes. Protocols that are written to data sets are not freed. The freeing is done by closing (CLOSE FREE), new allocating (DYNALLOC) the output to the respective SYSOUT CLASS and opening (OPEN) it again. This applies also to dumps that are allocated by the DDNAMES RVSDUMP and SYSUDUMP to JES Sysout classes.

5.21. Control of Console and remote Operating Messages

The following commands are based on the definitions within the CNTLMSG member of the tables data set. For a detailed description of this member see rvsMVS Installation Manual.

MSG,CNSLSUP=name or Activating (or changing) the function for suppression of console
MSG,CS=name messages. A subset of messages defined in the CNTLMSG
member and assigned with 'name' is not displayed on console. If
'NONE' is specified for 'name', this function is set inactive.

MSG,CNSLDSPL=name or Activating (or changing) the function for display of console
MSG,CD=name messages. A subset of messages defined in the CNTLMSG
member and assigned with 'name' is displayed on console
regardless of any other definitions and rules. If 'NONE' is specified
for 'name', this function is set inactive.

MSG,RMOPSUP=name or MSG,RS=name	Activating (or changing) the function for suppression of rem.op. messages. A subset of messages defined in the CNTLMSG member and assigned with 'name' is not displayed on the remote operating session. If 'NONE' is specified for 'name', this function is set inactive.
MSG,RMOPDSPL=name or MSG,RD=name	Activating (or changing) the function for display of rem.op. messages. A subset of messages defined in the CNTLMSG member and assigned with 'name' is displayed on the remote operating session regardless of any other definitions and rules. If 'NONE' is specified for 'name', this function is set inactive.
MSG,REFRESH or MSG,R	Refresh of the CNTLMSG member. The current content of the member is activated by this command.
MSG,SETDEF or MSG,S	The functions for suppression/display of console and rem.op. messages are reset to the defaults defined in the CNTLMSG member.
MSG,DISPLAY or MSG,D	Display of the current assignments for the functions for suppression/display of console and rem.op. messages.

5.22. Online Refresh of Station Table

REFR[ESH] STAT[IONS] With this command it is possible to insert, update and change station entries within the station table without stopping the rvs monitor.

After the command has been entered rvs reads the complete station table from disk and compares it with the internal existing station table. All entries are compared, updated or replaced (replace means that the access method has changed - ACME). For security reasons station entries are not deleted. Please make sure to place station entries with identical station identifier (SID) one after the other in order to get a proper match.

If you have a lot of station entries the command may take some time to get finished because besides establishing a new station table several other internal tables are established and compared as well.

This command does not support the refresh of parameters for FTP-stations!

5.23. Online-Refresh of Code-Translation-Table

REFR[ESH] TRNT[ABLE] This command allows an update of existing or an insert of new code translation tables without stopping the rvs-monitor.

After entering the command, rvs reads the file allocated with DD-name TRNTABLE and builds a set of new code translation tables.

In case of running transmissions rvs does not switch to the new translation tables, in this case the old tables are used until the end of the transmission.

However, after an abend of a transmission, the new table is used during a following restart.

5.24. SEND- and RECEIVE- DISPATCHER

Send- and Receive-Dispatcher also calling 'Service Provider' processes send requests or receive entries which need external security and compression feature. It works totally separated but controlled by the rvsMVS monitor. Therefore some commands are available to operate and control this task.

5.24.1. Send- and Receive- Dispatcher status commands

Remark: In order to get all responding messages of the following commands), issue the command „PMSG ON“ prior to the following commands (see 5.12.3).

