

## AA.0 C-MASTER Files

C-MASTER requires the use of both sequential and binary (i.e. machine readable only) files. Sequential files are used to store log data, create temporary files for backup/retrieval, store source of log identifications, tract identifications, bed code identification, and HELP source data.

Binary files are used to store lithology data for use during lithology entry/edit, for the log master catalog, for the quad, state, map scale catalog, and for use by the on-line HELP function.

All C-MASTER routines endeavor to have files opened for as little time as possible. The notable exception to this is CPRTCOD, which may have the master catalog opened for long periods of time.

C-MASTER may be reconfigured through the use of a configuration file called COALCNFG.TXT. This file contains data which permit the administrator to choose what files are named and where they are located.

## AA.1 C-MASTER File Descriptions

The following paragraphs describe the file layouts of all the files used by C-MASTER. First the binary files will be presented, followed by the sequential (ASCII) files.

### AA.2 Binary, not user editable, files

The following paragraphs describe the record layouts of the binary files. The NAME given is the name normally used in the program to read the data. The START and LENGTH numbers are in words, assuming 16-bit words, 2 bytes per word. Hardware configurations that do not follow this convention will have different layouts.

#### AA.2.1 QMASTRFL - Quad master catalog. Maintained by CQUADBLD. Not user editable

ITEM	NAME	DESCRIPTION	START	LENGTH	TYPE
1	IDQUAD	Sequential quad # in state	1	1	I*2
2	AQUAD	Quadrangle name	2	6	C*12
3	ASTATE	State code	8	2	C*4
4	ISCL	Scale code #	10	1	I*2
5	CSCL	Actual scale	11	2	R*4
6	NLOGS	# of logs for quad	13	1	I*2

AA.2.2 MASTRFIL - Log master catalog. Created during system startup.  
 Modified and referenced by almost all programs. **Not user editable**

ITEM	NAME	DESCRIPTION	START	LENGTH	TYPE
1	QUAD	Quadrangle name	1	6	C*12
2	STATE	State code	7	2	C*4
3	MSCLE	Scale code	9	1	I*2
4	ASCALE	Actual scale	10	2	R*4
5	CID	Contributor ID #	12	1	I*2
6	FIELD	Contributor DDH #	13	6	C*12
7	APROJ	Project code	19	2	C*4
8	LOGID	ID # of log in quad	21	1	I*2
9	SID	Source of log ID #	22	1	I*2
10	HOLENO	Drill hole # of source	23	6	C*12
11	BEDREG	Bedcode region ID	29	2	C*4
12	BEDUP	Upper bed code	31	2	C*4
13	IBEDUP	Upper bed code #	33	1	I*2
14	BEDLOW	Lower bed code	34	2	C*4
15	IBEDLO	Lower bed code #	36	1	I*2
16	CSTATE	State location of hole	37	2	C*4
17	COUNTY	County location of hole	39	6	C*12
18	IREGN	Lithology coding region	45	1	I*2
19	TWNSHP	Township/nearest municipality	46	6	C*12
20	AUZONE	UTM zone number	52	1	I*2
21	UTMN	UTM northing	53	2	R*4
22	UTME	UTM easting	55	2	R*4
23	CAT_ENDATE	Date of Last Change	57	4	C*8
23a	IDATUM	Datum ID coord	61	1	I*2
23b	CDATUM	No longer used	62	1	I*2
24	ICMPLT	Header complete flag	63	1	I*2
25	USERD	User data area	64	16	C*32
26	LOGFNM	File name of log	80	6	C*12
27	CAT_SDATE	Date Log Entered	86	4	C*8
28	LOG_ATTRIBUTES	Bit field for	90	2	I*4

User defined log attributes

----- 91 = total length

The first record of the Master Catalog is an indicator of the format of the data.

