



PFA Products V4.0

Command Survey

First Edition, September 1998
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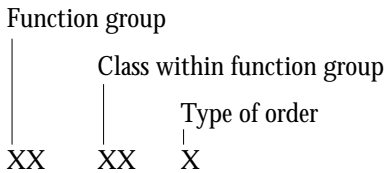
Contents

Introduction	4
AC - Access Control Commands	7
AN - Analysis Commands	7
CD - Charging Data Commands	9
DIRECTORY	11
FR - Frame Relay Commands	11
HELP	14
IP - Internet Protocol Commands	14
LI - Line Interface Commands	19
MP - Multilink Protocol Commands	34
NA - Node Administration Commands	35
PS - Packet Switching Commands	41
SA - Session Administration Commands	45
ST - Statistics Commands	46
UI - User Interface Commands	47
Command Categories	49
Clear and reset causes with diagnostic codes	50
Abbreviations	55
X.3 Parameter Table	60
ASCII Character Table	61

Introduction

Command code build up

The MML command code (Man Machine Language), identifying the function to be executed consists of five alphanumeric characters and is built up in the following way:



The commands are functional, i.e. every command belongs to a function group, pointed out by the two leftmost characters in the command code. These two characters represent commands concerned with the following areas:

AC	Access Control	MP	Multilink Protocol
AN	ANalysis	NA	Node Administration
CD	Charging Data	PS	Packet Switching
FR	Frame Relay	SA	Session Administration
IP	Internet Protocol	ST	STatistics
LI	Line Interface	UI	User Interface

The next two letters designate the class within the function group, i.e. it specifies the exact subject to be actioned in the function group, e.g. for address modification the abbreviation AM is used to give ANAMx.

The last letter (i.e., x) is the initial of the activating verbs, as listed below, which are used to execute the commands:

B = Block	R = Reset
D = Deblock	S = Set
I = Initialise	T = Terminate
P = Printout (Display)	

Example:

LILPP;

Where: LI = Line Interface Function Group
LP = Link Protocol
P = Printout

This command will therefore print out a link protocol for a line.

Special Characters for Command Lines

An MML command, e.g. PSROI, is followed by one or several special characters for it to be accepted, i.e.

PSROI:ROT=95,NP=1-1-1-3&1-1-1-4,TOS=HOME;

All the possible special characters encountered with MML commands are listed below.

- : The MML command and any parameters associated with the command are separated by a colon (:).
- = The parameter is given in the format "parameter name=parameter value". The parameter name and the parameter value are separated by an equal sign (=).
- , If more than one parameter is possible, the parameters are separated by a comma (,).
- & To speed up configuration, an ampersand (&) can be used to delimit multiple parameter values during input. The (&) is also used to delimit HEX patch data when configuring patches for implementation on the unit.
- ; All MML commands must be terminated by a semicolon (;).

Special Characters for Command Survey

The following characters are only shown in this Command Survey to explain the command usage more fully. They should not be input at the command line.

- () With a bracket () those parameters or parameter values are indicated of which only one value should be used.
- <> Parameters enclosed in angle brackets are optional.
- <...> The symbol indicates that the parameter preceding <...> can have multiple parameter values set, e.g. NP=1-1-1-1&1-1-1-2 or ROT=34&35.

AC - Access Control Commands

ACNPP: <,NTN=ntn> <,CUG=code(-dnic)>;	Print CUGs
ACNPS: NTN=ntn, CUG=code(-dnic), INDEX=index;	Set CUG list
ACNPT: NTN=ntn <,INDEX=index>;	Termination of CUGs

AN - Analysis Commands

ANAMI: TABLE=table <,EXTENSION=yesno>; TABLE=table, INTADDR=intaddr, LOCADDR=locaddr <,CUD=cud> <,PID=pid>;	Initialise address modification table/record
ANAMP <:TABLE=table> <,INTADDR=intaddr> <,LOCADDR=locaddr> <,LOCAL=local>	Print data for address modification table
ANAMS: TABLE=table <,INTPREF=intpref> <,OWNADDR=ownaddr> <,MAPCODE=mapcode> <,DNIC=dnic> <,DCC=dcc> <,ADDRFORM=addrform> <,SUBADDRLEN=subaddrlen> <,NEXTTABLE=nexttable>;	Set address modification table parameters

ANAMT: TABLE=table; TABLE=table, INTADDR=intaddr;	Terminate an address modification table/record
ANDAP <:ND=nd>;	Print Number Directions
ANGNI: GTN=gtn,NTN=ntn<...> <,TOS=tos>;	Initialise Hunt Group
ANGNP <:GTN=gtn>;	Print Hunt Group
ANGNT: GTN=gtn;	Terminate Hunt Group
ANNAI: NAME=name, NTN=ntn <,PROT=prot> <,FAC="fac"> <,PID=pid> <,CUD="cud"> <,TPROFILE=tprofile> <,ORIG=orig>;	Initialise asynchronous addressing
ANNAI: NAME=name, PROT=prot, DEST=dest;	Initialise TELNET/SNMP management station addressing
ANNAS: NAME=name <,NTN=ntn> <,PROT=prot> <,FAC="fac"> <,PID=pid> <,CUD="cud"> <,TPROFILE=tprofile> <,ORIG=orig>;	Set asynchronous addressing
ANNAS: NAME=name <,DEST=dest> <,PROT=prot>;	Set TELNET/SNMP management station addressing
ANNAP <:NAME=name> <,DETAIL=detail>;	Print asynchronous/TELNET/ SNMP manager addressing

ANNAT: NAME=name;	Terminate asynchronous/ TELNET/SNMP manager addressing
ANRAI: ND=nd,RC=rc;	Initialise Number Direction
ANRAT: ND=nd;	Terminate Number Direction
ANRCI: RC=rc,ROT=rot<...> <,TOS=tos>;	Initialise routing case
ANRCP <,RC=rc>;	Print routing case
ANRCT: RC=rc;	Terminate routing case

CD - Charging Data Commands

CDAAB;	Block Call Accounting Administrator
CDAAC <:,BUFSIZE=bufsize> <,NEWCALLS=newcalls> <,NEWRECORD=newrecord> <,EXCEEDBUFF=exceedbuff> <,TRAPS=traps> <,TRAPID=trapid> <,BUFFTRAP=bufstrap> <,CALLREJTRAP=callrejtrap> <,DELETETRAP=deletetrap> <,RECSLOSTTRAP> <,CAASTATUSTRAP=caastatustrap>;	Change Call Accounting Administrator
CDAAD;	Deblock Call Accounting Administrator
CDAAI;	Initialise Call Accounting Administrator
CDAAP;	Print Call Accounting Administrator

CDAAR;	Delete Completed accounting records from CAA Buffer
CDAAS <:LONGCALL=longcall> <,DTECOL=dtecol>;	Set Call Accounting Administrator
CDAAT;	Terminate Call Accounting Administrator
CDCRP: BUFFTYPE=bufftype, RANGE=range <,FORMAT=format> <,SEARCH=search> <,VALUE=value>;	Print Call Accounting records
CDFTS <:TRAPID=trapid> <,FTPTRAP=ftptrap>;	Set Call Accounting FTP server parameters
CDFTP;	Print Call Accounting FTP server set-up
CDIPI: HOSTIP=hostip;	Initialise IP hosts permitted to access Call Accounting records
CDIPT: HOSTIP=hostip;	Terminate Call Accounting IP host
CDIPP;	Print IP hosts allowed to access Call Accounting records
CDRTS: TABLE=table, START=start, END=end, RATE=rate;	Set Call Accounting Rate Tables
CDRTP <:TABLE=table>;	Print Call Accounting Rate Tables
CDRTR: TABLE=table;	Reset (clear) Call Accounting Rate Table
CSDSP <:DATE=date> <,MONTH=month> <,TABLE=table>;	Print Call Accounting Special Days

CSDSI: TABLE=table, DATE=date<...>;	Initialise Call Accounting Special Day
CSDST: DATE=date<...>;	Terminate Call Accounting Special Days
CDWDP;	Print default Week Days for Call Accounting Rate Tables
CDWDS: DAY=day<...>, TABLE=table;	Set default Week Days for Call Accounting Rate Tables

DIRECTORY

DIRIP;

