DISCAT

by
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A File Cataloging System
for use with ZCPR3 and CP/M-80

The DISCAT SYSTEM

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C O N T E N T S

1. D I S C A T   S Y S T E M

The DISCAT System is an integrated set of utility programs which is used to maintain configuration information on one or more collections of disks. This information is contained in one or more Catalog Files, and all utilities of the DISCAT System work with these files. The names of the disks, the names of the files on the disks, and the amount of free space left on each disk are included in the Catalog Files.

The DISCAT System performs its functions by creating, updating, and reporting on Catalog Files. To perform these functions, the following utilities are provided:

Catalog File Maintenance Utilities

CATCHECK - Used to check a Catalog File and make sure that it has not been damaged
    CATMAKE - Used to create a Catalog File
    CATNAME - Used to place a name on a disk

Reporting Utilities

CATFREE - Used to report on the amount of free space left on each disk referenced in a Catalog File
    CATSCAN - Used to find files referenced in a Catalog File and report on what disks they are located on

Catalog File Update Utilities

CATERASE - Used to erase information about files referenced in a Catalog File
    CATMERGE - Used to merge one or more Catalog Files into a target Catalog File
    CATRMDSK - Used to erase all entries pertaining to a disk referenced in a Catalog File
    CATUPD - Used to read a disk directory and update a Catalog File with the information from the disk directory

All of these utilities are designed to work together and run efficiently. The options to these utilities and their error messages are consistent with each other, and there is a logical completeness to the DISCAT System.

The following chapter on the DISCAT commands describes each utility in the DISCAT System in detail.

1.1. Some DISCAT Terms

Some terms which are commonly used in conjunction with the DISCAT System are defined here for reference.

Catalog File

The Catalog File is the file manipulated by the utilities of the DISCAT System. It contains information about disks, including the names of the files and the amount of free space available on them. A Catalog File is a special type of binary file which can only be created by the CATMAKE utility and manipulated by the other utilities in the DISCAT System.

Omitted Files

Every Catalog File contains a list of files which are not to be included in it. When a Catalog File is updated, if a file whose name matches an entry in the list of Omitted Files is encountered, this file is automatically ignored. Thus, omitted files will never appear as entries in a Catalog File. This is useful when certain files are contained on virtually every disk and the user prefers to not catalog them. For example, programs like PIP.COM are commonly omitted from Catalog Files.

1.2. ZCPR3 Directories

Two named directories are used in conjunction with the DISCAT System. The first is a directory named CAT. It is within this directory that all Catalog Files maintained by the DISCAT System utilities are to be stored. The utilities will automatically find the Catalog Files by looking in the CAT directory.

The other directory is named BACKUP, and this is the directory which is used to indicate what disk is read by the DISCAT System utilities to catalog disks from. Disks are mounted in the BACKUP directory to be read.

1.3. Command Line

The DISCAT System is very consistent in terms of use from utility to utility. In general, the user types in all DISCAT System commands like this:

command <list1> <list2> <options>

Some commands take only one list, others take two, and one takes none. The use of one or both lists is optional in many cases, and, when an optional list is omitted, the command is told that options are available by the user proceeding those options with a slash (/). Lists are delimited by spaces, and list entries are separated by commas. For example, the CATSCAN command has the form:

CATSCAN <list of files> <list of disks> <options>

Specifically (additional space shown for clarity only):

CATSCAN   *.ASM,*.C,*.PAS   *.S*,*.B*   P

Either list may be omitted from the command line, and, if an option is desired, it must be denoted by a leading slash, like:

CATSCAN   *.ASM,*.C,*.PAS   /P

or

CATSCAN /P

For consistency, a fully-specified command line may also have its options proceeded by a slash, but in this case, the slash is not required:

CATSCAN   *.ASM   *.S*   P

and

CATSCAN   *.ASM   *.S*   /P

have the same meaning.

Another consistent feature of the DISCAT System is that all option letters have the same meanings between utilities. For example, the N option in the CATERASE command line means the same thing as the N option in the CATSCAN command line.

The options used with the various programs of the DISCAT System are defined in detail in the second chapter.

1.4. Using the DISCAT System

DISCAT is designed to be used under ZCPR3. Most of this manual is devoted to providing technical detail on how to employ the DISCAT system of programs, but the philosophy of use is best shown by example. For this reason, the fourth chapter on using DISCAT is provided. This chapter shows how the author uses the system, and this is perhaps the best way to illustrate how the system was intended to be used.

The DISCAT System can be viewed as an integrated subsystem under ZCPR3. It interfaces with ZCPR3 nicely, using its the facilities of ZCPR3 as they are required. The menus (see the third chapter) are run by the ZCPR3 MENU and VMENU utilities.

2. D I S C A T   C O M M A N D S

This chapter describes each of the DISCAT commands in some detail. In each case, the following information is provided to the reader:

1. Name of DISCAT Program

2. Synopsis
   What the utility does in one or two lines

3. Command Line Arguments
   What arguments the utility expects

4. Options
   Which options are recognized by the utility

5. Function
   What the utility does in some detail

6. Error Messages
   What error messages are generated by the utility

7. Defaults
   What default conditions are assumed by the utility

8. Examples of Use
   Examples of command line involving the utility

At the end of this chapter are lists of options and error messages common to the DISCAT System utilities.

2.1. CATCHECK

Name of DISCAT Program: CATCHECK

Synopsis:

   CATCHECK checks for structural errors in Catalog Files.

Command Line Arguments:

   <list of catalog file names>

Options: None

Function:

   CATCHECK is used to check the validity of one or more Catalog Files. It performs the following functions:

      1.   Checks the date area
      2.   Checks the Omitted File List
           Counts the Files in the Omitted File List
      3.   Checks the Disk Name List
           Counts the Entries in the Disk Name List
      4.   Checks the Catalog Entries
           Counts the Catalog Entries

   CATCHECK performs a thorough check of each Catalog File. Errors are reported, and CATCHECK aborts on the first major error encountered. If an error is detected, the Catalog File should be restored from its backup copy or the disks should be recataloged.

   CATCHECK prints a report on the Catalog File if it successfully completes its check of the Catalog File. This report provides the following information:

         Number of Omitted Files
           -- How many files are in the Omitted File List
         Number of Disks
           -- How many disks are covered by the Catalog
         Number of Catalog Files
           -- How many distinct files are in the Catalog
         Number of Catalog Entries
           -- How many file entries are in the Catalog
              (Each distinct file has one entry for each
               disk it is on)

   If an error is encountered, the appropriate message is displayed in an attempt to indicate the extent of the error.

Error Messages:

  ** Error Encountered During Check of Disk Names **
  ** Error Encountered During Check of Catalog Entries **
  ** Error Encountered During Check of Omitted Files **
    -- Self-Explanatory

Defaults:

  Default type of Catalog File is CAT.

Examples of Use:

  CATCHECK MASTER.CAT
  CATCHECK MASTER   -- Check MASTER.CAT also
  CATCHECK B7:ASSEMBLER,C:BDSC,D31:PASCAL

2.2. CATERASE

Name of DISCAT Program: CATERASE

Synopsis:

      CATERASE erases files from a Catalog File.

Command Line Arguments:

      <optional file list> <optional disk list> <options>

Options: F, I, N, Q

Function:

      CATERASE is used to erase file entries from a catalog. The optional disk list indicates the names of the disks to examine in this procedure, and the optional file list indicates the names of the files to select for erasure. If the negate option is enabled (N), all files NOT matching the entries in the file list are selected (the negate option applies only to file names – NOT disk names).

      If no file name list or disk name list is specified, all files on all disks are selected. Because of this power, use the CATERASE command with care!

      Erasing all files on all disks does make sense in that the remaining space on each disk is still retained in the Catalog File. Using CATMAKE to create a new Catalog File does not retain the remaining space information. Also, erasing all files on all disks in conjunction with the Inspect Option (I) is reasonable.

      If the disk name list is omitted, then all disks are selected.

      CATERASE performs its operations by reading an original Catalog File and creating a new one called $WORK$.CAT. It builds this new file to contain all file entries not selected for erasure. After this file is built, CATERASE renames it with a file type of .BAK and then renames $WORK$.CAT to the name of the original file. If an error occurs while $WORK$.CAT is being created, the original catalog file will remain untouched and valid. Use CATCHECK to insure that this is the case.

Error Messages:

    Standard

Defaults:

    If no Catalog File is explicitly specified, the file
MASTER.CAT will be used. MASTER.CAT resides in the CAT:
directory or the current directory if a directory named CAT: has
not been defined. CATERASE will automatically go to this dir
when it runs.

Examples of Use:

        CATERASE *.ASM   -- Erase files matching *.ASM
        CATERASE *.ASM /N   -- Erase files NOT matching *.ASM
        CATERASE *.* *.ZOO /I -- Erase all files, with inspect,
                                 on all disks matching *.ZOO
        CATERASE /I   -- Erase all files on all disks
                                 with inspection

2.3. CATFREE

Name of DISCAT Program: CATFREE

Synopsis:

CATFREE reports on the free space available on selected disks known to the Catalog File.

Command Line Arguments:

<optional list of disks> <options>

Options: F, P

Function:

CATFREE is used to scan a Catalog File and report on selected disks in it. It reports on the names of the disks which match the entries in the optional disk name list and gives the amount of free space, in K, remaining on each disk. The output from CATFREE can be directed to the printer as well as the console.

If the optional list of disks is omitted, CATFREE reports on all disks in the Catalog File.

Error Messages:

Standard

Defaults:

If the file type of the Catalog File is not specified, it is assumed to be CAT.

If the Catalog File is not specified, it is assumed to be MASTER.CAT in the CAT: directory.

