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Network Station User's Guide

IBM Personal Computer



Network Station User's Guide

IBM

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Table of Contents

Introduction	1
Conventions	3
Sign On	5
Booting with Diskette	5
Booting without Diskette	6
Activating Volumes	9
Entering the Mount Program	10
Listing Volumes	11
Mounting a Volume	13
Protecting Volumes	16
Note to Multiple Disk System Users	16
Printing	17
Spooling a File	17
Changing Spool Parameters	20
Exchanging Information Between Users	25
Sending Files	25
Checking for Files	28
Receiving Files	31
Backup to Floppy	37
Getting Ready	38
Backup to Floppy	39
Restore from Floppy	45

Introduction

This guide tells you how to use your IBM PC with a Corvus disk system or local network. In particular, this guide explains how to gain access to the Corvus disk system and how to activate volumes. It also shows you how to send and receive messages, how to print files, and how to backup your volumes onto diskettes.

Conventions

The word “Type” is used throughout this guide to mean that two or more characters or keyboard symbols are to be entered on the computer keyboard. All words, symbols, spaces and punctuation to the right of the word “Type” should be typed exactly as shown. Do not add or leave out punctuation marks at the end of the statement you are typing.

Examples:

Type A:PIP C:=B:* .DOC

Type RUN BSYSGEN

The spaces between the word “Type” and the first character to its right should not be typed. When a keytop symbol is used, press the key to which it refers. Do not type out each letter of the word shown in the keytop symbol.

The word “Press” is used throughout this guide to mean that a single character or keytop symbol is to be entered on the keyboard.

Examples:

Press Y

Press

Sign On

There are two ways to gain access to the Corvus disk system with the IBM PC. You can sign on by using a diskette or by entering instructions at the keyboard. This section tells you how to sign on both ways.

Booting with Diskette

1. Get a Corvus boot diskette from your system manager.
2. Put the Corvus boot diskette into drive A of your IBM PC.

Turn on your computer.

The screen displays:

```
Boot from CORVUS or FLOPPY (C/F) ? _
```

3. Press C

After a moment, the Constellation II sign-on display appears:

```
* * CORVUS SYSTEMS
*   CONSTELLATION II
* *           V 1.4
```

```
Please enter your name: _
```

4. Sign on to the system with your name and password.

If you don't have a name and password, see your system manager.

Booting Without Diskette

1. Make sure that the IBM PC diskette drives are empty.
2. TURN ON your computer.

After a moment, the screen displays:

```
The IBM Personal Computer Basic
Version C1.00 Copyright IBM Corp 1981
61404 Bytes free
Ok
```

3. Type DEF SEG=&HDF00

The screen displays:

```
Ok
```

4. Type X=0

The screen displays:

```
Ok
```

5. Type CALL X

The Constellation II sign-on display appears:

<pre> * * CORVUS SYSTEMS * CONSTELLATION II * * V 1.4 Please enter your name: __</pre>
--

6. Sign on to the system with your name and password.

If you don't have a name and password, see your system manager.

Activating Volumes

The IBM Personal Computer allows you to have up to ten volumes active at once. However, your system manager may have given you access to more than ten volumes, some of which are inactive. If you want to use a volume which is inactive, you must "mount" it.

When you mount a volume you need a space in which to put it. You must mount the volume on one of the IBM units, A through J. If no unit is free, you may mount the volume on an occupied unit. If you do this, the mount program will automatically unmount the volume that is already on the unit and will mount the volume you need in its place.

Entering the Mount Program

1. The program that mounts and unmounts volumes is called the Mount Manager program. You need a 128K IBM PC to use this program. After signing on,

Type A:MNTMGR

The screen display is similar to:

```
CORVUS MOUNT MANAGER UTILITY [1.0]
Copyright 1983 by Corvus Systems, Inc.

User: TIM
Server: SERVER
Drive: *
-----
C - Change Mount Status
L - List Units and Volumes
S - Select Drive
H - Help
E - Exit
-----
Enter MOUNT MANAGER option: ___
```

This is the Mount Manager Main Menu.

Listing Volumes

1. When you mount a volume, you must mount it on a unit that has the same attributes as the volume you are mounting. Volume attributes are length, cluster size, reserved sectors, and number of directory entries.