FR - Frame Relay Commands

FRECI: NTN=ntn;	Initialise Frame Relay Echo Port
FRECP;	Print Frame Relay Echo Port Parameters
FRECT;	Terminate Frame Relay Echo Port
FRPCB: NTN=ntn <,DLCI=dlci> <,PVCID=pvcid>;	Block Frame Relay PVC
FRPCS: NTN=ntn <,DLCI=dlci> <,PVCID=pvcid> <,BC=bc> <,BE=be> <,TC=tc>;	Set Frame Relay PVC Parameters

FRPCD: NTN=ntn <,DLCI=dlci> <,PVCID=pvcid>;	Deblock Frame Relay PVC
FRPCI: SIDEA=FR, NTNA=ntna, DLCIA=dlcia, NTNB=ntnb, DLCIB=dlcib <,BC=bc> <,BE=be> <TC=tc>; <,TRAPID=trapid> <,PVCTRAP=pvctrap>;	Initialise Frame Relay PVC for frame relay switching
FRPCI: SIDEA=FTI, NTNA=ntna, NTNB=ntn, <,BC=bc> <,BE=be> <,TC=tc> <,TRAPID=trapid> <,PVCTRAP=pvctrap>;	Initialise Frame Relay PVC for FTI port
FRPCI: SIDEA=IP, NTNA=ntna, PVCID=pvcid, NTNB=ntnb, DLCIB=dlcib <,BC=bc> <,BE=be> <,TC=tc> <,TRAPID=trapid> <,PVCTRAP=pvctrap>;	Initialise Frame Relay PVC for IP over frame relay
FRPCI: SIDEA=X25, NTNA=ntna, NTNB=ntnb, DLCIB=dlcib <,BC=bc>	Initialise Frame Relay PVC for X.25/X.75 over frame relay

	<,BE=be> <,TC=tc> <,TRAPID=trapid> <,PVCTRAP=pvctrap>;	
FRPCP:	NTN=ntn <,DLCI=dhci> <,PVCID=pvcid> <,ALL=all>;	Print Frame Relay PVC
FRPCT:	NTN=ntn <,DLCI=dhci> <,PVCID=pvcid>;	Terminate Frame Relay PVC
FRTEI:	NTN=ntn, FP=fp; NTN=ntn, LP=lp;	Initialise Frame Relay NTN
FRTEP	<:NTN=ntn> <:TYPE=type>;	Print status for Frame Relay NTNs
FRTET:	NTN=ntn;	Terminate Frame Relay NTNs
FRTPI:	PVCID=pvcid <,DATALEN=datalen> <,DATAINT=dataint> <,BURSTSIZ=burstsiz> <,ECHO=echo>;	Initialise Frame Relay TP PVC
FRTPP	<:PVCID=pvcid>;	Print Frame Relay TP PVC
FRTPS:	PVCID=pvcid <,DATALEN=datalen> <,DATAINT=dataint> <,BURSTSIZ=burstsiz> <,ECHO=echo>;	Set Frame Relay TP PVC parameters
FRTPT:	PVCID=pvcid;	Terminate Frame Relay TP PVC
FRTRB;		Block Frame Relay Traffic Port
FRTRD;		Deblock Frame Relay Traffic Port

FRTRI:	NTN=ntn;	Initialise Frame Relay Traffic Port
FRTRP;		Print Frame Relay Traffic Port
FRTRT;		Terminate Frame Relay Traffic Port

HELP

HELP	<command name>;	Online HELP for MML Command Usage
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IP - Internet Protocol Commands

IPDBB;		Block IP Directed Broadcast
IPDBD;		Deblock IP Directed Broadcast
IPDBP;		Print IP Directed Broadcast
IPDGI:	DGATE=dgate <,METRIC=metric>;	Initialise Default Gateway
IPDGP;		Print Default Gateway
IPDGT;		Terminate Default Gateway
IPGAI:	REMIP=remip, LOCIP=locip, REMNTN=remntn <,BUFFER=buffer> <,REVIN=revin> <,REVOUT=revout> <,LC=lc> <,INACT=inact> <,RETRY=retry>;	Initialise IP Remote Gateway Entries for X.25/X.75

IPGAI:	REMIP=remip, LOCIP=locip, PVCID=pvcid <,BUFFER=buffer>;	Initialise IP Remote Gateway Entries for Frame Relay
IPGAP	<:REMIP=remip> <:LOCIP=locip>;	Print IP Remote Gateway Entries
IPGAS:	REMIP=remip <,REMNTN=remntn> <,REVIN=revin> <,REVOUT=revout> <,LC=lc> <,INACT=inact> <,RETRY=retry>;	Set IP Remote Gateway Parameters
IPGAT:	REMIP=remip;	Terminate IP Remote Gateway
IPHAB;		Block IP Helper Address table
IPHAD;		Deblock IP Helper Address table
IPHAI:	DEST=dest, SERVER=server;	Initialise IP Helper Address
IPHAP	<:DEST=dest>;	Print IP Helper Address
IPHAT:	DEST=dest, SERVER=server;	Terminate IP Helper Address
IPNIB:	LOCIP=locip;	Block Network Interface
IPNID:	LOCIP=locip;	Deblock Network Interface
IPNII:	TYPE=ETHER, LOCIP=locip, LA=la, MASK=mask, <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>;	Initialise Ether Network Interface

IPNII:	TYPE=X25, LOCIP=locip, LOCNTN=locntn, MASK=mask, <,MTU=mtu> <,TRAPID=trapid> <,TRAPS=traps> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap> <,SH=sh>;	Initialise X.25/X.75 Network Interface
IPNII:	TYPE=SLIP, LOCIP=locip, PP=pp, MASK=mask, <,MTU=mtu> <,COMPRESSION=compression> <,BUFFER=buffer> <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>;	Initialise SLIP Network Interface
IPNII:	TYPE=FR, LOCIP=locip, LOCNTN=locntn, MASK=mask, <,MTU=mtu> <,RATEENF=rateenf> <,INVARP=invarp> <,BUFFER=buffer> <,TRAPID=trapid> <,TRAPS=traps> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap> <,SH=sh>;	Initialise Frame Relay Network Interface

IPNII:	TYPE=VNI, LOCIP=locip, BR=br, MASK=mask, <,MTU=mtu> <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>;	Initialise Virtual Network Interface
IPNIP	<:LOCIP=locip>;	Print Network Interface Parameters
IPNIS:	LOCIP=locip <,MTU=mtu> <,LOCNTN=locntn> <,COMPRESSION=compression> <,BUFFER=buffer> <,RATEENF=rateenf> <,INVARP=invarp> <,SH=sh> <,TRAPID=trapid> <,TRAPS=traps> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap> <,LINKTRAP=linktrap>;	Set Network Interface Parameters
IPNIT:	LOCIP=locip;	Terminate Network Interface
IPPIP:	DEST=dest <,WAIT=wait>;	Print PING request status
IPRGI:	GATE=gate <,RXMODE=rxmode> <,TXMODE=txmode> <,DEFGATE=defgate> <,RXAUTH=rxauth> <,TXAUTH=txauth>;	Initialise RIP Gateway

IPRGP	<:GATE=gate>;	Print RIP Gateway
IPRGS:	GATE=gate <,RXMODE=rxmode> <,TXMODE=txmode> <,DEFGATE=defgate> <,RXAUTH=rxauth> <,TXAUTH=txauth>;	Set RIP Gateway
IPRGT:	GATE=gate;	Terminate RIP Gateway
IPROI:	DEST=dest, MASK=mask, GATE=gate <,METRIC=metric>;	Initialise IP Route
IPROP	<:DEST=dest> <,LOCIP=locip>;	Print IP Routes
IPROS:	DEST=dest, MASK=mask <,GATE=gate> <,METRIC=metric>;	Set IP Route
IPROT:	DEST=dest, MASK=mask <,GATE=gate>;	Terminate IP Route
IPRPB;		Blocks RIP
IPRPD;		Deblocks RIP
IPRPP;		Print RIP
IPRPS	<:UPDATE=update> <,TIMEOUT=timeout> <,GARBAGE=garbage> <,HOLD=hold> <,POISON=poison> <,TAG=tag> <,DEFGATE=defgate>;	Set RIP
IPRPT;		Terminate RIP