DDS sid	Displays all send requests for the remote station "sid" which are just processed by the preprocessing task named 'Service Provider' preparing external security and compression. For each send request, the data set name (up to 26 chars) and the status of the send request is listed.
DDR sid	Displays all receive entries for the remote station "sid" which are just processed by the postprocessing task named 'Service Provider' finishing external security and compression. For each send request, the data set name (up to 26 chars) and the status of the send request is listed.
DDS {ACT/ALL/REFR}	Displays all send requests for all stations. Additional you can specify one of the following extension verbs: <ul style="list-style-type: none"> ACT Displays all active send requests (transmission in progress) (internal KD) ALL Displays all send request (internal. Located in core and external: located in Control Dataset) REFR Immediately search for new send requests
DDR {ACT/ALL/REFR}}	Displays all receive entries for all stations. Additional you can specify one of the following extension verbs: <ul style="list-style-type: none"> ACT Displays all active send requests (transmission in progress) (internal KD) ALL Displays all send request (internal. Located in core and external: located in Control Dataset) REFR Immediately search for new send requests

5.24.2. Send- and Receive- Dispatcher send and hold commands

SS This command frees all send requests which are in a 'security hold state'.

	The processing of the external features will be started for AS-records.
SR	This command frees all receive entries which are in a 'security hold state'. The processing of the external features will be started for AR-records.
HS	This command stops the processing of all send requests which have to invoke the external feature.
HR	This command stops the processing of all receive entries which have to invoke the external feature.

5.24.3. Send- and Receive- Dispatcher delete commands

D-sid,S=name/ALL	This command deletes the specified data set (S=name) or all data sets (S=ALL) from the Send Dispatcher queue for the station 'sid'.
D-sid,R=name/ALL	This command deletes the specified data set (R=name) or all data sets (R=ALL) from the Receive Dispatcher queue for the station 'sid'.

5.24.4. Send- and Receive- Dispatcher commands to display send / receive queue

N-sid,SQ ALL/ERR	This command displays all entries (SQ=ALL) or the error flagged entries (SQ=ERR) from the Send Dispatcher queue for the station 'sid'.
N-sid,RQ ALL/ERR	This command displays all entries (RQ=ALL) or the error flagged entries (RQ=ERR) from the Send Dispatcher queue for the station 'sid'.

5.25. Trace of external compression and security

F sid,CSTRACE={YES EXT NO}	This command switches status of internal trace for Comp/Secr feature. CSTRACE=YES – switch on normal trace. CSTRACE=EXT – switch on extended trace (don't delete temporary files after successful work). Default:CSTRACE=NO (switch off internal trace). and CSTRACEV=03. These default values mean a trace is written, but it will be deleted after successful action of external compression / security. In case of error, the trace won't be deleted.
F sid,CSTRACEV=nn	This command set trace value of internal trace level for Comp/Secr feature. CSTRACEV=01 – only start and time messages. CSTRACEV=03 – standard messages. CSTRACEV=04 – all status information, but without dumps CSTRACEV=07 – all status information including some dumps

Remark:

If you restart rvs or refresh the stations table the trace of external features will be reset to CSTRACE=NO and CSTRACEV=03.

5.26. Administration of Job-Submit Cache

Since version 4.01.00 caching of job datasets is implemented. After jobs submit the dataset stays allocated.

New commands:

DS JDSLIST	Display Job Data Set List. Shows values of rvs internal job submit cache: <ul style="list-style-type: none"> - Max count of job dataset in cache - current count of job dataset in cache - count of job dataset, added since start of rvs - count of submits since start of rvs - count of resets since start of rvs - time of first job submit since start of rvs
DS JDSLIST,ALL	Display Job Data Set List. Shows details of rvs internal job submit cache. <ul style="list-style-type: none"> - Name of job dataset - Count of job submits of the job dataset - Time when the entry was added to cache. - Time when the entry was used at last (last-used-date)
F JDSLIST,R	Reset of job-submit-cache. Clear the list and free all allocation.

5.27. Administration of RR-Entries Cache

Since version 4.02.00 caching of RR-Entries is implemented. A list of RREs is stored in the address space of rvsMVS monitor. If a dataset is received, the list will be checked for RRE instead of checking via control dataset.

The list will be update periodically (depends on the rvs start parameter DSPTIR).

New commands:

F RRLIST,R	Refresh (update) the list of RREs stored in address space of rvsMVS monitor.
DS RRLIST	Display all RREs stored in the rvsMVS monitor list. Each RRE is displayed in one line. The messages are only shown in the protocol (not in the console).

