

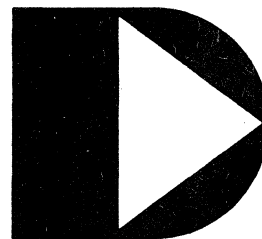
**1500 CONCURRENT
DATAPOLL DISK SPOOLING
PROGRAM
CCDP15
User's Guide**

Version 4

April, 1979

Document No. 50326

DATAPPOINT CORPORATION



The leader in dispersed data processing™

1500 CONCURRENT DATAPOLL DISK SPOOLING PROGRAM
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PREFACE

This user's guide contains information on the operating procedures for CCDP15 and is intended to be used in conjunction with the Synchronous DATAPOLL Systems Guide. Before attempting to use this program, it is essential that the Synchronous DATAPOLL Systems Guide be read and understood. Also, it is imperative that the associated master station's User's Guide be referred to.

CCDP15 is intended for use only with the 1500 processor. The communications protocol is compatible with the version 3 (or later) synchronous master stations.

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CHAPTER 1. INTRODUCTION

CCDP15 is a communications program used to transmit and receive data between Datapoint processors over a dial-up telephone network or private lines. CCDP15 belongs to a series of programs using a common line discipline called synchronous DATAPOLL. The Synchronous DATAPOLL Systems Guide gives a detailed description of the line discipline and program structure common to all synchronous DATAPOLL programs. CCDP15 acts as a slave station to various master station programs version 3 or later. Basically, CCDP15 functions as a limited, unattended automatic spooling program for disk systems. CCDP15 is capable of sending or receiving non-multi-volume text files, object files, DATABUS code files, and library files. Whether it is communicating with a master station equipped with cassettes, magnetic tape, or disk, file compatibility is maintained. Thus, a magnetic tape created on an IBM system can be transmitted to CCDP15 and the data received will be written to disk in a format which is compatible with other standard Datapoint software.

CHAPTER 2. INSTALLATION

CCDP15 requires a Datapoint 1500 processor which contains an integral synchronous communications adaptor, and a RS232 compatible modem. The modem must be RS232 compatible at the interface to the synchronous communications adaptor.

2.1 Software Installation

When CCDP15 is loaded from diskette, via the concurrent job loader, it attempts to process configuration data contained on disk in the file named CCDP15/CFG. If the configuration file is not found, or there is an error in any of the configuration options, the documented default values will be used. If the configuration record is found, the values specified are those used for the current execution of the program. Some values may be changed using the DOS EDIT program, provided the option record is the first text record in the file. Additional comment records follow the options, which are not processed by the program. The three options are separated from one another by one and only one blank. The second field must contain two digits, even if the leading digit is zero. A detailed discussion of each option is provided below.

2.1.1 Maximum Buffers (default: 1)

CCDP15 is configured to transmit one buffer before requesting a response. At present, no other value will be accepted. The master station must be configured for the same number of buffers for communications to succeed. It should be noted that, due to the reduced size of CCDP15, the user may notice some reduction in the overall through-put rate of concurrent DATAPOLL as compared to DPS15S. However, DPS15S will not run as a concurrent JOB as does CCDP15.

2.1.2 Maximum NAKs (default: 25, range: 01-99)

CCDP15 will, if necessary, send 25 consecutive negative acknowledgements (NAKs) before terminating the link with a Device Error 45. The counter is reset any time a transmission is positively acknowledged. This value may be changed to any value between 01 and 99, depending upon the requirements of the user.

2.1.3 Answer Option (default: S, range: S or P)

CCDP15 is initially configured to provide "selective" answering of the phone line. In other words, the program must be loaded and the telephone ring before the dataset will be conditioned to answer the phone and begin communications. This method helps ensure that a valid connection will be established. "Permanent" answering (specify "P") should be used when the slave station is to transmit or receive data after voice communications has occurred during the same phone connection. The program will begin communications when the "DATA" button on the telephone handset is depressed. "Permanent" answering should also be used if operating over private networks.