To determine the attributes of your volumes and units,

Press L

The screen display is similar to:

Unit Assignments —									
unit	volume	write acc	length	clus	res secs	dir ents	FAT secs	server	drive
A	IBMMS	yes	1024	4	1	256	1	RNET	RNET1
B	VOL11	yes	2048	8	0	256	2	RNET	RNET1
C	floppy	yes	320	1	1	64	1		floppy
D	floppy	yes	320	1	1	64	1		floppy
F	VOL31	no	2048	16	0	256	4	RNET	RNET3
G	VOL13	yes	2048	8	0	256	2	SERVER	DRIVE1
J	VOL32	yes	2048	16	0	256	4	RNET	RNET3

Press <SPACE> to continue —

This list shows you which volumes are currently mounted,

2. You can now list out all the volumes to which you have access by pressing `SPACE`

Press `SPACE`

The screen display is similar to:

```
Volumes Accessible —
```

unit	volume	write acc	length	clus	res sects	dir ents	FAT sects	server	drive
C	floppy	yes	320	1	1	64	1		floppy
D	floppy	yes	320	1	1	64	1		floppy
—	BOOT							2 RDNET	RDNET1
A	IBMMS	yes	1024	4	1	256	1	RDNET	RDNET1
B	VOL11	yes	2048	8	0	256	2	RDNET	RDNET1
—	VOL12		2048	8	0	256	2	RDNET	RDNET1
—	VOL13	yes	2048	8	0	256	2	RDNET	RDNET1
—	VOL32	yes	2048	16	0	256	1	RDNET	RDNET1
F	VOL31	no	2048	16	0	256	4	RDNET	RDNET3
J	VOL32	yes	2048	16	0	256	4	RDNET	RDNET3
G	VOL13	yes	2048	8	0	256	2	SERVER	DRIVE1
—	JUNK		1024	4	0	64	2	SERVER	DRIVE2

— indicates unmounted volume

Press <SPACE> to continue —

3. From the list of accessible volumes, pick the unmounted volume which you wish to mount.

4. Now choose the unit letter on which you wish to mount the volume.

Remember that the length, cluster size, number of reserved sectors, and number of directory entries of the unmounted volume must match those of the mount unit.

If there is a volume presently mounted on the unit you choose, the Mount Manager will automatically unmount it for you when you mount your new volume.

5. Once you have made your decisions, write down the name of the volume you wish to mount and the unit letter on which you wish to mount it.

6. Press

The screen displays the Mount Manager main menu.

Mounting a Volume

1. From the mount manager main menu,

Press C

The screen displays:

Enter volume name: <input type="text"/>

2. Enter the name of the volume you wish to mount, followed by a . If you have another volume with the same name on a different drive,

Type /dname/vname

where "dname" is the name of the drive on which the volume is located and "vname" is the name of the volume.

The screen display is similar to:

```
Location of Volume —
                               Server: RDNET
                               Drive: RDNET1

Current Status of Volume —
                               Mount Status: Unmounted
                               Write Access: Yes

Enter New Status of Volume —
                               Mount Status (M/U): U
```

3. Press M

The screen displays:

```
Mount Unit [A-J]: _
```

4. Press the letter of the unit on which you wish to mount the volume.

The screen displays:

```
Write Access (Y/N)? Y
```

5. If you want to have write access to the new volume,

Press Y

If you only want to have read access to the volume,

Press N

If you are mounting a volume in place of another volume, the screen display is similar to:

```
WARNING: Unit B is currently assigned volume /RDN1/RDN1/VOL11.
```

If you are mounting your volume on a free unit, no warning appears.

The screen displays:

```
Change volume status [Y/N]? Y
```

6. If you have made all desired changes,

Press Y

The screen display is similar to:

```
Volume VOL11 unmounted.
```

```
Volume VOL12 mounted.
```

```
Press 'C' to change another mount status  
or press <SPACE> to continue __
```

7. Press

The screen displays the Mount Manager main menu.

8. When you have finished using the Mount Manager,

Press E

Protecting Volumes

You can use the Mount Manager program to temporarily remove write access to a volume or to unmount a volume completely. If you wish to protect a volume in this way, use the Change Mount Status option from the Mount Manager main menu.

Note to Multiple Disk System Users

If your volumes reside on multiple Corvus disk systems, the Select Drive option of the Mount Manager lets you choose to examine only the volumes on a specific drive. If you know that you are only interested in a particular drive, you can use this option to limit the size of the volume listings in the List Units and Volumes option. This makes the listings both faster and easier to read. If you wish to consider all drives, enter a "*" for drive name. Volume searches will then include all drives.