IPTPB:	TIP=tip;	Block TIP
IPTPD:	TIP=tip;	Deblock TIP
IPTPI:	TIP=tip, SIDE=side, REMIP=remip;	Initialise TIP
IPTPP	<:TIP=tip>;	Print TIP
IPTPS:	TIP=tip <,SIDE=side> <,REMIP=remip>;	Set TIP
IPTPT:	TIP=tip;	Terminate TIP
IPTSI:	REMIP=remip, ENTRY=entry <,ADJUST=adjust> <,INTERVAL=interval> <,RETRIES=retries>;	Initialise Remote IP Time Server (PFA660 only)
IPTSP	<:ENTRY=entry>;	Printout of Remote IP Time Server Table (PFA660 only)
IPTSS:	ENTRY=entry <,REMIP=remip> <,ADJUST=adjust> <,INTERVAL=interval> <,RETRIES=retries>;	Set parameters of Remote IP Time Server (PFA660 only)
IPTST:	ENTRY=entry;	Terminate a remote IP Time Server (PFA660 only)

LI - Line Interface Commands

LIATI	<:PORT=port> <,BUF_SIZE=buf_size> <,MAX_ABR=max_abr> <,FD_CONN=fd_conn> <,TX_CONN=tx_conn>	Initialise ATM port
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	<pre> <,RX_CONN=rx_conn> <,ENCODING=encoding> <,LINE_LENGTH=line_length> <,BUFFERS=buffers> <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>; </pre>	
LIATS	<pre> <:PORT=port> <,BUF_SIZE=buf_size> <,MAX_ABR=max_abr> <,FD_CONN=fd_conn> <,TX_CONN=tx_conn> <,RX_CONN=rx_conn> <,ENCODING=encoding> <,LINE_LENGTH=line_length> <,BUFFERS=buffers> <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>; </pre>	Set ATM port
LIATD	<pre> <:PORT=port>; </pre>	Deblock ATM port
LIATB	<pre> <:PORT=port>; </pre>	Block ATM port
LIATT	<pre> <:PORT=port>; </pre>	Terminate ATM port
LIATP	<pre> <:PORT=port>; </pre>	Print ATM port parameters
LIBPI:	<pre> BR=br, LA=la; </pre>	Initialise Bridge LAN port
LIBPB:	<pre> BR=br, LA=la; </pre>	Block Bridge LAN port
LIBPD:	<pre> BR=br, LA=la; </pre>	Deblock Bridge LAN port

LIBPP:	<BR=br>;	Print Bridge LAN port information
LIBPT:	BR=br, LA=la;	Terminate Bridge LAN port
LIBRI:	BR=br, LOCNTN=locntn <,PVCFWD=pvcfwd> <,REMOTEMACS=remotemacs> <,BUFFER=buffer> <,PRIORITY=priority>;	Initialise Ethernet Bridging Group
LIBRS:	BR=br <,PVCFWD=pvcfwd> <,REMOTEMACS=remotemacs> <,BUFFER=buffer> <,PRIORITY=priority>;	Set Ethernet Bridging Group parameters
LIBRB:	BR=br;	Block Ethernet Bridging Group
LIBRD:	BR=br;	Deblock Ethernet Bridging Group
LIBRP	<:BR=br>;	Prints Ethernet Bridging Group parameters
LIBRT:	BR=br;	Terminate Ethernet Bridging Group
LIFPB:	FP=fp;	Block Frame Relay port
LIFPD:	FP=fp;	Deblock Frame Relay port
LIFPI:	FP=fp, PROT=prot <,TRAPID=trapid> <,TRAPS=traps> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>;	Initialise Frame Relay port
LIFPP:	FP=fp;	Print Frame Relay port parameters

LIFPS:	FP=fp <,ACCCIR=accir> <,CONN=conn> <,LLM=llm> <,N391=n391> <,N392=n392> <,N393=n393> <,T391=t391> <,T392=t392> <,PVCSTATUS=pvcstatus>;	Set Frame Relay port parameters
LIFPT:	FP=fp;	Terminate Frame Relay port
LISS:	PP=port <,V25STRING=v25string> <,WAIT=wait>;	Sends V25bis string (for ISDN POP PAK configuration)
LILAB:	LA=la;	Block LAN1 port
LILAD:	LA=la;	Deblock LAN1 port
LILAI:	LA=la, TYPE=ETHER <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap> <,POPTRAP=poptrap>;	Initialise LAN1 port
LILAS:	LA=la <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap> <,POPTRAP=poptrap>;	Set LAN1 port
LILAP	<:LA=la>;	Print LAN1 port
LILAT:	LA=la;	Terminate LAN1 port
LILCB:	LCP=lcp;	Block PPP link control layer

LILCD:	LCP=lcp;	Deblock PPP link control layer
LILCI:	LCP=lcp, MP=mp <,LQP=lqp> <,QTIME=qtime> <,QSAMPLE=qsample> <,QNUMBER=qnumber> <,RSTIMER=rstimer> <,MAXTERM=maxterm> <,MAXCONF=maxconf> <,MAXFAIL=maxfail> <,CONPREF=conpref> <,TXWIN=txwin> <,TRAPS=traps> <,TRAPID=trapid> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>;	Initialise PPP link control layer
LILCP	<:LCP=lcp>;	Print PPP link control layer
LILCS:	LCP=lcp <,MP=mp> <,LQP=lqp> <,QTIME=qtime> <,QSAMPLE=qsample> <,QNUMBER=qnumber> <,RSTIMER=rstimer> <,MAXTERM=maxterm> <,MAXCONF=maxconf> <,MAXFAIL=maxfail> <,CONPREF=conpref> <,TXWIN=txwin> <,TRAPS=traps> <,TRAPID=trapid> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>;	Set PPP link control layer parameters

LILCT:	LCP=lcp;	Terminate PPP link control layer
LILPB:	LP=port;	Block Link port
LILPD:	LP=port;	Deblock Link port
LILPI:	LP=port, PROT=prot <,ADDR=address> <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap> <,DISTTRAP=distrap> <,FRMRTRAP=frmrrap> <,HDLCTRAP=hdlctrap>;	Initialise link port
LILPP:	LP=port;	Print link port configuration
LILPS:	LP=port <,TPROFILE=tprofile> <,HPROFILE=hprofile> <,PROMPT="prompt"> <,CALLTEXT="calltext"> <,CLEARTEXT="cleartext"> <,BREAKTEXT="breaktext"> <,FORCENUI=forcenui> <,DESTID=destid>;	Set link port parameters for asynchronous/ X.28_or_TELNET
LILPS:	LP=port, DESTID=destid;	Set link port parameters for TPAD
LILPS:	LP=port <,MODULO=modulo> <,K=window> <,T1=timeout> <,N2=retries> <,DXE=dx> <,T2=timeout>	Set link port parameters for X.25

<,TP=timeout>
<,LINK=link>
<,ACL=acl>
<,LIM=lim>
<,DESTID=destid>
<,TRAPID=trapid>
<,TRAPS=traps>
<,LINKTRAP=linktrap>
<,OBJTRAP=objtrap>
<,CONFTRAP=conftrap>
<,DISTTRAP=distrtrap>
<,FRMRTRAP=frmrttrap>
<,HDLCTRAP=hdlctrtrap>;

LILPS: LP=port Set link port parameters
 <,MODULO=modulo> for X.75

<,K=window>
<,T1=timeout>
<,N2=retries>
<,T2=timeout>
<,TP=timeout>
<,LINK=link>
<,ACL=acl>
<,LIM=lim>
<,DESTID=destid>
<,TRAPID=trapid>
<,TRAPS=traps>
<,LINKTRAP=linktrap>
<,OBJTRAP=objtrap>
<,CONFTRAP=conftrap>
<,DISTTRAP=distrtrap>
<,FRMRTRAP=frmrttrap>
<,HDLCTRAP=hdlctrtrap>;

LILPS: LP=port Set link port parameters
 <,K=window> for SNA/SDLC
 <,T1=timeout>
 <,N2=retries>

<,ADDR=address>
<,TL=timeout>
<,T1TEST=timeout>
<,N2TEST=retries>
<,TEST=frame>
<,DATMODE=datmode>
<,LINK=link>
<,ACL=acl>
<,LIM=lim>
<FIDTYPE=fidtype>
<,DESTID=destid>
<,TRAPID=trapid>
<,TRAPS=traps>
<,LINKTRAP=linktrap>
<,OBJTRAP=objtrap>
<,CONFTRAP=conftrap>
<,DISTTRAP=disttrap>
<,FRMRTRAP=frmrttrap>
<,HDLCTRAP=hdlctrp>;