Examples of Use:

```
CATFREE                -- Display free space on all disks
CATFREE *.D*           -- Free Space on all disks whose
                          type begins with the letter D
CATFREE *.S*,*.B*      -- Free Space on all disks whose
                          type begins with S or B
CATFREE ZCPR2.Z00,ZCPR2.Z01,BDSC.L01 -- Free space on
                          selected disks
```

2.4. CATMAKE

Name of DISCAT Program: CATMAKE

Synopsis:

   CATMAKE is used to create and initialize a Catalog File.

Command Line Arguments:

   <list of Catalog File names> <options>

Options: D, O

Function:

   CATMAKE is used to initialize a Catalog File.   CATMAKE performs the following functions:

   1. Determine if a named Catalog File already exists and warn the user if so, giving him the option to abort the process (the D option overrides this warning)

   2. Accept and edit a list of names of the files to be automatically omitted from the Catalog File whenever it is updated; these are the Omitted Files

   3. Create an empty Catalog File containing the list of omitted names

   If the N option is not used, the user is placed into a mode of inputting a list of file names to be omitted from the new Catalog File.   After specifying the names he desires (or specifying none at all), the user is allowed to list, delete, and add new names to this list as he desires.   When satisfied, the user exits and the Catalog File is created.

   NOTE: Pay special attention to the creation of the Omitted File list.   Once a Catalog File is initialized by CATMAKE, there is no way to modify the list of Omitted Files short of creating a new Catalog File.

Error Messages:

Standard

No Entries or Number Out of Range
-- in deleting a file from the omitted list of
names, the number of the file selected to
delete is not present in the list

Defaults:

If the type of a Catalog File is not given, CAT is assumed.

Examples of Use:

CATMAKE MYCAT.CAT,MASTER   -- Create 2 files

CATMAKE MYCAT1 DN   -- Create an empty
MYCAT1.CAT with no
omitted files and
delete if one
already exists

2.5. CATMERGE

Name of DISCAT Program: CATMERGE

Synopsis:

CATMERGE is used to merge one or more Catalog Files into a target Catalog File.

Command Line Arguments:

<list of Catalog File names> <options>

Options: F, Q

Function:

CATMERGE is used to merge one or more Catalog Files into a target Catalog File. The files to be merged are assumed to contain more current information than the target Catalog File, so if a disk is specified in a merging file, then files from that disk which are not in the target file are added to the target file while files in the target Catalog File which are not in the merging Catalog Files are deleted from the target Catalog File.

CATMERGE is particularly useful when the target Catalog File (such as MASTER.CAT) becomes so large that updating single disks into it becomes a time-consuming process. CATUPD can be used to update these disks into a temporary working Catalog File, and, at a later time, CATMERGE can be used to merge this temporary, working Catalog File into the target Catalog File.

CATMERGE performs its operations by reading from both the target file and the merging files, creating a new target file named $WORK$.CAT. Once the new target file is completed, either the old one is renamed with a file type of .BAK. $WORK$.CAT is then renamed to the original target Catalog File name.

Error Messages:

Standard

Defaults:

If a Catalog File's file type is not specified, CAT is assumed.

If the F option is not used, the target Catalog File is assumed to be MASTER.CAT.

Examples of Use:

    CATMERGE WORKING   -- Merge WORKING.CAT into
                                 MASTER.CAT

    CATMERGE CAT1,CAT2 F'MAST'
                              -- Merge CAT1.CAT and CAT2.CAT
                                 into MAST.CAT

2.6. CATNAME

Name of DISCAT Program: CATNAME

Synopsis:

    CATNAME is used to place a name on a disk.

Command Line Arguments:

    <disk name> <option>

Options: Q

Function:

    CATNAME is used to place a name on a disk. Under the DISCAT System, all disks must have a name placed on them. The name of a disk is actually an empty file placed in the disk directory whose name begins with a space and contains up to seven distinctive characters followed by a disk type. A suggested form for a disk name is:

    <7-char descriptive disk name>
    <2-char box ID>
    <1-digit disk ID (0-9)>

    The disk name file is made Read/Only by CATNAME. It may exist in any user area on the disk, but only one disk name is permitted per disk. Unless the user specifically gives the user area for the name to go into, the name will be placed in the current directory.

    When CATNAME is executed, it pauses, allowing the user to insert the disk to be named in the proper drive. It then deletes any existing names and writes the new disk name on the disk, making it R/O. Examples:

    PASCAL.L00   - PASCAL Disk in Box L0, Disk # 0

    DATA.D15   - Data Disk in Box D1, Disk # 5

Error Messages:

Standard

Defaults:

If the user does not specify a disk drive (ie, C:) in his command line, the current disk drive is used.

If the user does not specify a user area in his command line, the current user area is used.

Examples of Use:

CATNAME C:PASCAL.L00   -- Name disk in Drive C to
                               PASCAL.L00; place name
                               in default user area

CATNAME 15:BDSC.L01   -- Name disk in default drive
                               to BDSC.L01; place name
                               in user area 15

CATNAME B0:DATA.D15   -- Name disk in Drive B to
                               DATA.D15; place name in
                               user area 0

2.7. CATRMDSK

Name of DISCAT Program: CATRMDISK

Synopsis:

CATRMDSK is used to remove all information pertaining to a disk completely from a Catalog File. The amount of free space on the disk and all file entries associated with the disk are removed.

Command Line Arguments:

<optional list of disk names> <options>

Options: F, I, Q

Function:

CATRMDSK is used to remove ALL information pertaining to one or more disks from a Catalog File. CATRMDSK removes the name of the disk and all entries for that disk, as opposed to CATERASE which may be used to erase entries from a Catalog File but does NOT remove the name of the disk.

CATRMDSK can run in an inspect mode (option I), in which it asks the user for permission to remove each disk as it encounters them. The user manually confirms each disk to be removed.

CATRMDSK also has a quiet mode of operation (option Q) in which it does not tell the user what it is doing as it proceeds through the Catalog File.

CATRMDSK performs its function by building a working Catalog File named $WORK$.CAT. It writes the target Catalog File into this working file, removing entries and disks as it goes. When successfully completed, CATRMDSK renames it with a file type of BAK and then renames $WORK$.CAT to the original name.

Error Messages:

Standard

Defaults:

If the type of the Catalog File is omitted, the type .CAT is assumed.

The Catalog File is assumed to reside on the disk drive and in the user area specified at installation time.

If the name of the Catalog File is not specified, MASTER.CAT is assumed.

Examples of Use:

CATRMDSKPASCAL.LO1,BDSC.LOO -- Remove all information
                               from the Catalog
                               File about the
                               indicated disks

CATRMDSK *.LO? /I   -- Remove all information
                               from the Catalog
                               File on all disks
                               matching *.LO?, but
                               ask for permission
                               first

2.8. CATSCAN

Name of DISCAT Program: CATSCAN

Synopsis:

     CATSCAN is used to scan for selected files and disks in a Catalog File.

Command Line Arguments:

     <opt list of files> <opt list of disks> <options>

Options: F, N, P

Function:

     CATSCAN is used to scan a Catalog File and report on selected files entries in it. It can send its output to the CRT or to the printer in a paged fashion, and it can select certain files on all or specified disks.

     The specification of disks to CATSCAN takes precedence. For example, if files *.ASM and disks *.B* are specified, FIRST an entry is checked to see if its disk name matches *.B* and then its file name is checked. If the Negate option (N) is given, then files which do NOT match *.ASM are selected.

     If the optional list of disk names is omitted, all disks are selected. If the optional list of file names is also omitted, then all files on all disks are selected.

Error Messages:

     Standard

Defaults:

     If a Catalog File is not specified in the F option, MASTER.CAT is used.

     The CAT: directory is used unless it is not defined, in which case the current directory is used.

Examples of Use:

```
CATSCAN *.ASM,*.C,*.PAS   -- Report on Files matching
                                 *.ASM, *.C, and *.PAS
                                 on all disks
CATSCAN *.TXT,*.DAT *.D*,*.B*
                          -- Report on Files matching
                                 *.TXT and *.DAT on disks
                                 matching *.D* and *.B*
```

2.9. CATUPD

Name of DISCAT Program: CATUPD

Synopsis:

CATUPD is used to read a disk directory and update a Catalog File with the information contained in the target disk directory.

Command Line Arguments:

<optional file name list> <options>

Options: F, N, Q, R, W

Function:

CATUPD is used to update the contents of a Catalog File by directly reading the directory (all user areas) of a target disk and writing its file names into the Catalog File. If the disk was already in the file, then if a file name is missing from the disk, it is deleted from the Catalog File; if a file name is on the disk and not in the Catalog File, it is added to the Catalog File. The current free space (in K) remaining on the target disk is noted in the Catalog File as well.

CATUPD performs its function in the following manner:

1. If the Repeat Option is selected, CATUPD pauses, asking the user to load another disk or to abort.

2. The disk directory is loaded from the target disk; once the activity light on the disk drive goes out, the target disk may be removed and a new disk inserted

3. Files on the target disk are selected; they are compared against the omitted file list in the Catalog File and deleted if they match an entry, and then they are compared against the selected file list in the command line

4. The target Catalog File is opened for input, and a working file is opened for output

5. The update is performed from the target Catalog File thru CATUPD into the working file

6. The target Catalog File is deleted and the working file is renamed to the original target Catalog File name

Error Messages:

     Standard

     Target Disk NOT Named - Aborting
          -- a disk name was not found on the disk to be
              cataloged; use CATNAME to place one there

Defaults:

     If the F option is not used, MASTER.CAT is selected.

     The CAT: directory (or the current directory if CAT: is not
defined) is used to contain the Catalog File.

     The disk identified by the BACKUP: directory is used to
contain the target disk unless BACKUP: is not defined, in which
case disk B: is used.

Examples of Use:

     CATUPD   -- Update all files on the target disk
                     into MASTER.CAT in the home dir

     CATUPD *.ASM,*.C   -- Select files matching *.ASM
                     and *.C from the target disk

2.10. Common Options

The following sections document the various options which are common to several of the utilities in the DISCAT System.