Printing

Normally, each computer on a network will not have an attached printer. To use a printer attached to another computer or utility server you must "Spool" your file to a special area on the Corvus disk called the PIPES area. The other computer or utility server will then "Despool" that file to the attached printer.

Spooling a File

The first step in printing is to put your material into the form in which you want it to be printed. Format your text the way you want it using your computer's editor or word processor. Next, save this text into a file. You are now ready to spool.

1. Type A:SPOOL

The screen displays:

```
Corvus Spool Utility (1.1 a)
Main Menu
-----

S — Spool a File
C — Change Spool Parameters
D — Display Pipes

H — Help
E — Exit

-----
Please select an option: _
```

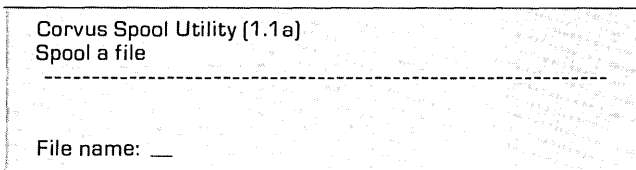
2. If you want your file to print on your network's default printer,

Press S

The system manager should tell you which printer is the default printer.

If you want your file to print on a printer other than the default printer, you must change the Pipe Name spool parameter. Go to the next section on "Changing Spool Parameters" if you wish to do this.

After pressing S, the screen displays:



```
Corvus Spool Utility (1.1a)
Spool a file
-----
File name: ___
```

3. Type the name of the file that you want printed, then

Press

4. The program asks you for a message. Enter any message up to eighty characters long. The message will be printed on the title page of your printout. Follow your message with a

The program now starts spooling your file to the PIPES area. While the file is being spooled, a series of dots will appear across the screen. When spooling is complete, the screen display is similar to:

```
Spooling file to pipe PRINTER[ 1]

.....
      15 blocks written to pipe PRINTER [ 1]
Enter file name to be spooled:
```

5. You may now spool another file or exit the program. If you wish to exit,

Press

The screen displays the Spool Utility main menu.

Press E

6. Your default network printer or the printer you chose by changing the Pipe Name parameter should now start printing your file. If it does not, see your system manager.

Changing Spool Parameters

There are several parameters which affect the way in which a file is spooled. You can change these parameters to suit your needs. If you want to change the spool parameters from their default values, you must make the changes before you spool the file to which the new values will apply. Follow this procedure to change the parameter values.

1. Type A:SPOOL

The screen displays:

```
Corvus Spool Utility (1.1a)
Main Menu
-----
S — Spool a File
C — Change Spool Parameters
D — Display Pipes

H — Help
E — Exit

-----
Please select an option: __
```

2. Press C

The screen displays:

```
Corvus Spool Utility
Change Spool Parameters
-----

P -- Pipe Name       : PRINTER
L -- Lines per Page  : 55
C -- Chaining Symbol : {$I
N -- New Page Symbol : {$P
T -- Tab Length      : 8
F -- File Type       : TEXT
E -- Exit to Main Menu :

-----
Please select an option: __
```

3. Pick the parameter that you wish to change. Enter the letter which corresponds to that parameter.

Example:

If you wish to change the chaining symbol,

Press C

4. After you choose a parameter, the program shows you the possible values for the parameter. Choose the value you want and enter that value followed by a

The following paragraphs describe the parameters and the values which they can take on.

Pipe Name—This is any alphanumeric name up to eight characters long starting with a letter. By choosing the correct Pipe Name you can direct your file to any active printer on your network. Your system manager should provide you with a list of network printers and their Pipe Names.

Lines per Page—This is the total number of lines that the printer will print on a page before it begins a new page. If you want to print continuously without skipping over page boundaries, set Lines per Page to 0 (zero).

Chaining Symbol—When this symbol is found in the file being spooled, the spooler looks for a file name immediately following the symbol. The spooler includes this new file at that point in the spooling. If no file name is found after the chaining symbol, the spooler prints an error message and continues spooling. The chaining symbol can be any string up to 133 characters.

New Page Symbol—Wherever this symbol appears in the file, it causes the printer to skip to the top of the next page. The New Page Symbol can be any string up to 133 characters long.