1	Filetype	<b>Valid values are 1 or 2</b>	1	1	I*2
2	Sorted	The count of sorted records that follow	2	2	I*4

AA.2.3 PHRASEFL - Phrase file. Created by CPHRASE. **Not user editable**

ITEM NAME	DESCRIPTION	START	LENGTH	TYPE
1	LZCODE(2) Lithology code	1	4	I*2
2	LREGN Coding region #	5	1	I*2
3	AENG English phrase	7	24	C*48
-----		28	= total length	

AA.2.4 LITHTEMP - Lithology temporary file. Created whenever a log is requested from the catalog. Also used as a temp file in certain processing events. **Not user editable**

AA.2.6 PRJDEFxx.yyy - Subproject Log Definition and Calculated Parameter Storage - Created by CPROJECT, updated by CPROCESS. **Not user editable**

ITEM	NAME	DESCRIPTION	START	LENGTH	TYPE
1	LNKDEF	FORWARD/BACKWARD LINKS	1		2*I
2	QUAD	QUADRANGLE NAME			C*12
3	STATE	STATE CODE			C*4
4	MSCLE	SCALE CODE			I*2
5	ASCALE	ACTUAL SCALE			R*4
6	APROJ	PROJECT CODE			C*4
7	LOGID	LOG ID #			I*2
8	LOGFNM	LOG FILE NAME			C*12
8a	Filler				c*8
9	FIELD	CONTRIBUTOR FIELD NUMBER			C*12
10	EMETH	TOP OF HOLE METHOD			C*32
11	ELEVAT	ELEVATION OF TOP OF HOLE			R*4
12	FTCUM	TOTAL DEPTH OF LOG			R*4
13	AUZONE	UTM ZONE NUMBER			I*2
14	UTMN	UTM NORTHING			R*4
15	UTME	UTM EASTING			R*4
16	FINDIT	REC # WHERE REF POINT FOUND			3 I*2
17	PELEV	REF. POINT ELEVATION			3 R*4
18	PDEPT	REF. POINT DEPTH			3 R*4
19	INTSEL	INTERVAL FOUND START RECORD NUMBER			(2,3) I*2
20	RKTYPE	ROCK TYPE AT REF POINT			3 C*4
21	RABOVT	ROCK TYPE .5 FT ABOVE			3 C*8
22	RBELOT	ROCK TYPE .5 FT BELOW			3 C*8
23	PTHICK	REF. POINT LITHO THICK.			3 R*4
24	PERINT	% OF ROCK IN INTERVAL			3 R*4
25	RABVTH	POINT DEPTH OF LITHO ABOVE REF POINT			3 R*4
26	RBELTH	POINT DEPTH OF LITHO BELOW REF POINT			3 R*4
27	THICKI	INTERVAL THICKNESS			3 R*4
28	THICKR	ROCK THICKNESS IN INT.			3 R*4
29	PROPOT	OTHER/ROCK RATIO IN INTERVAL			3 R*4
30	PROPRK	ROCK/OTHER RATIO IN INTERVAL			3 R*4
31	RTHICK	????			3 R*4
32	OTHICK	THICKNESS OF OTHER TYPES IN ROCK UNIT			3 R*4
33	MTHICK	????			3 R*4

34	NROCKU	NUMBER OF UNITS FOUND IN INTERVAL	3	I*2
35	MEANR	MEAN ROCK THICKNESS IN UNIT	3	R*4
36	RATRO	ROCK/OTHER RATIO IN UNIT	3	R*4
37	RATOR	OTHER/ROCK RATIO IN UNIT	3	R*4
38	PERRCK	% OF ROCK IN UNIT	3	R*4
39	IDATUM	COORDINATE DATUM OF THIS LOG		i*2
40	filler	for expansion		

-----TOTAL LENGTH=710 BYTES

AA.2.7 Removed

AA.2.8 PRJMST - Project Master Data File. Each project entry consists of multiple records. Records 2 through 27 repeat for each project defined. **Not user editable**

ITEM NAME	DESCRIPTION	START	LENGTH	TYPE
-----------	-------------	-------	--------	------

REC 1

1	NPROJ	# OF PROJECTS DEFINED	1	1	I
---	-------	-----------------------	---	---	---

REC 2

1	PRJNUM	INTEGER PROJECT NUMBER			
2	PROJN	ALPHA PROJECT CODE			
3	PRIINV	PRINCIPAL INVESTIGATOR			
4	P PROJ				
5	PBREG	BED CODE REGION			
6	PUPPER	UPPER BED CODE			
7	PUCODE	UPPER BED CODE NUMBER			
8	PLOWER	LOWER BED CODE			
9	PLCODE	LOWER BED CODE NUMBER			
10	KLSTAT	NUMBER OF CIVIL DIST (CURRENTLY NOT USED)			
11	KLCOMP	NUMBER OF PROPERTIES (CURRENTLY NOT USED)			