2.10.1. Option: D - Delete Without Warning

The D option causes an existing Catalog File to be deleted. This option is intended to remove the need for user interaction with the utility once it has started so that the utility can be executed from a SUBMIT file. Thus, the user who set up the SUBMIT file does not need to worry about whether the delete query is going to appear.

WARNING: The user is NOT given an opportunity to reverse this action, so use this option carefully!

The D option is valid only for the CATMAKE utility.

2.10.2. Option: F - Catalog File

The F option is used to specify a Catalog File to be used with the associated command for this run only. If the F option is not used, all DISCAT System commands except for CATMAKE and CATNAME work with the Catalog File named MASTER.CAT by default. The F option is used to select a Catalog File to work with.

The F option must be followed by a file name surrounded by quotes or any other character. The general form of this option is:

<delimiter>filename.typ<delimiter>

The delimiters used with this option are used to mark the bounds of the FILENAME.TYP entry. They may be any valid character, and, if the F option is the last option in the command line, the ending delimiter is not required.

The FILENAME.TYP name is a standard CP/M file name. If the file type (.TYP) is omitted, a file type of .CAT is assumed. Examples:

```
MAST            -- MAST.CAT is the file
ASMDISKS.CT     -- ASMDISKS.CT is the file
```

As a full example, the following forms of the CATSCAN command are valid:

```
CATSCAN /F/MAST/      -- Scan MAST.CAT
CATSCAN /F'MAST       -- Scan MAST.CAT
```

The F option is used only by the CATERASE, CATFREE, CATMERGE, CATRMDSK, CATSCAN, and CATUPD utilities.

2.10.3. Option: I – Inspect Entries

The I option is used to inspect files or disks before an erase action is done. The name of the file or disk to be erased from the Catalog File will be displayed for the user. Type Y to have the action performed or any other character to abort it.

The I option is used only by the CATERASE and CATRMDSK utilities.

2.10.4. Option: N – Negate Selection

The N option is used to select all files other than those given in the command line. For example:

```
CATSCAN      *.ASM      /N
```

selects all files which do NOT match *.ASM on the default Catalog File, MASTER.CAT.

The N option is used only by the CATERASE, CATSCAN, and CATUPD utilities.

2.10.5. Option: O – Do NOT Enter Omitted Files

The O option is used to skip the entry of omitted files from the Catalog File. CATMAKE normally prompts the user for a list of files to omit from the Catalog File it is creating. The O option prevents this prompt from occurring. This option suppresses interactive messages to the user. Thus, CATMAKE can be used in a SUBMIT file without the user having to worry about the SUBMIT file stopping due to the need for user interaction.

The O option is used only by the CATMAKE utility.

2.10.6. Option: P – Output to Printer

The P option causes the information display to be sent to the printer (CP/M LST: device) instead of the console (CP/M CON: device).

The P option is used only by the CATFREE and CATSCAN utilities.

2.10.7. Option: Q - Quiet

The Q option causes informative messages which are normally generated during the execution of a utility to be suppressed. Certain commands generate many screens of informative messages while they run. Thus, the user can omit these messages by using the Q command. Errors are still displayed if they occur.

The Q option is used only by the CATERASE, CATMERGE, CATNAME, CATRMDSK, and CATUPD utilities.

2.10.8. Option: R - Repeat

The R option causes the CATUPD command to prompt the user to insert the next disk. With this option, CATUPD will repeatedly update one disk after another without returning to the Operating System.

The R option is used only by the CATUPD utility.

2.10.9. Option: W - Use WORKING.CAT File

The CATUPD utility can be made to use a special Catalog File called WORKING.CAT for its update by means of the W option. If WORKING.CAT does not exist, CATUPD will create it and then proceed with the update.

The W option should be used when the Master Catalog File (MASTER.CAT) becomes large. Updates into MASTER.CAT become slower as the file becomes larger. It is preferred to update into a smaller, working Catalog File and then, after updating several disks into this working file, merge it into MASTER.CAT via the CATMERGE utility. The W option provides a convenient way to specify and deal with a working Catalog File.

For example,

CATUPD /W

creates WORKING.CAT if it does not exist or appends to WORKING.CAT if it does and updates all files from the default disk drive into WORKING.CAT.

The W option is used only by the CATUPD utility.

2.10.10. Option Summary

     The following table summarizes the options available under
the utilities of the DISCAT System.

Option   Used by DISCAT System Utilities

D - Delete   CATMAKE
F - Catalog File   CATERASE, CATFREE, CATMERGE, CATRMDSK,
                         CATSCAN, CATUPD
I - Inspect   CATERASE, CATRMDSK
N - Negate   CATERASE, CATSCAN, CATUPD
O - Omitted Files   CATMAKE
P - Print   CATFREE, CATSCAN
Q - Quiet   CATERASE, CATMERGE, CATNAME, CATRMDSK,
                         CATUPD
R - Repeat   CATUPD
W - Working File   CATUPD

2.11. Common Error Messages

For the sake of consistency, the utilities in the CAT System generate the same error messages when certain error conditions occur during their operation. The following summarizes the error messages common to the utilities of the DISCAT System.

2.11.1. AFN NOT Allowed

Cause of Error: The Catalog File specified in the F option contains a wild card character, which is either an asterisk (*) or a question mark (?). Such a character is not allowed.

User Response: The command line must be reissued with an unambiguous Catalog File name.

2.11.2. Catalog Structure Error

Cause of Error: The Catalog File currently being read by the utility has been damaged in some way. The Catalog File cannot be found.

User Response: The only way to restore this file is to obtain its backup copy or to create a new file from scratch. The CATCHECK program is used to check the validity of a Catalog File, and it can be used to help identify the location of the error. CATCHECK identifies errors only and does NOT assist in reconstruction. This error is usually irrecoverable. Before attempting to recreate the Catalog File, run CATCHECK on it to verify the error. If CATCHECK gives the file a clean bill of health, then this error message was caused by the Catalog File not being found. This is caused by the Catalog File not residing in the directory named CAT, or, if there is no directory named CAT, then the Catalog File did not reside in the current directory.

2.11.3. Directory Full

Cause of Error: In attempting to create a file on a disk, the disk directory has reached its limit and there is not enough room for another entry. There may still be room on disk, but no more files can be placed on it because there is no room in the disk directory.

User Response: Either erase one or more files from the disk which the Catalog File is on or place the Catalog File onto another disk.

2.11.4. Disk Full

Cause of Error: There is no more space on disk for any
files, in particular the file being created by the utility in
use.

User Response: Either erase one or more files from the disk
which the Catalog File is on or place the Catalog File onto
another disk.

3. D I S C A T   M E N U S

DISCAT was written with ZCPR3 in mind, and, as such, ZCPR3
MENU files are provided in the DISCAT distribution. These files
may be executed by the ZCPR3 MENU utility (if their file type is
*.MNU) or by the ZCPR3 VMENU utility (if their file type is
*.VMN). The user must have ZCPR3 and its MENU and VMENU
utilities installed on his computer in order to take advantage of
these Menu files.

There are three Menu files provided:

        DISCAT1.MNU
                -- a simple menu which deals with only one
                        Master Catalog File (uses MENU)

        DISCAT2.MNU
                -- a slightly more complex menu which can
                        deal with as many Master Catalog Files
                        as desired (uses MENU)

        DISCATV.VMN
                -- as many Master Catalog Files as desired
                        may be dealt with but the selection is
                        thru a file pointer (uses VMENU)

The menu files relieve much of the overhead of maintaining a
catalog system by providing many of the more commonly-used
functions and command line sequences at the fingertips of the
user. Rather than typing out the characters of each command when
the user wants to run at DISCAT utility, the menu file allows him
to examine a menu, type one letter, enter any options desired,
and watch the command run.

This facility is invoked by the command

                        MENU menufile.MNU
or
                        VMENU *.CAT menufile.VMN

being issued. Once this is done, the DISCAT Menu (with high-
lighting as appropriate) will be displayed. The user may then
strike the single letter of the command he wants to execute (case
is not significant), and that command will be executed after the
user provides the appropriate prompted inputs.

3.1. DISCAT MENU 1

The following figure is a close approximation of the menu which will be displayed to the user when the command

MENU DISCAT1.MNU

is issued.

```
_____
                    DISCAT Menu SubSystem 1

-- MASTER Catalog Functions --        -- WORKING Catalog Functions --

F - Free Space Scan                   1 - Update WORKING Catalog
M - Merge WORKING Catalog into        2 - Delete WORKING Catalog
      MASTER Catalog                  3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog



-- General Catalog Functions --       -- Miscellaneous Functions --

B - Backup the MASTER Catalog            W - VFILER
C - Create a New Catalog File            X - Dir
N - Place a Name on a Disk               Z - ZCPR3 Cmd
```

-- **Figure: DISCAT MENU 1** --

The user may now issue any of the following single-character commands: 1, 2, 3, B, C, F, M, N, S, U, V, W, X, and Z. These commands are described below.

3.1.1. MASTER Catalog Functions

These functions affect the Master Catalog directly. The Master Catalog referred to here is the same as the default catalog file which was specified at installation time.

F - Free Space Scan

The F command prints out a display of the free space on the disks specified by the user. It prompts the user for the names of the disks to scan for (use *.* to select all disks), and it then generates a display on the CRT.

Prompt: Names of Disks --

DISCAT Command Used: CATFREE

Command Line Generated: CATFREE <user input>

M - Merge WORKING Catalog into MASTER

The M command merges the file WORKING.CAT into the Master Catalog file. It assumes that the information in WORKING.CAT is more current and modifies the Master Catalog file to reflect the changes to the disks contained in WORKING.CAT. Only references to those disks contained in WORKING.CAT are affected

Prompt: <None>

DISCAT Command Used: CATMERGE

Command Line Generated: CATMERGE WORKING

S - Scan MASTER Catalog

The S command scans the Master Catalog file for the files and disks specified by the user in response to the prompt. A list of files followed by a list of disks is accepted as input. If the list of disks is omitted, all disks are scanned.