Tab Length—A tab character (control-I) in the file causes the spooler to insert spaces until the next tab column is reached. The Tab Length parameter sets the positions of the tab columns. Tabs are set every “Tab Length” space starting at the left margin. Valid Tab Lengths are 1 to 133.

File Type—This lets you specify whether the file being spooled is text or data. If you choose “text,” the spooler will format the file according to the L, C, N, and T parameters. If you choose “data,” the spooler will spool the file exactly as it finds it.

5. After you have changed all the parameters you wish to change,

Press E

The screen displays the Spool Utility main menu.

6. Spool your file.

Exchanging Information Between Users

Corvus local area networks let users exchange information electronically. Exchanges take place through a special area of the disk system called the PIPES area. You can think of the PIPES area as a message center. Users can send their files to the PIPES area and these files can then be accessed by other users.

Sending a file to the PIPES area is called "spooling." When you spool a file, you must put a name on it so that other users will know who the file is for. Your system manager should set up a directory of users and spool names so that you will know how to address your files. This chapter explains how to spool files to other users and how to "despool" files which others have sent to you.

Sending Files

1. Type A:SPOOL

The screen displays the Spool Utility main menu:

```
Copyright 1982, 1983 Corvus Systems, Inc.
All Rights Reserved

Corvus Spool Utility (1.2)
Main Menu
-----
S -- Spool a file
C -- Change Spool Parameters
D -- Display Pipes

H -- Help
E -- Exit
-----
Please select an option:
```

2. Press C

The screen displays the Change Parameters menu:

```
Corvus Spool Utility
Change Spool Parameters
-----
P — Pipe Name      : PRINTER
L — Lines per Page : 55
C — Chaining Symbol : ($I
N — New Page Symbol : ($P
T — Tab Length     : 8
F — File Type      : TEXT
E — Exit to Main Menu :
-----
Please select an option: _
```

3. Press P

The screen displays:

```
Pipe name (up to 8 characters):
```

4. Consult your user directory to determine the spool name for the user you wish to send your file to. Type in this name followed by a

5. Press E

The screen displays:

```
Copyright 1982, 1983 Corvus Systems, Inc.
      All Rights Reserved

Corvus Spool Utility (1.2)
Main Menu
-----
S — Spool a file
C — Change Spool Parameters
D — Display Pipes

H — Help
E — Exit
-----
Please select an option:
```

6. Press S

The screen displays:

```
Corvus Spool Utility (1.1a)
Spool a file
-----
File name: __
```

7. Enter the name of the file you want to send, followed by

The screen displays:

```
Message:
```


8. Press

The screen display is similar to:

```
Spooling SPOOL. EXE to pipe STEVE [1] .....  
.....  
84 block(s) spooled to pipe [1] named STEVE  
-----  
  
Corvus Spool Utility (1.1 a)  
Spool a file  
-----  
File name: ____
```

9. You may now spool another file to the same user. If you have no more files to spool to that user,

Press

The screen displays the Spool Utility main menu.

10. Press E

to exit the Spool Utility.

Checking for Files

This section tells you how to find out if any files have been sent to you.

1. Type A:SPOOL

The screen displays the Spool Utility main menu:

```
Copyright 1982, 1983 Corvus Systems, Inc.
      All Rights Reserved

Corvus Spool Utility (1.2)
Main Menu
-----
S — Spool a file
C — Change Spool Parameters
D — Display Pipes

H — Help
E — Exit
-----
Please select an option:
```

2. Press D

The screen displays:

```
Corvus Spool Utility (1.1a)
Display pipe
-----
Pipe name:
```

3. Enter your spool name as it is in the user directory. Follow the name with a **RETURN** . The screen will list all files in the PIPES area which have your name on them.

Example:

```
2. STEVE  Closed ---  Contains data  2 blocks
```

This shows that there is one file waiting for STEVE in the PIPES area. This file is on PIPE 2.

