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**The International Coal
Statistics Data Base**

June 1991

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EIA

Energy Information Administration

THE INTERNATIONAL COAL STATISTICS DATA BASE

PROGRAM MAINTENANCE GUIDE

June 1991

**Energy Information Administration
Washington, D.C.**

MASTER

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Preface

The International Coal Statistics Data Base (ICSD) is a microcomputer-based system which contains information related to international coal trade. This includes coal production, consumption, imports and exports information. The ICSD is a secondary data base, meaning that information contained therein is derived entirely from other primary sources. It uses dBase III+ and Lotus 1-2-3 to locate, report and display data. The system is used for analysis in preparing the *Annual Prospects for World Coal Trade* (DOE/EIA-0363) publication. The ICSD system is menu driven and also permits the user who is familiar with dBase and Lotus operations to leave the menu structure to perform independent queries.

Documentation for the ICSD consists of three manuals -- the *User's Guide*, the *Operations Manual*, and the *Program Maintenance Manual*. This Program Maintenance Manual provides the information necessary to maintain and update the ICSD system. Two major types of program maintenance documentation are presented in this manual. The first is the source code for the dBase III+ routines and related non-dBase programs used in operating the ICSD. The second is listings of the major component database field structures. A third important consideration for dBase programming, the structure of index files, is presented in the listing of source code for the index maintenance program.

International Coal Statistics Data Base

Program Maintenance Manual

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International Coal Statistics Data Base

Program Maintenance Manual

1. General Information

1.1 Summary

Principal features include:

- **Menu-driven, interactive database using dBase III Plus and Lotus 1-2-3.**
- **Inputs of official and commercial statistics on international coal trade volumes, prices and shipping rates for steam and metallurgical coal.**
- **Outputs of dozens of reports and color graphic displays. Output report types include Lotus worksheets, dBase data bases, ASCII text files, screen displays and printed reports.**
- **Flexible design permits the user to follow structured query system or design own queries using either Lotus or dBase procedures. Assumes some familiarity with these microcomputer programs.**
- **Maintenance programs to configure the system, correct indexing errors, backup work, restore corrupted files, annotate user-created files, and update system, use DOS shells, and many more.**

Two major types of program maintenance documentation are presented in this manual. The first is the source code for the dBase III routines and related non-dBase programs used in operating the ICSD. The second is listings of the field structure of the major component databases. A third important consideration for dBase programming, the structure of index files, is presented in the listing of source code for the index maintenance program.

It is common practice among dBase programmers to indent sections of code to clarify the relationship between a given section and earlier commands, such as indenting the commands applicable to a particular nested loop or similar decision structure. These conventions have been followed to make it easier to follow program logic. In addition, various commenting procedures and visual devices have been used to help clarify where major sections of a program begin or end. It should also be noted that screen colors have been established to give the user a sense of location within the structure of menus and submenus. The general color scheme is for the master menu to be light gray against a cyan background,

while each of the five submenus called from the master menu is light gray against a red background. Further subprograms beyond the submenu level, other than the data update programs, take place with white foreground characters against a blue background. The sole exception to the scheme is the submenu for data update which is black foreground characters and white background characters. Of course, this scheme is only visible on color monitors.

Not all programs used by the ICSD are documented in this manual. There are several minor routines that are in either binary or executable format that are not listed. Two examples are the Cursoff.bin program, which is slightly different than the program of the same name provided with dBase III in order to work with a wider array of monitors, and Pstatus.com, which sets the system error level depending on whether the user's printer is on or off. The modified curson.bin and cursoff.bin routines were necessary because the Compac 386 computers in use by EIA contain graphic boards that would not respond properly to the dBase III versions of those programs. The Pstatus.com and related batch file, Isiton.bat, are provided as conveniences to the user. Any of these .bin or .com programs may be disassembled if necessary, but there is little purpose in documenting their code as each is about 20 bytes long.

1.2 Environment

The ICSD was developed under contract No. DE-AC01-87E119801 for the Office of Coal, Nuclear, Electric and Alternate Fuels by the Decision Analysis Corporation of Virginia.

1.3 References

1.3.a Project Requests (Authorizations)

Section 205(a)(2) of the Department of Energy Organization Act (Public Law 95-91) requires the Administrator of the Energy Information Administration (EIA) to carry out a central, comprehensive, and unified energy data information program that will collect, evaluate, assemble, analyze, and disseminate data and information relevant to technology, and related economic and statistical information. To meet these responsibilities in the area of international coal analysis, the EIA prepared this report.

1.3.b Previously Published Documents

U.S. Department of Energy, Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels, 1989 Update International Coal Statistics Data Base, September 1989.

1.3.c Related Documentation

U.S. Department of Energy, Energy Information Administration, Office of Coal, Nuclear, Electric and Alternate Fuels, 1990 Update International Coal Statistics Data Base Operations Guide, September 1989.

1.3.d Other Reference Documentation

See Lotus 123 and dBase Reference Manuals.

2. Program Descriptions

2.1 Overview of Automated Operations

2.1.a Inventory of Software Libraries and Data Files

The following programs make up the ICSD. They must be stored in a directory named \ICSD on any hard drive.

\ICSD		d2.prg	916 bytes
		d3.prg	913 bytes
		d4.prg	411 bytes
		d5.prg	894 bytes
auto123.d1	2,865 bytes	demand.dbf	1,124,698 bytes
auto123.e2	2,865 bytes	demand.ndx	184,320 bytes
auto123.e3	2,865 bytes	demand.prg	6,168 bytes
auto123.f1	2,865 bytes	demand1.dbf	333,824 bytes
auto123.f2	2,865 bytes	demand1.ndx	16,384 bytes
auto123.f3	2,865 bytes	dreport.dbf	28,058 bytes
auto123.o5	2,865 bytes	e1.prg	1,760 bytes
auto123.p2	2,865 bytes	e2.dbf	4,534 bytes
auto123.p3	2,865 bytes	e2.prg	36,050 bytes
auto123.wk1	2,865 bytes	e2.qry	29 bytes
automate.prg	614 bytes	e2.txt	2,141 bytes
backup.mem	38 bytes	e2.wk1	43,485 bytes
cnumber.ndx	3,584 bytes	e2.wks	24,702 bytes
coldboot.com	17 bytes	e2a.frm	1,990 bytes
config.db	272 bytes	e2a.ndx	241,152 bytes
config.mem	123 bytes	e2b.frm	1,990 bytes
country.dbf	7,746 bytes	e2b.ndx	329,216 bytes
country.ndx	5,120 bytes	e3.dbf	634 bytes
cursoff.bin	12 bytes	e3.prg	33,837 bytes
curson.bin	21 bytes	e3.qry	49 bytes
d1.prg	4,836 bytes	e3.txt	7,236 bytes
d1.wk1	160,794 bytes	e3.wk1	44,610 bytes
d1.wks	49,813 bytes		

e3.wks	3,894 bytes
e3a.frm	1,990 bytes
e3a.ndx	74,240 bytes
e3b.frm	1,990 bytes
e3b.ndx	100,352 bytes
e4.prg	1,847 bytes
e5.prg	1,953 bytes
entry.com	536 bytes
errmess.prg	1,607 bytes
exports.dbf	2,077,184 bytes
exports.prg	6,043 bytes
f1.dbf	1,216 bytes
f1.prg	10,518 bytes
f1.wk1	19,992 bytes
f1.wks	1,509 bytes
f2.ndx	47,616 bytes
f2.prg	2,947 bytes
f2.wk1	118,020 bytes
f2.wks	11,609 bytes
f3.prg	1,853 bytes
f3.wk1	114,116 bytes
f3.wks	101,465 bytes
f4.prg	1,027 bytes
f5.prg	328 bytes
flows.prg	6,181 bytes
freight.dbf	201,905 bytes
freight.ndx	12,800 bytes
help.prg	1,950 bytes
icsd.dbf	79 bytes
icsd.dir	9 bytes
icsd.eia	48 bytes
icsdauto.wk1	2,147 bytes
icsdiea.dbf	40,169 bytes
imports.dbf	337,224 bytes
isiton.bat	1,285 bytes
master.prg	7,375 bytes
o1.prg	1,992 bytes
o2.prg	5,972 bytes
o3.prg	5,258 bytes
o4.dbf	21,504 bytes
o4.ndx	5,120 bytes
o4.prg	5,214 bytes
o5.prg	4,602 bytes
o56.prg	1,923 bytes

o56a.prg	20,266 bytes
o56b.prg	8,083 bytes
o57.prg	2,773 bytes
options.prg	6,081 bytes
p1.prg	1,611 bytes
p2.dbf	744 bytes
p2.prg	13,884 bytes
p2.qry	62 bytes
p2.txt	898 bytes
p2.wk1	45,240 bytes
p2.wks	21,586 bytes
p2a.frm	1,990 bytes
p2a.ndx	1,024 bytes
p2b.frm	1,990 bytes
p3.dbf	39,095 bytes
p3.prg	11,271 bytes
p3.qry	34 bytes
p3.txt	3,381 bytes
p3.wk1	88,899 bytes
p3.wks	20,453 bytes
p3a.frm	1,990 bytes
p3a.ndx	1,024 bytes
p3b.frm	1,990 bytes
p3b.ndx	1,024 bytes
p4.prg	1,759 bytes
p5.prg	1,963 bytes
portno.ndx	2,048 bytes
ports.dbf	1,090 bytes
ports.ndx	2,560 bytes
prices.dbf	400,978 bytes
prices.ndx	27,648 bytes
prices.prg	6,529 bytes
printer.mem	203 bytes
proper.ndx	5,120 bytes
pstatus.com	20 bytes
vreport.dbf	2,294 bytes
srreport.mem	41 bytes
u1.prg	2,126 bytes
u2.prg	2,332 bytes
u3.prg	2,147 bytes
u4.prg	5,340 bytes
u6.prg	1,064 bytes
u7.prg	3,191 bytes
u8.prg	1,656 bytes

ucountry.prg	1,742 bytes
udemand.dbf	28,820 bytes
udemand.prg	1,739 bytes
udir.dbf	322 bytes
udir.ndx	1,025 bytes
udir.prg	645 bytes
udmd.mem	324 bytes
udmd1.dbf	512 bytes
udmd1.prg	2,369 bytes
udmd1tem.dbf	512 bytes
udmd2.dbf	1,536 bytes
udmd2.prg	3,000 bytes
udmd2tem.dbf	1,536 bytes
udmd3.prg	7,591 bytes
udmd4.dbf	512 bytes
udmd4.prg	2,111 bytes
udmd5.prg	7,783 bytes
udmd6.dbf	226 bytes
udmd6.prg	3,333 bytes
udmd6tem.dbf	770 bytes
udmd7.prg	18,258 bytes
udmd8.prg	21,039 bytes
udmd9.prg	3,379 bytes
uexports.dbf	1,024 bytes
uexports.prg	3,149 bytes
ufreight.dbf	7,216 bytes
uimports.dbf	76,800 bytes
uimports.prg	10,293 bytes
update.prg	5,439 bytes
uprices.dbf	11,264 bytes
uprices.prg	863 bytes
uv1.prg	8,383 bytes
uvolume.dbf	19,454 bytes
uvolume.prg	1,129 bytes
vcountry.dbf	710 bytes
vcountry.ndx	1,024 bytes
volumes.ndx	115,200 bytes
volumes1.dbf	162,082 bytes
volumes1.ndx	47,616 bytes
_icsd.bat	4,888 bytes
volumes.dbf	239,666 bytes

7,689,031 total bytes in 178 files

The following files are supplied on the ICSD installation diskette and do not become part of the overall system.

VCSD\INSTALL

install.bat	515 bytes
install1.prg	13,090 bytes
install2.prg	3,030 bytes

16,635 total bytes in 3 files

Total of all files

7,705,666 total bytes

2.1.b Integrated Flow to Link all Software Modules and Files

2.1.c Description of Sequence of Software Operation

The program is started from any directory by entering the name of the batch program created during the installation process, ICSD.BAT. This batch program turns over control to a second batch program located in the ICSD file directory, _ICSD.BAT. The latter is called with two parameters that correspond to the locations of the user's dBase and Lotus file directories. DBase is then loaded, which in turn loads the master program that controls the initial menu, MASTER.PRG. This program controls access to all others including programs that subsequently load Lotus 1-2-3 from a shell, as well as exit from the system. Once the ICSD is exited, control is returned to the _ICSD.BAT program, which handles several file maintenance routines and finally relinquishes control back to DOS. Automated access to Lotus is controlled by having the relevant dBase program copy a predefined program shell, each with the prefix AUTO123 and an extension corresponding to the dBase program that made the call, into the name AUTO123.WK1, the generic name used by Lotus to control automatic loading of worksheets.

2.1.c.1 Program Functions - Using dBase and Lotus

The International Coal Statistics Data Base was designed to make coal statistics from disparate sources available in a common microcomputer format. The major databases came from different sources: the data making up Volumes.Dbf came from Lotus worksheets prepared by the Energy Information Administration. The Demand.Dbf also started as a very large worksheet but was taken from a report prepared by contractors to EIA. The imports and exports databases started as mainframe partitioned data sets originally prepared by the Bureau of the Census of the U.S. Department of Commerce. The prices and freight rate databases were originally downloaded ASCII files from the Nexis information service, which were originally published material in *Coal Week International*. The main design consideration was how to relate the data in a common format for use on microcomputers using software from the list of EIA supported software. The components of system design and the justification for design decisions are set forth in the document *Design Plan for the International Coal Statistics Data Base*, Decision Analysis Corporation of Virginia, September 30, 1987.

All data are stored in dBase III file format data tables. However, data are frequently transformed in one of two ways. The most common is to be copied to a special file from within dBase that can be read by Lotus. After this file is created and given the extension .WKS, operating control is switched to Lotus.¹ However, before the switch is made, the

¹The new file is actually in Lotus 1.A format, as opposed to the Lotus 2.x required to run the ICSD, but the later version of Lotus has the capability of reading files in its earlier format.

corresponding to the program that called them, have a single function under their new name to direct Lotus to the ICSD subdirectory by resetting the directory value and then loading the worksheet required to control the use of the data. For instance, a search of the Prices.dbf might result in queried records being copied to the file P3.Wks. In order to read this data, Auto123.P3 would be copied into Auto123.Wk1, Lotus called, the P3.Wk1 worksheet loaded automatically, which would in turn load the data stored in P3.Wks for analysis, reporting and graphing.

2.1.d Description of Data File Contents

This section lists the structures of the ICSD component data bases. Following each numbered field name is the type of data it contains and its size in bytes.

*** COUNTRY.DBF

Structure for data base: C:\COUNTRY.DBF

Number of data records: 168

Date of last update : 10/30/90

Field	Field Name	Type	Width	Dec
1	COUNTRY	Character	15	
2	PROPER	Character	15	
3	COUNTRYID	Numeric	4	
4	IMPORTS	Logical	1	
5	EXPORTS	Logical	1	
6	DEMAND	Logical	1	
7	EXPDBF	Logical	1	
8	IMPDBF	Logical	1	
9	OECDABREV	Character	3	
10	OECD	Logical	1	
** Total **				44

*** DEMAND1.DBF

Structure for data base: C:\DEMAND1.DBF

Number of data records: 494

Date of last update : 10/31/90

Field	Field Name	Type	Width	Dec
1	COUNTRY	Character	15	
2	YEAR	Character	5	
3	GDP	Numeric	9	3
4	POP	Numeric	8	3
5	STHBASE	Numeric	8	3
6	STHLOW	Numeric	8	3
7	STHIGH	Numeric	8	3
8	METBASE	Numeric	8	3
9	METLOW	Numeric	8	3
10	METHIGH	Numeric	8	3
11	PEC_OIL	Numeric	8	3
12	PEC_NG	Numeric	8	3
13	PEC_C	Numeric	8	3
14	PEC_NUC	Numeric	8	3
15	PEC_H	Numeric	8	3
16	PEC_OTH	Numeric	8	3
17	PEC_TOT	Numeric	8	3
18	EUC_OIL	Numeric	8	3
19	EUC_NG	Numeric	8	3
20	EUC_C	Numeric	8	3
21	EUC_NUC	Numeric	8	3
22	EUC_H	Numeric	8	3
23	EUC_OTH	Numeric	8	3

24	EUC_TOT	Numeric	8	3
25	IEC_OIL	Numeric	8	3
26	IEC_NG	Numeric	8	3
27	IEC_C	Numeric	8	3
28	IEC_E	Numeric	8	3
29	IEC_OTH	Numeric	8	3
30	IEC_TOT	Numeric	8	3
31	TCC_EUC	Numeric	8	3
32	TCC_EUL	Numeric	8	3
33	TCC_EUS	Numeric	8	3
34	TCC_IM	Numeric	8	3
35	TCC_IC	Numeric	8	3
36	TCC_IL	Numeric	8	3
37	TCC_IO	Numeric	8	3
38	TCC_ITOT	Numeric	8	3
39	TCC_RC	Numeric	8	3
40	TCC_RL	Numeric	8	3
41	TCC_RS	Numeric	8	3
42	TCC_TOT	Numeric	8	3
43	CON_MET	Numeric	8	3
44	CON_C	Numeric	8	3
45	CON_L	Numeric	8	3
46	CON_STM	Numeric	8	3
47	CON_TOT	Numeric	8	3
48	PRD_MET	Numeric	8	3
49	PRD_C	Numeric	8	3
50	PRD_L	Numeric	8	3
51	PRD_STM	Numeric	8	3
52	PRD_TOT	Numeric	8	3
53	IMP_MET	Numeric	8	3
54	IMP_C	Numeric	8	3
55	IMP_L	Numeric	8	3
56	IMP_STM	Numeric	8	3
57	IMP_TOT	Numeric	8	3
58	ECAP_COAL	Numeric	8	3
59	ECAP_OIL	Numeric	8	3
60	ECAP_GAS	Numeric	8	3
61	ECAP_NUC	Numeric	8	3
62	ECAP_HYDRO	Numeric	8	3
63	ECAP_OTHER	Numeric	8	3
64	ECAP_TOTAL	Numeric	8	3
65	EGEN_COAL	Numeric	8	3
66	EGEN_OIL	Numeric	8	3
67	EGEN_GAS	Numeric	8	3
68	EGEN_NUC	Numeric	8	3
69	EGEN_HYDRO	Numeric	8	3
70	EGEN_OTHER	Numeric	8	3
71	EGEN_TOTAL	Numeric	8	3
72	CR_ST_OXY	Numeric	8	3
73	CR_ST_EARC	Numeric	8	3
74	CR_ST_OH	Numeric	8	3
75	CR_ST_OTH	Numeric	8	3
76	CR_ST_TOT	Numeric	8	3
77	CONTINCAST	Numeric	8	3
78	ST_IMPORTS	Numeric	8	3
79	ST_EXPORTS	Numeric	8	3
80	ST_CONSUMP	Numeric	8	3
81	PCI_CAP	Numeric	8	3
82	PCI_VOL	Numeric	8	3
83	PCI_PRICE	Numeric	8	3
** Total **				670

*** DEMAND.DBF

Structure for data base: C:\DEMAND.DBF

Number of data records: 6109

Date of last update : 10/31/90

Field	Field Name	Type	Width	Dec
1	ITEM	Character	30	
2	FIELDNAME	Character	10	
3	REFERENCE	Numeric	3	
4	COUNTRY	Character	20	
5	Y1980	Numeric	8	3
6	Y1981	Numeric	8	3
7	Y1982	Numeric	8	3
8	Y1983	Numeric	8	3
9	Y1984	Numeric	8	3
10	Y1985	Numeric	8	3
11	Y1986	Numeric	8	3
12	Y1987	Numeric	8	3
13	Y1988	Numeric	8	3
14	Y1989	Numeric	8	3
15	Y1990	Numeric	8	3
16	Y1995	Numeric	8	3
17	Y2000	Numeric	8	3
18	Y2005	Numeric	8	3
19	Y2010	Numeric	8	3
** Total **			184	

*** DREPORT.DBF

Structure for data base: C:DREPORT.DBF
 Number of data records: 149
 Date of last update : 10/31/90

Field	Field Name	Type	Width	Dec
1	ITEM	Character	30	
2	FIELDNAME	Character	10	
3	REFERENCE	Numeric	3	
4	COUNTRY	Character	20	
5	Y1980	Numeric	8	3
6	Y1981	Numeric	8	3
7	Y1982	Numeric	8	3
8	Y1983	Numeric	8	3
9	Y1984	Numeric	8	3
10	Y1985	Numeric	8	3
11	Y1986	Numeric	8	3
12	Y1987	Numeric	8	3
13	Y1988	Numeric	8	3
14	Y1989	Numeric	8	3
15	Y1990	Numeric	8	3
16	Y1995	Numeric	8	3
17	Y2000	Numeric	8	3
18	Y2005	Numeric	8	3
19	Y2010	Numeric	8	3
** Total **			184	

*** E2.DBF

Structure for data base: C:E2.DBF
 Number of data records: 81
 Date of last update : 09/05/88

Field	Field Name	Type	Width	Dec
1	ICSDTYPE	Numeric	1	
2	ICSDREG	Numeric	1	
3	COUNTRYCOD	Numeric	4	
4	ICSDPORT	Numeric	1	
5	PORTCODE	Numeric	2	
6	DATE	Date	8	
7	QUANTITY	Numeric	12	
8	VALUE	Numeric	11	
9	PRICEPERTN	Numeric	11	2
** Total **			52	