New rvs-start parameter:

DSPTIR= { nn | 600 } (see Installation Manual)

Procedures for rvs Maintenance

5.28. Re-Organization of the rvs Control Data Set

In order to prevent an overflow of the rvs control data set a regular re-organization must take place. That means, that old control data set records with information about complete transmissions are deleted.

This can be realized by using the procedure PDF0009A. The PARM entry of the procedure may be used to specify a minimum of time where control data set records are not to be deleted.

Example for using the procedure PDF0009A:

```
//DELOLD EXEC PDF0009A, PAPIER=c c = SYSOUT class
```

In case of an error the following user abends may occur:

```
1790 invalid PARM entry
1791 error during accessing the rvs control data set
1792 error during execution the VSAM macros SHOWCB or GENCB
1793 there is no 'control record' in the rvs control data set (first record with rvs control
information)
```

5.29. Saving the rvs Control Data Set and the rvs Log Data Set

The rvs log data set must be cleared from time to time. This is done in conjunction with saving of the control data set and the log data set. Procedure PDF0014 should be used for this.

The procedure effects the following:

- Copies the rvs control data set to a sequential data set which is allocated by the DD statement KDSAVE.
- Copies the rvs log data set to a sequential data set which is allocated by the DD statement LOGSAVE.
- Indicates the rvs log data set as reusable (during the next use the old records of the LOG data set is overwritten).

The created backup copies of the control data set together with the current content of the log data set allow to reconstruct a damaged control data set at every time without loss of any information.

The files allocated with DD names KDSAVE (respectively LOGSAVE) are sequential files.

Normally it is completely sufficient to save one copy of the rvs control data set (and eventually one copy of the rvs log data set).

If during the execution of the procedure PDF0014A the old copies shall not be destroyed, temporary data sets can be allocated to the DD names KDSAVE respectively LOGSAVE. After this step has been terminated successfully in a further step the old copy data sets can be overwritten. (For a description of the procedure PDF0014A, see rvs Installation Manual, description of the RVS.TABLES data set).

Example of a modified PDF0014A Procedure:

```
//PDF0014B  PROC  PAPIER=' * '  
//SDF0014b  EXEC  PGM=DF072A, PARM=' . . . '  
//STEPLIB   DD    DSN=RVS . LOADLIB, DISP=SHR  
//SYSPRINT  DD    SYSOUT=&PAPIER  
//KD        DD    DSN=RVS . KD, DISP=SHR  
//RVSLOG    DD    DSN=RVS . LOG, DISP=SHR  
//KDSAVE    DD    DSN=RVS . KDSAVE . TEMP, DISP= (NEW, CATLG) ,  
//          SPACE= (TRK, (10, 5) ) , UNIT=SYSDA  
//LOGSAVE   DD    DSN=RVS . LOGSAVE . TEMP, DISP= (NEW, CATLG) ,  
//          SPACE= (550, (500, 10) ) , UNIT=SYSDA  
//COPYI     EXEC  PGM=COPY, COND= (0, LT, SDF0014B)  
//INFILE    DD    DSN=RVS . KDSAVE . TEMP, DISP= (OLD, DELETE, KEEP)  
//OUTFILE   DD    DSN=RVS, KDSAVE, DISP=SHR  
//COPY2     EXEC  PGM=COPY, COND= (0, LT, SDF0014B)  
//INFILE    DD    DSN=RVS . LOGSAVE . TEMP, DISP=OLD, DELETE, KEEP)  
//DUTFILE   DD    DSN=RVS . LOGSAVE, DISP=SHR
```

5.30. Recovery of the rvs Control Data Set

After the occurrence of certain errors (i.e. I/O errors) it may be necessary to recover the rvs control data set, that means the last copy of the rvs control data set is copied into a predefined disk data set. The handling in this case is as follows:

- Rename or delete the rvs control data set in error.
- Define the rvs control data set (if shared disks are used choose the catalog volume). A description of the suitable JCL is in the rvs Installation Manual, Recovery of the rvs Control Data Set.
- During the recovery of the rvs control data set the rvs Monitor must not be started.