LILPT:	LP=port;	Terminate link port
LILTB:	LP=port;	Block line test link port
LILTD:	LP=port;	Deblock line test port
LILTI:	LP=port,LOOP=loop, DELAY=delay, DURATION=duration;	Initialise link test
LILTP:	LP=port;	Print serial line test configuration
LILTT:	LP=port;	Terminate line test link port
LIMPB:	MP=mp;	Block an MP bundle
LIMPD:	MP=mp;	Deblock an MP bundle
LIMPI:	MP=mp, BOD=bod <,MODE=mode>	Initialise an MP bundle

	<pre> <,RATEENFIN=rateenfin> <,RATEENFOUT=rateenfout> <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>; </pre>	
LIMPP	<pre> <:MP=mp>; </pre>	Print MP bundle details
LIMPS:	<pre> MP=mp <,BOD=bod> <,MODE=mode> <,RATEENFIN=rateenfin> <,RATEENFOUT=rateenfout> <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>; </pre>	Set an MP bundle
LIMPT:	<pre> MP=mp; </pre>	Terminate an MP bundle
LIMRP	<pre> <:LEVEL=level> <,SEQNO=seqno> <,LC=lc> <,DLCIFILTER=dlcifilter> <,PPFILTER=ppfilter>; </pre>	Print decoded frames for port monitor
LINPB:	<pre> NP=port; </pre>	Block network port
LINPD:	<pre> NP=port; </pre>	Deblock network port
LINPI:	<pre> NP=port, PROT=prot <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>; </pre>	Initialise network port

LINPP:	NP=port;	Print network port parameters
LINPS:	NP=port <,PACKSIZE=packsize> <,CUD=cud>;	Set network port parameters for asynchronous
LINPS:	NP=port <,VERSION=version> <,DXE=dxe> <,PC=pc> <,IC=ic> <,OC=oc> <,TC=tc> <,MODULO=modulo> <,WSN=wsn> <,MWS=mws> <,DWS=dws> <,PSN=psn> <,MPS=mps> <,DPS=dps> <,FAST=fast> <,CLAMN=clamn> <,DTEFAC=dtefac> <,ADDRMOD=addrmod> <,CTIMER=ctimer> <,RESTIMER=restimer> <,RSTTIMER=rsttimer> <,CLRTIMER=clrtimer> <,TCN=tcn> <,DTC=dtc> <,ZEROCAUSE=zerocause> <,ACCADDR=accaddr> <,NUI=nui> <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap>;	Set network port parameters for X.25

LINPS: NP=port Set network port parameters
<,VERSION=version> for X.75
<,PC=pc>
<,IC=ic>
<,OC=oc>
<,TC=tc>
<,MODULO=modulo>
<,WSN=wsn>
<,MWS=mws>
<,DWS=dws>
<,PSN=psn>
<,MPS=mps>
<,DPS=dps>
<,FAST=fast>
<,CLAMN=clamn>
<,DTEFAC=dtefac>
<,ADDRMOD=addrmod>
<,CTIMER=ctimer>
<,RESTIMER=restimer>
<,RSTTIMER=rsttimer>
<,CLRTIMER=clrtimer>
<,NETTYPE=nettype>
<,TNIC=tnic>
<,CNIC=cnic>
<,EXTERNAL=external>
<,TCN=tcn>
<,DTC=dtc>
<,TRAPID=trapid>
<,TRAPS=traps>
<,LINKTRAP=linktrap>
<,OBJTRAP=objtrap>
<,CONFTRAP=conftrap>;

LINPS: NP=port Set network port parameters
<,LOCUP=locup> for QLLC
<,XIDSTRING=xidstring>
<,TESTINT=testint>
<,XIDMODE=xidmode>

	<,PACKSIZE=packsize>	
	<,TRAPID=trapid>	
	<,TRAPS=traps>	
	<,OBJTRAP=objtrap>	
	<,CONFTRAP=conftrap>;	
LINPT:	NP=port;	Terminate network port
LIPMB;		Block port monitor
LIPMD;		Deblock port monitor
LIPMI:	PP=port, LP=port, MP=port;	Initialise port monitor
LIPMP;		Print port monitor setup
LIPMS:	<TRIGGER=trigger> <,RFILTER=rfilter> <,DLCIFILTER=dlcifilter> <,FRAMESAFTER=framesafter> <,PPFILTER=ppfilter>;	Set port monitor parameters
LIPMT;		Terminate port monitor
LIPOB:	PORT=port;	Block all port levels
LIPOD:	PORT=port;	Deblock all port levels
LIPOI:	PORT=port, PROT=prot <,ADDR=addr> <,DXE=dxe> <,SIDE=side> <,MODE=mode> <,MP=mp>;	Initialise all port levels
LIPOP	<,PORT=port>;	Print status of all ports
LIPOT:	PORT=port;	Terminate all port levels
LIPPB:	PP=port;	Block physical port
LIPPD:	PP=port;	Deblock physical port

LIPPI:	PP=port <,TYPE=type> <,MODE=mode> <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap> <,POPTRAP=poptrap>;	Initialise physical port
LIPPP:	PP=port;	Print physical port parameters
LIPPR:	PP=port;	Reset PP (for ISDN POP PAK only)
LIPPS:	PP=port <,RATE=rate> <,PARITY=parity> <,ENCODING=encoding> <,DCDMODE=dcdmode> <,MODEMFLOW=modemflow> <,XONFLOW=xonflow> <,CHARBITS=charbits> <,STOPBITS=stopbits> <,ACCESS=access> <,DUPLEX=duplex> <,MODEMSTRING=modemstring> <,STARTSTRING=startstring> <,DCDMODE=dcdmode> <,ACNTL=acntl> <,ACL=acl> <,ALARMTIM=alarmtim> <,DESTID=destid> <,TRAPID=trapid> <,TRAPS=traps> <,LINKTRAP=linktrap> <,OBJTRAP=objtrap> <,CONFTRAP=conftrap> <,POPTRAP=poptrap>;	Set physical port parameters for asynchronous

LIPPS: PP=port<,N1=n1> Set physical port parameters
 <,TIMING=timing> for X.25/X.75/SDLC/TPAD
 <,RATE=rate>
 <,ENCODING=encoding>
 <,IFM=ifm>
 <,ACCESS=access>
 <,DUPLEX=duplex>
 <,MODEMSTRING=modemstring>
 <,DCDMODE=dcdmode>
 <,ACNTL=acntl>
 <,ACL=acl>
 <,ALARMTIM=alarmtim>
 <,DESTID=destid>
 <,STARTCHAR=startchar> for TPAD Bisync only
 <,TRAILCHAR=trailchar> for TPAD Bisync only
 <,PACKSIZE=packsize> for TPAD Bisync only
 <,TRAPID=trapid>
 <,TRAPS=traps>
 <,LINKTRAP=linktrap>
 <,OBJTRAP=objtrap>
 <,CONFTRAP=conftrap>
 <,POPTRAP=poptrap>
 <,CASMODE=casmode>
 <,TCONN=tconn>;

LIPPS: PP=port<,N1=n1> Set physical port parameters
 <,TIMING=timing> for Frame Relay
 <,RATE=rate>
 <,ENCODING=encoding>
 <,IFM=ifm>
 <,ACCESS=access>
 <,DUPLEX=duplex>
 <,MODEMSTRING=modemstring>
 <,DCDMODE=dcdmode>
 <,RATEENFIN=rateenfin>
 <,RATEENFOUT=rateenfout>
 <,CRC=crc>
 <,BUFFERS=buffers>

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    <,ACNTL=acntl>
    <,ACL=acl>
    <,ALARMTIM=alarmtim>
    <,DESTID=destid>
    <,TRAPID=trapid>
    <,TRAPS=traps>
    <,LINKTRAP=linktrap>
    <,OBJTRAP=objtrap>
    <,CONFTRAP=conftrap>
    <,POPTRAP=poptrap>
    <,CASMODE=casmode>
    <,TCONN=tconn>;

LIPPT:  PP=port;                               Terminate physical port

LIVPI:  VP=vp,                                  Initialise virtual port
        VCC=vcc                                  parameters
        <,TYPE=type>
        <,TRAPID=trapid>
        <,TRAPS=traps>
        <,LINKTRAP=linktrap>
        <,OBJTRAP=objtrap>
        <,CONFTRAP=conftrap>;