4. Press **RETURN**

The screen displays the Spool Utility main menu:

```
Copyright 1982, 1983 Corvus Systems, Inc.
      All Rights Reserved

Corvus Spool Utility [1.2]
Main Menu
-----
S - Spool a file
C - Change Spool Parameters
D - Display Pipes

H - Help
E - Exit
-----
Please select an option:
```

5. Press E
to exit the Spool Utility.

Receiving Files

1. If you have a file waiting for you in the PIPES area,

Type A:DESPOOL

The screen displays the Despool Utility main menu:

```
Corvus Despool Utility (1.2)
Main menu
-----
D - Despool a file
C - Change despool parameters

H - Help
E - Exit
-----
Please select an option: _
```

2. Press C

The screen displays the Change Parameters menu:

```
Corvus Despool Utility (1.1b)
Change Despool Parameters
-----
P - Pipe name
O - Output device
L - Do you want <lf> after <cr>
S - Single page printing
E - Exit to main menu
-----
Please select an option: _
```

3. Press P

The screen displays:

```
Pipe name: _____
```

4. Enter your spool name as it appears in the user directory. Follow the name with a **RETURN** . The screen again displays the Change Parameters menu.

5. Press O

The screen displays:

```
Printer, File, Console : _
```

You have three choices for despooling the file that has been sent to you. If you have a printer attached to your computer, you may press **P** to select the Printer option. When you despool the file, it will be printed.

You may also press **C** to select the Console option. When you despool, the file will appear on your screen.

If you select File, by pressing **F**, the received file will be put in a file in one of your own volumes. This is usually the best choice because when a file is despoiled, it disappears from the PIPES area. This means that if you despool to a printer or to your screen, you will not later be able to put the information into a file.

6. Press F

The screen displays the Change Parameters menu without the L and S options.

7. Press E

The screen displays the Despool Utility main menu:

```
Corvus Despool Utility (1.2)
Main menu
-----
D - Despool a file
C - Change despool parameters

H - Help
E - Exit
-----
Please select an option: __
```

8. Press D

The screen display is similar to:

```
Currently despooling pipe named : STEVE
Pipe number                      : 2
Spooled filename                  : TEST.TXT
Filename to despool to           : __
```

9. Enter a location and a file name. The despool program will create a file with this name in this location and will put the data that was sent to you in it. Follow the file name with a .

Example: .

Type B:TEST1. TEXT

The screen display is similar to:

```
.....
5 block(s) read from pipe 2 named STEVE
```

10. If there was more than one file with your name on it, the program will ask you for a file name for the next file. Otherwise the screen display is similar to:

```
Currently searching for pipe named : STEVE
Press any key to escape ...
```

11. Press

The screen displays the Despool Utility main menu:

```
Corvus Despool Utility [1.2]
Main menu
-----
D - Despool a file
C - Change despool parameters

H - Help
E - Exit
-----
Please select an option: _
```

12. Press E

to exit the Despool Utility.

Backup To Floppy

This chapter tells you how to use the Corvus Backup-To-Floppy utility to save an entire IBM MSDOS volume to diskettes. This chapter also tells you how to restore volumes back onto a Corvus disk system from diskettes.

The standard IBM COPY program can be used to backup most individual files from a Corvus volume onto diskette. The COPY program cannot be used to copy an entire Corvus volume or a file larger than a diskette.

When the standard COPY program cannot be used, you can use the Corvus Backup-To-Floppy utility as described below to back up and restore information on the Corvus disk system.

Getting Ready

During the backup process, you will need to have enough formatted diskettes to hold all the information on the entire volume being backed up. The amount of information a diskette can hold varies according to the type of diskette drive you have. Use the table below to estimate how many diskettes you will need to back up your volume.

Floppy Drive Format	Volume Size			
	512 blocks	1024 blocks	2048 blocks (1MB)	4096 blocks
160KB	2 diskettes	4 diskettes	7 diskettes	13 diskettes
320KB	1 diskettes	2 diskettes	4 diskettes	7 diskettes

Example:

Suppose you have an 1800 block volume that you want to back up with a 160KB floppy drive. The table shows you that you will need between 4 and 7 diskettes. Estimate on the high side and figure on 6 diskettes.

Use the standard MSDOS format program from IBM to format the right number of diskettes before you start the backup.

Backup To Floppy

1. When the right number of diskettes has been formatted, boot to the Corvus Constellation II log-on message. Log on as user IBMBACKUP.

Type IBMBACKUP

The screen displays:

<p>CORVUS BACKUP-TO-FLOPPY UTILITY [1.1e] Copyright 1983 by Corvus Systems, Inc.</p> <p>-----</p> <p>Please enter:</p> <p>User name: __ Password: __</p>
--

2. Enter the name and password you normally use to sign on to the network. Follow both your name and password with a **RETURN** . If you do not have a password, simply press **RETURN** in response to the password prompt.

