Alfaskop System 41

Terminal Console Functions and Customizing Instructions IBM 3270 Emulation

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DATASAAB

Preface

This manual presents a general description of the Alfaskop System 41 terminal console functions available to the user and explains how these functions are used. The customizing procedure is also described.

Specifications in this publication are subject to change or supplementation without notice.

Your Datasaab representative will be pleased to provide you with further information about the Alfaskop System 41.

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Contents

General

The software used in Alfaskop System 41 consists of a number of main modules, the operating system, the emulation software and the terminal-console-functions software. The operating system is always resident in the display unit when the terminal system is in operation. The mode in which the system is operating determines which other software is called in (see below).

The display unit can operate in any of the following modes

- *Ready mode*. Only the operating system is loaded into the display unit.
- *Emulation mode*. The operating system and the emulation software are loaded into the display unit.
- *Console mode*. The operating system and the terminal-console-functions software are loaded into the display unit.

The software used in Alfaskop System 41 is stored on a diskette called the system diskette. System diskettes are produced at Datasaab. The system diskette includes all software intended for the user. However, Datasaab cannot, alone, supply all information needed to have the system function as desired by the user. Supplementary information must thus be entered into the terminal system in cooperation with the user. This is called customizing the diskette, and it includes the following

- Assignment of addresses to the display units, printer units, flexible disk units and communication processors.
- Definition of software that is to be loaded when power is turned on
- Definition of emulation-dependent parameters
- Generation of passwords.

Customizing is carried out using a display unit in the console mode. A display unit in the console mode is also used to control a number of other terminal system functions.

Terminal Console Functions

When the Alfaskop System 41 is in the console mode, the terminal system can be controlled using selected displays which, in turn, make it easy to select different functional branches. This type of control embraces customizing, password generation, autologon definition, dumping and diskette copy operations.

Fig. 1 presents the terminal console functions intended for the users, except for the terminal console functions used in connection with Alfaform. These functions are either presented on the screen as menus from which subfunctions can be selected or presented as forms into which the operator has to enter the requested data.

Descriptions of all terminal console functions intended for an Alfaskop System 41 user are presented below, except for those used in connection with Alfaform. Some terminal console functions and associated menus may be excluded or changed in certain configurations such as single-display-unit configurations.

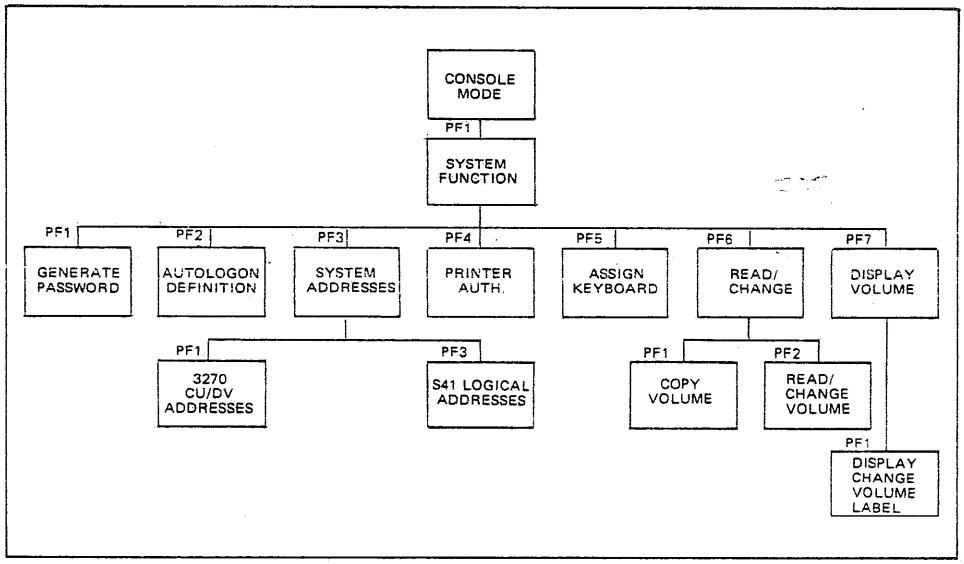


Fig. 1. Diagram of terminal console functions.

To be able to use the terminal console functions, the operator must use a password. This password consists of three characters which can be determined by the user. The system diskette is delivered with a standard password to be used the first time the terminal console mode is selected.

Customizing

Before the customizing procedure can take place the user must define a number of parameters. Information presented in the Appendices entitled Customizing Data can be used as an aid in defining these parameters.

It is recommended that the user appoint a person, who can take responsibility for the Customizing Data forms and other documents needed for maintenance of Alfaskop System 41.

Normally the diskette is customized at the installation site. However, customizing can also be performed anywhere that complete customizing data, the necessary hardware and the system diskette are available.

Follow the instructions below in sequence when customizing system diskettes.

During customizing, data is entered on the system diskette but not loaded into the units. To reload, turn the power off and on or depress the reset button.

Console Mode Logon and Logoff

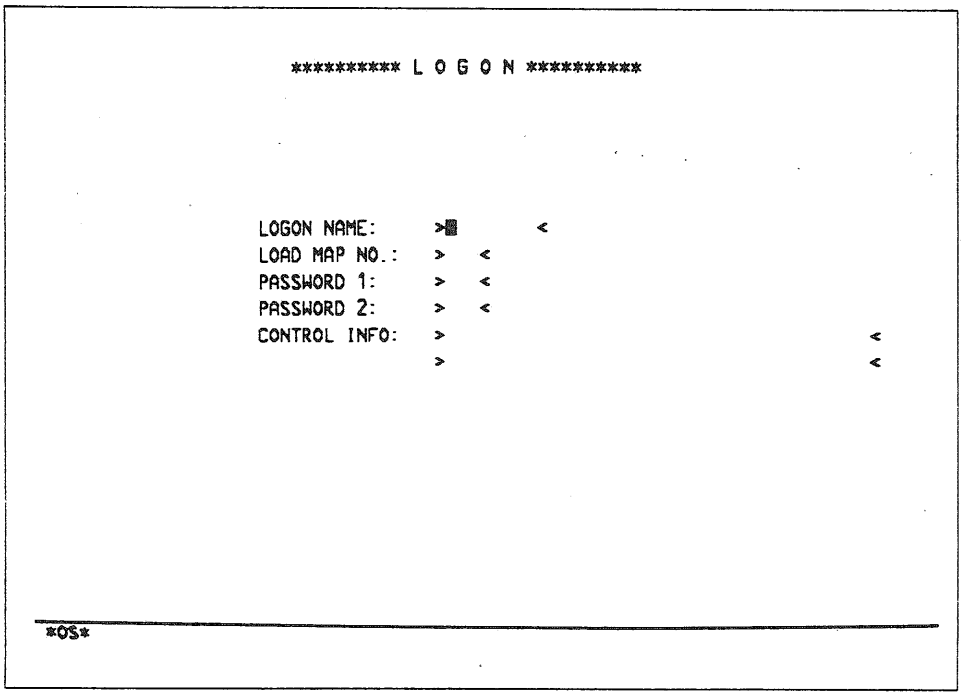
When power to a display unit is turned on, the following text is presented on the message line

LOAD

After part of the operating system has been loaded, *OS* will replace the word LOAD. When the entire operating system has been loaded, the following LOGON menu will appear.

If autologon of the emulation is defined, the emulation software must be logged off as follows:

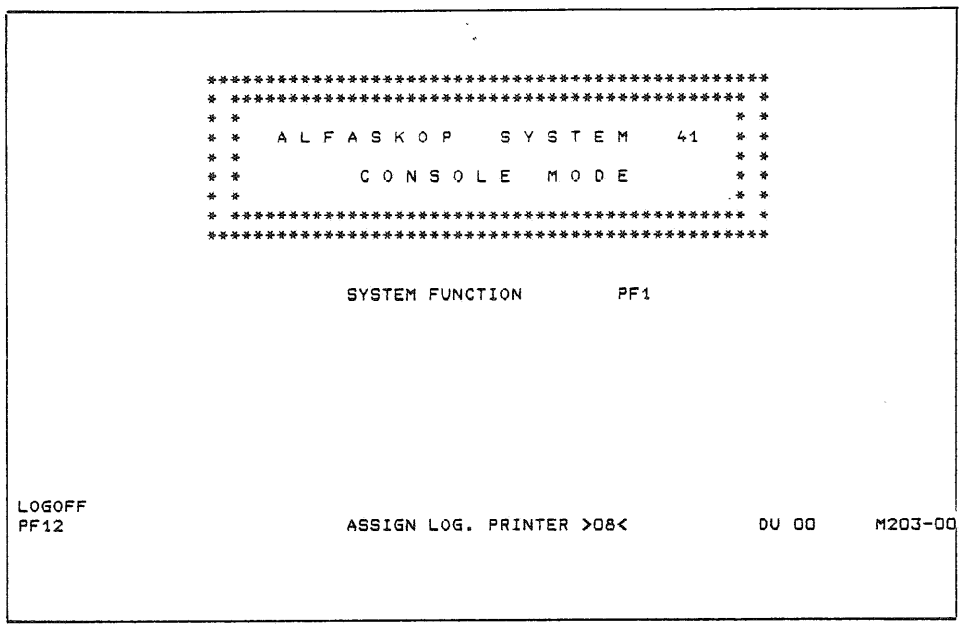
- Depress the ROLL ML key.
- Depress the CU TO ML key.
- Write LOGOFF on the *OS* message line.
- Depress the ENTER key.



