



**INTERCOM VERSION 5
INTERACTIVE COMMAND SUMMARY**

Publication Number 60455840 B

January 1980

CONTROL DATA @COMPUTER SYSTEMS

INTERCOM Version 5, under the NOS/BE operating system, provides time-sharing access to CDC @CYBER 170, CDC CYBER 70 Models 71, 72, 73, and 74, or CDC 6000 Series computers from terminals at central or remote sites. Detailed descriptions of terminal operations and INTERCOM command statements appear in the INTERCOM Version 5 Reference Manual, publication number 60455010.

NOTATION

This document uses the following notations:

<u>Symbol</u>	<u>Description</u>
*	Indicates point where entry can terminate; INTERCOM requests required parameters interactively.
{ }	Encloses required elements of alternative entries; only one alternative can be specified.
[]	Encloses optional elements; any one can be specified or all can be omitted.
...	Following an element, indicates that a variable number of similar elements can be specified.
<u> </u>	Underlined characters indicate allowable abbreviation of a command.

Command verbs and keyword parameters are capitalized. User-supplied information is shown in lowercase characters.

NOS/BE CONTROL STATEMENTS

NOS/BE control statements can be entered as INTERCOM commands with the following exceptions:

ADDSET	LABEL	LISTMF	PFLOG
CKP	LABELMS	LOAD†	RECOVER
DUMPF	LDSET†	LOADPF	RESTART
EXECUTE†	LIBLOAD†	NOGO†	SLOAD†
GENLDPF	LISTCID	PAUSE	VSN

SYSTEM CONTROL COMMANDS

ASSETS

Causes INTERCOM to list: ASSETS OF user id AT hours, minutes, seconds, equipment and port numbers, maximum number of allotted local files, number of local files in use, field length, time limit, and total elapsed central processor time. Settings of sense switches, EFL, ETL, SAVEFL, REDUCE, LOCK, and MAP are shown when they differ from installation defaults. SITE/STATION are given if nonzero. Maximum and current ECS field lengths and REDUCE (ECS) flag setting are given if user is allowed ECS access.

CRT,n

Reactivates specified CRT station; n is station number in octal.

EFL[,n]

Specifies user's program execution field length; n is field length in octal.

ETL[,t]

Sets user's program or command time limit; t is seconds in octal.

LOGIN*,username*,password[,SUP]

Initiates INTERCOM session. System replies consist of date, login time, user id, equipment number, and message-of-the-day, unless these messages are

† NOS/BE control statements allowed as options in the XEQ command only.

suppressed by the SUP parameter. When ready to accept a command, the system responds with COMMAND-.

LOGOUT

Terminates an INTERCOM session. Only permanent files are retained between a logout and subsequent login.

MAP, $\left\{ \begin{array}{l} \text{OFF} \\ \text{ON} \\ \text{FULL} \\ \text{PART} \end{array} \right\}$ Example: COMMAND - MAP,ON
COMMAND - DISCONT,
OUTPUT
COMMAND - COBOL(i=ifn)
COMMAND - MAP,OFF

Normally, no load map is produced. However, the NOS/BE control statements MAP,ON and MAP,FULL both specify a full-load map. MAP,PART omits entry-point addresses. The example sequence of NOS/BE control statements and INTERCOM commands disconnects the OUTPUT file to prevent the load map from being sent to the terminal; the map is saved on the file OUTPUT for diagnostics examination. MAP,OFF should be entered upon completion. Default is OFF.

REDUCE, $\left\{ \begin{array}{l} \text{OFF} \\ \text{ON} \end{array} \right\}$

REDUCE,OFF inhibits automatic field length reduction when entered before program execution. After execution, REDUCE,ON should be entered to restore automatic reduction. Default is ON.

REDUCE,ECS

Restores the normal ECS field length. User's ECS field length is released between commands.

RFL,EC=fi

Requests a specific ECS field length; fi is field length in octal. User's ECS field length is preserved between commands until REDUCE,ECS is entered.

SAVEFL, $\left\{ \begin{array}{l} \text{OFF} \\ \text{ON} \end{array} \right\}$

INTERCOM saves and restores the field length after execution of each command or NOS/BE control statement if SAVEFL,ON has been entered. This mode of operation is slower, but it is necessary with the

dump utility, DMP. SAVEFL,OFF should be entered to return to normal operation upon completion of a dump. Default is OFF.

SCREEN [,width[,length]]

Selects the actual CRT screen or TTY format other than the standard screen format for the installation. When the SCREEN command is entered without parameters, the standard screen is returned.

SYSBULL[,param₁,param₂,...,param_n]

Provides special instructions and status information to user; param is the name of a system bulletin.