LIVPS:  VP=vp                                   Set virtual port parameters
        <,VCC=vcc>
        <,MAXPDU=maxpdu>
        <,RATEENFIN=rateenfin>
        <,RATEENFOUT=rateenfout>
        <,RATEMODE=ratemode>
        <,MAPMODE=mapmode>
        <,CLP=clp>
        <,GCRA_I=gcra_i>
        <,GCRA_L=gcra_l>
        <,ATMTXBUFFS=atmtxbufs>
        <,ACNTL=acntl>
        <,ACL=acl>
        <,DESTID=destid>
        <,TRAPID=trapid>

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<,TRAPS=traps>
<,LINKTRAP=linktrap>
<,OBJTRAP=objtrap>
<,CONFTRAP=conftrap>;

LIVPD: VP=vp; Deblock virtual port
LIVPB: VP=vp; Block virtual port
LIVPT: VP=vp; Terminate virtual port
LIVPP: VP=vp; Print virtual port parameters

MP - Multilink Protocol Commands

MPBDI: BOD=bod Initialise MP bandwidth-on-
 <,TSAMPLE=tsample> demand table
 <,SMOOTH=smooth>
 <,CON1=con1>
 <,DIS1=dis1>
 <,CON2=con2>
 <,DIS2=dis2>
 <,CON3=con3>
 <,DIS3=dis3>
 <,CON4=con4>
 <,DIS4=dis4>
 <,CON5=con5>
 <,DIS5=dis5>
 <,CON6=con6>
 <,DIS6=dis6>
 <,CON7=con7>
 <,DIS7=dis7>;

MPBDP <:BOD=bod>; Print MP bandwidth-on-
 demand table

MPBDS: BOD=bod Set MP bandwidth-on-demand
 <,TSAMPLE=tsample> table
 <,SMOOTH=smooth>

<,CON1=con1>
<,DIS1=dis1>
<,CON2=con2>
<,DIS2=dis2>
<,CON3=con3>
<,DIS3=dis3>
<,CON4=con4>
<,DIS4=dis4>
<,CON5=con5>
<,DIS5=dis5>
<,CON6=con6>
<,DIS6=dis6>
<,CON7=con7>
<,DIS7=dis7>;

MPBDT: BOD=bod;

Terminate MP bandwidth-on-demand table

NA - Node Administration Commands

NAALP <:ACL=acl< ... >>;

Print alarm list

NAALR;

Reset (clear) spontaneous alarm
Print queue

NACCI: CONFIG=config;

Stores the current config into
FLASH (PFA660 only)

NACCP;

Print current status of config
area

NACCR: CONFIG=config;

Reset the config area

NACCS <:PENDING=pending>
<,REMERR=delete>;

Sets config area to be loaded
on restart

NACDI: CONFIG=config,
TRANSFER=state;

Initialise the config area

NACDP <:CONFIG=config>;

Print current or selected
configuration

NACGI: COMM=comm, STRING="string", TYPE=type;	Initialise SNMP Community Instance
NACGP <:COMM=comm> <,STRING="string"> <,TYPE=type>;	Print SNMP Community Instance
NACGS: COMM=comm <,STRING="string"> <,TYPE=type>;	Set SNMP Community Instance
NACGT: COMM=comm;	Terminate Community Instance
NACLP;	Print date and time
NACLS: DATE=date, TIME=time;	Set date and time
NADCB: NAME=name <,DIR=dir>;	Node Administration Directory Control: Blocks username
NADCD: NAME=name <,DIR=dir>;	Node Administration Directory Control. Deblocks username
NADCI: NAME=name, PASSWORD=pw, AUTH=auth <,DIR=dir>;	Node Administration Directory Control. Initialise users
NADCP: <,NAME=name> <,DIR=dir>;	Node Administration Directory Control. Print of usernames
NADCS: NAME=name <,PASSWORD=pw> <,AUTH=auth> <,DIR=dir>;	Node Administration Directory Control. Change passwords and authorities
NADCT: NAME=name <,DIR=dir>;	Node Administration Directory Control. Terminate Username

NADNP;	Print DNIC and default call priority
NADNS <:DNIC=dnic> <,DEFPRI=defpri> <,PREFTIME=preftime> <,CFGRATE=cfgrate>;	Set Default Node settings
NAHSP;	Print hardware status
NAHWP;	Print PFA660 hardware-related information.
NAHWS <:TRAPID=trapid> <,TRAPS=traps> <,FANFAILTRAP=fanfailtrap> <,PSUFAILTRAP=psufailtrap>;	Set PFA660 hardware-related information
NALOP;	Print load control settings/ statistics
NALOR;	Reset load control statistics
NALOS <:LLSPS=limit> <,LLSMOOTH=smooth> <,TRAPID=trapid> <,LOWMEM=lowmem> <,LOWMEMTRAP=lowmemtrap>;	Set load control limits
NAMSI: NMS=nms <,COMM=comm1& comm2&comm3 &commn>;	Initialise SNMP Manager associations
NAMSP <:NMS=nms> <,COMM=comm>;	Print SNMP Manager associations
NAMSS: NMS=nms <,COMM=comm1& comm2&comm3 &commn>;	Set SNMP Manager associations
NAMST: NMS=nms;	Terminate SNMP Manager associations

NANMP <:NAME=name>;	Print SNMP subsystem
NANMS: NAME=SYSCONTACT, VALUE=syscontact;	Set SNMP subsystem
NANMS: NAME=SYSLOCATION, VALUE=syslocation;	
NANMS: NAME=COLDSTARTDEL, VALUE=coldstartdel;	
NANMS: NAME=AUTHTRAP, VALUE=authtrap;	
NANMS: NAME=TRAPID, VALUE=trapid;	
NANMS: NAME=TOPOLOGYTRAP, VALUE=topologytrap;	
NANOP;	Print Node Name and ID
NANOS: <NODE=node> <,NODEID=nodeid>;	Set Node Name and ID
NAPDB: NAME=name;	Block Printout Destination
NAPDD: NAME=name;	Deblock Printout Destination
NAPDI: NAME=name, DESTTYPE=desttype, NTN=ntn,QLIM=qlim, HBINT=hbint <,QLEN=qlen> <,DESTID=destid<...>>;	Initialise Printout Destination
NAPDP <:NAME=name>;	Print Printout Destinations
NAPDS: NAME=name <,DESTTYPE=desttype> <,NTN=ntn> <,QLIM=qlim> <,HBINT=hbint> <,QLEN=qlen> <,DESTID=destid<...>>;	Setting parameters of Printout Destination
NAPDT: NAME=name;	Terminate Printout Destination

NAPRI: PROFILE=name,PROT=prot Initialise asynchronous USER profile
 <,ESC=esc> or <,P1=esc>
 <,ECH=ech> or <,P2=ech>
 <,FOR=for> or <,P3=for>
 <,IDL=idl> or <,P4=idl>
 <,DEV=dev> or <,P5=dev>
 <,SIG=sig> or <,P6=sig>
 <,BRE=bre> or <,P7=bre>
 <,DIS=dis> or <,P8=dis>
 <,CRP=crp> or <,P9=crp>
 <,FOL=fol> or <,P10=fol>
 <,FLO=flo> or <,P12=flo>
 <,LFI=lfi> or <,P13=lfi>
 <,LFP=lfp> or <,P14=lfp>
 <,EDI=edi> or <,P15=edi>
 <,CDEL=cdel> or <,P16=cdel>
 <,LDEL=ldel> or <,P17=ldel>
 <,LDIS=ldis> or <,P18=ldis>
 <,ESIG=esig> or <,P19=esig>
 <,MAS=mas> or <,P20=mas>
 <,PAR=par> or <,P21=par>
 <,PAG=pag> or <,P22=pag>
 <,PMASK=pmask>
 <,CONC=conc>
 <,HOST=host>
 <,TABS=tabs>
 <,TTAB=ttab>
 <,HTAB=htab>
 <,HPAR=hpar>
 <,YEAR=year>
 <,AWAKE=awake>;

NAPRP <:PROFILE=name> Print asynchronous profile
 <,STYLE=style>;

NAPRS: PROFILE=name Set asynchronous profile
 <,ESC=esc> or <,P1=esc>
 <,ECH=ech> or <,P2=ech>