REC 3-22

1	PSTATE	STATE CODE			
2	PCNTY	COUNTY NAME			
3	PTWNSH	TOWNSHIP			
4	PCOMP	COMPANY NAME			
5	PCID	COMPANY ID NUMBER			
6	PTRACT	TRACT NAME			
7	PTID	TRACT NAME ID #			
8	PMINE	MINE/OPERATING UNIT NAME			

REC 23-27

1	PRDESC	PROJECT DESCRIPTION			
---	--------	---------------------	--	--	--



AA.2.9 SUBPRJ - Subproject descriptions file. Each subproject defined consists of one record. **Not user editable**

<u>ITEM NAME</u>	<u>DESCRIPTION</u>	<u>START</u>	<u>LENGTH</u>	<u>TYPE</u>
<u>REC 1</u>				
1	NUMBER OF ENTRIES IN FILE			
<u>REC 2-N</u>				
1	SPPRJN	ALPHA PROJECT NUMBER OF THIS SUBPROJECT		
2	SPNUM	SUBPROJECT NUMBER		
3	SPCH	ALPHA SUBPROJECT NUMBER		
4	SPPRJ	PROJECT NUMBER OF THIS SUBPROJECT		
5	SPDEF	NAME OF LOG DEFINITION FILE		
6	SPPRM	NAME OF PARAMETER DEF. FILE		
7	SPTARG	SUBPROJECT TARGET		
8	SPUPPR	UPPER BED CODE		
9	SPLOWR	LOWER BED CODE		
10	SPDESC	SUBPROJECT DESCRIPTION		

### AA.3 Sequential files

Following are the record layouts of the sequential files. No NAME is given. The FORMAT describes the FORTRAN format used to read the data. START and LENGTH is given in bytes, as well as the total record lengths.

AA.3.1 BEDCODES - Bedcode definitions. Use the Program to modify. **Do not edit this file manually.**

ITEM NAME	DESCRIPTION	START	LENGTH	FORMAT
1	Bedcode	1	3	A4
3	Bedcode region ID	5	4	A4
4	Filler	9	1	1X
5	Bedcode #	10	3	I3
-----		12	= total length	

AA.3.2 PHRSFILE - Lithology phrase file. Use a text editor to modify.

ITEM NAME	DESCRIPTION	START	LENGTH	FORMAT
1	Lithology code	1	8	A8
2	English description	9	48	A48
-----		60	= total length	

AA.3.3 TRACTFIL - Tract definition. Use C-Master to modify.

ITEM NAME	DESCRIPTION	START	LENGTH	FORMAT
1	Tract number	1	4	I4
2	Tract name	5	20	A20
-----		24	= total length	

AA.3.4 Removed

AA.3.5 Removed

AA.3.6 REFERENC - Source reference file. Use C-Master to modify.

ITEM NAME	DESCRIPTION	START	LENGTH	FORMAT
1	Source ID #	1	5	I5
2	Source type	6	2	I2
3	Source name	8	64	A64
-----		71	= total length	

AA.3.7 Lithology file format - The following format applies to all lithology files in the system. There are many records in the file. The first 21 records define the header items. All records following define the individual lithology records. Each record will be given separately. This file should be modified only by CMASTER. See separate document for details.

AA.3.9 PRJPRMxx.yyy - Subproject parameter definition file. Created by CPROCESS. There are multiple records of various construction in this file.  
**Do not edit this file manually.**

ITEM	NAME	DESCRIPTION	START	LENGTH	FORMAT
<u>REC 1</u>					
1	ITYPE	RECORD ( == 0)			
2	NUMPTS	NUMBER OF REF POINTS DEFINED			
<u>REC 2</u>					
1	REFDIR(1)	DIRECTION			
2	REFTAG(1)	TAG			
3	REFQUL(1)	QUALIFIER			
<u>REC 3</u>					
1	ITYPE	RECORD TYPE = 2			
2	REFTYP(2)	REF POINT TYPE			
<u>REC 4</u>					
1	REFDIR(2)	SAME AS REC 2			
2	REFTAG(2)				
3	REFQUL(2)				
<u>REC 5</u>					
1	DSTNCE(2)	DISTANCE FROM POINT 1			
<u>REC 6</u>					
1	SECA	ALPHA ROCK TYPE			
<u>REC 7</u>					
1	SECRCK	INTEGER ROCK TYPE			
<u>REC 8</u>					
1	ITYPE	RECORD TYPE = 3			
2	REFTYP(3)	REF POINT TYPE			
<u>REC 9</u>					
1	REFDIR(3)	SAME AS REC 2			
2	REFTAG(3)				