The operator has to enter CONSOLE as the logon name and the security code 3 delivered together with the system diskette (can be changed by the user) as password 1 and then depress the ENTER key. When the logon operation is completed, the logon menu will disappear and be replaced by the first console mode menu. Neither load map nor password 2 is used by the user.

The console mode can be logged off by depressing the PF12 key when the first console mode menu is displayed.

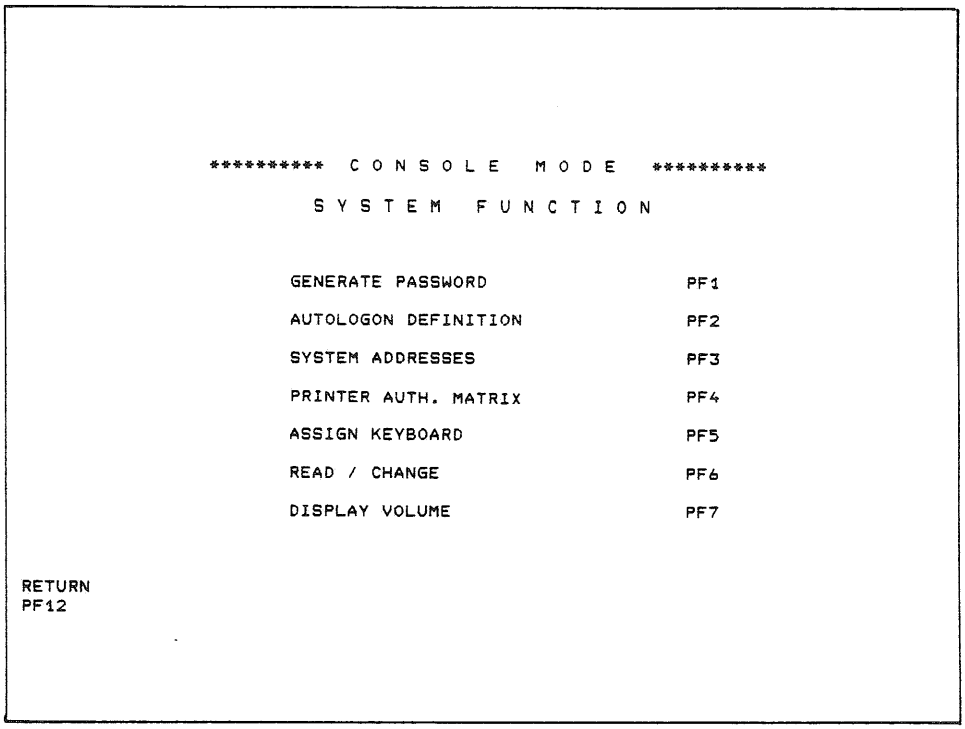
First Menu



Not all console mode functions are available for Alfaskop System 41 users (some are reserved for service personnel etc.). Some menus therefore seem to be unnecessary since they provide only a single alternative. Console mode functions not intended for users are not displayed on the screen.

If printouts of console mode menus are wanted, the logical address of the printer shall be entered into the field following the text ASSIGN LOG PRINTER. The PF1 key shall then be depressed to assign the printer and obtain the next menu. The straight line at the bottom of the screen and the message line are not printed. Most of the illustrations in this manual are made from printouts.

System Functions



Select desired function by depressing the PF key that appears after the function name.

Passwords

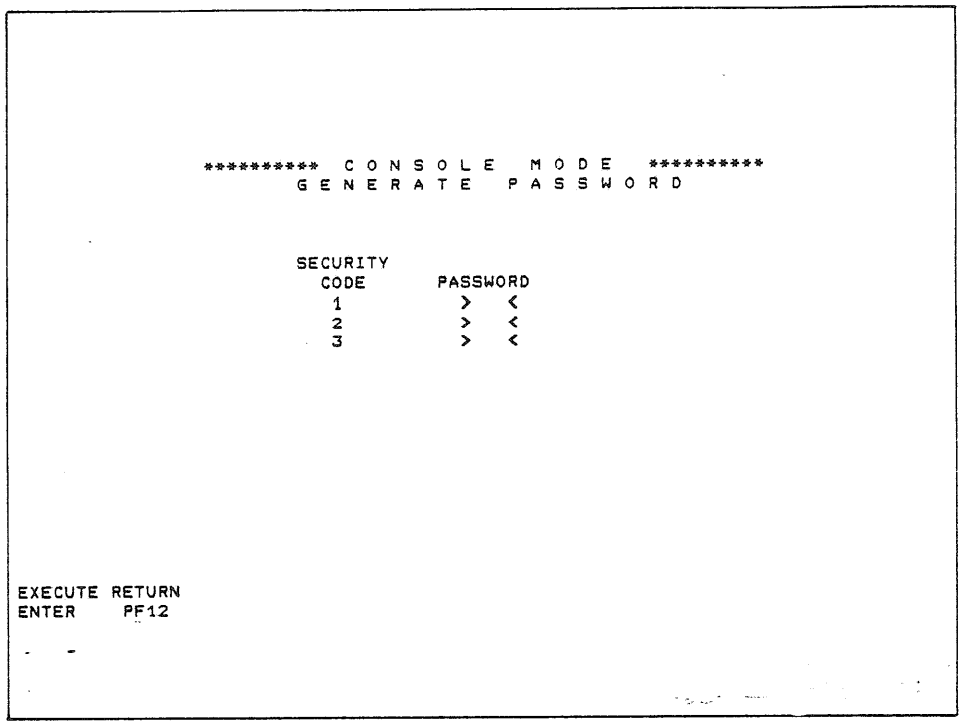
Passwords are used in the logon menu to make certain that the terminal user is authorized to do the logon.

Two different passwords can be used. Password 1 is intended for Alfaskop System 41 users. Password 2 is intended exclusively for Datasaab personnel.

Password 1 is associated with three different security codes: 1, 2 and 3. The terminal-console-functions software is assigned security code 3. The password 1 defined for security code 3 must thus be entered into the logon menu when the display unit is to be put into the console mode. The emulation software is not assigned any security code and no password is needed to put the display unit into the emulation mode.

Password 2 cannot be used alone. It must be used together with password 1. This permits the Alfaskop System 41 user to control usage of terminal console functions by Datasaab personnel while the Alfaskop System 41 is being serviced.