The screen displays the Backup-To-Floppy main menu:

```
CORVUS BACKUP-TO-FLOPPY UTILITY [1.1e]
Copyright 1983 by Corvus Systems, Inc.
-----

      B — Backup a Volume

      R — Restore a Volume

      I — Identify a Diskette

      L — List Volumes

      S — Set Options

      E — Exit

-----
Please select an option: _
```

3. Press S

The screen displays:

```
CORVUS BACKUP-TO-FLOPPY UTILITY [1.1e]
Set Options
-----

Verification (Y/N): N
Password Protection (Y/N): Y
```

4. If you choose the verification option, the Backup-To-Floppy utility will check to see that it is correctly copying information from the Corvus volume to diskette during the backup procedure. Choosing this option doubles the amount of time it takes to do a backup.

The password protection option lets you prevent other people from reading data from your backup diskettes. If a diskette is protected, your user name and password will have to be entered before the diskette can be restored.

Set the verification and password protection options the way to want them. Press each time you enter a "Y" or an "N."

The screen displays:

```
Ok to set options [Y/N]? Y
```

5. If you like the way you have set the options,

Press

The screen displays:

```
Options set.
-----
Press <space> to continue.
```

6. Press `SPACE`

The screen displays the Backup-To-Floppy main menu.

7. You normally think of your volumes in terms of unit letters (e.g., A, B, etc.). The utility thinks of your volumes in terms of volume names. To see the names and lengths of your volumes,

Press L

The screen display is similar to:

```
CORVUS BACKUP-TO-FLOPPY UTILITY [1.1e]
List Volumes
-----
volume      length    unit      write access
BOOT        128
IBMMS       1024     A
JOHN        2048     B         YES
JACK        2048
-----
Press <space> to continue. _
```

8. When you know the name of the volume you wish to back up,

Press `SPACE`

The screen displays the Backup-To-Floppy main menu.

9. Press B

The screen displays:

```
CORVUS BACKUP-TO-FLOPPY UTILITY [1.1e]
Backup a Volume
-----

Please enter:

Volume Name: __
Date:      __
```

10. Enter the name of the volume you wish to back up followed by a . Enter the date followed by a . For example:

Type IBMMS

Type 4-04-83

The screen displays:

```
Insert formatted [volume]-1 diskette in drive A.
Press <space> after inserting diskette. __
```

11. Make a label for your first backup diskette. The label should carry the name of the volume followed by a "-1." For example, write "IBMMS-1." Place this label on the diskette. Insert the diskette in diskette drive A.

Press

The screen display is similar to:

```
Checking capacity of the floppy drive... 320KB
Creating floppy # 1
This backup requires n diskettes.
```


12. The program now begins to copy data from the Corvus volume to the first backup diskette. As each block of data is copied, a dot appears on the screen. When the first diskette is full, the screen displays:

Insert formatted [volume]-2 diskette in drive A.
Press <space> after inserting diskette. _

13. In step 11 the screen told you how many diskettes you would need for your backup. If you have not formatted enough diskettes, press **[ESCAPE]**, format more diskettes, and start the program over from the beginning.

If you have enough diskettes, continue to the next step.

14. Create a diskette label which includes the Corvus volume name and is followed by a "-2." Place the label on the diskette, then place the diskette in diskette drive A.

Press **[SPACE]**

The backup process continues. The computer will request more diskettes as required. Label each diskette in a similar manner to the first two diskettes.

When all information has been stored on diskettes, the screen displays:

Volume backup complete.

Press <space> to continue. _

15. Remove the last diskette used during backup.

Press

The screen displays the Backup-To-Floppy main menu.

16. To exit the Corvus Backup-To-Floppy utility,

Press E

The screen displays:

```
Please reboot your computer. _
```

17. Reboot your computer using the normal key combination.

Restore from Floppy

During the restoration process, you must use a diskette drive that can read your backup diskettes.

1. From the Constellation log-on message, log on as the user IBMBACKUP.

The screen displays:

```
CORVUS BACKUP-TO-FLOPPY UTILITY [1.1e]
Copyright 1983 by Corvus Systems, Inc.
-----
```

```
Please enter:
```

```
User name: _
```

```
Password: _
```

2. Enter the name and password you normally use to sign on to the network. Follow both your name and password with a . If you do not have a password, simply press in response to the password prompt.