<,FOR=for> or <,P3=for>
<,IDL=idl> or <,P4=idl>
<,DEV=dev> or <,P5=dev>
<,SIG=sig> or <,P6=sig>
<,BRE=bre> or <,P7=bre>
<,DIS=dis> or <,P8=dis>
<,CRP=crp> or <,P9=crp>
<,FOL=fol> or <,P10=fol>
<,FLO=flo> or <,P12=flo>
<,LFI=lfi> or <,P13=lfi>
<,LFP=lfp> or <,P14=lfp>
<,EDI=edi> or <,P15=edi>
<,CDEL=cdel> or <,P16=cdel>
<,LDEL=ldel> or <,P17=ldel>
<,LDIS=ldis> or <,P18=ldis>
<,ESIG=esig> or <,P19=esig>
<,MAS=mas> or <,P20=mas>
<,PAR=par> or <,P21=par>
<,PAG=pag> or <,P22=pag>
<,PMASK=pmask>
<,CONC=conc>
<,HOST=host>
<,TABS=tabs>
<,TTAB=ttab>
<,HTAB=htab>
<,HPAR=hpar>
<,YEAR=year>
<,AWAKE=awake>;

NAPRT:	PROFILE=profile;	Terminate asynchronous profile
NAREI;		Reloads PFA software
NATPI:	LOCNAME=locname, REMADDR="remaddr", REMNAME="remname";	Initialise SNMP Topology Table Instance
NATPP	<:LOCNAME=locname>;	Print SNMP Topology Table Instance

NATPT: LOCNAME=locname;	Terminate SNMP Topology Table Instance
NATSB;	Block Node Time Administrator (PFA660 only)
NATSD;	Deblock Node Time Administrator (PFA660 only)
NATSI <:UPDATE=update> <,TRAPID=trapid> <,TIMEFAILTRAP=timefailtrap>;	Initialise Node Time Administrator (PFA660 only)
NATSP;	Display Node Time Administrator (PFA660 only)
NATSS: <UPDATE=update> <,TRAPID=trapid> <,TIMEFAILTRAP=timefailtrap> <,ACL=acl> <,ACNTL=acntl> <,DESTID=destid>;	Set Node Time Administrator (PFA660 only)
NATST;	Terminate Node Time Administrator (PFA660 only)

PS - Packet Switching Commands

PSAGI: AG=ag, NP=port<...>, EXTNET=extnet <,DISC=disc> <,TOS=tos>;	Initialise Access Group
PSAGP <:AG=ag>;	Print Access Groups
PSAGS: AG=ag <,DISC=disc> <,TOS=tos>;	Set Access Group

PSAGT:	AG=ag;	Terminate Access Group
PSCFP:	NTN=ntn;	Print configurable facilities for NTNs
PSCFS:	NTN=ntn <,CF=cf> <,PRI=pri> <,ICB=icb> <,OCB=ocb> <,IAC=iac> <,OAC=oac>;	Set configurable facilities for NTNs
PSCFT:	NTN=ntn;	Terminate configurable facilities for NTNs
PSECI:	NTN=ntn <,PS=ps> <,WS=ws>;	Initialise Echo Port
PSECP;		Print Echo Port
PSECT;		Terminate Echo Port
PSENI:	EXTNET=extnet;	Initialise External Network
PSENP	<:EXTNET=extnet>;	Print External Network
PSENT:	EXTNET=extnet;	Terminate External Network
PSPCI:	NTNA=ntna, NTNB=ntnb <,LCA=lca> <,PRI=pri> <,TRAPID=trapid> <,PVCTRAP=pvctrap>;	Initialise HVC
PSPCI:	NTNA=ntna, NTNB=ntnb, LCB=lcb <,LCA=lca> <,PRI=pri> <,TRAPID=trapid> <,PVCTRAP=pvctrap>;	Initialise PVC

PSPCP	<:NTNA=ntna> <,LCA=lca>;	Print data for PVCs/HVCs
PSPCT:	NTNA=ntna <,LCA=lca>;	Terminate PVC/HVC
PSPIP:	DEST=dest <,WAIT=wait> <,PRI=pri>;	Print Packet Switching PING request status
PSPRP;		Print default call priorities
PSPRS	<:PID=pid> <,PRI=pri>;	Set default call priorities
PSPRT	<:PID=pid>;	Terminate call priority
PSROI:	ROT=rot, NP=port<...> <,TOS=tos> <,RCI=rci> <,DISC=disc> <,CC=cc>;	Initialise route (Dedicated)
PSROI:	ROT=rot, TIP=tip <,CC=cc>;	Initialise TIP route
PSROI:	ROT=rot, AG=ag, EXTNET=extnet, DTE=dte <,RCI=rci> <,NODEID=nodeid> <,MODEMSTRING= modemstring> <,CC=cc>;	Initialise route (Shared Access)
PSROP	<:ROT=rot>;	Print data for routes
PSROS:	ROT=rot<,NP=port<...>> <,RCI=rci> <,TOS=tos> <,DISC=disc> <,AG=ag>	Set routes

	<,EXTNET=extnet> <,DTE=dte> <,NODEID=nodeid> <,MODEMSTRING= modemstring> <CC=cc>;	
PSROS:	ROT=rot,TIP=tip;	Set TIP route
PSROT:	ROT=rot;	Terminate routes
PSTEI:	NTN=ntn,NP=port <,INSADDR=insaddr> <,DISC=disc>;	Initialise DTE (Dedicated)
PSTEI:	NTN=ntn,DTE=dte, EXTNET=extnet, AG=ag <,MODEMSTRING= modemstring> <,INSADDR=insaddr> <,DB=db>;	Initialise DTE (Shared Access) with Calling Line Identification
PSTEI:	NTN=ntn, USER=user, EXTNET=extnet, AG=ag <,DTE=dte> <,MODEMSTRING= modemstring> <,INSADDR=insaddr> <,DB=db>;	Initialise DTE (Shared Access) with X.32 NUI Identification
PSTEI:	NTN=ntn, EXTNET=extnet <,INSADDR=insaddr>;	Initialise DTE (Shared Access) with unidentified user access
PSTEP	<:NTN=ntn>;	Print data for local DTEs
PSTET:	NTN=ntn;	Terminate local DTE
PSTRB:	ID=id;	Block Traffic Port

PSTRD:	ID=id;	Deblock Traffic Port
PSTRI:	ID=id, NTN=ntn, ORIG=orig <,USER=user>;	Initialise Traffic Port
PSTRP	<:ID=id>;	Print Traffic Port Data
PSTRS:	ID=id <,NTN=ntn> <,ORIG=orig> <,ECHO=echo> <,LC=lc> <,DATALEN=datalen> <,CLEARINT=clearint> <,RESETINT=resetint> <,DATAINT=dataint> <,PS=ps> <,WS=ws> <,INTINT=intint> <,PAD=pad> <,PID=pid> <,PRI=pri> <,CALLWAIT=callwait> <,USER=user>;	Set Traffic Port Parameters
PSTRT:	ID=id;	Terminate Traffic Port

SA - Session Administration Commands

SASPI:	SP=sp,NTN=ntn;	Initialise Session Port
SASPP	<:SP=sp>;	Print Session Port
SASPT:	SP=sp;	Terminate Session Port

ST - Statistics Commands

STAAP;	Print Call Accounting statistics
STAAR;	Reset Call Accounting statistics
STARP;	Print ARP cache
STARR;	Reset ARP cache
STATP <:PORT=port>;	Print ATM port statistics
STFPP: FP=fp;	Print Frame Relay Errors
STFPP: FP=fp;	Reset Frame Relay Error Statistics
STFTP;	Print Call Accounting FTP server transaction statistics
STGAP: REMIP=remip;	Print Remote Gateway statistics
STGAR: REMIP=remip;	Reset Remote Gateway statistics
STLAP <:LA=la>;	Print LAN port statistics
STLAR <:LA=la>;	Reset LAN port statistics
STLCP <:LCP=lcp>;	Print LCP port statistics
STLCR <:LCP=lcp>;	Reset LCP port statistics
STLPP <:LP=port>;	Print link port statistics
STLPR <:LP=port>;	Reset link port statistics
STLTP: LP=port;	Print link test statistics
STLTR: LP=port;	Reset link test statistics
STMPP: MP=mp;	Prints MP bundle statistics
STMPR <:MP=mp>;	Resets MP bundle statistics