Generation of Passwords



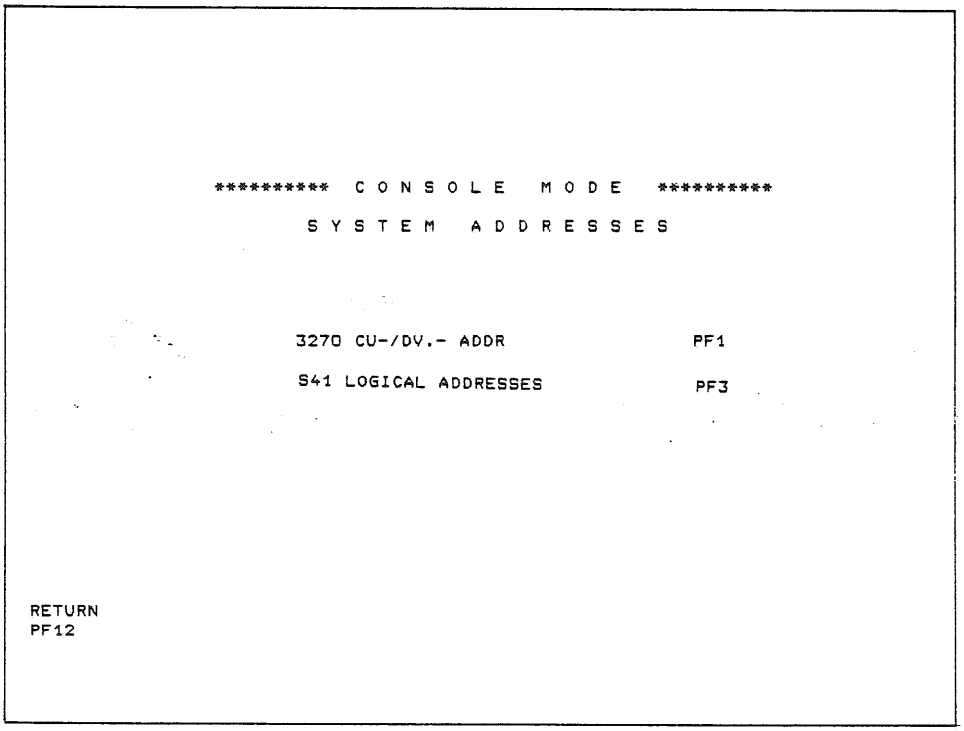
If a new password 1 is to be generated, enter the new password in the input field opposite security code 3. Depress the ENTER key. The new password is now generated and entered into the system, and must be used for the next logon. PF12 must be depressed to obtain the system function menu again.

System Addresses

The peripheral units in Alfaskop System 41 (display units, printer units and flexible disk units) are all assigned logical addresses. These logical addresses are used only within Alfaskop System 41.

However, only logical address 00 is used for single-display-unit configurations.

All display units and printer units are assigned device (DV) addresses. Communication processors and display units used in configurations having only a single display unit are assigned CU polling addresses. The DV and CU addresses are used by the IBM computer system to address the terminals.



CU/DV Addresses

The CU/DV addresses must be selected from the set of addresses specified by IBM. Addresses that can be used are found in Reference Manual – IBM 3270 Emulation FE 411-810.

```
                ********** C O N S O L E   M O D E   **********

                     3 2 7 0   C U / D V   A D D R E S S E S

                                CU-ADDR      >40<

                INSERT DV-ADDRESSES INTO THE LOG.ADDR. TABLE

LOG.ADDR. 0      1      2      3      4      5      6      7      8      9      10
     DU  >40<   >C1<   >C2<   >C3<   >C4<   >C5<   >C6<   >C7<   >  <   >  <   >  <
     PU  >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <   >C8<   >  <   >  <

LOG.ADDR. 11     12     13     14     15     16     17     18     19     20     21
     DU  >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <
     PU  >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <

LOG.ADDR. 22     23     24     25     26     27     28     29     30     31
     DU  >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <
     PU  >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <   >  <


EXECUTE          RETURN
ENTER            PF12
```

The following data shall be filled into the above form

CU ADDR >xx< Enter the communication processor (CU) polling address at xx.

DU >xx<
PU >xx< Enter the DV address beneath the logical address.

When all addresses that are to be used have been filled in, depress the ENTER key to enter them onto the system diskette.

Logical Addresses

Logical addresses permit the user to assign each display unit (DU), printer unit (PU), and flexible disk unit (FD) an identifying number that can be used internally within the Alfaskop System 41. The logical addresses are also used in the software to establish the internal polling list used in the communication processor.

It is advisable to assign each display unit and printer unit the same logical address number as the corresponding IBM control unit port number. This allows IBM generated printer authorization matrices to be used without any changes.

```
                **********  C O N S O L E   M O D E   **********

                         L O G I C A L    A D D R E S S E S

                        INSERT PORT NO. INTO THE LOG.ADDR. TABLE

LOG.ADDR. 0     1     2     3     4     5     6     7     8     9     10
     DU  >00<  >01<  >02<  >03<  >04<  >05<  >06<  >07<  >  <  >  <  >  <
     PU  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >00<  >  <  >  <
     FD  >00<  >  <  >  <  >  <  >  <  >  <  >  <  >07<  >  <  >  <  >  <

LOG.ADDR. 11    12    13    14    15    16    17    18    19    20    21
     DU  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <
     PU  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <
     FD  >  <  >  <  >  <  >  <  >15<  >  <  >  <  >  <  >  <  >  <  >  <

LOG.ADDR. 22    23    24    25    26    27    28    29    30    31
     DU  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <
     PU  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >  <
     FD  >  <  >23<  >  <  >  <  >  <  >  <  >  <  >  <  >  <  >31<


EXECUTE        RETURN
ENTER          PF12
```

The Alfaskop port No. should be inserted under the assigned logical address. (No Logical Addresses form is used in single-display-unit configurations).

When the ENTER key is depressed the selected addresses are entered onto the system diskette.

Note that a special care must be given to the definition of FD address. There must be an FD assigned on an existing port. The FDs must also be assigned with the same port No. as logical No. If an incorrect FD address definition is made, it can happen that only part of the software can be loaded into the other Alfaskop units. No communication processor polling will be performed for port numbers (two-wire connection numbers) that are not entered into the Logical Addresses form.

In the example above, the printer having logical address 08 must be connected to the display unit (having logical address 00) which is connected to port 00.

Autologon

Autologon is used when a terminal user wants to have the emulation software loaded automatically into the display unit when power is turned on.

Autologon can only be used for software modules that have not been assigned security codes.

```
                ********** CONSOLE MODE **********
                    AUTOLOGON DEFINITION

    DU LOGON NAME  LOADMAP     DU LOGON NAME  LOADMAP
    0  >EM3274  <  >001<       1  >EM3274  <  >001<
    2  >EM3274  <  >001<       3  >EM3274  <  >001<
    4  >EM3274  <  >001<       5  >EM3274  <  >001<
    6  >EM3274  <  >001<       7  >EM3274  <  >001<
    8  >         <  >    <     9  >         <  >    <
    10 >         <  >    <     11 >         <  >    <
    12 >         <  >    <     13 >         <  >    <
    14 >         <  >    <     15 >         <  >    <
    16 >         <  >    <     17 >         <  >    <
    18 >         <  >    <     19 >         <  >    <
    20 >         <  >    <     21 >         <  >    <
    22 >         <  >    <     23 >         <  >    <
    24 >         <  >    <     25 >         <  >    <
    26 >         <  >    <     27 >         <  >    <
    28 >         <  >    <     29 >         <  >    <
    30 >         <  >    <     31 >         <  >    <
READY
EXECUTE RETURN
ENTER    PF12
```

Each item of system software is given a logon name and sometimes a load map number. To specify autologon, the logon name and load map number shall be entered into the input field that corresponds to the logical address of the display unit. Only those logical addresses that are assigned using the logical addresses form will be shown in the autologon definition form. When the ENTER key is depressed, the autologon definition is entered into the system.

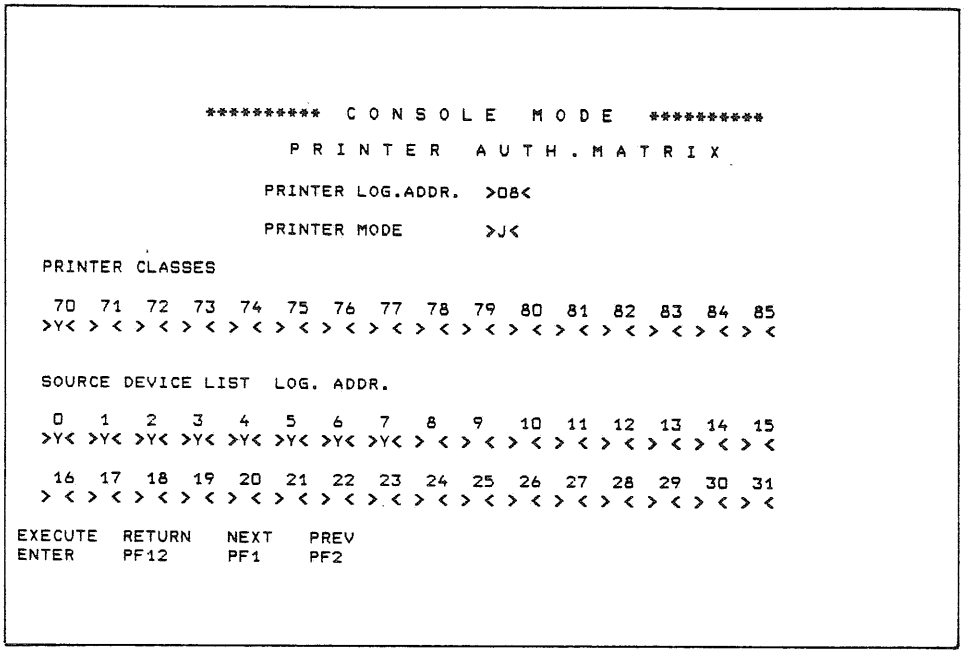
Logon names and load map numbers for displays that are to be provided with the autologon function appears in the customizing data in the Appendices.