*** E3.DBF

Structure for data base: C:E3.DBF
 Number of data records: 6
 Date of last update : 09/05/88

Field	Field Name	Type	Width	Dec
1	ICSDTYPE	Numeric	1	
2	ICSDREG	Numeric	1	
3	COUNTRYCOD	Numeric	4	
4	ICSDPORT	Numeric	1	
5	PORTCODE	Numeric	2	
6	DATE	Date	8	
7	QUANTITY	Numeric	12	

8	VALUE	Numeric	11	
9	PRICEPERTN	Numeric	11	2
** Total **			52	

*** EXPORTS.DBF

Structure for data base: C:EXPORTS.DBF
 Number of data records: 19224
 Date of last update : 03/13/91

Field	Field Name	Type	Width	Dec
1	TYPE	Numeric	2	
2	COUNTRYCOD	Numeric	4	
3	PORTCODE	Numeric	2	
4	PORTCODE2	Numeric	2	
5	MONTH	Numeric	2	
6	YEAR	Numeric	2	
7	QUANTITY	Numeric	12	
8	VALUE	Numeric	11	
9	PRICEPERTN	Numeric	11	2
10	DATE	Date	8	
11	ICSDTYPE	Numeric	1	
12	ICSDREG	Numeric	1	
13	ICSDPORT	Numeric	1	
14	QUANTITY2	Numeric	12	
15	CARDCOUNT	Numeric	12	
16	SHIPWEIGHT	Numeric	12	
17	SHIPVALUE	Numeric	12	
** Total **			108	

*** F1.DBF

Structure for data base: C:F1.DBF
 Number of data records: 6
 Date of last update : 02/13/91

Field	Field Name	Type	Width	Dec
1	IMP	Character	25	
2	EXP	Character	25	
3	TYPE	Numeric	1	
4	Y1980	Numeric	9	3
5	Y1981	Numeric	9	3
6	Y1982	Numeric	9	3
7	Y1983	Numeric	9	3
8	Y1984	Numeric	9	3
9	Y1985	Numeric	9	3
10	Y1986	Numeric	9	3
11	Y1987	Numeric	9	3
12	Y1988	Numeric	9	3
** Total **			133	

*** FREIGHT.DBF

Structure for data base: C:FREIGHT.DBF
 Number of data records: 937
 Date of last update : 09/20/90

Field	Field Name	Type	Width	Dec
1	ORIGIN	Character	30	
2	PORT	Character	30	
3	DESTINATIO	Character	30	
4	LOWBOUND	Numeric	10	2
5	HIBOUND	Numeric	10	2
6	TERMS	Character	30	
7	M1	Numeric	2	
8	D1	Numeric	2	
9	Y1	Numeric	2	
10	ISSUEDATE	Date	8	
11	SHIPSIZE	Numeric	10	
12	REGOFORIG	Character	25	
13	REGOFDEST	Character	25	
** Total **			215	

*** ICSD.DBF

Structure for data base: C:ICSD.DBF
 Number of data records: 1
 Date of last update : 03/26/91

Field	Field Name	Type	Width	Dec
1	ICSD	Character	12	
** Total **			13	

*** ICSDIEA.DBF

Structure for data base: C:\ICSDIEA.DBF

Number of data records: 149

Date of last update : 10/30/90

Field	Field Name	Type	Width	Dec
1	NIEAVAR1	Character	24	
2	NIEAVAR2	Character	53	
3	IEAVAR1	Character	24	
4	IEAVAR2	Character	53	
5	DOIT	Numeric	1	
6	ITEM	Character	30	
7	FIELDNAME	Character	10	
8	REFERENCE	Numeric	3	
9	COUNTRY	Character	20	
10	NIEAVAR3	Character	24	
11	NIEAVAR4	Character	24	
** Total **				267

*** IMPORTS.DBF

Structure for data base: C:\IMPORTS.DBF

Number of data records: 5807

Date of last update : 03/13/91

Field	Field Name	Type	Width	Dec
1	TYPE	Numeric	2	
2	COUNTRYCOD	Numeric	4	
3	PORTCODE	Numeric	2	
4	MONTH	Numeric	2	
5	YEAR	Numeric	2	
6	QUANTITY	Numeric	12	
7	VALUE	Numeric	11	
8	PRICEPERTN	Numeric	11	2
9	DATE	Date	8	
10	ICSDTYPE	Numeric	1	
11	ICSDREG	Numeric	1	
12	ICSDPORT	Numeric	1	
** Total **				58

*** O4.DBF

Structure for data base: C:\O4.DBF

Number of data records: 184

Date of last update : 03/26/91

Field	Field Name	Type	Width	Dec
1	FILENAME	Character	8	
2	S1	Character	1	
3	EXT	Character	3	
4	S2	Character	2	
5	SIZE	Numeric	7	
6	S3	Character	2	
7	DATE	Character	8	
8	S4	Character	2	
9	TIME	Character	8	
10	CONTENT	Character	55	
11	STATUS	Logical	1	
12	ORIGINAL	Logical	1	
13	ODATE	Character	8	
14	OSIZE	Numeric	7	
** Total **				114

*** O4D.DBF

Structure for data base: C:\junk.dbf

Number of data records: 36

Date of last update : 03/26/91

Field	Field Name	Type	Width	Dec
1	FILENAME	Character	8	
2	S1	Character	1	
3	EXT	Character	3	
4	S2	Character	2	
5	SIZE	Numeric	7	
6	S3	Character	2	
7	DATE	Character	8	
8	S4	Character	2	
9	TIME	Character	8	
10	CONTENT	Character	55	
11	STATUS	Logical	1	

12	ORIGINAL	Logical	1	
13	ODATE	Character	8	
14	OSIZE	Numeric	7	
** Total **				114

*** P2.DBF

Structure for data base: C:\P2.DBF

Number of data records: 2

Date of last update : 09/28/89

Field	Field Name	Type	Width	Dec
1	COUNTRY	Character	17	
2	PORT	Character	30	
3	VOLATILE	Character	10	
4	SULFUR	Character	9	
5	ASH	Character	11	
6	TYPE	Numeric	1	
7	O_D	Numeric	1	
8	TERMLow	Numeric	6	2
9	TERMHIGH	Numeric	6	2
10	SPOTLOW	Numeric	6	2
11	SPOTHIGH	Numeric	6	2
12	ISSUEDATE	Date	8	
13	NOTES	Character	35	
** Total **				147

*** P3.DBF

Structure for data base: C:\P3.DBF

Number of data records: 191

Date of last update : 09/05/88

Field	Field Name	Type	Width	Dec
1	ORIGIN	Character	30	
2	PORT	Character	30	
3	DESTINATION	Character	30	
4	SHIPSIZE	Numeric	10	
5	LOWBOUND	Numeric	10	2
6	HIBOUND	Numeric	10	2
7	ISSUEDATE	Date	8	
8	TERMS	Character	30	
9	NOTES	Character	44	
** Total **				203

*** PORTS.DBF

Structure for data base: C:\PORTS.DBF

Number of data records: 32

Date of last update : 07/21/89

Field	Field Name	Type	Width	Dec
1	PORT	Character	25	
2	IDNUMBER	Numeric	2	
3	IDNUMBER2	Numeric	2	
** Total **				30

*** PRICES.DBF

Structure for data base: C:\PRICES.DBF

Number of data records: 2096

Date of last update : 09/20/90

Field	Field Name	Type	Width	Dec
1	COUNTRY	Character	17	
2	PORT	Character	30	
3	VOLATILE	Character	10	
4	SULFUR	Character	9	
5	ASH	Character	11	
6	TERMPRIC	Character	14	
7	TERMLow	Numeric	6	2
8	TERMHIGH	Numeric	6	2
9	SPOTPRIC	Character	15	
10	SPOTLOW	Numeric	6	2
11	SPOTHIGH	Numeric	6	2
12	BTUPERLB	Numeric	9	
13	TYPE	Numeric	1	
14	M1	Numeric	2	
15	D1	Numeric	2	
16	Y1	Numeric	2	
17	ISSUEDATE	Date	8	
18	O_D	Numeric	1	

19 NOTES Character 35
 ** Total ** 191

*** UDEMAND.DBF

Structure for data base: C:\UDEMAND.DBF

Number of data records: 39

Date of last update : 10/31/90

Field	Field Name	Type	Width	Dec
1	COUNTRY	Character	15	
2	YEAR	Character	5	
3	GDP	Numeric	9	3
4	POP	Numeric	8	3
5	STHBASE	Numeric	8	3
6	STHLOW	Numeric	8	3
7	STHHIGH	Numeric	8	3
8	METBASE	Numeric	8	3
9	METLOW	Numeric	8	3
10	METHIGH	Numeric	8	3
11	PEC_OIL	Numeric	8	3
12	PEC_NG	Numeric	8	3
13	PEC_C	Numeric	8	3
14	PEC_NUC	Numeric	8	3
15	PEC_H	Numeric	8	3
16	PEC_OTH	Numeric	8	3
17	PEC_TOT	Numeric	8	3
18	EUC_OIL	Numeric	8	3
19	EUC_NG	Numeric	8	3
20	EUC_C	Numeric	8	3
21	EUC_NUC	Numeric	8	3
22	EUC_H	Numeric	8	3
23	EUC_OTH	Numeric	8	3
24	EUC_TOT	Numeric	8	3
25	IEC_OIL	Numeric	8	3
26	IEC_NG	Numeric	8	3
27	IEC_C	Numeric	8	3
28	IEC_H	Numeric	8	3
29	IEC_OTH	Numeric	8	3
30	IEC_TOT	Numeric	8	3
31	TCC_EUC	Numeric	8	3
32	TCC_EUL	Numeric	8	3
33	TCC_EUS	Numeric	8	3
34	TCC_IM	Numeric	8	3
35	TCC_IC	Numeric	8	3
36	TCC_IL	Numeric	8	3
37	TCC_IO	Numeric	8	3
38	TCC_ITOT	Numeric	8	3
39	TCC_RC	Numeric	8	3
40	TCC_RL	Numeric	8	3
41	TCC_RS	Numeric	8	3
42	TCC_TOT	Numeric	8	3
43	CON_MET	Numeric	8	3
44	CON_C	Numeric	8	3
45	CON_L	Numeric	8	3
46	CON_STH	Numeric	8	3
47	CON_TOT	Numeric	8	3
48	PRD_MET	Numeric	8	3
49	PRD_C	Numeric	8	3
50	PRD_L	Numeric	8	3
51	PRD_STH	Numeric	8	3
52	PRD_TOT	Numeric	8	3
53	IMP_MET	Numeric	8	3
54	IMP_C	Numeric	8	3
55	IMP_L	Numeric	8	3
56	IMP_STH	Numeric	8	3
57	IMP_TOT	Numeric	8	3
58	ECAP_COAL	Numeric	8	3
59	ECAP_OIL	Numeric	8	3
60	ECAP_GAS	Numeric	8	3
61	ECAP_NUC	Numeric	8	3
62	ECAP_HYDRO	Numeric	8	3
63	ECAP_OTHER	Numeric	8	3
64	ECAP_TOTAL	Numeric	8	3
65	EGEN_COAL	Numeric	8	3
66	EGEN_OIL	Numeric	8	3
67	EGEN_GAS	Numeric	8	3
68	EGEN_NUC	Numeric	8	3
69	EGEN_HYDRO	Numeric	8	3
70	EGEN_OTHER	Numeric	8	3
71	EGEN_TOTAL	Numeric	8	3
72	CR_ST_OXY	Numeric	8	3
73	CR_ST_EARC	Numeric	8	3
74	CR_ST_OH	Numeric	8	3
75	CR_ST_OTH	Numeric	8	3

76	CR_ST_TOT	Numeric	8	3
77	CONTINCAST	Numeric	8	3
78	ST_IMPORTS	Numeric	8	3
79	ST_EXPORTS	Numeric	8	3
80	ST_CONSUMP	Numeric	8	3
81	PCI_CAP	Numeric	8	3
82	PCI_VOL	Numeric	8	3
83	PCI_PRICE	Numeric	8	3

** Total ** 670

*** UDIR.DBF

Structure for data base: C:\UDIR.DBF

Number of data records: 0

Date of last update : 10/31/90

Field	Field Name	Type	Width	Dec
1	FILENAME	Character	8	
2	S1	Character	1	
3	EXT	Character	3	
4	S2	Character	2	
5	SIZE	Numeric	7	
6	S3	Character	2	
7	DATE	Character	8	
8	S4	Character	2	
9	TIME	Character	8	

** Total ** 42

*** UDMD1.DBF

Structure for data base: C:\UDMD1.DBF

Number of data records: 0

Date of last update : 09/24/90

Field	Field Name	Type	Width	Dec
1	VARIABLE	Character	29	
2	COA	Numeric	10	2
3	OIL	Numeric	12	2
4	GAS	Numeric	12	2
5	NUC	Numeric	12	2
6	HYD	Numeric	12	2
7	ELE	Numeric	12	2
8	HEA	Numeric	12	2
9	TOT	Numeric	12	2
10	COUNTRY	Character	12	
11	UNITS	Numeric	1	

** Total ** 137

*** UDMD1TEM.DBF

Structure for data base: C:\UDMD1TEM.DBF

Number of data records: 0

Date of last update : 09/24/90

Field	Field Name	Type	Width	Dec
1	VARIABLE	Character	29	
2	COA	Numeric	10	2
3	OIL	Numeric	12	2
4	GAS	Numeric	12	2
5	NUC	Numeric	12	2
6	HYD	Numeric	12	2
7	ELE	Numeric	12	2
8	HEA	Numeric	12	2
9	TOT	Numeric	12	2
10	COUNTRY	Character	12	
11	UNITS	Numeric	1	

** Total ** 137

*** UDMD2.DBF

Structure for data base: C:\UDMD2.DBF

Number of data records: 0

Date of last update : 09/24/90

Field	Field Name	Type	Width	Dec
1	VARIABLE	Character	29	
2	HDC	Numeric	9	2
3	CKC	Numeric	9	2
4	BTC	Numeric	9	2
5	SBC	Numeric	9	2
6	BRC	Numeric	9	2
7	PAT	Numeric	9	2

8	OCK	Numeric	9	2
9	GCK	Numeric	9	2
10	BKB	Numeric	9	2
11	BRS	Numeric	9	2
12	OSF	Numeric	9	2
13	OGS	Numeric	9	2
14	OGS	Numeric	9	2
15	BGS	Numeric	9	2
16	BGS	Numeric	9	2
17	CRU	Numeric	9	2
18	MGL	Numeric	9	2
19	RFD	Numeric	9	2
20	MCR	Numeric	9	2
21	CHF	Numeric	9	2
22	RGS	Numeric	9	2
23	LFG	Numeric	9	2
24	AVG	Numeric	9	2
25	MOG	Numeric	9	2
26	JET	Numeric	9	2
27	OKE	Numeric	9	2
28	DIE	Numeric	9	2
29	HFO	Numeric	9	2
30	NAP	Numeric	9	2
31	WSP	Numeric	9	2
32	LUB	Numeric	9	2
33	BIT	Numeric	9	2
34	PWX	Numeric	9	2
35	PCK	Numeric	9	2
36	OPR	Numeric	9	2
37	LIQ	Numeric	9	2
38	MGS	Numeric	9	2
39	ELE	Numeric	9	2
40	HYD	Numeric	9	2
41	GEO	Numeric	9	2
42	NUC	Numeric	9	2
43	SOL	Numeric	9	2
44	SEA	Numeric	9	2
45	COUNTRY	Character	15	
46	UNITS	Numeric	1	
** Total **				433

*** UDMD2TEM.DBF

Structure for data base: C:\UDMD2TEM.DBF
Number of data records: 0
Date of last update : 09/24/90

Field	Field Name	Type	Width	Dec
1	VARIABLE	Character	29	
2	BDC	Numeric	9	2
3	CKC	Numeric	9	2
4	BTC	Numeric	9	2
5	SBC	Numeric	9	2
6	BRC	Numeric	9	2
7	PAT	Numeric	9	2
8	OCK	Numeric	9	2
9	GCK	Numeric	9	2
10	BKB	Numeric	9	2
11	BRS	Numeric	9	2
12	OSF	Numeric	9	2
13	OGS	Numeric	9	2
14	OGS	Numeric	9	2
15	BGS	Numeric	9	2
16	BGS	Numeric	9	2
17	CRU	Numeric	9	2
18	MGL	Numeric	9	2
19	RFD	Numeric	9	2
20	MCR	Numeric	9	2
21	CHF	Numeric	9	2
22	RGS	Numeric	9	2
23	LFG	Numeric	9	2
24	AVG	Numeric	9	2
25	MOG	Numeric	9	2
26	JET	Numeric	9	2
27	OKE	Numeric	9	2
28	DIE	Numeric	9	2
29	HFO	Numeric	9	2
30	NAP	Numeric	9	2
31	WSP	Numeric	9	2
32	LUB	Numeric	9	2
33	BIT	Numeric	9	2
34	PWX	Numeric	9	2
35	PCK	Numeric	9	2
36	OPR	Numeric	9	2
37	LIQ	Numeric	9	2

38	MGS	Numeric	9	2
39	ELE	Numeric	9	2
40	HYD	Numeric	9	2
41	GEO	Numeric	9	2
42	NUC	Numeric	9	2
43	SOL	Numeric	9	2
44	SEA	Numeric	9	2
45	COUNTRY	Character	15	
46	UNITS	Numeric	1	
** Total **				433

*** UDMD4.DBF

Structure for data base: C:\UDMD4.DBF
Number of data records: 0
Date of last update : 09/24/90

Field	Field Name	Type	Width	Dec
1	COUNTRY	Character	14	
2	YEAR	Numeric	9	2
3	VARIABLE	Character	9	
4	VALUE	Numeric	9	3
** Total **				42

*** UDMD6.DBF

Structure for data base: C:\UDMD6.DBF
Number of data records: 0
Date of last update : 10/31/90

Field	Field Name	Type	Width	Dec
1	VARIABLE	Character	20	
2	COUNTRY	Character	13	
3	UNITS	Numeric	1	
4	Y1988	Numeric	12	2
5	ABBREV	Character	3	
6	FILETYPE	Character	3	
** Total **				53

*** UDMD6TEM.DBF

Structure for data base: C:\UDMD6TEM.DBF
Number of data records: 0
Date of last update : 10/31/90

Field	Field Name	Type	Width	Dec
1	VARIABLE	Character	20	
2	Y1971	Numeric	12	2
3	Y1972	Numeric	12	2
4	Y1973	Numeric	12	2
5	Y1974	Numeric	12	2
6	Y1975	Numeric	12	2
7	Y1976	Numeric	12	2
8	Y1977	Numeric	12	2
9	Y1978	Numeric	12	2
10	Y1979	Numeric	12	2
11	Y1980	Numeric	12	2
12	Y1981	Numeric	12	2
13	Y1982	Numeric	12	2
14	Y1983	Numeric	12	2
15	Y1984	Numeric	12	2
16	Y1985	Numeric	12	2
17	Y1986	Numeric	12	2
18	Y1987	Numeric	12	2
19	Y1988	Numeric	12	2
20	COUNTRY	Character	13	
21	UNITS	Numeric	1	
22	ABBREV	Character	3	
23	FILETYPE	Character	3	
** Total **				257

*** UEXPORTS.DBF

Structure for data base: C:\UEXPORTS.DBF
Number of data records: 0
Date of last update : 07/03/90

Field	Field Name	Type	Width	Dec
1	EXPORTS	Character	130	
2	TYPE	Numeric	2	
3	COUNTRYCOD	Numeric	4	
4	PORTCODE	Numeric	2	

5	MONTH	Numeric	2	
6	YEAR	Numeric	2	
7	QUANTITY	Numeric	12	
8	VALUE	Numeric	11	
9	PRICEPERTW	Numeric	11	2
10	DATE	Date	8	
11	ICSDTYPE	Numeric	1	
12	ICSDREG	Numeric	1	
13	ICSDPORT	Numeric	1	
14	QUANTITY2	Numeric	12	
15	CARDCOUNT	Numeric	12	
16	SHIPWEIGHT	Numeric	12	
17	SHIPVALUE	Numeric	12	
** Total **			236	

*** UFREIGHT.DBF

Structure for data base: C:\UFREIGHT.DBF
Number of data records: 26
Date of last update : 09/20/90

Field	Field Name	Type	Width	Dec
1	ORIGIN	Character	30	
2	PORT	Character	30	
3	DESTINATION	Character	30	
4	LOWBOUND	Numeric	10	2
5	HIBOUND	Numeric	10	2
6	TERMS	Character	30	
7	M1	Numeric	2	
8	D1	Numeric	2	
9	Y1	Numeric	2	
10	ISSUEDATE	Date	8	
11	SHIPSIZE	Numeric	10	
12	NOTES	Character	44	
13	REGOFORIG	Character	25	
14	REGOFDEST	Character	25	
** Total **			259	

*** UIMPORTS.DBF

Structure for data base: C:\UIMPORTS.DBF
Number of data records: 316
Date of last update : 06/26/90