3 REFQUL(3)

REC 10

1 DSTNCE(3) SAME AS REC 2

REC 11

1 THRA SAME AS REC 6

REC 12

1 THRRCK SAME AS REC 7

REC 13 THROUGH 27 DEFINE PARAMETERS FOR ROCK UNITS. THESE DATA ARE SHOWN SEQUENTIALLY AS THEY APPEAR IN THE FILE. THE TWO DIGITS AT THE END OF THE NAME INDICATE THE INTERVAL FOR WHICH THEY APPLY. RECORDS 13 THROUGH 18 ARE FOR INTERVALS, RECORDS 19 THROUGH 27 ARE FOR ROCK UNITS.

13	SRCK12	ALPHA ROCK TYPE
14	IRCK12	INTEGER ROCK TYPE
15	SRCK23	ALPHA ROCK TYPE
16	IRCK23	INTEGER ROCK TYPE
17	SRCK13	ALPHA ROCK TYPE
18	IRCK13	INTEGER ROCK TYPE
19	BRKTHK	MAX BREAK THICKNESS
20	OTHTYP	OTHER TYPE % MAX
21	MINTHK	MIN. ROCK THICKNESS
22	CRCK12	ALPHA ROCK TYPE
23	URCK12	INTEGER ROCK TYPE
24	CRCK23	ALPHA ROCK TYPE
25	URCK23	INTEGER ROCK TYPE
26	CRCK13	ALPHA ROCK TYPE
27	URCK13	INTEGER ROCK TYPE

AA.3.10 Catalog Search Results - This file format is created in CCATALOG, and CLOGPLT and holds a modified version of the Master Catalog data in a text format. This file can be read or written by other programs. Modifying the data herein does not change the Master Catalog data. **Do not edit this file manually.**

Item	Description	Skip	Length	Start	End	Format
QUAD	Quadrangle Name	1	12	2	13	A12
STATE	State Name	1	2	15	16	A2
MSCLE	Numeric Scale Code	1	2	18	19	I2
LOGID	Log ID Number	1	5	21	25	I5
APROJ	Project Name	1	3	27	29	A3
AUZONE	UTM Zone	1	3	31	33	I3
UTMN	UTM Northing	1	12	35	46	F12.0
UTME	UTM Easting	1	12	48	59	F12.0
SID	Source ID	1	4	61	64	I4
CID	Contributor ID	1	4	66	69	I4
CSTATE	State Code of Log	1	2	71	72	A2
COUNTY	County Name	1	12	74	85	A12
BEDREG	Bedcode Region	1	4	87	90	A4
BEDUP	Upper Bed Name	1	4	92	95	A4
IBEDUP	Upper Bed Number	1	4	97	100	I4
BEDLOW	Lower Bed Name	1	4	102	105	A4
IBEDLO	Lower Bed Number	1	4	107	110	I4
LOGFNM	Name of log on disk	1	20	112	131	A20
SOURCE	Source Data (matches SID)	0	72	132	203	A72
HOLENO	Source Hole Number	0	12	204	215	A12
CONTRB	Contributor Data (matches CID)	0	72	216	287	A72
FIELD	Contributor Hole Number	0	12	288	299	A12
ELEVAT	Top of Hole Elevation (Feet)	0	12	300	311	F12.3
DEPTH	Depth of log (Feet, not computed)	0	12	312	323	F12.3
DYEAR	Year Drilled	0	5	324	328	I5
ASCALE	Map Scale	0	12	329	340	f12.0
IDATUM	Datum of Coordinate (0=NAD27, 1=NAD83, 2=WGS84)	0	5	341	345	I5
CAT_SDATE	Date of initial Entry	0	8	346	353	A8
CAT_ENDATE	Date of last Save	0	8	354	361	A8