Printer Authorization

The Printer Authorization Matrix (PAM) defines the printer mode and the printer class for the printers in a cluster. It also specifies which display units have access to the printers.

Further information about PAM is presented in the Reference Manual for the IBM 3270 Emulation (FE 411-810).

In Alfaskop System 41, each display unit can access several printers for local printout. Each such printer must be specified using the form shown below. Any previously entered definitions appear in the form.



The following data can be filled into the form

PRINTER LOG. ADDR. >xx<

Means that the data in the form is valid for the printer with logical address xx.

When this menu is first called up, xx is displayed as 00. xx is incremented by one each time PF1 is depressed and decremented by one each time PF2 is depressed.

The desired value of xx can also be obtained by overwriting 00.

Any previously entered definitions appear when paging by means of PF1 and PF2.

PRINTER MODE

There are three printer modes
S system
L local
J shared (joint)

PRINTER CLASSES

The class (or classes) assigned to the printer in question, printer 00 in this case, is (are) indicated by Y(s) entered beneath the appropriate class number(s).

SOURCE DEVICE LIST LOG. ADDR.

The display unit(s) that can use the printer for local printout is (are) indicated by Y(s) entered beneath the appropriate display unit number(s).

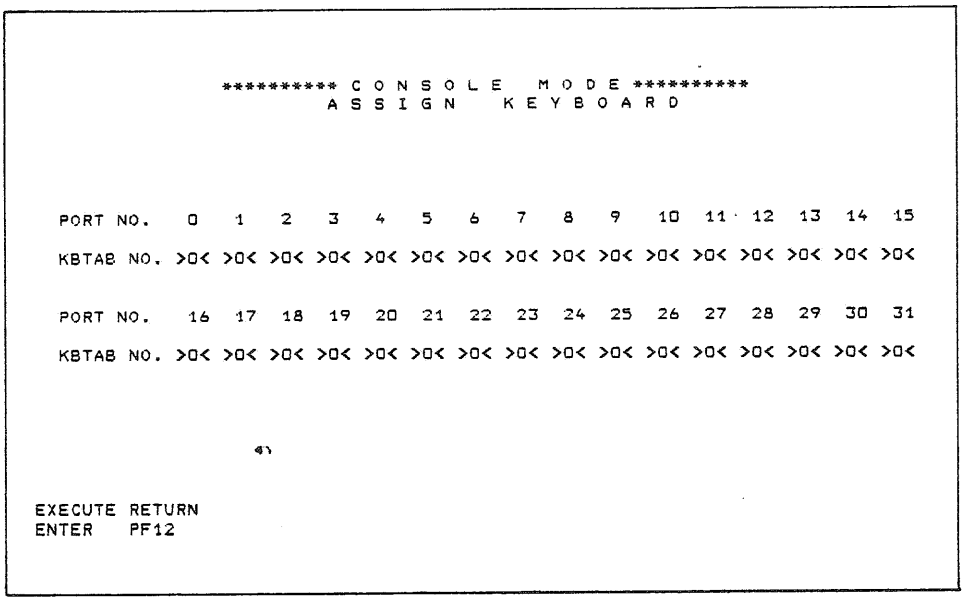
When the definitions for one printer have been made, depress the ENTER key.

The new PAM is loaded onto the system diskette when the printer auth matrix form is left via PF12.

Assign Keyboard

Three main keyboard versions are used for the IBM 3270 Emulation: the Typewriter Keyboard, the Typewriter Alternate and the Data Entry Keyboard.

Each keyboard version is associated with a keyboard table (KBTAB) within the software. Information about which keyboard version is to be used must be entered into the software. This is accomplished using the Assign Keyboard form.



PORT NO. x — x represents the Alfaskop port number, i.e. the number of the two-wire connection to which the display unit is connected.

KBTAB NO. >x< — x represents the number of the keyboard version that is to be used.

The keyboard version number is determined when the system diskette is adapted to the desired national version by Datasaab.

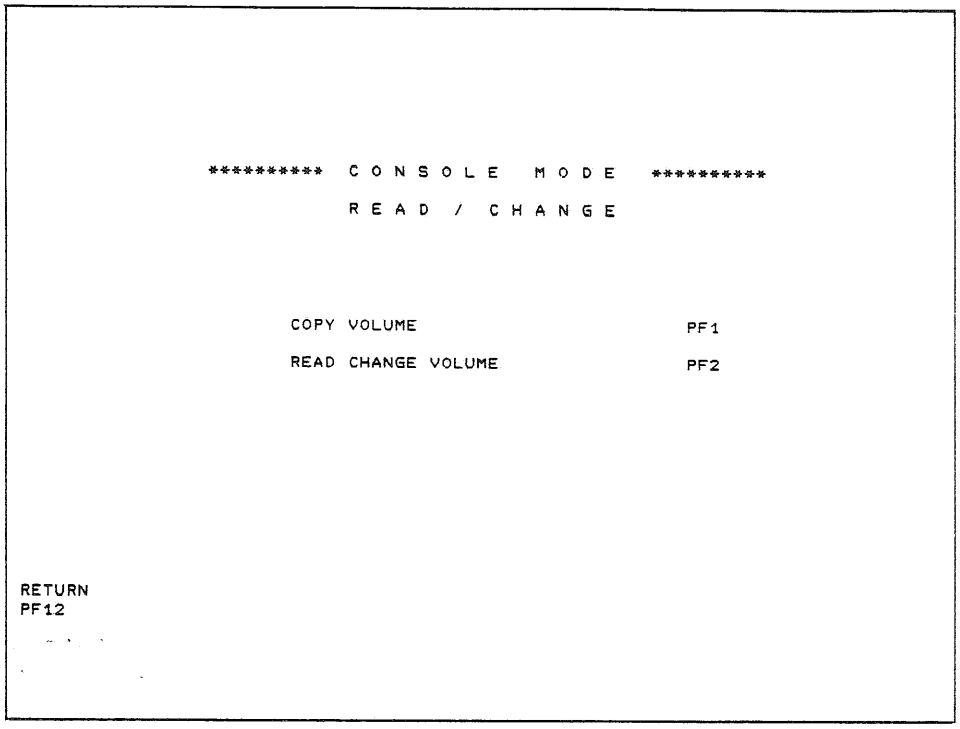
The following keyboard version numbers are normally used

Version	*KBTAB No.*
Typewriter Alternate	0
Data Entry	1
Typewriter	2
Monocase Alternate	3
Monocase	4

If the above keyboard version numbers are not used, information so stating is included with the system diskette.

When all definitions have been made, depress the ENTER key.

Read/Change



Copy Volume

The flexible disk unit must be equipped with two drives if diskettes are to be copied.

Two diskettes cannot have the same volume number within a system. If the diskette on which the copy is to be recorded has the same volume number as the master diskette, the former volume number must be changed. The Display/Change Volume Label function is used for this operation. See section on Display Volume.

Note, however, that the diskette copy is automatically given the same volume number as the master diskette during the copy operation. If a different volume number is wanted on the diskette copy, the new volume number must be specified after the copy operation.