Field	Field Name	Type	Width	Dec
1	IMPORTS	Character	155	
2	TYPE	Numeric	2	
3	COUNTRYCOD	Numeric	4	
4	PORTCODE	Numeric	2	
5	MONTH	Numeric	2	
6	YEAR	Numeric	2	
7	QUANTITY	Numeric	12	
8	VALUE	Numeric	11	
9	PRICEPERTW	Numeric	11	2
10	DATE	Date	8	
11	ICSDTYPE	Numeric	1	
12	ICSDREG	Numeric	1	
13	ICSDPORT	Numeric	1	
14	CARDCOUNT	Numeric	8	
15	HARMONIZAT	Character	20	
** Total **			241	

*** UPRICES.DBF

Structure for data base: C:\UPRICES.DBF
Number of data records: 53
Date of last update : 09/20/90

Field	Field Name	Type	Width	Dec
1	COUNTRY	Character	17	
2	PORT	Character	30	
3	VOLATILE	Character	10	
4	SULFUR	Character	9	
5	ASH	Character	11	
6	TERMPRIC	Character	14	
7	TERMLow	Numeric	6	2
8	TERMHIGH	Numeric	6	2
9	SPOKPRIC	Character	15	
10	SPOLOW	Numeric	6	2
11	SPOTHIGH	Numeric	6	2
12	BTUPERLB	Numeric	9	
13	TYPE	Numeric	1	
14	M1	Numeric	2	

15	D1	Numeric	2	
16	Y1	Numeric	2	
17	ISSUEDATE	Date	8	
18	O D	Numeric	1	
19	NOTES	Character	35	
** Total **			191	

*** UVOLUME.DBF

Structure for data base: C:\UVOLUME.DBF
Number of data records: 132
Date of last update : 09/25/90

Field	Field Name	Type	Width	Dec
1	ORDER1	Numeric	3	
2	ORDER2	Numeric	4	1
3	YEAR	Character	5	
4	IMPORTER	Character	21	
5	AUSTRALIA	Numeric	9	3
6	CANADA	Numeric	9	3
7	CHINA	Numeric	9	3
8	COLOMBIA	Numeric	9	3
9	OTHER	Numeric	9	3
10	POLAND	Numeric	9	3
11	SAFRICA	Numeric	9	3
12	USSR	Numeric	9	3
13	UK	Numeric	9	3
14	USA	Numeric	9	3
15	WGERMANY	Numeric	9	3
16	TOTAL	Numeric	9	3
17	TYPE	Numeric	1	
** Total **			143	

*** VCOUNTRY.DBF

Structure for data base: C:\VCOUNTRY.DBF
Number of data records: 12
Date of last update : 09/21/90

Field	Field Name	Type	Width	Dec
1	EXPORTER	Character	25	
2	PROPER	Character	25	
** Total **			51	

*** VOLUMES1.DBF

Structure for data base: C:\VOLUMES1.DBF
Number of data records: 1188
Date of last update : 09/25/90

Field	Field Name	Type	Width	Dec
1	YEAR	Character	5	
2	IMPORTER	Character	21	
3	AUSTRALIA	Numeric	9	3
4	CANADA	Numeric	9	3
5	CHINA	Numeric	9	3
6	COLOMBIA	Numeric	9	3
7	OTHER	Numeric	9	3
8	POLAND	Numeric	9	3
9	SAFRICA	Numeric	9	3
10	USSR	Numeric	9	3
11	UK	Numeric	9	3
12	USA	Numeric	9	3
13	WGERMANY	Numeric	9	3
14	TOTAL	Numeric	9	3
15	TYPE	Numeric	1	
** Total **			136	

*** VOLUMES.DBF

Structure for data base: C:\VOLUMES.DBF
Number of data records: 1584
Date of last update : 03/26/91

Field	Field Name	Type	Width	Dec
1	IMP	Character	25	
2	EXP	Character	25	
3	TYPE	Numeric	1	
4	Y1980	Numeric	9	3
5	Y1981	Numeric	9	3
6	Y1982	Numeric	9	3
7	Y1983	Numeric	9	3

8	Y1984	Numeric	9	3
9	Y1985	Numeric	9	3
10	Y1986	Numeric	9	3
11	Y1987	Numeric	9	3
12	Y1988	Numeric	9	3
13	Y1989	Numeric	9	3
14	Y1990	Numeric	9	3
** Total **			151	

*** VREPORT.DBF

Structure for data base: C:\VREPORT.DBF

Number of data records: 12

Date of last update : 03/26/91

Field	Field Name	Type	Width	Dec
1	IMP	Character	25	
2	EXP	Character	25	
3	TYPE	Numeric	1	
4	Y1980	Numeric	9	3
5	Y1981	Numeric	9	3
6	Y1982	Numeric	9	3
7	Y1983	Numeric	9	3
8	Y1984	Numeric	9	3
9	Y1985	Numeric	9	3
10	Y1986	Numeric	9	3
11	Y1987	Numeric	9	3
12	Y1988	Numeric	9	3
13	Y1989	Numeric	9	3
14	Y1990	Numeric	9	3
** Total **			151	

CONFIG.ICS

FILES=45
BUFFERS=15
DEVICE=C:\QEMM.SYS

AUTOEXEC.ICS

ECHO OFF
PROMPT \$P \$G
ICSD

2.1.e General Approach to File Security Measures

Present file security and access is determined by the owner of the ICSD data base. Authorization for the use of the ICSD must then require initial screening of potential users before distribution.

2.1.f General Approach to Verification Procedures Using Test Data

Limited opportunity exists for verification of updates to the data base, because of various filters applied to the data which may result in different configurations of the data; this specifically applies to the import and export data. Comparisons can be made by updating the data base and then referring to the initial data sources. If the original data base becomes destroyed or corrupted, backup files exist for safety purposes. See section 2.5.g in the Operations Guide.

2.2 Program Description For Each Discrete Software Module

The following alphabetical listing sets forth each of the files used in the ICSD system and gives its purpose:

<u>Filename</u>		<u>Description</u>
AUTO123	D1	Automatically load Lotus for Demand reports
AUTO123	E2	Automatically loads worksheet for US exports query
AUTO123	E3	Automatically loads worksheet for US imports query
AUTO123	F1	Controls auto Lotus start for national time series data
AUTO123	F2	Controls auto Lotus start for national time series data
AUTO123	F3	Controls auto Lotus start for region matrix volume data
AUTO123	O5	Automatically loads blank worksheet for analyst's use
AUTO123	P2	Automatically loads worksheet for prices query
AUTO123	P3	Automatically loads worksheet for freight rate query
AUTO123	WK1	First loaded by Lotus, calls user's .wk1 choice
AUTOMAT	PRG	Program to automate ICSD system configuration
BACKUP	MEM	Stores user-supplied data on location of backup copies
CNUMBER	NDX	Index file for country.dbf; key = country id number
COLDBOOT	COM	DOS program that restarts computer. Used with ICSD.BAT
CONFIG	DB	Used by dBase, contains path instructions to find ICSD
CONFIG	MEM	Stores user-supplied configuration information
COUNTRY	DBF	Used to establish relations; included countries
COUNTRY	NDX	Index file for country.dbf
CURSOFF	BIN	Binary program used to turn cursor off
CURSON	BIN	Binary program used to restore cursor
D1	PRG	Initiates query of demand.dbf
D1	WK1	Main worksheet for loading and reporting demand data
D1	WKS	Transition file from dBase to Lotus for demand data
D2	PRG	User access to demand.dbf
D3	PRG	User access to demand1.dbf
D4	PRG	Print graphs
D5	PRG	Displays or prints keys to field names for demand1.dbf
DEMAND1	DBF	Original structure of demand data base
DEMAND1	NDX	Index for Demand1.dbf key=alpha on country
DEMAND	DBF	Modified demand1.dbf for individual country reports
DEMAND	NDX	Index file for demand.dbf
DEMAND	PRG	Screen and subroutines for demand-related user choices
DREPORT	DBF	Working dbf used in converting Demand1 to Demand
E1	PRG	First menu choice for Exports - sets output mode
E2A	FRM	Reports results of exports.dbf query to screen
E2A	NDX	Index for exports.dbf; compound key
E2B	FRM	Reports results of exports.dbf query to printer or file
E2B	NDX	Index for exports.dbf; compound key

E2	DBF	Holds US exports data in response to user query
E2	PRG	Main query routine for US coal exports data base
E2	QRY	User-fashioned filter for exports.dbf
E2	TXT	Text file containing results of exports.dbf query
E2	WK1	Worksheet used to load E2.wks (result of US exp. query)
E2	WKS	Worksheet holding US exports data in response to query
E3A	FRM	Report results of imports.dbf query to screen
E3A	NDX	Index to imports.dbf; compound key
E3B	FRM	Reports results of imports.dbf query to printer
E3B	NDX	Index to imports.dbf; compound key
E3	DBF	User query of Freight.dbf stored in data base form
E3	PRG	Query the U.S. coal imports data base
E3	QRY	User fashioned filter for imports.dbf
E3	TXT	ASCII file with results of imports query
E3	WK1	Holds results of U.S. imports query for further analysis
E3	WKS	Worksheet holding response to U.S. imports query
E4	PRG	Loads either .wks or .dbf file for analysis
E5	PRG	Direct access to dBase command interpreter
ENTRY	COM	Used to hurry through the opening dBase III screen
ERRMESS	PRG	Advises user that incorrect key has been struck
EXPORTS	DBF	Main US coal exports data base
EXPORTS	PRG	Menu selection for queries of the exports & imports dbf
F1	DBF	Intermediate data base holding results of flows query
F1	PRG	User selections for time-series volumetric data
F1	WK1	Graphic routines for time-series volumetric data
F1	WKS	Volumes data for loading into flows matrix worksheet
F2	NDX	Index file for volumes1.dbf; key = type and year
F2	PRG	Loads Lotus to view national importer/exporter matrices
F2	WK1	Lotus worksheet w/ national importer/exporter matrices
F2	WKS	Process worksheet, holds volumes1.dbf query result
F3	PRG	Lotus worksheet for regional importer/exporter matrices
F3	WK1	Regional importer/exporter matrices, controlling wk1
F3	WKS	Process worksheet holding results of flows comb. query
F4	PRG	Permits direct access to volumes.dbf
F5	PRG	Prints graph using Lotus 1-2-3 program
FLows	PRG	Menu choices for using the importer/exporter matrices
FREIGHT	DBF	Holds data on world-wide shipping freight rates
FREIGHT	NDX	Index file for freight.dbf; key=date
HELP	PRG	Displays help screen for any given major menu branch
ICSDAUTO	WK1	The AUTO123.WK1 for the ICSD system before renaming
ICSD	DBF	Holds location of ICSD files
ICSD	DIR	Used to created ICSD.DBF holding file locations
ICSD	EIA	Special file for government edition of ICSD
ICSDIEA	DBF	Used in updating DEMAND1; holds mapping formulae

IMPORTS	DBF	Main U.S. coal imports data base
ISITON	BAT	Batch file to warn user whether printer is on
MASTER	PRG	Opening main menu screen and first subroutine calls
O1	PRG	Configures system with location of key files
O2	PRG	File maintenance - rebuild indexes
O3	PRG	File maintenance - back up procedure
O4	DBF	File maintenance - annotated file list (this dbf)
O4D	DBF	Temporary file; used in this program
O4D	DOC	Temporary file; used in this program
O4D	NDX	Temporary file; used in this program
O4	NDX	Index file for this program
O4	PRG	This program
O56A	PRG	Transforms data base 1 to data base 2 (Volumes)
O56B	PRG	Transforms data base 1 to data base 2 (Demand)
O56	PRG	Menu selection for user data base transformation
O57	PRG	Lists/prints keys to import/export dbf variables
O5	PRG	Menu of miscellaneous choices
OPTIONS	PRG	Options screen and subroutine calls
P1	PRG	Gets user's output selection for prices/rates queries
P2A	FRM	Reports results of prices.dbf query to screen
P2A	NDX	Indexes prices.dbf on unique name of country
P2B	FRM	Reports results of prices.dbf query to printer
P2	DBF	Holds results of queries to prices.dbf
P2	PRG	Control queries prices.dbf
P2	QRY	Sets filter for queries of the prices.dbf
P2	TXT	Holds in ASCII file the results of query to prices.dbf
P2	WK1	Loads p2.wks (results of prices query)
P2	WKS	Holds results of Prices.dbf query - loaded by p2.Wk1
P3A	FRM	Report on query to freight.dbf to screen
P3A	NDX	Displays possible regions for coal origin : freight.dbf
P3B	FRM	Report on query to freight.dbf to printer and ASCII fil
P3B	NDX	Displays possible destination regions: freight.dbf
P3	DBF	Holds results of query of freight.dbf
P3	PRG	Queries freight rates data base
P3	QRY	Sets filter for queries of the freight.dbf
P3	TXT	ASCII file holding results of query to freight.dbf
P3	WK1	Loads p3.wks (data from query of rates.dbf)
P3	WKS	Holds data reported in response to query of rates.dbf
P4	PRG	Analyzes results of prices query
P5	PRG	Direct access to prices.dbf and freight.dbf
PORTNO	NDX	Index file for Ports.dbf; key = port number
PORTS	DBF	Working data base used in U.S. import/export queries
PORTS	NDX	Index for ports.dbf; key = port
PRICES	DBF	Shows steam & met prices from major world coal ports

PRICES	NDX	Index file for prices.dbf; compound key
PRICES	PRG	Coal prices and shipping rates: screen and subroutines
PRINTER	MEM	Stores printer setup string
PROPER	NDX	Lists unique proper names for countries (country.dbf)
PSTATUS	COM	Determines whether printer is on
SRREPORT	MEM	Holds users choice of report format
U1	PRG	Resets file listing osize and odate variables w/ now
U2	PRG	Checks country names in demand.dbf against country.dbf
U3	PRG	Checks country names in imp/exp.dbf against country.dbf
U4	PRG	Used in creating exports.dbf from EIA mainframe file
U6	PRG	Copies programs to backup directory in alpha order
U7	PRG	Puts ICSD coal codes in imp/exp data base
U8	PRG	Prints ALL demand records; must set D1.WK1 range first
UCOUNTRY	PRG	Used for update of DEMAND1; checks country names
UDEMAND	DBF	Update template for demand1.dbf
UDEMAND	PRG	Used to control subprograms for update of DEMAND1.DBF
UDIR	DBF	Similar to O4.DBF; makes directory listing of IEA files
UDIR	NDX	Index file for use with UDIR.DBF; used in updating
UDIR	PRG	Controls conversion of directory lists to a data base
UDMD1	DBF	Holds IEA/OECD data for non-OECD countries in met. tons
UDMD1	PRG	Controls building of UDMD1.DBF for IEA country data
UDMD1TE	DBF	Template data base used in building UDMD1;DEMAND1 update
UDMD2	DBF	Holds IEA/OECD data for individual IEA countries
UDMD2	PRG	Control building of UDMD2.DBF for IEA countries
UDMD2TE	DBF	Template data base used in building UDMD2.DBF (IEA data)
UDMD3	PRG	Uses UDMD2.DBF to update data in DEMAND1.DBF
UDMD4	DBF	Special update .dbf to hold EIA coal forecast data
UDMD4	PRG	Controls update of DEMAND1.DBF with new coal forecasts
UDMD5	PRG	Updates DEMAND1.DBF with data from UDMD1.DBF
UDMD6	DBF	Holds IEA/OECD "BES" data for update of DEMAND1.DBF
UDMD6	PRG	Controls use of UDMD6.DBF data in update of DEMAND1.DBF
UDMD6TE	DBF	Template data base used to build UDMD6.DBF;demand update
UDMD7	PRG	Updates DEMAND1.DBF using data stored in UDMD6.DBF
UDMD8	PRG	Used to create DEMAND.DBF from DEMAND1.DBF
UDMD9	PRG	Builds UDMD6.DBF from IEA "BAL" files, units = MTOE
UDMD	MEM	Holds directory storage locations for IEA / OECD files
UEXPORTS	DBF	Update template for exports.dbf
UEXPORTS	PRG	Controls update of U.S. coal exports data base
UFREIGHT	DBF	Update template for freight.dbf
UIMPORTS	DBF	Update template for imports.dbf
UIMPORTS	PRG	Controls update of U.S. coal imports data base
UPDATE	PRG	Menu choices for data update routines
UPRICES	DBF	Update template for prices.dbf
UPRICES	PRG	Controls update of PRICES.DBF and FREIGHT.DBF

UV1	PRG	Similar to O56.PRG;makes VOLUMES.DBF from VOLUMES1.DBF
UVOLUME	DBF	Update template for volumes1.dbf
UVOLUME	PRG	Controls update of flows data bases
VCOUNTRY	DBF	Listing of exporting countries, used by D2.prg for conv
VCOUNTRY	NDX	Index to vcountry; key=exporter; Used in v. transform
VOLUMES1	DBF	Holds trade volumes data from original worksheets
VOLUMES1	NDX	Index file for volumes1.ndx; compound key
VOLUMES	DBF	Main trade flows data base, 2nd structure
VOLUMES	NDX	Index file for volumes.dbf; compound key
VREPORT	DBF	Intermediate data base used in converting Volumes.dbf
_ICSD	BAT	Used to start ICSD. Called by ICSD.BAT.

The listing above is available on-line by selecting Option 5. This will display an annotated file list, and allow the user to annotate any files created during ICSD operations, such as .PIC files holding graphics. The same option will also print the listing.

3. Operating Environment

3.1 Hardware

The ICSD is intended to be used on IBM-compatible microcomputers capable of running Lotus 1-2-3 and dBase III +. Both Lotus and dBase must be accessible by the ICSD system. Because of the size of the component data bases and the use of DOS command shells to load different programs in memory, relatively unusual demands are placed on the system. designed to run on The ICSD system will run on many microcomputer systems, provided adequate fixed disk storage is available and the computer comes equipped with and has available the full 640 kilobytes of random access memory.

The processor must be an Intel 8088, 8086, 80286, 80386 or 80486 or fully compatible substitute. A math co-processor is helpful but not required. A color monitor is also useful but not required.

A hard disk with at least 7.8 megabytes of free space is needed. The program will not run from floppy disks.

3.2 Support Software

Required support software includes DOS (version 3.x or greater), dBase III +, and Lotus 1-2-3 (version 2x). The DOS backup and restore programs must be compatible with MS-DOS 3.3.

4. Maintenance Procedures

4.1 Programming Conventions

The programming language for most of the ICSD is dBase III. In order to locate particular dBase subroutines, the structured layout of the ICSD program design must be understood. It is also necessary to understand the file naming conventions in use.

This structure is summarized in the Overview section of the *Operations Manual*. The primary subroutine calling program is Master.prg, which contains the code for the opening menu and makes five subroutine calls to the major program components. Each of these components is given a name that corresponds with the master menu selection that invoked it. For example, the programming code required to access the Prices data base (itself stored in Prices.dbf) is contained in Prices.prg, the routines for studying national coal demands are in Demand.prg, etc. However, where two names are referred to in an opening menu choice, such as Prices and Freight Rates, the source code for both is stored in the first named; that is, there is no

separate freight menu and program, but there is a freight.dbf file since the freight rate information is stored in a data base file with a different structure than the Prices.dbf.

In fact, each of the subroutines called from the Master.prg are submenu screens used in turn to call the programs that actually do the work required to access the data and use the system. Without exception, the name of each of these programs consists of a letter and at least one number. The letter refers to the calling menu screen. For instance, all programs invoked from the Prices.prg menu screen begin with the letter P. The first menu choice is P1.prg, the second P2.prg, etc. This same logic is used for related worksheets. An intermediate worksheet, with an extension of .wks, that receives data from a dBase III data base, used in the second choice from the Prices menu would be called P2.wks, and the final Lotus worksheet that loaded the intermediate .wks file would be called P2.wk1. These extensions are consistent with Lotus version 2 naming conventions. While it may initially seem confusing to have .wks and .wk1 files, it should be remembered that dBase's capacity to create Lotus files is limited to Lotus version 1A files (to which Lotus gave the extension .wks), but these files can be read by Lotus version 2.0 and 2.2 worksheets. The same applies to intermediate data bases used to store information in response to a query. While this does not apply to all queries, since most queries do not require an intermediate data base, those that create an intermediate data base adhere to the naming convention. So P2.dbf is the intermediate data base that holds the results of a user query made in response to the second menu choice of the Prices menu. In a few instances on the Options menu, program names will have a second digit which refers to the number of the subchoice made from a submenu. That is, choice 5 of the Options menu is Miscellaneous, which in turn invokes a menu of routines that can't be classified elsewhere. So the program code required to respond to Options menu choice 5, Miscellaneous menu choice 7 would be stored in O57.prg. Therefore, to locate the code for a particular subroutine it is necessary only to know where it falls in the hierarchy of menu commands and use the table of contents listed above. Alternately, the annotated program list may be consulted to read brief descriptions of what each program does. The major programs are also indexed.

There are some exceptions to the general naming convention. Programs stored in files beginning with the letter U are utility programs not associated with or invoked by any ICSD menu. Some programs are transferred and given other names during the process of initiating the ICSD. For instance, the configuration information stored in Config.db is transferred to the directory holding the dBase execution files, as is the ICSD program Automate.Prg. This latter file is renamed Master.Prg by the ICSD.bat batch file that starts the program. A similar procedure is used for the file ICSDauto.wk1. It is renamed during start-up to Auto123.wk1 (the program Lotus attempts to load automatically) and transferred to the directory holding the Lotus files.