2.1.4 External Clock Rate

CCDP15 is configured to use the clock signal provided by the modem.

Note: If CCDP15 is configured with "selective" answering, a call can not be initiated from the slave station. This is true because with "selective" answering, CCDP15 looks for the Ring Indicate signal before the dataset is put into the data mode.

CHAPTER 3. CCDP15 OPERATING PROCEDURES

CCDP15 operates automatically in an unattended mode. After CCDP15 has been loaded, via the concurrent job loader, it is under the control of the master station and operator intervention will not be required.

Example of
command line: JOB15 CCDP15 (ENTER)

When CCDP15 is loaded into the 1500, it will hang up the telephone line terminating any previously established connection. After hanging up the phone, CCDP15 will display the following format on the screen:

STATUS	FILE NAME	ERROR MESSAGES	OTHER INFORMATION
WAIT RING			

After the above format has been displayed, CCDP15 monitors the line for dataset ready. When dataset ready is detected, CCDP15 answers the phone. It expects a polling command which will tell it what task to perform. The polling command can be any of those listed in the synchronous DATAPOLL Systems Guide which do not directly involve the display, keyboard, or printer (Commands: 1, 2, 6, 7, 9, 10, 13, and 14 only!). Once a valid command has been received, CCDP15 will perform the task indicated in the command. If for any reason (device error or time-out) communications fail, CCDP15 will go back into the 'WAIT RING' state and wait for the master station to initiate recovery procedures.

CCDP15 displays the current status at all times under the column entitled 'STATUS'. Below is a list of the messages which may be displayed under 'STATUS' and where necessary, an explanation of the message.

WAIT RING

CCDP15 is monitoring the telephone line for an incoming call.

WAIT POLL

CCDP15 has received a call and is waiting for a valid polling command. When a valid command has been received, the task indicated in the command is performed. If a valid polling command is not detected within 60 seconds, CCDP15 will disconnect the phone and go back into the 'WAIT RING' state.

TRANSMITTING

CCDP15 is transmitting the disk file listed under 'FILE NAME'.

RECEIVING

CCDP15 is receiving to the disk file listed under 'FILE NAME'.

COMPLETED

This message is displayed when any operation has been successfully completed. After displaying 'COMPLETED', CCDP15 will display the number of cassette block images transmitted or received under the column entitled 'OTHER INFORMATION'. If more polling commands are received, their status will be displayed on the same line of the screen as previous messages. If the master station hung up the phone, the 'WAIT RING' message will be displayed.

A message which may be displayed under the column entitled 'ERROR MESSAGES' is given below.

DEVICE ERROR XX

A condition has been detected by CCDP15 which caused communications to fail. This message is used to indicate errors such as read parity error on disk, disk offline, write parity error on disk, etc. The XX is replaced with a number from 01 through 99. The synchronous DATAPOLL Systems Guide provides a detailed description of all device errors and their meaning.

The following information is provided under the column 'OTHER INFORMATION'.

After transmission is completed, CCDP15 always displays a record count under the column entitled OTHER INFORMATION. The record count (not to be confused with logical records of a text file) displayed can be compared with the record count displayed at the master station to insure that all records were transmitted. The record count contains eight digits and can handle a count as high as 99,999,999. An example of a possible screen format is given below.