TEACH

Displays a list of INTERCOM commands and equipment. Instructive descriptions can be displayed at user's request.

FILE CONTROL COMMANDS

BRESEQ,lf_n [,start[,iner]]

Resequences line numbers in a BASIC file; if unspecified, defaults are 100 for starting value (start), 10 for increment (iner). BASIC file must be a local file.

CONNECT,lf_{n1} [,lf_{n2},...,lf_n]

Connects named files so an executing program can receive input from the terminal and display output at the terminal. File names can be INPUT and OUTPUT, as well as any other files.

DISCARD,lf_n*[,ident]

Deletes a permanent file saved with STORE or a local file. Only the file name lf_n should be specified for local files and files previously attached with FETCH. Otherwise, unless the installation assumes user id as file id, the id from STORE (ident) must be specified. ID= is not displayed to request entries.

DISCONT,lf_{n1} [,lf_{n2},...,lf_n]

Disconnects named files from the terminal and assigns them to allocatable mass storage.

FETCH,lf_n*[,ident]

Retrieves a permanent file saved by a STORE command. If an id other than a user id is required, ID= is displayed to request entries. The parameter ident must be the id from STORE.

FILES

Lists names of user's local files or attached permanent files, remote executing jobs, and remote input or output files. \$ identifies each file currently connected to the terminal, and * precedes local file names of each attached permanent file.

PAGE [,lf_{n1}][,lf_{n2}]

Provides terminal page-by-page display of lf_{n1} (OUTPUT if unspecified) and allows transfer for specified information to lf_{n2} (PRINT if unspecified) for subsequent printing.

After reponse Ready..., the user can enter:

<u>Entry</u>	<u>Description</u>
nn	Begins display at line nn.
+	Displays next page.
-	Displays previous page.
+nn	Advances beginning of display nn lines.
-nn	Reverses beginning of display nn lines.
+*	Moves to beginning-of-information.
+*	Moves to end-of-information.
Q	Exits PAGE.
QS	Exits so that PAGE(*) positions file at point-of-interruption.
+ /string/	Searches forward. Display begins at line containing search string.
- /string/	Searches backward. Display begins at line containing search string.
HELP	Displays other available commands.

STORE,ifn*[,ident]

Retains a local file as permanent for single-user access. If ident is not specified nor assigned as an installation option (user id is the default permanent file identification), INTERCOM requests from the user one to nine letters and/or digits for ID.

MESSAGE CONTROL COMMANDS

LOCK, { OFF
ON }

ON prevents other users from sending messages to the user. Default is OFF.

MESSAGE,mmm...m

Flashes user message mmm...m (up to 58 characters) on the central site operator's console. A message from the central site has the following form:

user id, message ...

A user id of ** indicates a message sent to all users.

SEND*,username

System responds with TYPE MESSAGE OR END-. User then sends message lines of up to 150 characters to the specified user name. A user name of *** indicates all logged-in users. Entering END at the beginning of a message line terminates the message.

SITUATE

Displays a list of currently logged-in user names and ids and a list of active remote batch terminals by terminal id and type. Users with LOCK,ON are noted by *.

BATCH CONTROL COMMANDS

BATCH*,ifn*, { PRINT[,id]
PUNCH[,id]
PUNCHB[,id] } *,file-id

BATCH*,ifn*, { INPUT[,id]
LOCAL
RENAME*,newifn }

Allows routing of files between remote site and central site queues. Jobs can be submitted for execution at central site with optional remote output; files can be sent to central site for printing and punching. Files can also be renamed.

INPUT disposition directs file to input queue. PRINT, PUNCH, or PUNCHB specify printing, punching in Hollerith, or punching in binary at central site. To output file to remote site, the user can add id as HERE for user's own site or MINE for user's own user id or substitute a two-character user or terminal id.

LOCAL retrieves named file from output queue. RENAME changes name of local file. END terminates BATCH command.

FIND,st[,q][,mf]

Allows user to examine queues to locate files and/or jobs that have a given character string as the first characters in the job name. Values of the parameters are:

Parameter	Description
st	Represents a one- to seven-character stem that is compared to each job name.
q	Represents one of the following: I Searches the INPUT queue. O Searches the OUTPUT queue. P Searches the PUNCH queue. E Searches the EXECUTE queue. S Searches the SPECIAL queue (film, plot, and so on). J Searches the JANUS queue (only works on mainframe where user is logged in). A Searches all of the above queues.
mf	Searches a specific mainframe.

MYQ[q][,mf][,ALL]

Allows user to examine queues to locate files and/or jobs. If parameters are omitted, information is displayed on all files and jobs in the system that belong to the user. Optional parameters are:

<u>Parameter</u>	<u>Description</u>
q	Indicates a member of (I,O,P,E,S,J,A). Refer to FIND command for descriptions.
mf	Searches a specific mainframe.
ALL	Displays information about all files and jobs in the system specified by the q and mf parameters.