Another exception to the general convention of menu screens and subroutines comes in the Miscellaneous choices. The O5.prg holds the Miscellaneous menu choices, and some of the more complicated subroutines are stored in separate files (e.g. O57.prg) but the code for some

simpler menu choices is simply contained in the calling routines of O5.prg. This applies to the first five miscellaneous menu choices.

Normal conventions common to dBase programming were also followed. Nested routines are indented, public variables are declared at the beginning of each procedure, and files are, when possible, opened toward the beginning of each program and identified by work area.

4.2 Verification Procedures

See section 2.1.f. The principal data verification procedure is to check data contained in the ICSD against the published sources. This may be done for each data base by using the dBase BROWSE command, locating the record in question, and comparing data.

4.3 Error Correction Procedures

Procedures for handling error conditions are described in Section 1.2.b.v.i of the *Operations Manual*.

The ICSD has an OPTIONAL facility that restores copies of the original files in case data becomes corrupted through user errors. This requires that another 8 megabytes of disk space be available. Accordingly, use of this capability is only recommended for users with large amounts of free disk space and little knowledge of data base procedures.

The name of a backup director is requested during installation for users who require backup files. The directory to hold the backups should be created with the DOS MD command using a directory name and path chosen by the user (e.g., MD C:\BACKUP). ICSD files should then be copied to that director (e.g., COPY C:\ICSD*.* C:\BACKUP).

4.4 Special Maintenance Procedures

Versions of dBase after dBase III do not require that index files be constantly maintained. However, as there are several possible way the indexes associated with the ICSD data bases can become corrupted, it is necessary from time to time to run the index maintenance program from the Options menu.

A type of special data maintenance is required when using the original coal imports and exports data on the EIA mainframe. The two files, containing Customs transaction records, cover a 13 year period and are very large files with in excess of 20,000 records. The convention used for the early years is to represent columns where a space or blank would be used at the end of the file with a null character. This means that nulls must be replaced with spaces or zeros before the file is downloaded to the microcomputer, as the dBase programs used to load the data into ICSD data bases do not work with nulls.

While dBase III provides a facility for editing program code (the MODI STRU editor), it should not be used to edit ICSD programs. There are two reasons for selecting another editor: MODI STRU is incapable of loading files greater than 5,000 bytes and it will not let programs write to disk any character with the high bit set (that is, it won't permit the use of the IBM extended character set). Since many ICSD programs are either larger than 5,000 bytes, or use ASCII values beyond 128 for screen effects, or both, it is suggested that another editor be used.

4.5 Listings

Organization of Source Code Listing

The following listing of programs is ordered alphabetically to facilitate locating the code for any program. While the alphabetical presentation is not exactly the same as a structural listing, it is close enough to be useful. In this regard, note that all submenus are called from MASTER.PRG. After the submenu screen program, such as DEMAND.PRG, come the programs that are called from that submenu, such as D1.PRG, D2.PRG, and so forth.

Source Code for Main ICSD Programs

```
AUTOMATE.PRG
* * * ..... AUTOMATE.PRG
* * *
* * * THIS PROGRAM, STORED UNDER THE NAME AUTOMATE.PRG, IS RENAMED BY THE
* * * OPENING BATCH FILE, ICSD.BAT, TO MASTER.PRG AND COPIED TO THE
* * * DIRECTORY THAT HOLDS THE DBASE EXECUTION FILES. ITS ONLY FUNCTION
* * * IS TO CHANGE THE DIRECTORY AND CALL THE MASTER.PRG THAT PROVIDES THE
* * * OPENING ICSD MENU.
* * *
* * * .....
CLEAR ALL
SET TYPEAHEAD TO 0
SET FUNCTION 10 TO [CLOSE Data BaseS;DO MASTER;]
CLEAR
DO MASTER

CONFIG.DB
BELL=OFF
CARRY=OFF
CENTURY=OFF
CONSOLE=ON
DEBUG=OFF
DELETED=OFF
DELIMITERS=OFF
DEVICE=SCREEN
ECHO=OFF
ESCAPE=ON
EXACT=OFF
```

```

HEADING=OFF
HELP=OFF
INTENSITY=ON
PRINT=OFF
SAFETY=ON
SCOREBOARD=OFF
STATUS=OFF
STEP=OFF
TALK=OFF
UNIQUE=OFF
F10={DO MASTER;}

```

D1.PRG

```

* * * ..... D1.PRG .....
* * *
* * * The following program asks the user to select the country to be
* * * reported on using the DEMAND.DBF. Once the selection is made, the
* * * country name is stored in a memory file called DEMAND.MEM.
* * *
* * * Data stored in DEMAND.MEM are then restored when the user chooses
* * * which component of demand information should be displayed (in the
* * * remaining choices of the Demand screen).
* * *
* * * .....
* * * Updated 9/8/1988 by Bryan de Boinville
* * * .....
* * * Updated 4/8/1989 by Bryan de Boinville
* * * .....
* * * Updated 9/21/1990 by Bryan de Boinville
* * * .....
SET EXACT OFF
CLEAR TYPEAHEAD
SET TYPEAHEAD TO 10
* * * .....MEMORY VARIABLES.....
C0=[                ]  && NAMES OF COUNTRIES USER SELECTED
C1=[                ]  && NAMES OF COUNTRIES USER SELECTED
D1=[                ]  && NAMES OF EXPORTER USER SELECTED
* * * .....Data BaseS.....
SELECT 1
USE COUNTRY INDEX PROPER
SELECT 2
USE DEMAND INDEX DEMAND
SELECT 1
ONTOS=.T.
* -----
DO WHILE ontos .....&& Loop #1
* * * SET SCREEN COLOR
IF ISCOLOR()
    SET COLOR TO W/B,B/W,B
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF
* * * .....PROGRAM STARTS.....
CLEAR
@ 2, 0 SAY
[ ]

```

```

@ 3, 0 SAY
[
@ 4, 0 SAY [          I·C·S·D  National Demand Report          ]
@ 5, 0 SAY
[
@ 6, 0 SAY [      Instructions:  Select a country to be used for the demand report]
@ 7, 0 SAY [      Data is incomplete for non-OECD countries.]
@ 8, 0 SAY
[

DO WHILE LEN(TRIM(C1))=0      &&LOOP TO ENSURE USER RESPONDS
    @10,21 SAY [Enter name of country : ]
    @12,21 GET C1 PICTURE [0!]
    @14,21 SAY [(Enter ? to select from list, Q to quit)          ]
    READ
ENDDO

IF TRIM(C1)=[Q]
    RETURN
ENDIF

SELECT 1

SEEK TRIM(C1)

IF .NOT. FOUND() .OR. TRIM(C1)=[?]
    CLEAR
    WAIT [      A listing of possible choices follows . . . ]
    ?
    C11=0
    GO TOP
    SET INDEX TO proper
    DO WHILE C11=0
        DO WHILE .NOT. EOF()
            CLEAR
            DISPLAY FIELDS proper FOR DEMAND
            ?
            ?
            @24,0 SAY [Enter number of country or hit enter for other choices: ] get C11
PICTURE [999]
            READ
        *      IF C11>0
            EXIT
        *      ENDIF
            ENDDO
            IF C11>0
                EXIT
            ELSE
                LOOP
            ENDIF
            ENDDO
            GOTO C11
            C1=PROPER
        ELSE
            C1=PROPER
        ENDIF

C1=TRIM(C1)

```

```

ONTOS=.F.      && EXIT FROM LOOP

ENDDO                                     && Loop #1
*-----
SELECT 2
SEEK C1
* * * NOTE THAT THERE ARE 149 RECORDS FOR EACH COUNTRY
* * *
* * * UPDATE NOTE
* * *
* * * IF FOR SOME REASON THE DREPORT.DBF DOES NOT
* * * CONTAIN 149 RECORDS, THE FOLLOWING COPY COMMAND MUST BE
* * * ADJUSTED ACCORDINGLY.
CLEAR
?
?
?
?
?
* * * .....
* * * UPDATE NOTE
* * *
* * * FOR YEARS AFTER 1987, THE FOLLOWING COPY COMMAND SHOULD BE
* * * MODIFIED TO SPECIFY THE ADDITIONAL YEARS. THIS WILL ALSO NECESSITATE
* * * SLIGHT CHANGES TO D1.WK1.
* * * .....
IF FOUND ()
    SET SAFETY OFF
    SET TALK ON
    ? [Please wait while records are retrieved ... ]
    ? [-----]
    COPY NEXT 149 TO D1.WKS WKS
    SET SAFETY ON
    SET TALK OFF
ELSE
    CLEAR
    WAIT [There is no information for selected country ... ...]
    CLEAR
    CLOSE Data BaseS
    RETURN
ENDIF
CLEAR ALL
RUN COPY AUTO123.D1 AUTO123.WK1 >NUL
RESTORE FROM CONFIG ADDITIVE
newdrive=SUBSTR(LOTUS,1,2)
RUN &NEWDRIVE
newdirect=[CD ]+lotus
RUN &newdirect
RUN 123
RESTORE FROM CONFIG ADDITIVE
OLDDRIVE=SUBSTR(LICSD,1,2)
RUN &OLDDRIVE
CDLOC=[CD ]+LICSD
RUN &CDLOC

RETURN

```

```

D2.PRG
* * * ..... D2.PRG .....
* * *
* * * THIS PROGRAM DROPS TO THE DBASE COMMAND INTERPRETER LEVEL AFTER
* * * PUTTING THE CORRECT DBASE AND INDEX FILES IN USE
* * *
* * * .....
CLEAR
USE DEMAND1 INDEX DEMAND1
? [ ..... ]
? [ After hitting any key, the dBase command interpreter (i.e. ]
? [ the dot prompt) will be invoked with the DEMAND1 data base ]
? [ and index in use. To return, either type RESUME or hit ]
? [ the F10 key but issue the command CLOSE Data BaseS first.]
? [ Do not exit directly from dBase.]
?
? [ Type ASSIST for the dBase Assistant. ]
WAIT [ ..... ]
SUSPEND
CLOSE Data BaseS
RETURN

```

```

D3.PRG
* * * ..... D3.PRG .....
* * *
* * * THIS PROGRAM DROPS TO THE DBASE COMMAND INTERPRETER LEVEL AFTER
* * * PUTTING THE CORRECT DBASE AND INDEX FILES IN USE
* * *
* * * .....
CLEAR
USE DEMAND INDEX DEMAND
? [ ..... ]
? [ After hitting any key, the dBase command interpreter (i.e. ]
? [ the dot prompt) will be invoked with the DEMAND data base ]
? [ and index in use. To return, either type RESUME or hit ]
? [ the F10 key but issue the command CLOSE Data BaseS first.]
? [ Do not exit directly from dBase.]
?
? [ Type ASSIST for the dBase Assistant. ]
WAIT [ ..... ]
SUSPEND
CLOSE Data BaseS
RETURN

```

```

D4.PRG
* * * ..... D4.PRG .....
* * *
* * * CALLS THE LOTUS 1-2-3 PRINT GRAPH PROGRAM TO PROCESS GRAPHS CREATED
* * * WHILE USER WAS WORKING WITH DEMAND WORKSHEET
* * *
* * * .....
CLEAR
RESTORE FROM CONFIG ADDITIVE
newdirect=[CD ]+lotus
RUN &newdirect

```

```
RUN PGRAPH
RUN CD\ICSD
RETURN
```

D5.PRG

```

* * * ..... D5.PRG .....
* * *
* * * THIS PROGRAM LISTS THE CRYPTIC ABBREVIATIONS USED IN THE DEMAND1.DBF
* * * AND SHOWS THEIR MEANING FOR DATA ON NATIONAL ENERGY ECONOMIES.
* * * THE PROGRAM USES THE WORKING Data Base DREPORT.DBF WHICH IS USED IN
* * * THE TRANSFORMATION OF DEMAND1.DBF TO DEMAND.DBF BUT CONTAINS THE
* * * NECESSARY KEYS. PRINTING THE REPORT IS AN OPTION.
* * *
* * * .....
CLEAR
?
?
?
WAIT [Print a copy of the key to field names? (Y/N) ] to ans
IF UPPER(ANS)=[Y]
    RUN ISITON
    USE DREPORT
    DISPLAY ALL FIELDS ITEM, FIELDNAME TO PRINT
    WAIT [Hit any key to return to ICSD menu . . . ]
ELSE
    USE DREPORT
    DISPLAY ALL FIELDS ITEM, FIELDNAME
    WAIT [Hit any key to return to ICSD menu . . . ]
ENDIF
CLOSE Data Bases
RETURN
```

DEMAND.PRG

```

* * * ..... DEMAND.PRG .....
* * *
* * * CONTAINS THE MENU AND SUBROUTINE CALLS FOR QUERIES OF THE DEMAND.DBF
* * *
* * * .....
* * * ESTABLISH OPERATING MODES
SET TYPEAHEAD TO 0    && Clean out buffer
SET TYPEAHEAD TO 10  && but reestablish it
SET TALK OFF
SET ESCAPE OFF        && prevent exit during periods cursor turned off
* * * LOAD MODULES TO CONTROL CURSOR FROM MASTER MENU
LOAD CURSON.BIN
LOAD CURSOFF.BIN
* * * ADVISE PROGRAM OF LOCATION OF LOTUS AND DBASE
IF .NOT. FILE("CONFIG.MEM")
    DO CONFIG
ELSE
    RESTORE FROM CONFIG ADDITIVE
ENDIF
* * * GENERAL VARIABLES
ontos = .T.
choice = 0
* * * .....
* * * BEGIN MAIN LOOP FOR MASTER MENU USER SELECTIONS
```

***

DO WHILE onto

moniker = [I·C·S·D]

choice = 0

SET TALK OFF

IF ISCOLOR()

SET COLOR TO /R,W/B,R

CLEAR

ELSE

SET COLOR TO W/N,N/W,N

CLEAR

ENDIF

@ 2,7 say "....."

IF ISCOLOR()

SET COLOR TO /W,,

ELSE

SET COLOR TO W/N,,

ENDIF

@ 3,7 say "....."

@ 4,7 say "

IF ISCOLOR()

SET COLOR TO R/W,,

ELSE

SET COLOR TO W+/N,,

ENDIF

@ 4,8 say [Energy Demand]

IF ISCOLOR()

SET COLOR TO N/W,,

ELSE

SET COLOR TO W/N,,

ENDIF

@ 5,7 say "....."

@ 6,7 say "

@ 7,7 say "

@ 8,7 say " 1 : National energy economies

@ 9,7 say " 2 : Direct access - Demand1.dbf

@10,7 say " 3 : Direct access - Demand.dbf

@11,7 say " 4 : Print graph

@12,7 say " 5 : Key to Demand1.dbf field names

@13,7 say " ~~~~~

@14,7 say " 6 : Return to main menu

@15,7 say "

@16,7 say "

@17,7 say "

@18,7 say "

@19,7 say "

@20,7 say "

@21,7 say "

@22,7 Say "

@23,7 say "

IF ISCOLOR()

SET COLOR TO R/W,,

ELSE

SET COLOR TO W+/N,,

ENDIF

@22,35 say [Help = F1]

IF ISCOLOR()

SET COLOR TO N/W,,

```

ELSE
  SET COLOR TO W/N,,
ENDIF

CALL CURSOFF  &&TURN THE CURSOR OFF WHILE THE PROGRAM WAITS FOR USER TO GO

DO WHILE choice=0

  choice=INKEY()

  * * * DISPLAY CURRENT TIME CONTINUOUSLY ON SCREEN UNTIL KEY PRESSED
  MTIME = TIME()
  IF VAL(SUBSTR(mtime,1,2)) >= 12
    IF VAL(SUBSTR(mtime,1,2)) = 12
      MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ p.m.]
      MTIME = LTRIM(MTIME)
    ELSE
      mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2)) - 12) + SUBSTR(mtime,3,3)) + [
p.m.]
      mtime = LTRIM(mtime)
    ENDIF
  ELSE
    IF VAL(SUBSTR(mtime,1,2)) = 0
      MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ a.m.]
      MTIME = LTRIM(MTIME)
    ELSE
      mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2))) + SUBSTR(mtime,3,3)) + [ a.m.]
      mtime = LTRIM(mtime)
    ENDIF
  ENDIF

  @22,16 say date()
  @22,57 say mtime+[ (D)]

  @22,46 SAY CHR(choice)

ENDDO  && END OF LOOP TO GET USER MENU CHOICE

CALL CURSON  && TURN THE CURSOR BACK ON
SET ESCAPE ON  && SINCE CURSOR IS BACK ON, ESCAPE IS PERMISSIBLE
ON ESCAPE RETURN
* * * SET COLOR FOR SUBROUTINES
IF ISCOLOR()
  SET COLOR TO W/B,B/W,B
ELSE
  SET COLOR TO W/N,N/W,N
ENDIF
* * * EVALUATE WHAT USER WANTED
DO CASE

CASE CHR(choice) $ [^\]  && User pressed F1 help key

  help1=[NATIONAL ENERGY DEMAND presents data on national primary fuel ]
  help2=[usage for all major fuel types; disaggregated primary fuel use]
  help3=[for electric utility and industrial sectors; all aspects]
  help4=[of coal consumption, production and imports; and miscellaneous]
  help5=[demographic and fuel-user information ..... DIRECT ACCESS]
  help6=[uses the dBase Assistant for two different views of the same]
  help7=[data ..... PRINT GRAPH uses the Lotus Print Graph program ...]

```



```

help8=[KEYS explains the field names used in Demand1.dbf. ]
DO help WITH moniker,help1,help2,help3,help4,help5,help6,help7,help8

CASE CHR(choice) $ [1]
    DO d1                                && Subroutine call
CASE CHR(choice) $ [2]
    DO d2                                && Subroutine call
CASE CHR(choice) $ [3]
    DO d3                                && Subroutine call
CASE CHR(choice) $ [4]
    DO d4                                && Subroutine call
CASE CHR(choice) $ [5]
    DO d5                                && Subroutine call
CASE CHR(choice) $ [6]
    CLEAR
    RETURN
    OTHERWISE
        moniker = [I.C.S.D]
        message=[Your selection must be listed in the menu. ]
        DO ERRMESS WITH moniker, message
        LOOP
ENDCASE
ENDDO
RETURN

E1.PRG
* * * ..... E1.PRG .....
* * *
* * * THIS PROGRAM GETS USER CHOICE OF OUTPUT FOR Data Base QUERY
* * *
* * * .....
* * * SET SCREEN COLORS
IF ISCOLOR()
    SET COLOR TO N/BG,B/W,B
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF
CLEAR
@2,2 SAY
[.....]
@3,2 SAY
[.....]
@4,2 SAY [          Output Reporting Options:  U.S. Imports & Exports  ]

```

05,2 SAY

```
[
ans=1
@row()+2, 3 say [Detailed Reports      (listing of individual records, with totals )]

@row()+2, 5 say [1 : Screen      : Response to query is reported to screen ]
@row()+1, 5 say [2 : Printer     : Specified records are printed ]
@row()+1, 5 say [3 : Text        : Specified records are saved in an ASCII file]
@row()+1, 5 say [4 : Data Base   : Specified records are copied to a dBase .dbf
file]
@row()+1, 5 say [5 : Worksheet   : Specified records are copied to a Lotus .wks
file]
@row()+2, 3 say [Summary Reports      (calculated totals only) ]
@row()+2, 5 say [6 : Sum to scr : Average and sum reported to screen]
@row()+1, 5 say [7 : Sum to prt : Average and sum printed]
@row()+2, 2 say
]
@row()+1, 5 say [8 : Exit          : Return to main I.C.S.D menu ]
@row()+2, 5 SAY [Enter choice      : ] GET ans PICTURE [9] RANGE 1,8
READ
IF ans=8
    ans=1
ENDIF
reporter=ans
SET SAFETY OFF
SAVE ALL LIKE REPORTER TO REPORTER
SET SAFETY ON
RETURN
```

E2.PRG

```
***** ..... E2.PRG .....
*****
***** THE FOLLOWING PROGRAM SOLICITS A QUERY OF THE EXPORTS Data Base. BEFORE
***** DOING SO, INFORMATION PREVIOUSLY GIVEN ON PREFERRED REPORT OUTPUT IS
***** RESTORED TO MEMORY FOR USE IN OUTPUT.
*****
***** MODIFIED BY BRYAN DE BOINVILLE ON 6-16-88 TO FIX DBASE AND WORKSHEET
***** CREATION PROBLEMS (REPORTING OPTIONS 4 AND 5).
*****
***** MODIFIED BY BRYAN DE BOINVILLE ON 8-30-88 TO REFLECT CHANGES IN
***** CENSUS FILE STRUCTURE FOR U.S. EXPORTS.
***** .....
*****
***** BRING-IN USER'S REPORTING OPTION SELECTION
IF FILE("REPORTER.MEM")
    RESTORE FROM REPORTER ADDITIVE
ELSE
    REPORTER=1
ENDIF
***** SET SCREEN COLORS
IF ISCOLOR()
    SET COLOR TO N/BG,B/W,BG
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF
Ctown=.F.
```

*** FILL VARIABLE FOR OUTPUT TYPE BASED ON USER'S E1.PRG SELECTION

```
DO CASE
  CASE REPORTER=1
    OUTPT=[Screen]
  CASE REPORTER=2
    OUTPT=[Printer]
  CASE REPORTER=3
    OUTPT=[ASCII file]
  CASE REPORTER=4
    OUTPT=[dBase data base]
  CASE REPORTER=5
    OUTPT=[Lotus worksheet]
  CASE REPORTER=6
    OUTPT=[Sum/avg to screen]
  CASE REPORTER=7
    OUTPT=[Sum/avg to print]
  OTHERWISE
    REPORTER=1
    OUTPT=[Screen]
```

ENDCASE

*** SELECT Data BaseS

CLOSE ALL

SELECT 1

USE EXPORTS

SELECT 2

USE COUNTRY INDEX COUNTRY, PROPER, CNUMBER

SELECT 3

USE PORTS INDEX PORTS,PORTNO

SELECT 1

CLEAR

?