Index

/*SYSOUT=(I,INTRDR)	12	C-sid,X	22
A DSP	26	DA	33
A-ALL	24	Data Set	
Abend		Attributes	52
Subtask	16	Display Received	33
Activate	<i>See</i> Start	Display to be Received	33
A-III	20	Prepare for Transmission	9
A-RMOP	20	Reception	9, 31
A-RVSF	20	Routing	12
A-RVSL	19	Sending	9
A-RVST	19	Size	52
A-RVSV	18	Transmission	9, 29
A-RVSV	18	Un-Allocation	54
A-sid	21	Data Sets	
A-sid,F	23	Display Transmitted -	33
A-sid,L	23	Data Transmission	
A-sid,T	23	Description	9
A-sid,V	22	DB	17
A-sid,X	22, 23	DD EERP	27
B-III	21	DD REFR	27
B-RMOP	20	DD sid	27
B-RVSF	20	DDEVTYPE=TAPE	14
B-RVSL	19	DDR	
B-RVST	19	Receive-Dispatcher	56
B-RVSV	18	DDR {ACT/ALL/REFR}	28, 56
B-RVSV	18	DDR sid	28, 56
B-RVSV	18, 19	DDS	
BSC		Send-Dispatcher	56
Error	15	DDS {ACT/ALL/REFR}	28, 56
BSC Lines		DDS sid	28, 56
Dial	20	Delete	
Leased	21	EERP	30
B-sid	21	DELETE	
B-sid,X	22	Receive-Dispatcher	57
BTAM		Send-Dispatcher	57
Error Recovery	15	DF	52
C-ALL	24	Dial	
Cancel	<i>See</i> Stop	Automatically	21
Code-Translation		BSC Lines	13
Refresh	55	DIAL sid	21
Collective Commands	24	Dialing	
Command		BSC Lines	20
Collective	24	Dispatcher	
Dispatcher	26	Command	26
Control Data Set		Commands	27, 28
Recovery	60	Receive-Dispatcher	28
Re-Organization	59	Send-Dispatcher	28
Saving	59	Start	26
C-RVS	17	Status Commands	27
C-RVSF	20	Stop	26
C-RVST	19	Time Intervall	26
C-RVSV	18	Trace	27, 28
C-RVSV	18	Display	
C-sid	21, 31	Line Error Block	34
C-sid,F	23	of queued EERPs	32
C-sid,L	23	Resident Receive Entry	54
C-sid,T	23		

Station Information	34	Line	
Status.....	25	Display Status	25
Time Interval.....	35	Error.....	15
Transmissiobn Speed	33	Lines	
Transmission.....	33	Starting	13
DJ	54	Log Data Set	
DL	34	Saving.....	59
DQ.....	32	L-sid.....	34
DQ=.....	32	LU 6.2 Control Program	
DR=.....	33	Start	19
DS.....	25, 33	Stop.....	19
DS=	33	LU 6.2-Sessions	
D-sid,R=	31, 57	Start	23
D-sid,S=	30, 31, 57	Stop.....	23
DSPTI.....	26	Maintanance Procedures	59
DSPTIW.....	26	Message	
Dump		Control of -	54
Abend -	52	Messages	
Command.....	51	Control Protocol -	36
SNAP -	50	Monitor	
DUMP SCC.....	52	Modify Parameters	35
DUMP UCC	52	Reply	17
DV	34	Start	17
DX.....	34	Start Time	17
EERP		Starting	13
Delete.....	30	Stop.....	14, 17
Display of.....	32	MSG,CS=.....	54
End-to-End Response		MSG,REFRESH	55
see EERP.....	30	MSGOUT.....	54
Error		M-sid.....	30
Line	15	N sid,Q=.....	32
Recovery	15	N sid,RR =	54
SNA, X25, LU 6.2 or TCP/IP	15	N sid,S=	33
Transmission.....	11	N-SID.....	16
Failure		N-sid,R=.....	33
Transmission.....	11	N-sid,RQ	33, 57
FREE DSN=.....	54	N-sid,SQ	33, 57
F-sid.....	37	O III	49
FTP Control Program		O LU62	50
Start.....	20	O sid.....	49
Stop	20	O TCPR.....	50
FTP-Transmissions		O VCLU.....	50
Start.....	23	O XMLU.....	49
Stop	23	Online Refresh	
H-ALL.....	30	Code Translation	55
HLDRESET	15	Station Table.....	55
Hold Status	12, 15	Operator Message	
HOLD Status	30	Interchange	30
HR	57	P DSP.....	26
Receive-Dispatcher	56	P-ALL	24
HS.....	57	Parameter	
Send-Dispatcher.....	56	Modification of Station -	37
Interrupt		Modify	35
Transmission.....	16	PDF0009A	59
Job		PDF0014	59
Automatic Job Start.....	12	P-III	20
Copy -	54	PMSG ON/OFF	36
Free Job Output.....	54	P-RMOP.....	20
Local Processing	12	Procedures.....	59
Remote Processing.....	12	P-sid,V	22
Leased BSC Lines	21	P-sid,VTAM	22
LERB.....	34	Q-sid	33