Volume numbering is explained in the section on Display Volume.

```
********** CONSOLE MODE **********
           COPY VOLUME


ALL NUMBERS MUST BE HEXADECIMAL

COPY FROM DRIVE 1 START AT BLOCK  >0001<
TO DRIVE 2 START AT BLOCK         >0001<
NUMBER OF BLOCKS                  >07D2<
SELECT COPY AND CHECK             >y<
SELECT CHECK                      > <



BLOCKSIZE=00128  DECIMAL


EXECUTE   BREAK    RETURN
ENTER      PF1      PF12
```

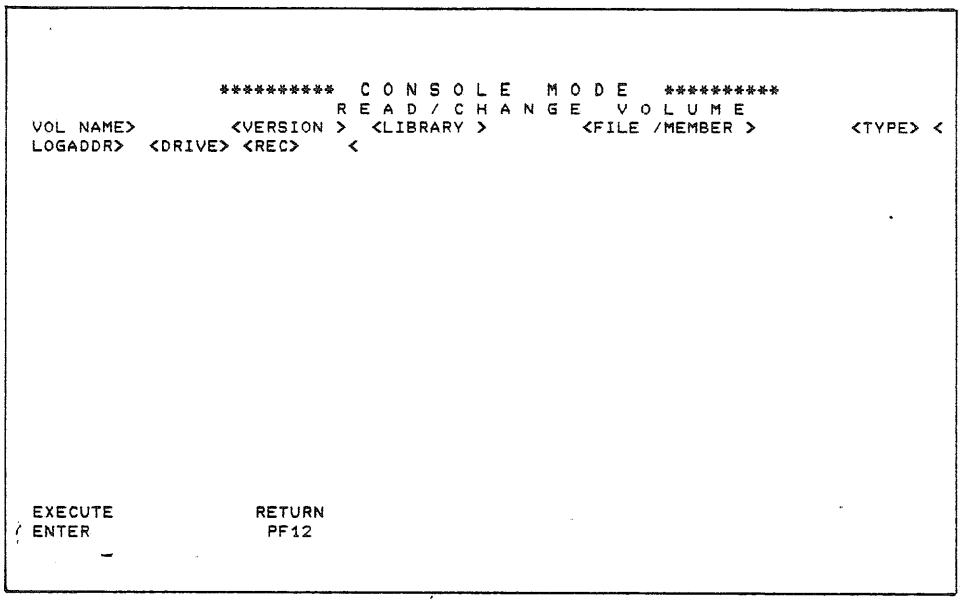
- Fill the requested data into the Copy Volume form.

COPY FROM DRIVE 1 START AT BLOCK	>0001<	0001 specifies the first block stored on the master diskette.
TO DRIVE 2 START AT BLOCK	>0001<	0001 specifies the first block location on the diskette copy.
NUMBER OF BLOCKS	>07D2<	07D2 specifies the number of blocks to be copied. (If the master diskette is full, it contains 07D2 blocks.)
SELECT COPY AND CHECK	>x<	Fill in any character if a copy operation and subsequent verification of the diskette copy are wanted.
SELECT CHECK	>x<	Fill in any character if only a verification is wanted.

- Insert a formatted initiated diskette (can be obtained from Datasaab) into the right-hand drive.
- Insert the master diskette into the left-hand drive.
- Depress the ENTER key to start copying and/or verification.
- The copy and verification operations take about 30 minutes.

Read/Change Volume

The Read/Change Volume form is used to read or change data that is stored on the diskette. The user only has access to the emulation-dependent parameters which are explained below and presented in the customizing data in the Appendices.



To define the emulation parameters, proceed as follows for each set of parameters.

- Fill in the following fields in the Read/Change Volume form:

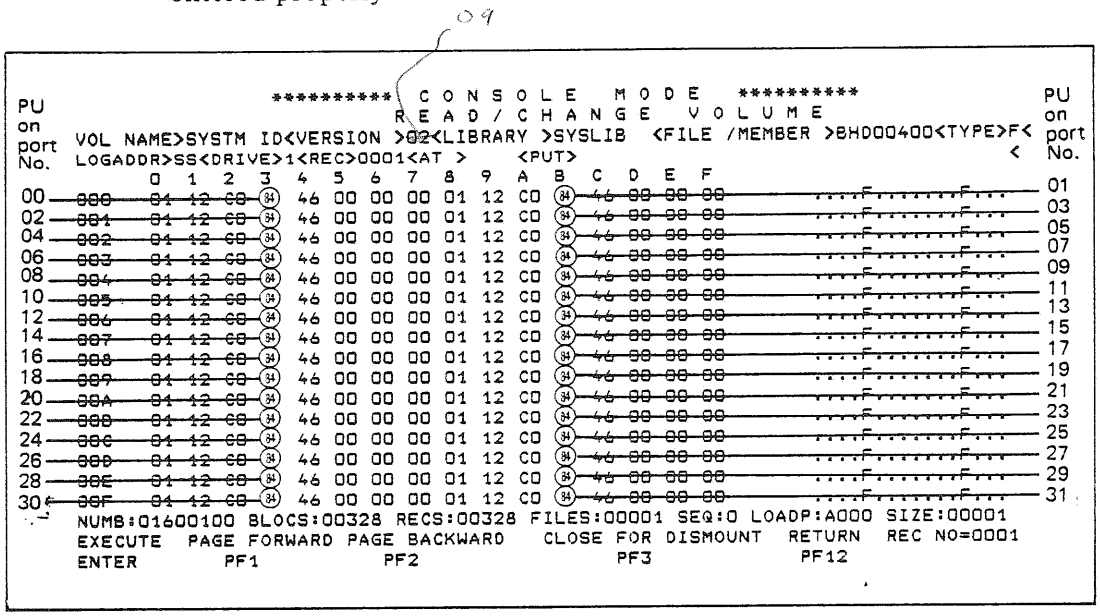
LIBRARY FILE/MEMBER TYPE	According to the illustrations in the customizing data
LOGADDR	Enter the logical address of the flexible disk unit being used (or enter ss, in which case the terminal system itself finds the flexible disk unit).
DRIVE	Enter 1 if left drive is used, 2 if right drive is used.
REC	As shown in the illustration in the customizing data.

Do not pay any attention to the other fields.

- Depress the ENTER key. Data according to the selected illustration in the customizing data will now appear on the screen.

- Enter the table position of the parameter to be changed into AT> <. In the example below (printer unit definitions), the printer connected to port 4 has table position 0023 (i e on the line that is numbered 002 and in the column that is headed 3).

- Enter the new value followed by a period after PUT>. If you wish to change a number of positions you can enter a string of new values followed by a period.
- Depress the ENTER key.
- Check the table on the screen to see that the new values have been entered properly.



Display Unit Definitions

It is possible to define ten sets of parameters used within a cluster. These sets of parameters are recorded in members EADEMPA1, EADEMPA2 and so on up to EADEMPAA of library EMLIB1. (The member name may be slightly different. See customizing data in the Appendices).

Each member (EADEMPA) is associated with an emulation logon name and load map No.

	Logon name	Load map No.
EADEMPA1 corresponds to	EM3274	001
EADEMPA2 corresponds to	EM3274	002
.	.	.
.	.	.
.	.	.
EADEMPAA corresponds to	EM3274	010

When the emulation mode is logged on, the operator thus determines (by means of the load map No.) which set of emulation definitions should be used for the display unit.

Note that two parameters (3 and 4) determine the way in which the display unit in question edits local printouts on the connected printer. The editing of local printouts is always carried out in the display unit to which the printer is connected.

Printer Definitions

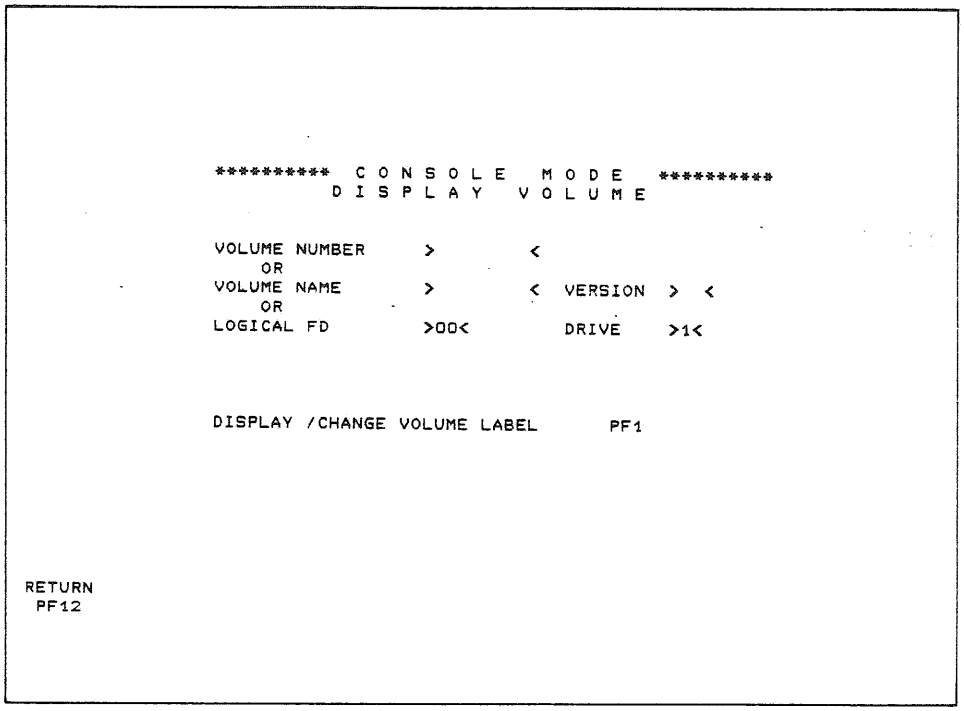
The only printer parameter defined by the user is the maximum number of characters on a printout line. If it is not defined by the user, a default value of 132 characters is used.