? []

? [U.S. Exports Query Procedure]

? []

? [Note: The Exports data base currently contains]+str(reccount(),5,0)+[records.]

? [Since a response to a query of a data base of this size]

? [could result in thousands of records being output, it is important to]

? [select the proper type of report. The output method now selected is]

? []+OUTPT+[. If this is not correct, a new output format should]

? [be selected before proceeding.]

? []

WAIT [Proceed? (Y/N)] to ans

IF UPPER(ANS)=[N]

CLEAR

CLOSE Data BaseS

RETURN

ENDIF

CLEAR

?

? []

? []

? [U.S. Exports Query Procedure]

? []

? []

? [A completed query involves specifying four variables:]

? []

? [The date or period in question]

```

? [      . Coal type ]
? [      . Either the country or region receiving shipment ]
? [      It is possible to specify all countries (from the]
? [      individual country selection) but this ]
? [      search takes considerably longer.]
? [      . The port or region where shipment left the U.S. ]
? [      Selecting all ports is also possible (from the]
? [      individual port selection) but will also add]
? [      to the time required for the search.]
? [
? [-----]
?
WAIT          Hit any key to begin query . . . ]
* * * .....COMPONENT PARTS
* * * THE OBJECT OF EACH COMPONENT OF THE QUERY IS TO ADD TO THE
* * * SEARCH VARIABLE THAT WILL BE USED TO MAKE THE QUERY. DEPENDING
* * * ON WHETHER REGIONAL OR INDIVIDUAL TRANSACTIONS ARE ASKED FOR
* * * THE TYPE OF INDEX THAT WILL BE USED CHANGES. IN ADDITION, TO SPEED
* * * QUERIES IT IS ALSO NECESSARY TO BUILD A COMPOUND VARIABLE
* * * THAT WILL BE USED FOR A SEEK.
* * *
* * * TO SAVE BYTES IN THE SEARCH VARIABLE, MACRO SUBSTITUTION IS USED
* * * WITH THE FOLLOWING ABBREVIATIONS FOR FIELDS IN THE EXPORTS
* * * Data Base:
D=[DATE]
I=[ICSDTYPE]
C=[COUNTRYCOD]
R=[ICSDREG]
P=[ICSDPORT]
* * *
* * * IN ADDITION, THE FOLLOWING COMPOUND VARIABLES ARE INITIATED. "SEARCH"
* * * WILL HOLD THE COMPOUND QUERY TO BE APPLIED TO THE "FOR" CONDITIONAL
* * * OF THE QUERY, AND "SPEEDUP" HOLDS THE COMPOUND CONDITIONAL TO BE
* * * USED FOR THE "WHILE" LIMITATION TO SPEED THE SEARCH. "MARKER" HOLDS
* * * THE COMPOUND VARIABLE THAT WILL BE USED IN CONNECTION WITH THE
* * * DBASE SEEK COMMAND (TO REDUCE THE AMOUNT OF THE Data Base THAT
* * * MUST BE SEARCHED). "INDEX" HOLDS A DESIGNATION OF WHICH OF THE
* * * Data Base INDEXES SHOULD BE USED. "FALLBACK" IS A VARIANT OF
* * * "SEARCH" THAT IS USED IN CASE THE SEEK DOES NOT PRODUCE A POSITIVE
* * * RESULT.
SEARCH=[]
MARKER=[]
SPEEDUP=[]
INDX=[]
FALLBACK=[]
* * * .....
* * * .....SELECT DATES.....
CLEAR
? [-----]
? [      Period to be covered by query ]
? [-----]
?
* * *
* * * ..... UPDATE NOTE .....
* * *
* * * WHEN THE EXPORTS Data Base HAS BEEN UPDATED WITH ADDITIONAL DATA, RESET
* * * THE VALUES OF MONTH2 AND YEAR2 (BELOW) TO THE MONTH AND YEAR OF THE
* * * MOST RECENT DATA IN THE Data Base
* * *

```

```

* * * .....
MONTH1=1
YEAR1=80
MONTH2=12
YEAR2=90
@row()+2,19 SAY [Starting month           : ] get month1 picture [99] range 1,12
@row()+1,19 SAY [Starting year            : ] get year1 picture [99] range 80,90
@row()+2,19 SAY [Through & including month : ] get month2 picture [99] range 1,12
@row()+1,19 SAY [Ending year              : ] get year2 picture [99] range 80,90
READ
D1=CTOD (STR (MONTH1,2,0)+[/01/]+STR (YEAR1,2,0))
D2=CTOD (STR (MONTH2,2,0)+[/01/]+STR (YEAR2,2,0))
* * * NOTE THAT DATES IN Data Base ALL USE THE FIRST DAY OF MONTH
IF D2<D1
    ? [Improper date entry (ending date must be greater than starting date)]
    WAIT
    RETURN
ENDIF
* * * FILL VARIABLES
SEARCH=SEARCH+ [&D>=D1 .AND. &D<=D2]
MDATE=STR (YEAR1,2,0)
MARKER=MDATE
FALLBACK=MDATE
* * * .....END OF DATE SECTION....
* * * .....COAL TYPE.....
CLEAR
?
? [-----]
? [ Coal Types ]
? [-----]
?
? [ 1 : Steam           -- Includes bituminous (20) and anthracite (70) ]
? [ ]
? [ 2 : Metallurgical  -- Includes low volatility bituminous (10) ]
? [ ]
? [ 3 : Steam & Met.    -- Total for both 1 and 2 ]
? [ ]
? [ 4 : Other           -- Includes lignite (30), coal coke (45), coke ]
? [ fuel use (48), petroleum coke (50), ]
? [ briquettes (60) ]
?
? [-----]
? [ Note: Numbers in parentheses refer to original Customs product codes.]
? [ See users guide to search data base for these codes. ]
? [-----]
?
WAIT [ Specify a coal type : ] TO CTYPE
DO CASE
CASE UPPER(CTYPE)=[1]
    * * * FILL VARIABLES
    SEARCH=SEARCH+ [ .AND. &I=1]
    MARKER=[1]+MARKER
    SPEEDUP=[ICSDTYPE<>1 .OR. &D>D2]
    SPEEDUP1=[ICSDTYPE=1 .and. &D<=D2]
    FALLBACK=[1]+FALLBACK
    WHATTYPE=[: STEAM COAL]
    t=[1]
CASE UPPER(CTYPE)=[2]
    * * * FILL VARIABLES

```

```

SEARCH=SEARCH+[.AND. &I=2]
MARKER=[2]+MARKER
SPEEDUP1=[ICSDTYPE=2 .and. &D<=D2]
SPEEDUP=[ICSDTYPE<>2 .OR. &D>D2]
FALLBACK=[1]+FALLBACK
WHATTYPE=[: MET. COAL]
t=[2]
CASE UPPER(CTYPE)=[3]
  * * * FILL VARIABLES
  SEARCH=SEARCH+[.AND. &I<3]
  MARKER=[1]+MARKER
  SPEEDUP=[ICSDTYPE=3]
  SPEEDUP1=[ICSDTYPE<>3]
  FALLBACK=[1]+FALLBACK
  WHATTYPE=[: STEAM & MET. COAL]
  t=[0]
CASE UPPER(CTYPE)=[4]
  * * * FILL VARIABLES
  SEARCH=SEARCH+[.AND. &I=3]
  MARKER=[3]+MARKER
  SPEEDUP1=[ICSDTYPE=3 .and. &D<=D2]
  SPEEDUP=[ICSDTYPE<>3 .OR. &D>D2]
  FALLBACK=[3]+FALLBACK
  WHATTYPE=[: OTHER COAL]
  t=[3]
OTHERWISE
  WAIT [Invalid selection . . . returning to menu]
  RETURN
ENDCASE
* * * .....END OF TYPE SELECTION..
* * * .....COUNTRY SELECTION
CLEAR
?
?
?
?
?
? [-----]
? [      Country or region receiving coal exported from U.S.  ]
? [-----]
?
? [Note:  If data from all countries or regions are needed, select C for ]
? [      country and enter 9999 when the country code is requested.  ]
? [      This search will take considerably longer than others.  ]
?
? [-----]
?
CR=[]
*-----
DO WHILE UPPER(CR)<>[C] .AND. UPPER(CR)<>[R]                                && Loop #C
  ? [ Enter either C to select an individual country that received U.S. coal]
  WAIT [ or R to select a region (C/R) . . . ] to CR
  CLEAR
ENDDO                                                                    && Loop #C
*-----
* * * THE FOLLOWING CODE EVALUATES USER'S CHOICE OF EITHER COUNTRY OR
* * * REGION.  IF COUNTRY, THE USER MAY SELECT EITHER A SINGLE COUNTRY
* * * OR ALL COUNTRIES.  IF REGION, A LIST OF REGIONS IS DISPLAYED.

```

*** THE SELECTION OF COUNTRY OR REGION ALSO DETERMINES WHICH
 *** INDEX WILL BE USED.

DO CASE

CASE UPPER(CR)=[C]

CLEAR

? [Choose the country receiving U.S. coal from the following list,]

? [or enter 9999 for all countries . . .]

?

? [Note: entering 9999 will slow search considerably]

WAIT []

SELECT 2

SET INDEX TO PROPER

id=0

GO TOP

*** IT IS NECESSARY FOR THE USER TO SELECT A COUNTRY FROM THE FOLLOWING

*** LIST

DO WHILE id<=999

DO WHILE .NOT. EOF()

CLEAR

DISPLAY FIELDS PROPER,COUNTRYID FOR EXPDBF off

?

824,0 SAY [Enter id # of receiving country or hit enter for other choices:]

;

GET ID PICTURE [9999]

READ

IF id>999

EXIT

ENDIF

ENDDO

IF id>999

SET INDEX TO CNUMBER

SEEK ID

IF FOUND()

vv=trim(proper)

ELSE

WAIT [ERROR: The country code specified was invalid...]

CLOSE Data BaseS

CLEAR

RETURN

ENDIF

EXIT

ELSE

GO TOP

ENDIF

ENDDO

*** NOW THAT COUNTRY SELECTION HAS BEEN MADE, FILL VARIABLES

*** ACCORDINGLY

DO CASE

CASE ID<9999

SEARCH=SEARCH+[.AND. &C=ID]

IF T=[1] .OR. T=[2] .OR. T=[3]

SPEEDUP1=[ICSdtype=VAL(T) .and. COUNTRYCOD=ID]

SPEEDUP=[ICSdtype>VAL(T) .OR. COUNTRYCOD<>ID]

MARKER=t+str(id,4,0)

FALLBACK=T+[122]

ELSE

```

MARKER=[1]+STR(ID,4,0)
FALLBACK=T+[122]
SPEEDUP1=[ICSDDTYPE<3]
SPEEDUP=[ICSDDTYPE>2]
ENDIF
INDX=[E2B]

CASE ID=9999
SEARCH=SEARCH+[.AND. &C>0]
IF T=[1] .OR. T=[2] .OR. T=[3]
    SPEEDUP1=[ICSDDTYPE=VAL(T)]
    SPEEDUP=[ICSDDTYPE>VAL(T)]
    MARKER=t
ELSE
    MARKER=[1]
    SPEEDUP1=[ICSDDTYPE<3]
    SPEEDUP=[ICSDDTYPE>2]
ENDIF
FALLBACK=[00000]
VV=[ALL COUNTRIES]
INDX=[E2B]

ENDCASE

CLEAR

CASE UPPER(CR)=[R]

CLEAR
?
?
?
?
?
? [-----]
? [Regions that Received U.S. Coal ]
? [-----]
?
? [
? [1 : Canada]
? [2 : South America]
? [3 : North Europe]
? [4 : South Europe & Mediterranean]
? [5 : Asia]
? [6 : Eastern Bloc Nations]
?
WAIT [ Enter choice : ] TO REG
DO CASE
CASE UPPER(REG)=[1]
    * * * FILL VARIABLES
    SEARCH=SEARCH+[.AND. &R=1]
    INDX=[E2A]
    VV=[Canada]
CASE UPPER(REG)=[2]
    * * * FILL VARIABLES
    SEARCH=SEARCH+[.AND. &R=2]
    INDX=[E2A]
    VV=[South America]
CASE UPPER(REG)=[3]
    * * * FILL VARIABLES

```



```

SEARCH=SEARCH+[.AND. &R=3]
INDX=[E2A]
VV=[North Europe]
CASE UPPER(REG)=[4]
  *** FILL VARIABLES
  SEARCH=SEARCH+[.AND. &R=4]
  INDX=[E2A]
  VV=[South Europe & Mediterranean]
CASE UPPER(REG)=[5]
  *** FILL VARIABLES
  SEARCH=SEARCH+[.AND. &R=5]
  INDX=[E2A]
  VV=[Asia]
CASE UPPER(REG)=[6]
  *** FILL VARIABLES
  SEARCH=SEARCH+[.AND. &R=6]
  INDX=[E2A]
  VV=[Eastern Bloc Nations]
OTHERWISE
  WAIT [I
nvalid....Returning to menu]
  CLOSE Data BaseS
  RETURN
ENDCASE

OTHERWISE
  WAIT [Not a valid selection . . . Returning to menu]
  CLOSE Data BaseS
  RETURN
ENDCASE

*** .....end of country selection
*** .....
*** GET USER'S PORT SELECTION
CLEAR
? [-----]
? [          U.S. Port or Region Originating Shipment]
? [-----]
?
? [Note:  If data from all U.S. ports are needed, select P for ]
? [      ports and enter 99 when the port code is requested. ]
? [      This search will add to the search time.]
?
? [-----]
?
?
PCR=[]
*-----*
DO WHILE UPPER(PCR)<>[P] .AND. UPPER(PCR)<>[R]          && Loop #D
  ? [ Enter either P to select an individual port that shipped U.S. coal]
  WAIT [ or R to select the shipment region (P/R) . . . ] to PCR
  CLEAR
ENDDO          && Loop #D
*-----*
DO CASE

  CASE UPPER(PCR)=[P]

    WAIT [Select a port number from the following listing . . . ]
    CLEAR

```

```

SELECT 3
pt=0
GO TOP
DO WHILE pt<=0
    DO WHILE .NOT. EOF()
        CLEAR
        DISPLAY ALL FIELDS PORT,IDNUMBER OFF
        ?
        @24,0 SAY [Enter id # of shipping port or hit enter for other choices:
] ;
get pt PICTURE [99]
    READ
    IF pt>0
        EXIT
    ENDIF
ENDDO
IF pt>0
    EXIT
ELSE
    GO TOP
ENDIF
ENDDO
SET INDEX TO PORTNO
SEEK PT
IF FOUND()
    PNAME=PORT
    PT2=IDNUMBER2
ENDIF
IF PT<>PT2
    CLEAR
    TEXT

```

PLEASE NOTE:

You have selected a port for which special treatment is given in Customs Department records. This means that the sum of the quantity of coal exported from this port will be correct, but the value of shipments will be mixed with other ports having the same port code in the second column above.

In other words it is not possible to determine the value of shipments leaving this port. To determine the quantity & value of shipments leaving from the aggregation of ports with the same second port code, rerun this program and select that portcode.

```

ENDTEXT
ENDIF
WAIT []

```

```

* * * NOW THAT PORT SELECTION HAS BEEN MADE, FILL VARIABLES
* * * ACCORDINGLY
DO CASE

```

```

CASE PT<99

```

```

    IF PT<>59
        SEARCH=SEARCH+[ .AND. PORTCODE=PT]

```

```

ELSE
  Ctown=.T.
  SEARCH=SEARCH+[ .AND. (PORTCODE=PT .OR. (PORTCODE>=14 .AND.
PORTCODE<=17)) ]
ENDIF

```

```

CASE PT=99

```

```

  PNAME=[ALL U.S. PORTS]
  SEARCH=SEARCH+[ .AND. PORTCODE>0]

```

```

ENDCASE

```

```

PNAME=TRIM(PNAME)

```

```

CASE UPPER(PCR)=[R]

```

```

  CLEAR

```

```

  ?

```

```

  ?

```

```

  ?

```

```

  ?

```

```

  ?

```

```

  ?

```

```

[ _____ ]
? [                U.S. Export Regions ]
?
```

```

[ _____ ]

```

```

?

```

```

? [

```

```

? [

```

```

? [

```

```

? [

```

```

?

```

```

WAIT [                Enter choice : ] TO REG

```

```

DO CASE

```

```

  CASE UPPER(REG)=[1]

```

```

    * * * FILL VARIABLES

```

```

    SEARCH=SEARCH+[ .AND. &P=1]

```

```

    PNAME=[EASTERN PORTS]

```

```

  CASE UPPER(REG)=[2]

```

```

    * * * FILL VARIABLES

```

```

    SEARCH=SEARCH+[ .AND. &P=2]

```

```

    PNAME=[SOUTHERN PORTS]

```

```

  CASE UPPER(REG)=[3]

```

```

    * * * FILL VARIABLES

```

```

    SEARCH=SEARCH+[ .AND. &P=3]

```

```

    PNAME=[WESTERN PORTS]

```

```

  CASE UPPER(REG)=[4]

```

```

    * * * FILL VARIABLES

```

```

    SEARCH=SEARCH+[ .AND. &P=4]

```

```

    PNAME=[NORTHERN PORTS]

```

```

  OTHERWISE

```

```

    WAIT [Invalid selection . . . returning to menu]

```

```

    CLOSE Data BaseS

```

```

    RETURN

```

```

ENDCASE

```

```

OTHERWISE

```

```

  WAIT [Invalid selection . . . returning to menu]

```

```

CLOSE Data Bases
RETURN
ENDCASE
* * * .....
* * * .....
* * * .....PREPARE FOR ISSUING REPORTS...
SELECT 1
CLEAR
SET INDEX TO &INDX
SEEK marker
IF .NOT. FOUND()
    GO TOP
    SEEK FALLBACK
    IF .NOT. FOUND()
        GO TOP
    ENDIF
ENDIF
HEAD1=[U.S. COAL EXPORTS TO ]+UPPER(VV)
HEAD2=[FROM ]+PNAME
HEAD3=UPPER(CMONTH(d1))+[, ]+STR(YEAR(D1),4,0)+[ THROUGH ]+UPPER(CMONTH(d2));
+[, ]+STR(YEAR(D2),4,0)+[ &WHATYPE]
* * * .....
* * * .....DISPLAY RESULTS OF SEARCH.....
* * * .....SCREEN REPORT

DO CASE
CASE REPORTER=1
    R=6
    C=4
    Q=0
    Q1=0
    V=0
    V1=0
    COUNTER=0
    COUNTER2=0
    COUNTER3=0
    COUNTER4=0
    @1,1 SAY HEAD1+[ ]+HEAD2
    @2,1 SAY HEAD3
    @3,1 SAY
[-----]
    @4,1 SAY [   Date       Shipment Size       Shipment Value       Price Per
Ton]
    @5,1 SAY
[-----]

DO WHILE .NOT. EOF()
IF R>=23
    ?
    WAIT [Hit any key to see more data on U.S. coal exports . . .]
    @6,0 CLEAR
    R=6
ENDIF
IF &SEARCH
    @R,C SAY STR(MONTH,2,0)+[/]+STR(YEAR,2,0)
    @R,C+9 SAY QUANTITY PICTURE [999,999,999]
    @R,C+29 SAY VALUE PICTURE [999,999,999]
    @R,C+54 SAY PRICEPERTN PICTURE [9,999.99]

```

```

R=R+1
COUNTER2=COUNTER2+1
IF QUANTITY>0 .AND. VALUE >0
    COUNTER=COUNTER+1
    V1=V1+VALUE
    Q1=Q1+QUANTITY
ENDIF
IF QUANTITY>0
    COUNTER3=COUNTER3+1
    Q=Q+QUANTITY
ENDIF
IF VALUE>0
    COUNTER4=COUNTER4+1
    V=V+VALUE
ENDIF
SKIP
ELSE
    IF &speedup
        EXIT
    ELSE
        SKIP
    ENDIF
ENDIF

ENDDO
IF R>13
    CLEAR
    @1,1 SAY HEAD1+[ ]+HEAD2
    @2,1 SAY HEAD3
    @3,1 SAY

[
    @4,1 SAY [ Date Shipment Size Shipment Value Price Per
Ton]
    @5,1 SAY
]

    @ROW()+1,1 SAY [ Results of I.C.S.D query : ]
    ?
    ELSE
        @ROW()+1,0 CLEAR
    ENDIF
    @ROW()+1,1 SAY

[
    @ROW()+1,1 SAY [ Totals ]
    @ROW(),C+9 SAY Q PICTURE [999,999,999]
    @ROW(),C+28 SAY [$]
    @ROW(),C+29 SAY V PICTURE [999,999,999]
    av=v1/q1
IF .NOT. Ctown
    @ROW(),C+47 SAY [W. Avg. = $]
    @ROW(),c+54 SAY av PICTURE [9,999.99]
    ? [

[
    ? [ Notes: Quantity total includes all records having non-zero
quantity values.]
    ? [ There were
]+STR(COUNTER3,LEN(LTRIM(STR(COUNTER3,7,0))),0);
    +[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found ]+;
    [(or ]+str((counter3/counter2)*100,5,1)+[%] that ]
    ? [ met this test.]
]