STATUS	FILE NAME	ERROR MESSAGE	OTHER INFORMATION
COMPLETED	DATA1/TXT:DR	0	124 RECORDS

3.1 Control Files

In the Synchronous DATAPOLL Systems Guide, all control messages which tell the slave station what task to perform are oriented towards a unit 1 or unit 2. The master station can tell CCDP15 to send unit 1 or unit 2. In a cassette system, unit 1 and unit 2 refer to deck 1 (rear) and deck 2 (front). To maintain compatibility between the cassette based systems and the disk systems, control files are used as unit 1 and unit 2. The function of the control files is to contain a list of file names that CCDP15 is to use when it is told to transmit or receive data. The names of the

ERROR MESSAGE	OTHER INFORMATION
COMPLETED	DATA1/TXT:DR 0 124 RECORDS

3.1 Control Files

In the Synchronous DATAPOLL Systems Guide, all control messages which tell the slave station what task to disk files which are to be transmitted. TUNIT1/TXT or TUNIT2/TXT contain the file names, extensions, and drive number of all disk files which are to be transmitted. TUNIT1/TXT is used in lieu of unit 1 and TUNIT2/TXT is used in lieu of unit 2.

The DOS EDIT utility can be used to create TUNIT1/TXT and TUNIT2/TXT. When creating these files, each file name must be entered on a separate line. If the extension is not given, TXT will be assumed. If the drive number is not given, all drives will be searched.

Once a file name has been obtained from TUNIT/TXT or TUNIT2/TXT, that file is opened and examined to determine the file type. If it is a text file, the data in each sector is read, up to and including, the end-of-sector character (003) and is transmitted. Characters within a text file (i.e., not one of the above) following the end-of-sector character are not transmitted. Space compression sequences (011,count) are sent as they are on disk. Deleted data (characters replaced with 032) is not transmitted and no indication is made of its being skipped over. CCDP15 assumes an end of file has been reached when it detects one of the following: range trap, format trap, or an end of file indication as defined for the file type.

3.3 Receiving to Disk

As provided in the Synchronous DATAPOLL Systems Guide, a master station uses unit 1 or unit 2 when it wants to tell the slave station to receive data. When CCDP15 receives a command telling it to receive to unit 1, it uses a file named RUNIT1/TXT to obtain a list of the file names into which the received data should be written.

If RUNIT1/TXT exists, it must contain the file names, extensions, and drive numbers of the files where the received data will be placed. If CCDP15 is told to receive to unit 1 but RUNIT1/TXT does not exist, a device error will be displayed and reception will be terminated. If CCDP15 is told to receive to unit 2, the same procedure is used except that a file named RUNIT2/TXT is used in place of RUNIT1/TXT.

In addition to solving any compatibility problems between cassette systems and disk systems, the system described above provides enhanced flexibility in the area of control. If the user at the master station wanted to transmit some files to a slave station but did not want the operator at the slave station to be responsible for creating the file names, the following procedures could be followed.

The master station could first transmit the list of file names to unit 1 which would cause CCDP15 to place them in a file named RUNIT1/TXT. If the master station then transmitted the data files to unit 1, CCDP15 would use RUNIT1/TXT to obtain the file names of the data being received. If the master station wanted the slave station to transmit some files to the master station without the intervention of the slave station operator, a similar scheme could be used. First the master could transmit the names of the files he wanted to collect into TUNIT1/TXT.

Then, if the master told CCDP15 to transmit unit 1, the files contained in TUNIT1/TXT would be transmitted. Flexibility in the area of control is provided by allowing the master station to create any of the above control files or allowing the operator at the slave station to create the files using the general purpose editor. Only the disk master program is capable of creating the RUNIT and TUNIT files from the master station. If using one of the other master programs, the operator at the slave station is responsible for creating the necessary RUNIT and TUNIT files.

Refer to the user's guide for the disk master program for details on creating control files at the slave station.

3.4 Multi-volume File Support

Currently, no multi-volume file support is provided within CCDP15.

3.5 Manual Program Termination

Should it be desired to terminate the operation of CCDP15, this may be accomplished at any time during which CCDP15 is able to display the alternate screen. Once the operator has pressed the attention-key and has received the CCDP15 alternate screen, the "F1"-key may then be depressed to start an operator-requested abort-sequence.

Manual Name _____

Manual Number _____

READER'S COMMENTS

Did you find errors in this manual? If so, specify by page.

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