Receive Request		Dispatcher	26
Delete	31	FTP Control Program	20
Receive-Dispatcher	28, 56	FTP-Transmissions	23
DDR	28, 56	LU 6.2 Control Program	19
DELETE Command	57	LU 6.2-Sessions	23
HR	56	SNA-Sessions	22
RQ	57	TCP/IP Control Program	19
SEND / HOLD Commands	56	TCP/IP-Sessions	23
SR	56	VTAM Control Program	18
Status Commands	28, 56	X25-Sessions	22, 23
Reception		Start Time	
Remote Options	10	Monitor	17
Resident Receive Entry	11	Station	
Standard Process	10	Display Information	34
REFR[ESH] STAT[IONS]	55	Station Table	
REFR[ESH] TRNT[ABLE]	55	Online Refresh	55
Refresh		Status	
Code Translation	55	Display	25
Message Tables	54	Stop	
Station Table	55	Dispatcher	26
Remote Operating Control Task	20	FTP Control Program	20
Remote Options	10	FTP-Transmissions	23
Re-Organization		LU 6.2 Control Program	19
Control Data Set	59	LU 6.2-Sessions	23
Resident Receive Entry	11	Monitor	14
Display	54	SNA-Sessions	22
Restart	11	TCP/IP Control Program	19
RJE Function	12	TCP/IP-Sessions	23
RJE=YES	12	VTAM Control Program	18
Routing		X25-Sessions	22, 23
Data Set	12	STORAC	35
RQ		Subtask	
Receive-Dispatcher	57	Abend	16
RQ	57	Switched BSC Lines	20
R-sid	31	T Ill	48
S-ALL	29	T LU62	48
SEND- and RECEIVE- DISPATCHER	56, 57	T sid	48
Send Requests		T TCPR	49
Delete	30	T VCLU	48
Send-Dispatcher	28, 56	T XMLU	48
DDS	28, 56	Tape Data Set	14
DELETE Command	57	TCP/IP Control Program	
HS	56	Start	19
SEND / HOLD Commands	56	Stop	19
SQ	57	TCP/IP-Sessions	
SS	56	Start	23
Status Commands	28, 56	Stop	23
Session		Time Interval	
Display Status	25	Dispatcher	26
SNA-Sessions		Display	35
Start	22	TIME=	35
Stop	22	Trace	48
SQ		Internal	50
Send-Dispatcher	57	Start	48
SQ	57	Stop	49
SR	57	TRACE=	48
Receive-Dispatcher	56	Transmission Speed	
SS	56	Display	33
Send-Dispatcher	56	Transmission	
S-sid	29	Cancel	31
S-SID	14	Control	11, 29
Start		Data Set	29

Display	33	Start	18
Error	11	Stop	18
Execute	13	X25-Sessions	
Failure	11	Start	22, 23
Interrupt	16	Stop	22, 23
Restart	11	XAPPLID	36
Transmission Status		XLUNAME	36
Display	32	X-sid	34
U III	50	Y GENPARAM	51
U sid	50	Y LINES	51
VTAM Control Program		Y III	50
Start	18	Y SESSIONS	51
Stop	18	Y sid	50
X25 Control Program		Y STATIONS	51