```

```

?
? [          Total value includes all records having non-zero amount
values.]
? [          There were
]+STR(COUNTER4,LEN(LTRIM(STR(COUNTER4,7,0))),0);
+[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found ];
+[ (or ]+str((counter4/counter2)*100,5,1)+[%] that qualified. ]
?
? [          Weighted average price per ton is determined only for
records]
? [          having non-zero quantity and amount values. There ]+;
[were ]+STR(COUNTER,LEN(LTRIM(STR(COUNTER,7,0))),0)
? [          of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0);
+[ total records found (or ]+str((counter/counter2)*100,5,1)+[%] ;
where this condition]
? [          applied, with a total quantity of ];
+STR(q1,LEN(LTRIM(STR(q1,9,0))),0)+ [ tons and ]
? [          a value of $]+STR(v1,LEN(LTRIM(STR(v1,9,0))),0)+[.]
ELSE
x=v/q
? [          Weighted average price per ton = $ ]+str(x,12,2)
? [ _____]
ENDIF
WAIT []
SET TYPEAHEAD TO 10
* * * .....PRINTED REPORT
CASE REPORTER=2
RUN ISITON
SET PRINT ON
? HEAD1+HEAD2
? HEAD3
* SEARCH=SEARCH &&&&&&&+ [ .AND. QUANTITY>0 .AND. VALUE>0]
? [-----]
REPORT FORM E2B REST FOR &SEARCH WHILE &SPEEDUP1
? [-----]
?
? [ Note: Totals and weighted average exclude records with zero]
? [ quantity or amount values. ]
?
? [ ICSD Coal Types : 1 = Steam 2 = Metallurgical 3 = Other]
?
? [ ICSD Regional Ports : 1 = Eastern 2 = Southern 3 = Western]
? [ 4 = Northern]
?
? [ ICSD Coal Destination Regions : 1 = Canada 2 = South America]
? [ 3 = North Europe ]
? [ 4 = South Europe & Mediterranean]
? [ 5 = Asia 6 = Eastern Bloc Nations]
?
SET PRINT OFF
CLOSE ALL
WAIT [Hit any key to return to ICSD menus . . . ]
* * * .....ASCII REPORT
CASE REPORTER=3
SET ALTERNATE TO E2.TXT
SET ALTERNATE ON
? HEAD1+HEAD2
? HEAD3
* SEARCH=SEARCH &&&&&&&+ [ .AND. QUANTITY>0 .AND. VALUE>0]

```

```

? [-----]
REPORT FORM E2A REST FOR &SEARCH WHILE &SPEEDUP1
? [-----]
?
?
SET ALTERNATE OFF
CLOSE ALL
?
? [ASCII file has been saved as E2.TXT]
?
WAIT [Hit any key to return to ICSD menus . . . ]
* * * .....DBASE REPORT
CASE REPORTER=4
* * * SET SCREEN COLORS
IF ISCOLOR()
SET COLOR TO W/B,B/W,B
ELSE
SET COLOR TO W/N,N/W,N
ENDIF
CLEAR
?
?
?
? [ Records are being transferred to a data base file. Please wait . . . ]
]
* SEARCH=SEARCH+[ .AND. QUANTITY>0 .AND. VALUE>0]
SET SAFETY OFF
SET TALK ON
?
?
COPY TO E2 FIELDS
ICSDTYPE,ICSDREG,COUNTRYCOD,ICSDPORT,PORTCODE,DATE,QUANTITY,VALUE, ;
PRICEPERTN REST FOR &SEARCH WHILE &SPEEDUP1
SET SAFETY ON
SET TALK OFF
CLEAR
USE E2
IF RECCOUNT(>0)
? [-----]
? [After hitting a key, the results of the search,]
? [now stored in a new data base called E2.DBF,]
? [will be in use in the current work area, and may]
? [be accessed using BROWSE or other dBase commands.]
?
? [ *** Hit F10 to resume *** ]
WAIT [-----]
SUSPEND
CLEAR ALL
ELSE
? [-----]
? [ No records were found during the search . . . ]
? [-----]
?
?
WAIT
CLEAR ALL
RETURN
ENDIF

```

* * * LOTUS REPORT

```

CASE REPORTER=5
  CLEAR
  * * * SET SCREEN COLORS
  IF ISCOLOR()
    SET COLOR TO W/B,B/W,B
  ELSE
    SET COLOR TO W/N,N/W,N
  ENDIF
  CLEAR
  ?
  ?
  ?
  ? [      Records are being transferred to a worksheet.  Please wait . . . ]
*SEARCH=SEARCH+[ .AND. QUANTITY>0 .AND. VALUE>0]
  SET SAFETY OFF
  SET TALK ON
  ?
  ?
  COPY TO E2.WKS FIELDS ICSDTYPE,ICSDREG,ICSDPORT,QUANTITY,VALUE, ;
PRICEPERTN,MONTH,YEAR WKS REST FOR &SEARCH WHILE &SPEEDUP1
  SET SAFETY ON
  SET TALK OFF
  CLEAR
  RUN COPY AUTO123.E2 AUTO123.WK1 >NUL
  RESTORE FROM CONFIG ADDITIVE
  newdrive=SUBSTR(LOTUS,1,2)
  RUN &NEWDRIVE
  newdirect=[CD ]+lotus
  RUN &newdirect
  RUN 123
  RESTORE FROM CONFIG ADDITIVE
  OLDDRIVE=SUBSTR(LICSD,1,2)
  RUN &OLDDRIVE
  CDLOC=[CD ]+LICSD
  RUN &CDLOC

```

* * * AVERAGE TO SCREEN

```

CASE REPORTER=6
  R=6
  C=4
  Q=0
  Q1=0
  V=0
  V1=0
  COUNTER=0
  COUNTER2=0
  COUNTER3=0
  COUNTER4=0
  @1,1 SAY  HEAD1+[ ]+HEAD2
  @2,1 SAY  HEAD3
  @3,1 SAY
[-----]
  @4,1 SAY  [      Total and averages for shipments during specified period]
  @5,1 SAY
[-----]
  @10,1 SAY [      Please wait while records are summed . . . ]

```



```

DO WHILE .NOT. EOF()
IF &SEARCH
  R=R+1
  COUNTER2=COUNTER2+1
  IF QUANTITY>0 .AND. VALUE >0
    COUNTER=COUNTER+1
    V1=V1+VALUE
    Q1=Q1+QUANTITY
  ENDIF
  IF QUANTITY>0
    COUNTER3=COUNTER3+1
    Q=Q+QUANTITY
  ENDIF
  IF VALUE>0
    COUNTER4=COUNTER4+1
    V=V+VALUE
  ENDIF
  SKIP
ELSE
  IF &speedup
    EXIT
  ELSE
    SKIP
  ENDIF
ENDIF

ENDDO
CLEAR
@1,1 SAY HEAD1+[ ]+HEAD2
@2,1 SAY HEAD3
@3,1 SAY

[
  @4,1 SAY [ Total tons shipped : ]
  @row(),Col() say q PICTURE [999,999,999]
  @5,1 SAY [ Average shipment size : ]
  @row(),Col() say q/counter3 PICTURE [999,999,999]
  @ 7,1 SAY [ Total value of shipments : $]
  @row(),Col() say v PICTURE [999,999,999]
  @ 8,1 say [ Average shipment value : $]
  @row(),Col() say V/counter4 PICTURE [999,999,999]
IF .NOT. Ctown
  @10,1 SAY [ Weighted average price per ton : $]
  @row(),Col() say v1/q1 PICTURE [9,999,999.99]
  ? [
    ? [ Notes: Quantity total includes all records having non-zero quantity
values.]
    ? [ There were ]+STR(COUNTER3,LEN(LTRIM(STR(COUNTER3,7,0))),0);
+[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found ]+;
[(or ]+str((counter3/counter2)*100,5,1)+[%] that ]
    ? [ met this test.]
    ?
    ? [ Total value includes all records having non-zero amount
values.]
    ? [ There were ]+STR(COUNTER4,LEN(LTRIM(STR(COUNTER4,7,0))),0);
+[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found ];
+[(or ]+str((counter4/counter2)*100,5,1)+[%] that qualified. ]
    ?
  ]
]

```

```

        ? [      Weighted average price per ton is determined only for
records]
        ? [      having non-zero quantity and amount values. There ]+;
[were ]+STR(COUNTER,LEN(LTRIM(STR(COUNTER,7,0))),0)
        ? [      of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0);
+[ total records found (or ]+str((counter/counter2)*100,5,1)+[%) ;
where this condition]
        ? [      applied, with a total quantity of ];
+STR(q1,LEN(LTRIM(STR(q1,9,0))),0)+ [ tons and ]
        ? [      a value of $]+STR(v1,LEN(LTRIM(STR(v1,9,0))),0)+[.]
ELSE
x=v/q
? [      Weighted average price per ton = $ ]+str(x,12,2)
? [ _____]
ENDIF
        SET TYPEAHEAD TO 0
        WAIT []
        SET TYPEAHEAD TO 10
* * * .....AVERAGE TO PRINT

CASE REPORTER=7
R=6
C=4
Q=0
Q1=0
V=0
V1=0
COUNTER=0
COUNTER2=0
COUNTER3=0
COUNTER4=0
@1,1 SAY  HEAD1+[ ]+HEAD2
@2,1 SAY  HEAD3
@3,1 SAY

[_____]
@4,1 SAY [      Total and averages for shipments during specified period]
@5,1 SAY

[_____]
@10,1 SAY [      Please wait while records are summed . . . ]

DO WHILE .NOT. EOF()
IF &SEARCH
R=R+1
COUNTER2=COUNTER2+1
IF QUANTITY>0 .AND. VALUE >0
COUNTER=COUNTER+1
V1=V1+VALUE
Q1=Q1+QUANTITY
ENDIF
IF QUANTITY>0
COUNTER3=COUNTER3+1
Q=Q+QUANTITY
ENDIF
IF VALUE>0
COUNTER4=COUNTER4+1
V=V+VALUE
ENDIF
SKIP
ELSE

```

```

IF &speedup
  EXIT
ELSE
  SKIP
ENDIF
ENDIF

ENDDO
SET DEVICE TO PRINT
CLEAR
@1,1 SAY HEAD1+[ ]+HEAD2
@2,1 SAY HEAD3
@3,1 SAY

[
  @4,1 SAY [ Total tons shipped : ]
  @prow(),Pcol() say q PICTURE [999,999,999]
  @5,1 SAY [ Average shipment size : ]
  @prow(),Pcol() say q/counter3 PICTURE [999,999,999]
  @ 7,1 SAY [ Total value of shipments : $]
  @prow(),Pcol() say v PICTURE [999,999,999]
  @ 8,1 say [ Average shipment value : $]
  @prow(),Pcol() say V/counter4 PICTURE [999,999,999]
IF .NOT. CTOWN
  @10,1 SAY [ Weighted average price per ton : $]
  @prow(),Pcol() say v1/q1 PICTURE [9,999,999.99]
  SET DEVICE TO SCREEN
  SET PRINT ON
  ? [
    ? [ Notes: Quantity total includes all records having non-zero quantity
values.]
    ? [ There were ]+STR(COUNTER3,LEN(LTRIM(STR(COUNTER3,7,0))),0);
    +[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found
];
    [(or ]+str((counter3/counter2)*100,5,1)+[%] that ]
    ? [ met this test.]
    ?
    ? [ Total value includes all records having non-zero amount
values.]
    ? [ There were ]+STR(COUNTER4,LEN(LTRIM(STR(COUNTER4,7,0))),0);
    +[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found
];
    +[(or ]+str((counter4/counter2)*100,5,1)+[%] that qualified. ]
    ?
    ? [ Weighted average price per ton is determined only for
records]
    ? [ having non-zero quantity and amount values. There ]+;
    [were ]+STR(COUNTER,LEN(LTRIM(STR(COUNTER,7,0))),0)
    ? [ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0);
    +[ total records found (or ]+str((counter/counter2)*100,5,1)+[%] ;
    where this condition]
    ? [ applied, with a total quantity of ];
    +STR(q1,LEN(LTRIM(STR(q1,9,0))),0)+ [ tons and ]
    ? [ a value of $]+STR(v1,LEN(LTRIM(STR(v1,9,0))),0)+[.]
ELSE
  x=v/q
  ? [ Weighted average price per ton = $ ]+str(x,12,2)
  ? [
ENDIF
]

```

```

        SET TYPEAHEAD TO 0
        WAIT []
        SET TYPEAHEAD TO 10
        SET PRINT OFF
* * * .....
        OTHERWISE
            CLEAR
            ? [Query could not be made because of error in specifying type of]
            WAIT [output report . . . ]
ENDCASE
* * * .....
CLEAR
CLOSE Data BaseS
CLOSE ALL
RETURN

E3.PRG
* * * ..... E3.PRG .....
* * *
* * * THE FOLLOWING PROGRAM SOLICITS A QUERY OF THE IMPORTS Data Base. BEFORE
* * * DOING SO, INFORMATION PREVIOUSLY GIVEN ON PREFERRED REPORT OUTPUT IS
* * * RESTORED TO MEMORY FOR USE IN OUTPUT.
* * *
* * * MODIFIED BY BRYAN DE BOINVILLE ON 6-16-88 TO FIX DBASE AND WORKSHEET
* * * CREATION PROBLEMS (REPORTING OPTIONS 4 AND 5).
* * *
* * * MODIFIED BY BRYAN DE BOINVILLE ON 8-30-88 TO REFLECT CHANGES IN
* * * CENSUS FILE STRUCTURE FOR US IMPORTS.
* * * .....
* * *
* * * BRING-IN USER'S REPORTING OPTION SELECTION
IF FILE("REPORTER.MEM")
    RESTORE FROM REPORTER ADDITIVE
ELSE
    REPORTER=1
ENDIF
* * * SET SCREEN COLORS
IF ISCOLOR()
    SET COLOR TO N/BG,B/W,BG
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF
* * * FILL VARIABLE FOR OUTPUT TYPE BASED ON USER'S E1.PRG SELECTION
DO CASE
    CASE REPORTER=1
        OUTPT=[Screen]
    CASE REPORTER=2
        OUTPT=[Printer]
    CASE REPORTER=3
        OUTPT=[ASCII file]
    CASE REPORTER=4
        OUTPT=[dBase data base]
    CASE REPORTER=5
        OUTPT=[Lotus worksheet]
    CASE REPORTER=6
        OUTPT=[Sum/avg to screen]
    CASE REPORTER=7
        OUTPT=[Sum/avg to print]

```

```

    OTHERWISE
        REPORTER=1
        OUTPT=[Screen]
    ENDCASE
    * * * SELECT Data Bases
    CLOSE ALL
    SELECT 1
        USE IMPORTS
    SELECT 2
        USE COUNTRY INDEX COUNTRY, PROPER, CNUMBER
    SELECT 3
        USE PORTS INDEX PORTS, PORTNO
    SELECT 1
    CLEAR
    ?
    ? [ _____ ]
    ? [ _____ ]
    ? [ U.S. Imports Query Procedure ]
    ? [ _____ ]
    ? [ Note: The Imports data base currently contains ]+str(reccount(),5,0)+[
records.]
    ? [ Since a response to a query of a data base of this size ]
    ? [ could result in hundreds of records being output, it is important to ]
    ? [ select the proper type of report. The output method now selected is ]
    ? [ ]+OUTPT+[. If this is not correct, a new output format should ]
    ? [ be selected before proceeding. ]
    ? [ _____ ]
    WAIT [ Proceed? (Y/N) ] to ans
    IF UPPER(ANS)=[N]
        CLEAR
        CLOSE Data Bases
        RETURN
    ENDIF
    CLEAR
    ?
    ? [ _____ ]
    ? [ _____ ]
    ? [ U.S. Imports Query Procedure ]
    ? [ _____ ]
    ?
    ? [ A completed query involves specifying four variables: ]
    ?
    ? [ . The date or period in question ]
    ? [ . Coal type ]
    ? [ . Either the country or region sending the shipment ]
    ? [ It is possible to specify all countries (from the]
    ? [ individual country selection) but this ]
    ? [ search takes considerably longer.]
    ? [ . The port or region where shipment entered the U.S.A. ]
    ? [ Selecting all ports is also possible (from the]
    ? [ individual port selection) but will also add]
    ? [ to the time required for the search.]
    ? [ _____ ]
    ?
    WAIT [ Hit any key to begin query . . . ]
    * * * .....COMPONENT PARTS
    * * * THE OBJECT OF EACH COMPONENT OF THE QUERY IS TO ADD TO THE
    * * * SEARCH VARIABLE THAT WILL BE USED TO MAKE THE QUERY. DEPENDING

```

```

* * * ON WHETHER REGIONAL OR INDIVIDUAL TRANSACTIONS ARE ASKED FOR
* * * THE TYPE OF INDEX THAT WILL BE USED CHANGES.  IN ADDITION, TO SPEED
* * * QUERIES IT IS ALSO NECESSARY TO BUILD A COMPOUND VARIABLE
* * * THAT WILL BE USED FOR A SEEK.
* * *
* * * TO SAVE BYTES IN THE SEARCH VARIABLE, MACRO SUBSTITUTION IS USED
* * * WITH THE FOLLOWING ABBREVIATIONS FOR FIELDS IN THE IMPORTS
* * * Data Base:
D=[DATE]
I=[ICSdtype]
C=[COUNTRYCOD]
R=[ICSdREG]
P=[ICSdPORT]
* * *
* * * IN ADDITION, THE FOLLOWING COMPOUND VARIABLES ARE INITIATED.  "SEARCH"
* * * WILL HOLD THE COMPOUND QUERY TO BE APPLIED TO THE "FOR" CONDITIONAL
* * * OF THE QUERY, AND "SPEEDUP" HOLDS THE COMPOUND CONDITIONAL TO BE
* * * USED FOR THE "WHILE" LIMITATION TO SPEED THE SEARCH. "MARKER" HOLDS
* * * THE COMPOUND VARIABLE THAT WILL BE USED IN CONNECTION WITH THE
* * * DBASE SEEK COMMAND (TO REDUCE THE AMOUNT OF THE Data Base THAT
* * * MUST BE SEARCHED). "INDEX" HOLDS A DESIGNATION OF WHICH OF THE
* * * Data Base INDEXES SHOULD BE USED. "FALLBACK" IS A VARIANT OF
* * * "SEARCH" THAT IS USED IN CASE THE SEEK DOES NOT PRODUCE A POSITIVE
* * * RESULT.
SEARCH=[]
MARKER=[]
SPEEDUP=[]
INDX=[]
FALLBACK=[]
* * * .....
* * * .....SELECT DATES.....
CLEAR
? [-----]
? [          Period to be covered by query          ]
? [-----]
?
* * *
* * * ..... UPDATE NOTE .....
* * *
* * * WHEN THE IMPORTS Data Base HAS BEEN UPDATED WITH ADDITIONAL DATA, RESET
* * * THE VALUES OF MONTH2 AND YEAR2 (BELOW) TO THE MONTH AND YEAR OF THE
* * * MOST RECENT DATA IN THE Data Base
* * *
* * * .....
MONTH1=1
YEAR1=80
MONTH2=12
YEAR2=90
@row()+2,19 SAY [Starting month           : ] get month1 picture [99] range 1,12
@row()+1,19 SAY [Starting year            : ] get year1 picture [99] range 80,90
@row()+2,19 SAY [Through & including month : ] get month2 picture [99] range 1,12
@row()+1,19 SAY [Ending year              : ] get year2 picture [99] range 80,90
READ
D1=CTOD (STR (MONTH1,2,0)+[/01/]+STR (YEAR1,2,0))
D2=CTOD (STR (MONTH2,2,0)+[/01/]+STR (YEAR2,2,0))
* * * NOTE THAT DATES IN Data Base ALL USE THE FIRST DAY OF MONTH
IF D2<D1
? [Improper date entry (ending date must be greater than starting date)]
WAIT

```

```

RETURN
ENDIF
* * * FILL VARIABLES
SEARCH=SEARCH+ [&D>=D1 .AND. &D<=D2]
MDATE=STR (YEAR1,2,0)
MARKER=MDATE
FALLBACK=MDATE
* * * .....END OF DATE SECTION.....
* * * .....COAL TYPE.....
CLEAR
?
? [ _____ ]
? [ Coal Types ]
? [ _____ ]
?
? [ 1 : Steam -- Includes bituminous (20) and anthracite (70)]
? [ ]
? [ 2 : Metallurgical -- Includes low volatility bituminous (10)]
? [ ]
? [ 3 : Steam & Met. -- Total for both 1 and 2 ]
?
? [ 4 : Other -- Includes lignite (30), coal coke (45), coke ]
? [ fuel use (48), petroleum coke (50), ]
? [ briquettes (60)]
?
? [ _____ ]
? [ Note: Numbers in parentheses refer to original Customs product codes.]
? [ See Users Guide to search data base for these codes. ]
? [ _____ ]
?
WAIT [ Specify a coal type : ] TO CTYPE
DO CASE
CASE UPPER(CTYPE)=[1]
* * * FILL VARIABLES
SEARCH=SEARCH+ [ .AND. &I=1]
MARKER=[1]+MARKER
SPEEDUP=[ICSDTYPE<>1 .OR. &D>D2]
SPEEDUP1=[ICSDTYPE=1 .and. &D<=D2]
FALLBACK=[1]+FALLBACK
WHATTYPE=[: STEAM COAL]
t=[1]
CASE UPPER(CTYPE)=[2]
* * * FILL VARIABLES
SEARCH=SEARCH+ [ .AND. &I=2]
MARKER=[2]+MARKER
SPEEDUP1=[ICSDTYPE=2 .and. &D<=D2]
SPEEDUP=[ICSDTYPE<>2 .OR. &D>D2]
FALLBACK=[1]+FALLBACK
WHATTYPE=[: MET. COAL]
t=[2]
CASE UPPER(CTYPE)=[3]
* * * FILL VARIABLES
SEARCH=SEARCH+ [ .AND. &I<3]
MARKER=[1]+MARKER
SPEEDUP=[ICSDTYPE=3]
SPEEDUP1=[ICSDTYPE<>3]
FALLBACK=[1]+FALLBACK
WHATTYPE=[: STEAM & MET. COAL]
t=[0]