Prompt: Input Files and Disks to Scan For --

DISCAT Command Used: CATSCAN

Command Line Generated: CATSCAN <user input>

U – Update MASTER Catalog

The U command allows the user to mount one disk after another into the target disk drive (specified at installation time) and update the contents of these disks directly into the Master Catalog file. The user is prompted to mount one disk, the update is done, and the user is then prompted for the next disk. This can continue indefinitely and is terminated by the user typing ^C.

Prompt: <None – comes from CATUPD>

DISCAT Command Used: CATUPD

Command Line Generated: CATUPD /R

V – Verify MASTER Catalog

The V command allows the user to check the Master Catalog file to make sure that is has not been corrupted. If all is well, information on the contents of the Master Catalog file, such as number of disks it contains, is displayed when done.

Prompt: <None>

DISCAT Command Used: CATCHECK

Command Line Generated: CATCHECK MASTER

3.1.2. WORKING Catalog Functions

1 – Update WORKING Catalog

The 1 command allows the user to update the contents of the file WORKING.CAT. If WORKING.CAT does not exist, it is created as a Working Catalog file. In response to this command, the user is prompted to mount a disk. When done, the catalog is updated and the user is prompted again. This continues indefinitely until the user strikes a ^C in response to the prompt.

Prompt: <None – CATUPD prompts>

DISCAT Command Used: CATUPD

Command Line Generated: CATUPD /WR

2 - Delete WORKING Catalog

The file WORKING.CAT is deleted. It is intended to eventually merge WORKING.CAT into the Master Catalog file after WORKING.CAT has been updated for a while. After this merge occurs, there is no need to keep WORKING.CAT around, so this command provides a convenient way to delete WORKING.CAT.

Prompt: <None>

DISCAT Command Used: <None>

Command Line Generated: ERA WORKING.CAT

3 - Cleanup WORKING Files

All *.BAK files and the file WORKING.CAT are deleted.

Prompt: <None>

DISCAT Command Used: <None>

Command Line Generated: ERA *.BAK;ERA WORKING.CAT

3.1.3. General Catalog Functions

B - Backup the MASTER Catalog

The B command backs up the Master Catalog file to as many disks as desired. The MCOPY command is used to do this, so the directory named BACKUP is the directory which is copied to. If there is no directory named BACKUP on the user's ZCPR3 system, the directory BO: is used. See the documentation on the MCOPY command (in the corresponding ZCPR3 HLP file) for details on MCOPY.

Prompt: <None - MCOPY prompts>

DISCAT Command Used: <None>

Command Line Generated: MCOPY MASTER.CAT M

C - Create a New Catalog File

The C command is used to create a new catalog file. It prompts the user for the name of the file (default file type is CAT), and it allows him to specify its parameters, such as the names of the omitted files.

Prompt: Name of Catalog File to Create --

DISCAT Command Used: CATMAKE

Command Line Generated: CATMAKE <user input>

N - Place a Name on a Disk

The N command is used to place a disk name on the disk in the default destination drive (specified at installation time). All disks referenced by DISCAT must be named.

Prompt: Name of Disk --

DISCAT Command Used: CATNAME

Command Line Generated: CATNAME <user input>

3.1.4. Miscellaneous Functions

W - VFILER

The W command invokes VFILER as a subshell under the current MENU. The full resources of VFILER are available to the user.

Prompt: <None>

DISCAT Command Used: <None>

Command Line Generated: VFILER

X - Dir

The X command invokes XD to display the directory of the current dir to the user.

Prompt: <None>

DISCAT Command Used: <None>

Command Line Generated: XD

Z - ZCPR3 Cmd

The Z command allows the user to enter any ZCPR3 command line he wishes. The MENU is terminated, the command line is executed, and the user is returned to the DISCAT Menu.

Prompt: Enter Command Line --

DISCAT Command Used: <None>

Command Line Generated: <user input>

3.2. DISCAT MENU 2

The following figure is a close approximation of the menu which will be displayed to the user when the command

MENU DISCAT2.MNU

is issued.

DISCAT Menu SubSystem 2
                          MASTER Catalog: MASTER.CAT

-- MASTER Catalog Functions --   -- WORKING Catalog Functions --

D - Define MASTER Catalog
F - Free Space Scan   1 - Update WORKING Catalog
M - Merge WORKING Catalog into   2 - Delete WORKING Catalog
      MASTER Catalog   3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog

-- General Catalog Functions --   -- Miscellaneous Functions --

B - Backup the MASTER Catalog   W - VFILER
C - Create a New Catalog File   X - Dir
N - Place a Name on a Disk   Z - ZCPR3 Cmd

-- Figure: DISCAT MENU 2 --

The user may now issue any of the following single-character commands: 1, 2, 3, B, C, D, F, M, N, S, U, V, W, X, and Z. These commands are the same as those described above except for the D command, which is described below.

D - Define MASTER Catalog

The ZCPR3 System File 1 is used to contain the name of the Master Catalog file to be used in this menu. The D command allows the user to interactively define this name, thereby selecting his Master Catalog File dynamically. This menu is useful if more than one major catalog file is to be employed. The user must be sure to run the D command before any other command so that the proper Master Catalog file is used.

Prompt: Enter File Name --

DISCAT Command Used: <None>

Command Line Generated: SETFILE 1 <user input>

3.3. DISCAT VMENU

The following figure is a close approximation of the menu which will be displayed to the user when the command

VMENU *.CAT DISCATV.VMN

is issued.

```
_____

No File       --> MASTER  .CAT      HDISK   .CAT      MYDISK  .CAT
SIGM    .CAT      CPMUG   .CAT



                    DISCAT VMenu SubSystem

-- MASTER Catalog Functions --        -- WORKING Catalog Functions --
F - Free Space Scan                    1 - Update WORKING Catalog
M - Merge WORKING Catalog into         2 - Delete WORKING Catalog
      MASTER Catalog                   3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog


-- General Catalog Functions --        -- Miscellaneous Functions --
B - Backup the MASTER Catalog             W - VFILER
C - Create a New Catalog File             X - Dir
N - Place a Name on a Disk                Z - ZCPR3 Cmd
```

— Figure: DISCAT VMENU —

The user may now issue any of the following single-character commands: 1, 2, 3, B, C, F, M, N, S, U, V, W, X, and Z. These commands are the same as those described above. In all cases, the file being pointed to is the Master Catalog file which is used for the indicated function.

4. U S I N G   D I S C A T

The purpose of this chapter is to show the user how the author uses the DISCAT System. Learning by example is sometimes worth a thousand words, which is what it would take to describe the philosophy of use of DISCAT in every detail.

This chapter begins with a description of the ZCPR3 working environment: how the directories were set up, how the files to be used were distributed, how the path was set up, and how the CAT alias was set up. Once this is explained, a real-world example of the use of the DISCAT MENU 2 is shown on an actual set of disks.

4.1. DISCAT System Environment

4.1.1. Files Used

I am using a hard disk system, and Disk B, User 8 contains the Master Catalog files and the Menu files. I currently have two Master Catalog files -- MASTER.CAT contains all of my disks and HDISK.CAT contains the information on the hard disk.

```
B8:CAT>xd /oa
XD III   Version 1.2
Filename.Typ Size K   Filename.Typ Size K   Filename.Typ Size K
-------- --- ------   -------- --- ------   -------- --- ------
HDISK    .CAT      8  ST       .COM      4  DISCAT2 .MNU      4
MASTER   .CAT     68  DISCAT   .MNU      4  DISCATV .VMN      4
         B  8: CAT --    6 Files Using     92K ( 2516K Left)
```

The utilities of the DISCAT System are on A: (A8). Copies of the DISCAT Menu files (*.MNU and *.VMN) and the ST.COM file (used by CD) are included here.

```
B8:CAT>xd a: /oa
XD III   Version 1.2
Filename.Typ Size K   Filename.Typ Size K   Filename.Typ Size K
-------- --- ------   -------- --- ------   -------- --- ------
CATCHECK.COM      8   CATMERGE.COM      8   ST       .COM      4
CATERASE.COM      8   CATNAME .COM      8   DISCAT   .MNU      4
CATFREE .COM      4   CATRMDSK.COM      8   DISCAT2 .MNU      4
CATNOTE .TXT     12   CATSCAN .COM      8   DISCATV .VMN      4
CATMAKE .COM      8   CATUPD  .COM      8
         A  8:   --   14 Files Using     96K ( 1276K Left)
```