Q [[,x] [,yyy] [,OURS]
 ,ID
 ,SYNTAX] where x = a member of (I,O,P,E,J,A)

Allows user examination of batch processing queues in a single mainframe or multmainframe environment. If parameter x is omitted, INTERCOM replies with a count of jobs in input, output, punch, executing, and JANUS queues. Optional parameters are:

<u>Parameter</u>	<u>Description</u>
I	Displays jobs in input queue.
O	Displays jobs in output queue.
P	Displays jobs in punch queue.
E	Displays jobs in executing queue.
J	Displays jobs in JANUS queues.
A	Displays jobs in (I,O,P,E,J) queues.
yyy	Displays the mainframe identifier.
OURS	Displays jobs originating in host mainframe.
ID	Displays mainframe identifiers for a multmainframe environment.
SYNTAX	Displays Q syntax.

DIAGNOSTIC LIST

ERRORS, $\left\{ \begin{array}{l} \text{ALGOL} \\ \text{COBOL} \\ \text{COMPASS} \\ \text{FTN} \end{array} \right\} [\text{,SUP}]$

Displays compiler or assembler generated diagnostics from OUTPUT file. Line numbers appear for programs created under EDITOR. SUP suppresses listing of nonfatal and informative diagnostics.

PROGRAM EXECUTION COMMANDS

lfn

Executes binary program identified by local file name lfn.

PAUSE

Displays message at central site, and halts execution until operator takes action.

XEQ* [option₁ [...option_n]]

Initiates binary program loading for execution or absolute overlay construction. If no options are selected, the system responds with OPTION= and the user can enter any of the following options (enter EXECUTE, NOGO, or lfn to load; or END to exit):

EXECUTE [=entrypoint [param₁ [...param_n]]]

NOGO [=lfn [entrypoint₁ [...entrypoint_n]]]

lfn [param₁ [...param_n]]

LOAD=lfn₁ [[/R] [/NR]] [... [lfn_n [[/R] [/NR]]]]

LIBLOAD=libname [entrypoint₁ [...entrypoint_n]]

SLOAD=lfn [[/R] [/NR]] [program₁ [...program_n]]

SATISFY [=libname₁ [...libname_n]]

LDSET $\left\{ \begin{array}{l} = \\ , \end{array} \right\}$ option₁ [...option_n]

Options for LDSET are as follows:

LIB [=libname₁ [...[libname_n]]]

MAP=[p][lfn]

p can be N, S, B, E, or X

PRESET=p

PRESETA=p

p can be NONE, ZERO, ONES, INDEF, INF, NGINDEF, NGINF, ALTZERO, ALTONES, OR DEBUG

ERR=p

p can be ALL, FATAL, or NONE

REWIND

NOREWIN

USEP=pname₁ [...[pname_n]]

USE=entrypoint₁ [...[entrypoint_n]]

SUBST=pair₁ [...[pair_n]]

OMIT=entrypoint₁ [...[entrypoint_n]]

FILES=lfn₁ [...[lfn_n]]

OUTPUT CONTROL

Teletypewriter terminal:

ESC	%A
ALT MODE	%S
CTRL Z	RETURN

CTRL Z, ESC, or ALT MODE are alternate keys used to stop current output activity only. %A terminates current job, discards output. %S stops output, discards output awaiting transmission to terminal, and transmits additional output, if generated. RETURN resumes activity.

Display terminal:

{ %A }
{ %S }

%A terminates current job and discards output; %S stops output and discards output awaiting transmission to terminal.

All terminals:

%EOR
%EOF

Sends end-of-record or end-of-file signal to the executing program.

PROGRAM TEXT EDITOR

EDITOR

Initiates program editor; allows user to create, examine, and modify files. EDITOR signals readiness to receive input by displaying:

..

The user enters the following commands while in the program text editor (EDITOR) mode.

ADD [,line[,incr]] [,SUP] [,OVERWRITE]

Inserts or adds lines to existing edit file. To exit, enter = instead of text line.

BYE [,BYE]

Causes exit from EDITOR.

CREATE [,line[,incr]] [,SUP]

Allows entry of text lines to create new edit file. To exit, enter = instead of text line.

DELETE, $\left[\begin{array}{l} \text{ALL} \\ \text{line-1} \left[\left[\text{line-2} \right] \right] \\ \text{LAST} \left[\left[\text{LAST} \right] \right] \end{array} \right]$

[,/text/ [,col-1 [,col-2]] [,UNIT]] [,VETO]

Deletes lines in edit file.