```

```

CASE UPPER(CTYPE)=[4]
  * * * FILL VARIABLES
  SEARCH=SEARCH+[ .AND. &I=3]
  MARKER=[3]+MARKER
  SPEEDUP1=[ICSDTYPE=3 .and. &D<=D2]
  SPEEDUP=[ICSDTYPE<>3 .OR. &D>D2]
  FALLBACK=[3]+FALLBACK
  WHATYPE=[: OTHER COAL]
  t=[3]
OTHERWISE
  WAIT [Invalid selection . . . returning to menu]
  RETURN
ENDCASE
* * * .....END OF TYPE SELECTION..
* * * .....COUNTRY SELECTION
CLEAR
?
?
?
?
?
? [-----]
? [ Country or region shipping coal to U.S. ]
? [-----]
?
? [Note: If data from all countries or regions are needed, select C for ]
? [ country and enter 9999 when the country code is requested. ]
? [ This search will take considerably longer than others. ]
?
? [-----]
?
CR=[]
*-----
DO WHILE UPPER(CR)<>[C] .AND. UPPER(CR)<>[R]                                && Loop #C
  ? [ Enter either C to select an individual country that sent coal to U.S.]
  WAIT [ or R to select a region (C/R) . . . ] to CR
  CLEAR
ENDDO                                                                    && Loop #C
*-----

* * * THE FOLLOWING CODE EVALUATES USER'S CHOICE OF EITHER COUNTRY OR
* * * REGION. IF COUNTRY, THE USER MAY SELECT EITHER A SINGLE COUNTRY
* * * OR ALL COUNTRIES. IF REGION, A LIST OF REGIONS IS DISPLAYED.
* * * THE SELECTION OF COUNTRY OR REGION ALSO DETERMINES WHICH
* * * INDEX WILL BE USED.
DO CASE

CASE UPPER(CR)=[C]

  CLEAR
  ? [Choose the country receiving U.S. coal from the following list,]
  ? [or enter 9999 for all countries . . . ]
  ?
  ? [Note: entering 9999 will slow search considerably]
  WAIT []
  SELECT 2
  SET INDEX TO PROPER
  id=0
  GO TOP

```



```

* * * IT IS NECESSARY FOR THE USER TO SELECT A COUNTRY FROM THE FOLLOWING
* * * LIST
DO WHILE id<=999
    DO WHILE .NOT. EOF()
        CLEAR
        DISPLAY FIELDS PROPER,COUNTRYID FOR IMPDBF OFF
        ?
        @24,0 SAY [Enter id # of shipping country or hit enter for other choices: ]
;
GET ID PICTURE [9999]
    READ
    IF id>999
        EXIT
    ENDIF
ENDDO
IF id>999
    SET INDEX TO CNUMBER
    SEEK ID
    IF FOUND()
        vv=trim(proper)
    ELSE
        WAIT [ERROR: The country code specified was invalid...]
        CLOSE Data Bases
        CLEAR
        RETURN
    ENDIF
    EXIT
ELSE
    GO TOP
ENDIF
ENDDO
* * * NOW THAT COUNTRY SELECTION HAS BEEN MADE, FILL VARIABLES
* * * ACCORDINGLY
DO CASE

CASE ID<9999
    SEARCH=SEARCH+[ .AND. &C=ID]
    IF T=[1] .OR. T=[2] .OR. T=[3]
        SPEEDUP1=[ICSDTYPE=VAL(T) .and. COUNTRYCOD=ID]
        SPEEDUP=[ICSDTYPE>VAL(T) .OR. COUNTRYCOD<>ID]
        MARKER=t+str(id,4,0)
        FALLBACK=T+[122]
    ELSE
        MARKER=[1]+STR(ID,4,0)
        FALLBACK=T+[122]
        SPEEDUP1=[ICSDTYPE<3]
        SPEEDUP=[ICSDTYPE>2]
    ENDIF
    INDX=[E3B]

CASE ID=9999
    SEARCH=SEARCH+[ .AND. &C>0]
    IF T=[1] .OR. T=[2] .OR. T=[3]
        SPEEDUP1=[ICSDTYPE=VAL(T)]
        SPEEDUP=[ICSDTYPE>VAL(T)]
        MARKER=t
    ELSE
        MARKER=[1]
        SPEEDUP1=[ICSDTYPE<3]

```

```

        SPEEDUP=[ICSdtype>2]
        ENDIF
        FALLBACK=[00000]
        VV=[ALL COUNTRIES]
        INDX=[E3B]

    ENDCASE

    CLEAR

CASE UPPER(CR)=[R]

CLEAR
?
?
?
?
?
? [-----]
? [Regions that Shipped Coal to U.S.]
? [-----]
?
? [
? [1 : Canada]
? [2 : South America]
? [3 : North Europe]
? [4 : South Europe & Mediterranean]
? [5 : Asia]
? [6 : Eastern Bloc Nations]
?
WAIT [          Enter choice : ] TO REG
DO CASE
CASE UPPER(REG)=[1]
    * * * FILL VARIABLES
    SEARCH=SEARCH+[ .AND. &R=1]
    INDX=[E3A]
    VV=[Canada]
CASE UPPER(REG)=[2]
    * * * FILL VARIABLES
    SEARCH=SEARCH+[ .AND. &R=2]
    INDX=[E3A]
    VV=[South America]
CASE UPPER(REG)=[3]
    * * * FILL VARIABLES
    SEARCH=SEARCH+[ .AND. &R=3]
    INDX=[E3A]
    VV=[North Europe]
CASE UPPER(REG)=[4]
    * * * FILL VARIABLES
    SEARCH=SEARCH+[ .AND. &R=4]
    INDX=[E3A]
    VV=[South Europe & Mediterranean]
CASE UPPER(REG)=[5]
    * * * FILL VARIABLES
    SEARCH=SEARCH+[ .AND. &R=5]
    INDX=[E3A]
    VV=[Asia]
CASE UPPER(REG)=[6]
    * * * FILL VARIABLES
    SEARCH=SEARCH+[ .AND. &R=6]

```

```

        INDX=[E3A]
        VV=[Eastern Block Nations]
    OTHERWISE
        WAIT [Invalid....Returning to menu]
        CLOSE Data BaseS
        RETURN
ENDCASE

OTHERWISE
    WAIT [Not a valid selection . . . Returning to menu]
    CLOSE Data BaseS
    RETURN
ENDCASE

*** .....end of country selection
*** .....
*** GET USER'S PORT SELECTION
CLEAR
? [-----]
? [          U.S. Port or Region Receiving Shipment]
? [-----]
?
? [Note:  If data from all U.S. ports are needed, select P for ]
? [    ports and enter 99 when the port code is requested. ]
? [    This will add to the search time.]
?
? [-----]
?
?
PCR=[]
*-----
DO WHILE UPPER(PCR)<>[P] .AND. UPPER(PCR)<>[R]                && Loop #D
    ? [ Enter either P to select an individual port where coal entered U.S.]
    WAIT [ or R to select the entry region (P/R) . . . ] to PCR
    CLEAR
ENDDO
*-----
DO CASE
    CASE UPPER(PCR)=[P]
        WAIT [Select a port number from the following listing . . . ]
        CLEAR
        SELECT 3
        pt=0
        GO TOP
        DO WHILE pt<=0
            DO WHILE .NOT. EOF()
                CLEAR
                DISPLAY ALL FIELDS PORT,IDNUMBER OFF
                ?
                @24,0 SAY [Enter id # of shipping port or hit enter for other choices:
            ] ;
            get pt PICTURE [99]
            READ
            IF pt>0
                EXIT
            ENDIF
        ENDDO
        IF pt>0

```

```

EXIT
ELSE
  GO TOP
ENDIF
ENDDO
SET INDEX TO PORTNO
SEEK PT
IF FOUND()
  PNAME=PORT
ENDIF
* * * NOW THAT PORT SELECTION HAS BEEN MADE, FILL VARIABLES
* * * ACCORDINGLY
DO CASE

  CASE PT<99

    SEARCH=SEARCH+[ .AND. PORTCODE=PT]

  CASE PT=99

    PNAME=[ALL U.S. PORTS]
    SEARCH=SEARCH+[ .AND. PORTCODE>0]

  ENDCASE

PNAME=TRIM(PNAME)

CASE UPPER(PCR)=[R]
  CLEAR
  ?
  ?
  ?
  ?
  ?
  ?
  [
    ? [
      ? [
        ? [
          ? [
            ? [
              1 : Eastern]
              2 : Southern]
              3 : Western   ]
              4 : Northern]
            ]
          ]
        ]
      ]
    ]
  ]
  WAIT [
    Enter choice : ] TO REG
  DO CASE
    CASE UPPER(REG)=[1]
      * * * FILL VARIABLES
      SEARCH=SEARCH+[ .AND. &P=1]
      PNAME=[EASTERN PORTS]
    CASE UPPER(REG)=[2]
      * * * FILL VARIABLES
      SEARCH=SEARCH+[ .AND. &P=2]
      PNAME=[SOUTHERN PORTS]
    CASE UPPER(REG)=[3]
      * * * FILL VARIABLES
      SEARCH=SEARCH+[ .AND. &P=3]
      PNAME=[WESTERN PORTS]

```

```

CASE UPPER(REG)=[4]
  * * * FILL VARIABLES
  SEARCH=SEARCH+[.AND. &P=4]
  PNAME=[NORTHERN PORTS]
  OTHERWISE
    WAIT [Invalid selection . . . returning to menu]
    CLOSE Data BaseS
    RETURN
  ENDCASE

OTHERWISE
  WAIT [Invalid selection . . . returning to menu]
  CLOSE Data BaseS
  RETURN
ENDCASE

* * * .....
* * * .....
* * * .....PREPARE FOR ISSUING REPORTS.....
SELECT 1
CLEAR
SET INDEX TO &INDX
SEEK marker
IF .NOT. FOUND()
  GO TOP
  SEEK FALLBACK
  IF .NOT. FOUND()
    GO TOP
  ENDIF
ENDIF
HEAD1=[U.S. COAL IMPORTS FROM ]+UPPER(VV)
HEAD2=[TO ]+PNAME
HEAD3=UPPER(CMONTH(d1))+[, ]+STR(YEAR(D1),4,0)+[ THROUGH ]+UPPER(CMONTH(d2));
+[, ]+STR(YEAR(D2),4,0)+[ &WHATTY]
* * * .....
* * * .....DISPLAY RESULTS OF SEARCH.....
* * * .....SCREEN REPORT

DO CASE

  CASE REPORTER=1
    R=6
    C=4
    Q=0
    Q1=0
    V=0
    V1=0
    COUNTER=0
    COUNTER2=0
    COUNTER3=0
    COUNTER4=0
    @1,1 SAY HEAD1+[ ]+HEAD2
    @2,1 SAY HEAD3
    @3,1 SAY [-----]
    @4,1 SAY [   Date           Shipment Size       Shipment Value       Price Per Ton]
    @5,1 SAY [-----]

DO WHILE .NOT. EOF()
IF R>=23

```

```

?
WAIT [Hit any key to see more data on U.S. coal imports . . .]
@6,0 CLEAR
R=6
ENDIF
IF &SEARCH
  @R,C SAY STR(MONTH,2,0)+[/]+STR(YEAR,2,0)
  @R,C+9 SAY QUANTITY PICTURE [999,999,999]
  @R,C+29 SAY VALUE PICTURE [999,999,999]
  @R,C+54 SAY PRICEPERTN PICTURE [9,999.99]
  R=R+1
  COUNTER2=COUNTER2+1
  IF QUANTITY>0 .AND. VALUE >0
    COUNTER=COUNTER+1
    V1=V1+VALUE
    Q1=Q1+QUANTITY
  ENDIF
  IF QUANTITY>0
    COUNTER3=COUNTER3+1
    Q=Q+QUANTITY
  ENDIF
  IF VALUE>0
    COUNTER4=COUNTER4+1
    V=V+VALUE
  ENDIF
  SKIP
ELSE
  IF &speedup
    EXIT
  ELSE
    SKIP
  ENDIF
ENDIF
ENDDO
IF R>13
  CLEAR
  @1,1 SAY HEAD1+[ ]+HEAD2
  @2,1 SAY HEAD3
  @3,1 SAY [
  @4,1 SAY [   Date       Shipment Size      Shipment Value      Price Per Ton]
  @5,1 SAY [-----]

  @ROW()+1,1 SAY [ Results of I.C.S.D query : ]
  ?
ELSE
  @ROW()+1,0 CLEAR
ENDIF
@ROW()+1,1 SAY
[
@ROW()+1,1 SAY [ Totals ]
@ROW(),C+9 SAY Q PICTURE [999,999,999]
@ROW(),C+28 SAY [$]
@ROW(),C+29 SAY V PICTURE [999,999,999]
av=v1/q1
@ROW(),C+47 SAY [W. Avg. = $]
@ROW(),C+54 SAY av PICTURE [9,999.99]
? [
[

```

```

? [ Notes: Quantity total includes all records having non-zero quantity
values.]
? [ There were ]+STR(COUNTER3,LEN(LTRIM(STR(COUNTER3,7,0))),0);
+[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found ]+;
[ (or ]+str((counter3/counter2)*100,5,1)+[%] that ]
? [ met this test.]
?
? [ Total value includes all records having non-zero amount
values.]
? [ There were ]+STR(COUNTER4,LEN(LTRIM(STR(COUNTER4,7,0))),0);
+[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found ]+;
+[ (or ]+str((counter4/counter2)*100,5,1)+[%] that qualified. ]
?
? [ Weighted average price per ton is determined only for records]
? [ having non-zero quantity and amount values. There ]+;
[ were ]+STR(COUNTER,LEN(LTRIM(STR(COUNTER,7,0))),0)
? [ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0);
+[ total records found (or ]+str((counter/counter2)*100,5,1)+[%] ;
where this condition]
? [ applied, with a total quantity of ]+;
+STR(q1,LEN(LTRIM(STR(q1,9,0))),0)+ [ tons and ]
? [ a value of $]+STR(v1,LEN(LTRIM(STR(v1,9,0))),0)+[.]
WAIT []
SET TYPEAHEAD TO 10
* * * .....PRINTED REPORT
CASE REPORTER=2
RUN ISITON
SET PRINT ON
? HEAD1+HEAD2
? HEAD3
SEARCH=SEARCH+[ .AND. QUANTITY>0 .AND. VALUE>0]
? [-----]
REPORT FORM E3B REST FOR &SEARCH WHILE &SPEEDUP1
? [-----]
?
? [ Note: Totals and weighted average exclude records with zero]
? [ quantity or amount values. ]
?
? [ ICSD Coal Types : 1 = Steam 2 = Metallurgical 3 = Other]
?
? [ ICSD Regional Ports : 1 = Eastern 2 = Southern 3 = Western]
? [ 4 = Northern]
?
? [ ICSD Coal Destination Regions : 1 = Canada 2 = South America]
? [ 3 = North Europe ]
? [ 4 = South Europe & Mediterranean]
? [ 5 = Asia 6 = Eastern Bloc Nations]
?
SET PRINT OFF
CLOSE ALL
WAIT [Hit any key to return to ICSD menus . . . ]
* * * .....ASCII REPORT
CASE REPORTER=3
SET ALTERNATE TO E3.TXT
SET ALTERNATE ON
? HEAD1+HEAD2
? HEAD3
SEARCH=SEARCH+[ .AND. QUANTITY>0 .AND. VALUE>0]
? [-----]

```

```

REPORT FORM E3A REST FOR &SEARCH WHILE &SPEEDUP1
? [-----]
?
?
SET ALTERNATE OFF
CLOSE ALL
?
? [ASCII file has been saved as E3.TXT]
?
WAIT [Hit any key to return to ICSD menus . . . ]
* * * .....DBASE REPORT
CASE REPORTER=4
* * * SET SCREEN COLORS
IF ISCOLOR()
    SET COLOR TO W/D,B/W,B
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF
CLEAR
?
?
?
? [    Records are being transferred to a data base file.  Please wait . . .
]
*
    SEARCH=SEARCH+[ .AND. QUANTITY>0 .AND. VALUE>0]
    SET SAFETY OFF
    SET TALK ON
    ?
    ?
    COPY TO E3 FIELDS
    ICSDTYPE,ICSDREG,COUNTRYCOD,ICSDPORT,PORTCODE,DATE,QUANTITY,VALUE, ;
    PRICEPERTN REST FOR &SEARCH WHILE &SPEEDUP1
    SET SAFETY ON
    SET TALK OFF
    CLEAR
    USE E3
    IF RECCOUNT(>0)
        ? [-----]
        ? [After hitting a key, the results of the search,]
        ? [now stored in a new data base called E3.DBF,]
        ? [will be in use in the current work area, and may]
        ? [be accessed using BROWSE or other dBase commands.]
        ?
        ? [ *** Hit F10 to resume *** ]
        WAIT [-----]
        SUSPEND
        CLEAR ALL
    ELSE
        ? [-----]
        ? [    No records were found during the search . . . ]
        ? [-----]
        ?
        ?
        WAIT
        CLEAR ALL
        RETURN
    ENDIF
* * * .....LOTUS REPORT

```



```

CASE REPORTER=5
  CLEAR
  * * * SET SCREEN COLORS
  IF ISCOLOR()
    SET COLOR TO W/B,B/W,B
  ELSE
    SET COLOR TO W/N,N/W,N
  ENDIF
  CLEAR
  ?
  ?
  ?
  ? [      Records are being transferred to a worksheet.  Please wait . . . ]
*SEARCH=SEARCH+[ .AND. QUANTITY>0 .AND. VALUE>0]
  SET SAFETY OFF
  SET TALK ON
  ?
  ?
  COPY TO E3.WKS FIELDS ICSDTYPE,ICSDREG,ICSDPORT,QUANTITY,VALUE, ;
PRICEPERTN,MONTH,YEAR WKS REST FOR &SEARCH WHILE &SPEEDUP1
  SET SAFETY ON
  SET TALK OFF
  CLEAR
  RUN COPY AUTO123.E3 AUTO123.WK1 >NUL
  RESTORE FROM CONFIG ADDITIVE
  newdrive=SUBSTR(LOTUS,1,2)
  RUN &NEWDRIVE
  newdirect=[CD ]+lotus
  RUN &newdirect
  RUN 123
  RESTORE FROM CONFIG ADDITIVE
  OLDDRIVE=SUBSTR(LICSD,1,2)
  RUN &OLDDRIVE
  CDLOC=[CD ]+LICSD
  RUN &CDLOC

* * * .....AVERAGE TO SCREEN

CASE REPORTER=6
  R=6
  C=4
  Q=0
  Q1=0
  V=0
  V1=0
  COUNTER=0
  COUNTER2=0
  COUNTER3=0
  COUNTER4=0
  @1,1 SAY  HEAD1+[ ]+HEAD2
  @2,1 SAY  HEAD3
  @3,1 SAY
  [-----]
  @4,1 SAY  [      Total and averages for shipments during specified period]
  @5,1 SAY
  [-----]
  @10,1 SAY [      Please wait while records are summed . . . ]
  DO WHILE .NOT. EOF()

```

```

IF &SEARCH
  R=R+1
  COUNTER2=COUNTER2+1
  IF QUANTITY>0 .AND. VALUE >0
    COUNTER=COUNTER+1
    V1=V1+VALUE
    Q1=Q1+QUANTITY
  ENDIF
  IF QUANTITY>0
    COUNTER3=COUNTER3+1
    Q=Q+QUANTITY
  ENDIF
  IF VALUE>0
    COUNTER4=COUNTER4+1
    V=V+VALUE
  ENDIF
  SKIP
ELSE
  IF &speedup
    EXIT
  ELSE
    SKIP
  ENDIF
ENDIF

ENDDO
CLEAR
@1,1 SAY HEAD1+[ ]+HEAD2
@2,1 SAY HEAD3
@3,1 SAY

[
  @4,1 SAY [ Total tons imported : ]
  @row(),Col() say q PICTURE [999,999,999]
  @5,1 SAY [ Average shipment size : ]
  @row(),Col() say q/counter3 PICTURE [999,999,999]
  @ 7,1 SAY [ Total value of shipments : $]
  @row(),Col() say v PICTURE [999,999,999]
  @ 8,1 say [ Average shipment value : $]
  @row(),Col() say V/counter4 PICTURE [999,999,999]
  @10,1 SAY [ Weighted average price per ton : $]
  @row(),Col() say v1/q1 PICTURE [9,999,999.99]
  ? [
    ? [ Notes: Quantity total includes all records having non-zero quantity
values.]
    ? [ There were ]+STR(COUNTER3,LEN(LTRIM(STR(COUNTER3,7,0))),0);
+[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found ]+;
[(or ]+str((counter3/counter2)*100,5,1)+[%] that ]
    ? [ met this test.]
    ?
    ? [ Total value includes all records having non-zero amount
values.]
    ? [ There were ]+STR(COUNTER4,LEN(LTRIM(STR(COUNTER4,7,0))),0);
+[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found ]+;
+[(or ]+str((counter4/counter2)*100,5,1)+[%] that qualified. ]
    ?
    ? [ Weighted average price per ton is determined only for records]
    ? [ having non-zero quantity and amount values. There ]+;
[were ]+STR(COUNTER,LEN(LTRIM(STR(COUNTER,7,0))),0)
  ]