Communication Processor Definitions

Some parameters can be defined for the communication processor by means of the read/change volume function.

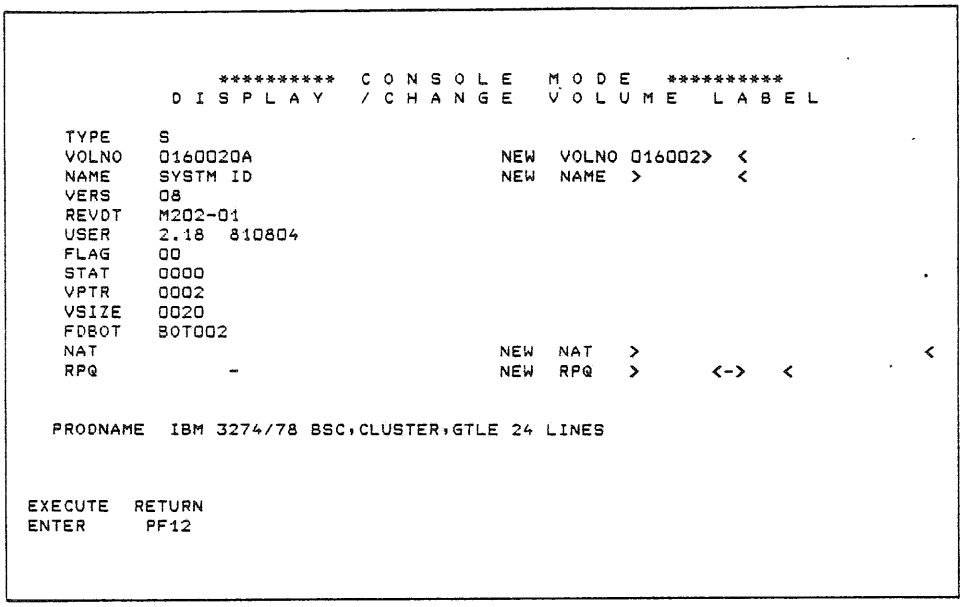
For the most part, these affect the modem interface or functions common to a complete cluster. See customizing data in the Appendices.

Display Volume



- Fill the requested data into the form.
- Depress the PF1 key.
  A new form is displayed.

The volume label is a collection of data fields on the first track of the diskette. The volume label contains information about the contents of the diskette. The only item of information presented in this form that can be changed by the user is the volume number. Most of the items presented contain status information that is of interest only to Datasaab personnel, and they are not explained in this document. Those that are of interest to users are explained below.



Item of information	*Explanation*
TYPE	S = System diskette. D = Data diskette. E = Empty diskette.
VOLNO	The volume number identifies the diskette. The volume number is created by adding two digits at the end of the product number after removing the first digit from the product number. Example 4015-001 Product number 015001xx Volume number
NAME	Volume name.
VERS	Volume version.
NAT	National version of keyboard, printer and line codes.
RPQ	Identification number of RPQ, if any is used.

Input field name	*Explanation*
NEW VOLNO YYYYYY >xx<	The last two digits in the volume number can be changed. Enter the new digits at xx and depress the ENTER key. The volume number is now changed.

System Diskette Backup

When customizing is completed, don't forget to customize the backup diskette. Perform the same customizing procedure as for the first diskette, or use the Copy Volume function. Don't forget to reload the customizing station if it is to be used as a normal terminal. This operation is initiated by turning off and on the power or depressing the reset button on each unit.

CCITT Recommendations Series V

V10 Electrical characteristics for unbalanced double-current interchange circuits for general use with integrated circuit equipment in the field of data communications.

V11 Electrical characteristics for balanced double-current interchange circuits for general use with integrated circuit equipment in the field of data communications.

V23 600/1200-baud modem standardized for use in the general switched telephone network.

V24 List of definitions for interchange circuits between data-terminal (DTE) equipment and data circuit-terminating (DCE = modem) equipment.

V25 Automatic calling and/or answering equipment on the general switched telephone network, including disabling of echo-suppressors on manually established calls.

V26 2400 bits per second modem standardized for use on 4-wire leased telephone-type circuits.

V27 4800 bits per second modems with manual equalizer standardized for use on leased telephone-type circuits.

V28 Electrical characteristics for unbalanced double-current interchange circuits.

V29 9600 bits per second modem standardized for use on leased telephone-circuits.

Series X

X21 General purpose interface between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) for synchronous operation on public data networks. (DATE)

X24 List of definitions for interchange circuits between data terminal equipment (DTE) and data circuit-terminating equipment (DCE) on public data networks.

X26 Electrical characteristics for unbalanced double-current interchange circuits for general use with integrated circuit equipment in the field of data communications.

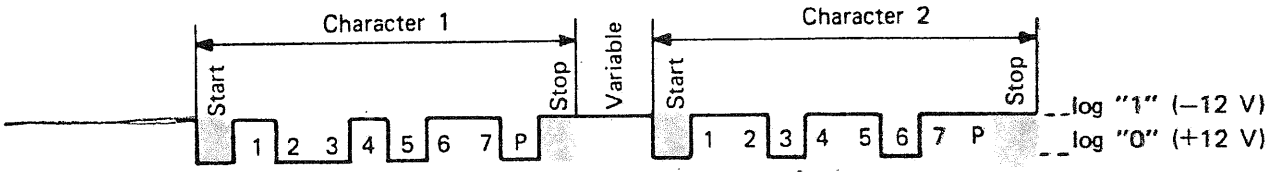
X27 Electrical characteristics for balanced double-current interchange circuits for general use with integrated circuit equipment in the field of data communications.

ERICSSON

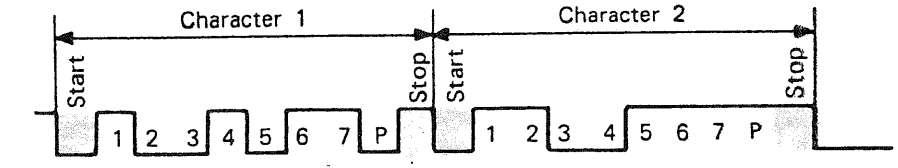
ORGANIZATIONS & STD's

UN

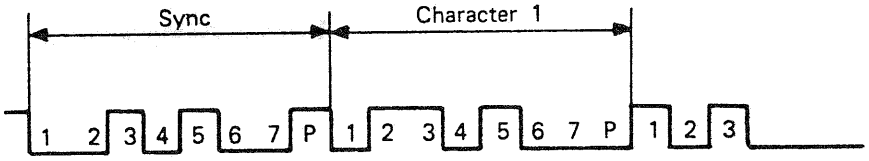
ITU		INTERNATIONAL TELECOMMUNICATION UNION
CCIR (RADIO)	CCITT	COMITÉ CONSULTATIF INTERNATIONAL TELEGRAPHIQUE ET TELEPHONIQUE
ECMA		EUROPEAN COMPUTER MANUFACTURERS ASSOCIAT.
ISO		INTERNATIONAL ORGANIZ. FOR STANDARDIZATION
ANSI USA		AMERICAN NATIONAL STD. INSTITUTE (UNIT. STAT. AMER. STD INST.)
EIA USA		ELECTRONIC INDUSTRIES ASSOCIATION