All the other programs I will need (such as MENU.COM) are located in the ROOT: directory.

```
B8:CAT>xd root:*.com aaoa
XD III   Version 1.2
Filename.Typ Size K   Filename.Typ Size K   Filename.Typ Size K
-------- --- ------   -------- --- ------   -------- --- ------
ALIAS    .COM     4   DU3      .COM    12   IF       .COM     4
BAD      .COM    28   ECHO     .COM     4   IFSTAT   .COM     4
BANNER   .COM     4   ED       .COM     8   INUSE    .COM     4
BOOTHD   .COM     4   ERASE    .COM     4   LDIRZ    .COM     8
CALC     .COM     4   ERROR1   .COM     4   LDR      .COM     4
CALENDAR.COM     16   ERROR2   .COM     4   LRUNZ    .COM     4
CAT      .COM     4   ERROR3   .COM     4   LU       .COM    20
CD       .COM     4   ERROR4   .COM     4   MBASIC   .COM    24
CLEANDIR.COM      4   ERRORX   .COM     4   MCOPY    .COM     4
CMD      .COM     4   FINDBAD  .COM     4   MEMTEST  .COM     4
CMDRUN   .COM     4   FINDF    .COM     4   MENU     .COM     4
COMMENT  .COM     4   FORMAT2  .COM     4   MENUCK   .COM     4
CONFIG   .COM    20   FORMATHD.COM      8   MKDIR    .COM     8
CPSEL    .COM     4   FR       .COM    12   MU3      .COM     4
CRC      .COM     8   GETSYS   .COM    12   NOTE     .COM     4
DDT      .COM     8   GOTO     .COM     4   PAGE     .COM     8
DEV      .COM     4   HDSYSGEN.COM      4   PATH     .COM     4
DEVICE   .COM     4   HELP     .COM     4   PIP      .COM     8
DIFF     .COM     4   HELPCK   .COM     4   PRINT    .COM     8
DIR      .COM     4   HELPPR   .COM     8   PROTECT  .COM     4

    --> Screen Break -- Strike any char <--
Filename.Typ Size K   Filename.Typ Size K   Filename.Typ Size K
-------- --- ------   -------- --- ------   -------- --- ------
PWD      .COM     4   SHFILE   .COM     4   UNLOAD   .COM     4
Q        .COM     4   SHOW     .COM     8   USQ      .COM    12
QUIET    .COM     4   SHSET    .COM     4   VFILER   .COM    12
RCOPY    .COM     4   SHVAR    .COM     4   VMENU    .COM     8
RECORD   .COM     4   SQ       .COM    16   WHEEL    .COM     4
REG      .COM     4   STARTUP  .COM     4   WM       .COM    12
REGEN    .COM     4   STAT     .COM     8   XD       .COM     4
RENAME   .COM     4   SUB      .COM     4   XDIR     .COM     8
SAK      .COM     4   T3       .COM    16   Z3INS    .COM     4
SCRAMBLE.COM      4   TCCHECK  .COM     4   Z3LOC    .COM     4
SETFILE  .COM     4   TCMAKE   .COM     8   ZDT      .COM     8
SGEN     .COM     4   TCSELECT.COM      4   ZEX      .COM     8
SH       .COM     4   TIME     .COM     8   ZRUN     .COM     4
SHCTRL   .COM     4   TINIT    .COM     4   ZSID     .COM    12
SHDEFINE.COM      4   UNERASE  .COM     4
     A 15: ROOT --   104 Files Using     656K ( 1276K Left)
```

4.1.2. Command-Search Path

The ZCPR3 command-search path leads to the ROOT: directory and passes thru A8 (where the DISCAT System is) when I am logged into the CAT: directory (B8).

```
B8:CAT>path
PATH  Version 3.0
 Symbolic Form: A$:  --> A15:
 DU Form:       A8:  --> A15:
 DIR Form:      Noname: --> ROOT:
```

4.1.3. Aliases

I like to be able to access the DISCAT System from anywhere on the machine. Most of the time I just want to scan the Master Catalog file (MASTER.CAT) for something, and the rest of the time my needs are complex enough to merit entering the CAT: directory itself to do my work. To make these two functions very easy to perform, I have defined a global Alias in the ROOT: directory (called CAT) which I can use for anywhere on the system since the command-search path always terminates in the ROOT: directory.

```
B8:CAT>root:;alias cat;cat:
ALIAS, Version 1.1
 Alias Name: CAT
 Old Alias Command Line:
  1 --> IF NUL $1;
  2 --> CAT:;
  3 --> MENU DISCAT.MNU;
  4 --> ELSE;
  5 --> A8:CATSCAN $*;
  6 --> FI

 Input Alias (RETURN to Abort)
 -->
```

With this Alias, if I issue a command like "CAT", these events take place:

> 1. I am logged into the directory CAT: (line 2)
> 2. MENU DISCAT.MNU is run (line 3)

Also, if I issue a command like "CAT arguments" (such as "CAT *.ASM *.L*"), the following command line is executed:

> A8:CATSCAN arguments

(such as "A8:CATSCAN *.ASM *.L*").

The following terminal session illustrates the CAT Alias.

B8:CAT>O:

B:SCR1>; the CAT alias can work from anywhere:

B:SCR1>cat cat*.mac

CATSCAN, Version 1.1

Catalog Scan of MASTER .CAT   Dated 2:24:12 PM June 24, 1984

Filename.Typ	Dskname.Dsk	Dskname.Dsk	Dskname.Dsk	Dskname.Dsk
CATCHECK.MAC	BACKUP .B19	CAT .P09	SOURCE .S19	
CATERASE.MAC	BACKUP .B19	CAT .P09	SOURCE .S19	
CATFREE .MAC	BACKUP .B19	CAT .P09	SOURCE .S19	
CATMAKE .MAC	BACKUP .B19	CAT .P09	SOURCE .S19	
CATMERGE.MAC	BACKUP .B19	CAT .P09	SOURCE .S19	
CATNAME .MAC	BACKUP .B19	CAT .P09	SOURCE .S19	
CATRMDSK.MAC	BACKUP .B19	CAT .P09	SOURCE .S19	
CATSCAN .MAC	BACKUP .B19	CAT .P09	SOURCE .S19	
CATUPD .MAC	BACKUP .B19	CAT .P09	SOURCE .S19	

B:SCR1>; or if I need to do even more ...

B:SCR1>cat

 Shell Installed
MENU Version 3.2
                         DISCAT Menu SubSystem 1

-- MASTER Catalog Functions --   -- WORKING Catalog Functions --

F - Free Space Scan   1 - Update WORKING Catalog
M - Merge WORKING Catalog into   2 - Delete WORKING Catalog
       MASTER Catalog   3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog

-- General Catalog Functions --   -- Miscellaneous Functions --

B - Backup the MASTER Catalog   W - VFILER
C - Create a New Catalog File   X - Dir
N - Place a Name on a Disk   Z - ZCPR3 Cmd

B8> Command (CR=Menu, ^C=Z3) - S
Input Files and Disks to Scan For -- cat*.mac

The DISCAT SYSTEM

CATSCAN, Version 1.1

```
Catalog Scan of MASTER   .CAT    Dated 2:24:12 PM   June 24, 1984
Filename.Typ     Dskname.Dsk   Dskname.Dsk   Dskname.Dsk   Dskname.Dsk
------------     -----------   -----------   -----------   -----------
CATCHECK.MAC     BACKUP .B19   CAT     .P09   SOURCE .S19
CATERASE.MAC     BACKUP .B19   CAT     .P09   SOURCE .S19
CATFREE .MAC     BACKUP .B19   CAT     .P09   SOURCE .S19
CATMAKE .MAC     BACKUP .B19   CAT     .P09   SOURCE .S19
CATMERGE.MAC     BACKUP .B19   CAT     .P09   SOURCE .S19
CATNAME .MAC     BACKUP .B19   CAT     .P09   SOURCE .S19
CATRMDSK.MAC     BACKUP .B19   CAT     .P09   SOURCE .S19
CATSCAN .MAC     BACKUP .B19   CAT     .P09   SOURCE .S19
CATUPD  .MAC     BACKUP .B19   CAT     .P09   SOURCE .S19
MENU  Version 3.2 Strike Any Key -
```

<< And Back to the Menu >>

4.1.4. Aliases and CD

Finally, one last item to mention is the ST.COM file. This is another Alias which is executed by the CD command. From any directory, I can issue the command:

CD CAT:

and CD will log me into the CAT: directory and, if it finds ST.COM, it will run it. ST.COM contains a simple invocation of my DISCAT.MNU file, but it could be more involved, such as running SETFILE to define System File 1 to be MASTER.CAT and then invoking MENU on DISCAT2.MNU. The following session illustrates the use of CD and ST.

My current definition of ST is:

```
B8:CAT>alias st
ALIAS, Version 1.1
 Alias Name: ST
 Old Alias Command Line:
  1 --> MENU DISCAT.MNU

 Input Alias (RETURN to Abort)
 -->
```

I will now change it to use DISCAT2.MNU:

```
B8:CAT>prot st.com
 ST       .COM Set to R/W

B8:CAT>alias st
ALIAS, Version 1.1
 Alias Name: ST
 Old Alias Command Line:
  1 --> MENU DISCAT.MNU

 Input Alias (RETURN to Abort)
 --> setfile 1 master.cat;menu discat2.mnu
 File ST       .COM Exists - Overwrite (Y/N)? Y

 Alias Created

B8:CAT>alias st
ALIAS, Version 1.1
 Alias Name: ST
 Old Alias Command Line:
  1 --> SETFILE 1 MASTER.CAT;
  2 --> MENU DISCAT2.MNU

 Input Alias (RETURN to Abort)
 -->
```

To illustrate its use, let us use CD from user area 0:

```
B8:CAT>0:

B:SCR1>cd cat:
 Logging Into B8:CAT

SETFILE, Version 1.0
 File Name 1 is MASTER   .CAT
 Shell Installed
MENU   Version 3.2
                         DISCAT Menu SubSystem 2
                                 MASTER Catalog: MASTER.CAT


-- MASTER Catalog Functions --          -- WORKING Catalog Functions --

D - Define MASTER Catalog
F - Free Space Scan                     1 - Update WORKING Catalog
M - Merge WORKING Catalog into          2 - Delete WORKING Catalog
      MASTER Catalog                    3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog


-- General Catalog Functions --         -- Miscellaneous Functions --

B - Backup the MASTER Catalog              W - VFILER
C - Create a New Catalog File              X - Dir
N - Place a Name on a Disk                 Z - ZCPR3 Cmd




B8> Command (CR=Menu, ^C=Z3) - S
Input Files and Disks to Scan For -- cat*.* *.p*
```

CATSCAN, Version 1.1

Catalog Scan of MASTER .CAT Dated 2:24:12 PM June 24, 1984				
Filename.Typ	Dskname.Dsk	Dskname.Dsk	Dskname.Dsk	Dskname.Dsk
CAT .HLP	CAT .P09			
CATCHECK.COM	CAT .P09			
CATCHECK.MAC	CAT .P09			
CATERASE.COM	CAT .P09			
CATERASE.MAC	CAT .P09			
CATFREE .COM	CAT .P09			
CATFREE .MAC	CAT .P09			
CATMAKE .COM	CAT .P09			
CATMAKE .MAC	CAT .P09			
CATMERGE.COM	CAT .P09			
CATMERGE.MAC	CAT .P09			
CATNAME .COM	CAT .P09			
CATNAME .MAC	CAT .P09			
CATRMDSK.COM	CAT .P09			
CATRMDSK.MAC	CAT .P09			
CATSCAN .COM	CAT .P09			
CATSCAN .MAC	CAT .P09			
CATUPD .COM	CAT .P09			

   << Screen Break -- Strike ^C to Stop, Otherwise Continue >>

Catalog Scan of MASTER .CAT Dated 2:24:12 PM June 24, 1984				
Filename.Typ	Dskname.Dsk	Dskname.Dsk	Dskname.Dsk	Dskname.Dsk
CATUPD .MAC	CAT .P09			

MENU   Version 3.2 Strike Any Key -

              << And Back to the Menu >>

4.2. Menu-Based Sample Session

The following is a sample session which illustrates how the
DISCAT2.MNU file can be used to create a Catalog File, name
disks, update the Catalog File, display its contents, and perform
other functions with it.