STNIP:	LOCIP=locip;	Print IP Network Interface statistics
STNIR	<:LOCIP=locip>;	Reset IP Network Interface statistics
STNPP	<:NP=port>;	Print network port statistics
STNPR	<:NP=port>;	Reset network port statistics
STPPP	<:PP=port><:,DLCI=dhci>;	Print physical port statistics
STPPR	<:PP=port>;	Reset physical port statistics
STRGP	<:GATE=gate>;	Print RIP gateway statistics
STRGR	<:GATE=gate>;	Reset RIP gateway statistics
STTPP:	TIP=tip;	Print TIP port statistics
STTPR	<:TIP=tip>;	Reset TIP port statistics
STVCP	<:VCC=vcc>;	Print ATM VCC statistics
STVPR	<:VP=vp>;	Reset virtual port statistics
STVPP	<:VP=vp> <:,DLCI=dhci>;	Print virtual port statistics

UI - User Interface Commands

UIDCP:	IMAGE=image;	Check checksum of downloaded image
UIDDI:	IMAGE=image;	Cloning current download image
UIDII:	IMAGE=image;	Download image
UIDIP;		Display downloaded images
UIDIT:	IMAGE=image;	Delete downloaded image
UIDMP:	SIZE=size;	Check available memory

UIDPP: IMAGE=image <,PATCH=patch> <,STYLE=style>;	Show patch in downloaded image
UIDPS: IMAGE=image, PATCH=patch, ADDRESS=address, LENGTH=length, DATA=data;	Add patch to downloaded image
UIDPT: IMAGE=image, PATCH=patch;	Delete patch in downloaded image
UIDSP;	Displays current and pending images
UIDSS: IMAGE=image <,SLOT=slot>;	Selects image to be loaded on restart
UILOP;	Print restart reasons and config errors
UILTP;	Prints logon banner text
UILTS: TEXT="text";	Sets new logon banner text
UILTR;	Resets logon banner text to default
UIMOB;	Disable more prompt
UIMOD;	Enable more prompt
UIMOP;	Display more prompt status
UIPDP <:PARAM=param>;	Print parameter defaults
UIPDS: PARAM=param, VALUE=value;	Sets parameter default value
UIPDT: PARAM=param;	Terminate parameter value back to factory setting
UIPRR;	Resets the prompt to default
UIPRS: PROMPT="prompt";	Sets the prompt

Command Categories

Category A Commands

All MML Print commands plus UIMOB and UIMOD.

Category B Commands

All MML Initialise, Set, Block, Unblock, Terminate and Reset commands plus LILTP and STLTP.

Category C Commands

NALOS NALOR UIDII UIDIT UIDPS UIDPT UIDSS

Category D Commands

LIMRP LIPMB LIPMD LIPMI LIPMS LIPMP LIPMT NACCR
NACCS NACDI NACDP NACGI NACGP NACGS NACGT
NADCB NADCD NADCI NADCP NADCS NADCT NAMSI
NAMSP NAMSS NAMST NANMP NANMS NAREI NATPI
NATPP NATPT UIDDI

Clear and reset causes with diagnostic codes

Clear Causes

<i>DEC</i>	<i>HEX</i>	<i>MEANING</i>
0	00	DTE clearing
1	01	Called DTE busy, e.g. all of its LCN's are in use
3	03	Invalid facility request, e.g. caller requesting invalid facility
5	05	Network congestion, e.g. temporary network conditions prevent call
9	09	Out of order, e.g. called DTE out of order
11	0B	Access barred Connection between DTE's not permitted, e.g. incompatible Closed User Group
13	0D	Not obtainable, e.g. called DTE number not (or no longer) assigned
17	11	Remote Procedure Error, e.g. Remote DTE not following protocol
19	13	Local Procedure Error, e.g. local DTE not following protocol
21	15	Agency out of order
25	19	DTE cannot accept Reverse Charge calls
33	21	DTE incompatible call
41	29	DTE cannot accept Fast Select calls
57	39	Ship absent

Reset Causes

0	00	DTE issued the Reset
1	01	Out of order
3	03	Remote Procedure Error
5	05	Local Procedure Error
7	07	Network congestion
9	09	Remote DTE operational
15	0F	Network operational
17	11	Incompatible destination
29	1D	Network out of order

CCITT Diagnostic Codes for X.25/X.75

0	00	No Additional Information
1	01	Invalid P(S)
2	02	Invalid P(R)
16	10	Packet Type Invalid
17	11	For state r1
18	12	For state r2
19	13	For state r3
20	14	For state p1
21	15	For state p2
22	16	For state p3
23	17	For state p4
24	18	For state p5
25	19	For state p6
26	1A	For state p7
27	1B	For state d1
28	1C	For state d2
29	1D	For state d3
32	20	Packet not Allowed
33	21	Unidentifiable Packet
34	22	Call on one-way logical channel
35	23	Invalid packet type on PVC
36	24	Packet on unassigned logical channel
37	25	Reject not subscribed to
38	26	Packet too short
39	27	Packet too long
40	28	Invalid general format identifier
41	29	Restart or registration packet with non-zero in bits 1-4 of octet 1, or bits 1-8 of octet 2
42	2A	Packet type not compatible with facility
43	2B	Unauthorised interrupt confirmation
44	2C	Unauthorised interrupt
45	2D	Unauthorised reject
48	30	Timer expired
49	31	For incoming call

50	32	For clear indication
51	33	For reset indication
52	34	For restart indication
53	35	For call deflection
64	40	Call setup, call clearing or registration problem
65	41	Facility/registration code not allowed
66	42	Facility parameter not allowed; reverse charging requested when barred
67	43	Invalid called DTE address
68	44	Invalid calling DTE address
69	45	Invalid facility/registration length
70	46	Incoming calls barred
71	47	No logical channel available
72	48	Call collision
73	49	Duplicate facility requested
74	4A	Non-zero address length
75	4B	Non-zero facility length
76	4C	Facility not provided when expected
77	4D	Invalid CCITT-specified DTE facility
78	4E	Max. number of call redirections or call deflections exceeded
80	50	Miscellaneous; config changes that clear old calls
81	51	Improper cause code from DTE
82	52	Not aligned octet
83	53	Inconsistent Q-bit settings
84	54	NUI problem
96	60	Not assigned
98	62	TNIC mismatch
99	63	Call id mismatch
100	64	Dial back
112	70	International problem
113	71	Remote network problem

114	72	International protocol problem
115	73	International link out of order
116	74	International link busy
117	75	Transit network facility problem
118	76	Remote network facility problem
119	77	International routing problem
120	78	Temporary routing problem
121	79	Unknown called DNIC
122	7A	Maintenance action
128	80	Reserved for network specific diagnostic information
129	81	Incoming line disconnection

PFA-specific Diagnostic Codes for X.25/X.75

64	40	Address modification call setup problems
163	A3	DTE resource constraint; no free connections on gateway
165	A5	Invalid partially full data packet
166	A6	Unexpected D-bit received
246	F6	Incoming preferential port available
247	F7	Preferential port available
250	FA	Insufficient priority
252	FC	No incoming access
253	FD	No outgoing access

Diagnostic Codes for SDLC

12	0C	Wrong Protocol ID
80	50	QLLC general error
112	70	SDLC error
115	73	SDLC time-out (retransmission limit exceeded)
120	78	SDLC FRMR received
122	7A	XID check failure
123	7B	QLLC LLC test timeout
124	7C	QLLC LLC XID timeout
160	A0	Packet not allowed
161	A1	Invalid M-bit sequence

Diagnostic Codes for Switched Access

228	E4	Engaged tone
229	E5	Local DCE busy
230	E6	Ring tone timeout
231	E7	Abort call timeout
232	E8	No answer tone
233	E9	Forbidden call
237	ED	Local DTE timeout
238	EE	Modem command error
239	EF	Connection request without addressing
248	F8	No switched line available

Abbreviations

AAL	ATM Adaption Layer
AB	Automatically Blocked
ABR	Available Bit Rate
ACL	Alarm Class
ACM	All Contained Module
APAD	Asynchronous PAD
ARP	Address Resolution Protocol
ATM	Asynchronous Transfer Mode
Bc	Committed Burst Size
Be	Excess Burst Size
BECN	Backward Explicit Congestion Notification
BOD	Bandwidth-On-Demand
BRI	Basic Rate Interface (ISDN)
CAA	Call Accounting Administrator
CAS	Channel Associated Signalling
CB	Conditionally Blocked
CCITT	Consultative Committee for International Telegraph and Telephone
CIR	Committed Information Rate
CM	Computer Module
CPU	Central Processor Unit
CSMA/CD	Carrier Sense Multiple Access with Collision Detect
CUD	Call User Data
CUG	Closed User Group
DCE	Data Communication Equipment
DE	Discard Eligibility
DLCI	Data Link Connection Identifier
DM	Disconnect Mode
DNA	Dynamic Network Administration
DTE	Data Terminal Equipment
DXE	generic for DTE or DCE
EBSN	External Bearer Service Network
EOF	End Of File
EP	Echo Port
EPROMs	Eraseable Programmable Read-Only Memory