Asynchronous transmission, asynchronous character structure



Synchronous transmission, asynchronous character structure



Synchronous transmission, synchronous character structure

Fig. 4 Överföringssätt

EIA-CCITT MODEM-TERMINAL INTERFACE

PIN	NAME	↑ TO DTE ↓ TO DCE	FUNCTION	CIRCUIT CCITT (EIA)
1	FG		FRAME GROUND	101 (AA)
2	TD	→	TRANSMITTED DATA	103 (BA)
3	RD	←	RECEIVED DATA	104 (BB)
4	RTS	→	REQUEST TO SEND	105 (CA)
5	CTS	←	CLEAR TO SEND	106 (CB)
6	DSR	←	DATA SET READY	107 (CC)
7	SG		SIGNAL GROUND	102 (AB)
8	DCD	←	DATA CARRIER DETECT	109 (CF)
9		←	POSITIVE DC TEST VOLTAGE	
10		←	NEGATIVE DC TEST VOLTAGE	
11	QM	←	EQUALIZER MODE	BELL 208A
12	(S)DCD	←	SEC. DATA CARRIER DETECT	122 (SCF)
13	(S)CTS	←	SEC. CLEAR TO SEND	121 (SCB)
14	(S)TD	→	SEC TRANSMITTED DATA	118 (SBA)
	NS	→	NEW SYNC	BELL 208A
15	TC	←	TRANSMITTER CLOCK	114 (DB)
16	(S)RD	←	SEC. RECEIVED DATA	119 (SBB)
	DCT	←	DIVIDED CLOCK, TRANSMITTER	BELL 208A
17	RC	←	RECEIVER CLOCK	115 (DD)
18	DCR	←	DIVIDED CLOCK, RECEIVER	BELL 208A
19	(S)RTS	→	SEC. REQUEST TO SEND	120 (SCA)
20	DTR	→	DATA TERMINAL READY	108.2 (CD)
21	SQ	←	SIGNAL QUALITY DETECT	110 (CG)
22	RI	←	RING INDICATOR	125 (CE)
23		→	DATA RATE SELECTOR	111 (CH)
		←	DATA RATE SELECTOR	112 (CI)
24	(TC)	→	EXT. TRANSMITTER CLOCK	113 (DA)
25		→	BUSY	

• POSITIVE VOLTAGE EQUALS BINARY ZERO, SIGNAL SPACE, CONTROL ON, LED ON.

• NEGATIVE VOLTAGE EQUALS BINARY ONE, SIGNAL MARK, CONTROL OFF, LED OFF.

100 Nashua St.,
Prov., R.I. 02904.
Tel. (401) 274-5100
TWX 710-381-0285

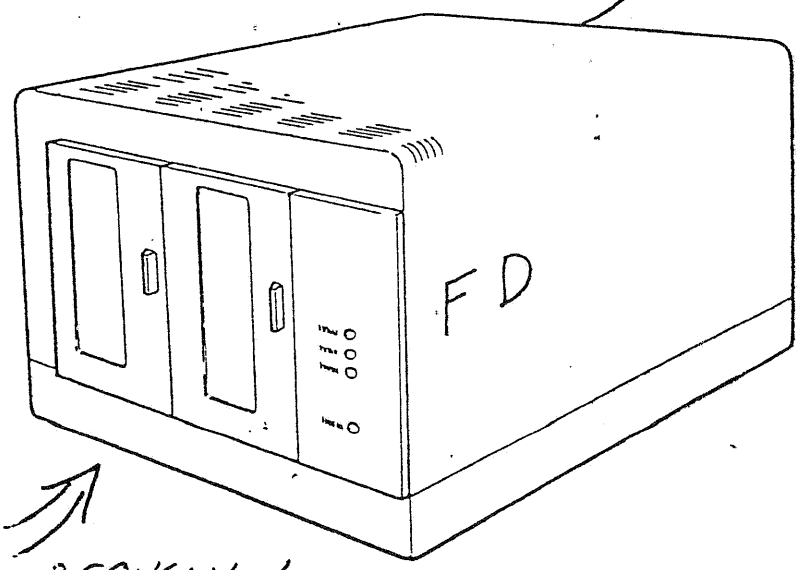
INTERNATIONAL DATA SCIENCES, INC.
PROVIDENCE, R. I., U.S.A.

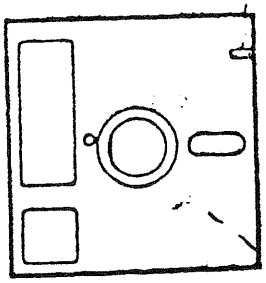
4/75

300 Kbits/sec

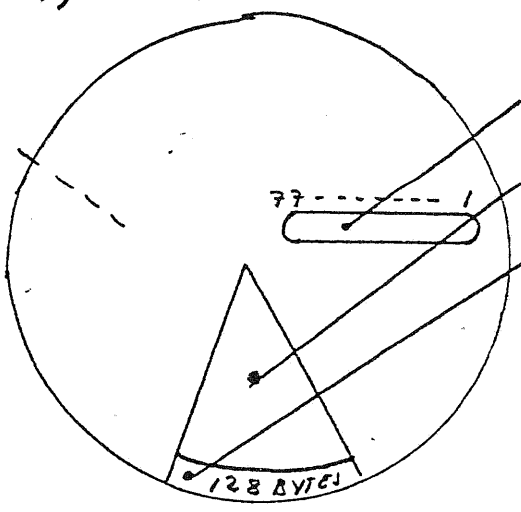
FLAG	DATA	CRC	CRC	FLAG

TWO-WIRE





250 Kbits/sec
Transfer rate

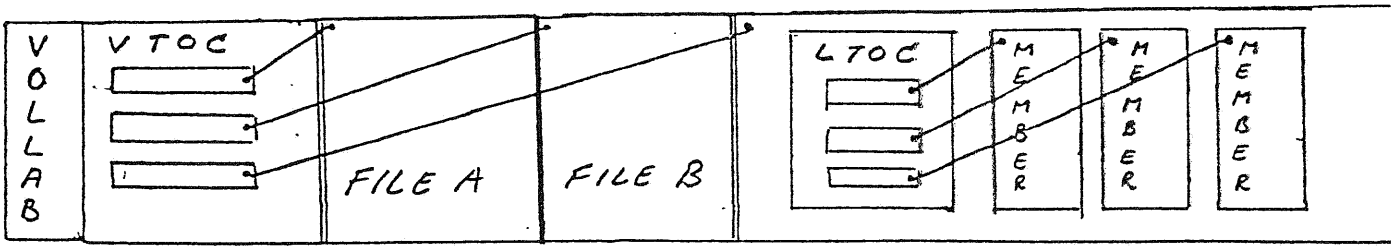


- 77 TRACKS
- 26 SECTORS
- 128 BYTES/SECTOR
- 3328 BYTES/TRACK
- 256 256 BYTES/DISKETT

← 128 BYTES →

GAP	ID AM	TRACK NUMBER	ZEROS	SECTOR NUMBER	SECTOR LENGTH	CRC 1	CRC 2	GAP	DATA AM	DATA FIELD	CRC 1	CRC 2
ID FIELD									DATA FIELD			

IDAM = ID Address Mark — DATA=$(FE)_{16}$ CLK = $(C7)_{16}$
Data AM = Data Address Mark — DATA=(F8, F9, FA, or FB), CLK = $(C7)_{16}$