The screen displays the Backup-To-Floppy main menu:

```
CORVUS BACKUP-TO-FLOPPY UTILITY [1.1e]
Copyright 1983 by Corvus Systems, Inc.
-----

      B — Backup a Volume

      R — Restore a Volume

      I — Identify a Diskette

      L — List Volumes

      S — Set Options

      E — Exit

-----
Please select an option: _
```

3. Press S

The screen displays:

```
CORVUS BACKUP-TO-FLOPPY UTILITY [1.1e]
Set Options
-----

Verification [Y/N]: N
Password Protection [Y/N]: Y
```

4. The restore program can check to see that it is correctly copying data from your diskettes to the disk during the restore procedure. If you choose the verification option, the program will make this check. This option doubles the amount of time it takes to do a restore.

The password protection option does not apply to restores.

Set the verification option as you want it. Enter either a "Y" or "N" followed by a . Press for the password protection option.

The screen displays:

```
Ok to set options [Y/N]? Y
```

5. If you like the way you have set the options,

Press

The screen displays:

```
Options set.
-----
Press <space> to continue.
```

6. Press

The screen displays the Backup-To-Floppy main menu.

7. To make sure that you are restoring the proper information to the Corvus drive, select the identify option. (Note that this option may also be used to properly sequence diskettes should the diskettes of a backup be accidentally mixed up).

Press I

The screen displays:

```
CORVUS BACKUP-TO-FLOPPY [1.1e]
Identify a Diskette
-----
Insert diskette in drive A.
Press <space> after inserting diskette. _
```

8. Place the first diskette created during the backup process ([volume]-1) in diskette drive A.

Press

The screen display is similar to:

```
CORVUS BACKUP-TO-FLOPPY [1.1e]
Identify a Diskette
-----
Volume Backed Up:  IBMMS
Date of Backup:    4-04-83
User Name:        USER1 (protected)
Size of Volume (blocks): 1024
Total Number of Diskettes: 5
Number of this Diskette: 1
-----
Press <space> to continue. _
```

9. If the diskette contains the desired backup, note the size of the backed up volume and

Press SPACE

The screen displays the Backup-To-Floppy main menu.

10. You normally think of your volumes in terms of unit letters (e.g., A, B, etc.). The utility thinks of your volumes in terms of volume names. To see the names and lengths of the volumes to which you have access,

Press L

The screen displays:

CORVUS BACKUP-TO-FLOPPY UTILITY [1.1e]			
List Volumes			
volume	length	unit	write access
BOOT	128		
IBMMS	1024	A	
JOHN	2048	B	YES
JACK	2048		YES

Press <space> to continue. _

11. Determine the name of the volume you wish to restore. When you have confirmed that you have write access to this volume and that the length of this volume is equal to the length of the volume to be restored from diskette.

Press

The screen displays the Backup-To-Floppy main menu.

12. Press R

The screen displays:

```
CORVUS BACKUP-TO-FLOPPY UTILITY [1.1e]
Restore a Volume
-----
Please enter:

Volume to be restored: __

Volume name on floppy: __
```

13. Although the Corvus volume that you are restoring need not be the same volume from which the backup diskettes were made, the volumes must be the same size.

Enter the name of the volume on the Corvus disk system to be restored and the name of the volume on the floppy being restored, each followed by `RETURN` .

If at the time of backup you protected your backup diskettes, your current user name and password must be identical to the name and password you used during the backup.

If all security checks are passed, the screen displays:

```
Insert [volume]-1 diskette in drive A.  
Press <space> after inserting diskette. __
```

14. If you have not already placed the first diskette created during the backup process in diskette drive A, do so.

Press `SPACE`

The restoration process begins and as each block of data is copied from the diskette drive to the Corvus volume, a dot appears on the screen. After the first diskette is copied, the screen displays:

```
Insert [volume]-2 diskette in drive A.  
Press <space> after inserting diskette. __
```


15. Place the requested diskette in diskette drive A.

Press **SPACE**

The restore process continues. The computer will request each diskette made during the backup in order.

When all information has been restored the screen displays:

```
Volume restoration complete.
-----
Press <space> to continue. _
```

16. Press **SPACE**

The screen displays the Backup-To-Floppy main menu.

17. To exit the Corvus Backup-To-Floppy utility,

Press **E**

The screen displays:

```
Please reboot your computer. _
```

18. Reboot your computer using the normal **CTRL** **ALT** **DEL** command.