First, let us examine and establish our environment:

```
B8:CAT>xd /oa
XD III  Version 1.2
Filename.Typ Size K   Filename.Typ Size K   Filename.Typ Size K
----------- --- ------   ----------- --- ------   ----------- --- ------
HDISK   .CAT     8 ST      .COM     4 DISCAT2 .MNU     4
MASTER  .CAT    68 DISCAT  .MNU     4 DISCATV .VMN     4
        B 8: CAT --   6 Files Using    92K ( 2436K Left)

B8:CAT>setfile 1 master.cat
SETFILE, Version 1.0
 File Name 1 is MASTER   .CAT
```

4.2.1. Step 1: Creating DEMO.CAT

Now to install MENU with DISCAT2.MNU as its parameter. The
first function to be performed is to create the Catalog File
DEMO.CAT. The C command is used to do this.

```
B8:CAT>menu discat2.mnu
 Shell Installed
MENU  Version 3.2
                        DISCAT Menu SubSystem 2
                                MASTER Catalog: MASTER.CAT


-- MASTER Catalog Functions --          -- WORKING Catalog Functions --

D - Define MASTER Catalog
F - Free Space Scan                     1 - Update WORKING Catalog
M - Merge WORKING Catalog into          2 - Delete WORKING Catalog
      MASTER Catalog                    3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog


-- General Catalog Functions --         -- Miscellaneous Functions --

B - Backup the MASTER Catalog               W - VFILER
C - Create a New Catalog File               X - Dir
N - Place a Name on a Disk                  Z - ZCPR3 Cmd



B8> Command (CR=Menu, ^C=Z3) - C
```

```
Name of Catalog File to Create -- demo.cat
CATMAKE, Version 1.1
Creating Catalog File B  8: DEMO     .CAT
Input Names of Files to Omit --
File Name (RETURN to Exit)?
Omitted File List --
CATMAKE Command (? for Help)? ?
CATMAKE Commands are --
   A - Add Files
   D - Delete a File
   L - List Files
   X - Exit
CATMAKE Command (? for Help)? X
```

Now that the file DEMO.CAT has been created, let us define it to the DISCAT2 Menu as the MASTER Catalog. The D command is used for this.

```
MENU  Version 1.2
                    DISCAT Menu SubSystem 2
                                    MASTER Catalog: MASTER.CAT


-- MASTER Catalog Functions --         -- WORKING Catalog Functions --

D - Define MASTER Catalog
F - Free Space Scan                    1 - Update WORKING Catalog
M - Merge WORKING Catalog into         2 - Delete WORKING Catalog
       MASTER Catalog                  3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog


-- General Catalog Functions --        -- Miscellaneous Functions --

B - Backup the MASTER Catalog              W - VFILER
C - Create a New Catalog File              X - Dir
N - Place a Name on a Disk                 Z - ZCPR3 Cmd




B8> Command (CR=Menu, ^C-Z)? - D
Enter File Name -- demo.cat
SETFILE, Version 1.0
 File Name 1 is DEMO     .CAT
```

4.2.2. Step 2: Verifying DEMO.CAT

DEMO.CAT has been created, so we can run a verify check on
it. The V command is used for verification of the MASTER Catalog
file.

MENU   Version 3.2
                        DISCAT Menu SubSystem 2
                                      MASTER Catalog: DEMO.CAT

-- MASTER Catalog Functions --   -- WORKING Catalog Functions --

D - Define MASTER Catalog
F - Free Space Scan   1 - Update WORKING Catalog
M - Merge WORKING Catalog into   2 - Delete WORKING Catalog
      MASTER Catalog   3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog

-- General Catalog Functions --   -- Miscellaneous Functions --

B - Backup the MASTER Catalog   W - VFILER
C - Create a New Catalog File   X - Dir
N - Place a Name on a Disk   Z - ZCPR3 Cmd

B8> Command (CR=Menu, ^C=Z3) - V
CATCHECK, Version 1.1

<< Report on Catalog File DEMO   .CAT >>
    Number of Omitted Files: 0
    Number of Disks: 0
    Number of Catalog Files: 0
    Number of Catalog Entries: 0
MENU   Version 3.2 Strike Any Key -

4.2.3. Step 3: Naming Disks

Finally, we are almost ready to go. The last major step
before we begin is to name all of the disks to be cataloged. The
N command is used for this.

                        DISCAT Menu SubSystem 2
                                        MASTER Catalog: DEMO.CAT

-- MASTER Catalog Functions --   -- WORKING Catalog Functions --

D - Define MASTER Catalog
F - Free Space Scan   1 - Update WORKING Catalog
M - Merge WORKING Catalog into   2 - Delete WORKING Catalog
       MASTER Catalog   3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog

-- General Catalog Functions --   -- Miscellaneous Functions --

B - Backup the MASTER Catalog   W - VFILER
C - Create a New Catalog File   X - Dir
N - Place a Name on a Disk   Z - ZCPR3 Cmd

B8> Command (CR=Menu, ^C=Z3) - N
Name of Disk -- backup1.dm1
CATNAME, Version 1.1
Please Mount Disk in Drive C
 -- Strike ^C to Abort, Otherwise Continue -
Naming Disk C to 31: BACKUP1.DM1

    The first disk is BACKUP1.DM1.

MENU Version 3.2
                        DISCAT Menu SubSystem 2

<< Menu Display >>

B8> Command (CR=Menu, ^C=Z3) - N
Name of Disk -- book1.dm2
CATNAME, Version 1.1
Please Mount Disk in Drive C
 -- Strike ^C to Abort, Otherwise Continue -
Naming Disk C to 31: BOOK1   .DM2

    The second disk is BOOK1.DM2.

MENU   Version 3.2
                         DISCAT Menu SubSystem 2

<< Menu Display >>

B8> Command (CR=Menu, ^C=Z3) - N
Name of Disk -- book2.dm3
CATNAME, Version 1.1
Please Mount Disk in Drive C
 -- Strike ^C to Abort, Otherwise Continue -
Naming Disk C to 31: BOOK2   .DM3

4.2.4. Step 4: Updating into WORKING.CAT

The third disk is BOOK2.DM3. Now we can begin. As a
general rule, I always do my direct updating into the file
WORKING.CAT (/W option) and then, when WORKING.CAT updates are
complete, merge WORKING.CAT into the Master Catalog file. In
this way, as the Master Catalog file grows, we can quickly update
into the WORKING.CAT file and only once in a while spend the time
to update into the Master Catalog file. The DISCAT utilities are
fast, but as files get larger, they slow down, and it is quickest
to use the WORKING.CAT file whenever possible and merge it into
the Master Catalog file once in a while. Function 1 allows the
user to update WORKING.CAT as much as desired.

MENU   Version 3.2
                         DISCAT Menu SubSystem 2
<< Menu Display >>

B8> Command (CR=Menu, ^C=Z3) - 1
CATUPD, Version 1.1
Please Mount Disk in Drive C
 -- Strike ^C to Abort, Otherwise Continue --
Adding   CLEANDIR.COM on BACKUP1.DM1

<< Detail Left Out >>

Please Mount Disk in Drive C
 -- Strike ^C to Abort, Otherwise Continue --
Adding   Z3USER .WS on BOOK1 .DM2

<< Detail Left Out >>

Please Mount Disk in Drive C
 -- Strike ^C to Abort, Otherwise Continue --
Adding   ZBINS6 .WS on BOOK2 .DM3

<< Detail Left Out >>

Please Mount Disk in Drive C
 -- Strike ^C to Abort, Otherwise Continue --

4.2.5. Step 5: Merging WORKING.CAT into DEMO.CAT

Now that WORKING.CAT contains the information on the three
disks, it can be merged into the Master Catalog file (DEMO.CAT):

MENU   Version 3.2
                         DISCAT Menu SubSystem 2
<< Menu Display >>

B8> Command (CR=Menu, ^C=Z3) - M
CATMERGE, Version 1.0
<< Merging WORKING .CAT into DEMO   .CAT >>
Adding   CLEANDIR.COM on BACKUP1.DM1

<< Detail Left Out >>

MENU   Version 3.2 Strike Any Key -

4.2.6. Step 6: Verifying DEMO.CAT

Now that DEMO.CAT has been updated, I always feel better if
I check it to make sure that all is well. The V (Verify) command
is used to check the Master Catalog file.