EDIT, ifn [,SEQUENCE]

Loads local or attached permanent file into edit file and replaces old edit file.

END

Causes exit from EDITOR.

FORMAT $\left\{ \left[\begin{array}{l} \text{name} \\ \text{TAB=c} \left[\left[\text{tab}_1 \left[\dots \left[\text{tab}_n \right] \right] \right] \right] \right] \left[\text{CH=nnn} \right] \right\} \left[\begin{array}{l} \text{SHOW} \end{array} \right]$

Changes installation defined format specifications for EDITOR user input.

LIST $\left[\begin{array}{l} \text{ALL} \\ \text{line-1} \left[\left[\text{line-2} \right] \right] \\ \text{LAST} \left[\left[\text{LAST} \right] \right] \end{array} \right] \left[\text{SUP} \right]$

[,/text/ [,col-1 [,col-2]] [,UNIT]]

Lists edit file lines at terminal.

RESEQ [,line[,incr]]

Resequences line numbers in the edit file.

RUN, language [,FILE=ifn] [,NOEX] [,SUP]

Transfer edit file (or local file) to compiler or assembler named for compilation and, possibly, execution.

SAVE, ifn [,NOSEQ] [,OVERWRITE] [,MERGE]

$\left[\begin{array}{l} \text{ALL} \\ \text{line1} \left[\left[\text{line-2} \right] \right] \\ \text{LAST} \left[\left[\text{LAST} \right] \right] \end{array} \right]$

[,/text/ [,col-1 [,col-2]] [,UNIT]] [,VETO]

Saves edit file as local file.

[=] line=text

Replaces or inserts text at a given line number. The first = is required only when a line is entered out of sequence under ADD or CREATE.

/text-1/=text-2/ $\left[\left[\begin{array}{l} \text{ALL} \\ \text{line-1} \\ \text{LAST} \end{array} \right] \left[\begin{array}{l} \text{line-2} \\ \text{LAST} \end{array} \right] \right] \left[\begin{array}{l} \text{col-1} \\ \text{col-2} \end{array} \right] [\text{UNIT}][\text{VETO}]$

Replaces text strings in lines of the edit file.

Parameters for the editor commands are:

Parameter	Description
<u>A</u> LL	All lines in editor file are considered by command.
<u>C</u> H=nnn	Maximum characters to be permitted in each line.
col-1	First or only column of text, search string.
col-2	Last column of text, search string range.
incr	Increment value of edit file line numbers; default is installation option.
language	Compiler or assembler language <u>A</u> LGOL, <u>B</u> ASIC, <u>C</u> OBOL, <u>C</u> OMPASS, <u>F</u> TN4 (FORTRAN Extended 4), or <u>F</u> TN5 (FORTRAN 5).
<u>L</u> AST	As first parameter, command considers only last line in edit file; as second parameter, affects range from line-1 to last line in edit file.
lfn	File name of local file, or, for EDIT or RUN, file name of attached permanent file.
line	First line considered by command; default is installation option.
line-1	First or only line considered.
line-2	Final line of range beginning at line-1.
<u>M</u> ERGE	Merges successive files or parts under the same file name. <u>N</u> OSEQ is recommended to avoid duplication of line numbers. <u>E</u> OR is written at the end of each file or part added.

Parameter	Description
name	Compiler or assembler format: <u>A</u> LGOL, <u>B</u> ASIC, <u>C</u> OBOL, <u>C</u> OMPASS, <u>F</u> ORTRAN.
<u>N</u> OEX	Compiles without execution.
<u>N</u> OSEQ	Saves file without line numbers.
<u>O</u> VERWRITE	Permits bypassing or replacing existing line numbers (<u>A</u> DD), or writing over existing local files (<u>S</u> AVE).
<u>S</u> EQUENCE	Assigns line numbers as file is entered into edit file.
<u>S</u> HOW	Displays current <u>F</u> ORMAT conditions.
<u>S</u> UP	Suppresses display of line numbers at terminal (<u>A</u> DD, <u>C</u> REATE, <u>L</u> IST) or listing of nonfatal errors (<u>R</u> UN).
<u>T</u> AB=c	Identifies character that selects tab function.
tab-n	Successive tab column positions 0 to 510.
/text/ /text-1/	Text search string of 1 to 20 characters. Slash delimiters can be other special characters.
/text-2/	Text replacement string of 0 to 20 characters delimited by slashes or equivalent delimiters. Replaces text search string when search conditions are satisfied.
<u>U</u> NIT	Text search string is recognized only if separated from surrounding text by other than letter or digit.
<u>V</u> ETO	Displays affected lines for approval. Responding <u>Y</u> ES accepts the displayed line; <u>C</u> ONTINUE completes the command. Other characters reject the displayed line.