ETSI	European Telecommunications Standards Institute
FCS	Frame Check Sequence
FDI	Frame Relay DTE Interface
FECN	Forward Explicit Congestion Notification
FEP	Front End Processor
FP	Frame Relay Port
FRAM	Ferromagnetic RAM
FREP	Frame Relay Echo Port
FRMR	Frame Reject Unnumbered Response
FRTPT	Frame Relay Traffic Port
FTI	Frame Relay Transparent Interface
FTP	File Transfer Protocol
FUI	Frame Relay User Interface (DCE)
GCRA	Generic Cell Rate Algorithm
HB	Hardware Blocked
HDLC	High-level Data Link Control
HVC	Hot Virtual Circuit
I	Sequenced I frame
IAB	Internet Advisory Board
ICMP	Internet Control Message Protocol
IDN	International Data Number
IE	Information Element
IETF	Internet Engineering Task Force
I-field	Information Field
IP	Internet Protocol
ISO	International Standards Organisation
ISP	Internet Service Provider
IWU	InterWorking Unit
LA	LAN
LAN	Local Area Network
LAPD	Link Access Protocol D
LCN	Logical Channel Number
LCP	Link Control Protocol
LAPB	Link Access Procedure Balanced
LIM	Line Interface Module
LIU	Line Interface Unit
LLP	Logical Link Port

LM	Line Module
LMI	Local Management Interface
LP	Link Port
LU	Line Unit
MB	Manually Blocked
MIB	Management Information Base
MML	Man-Machine Language
MP	PPP Multi-link Protocol
MTP	Message Transfer Protocol
MTU	Maximum Transmission Unit
NBMA	Non-Broadcast Multi Access
NCP	Network Control Program
ND	Number Direction
NI	Network Interface
NMC	Network Management Centre
NMS	Network Management System
NN	National Number
NNI	Network to Network Interface
NPSI	NCP Packet Switching Interface
NP	Network Port
NT	Network Terminator
NTN	Network Terminal Number
OAM	Operation And Maintenance
OMA	Object Management Applications
OSI	Open Systems Interconnection
PAD	Packet Assembler Disassembler
PAM	Packet frame Access Module
PBM	Power Backup Module
PDB	Power Distribution Basic Module
PDE	Power Distribution Expansion Module
PDU	Protocol Data Unit
PP	Physical Port
PPP	Point-to-Point Protocol
PS	Packet Switch
PSDN	Packet Switched Data Network
PVC	Permanent Virtual Circuit
PWM	PoWer Module

QLLC	Qualified Logical Link Control
RC	Routing Case
REJ	Retransmit numbered frame
RNR	Receive Not Ready
RR	Receive Ready
Rx	Receive Clock
SABM	Set Asynchronous Balanced Mode
SAPI	Service Access Point Identifier
SARM	Set Asynchronous Response Mode
SDLC	Synchronous Data Link Control
SLIP	Serial Line IP
SNA	System Network Architecture
SNMP	Simple Network Management Protocol
SNRM	Set Normal Response Mode
SP	Session Port
STAI	SDLC Terminal Attachment Interface
SVC	Switched Virtual Circuit
TA	Terminal Adaptor
T _c	Committed Rate Measurement Interval
TCP	Transmission Control Protocol
TE	Terminal Equipment
TI	Test Indicator
TIP	TCP Interface Port
TP	Traffic Port
TPAD	Transparent PAD
TTL	Time To Live
Tx	Transmit Clock
UA	Unnumbered Acknowledgement
UBR	Unspecified Bit Rate
UDC	Usage Data Collector
UDP	User Datagram Protocol
UNI	User-to-Network Interface
VC	Virtual Circuit
VCC	Virtual Channel Connection
VCI	Virtual Connection Identifier
VCU	Voice Compression Unit
VP	Virtual Port

VPI	Virtual Path Identifier
WO	Working Order
XID	Exchange Identification

X.3 Parameter Table

Param. No.	X.28 Extended Format	Function	Values supported
01	esc	Escape	0,1,32-126
02	ech	Echo	0,1
03	for	Forwarding characters	0,1,2,4,8,16,32,64
04	idl	Forward Timeout	0-255
05	dev	S'ware Flow Control (term>PFA)	0,1,2
06	sig	Suppression of PAD Service Signals	0,1,5,8,21
07	bre	Break action	01,2,5,8,21
08	dis	Data Delivery Suppression	0,1
09	crp	Padding after CR	0-255
10	fol	Line Folding	0-255
12	flo	S'ware Flow Control (PFA>term)	0,1
13	lfi	LF Insertion	0,1,2,4,5,6,7
14	lfp	Padding after LF	0-255
15	edi	Local Editing function	0,1
16	cdel	Character delete chars	0-127
17	ldel	Buffer delete chars	0-127
18	ldis	Buffer display chars	0-127
19	esig	Edit PAD service sigs.	0,1,2
20	mas	Echo mask	0,1,2,4,8,16,32,64,128
21	par	Parity Treatment	0,1,2,3
22	pag	Page wait	0-255
*PMASK	-	Printmask	0,1
*CONC	-	Control Chars	0,1
*HOST	-	Host Message Honoured	0,1
*TABS	-	Tab Settings	0-255
*TTAB	-	Tab Chars	0,1
*HTAB	-	Host Tabs	0,1
*HPAR	-	Host Parity	0,1,2,3,4
*YEAR	-	X.28 Year Version	0,1,2,128,129,130
*AWAKE	-	Autowake	0,1

**Indicates Proprietary Parameters.*

ASCII Character Table

HEX	DEC	CODE	HEX	DEC	CODE	HEX	DEC	CODE	HEX	DEC	CODE
00	0	NUL	20	32	SP	40	64	@	60	96	'
01	1	SOH	21	33	!	41	65	A	61	97	a
02	2	STX	22	34	"	42	66	B	62	98	b
03	3	ETX	23	35	#	43	67	C	63	99	c
04	4	EOT	24	36	\$	44	68	D	64	100	d
05	5	ENQ	25	37	%	45	69	E	65	101	e
06	6	ACK	26	38	&	46	70	F	66	102	f
07	7	BEL	27	39	'	47	71	G	67	103	g
08	8	BS	28	40	(	48	72	H	68	104	h
09	9	HT	29	41	)	49	73	I	69	105	i
0A	10	LF	2A	42	*	4A	74	J	6A	106	j
0B	11	VT	2B	43	+	4B	75	K	6B	107	k
0C	12	FF	2C	44	,	4C	76	L	6C	108	l
0D	13	CR	2D	45	-	4D	77	M	6D	109	m
0E	14	SO	2E	46	.	4E	78	N	6E	110	n
0F	15	SI	2F	47	/	4F	79	O	6F	111	o
10	16	DLE	30	48	0	50	80	P	70	112	p
11	17	XON	31	49	1	51	81	Q	71	113	q
12	18	DC2	32	50	2	52	82	R	72	114	r
13	19	XOFF	33	51	3	53	83	S	73	115	s
14	20	DC4	34	52	4	54	84	T	74	116	t
15	21	NAK	35	53	5	55	85	U	75	117	u
16	22	SYN	36	54	6	56	86	V	76	118	v
17	23	ETB	37	55	7	57	87	W	77	119	w
18	24	CAN	38	56	8	58	88	X	78	120	x
19	25	EM	39	57	9	59	89	Y	79	121	y
1A	26	SUB	3A	58	:	5A	90	Z	7A	122	z
1B	27	ESC	3B	59	;	5B	91	[	7B	123	{
1C	28	FS	3C	60	<	5C	92	\	7C	124	|
1D	29	GS	3D	61	=	5D	93	]	7D	125	}
1E	30	RS	3E	62	>	5E	94	^	7E	126	~
1F	31	US	3F	63	?	5F	95	_	7F	127	DEL