                         DISCAT Menu SubSystem 2
<< Menu Display >>

B8> Command (CR=Menu, ^C=Z3) - V
CATCHECK, Version 1.1

<< Report on Catalog File DEMO   .CAT >>
   Number of Omitted Files: 0
   Number of Disks: 3
   Number of Catalog Files: 88
   Number of Catalog Entries: 88
MENU   Version 3.2 Strike Any Key -

4.2.7. Step 7: Cleanup

All is well, so I can clean up the scratch files laying
around.
                         DISCAT Menu SubSystem 2
<< Menu Display >>

B8> Command (CR=Menu, ^C=Z3) - 3
 DEMO   .BAK
 WORKING .BAK
 WORKING .CAT
MENU   Version 3.2

Just to check things out, let's use the F command (Free
Space on disk) to look at the amount of space left on our three
disks.

DISCAT Menu SubSystem 2

<< Menu Display >>

B8> Command (CR=Menu, ^C=Z3) - F
Names of Disks -- *.*
CATFREE, Version 1.1

Disk Scan of DEMO   .CAT, Dated 11:38:15 AM July 22, 1984
     Dskname.Dsk Space K   Dskname.Dsk Space K   Dskname.Dsk Space K
     ----------- -------   ----------- -------   ----------- -------
     BACKUP1.DM1   110   BOOK1 .DM2   376   BOOK2 .DM3   194
MENU   Version 3.2 Strike Any Key -

4.2.8. Step 8: Backing up DEMO.CAT

All is fine. Now, use the B command to backup the new
Master Catalog file (DEMO.CAT). The directory named BACKUP and
the update directory are the same, so MCOPY copies directly into
the BACKUP directory and all works together nicely.

DISCAT Menu SubSystem 2

<< Menu Display >>

B8> Command (CR=Menu, ^C=Z3) - B
MCOPY Version 4.0 ^C to Quit -

Copy B 8: DEMO   .CAT to C 0:
 File DEMO   .CAT ... Done Verify ... Done
  0 Errors ^C to Quit -

MENU   Version 3.2

But this has changed the contents of BACKUP1.DM1, so let us update that disk directly into the Master Catalog file and backup again.

DISCAT Menu SubSystem 2

<< Menu Display >>

B8> Command (CR=Menu, ^C=Z3) - U
CATUPD, Version 1.1
Please Mount Disk in Drive C
  -- Strike ^C to Abort, Otherwise Continue --
Adding   DEMO   .CAT on BACKUP1.DM1
Please Mount Disk in Drive C
  -- Strike ^C to Abort, Otherwise Continue --

MENU Version 3.2
                      DISCAT Menu SubSystem 2

<< Menu Display >>

B8> Command (CR=Menu, ^C=Z3) - B
MCOPY Version 4.0 ^C to Quit -

Copy B 8: DEMO   .CAT to C 0:
 File DEMO   .CAT Replace ... Done Verify ... Done
  0 Errors ^C to Quit -

MENU Version 3.2

All functions are now complete, so ^C exits the MENU shell.

```
                      DISCAT Menu SubSystem 2
                                      MASTER Catalog: DEMO.CAT

-- MASTER Catalog Functions --        -- WORKING Catalog Functions --

D - Define MASTER Catalog
F - Free Space Scan                   1 - Update WORKING Catalog
M - Merge WORKING Catalog into        2 - Delete WORKING Catalog
      MASTER Catalog                  3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog

-- General Catalog Functions --       -- Miscellaneous Functions --

B - Backup the MASTER Catalog            W - VFILER
C - Create a New Catalog File            X - Dir
N - Place a Name on a Disk               Z - ZCPR3 Cmd




B8> Command (CR=Menu, ^C=Z3) - ^C

B8:CAT>
```

4.3. Command-Line-Based Sample Session

This section is intended to illustrate how the DISCAT utilities can be used directly to perform maintenance on a Master Catalog file. We will pick up where we left off from the previous menu-driven session.

First, let us examine the disk BACKUP1.DM1 and remove some files from it.

```
B8:CAT>xd c0: oa
XD III  Version 1.2
Filename.Typ Size K   Filename.Typ Size K   Filename.Typ Size K
-------- --- ------   -------- --- ------   -------- --- ------
DEBUGRCP.ASM    26  MU3     .HLP     6  SHSET   .MAC     4
DEMO    .CAT     2  VFILER  .HLP    22  TINIT   .MAC    10
CLEANDIR.COM     2  VMENU   .HLP    32  VFILER  .MAC    84
CMD     .COM     2  Z3UTIL3 .HLP     6  VMENU   .MAC    52
DU3     .COM    12  ZCPR3   .INS     4  Z3HDR   .MAC     2
GENPAR  .COM     2  SYSENV  .LIB     4  Z3PRS3  .MAC     8
MU3     .COM     4  Z3BASE  .LIB    10  DEBUG   .RCP     2
SHSET   .COM     2  CLEANDIR.MAC    12  Z3LIB   .REL     8
TINIT   .COM     4  CMD     .MAC     6  MENU    .VMN     2
VFILER  .COM    12  DU3     .MAC    80  PARITYEV.XLT     2
VMENU   .COM     6  GENPAR  .MAC     2  PARITYOD.XLT     2
DU3     .HLP    38  MU3     .MAC    16
       C  0: BACKUP --   35 Files Using   488K (  108K Left)

B8:CAT>era c0:tinit.*;era c0:*.ins
 TINIT   .COM
 TINIT   .MAC
 ZCPR3   .INS
```

4.3.1. Updating DEMO.CAT via CATUPD

Now that the disk has been changed, let's use CATUPD to record the new disk directly into DEMO.CAT.

```
B8:CAT>catupd /f'demo.cat'
CATUPD, Version 1.1
Deleting TINIT   .COM on BACKUP1.DM1
Deleting TINIT   .MAC on BACKUP1.DM1
Deleting ZCPR3   .INS on BACKUP1.DM1
```

4.3.2. Verifying DEMO.CAT via CATCHECK

A change has been made to DEMO.CAT, so let's verify that the file is still intact.

```
B8:CAT>catcheck demo
CATCHECK, Version 1.1

<< Report on Catalog File DEMO    .CAT >>
   Number of Omitted Files:    0
   Number of Disks:            3
   Number of Catalog Files:    86
   Number of Catalog Entries:  86
```

4.3.3. Scanning DEMO.CAT via CATSCAN

We can also scan it for a number of files. Note that the following command line scans the *.DM1 disk (BACKUP1.DM1) for all files which match *.MAC, *.COM, and *.INS in the DEMO.CAT Master Catalog file.

```
B8:CAT>catscan *.mac,*.com,*.ins *.dml f'demo.cat'
CATSCAN, Version 1.1

Catalog Scan of DEMO     .CAT    Dated 3:48:48 PM   July 22, 1984
Filename.Typ     Dskname.Dsk  Dskname.Dsk  Dskname.Dsk  Dskname.Dsk
------------     -----------  -----------  -----------  -----------
CLEANDIR.COM     BACKUP1.DM1
CLEANDIR.MAC     BACKUP1.DM1
CMD      .COM    BACKUP1.DM1
CMD      .MAC    BACKUP1.DM1
DU3      .COM    BACKUP1.DM1
DU3      .MAC    BACKUP1.DM1
GENPAR   .COM    BACKUP1.DM1
GENPAR   .MAC    BACKUP1.DM1
MU3      .COM    BACKUP1.DM1
MU3      .MAC    BACKUP1.DM1
SHSET    .COM    BACKUP1.DM1
SHSET    .MAC    BACKUP1.DM1
VFILER   .COM    BACKUP1.DM1
VFILER   .MAC    BACKUP1.DM1
VMENU    .COM    BACKUP1.DM1
VMENU    .MAC    BACKUP1.DM1
Z3HDR    .MAC    BACKUP1.DM1
Z3PRS3   .MAC    BACKUP1.DM1
```

4.3.4. Checking Free Space via CATFREE

We can also use CATFREE to see how much free space is on all the disks in DEMO.CAT. Note that the following STAT command verifies the CATFREE output.

```
B8:CAT>catfree *.* f'demo.cat'
CATFREE, Version 1.1

Disk Scan of DEMO     .CAT, Dated 3:48:48 PM   July 22, 1984
    Dskname.Dsk  Space K     Dskname.Dsk  Space K     Dskname.Dsk  Space K
    -----------  -------     -----------  -------     -----------  -------
    BACKUP1.DM1     126      BOOK1  .DM2     376      BOOK2  .DM3     194

B8:CAT>stat c0:

Bytes Remaining On C: 126k
```

4.3.5. Backup DEMO.CAT via MCOPY

MCOPY can be used to backup DEMO.CAT. Note that the destination directory is defined by the named directory BACKUP:.

```
B8:CAT>mcopy demo.cat
MCOPY  Version 4.0
Copy B  8: DEMO    .CAT to C  0:
 File DEMO     .CAT Replace ... Done  Verify ... Done
   0 Errors
```

4.3.6. Removing BACKUP1.DM1 from DEMO.CAT

For the purpose of academic illustration, let's remove all references to disk BACKUP1.DM1 from DEMO.CAT.

```
B8:CAT>catrmdsk *.dml f'demo.cat'
CATRMDSK, Version 1.1
The following disks will be removed from DEMO    .CAT
    ???????.DM1
  -- Proceed (Y/N)? Y
 << Removing Disk BACKUP1.DM1 >>
   Erasing CLEANDIR.COM on BACKUP1.DM1

<< Detail Left Out >>

   Erasing Z3UTIL3 .HLP on BACKUP1.DM1

B8:CAT>; now look ...
B8:CAT>catcheck demo
CATCHECK, Version 1.1

<< Report on Catalog File DEMO     .CAT >>
   Number of Omitted Files:     0
   Number of Disks:             2
   Number of Catalog Files:     54
   Number of Catalog Entries:   54

B8:CAT>catfree *.* f'demo'
CATFREE, Version 1.1

Disk Scan of DEMO     .CAT, Dated 3:48:48 PM  July 22, 1984
    Dskname.Dsk Space K    Dskname.Dsk Space K    Dskname.Dsk Space K
    ----------- -------    ----------- -------    ----------- -------
    BOOK1  .DM2    376     BOOK2  .DM3    194
```

5. D I S C A T   S Y S T E M   I N S T A L L A T I O N

The DISCAT System is installed on the user's ZCPR3 System by running the Z3INS program. The following sample session shows an installation of the DISCAT System.