VOLLAB ⇒ VOLUME LABEL

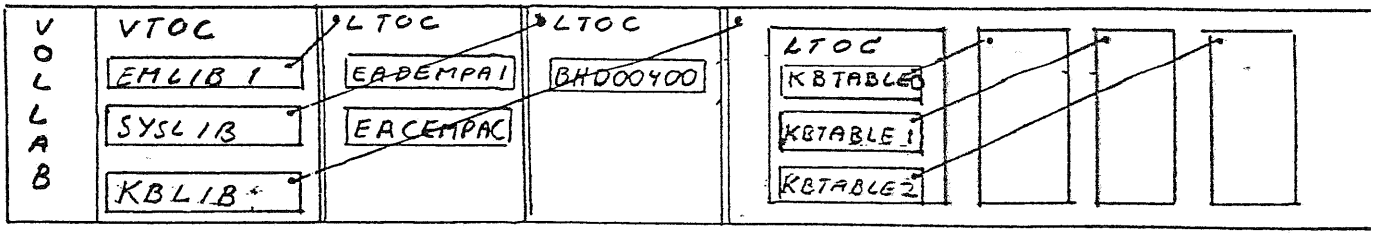
VTOC ⇒ VOLUME TABLE OF CONTENTS

FILE

LIBRARY

MEMBER

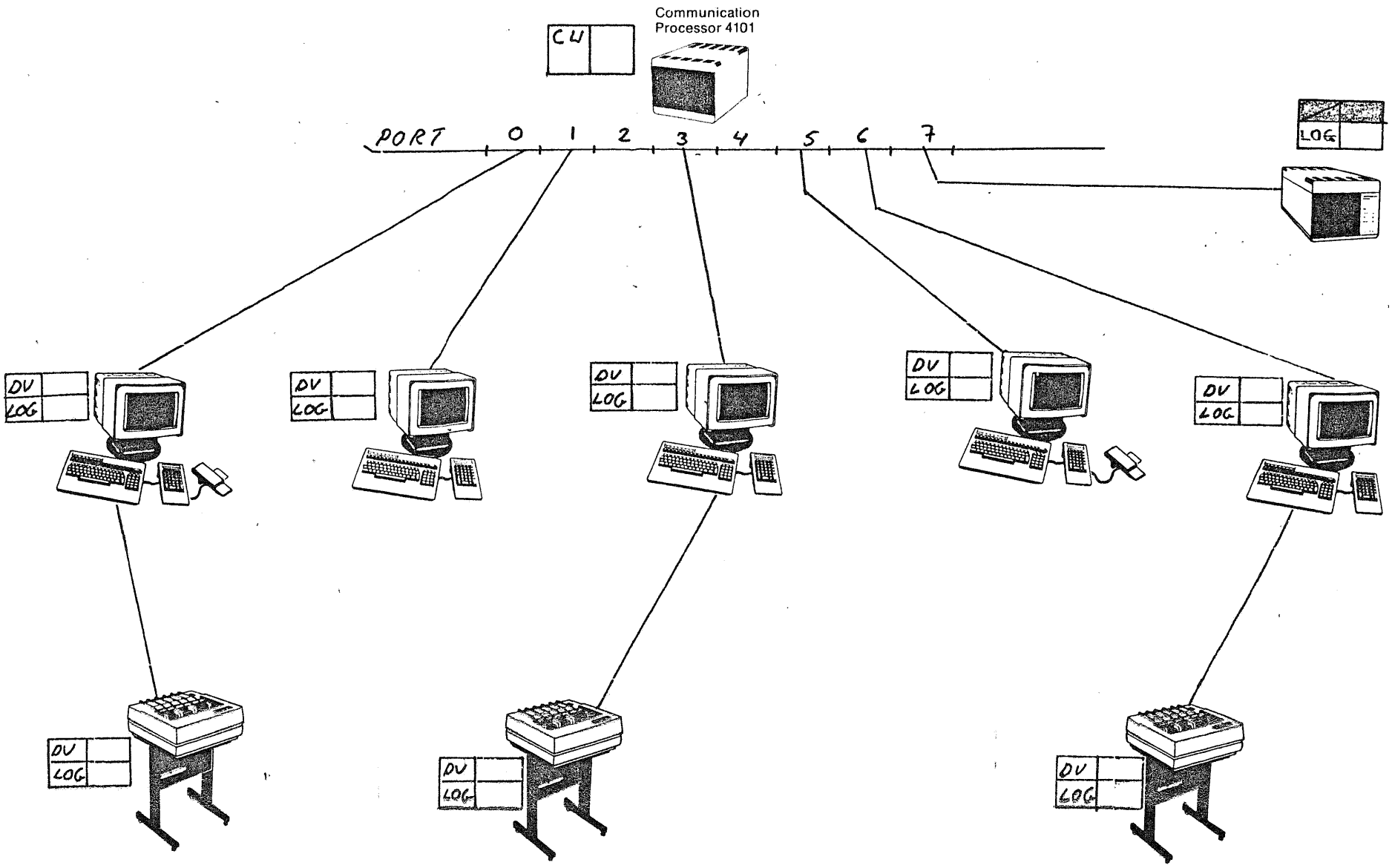
LTOC ⇒ LIBRARY TABLE OF CONTENTS



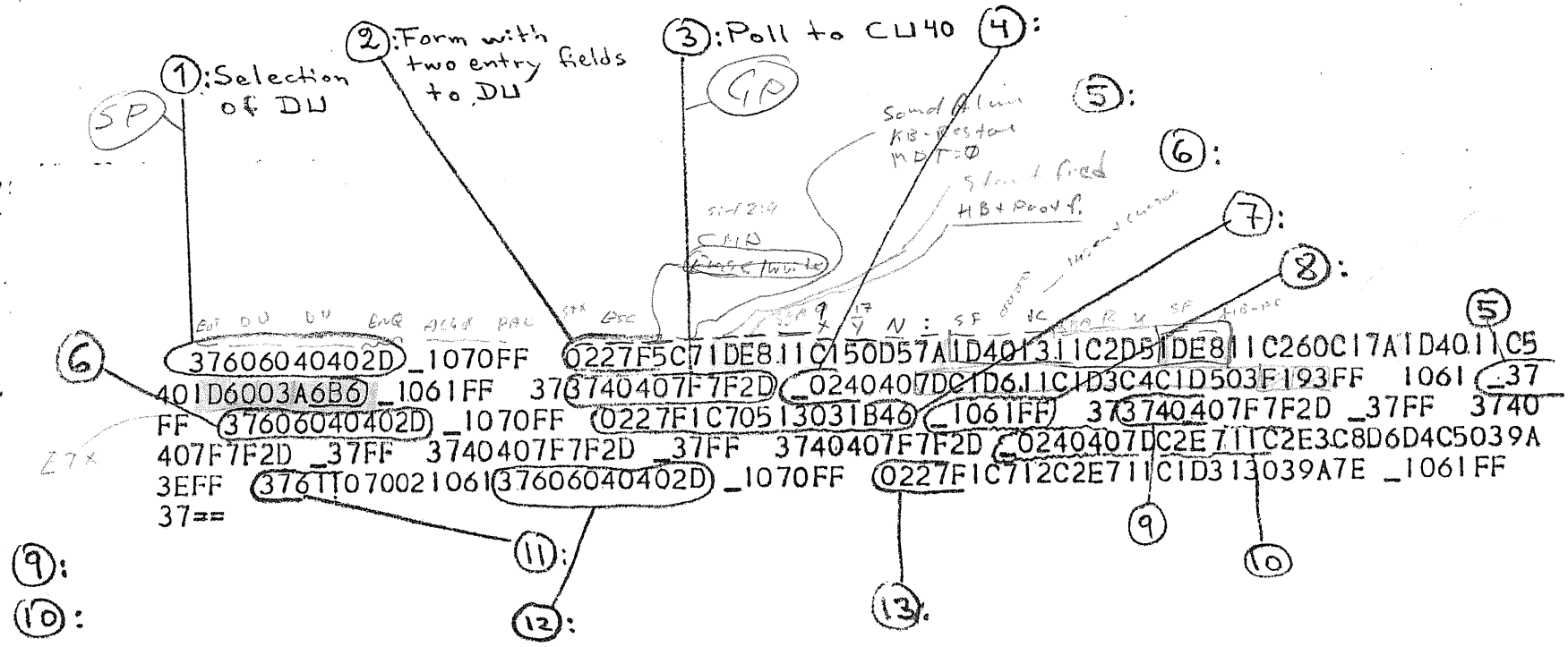
LILIB

PRLIB

CONSLIB


Communication
Processor 4101
CU
PORT
0
1
2
3
4
5
6
7
LOG
DV
LOG

37606040402D _1070FF 0227F5C71DE811C150D57A1D4013.11C2D51DE811C260C17A1D40.11C5
401D6003A6B6 _1061FF 373740407F7F2D _0240407DC1D6.11C1D3C4C1D503F193FF 1061 _37
FF 37606040402D _1070FF 0227F1C7034976 _1061FF 373740407F7F2D _37FF 3740407F
7F2D _37FF 3740407F7F2D _37FF 3740407F7F2D _0240407DC2E711C2E3C8D6D4C5039A3EFF
37610237606040402D _1070FF 0227F1C7034976 _1061FF 37==



CU_p	CU_p	DV	DV	ENQ 2D

CU_s	CU_s	DV	DV	ENQ 2D

STX 02	ESC 27	CMD		ETX 03	CRCC

TTD 02	2D

EOT 37

IBM
BSC

ACK 0 10	70

ACK 1 10	61

SYN 32	SYN 32

WACK 10	6B

NAK 3D

RVI 10	7C

STX 02	CU	DV	AID				ETX or ETB 03 or 26	CRC

SOH 01	%/0 6C	R D9	STX 02	CU	DV	Status	Sense	ETX 03	C

TEST REQ. HEADING

SOH 01	%/0 6C	/ 61	STX 02		ETX or ETB 03 or 26	CRCC

ENQ 2D