5.1. Files to be Installed

All of the CAT*.COM files can be installed by Z3INS. These files should be placed into the current directory.

```
B11>xd /oa
XD III   Version 1.2
Filename.Typ Size K   Filename.Typ Size K   Filename.Typ Size K
-------- --- ------   -------- --- ------   -------- --- ------
CATCHECK.COM    8  CATMAKE .COM    8  CATRMDSK.COM    8
CATERASE.COM    8  CATMERGE.COM    8  CATSCAN .COM    8
CATFREE .COM    4  CATNAME .COM    8  CATUPD  .COM    8
     B 11:  --   9 Files Using    68K ( 2272K Left)
```

The CRCs of these files should be checked against the distribution list to make sure that all of the copies are good before proceeding with the installation. This can be done by using the ZCPR3 CRC utility:

<div align="center">CRC CAT*.COM</div>

5.2. Files Needed for Installation

Since the DISCAT System is installed by Z3INS, the following files are also required to perform the installation:

```
        Z3INS.COM      <-- the Installation Utility
        SYS.ENV        <-- the ZCPR3 Environment Descriptor
                            for the user's system
        DISCAT.INS     <-- the Installation File
```

5.3. Installation of DISCAT

In order to install the utilities of the DISCAT System, the command:

        Z3INS SYS.ENV DISCAT.INS

is issued. The following terminal session illustrates this.

```
B10>xd /oa
XD III  Version 1.2
Filename.Typ Size K   Filename.Typ Size K   Filename.Typ Size K
------------ ------   ------------ ------   ------------ ------
CATCHECK.COM    4     CATMERGE.COM    4     CATUPD  .COM    8
CATERASE.COM    4     CATNAME .COM    4     SYS     .ENV    4
CATFREE .COM    4     CATRMDSK.COM    4     DISCAT  .INS    4
CATMAKE .COM    4     CATSCAN .COM    4
       B 10:  --   11 Files Using     48K ( 2076K Left)


B10>z3ins sys.env discat.ins
Z3INS   Version 1.0
;
;   Installation File for DISCAT
;   This file may be executed by Z3INS
;     By Richard Conn, 22 July 1984
;
** Installing File CATCHECK.COM
** Installing File CATERASE.COM
** Installing File CATFREE .COM
** Installing File CATMAKE .COM
** Installing File CATMERGE.COM
** Installing File CATNAME .COM
** Installing File CATRMDSK.COM
** Installing File CATSCAN .COM
** Installing File CATUPD  .COM
;
;   End of Installation
;
** Installation Complete **
```

The user's DISCAT System is now installed. All CAT*.COM and MENU and VMENU files should be copied into a directory which is in the command search path from the CAT: directory and set up his CAT.COM alias. Once this is done, the user is ready to employ the DISCAT System to meet his disk cataloging needs.

A. D I S C A T   D I S T R I B U T I O N   F I L E S

The following files make up the distribution files for the DISCAT System.

Richard Conn
22 July 1984

	Filename.Typ	Size	Recs	CRC
1	CAT .HLP	33K	259	C4EC
2	CATCHECK.COM	3K	24	93FD
3	CATERASE.COM	4K	28	41C7
4	CATFREE .COM	4K	26	D7A6
5	CATMAKE .COM	4K	30	CCD8
6	CATMERGE.COM	4K	31	2E93
7	CATNAME .COM	4K	27	EE89
8	CATRMDSK.COM	4K	29	19C5
9	CATSCAN .COM	4K	29	86B2
10	CATUPD .COM	6K	44	8FOD
11	DISCAT .INS	1K	3	9DED
12	DISCAT .MNU	1K	8	F93E
13	DISCAT2 .MNU	2K	9	A299
14	DISCATV .VMN	1K	8	F98A

B. D I S C A T   M E N U   a n d   V M E N U   F I L E S

B.1. DISCAT1.MNU

```
-dxp
#


                        DISCAT Menu SubSystem 1

-- MASTER Catalog Functions --     -- WORKING Catalog Functions --

F - Free Space Scan                1 - Update WORKING Catalog
M - Merge WORKING Catalog into     2 - Delete WORKING Catalog
      MASTER Catalog               3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog



-- General Catalog Functions --    -- Miscellaneous Functions --

B - Backup the MASTER Catalog          W - VFILER
C - Create a New Catalog File          X - Dir
N - Place a Name on a Disk             Z - ZCPR3 Cmd

#
f!catfree "Names of Disks -- "
m!catmerge working
s!catscan "Input Files and Disks to Scan For -- "
ucatupd /r
v!catcheck master
bmcopy master.cat m
ccatmake "Name of Catalog File to Create -- "
ncatname C31:"Name of Disk -- "
1catupd /wr
2era working.cat
3era *.bak;era working.cat
wvfiler
x!xd
z!"Enter Command Line -- "
##
```

B.2. DISCAT2.MNU

```
-dxp
#

                        DISCAT Menu SubSystem 2
                                        MASTER Catalog: $F1


-- MASTER Catalog Functions --          -- WORKING Catalog Functions --

D - Define MASTER Catalog
F - Free Space Scan                     1 - Update WORKING Catalog
M - Merge WORKING Catalog into          2 - Delete WORKING Catalog
        MASTER Catalog                  3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog


-- General Catalog Functions --         -- Miscellaneous Functions --

B - Backup the MASTER Catalog              W - VFILER
C - Create a New Catalog File              X - Dir
N - Place a Name on a Disk                 Z - ZCPR3 Cmd

#
dsetfile 1 "Enter File Name -- "
f!catfree "Names of Disks -- " /f'$F1'
m!catmerge working /f'$F1'
s!catscan "Input Files and Disks to Scan For -- " /f'$F1'
ucatupd /rf'$F1'
v!catcheck $F1
bmcopy $F1 m
ccatmake "Name of Catalog File to Create -- "
ncatname C31:"Name of Disk -- "
1catupd /wr
2era working.cat
3era *.bak;era working.cat
wvfiler
x!xd
z!"Enter Command Line -- "
###
```

B.3. DISCATV.VMN

#x
                    DISCAT VMenu SubSystem

-- MASTER Catalog Functions --   -- WORKING Catalog Functions --
F - Free Space Scan   1 - WORKING Catalog
M - Merge WORKING Catalog into   2 - Delete WORKING Catalog
      MASTER Catalog   3 - Cleanup WORKING Files
S - Scan MASTER Catalog
U - Update MASTER Catalog
V - Verify MASTER Catalog

-- General Catalog Functions --   -- Miscellaneous Functions --
B - Backup the MASTER Catalog   W - VFILER
C - Create a New Catalog File   X - Dir
N - Place a Name on a Disk   Z - ZCPR3 Cmd
#
f!catfree "Names of Disks -- " /f'$PF'
m!catmerge working /f'$PF'
s!catscan "Input Files and Disks to Scan For -- " /f'$PF'
ucatupd /rf'$PF'
v!catcheck $PF
bmcopy $PF m
ccatmake "Name of Catalog File to Create -- "
ncatname C31:"Name of Disk -- "
lcatupd /wr
2era working.cat
3era *.bak;era working.cat
wvfiler
x!xd
z!"Enter Command Line -- "
##

C. Z C P R 3   U T I L I T I E S

Several of the utilities provided in the ZCPR3 distribution can be used in conjunction with the DISCAT System to provide the user with a more user-friendly working environment. The reader has already seen references to some of these utilities. In the interests of the reader, several key utilities are outlined here.

C.1. ALIAS

The ALIAS utility is used to create an Alias file and to display its contents. An Alias is essentially a script that is expanded and resolved (with parameter passing) when the Alias program is run. Very complex command lines, complete with Flow Control (IF), can be included within an Alias. The CAT program outlined above was an Alias created the the ALIAS utility.

C.2. ELSE

The ELSE command is FCP-resident and toggles the Flow State. If the current condition is TRUE, ELSE toggles it to FALSE, and vice-versa.

C.3. ERA

The ERA utility is used to erase files. I prefer to use the ERA which is built into the SYS.RCP file (as opposed to the version of ERA built into the ZCPR3 CP).

C.4. ERASE

The ERASE utility is the transient counterpart of ERA. It is much more powerful than ERA, and it contains many more options and features.

C.5. FI

The FI command is an FCP-resident command which terminates the current IF. FI is the same as ENDIF in concept (there is no ENDIF command in ZCPR3).

C.6. IF

The IF command is an FCP-resident command which tests a condition and sets the Flow Control State to True or False. If the Flow Control State is False, only FCP-resident commands will be executed and all other commands will be skipped.

C.7. MCOPY

The MCOPY command is the transient copy command provided with ZCPR3. One of its key functions is to provide an easy way to back up files.

C.8. MENU

The MENU command runs the MENU Subsystem under ZCPR3. MENU is instrumental in running the *.MNU files provided in the DISCAT distribution.

C.9. PATH

The PATH command allows the user to display and set his command-search path dynamically.

C.10. PWD

The PWD command prints the names of the Working Directories available to the user.

C.11. VFILER

The VFILER utility is the ZCPR3 screen-oriented file manipulation utility. It allows the user to point to a file in his directory and perform a number of operations on it, such as compute its size, view it, print it, copy it, delete it, etc.

C.12. VMENU

The VMENU command is used to run the VMENU Subsystem of ZCPR3. VMENU is used to run the *.VMN command file provided in the DISCAT distribution.

C.13. XD

The XD command is one of the three transient directory display utilities provided with ZCPR3. It is on the order of 4K in size and is the utility which the author uses most of the time to display his disk directories.

I N D E X