```

```

? [      of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0);
+[ total records found (or ]+str((counter/counter2)*100,5,1)+[%] ;
where this condition]
? [      applied, with a total quantity of ];
+STR(q1,LEN(LTRIM(STR(q1,9,0))),0)+ [ tons and ]
? [      a value of $]+STR(v1,LEN(LTRIM(STR(v1,9,0))),0)+[.]
SET TYPEAHEAD TO 0
WAIT []
SET TYPEAHEAD TO 10
* * * .....AVERAGE TO PRINT

```

CASE REPORTER=7

```

R=6
C=4
Q=0
Q1=0
V=0
V1=0
COUNTER=0
COUNTER2=0
COUNTER3=0
COUNTER4=0
@1,1 SAY HEAD1+[ ]+HEAD2
@2,1 SAY HEAD3
@3,1 SAY

```

```

[-----]
@4,1 SAY [      Total and averages for imports during specified period]
@5,1 SAY

```

```

[-----]
@10,1 SAY [      Please wait while records are summed . . . ]

```

```

DO WHILE .NOT. EOF()
IF &SEARCH
R=R+1
COUNTER2=COUNTER2+1
IF QUANTITY>0 .AND. VALUE >0
COUNTER=COUNTER+1
V1=V1+VALUE
Q1=Q1+QUANTITY
ENDIF
IF QUANTITY>0
COUNTER3=COUNTER3+1
Q=Q+QUANTITY
ENDIF
IF VALUE>0
COUNTER4=COUNTER4+1
V=V+VALUE
ENDIF
SKIP
ELSE
IF &speedup
EXIT
ELSE
SKIP
ENDIF
ENDIF
ENDDO
SET DEVICE TO PRINT

```

```

CLEAR
@1,1 SAY HEAD1+[ ]+HEAD2
@2,1 SAY HEAD3
@3,1 SAY

[
  @4,1 SAY [ Total tons imported : ]
  @prow(),Pcol() say q PICTURE [999,999,999]
  @5,1 SAY [ Average shipment size : ]
  @prow(),Pcol() say q/counter3 PICTURE [999,999,999]
  @ 7,1 SAY [ Total value of shipments : $]
  @prow(),Pcol() say v PICTURE [999,999,999]
  @ 8,1 say [ Average shipment value : $]
  @prow(),Pcol() say V/counter4 PICTURE [999,999,999]
  @10,1 SAY [ Weighted average price per ton : $]
  @prow(),Pcol() say v1/q1 PICTURE [9,999,999.99]
  SET DEVICE TO SCREEN
  SET PRINT ON
  ? [
    ? [ Notes: Quantity total includes all records having non-zero quantity
values.]
    ? [ There were ]+STR(COUNTER3,LEN(LTRIM(STR(COUNTER3,7,0))),0);
    +[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found
];
    [(or ]+str((counter3/counter2)*100,5,1)+[%] that ]
    ? [ met this test.]
    ?
    ? [ Total value includes all records having non-zero amount
values.]
    ? [ There were ]+STR(COUNTER4,LEN(LTRIM(STR(COUNTER4,7,0))),0);
    +[ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0)+[ total records found
];
    +[(or ]+str((counter4/counter2)*100,5,1)+[%] that qualified. ]
    ?
    ? [ Weighted average price per ton is determined only for records]
    ? [ having non-zero quantity and amount values. There ]+;
    [were ]+STR(COUNTER,LEN(LTRIM(STR(COUNTER,7,0))),0)
    ? [ of ]+STR(COUNTER2,LEN(LTRIM(STR(COUNTER2,7,0))),0);
    +[ total records found (or ]+str((counter/counter2)*100,5,1)+[%];
    where this condition]
    ? [ applied, with a total quantity of ];
    +STR(q1,LEN(LTRIM(STR(q1,9,0))),0)+ [ tons and ]
    ? [ a value of $]+STR(v1,LEN(LTRIM(STR(v1,9,0))),0)+[.]
    SET TYPEAHEAD TO 0
    WAIT []
    SET TYPEAHEAD TO 10
    SET PRINT OFF
    * * * .....
    OTHERWISE
    CLEAR
    ? [Query could not be made because of error in specifying type of]
    WAIT [output report . . . ]
  ]
ENDCASE
* * * .....
CLEAR
CLOSE Data Base3
CLOSE ALL
RETURN

```

^Z

E4.PRG

```

*** ..... E4.PRG .....
***
*** DROPS USER TO DBASE QUERY PROGRAM TO ALLOW A CUSTOM QUERY TO BE
*** MADE OF EITHER EXPORTS OR IMPORTS Data BaseS.
***
*** .....

```

CLEAR

?
?
?
?
?
?
?
?
?
?
?
?
?
?
?

```

? [          Use dBase query program to make a direct query of]
?
? [          1.  Exports.dbf          ]
? [          2.  Imports.dbf         ]
? [          3.  Return ]
?
? [      Note:  Consult dBase operating manual for further instructions ]
? [      on the MODIFY/CREATE QUERY commands. ]
?
?
?

```

WAIT [Enter selection :] to ANS

DO CASE

CASE UPPER(ANS)=[1]

USE EXPORTS

MODI QUERY E2

SET FILTER TO FILE E2

```

? [_____]
? [After hitting a key, the dBase command]
? [interpreter will be activated with the]
? [exports.dbf in use with the just-]
? [created filter.  Enter the command ]
? [SET FILTER TO and hit F10 to resume.]

```

WAIT [_____]

SUSPEND

CASE UPPER(ANS)=[2]

USE IMPORTS

MODI QUERY E3

SET FILTER TO FILE E3

```

? [_____]
? [After hitting a key, the dBase command]
? [interpreter will be activated with the]
? [exports.dbf in use with the just-]
? [created filter.  Enter the command ]
? [SET FILTER TO and hit F10 to resume.]

```

WAIT [_____]

SUSPEND

CASE UPPER(ANS)=[3]

CLEAR

CLOSE Data BaseS

RETURN

OTHERWISE

CLEAR

CLOSE Data BaseS

RETURN

```
ENDCASE
CLOSE Data BaseS
RETURN
```

```
E5.PRG
* * * ..... E5.PRG .....
* * *
* * * DROPS USER TO DBASE COMMAND INTERPRETER LEVEL FOR DIRECT ACCESS TO
* * * EITHER EXPORTS OR IMPORTS Data BaseS.
* * *
* * * .....
CLEAR
? [Use dBase to directly access one of the following:]
?
? [ 1:   US exports.dbf without an index          ]
? [ 2:   US imports.dbf without an index          ]
? [ 3:   Return ]
?
WAIT [ Selection : ] to ANS
DO CASE
    CASE UPPER(ANS)=[1]
        USE EXPORTS
        ? [ ..... ]
        ? [ After hitting any key, the dBase command interpreter (i.e. ]
        ? [ the dot prompt) will be invoked with the export data base   ]
        ? [ and index in use. To return, either type RESUME or hit      ]
        ? [ the F10 key but issue the command CLOSE Data BaseS first.]
        ? [ Do not exit directly from dBase.]
        ?
        ? [ Type ASSIST for the dBase Assistant.          ]
        WAIT [ ..... ]
        SUSPEND

    CASE UPPER(ANS)=[2]
        USE IMPORTS
        ? [ ..... ]
        ? [ After hitting any key, the dBase command interpreter (i.e. ]
        ? [ the dot prompt) will be invoked with the imports data base   ]
        ? [ and index in use. To return, either type RESUME or hit      ]
        ? [ the F10 key but issue the command CLOSE Data BaseS first.]
        ? [ Do not exit directly from dBase.]
        ?
        ? [ Type ASSIST for the dBase Assistant.          ]
        WAIT [ ..... ]
        SUSPEND

    CASE UPPER(ANS)=[3]
        CLEAR
        CLOSE Data BaseS
        RETURN
    OTHERWISE
        CLEAR
        CLOSE Data BaseS
        RETURN
ENDCASE
```

CLOSE Data Bases
RETURN

```

ERRMESS.PRG
PARAMETERS moniker, message
* * * ..... ERRMESS.PRG .....
* * *
* * * DISPLAYS A POPUP SCREEN ERROR MESSAGE, ADVISING USER THAT SELECTION
* * * WAS NOT VALID.
* * *
* * * .....
IF ISCOLOR()
    SET COLOR TO N/W,N/W,N
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF
* * * .....declare variables.....
holder = LEN(message)+5
IF holder >=65
    message=SUBSTR(message,1,59)
ENDIF
center=ROUND(((80-holder)/2),0)
DO CASE
    CASE holder >=5 .AND. holder <=25
        width = 6
        height =5
    CASE holder >=26 .AND. holder <=45
        width = 5
        height =4
    CASE holder >=46 .AND. holder <=67
        width = 4
        height =3
    OTHERWISE
        width = 3
        height =2
ENDCASE
* * * .....draw boxes.....
@9-height,(center-width)-1 CLEAR TO 15+height,(holder+center)+(width)+1
IF ISCOLOR()
    SET COLOR TO W/B,W/N,N
ELSE
    SET COLOR TO N/W,N/W,N
ENDIF
@10-height,center-width CLEAR TO 14+height,(holder+center)+(width)
@10-height,center-width TO 14+height,(holder+center)+(width)
@10-height,(center-width)+2 SAY moniker
IF ISCOLOR()
    SET COLOR TO W/N,N/W,N
ELSE
    SET COLOR TO W/N,W/N,N
ENDIF
@11-(height-1),center-(width-2) CLEAR TO 13+(height-1),(holder+center)+(width-2)
@11,center TO 13,holder+center DOUBLE
@12,center+2 SAY message
delay=0
DO WHILE delay=0

```

```

delay=INKEY()
ENDDO
RETURN

```

```

EXPORTS.PRG
* * * ..... EXPORTS.PRG .....
* * *
* * * HANDLES SCREEN FOR EXPORTS MENU AND SUBROUTINE CALLS
* * *
* * * .....
* * * ESTABLISH OPERATING MODES
SET TYPEAHEAD TO 0  && Clean out buffer
SET TYPEAHEAD TO 10  && but reestablish it
SET TALK OFF
SET ESCAPE OFF      && prevent exit during periods cursor turned off
* * * LOAD MODULES TO CONTROL CURSOR FROM MASTER MENU
LOAD CURSOR.BIN
LOAD CURSOFF.BIN
* * * ADVISE PROGRAM OF LOCATION OF LOTUS AND DBASE
IF .NOT. FILE("CONFIG.MEM")
    DO CONFIG
ELSE
    RESTORE FROM CONFIG ADDITIVE
ENDIF
* * * GENERAL VARIABLES
ontos = .T.
choice = 0
moniker = [I.C.S.D]
* * * .....
* * * BEGIN MAIN LOOP FOR MASTER MENU USER SELECTIONS
* * * .....
DO WHILE onto

SET TALK OFF
CLEAR
choice = 0
IF ISCOLOR()
    SET COLOR TO /R,W/B,R
    CLEAR
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF
@ 2,7 say "....."
IF ISCOLOR()
    SET COLOR TO /W,,
ELSE
    SET COLOR TO W/N,,
ENDIF
@ 3,7 say "....."
@ 4,7 say "....."
IF ISCOLOR()
    SET COLOR TO R/W,,
ELSE
    SET COLOR TO W+/N,,
ENDIF
@ 4,8 say [
IF ISCOLOR()

```

U.S. Exports and Imports

]


```

SET COLOR TO N/W,,
ELSE
SET COLOR TO W/N,,
ENDIF
@ 5,7 say "
@ 6,7 say "
@ 7,7 say "
@ 8,7 say "
@ 9,7 say "
@10,7 say "
@11,7 say "
@12,7 say "
@13,7 say "
@14,7 say "
@15,7 say "
@16,7 say "
@17,7 say "
@18,7 say "
@19,7 say "
@20,7 say "
@21,7 say "
@22,7 say "
@23,7 say "
IF ISCOLOR()
SET COLOR TO R/W,,
ELSE
SET COLOR TO W+/N,,
ENDIF
@22,35 say [Help = F1]
IF ISCOLOR()
SET COLOR TO N/W,,
ELSE
SET COLOR TO W/N,,
ENDIF
CALL CURSOFF  &&TURN THE CURSOR OFF WHILE THE PROGRAM WAITS FOR USER TO GO

DO WHILE choice=0

choice=INKEY()

* * * DISPLAY CURRENT TIME CONTINUOUSLY ON SCREEN UNTIL KEY PRESSED
MTIME = TIME()
IF VAL(SUBSTR(mtime,1,2)) >= 12
IF VAL(SUBSTR(mtime,1,2)) = 12
MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ p.m.]
MTIME = LTRIM(MTIME)
ELSE
mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2)) - 12) + SUBSTR(mtime,3,3)) + [
p.m.]
mtime = LTRIM(mtime)
ENDIF
ELSE
IF VAL(SUBSTR(mtime,1,2)) = 0
MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ a.m.]
MTIME = LTRIM(MTIME)
ELSE
mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2))) + SUBSTR(mtime,3,3)) + [ a.m.]
mtime = LTRIM(mtime)
ENDIF

```

```

ENDIF

@22,16 say date()
@22,57 say mtime+[ (E)]

@22,46 SAY CHR(choice)

ENDDO      ** END OF LOOP TO GET USER MENU CHOICE

CALL CURSOR      ** TURN THE CURSOR BACK ON
SET ESCAPE ON      ** SINCE CURSOR IS BACK ON, ESCAPE IS PERMISSIBLE
ON ESCAPE RETURN

* * * EVALUATE WHAT USER WANTED
IF ISCOLOR()
    SET COLOR TO W/B,B/W,B
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF

DO CASE

CASE CHR(choice) $ [^]      ** User pressed F1 help key

    help1=[SELECT FORMAT specifies screen, printer, file or summary ]
    help2=[output. File output types include data bases, worksheets, ]
    help3=[ASCII text. EXPORTS / IMPORTS queries respective data bases]
    help4=[on U.S. transactions .....CUSTOM QUERY loads the ]
    help5=[dBase III query program to permit the construction of user-]
    help6=[designed query. DIRECT ACCESS drops to the dBase command]
    help7=[interpreter (the dot prompt) with either exports.dbf or ]
    help8=[imports.dbf in use. ]
    DO help WITH moniker,help1,help2,help3,help4,help5,help6,help7,help8

CASE CHR(choice) $ [1]

    DO E1                      ** Subroutine call

CASE CHR(choice) $ [2]

    DO E2                      ** Subroutine call

CASE CHR(choice) $ [3]

    DO E3                      ** Subroutine call

CASE CHR(choice) $ [4]

    DO E4                      ** Subroutine call

CASE CHR(choice) $ [5]

    DO E5                      ** Subroutine call

CASE CHR(choice) $ [6]

    CLEAR
    RETURN

```

OTHERWISE

```
message=[Invalid selection . . . try again]
DO ERRMESS WITH moniker, message
LOOP
```

ENDCASE

ENDDO

RETURN

F1.PRG

```

* * * ..... F1.PRG .....
* * *
* * * THE FOLLOWING PROGRAM SOLICITS USERS FOR UP TO SIX COUNTRIES
* * * OR REGIONS WHOSE TIME-SERIES DATA IS TO BE DISPLAYED AND ANALYZED IN
* * * A LOTUS WORKSHEET (NAMED f1.wk1) FOR ALL THREE COAL TYPES.
* * *
* * * AFTER SELECTION OF A COUNTRY (OR COUNTRIES), THE PROGRAM USES THE
* * * volumes.dbf FILE TO CREATE A SEPARATE FILE IN LOTUS 1-2-3 FORMAT
* * * THAT HOLDS THE SELECTED DATA. THIS FILE IS GIVEN THE NAME f1.wks.
* * * THE PROGRAM THEN SWITCHES TO LOTUS. THIS IS DONE BY FIRST COPYING
* * * A PRE-SET FILE WITH THE STORAGE NAME auto123.f1 INTO THE FILENAME
* * * THAT LOTUS 1-2-3 LOADS AUTOMATICALLY--auto123.wk1. THE LOTUS COMMAND
* * * INTERPRETER IS THEN LOADED, WHICH IN TURN LOADS f1.wk1 DUE TO THE
* * * -INSTRUCTIONS IN THE PRE-SET STORAGE FILE.
* * *
* * * WHILE SUBSEQUENT PROGRAM STEPS OCCUR IN LOTUS AND NOT IN THIS PROGRAM
* * * FILE, THEY MAY BE SUMMARIZED AS (A) READING THE CONTENTS OF THE
* * * NEWLY PREPARED f1.wks FILE INTO THE f1.wk1 FILE, (B) CLEANING UP
* * * AND REDISPLAYING THE DATA ELSEWHERE, AND (C) ALLOWING THE USER TO
* * * VIEW GRAPHS OF THE TIME-SERIES DATA.
* * *
* * * .....
SET EXACT OFF
IF ISCOLOR()
    SET COLOR TO B/W,W/B,/B
ELSE
    SET COLOR TO B/W,,
ENDIF

* * * .....MEMORY VARIABLES.....
C0=[ ] ** NAMES OF COUNTRIES USER SELECTED
C1=[ ] ** NAMES OF COUNTRIES USER SELECTED
C2=[ ] ** NAMES OF COUNTRIES USER SELECTED
C3=[ ] ** NAMES OF COUNTRIES USER SELECTED
C4=[ ] ** NAMES OF COUNTRIES USER SELECTED
C5=[ ] ** NAMES OF COUNTRIES USER SELECTED
C6=[ ] ** NAMES OF COUNTRIES USER SELECTED
C7=[ ] ** NAMES OF COUNTRIES USER SELECTED
C8=[ ] ** NAMES OF COUNTRIES USER SELECTED
D1=[ ] ** NAMES OF EXPORTER USER SELECTED
D2=[ ] ** NAMES OF EXPORTER USER SELECTED
D3=[ ] ** NAMES OF EXPORTER USER SELECTED
D4=[ ] ** NAMES OF EXPORTER USER SELECTED
```

```

D5=[                                ]  ** NAMES OF EXPORTER USER SELECTED
D6=[                                ]  ** NAMES OF EXPORTER USER SELECTED
D7=[                                ]  ** NAMES OF EXPORTER USER SELECTED
D8=[                                ]  ** NAMES OF EXPORTER USER SELECTED
* * * .....Data BaseS.....
SELECT 1
USE COUNTRY INDEX PROPER
SELECT 2
USE VOLUMES INDEX VOLUMES
SELECT 3
USE F1                                ** F1 IS PROCESS Data Base USED TO STORE DATA
SET SAFETY OFF                        ** PRIOR TO CONVERSION TO WKS FORMAT
ZAP                                  ** CLEAN IT OUT FIRST
SET SAFETY ON
SELECT 1
* * * .....PROGRAM STARTS.....
counter=1
*-----
DO WHILE counter<7                    ** Loop #1
CLEAR
@ 2, 0 SAY
[ ]
@ 3, 0 SAY
[ ]
@ 4, 0 SAY [ I.C.S.D Time Series Data on Trade Volumes]
@ 5, 0 SAY
[ ]
@ 6, 0 SAY [ Instructions: Select from one to six importing countries or
regions]
@ 7, 0 SAY [ for graphing and analysis. ]
@ 8, 0 SAY
[ ]
IF LEN(TRIM(C2))>0
@ 10,5 SAY [ Importing country or region Exporter]
@ 11,5 SAY [ ]
@ 12,5 SAY [ 1. ]+TRIM(C2)
IF TRIM(D2)=[TOT]
@ 12,56 SAY [ALL SOURCES]
ELSE
@ 12,56 SAY TRIM(D2)
ENDIF
ENDIF

IF LEN(TRIM(C3))>0
@ 13,5 say [ 2. ]+TRIM(C3)
@ 13,56 SAY TRIM(D3)
IF TRIM(D2)=[TOT]
@ 13,56 SAY [ALL SOURCES]
ELSE
@ 13,56 SAY TRIM(D2)
ENDIF
ENDIF

IF LEN(TRIM(C4))>0
@ 14,5 say [ 3. ]+TRIM(C4)
@ 14,56 SAY TRIM(D4)
IF TRIM(D2)=[TOT]
@ 14,56 SAY [ALL SOURCES]
ELSE

```

```

@ 14,56 SAY TRIM(D2)
ENDIF
ENDIF

IF LEN(TRIM(C5))>0
@ 15,5 say [ 4. ]+TRIM(C5)
@ 15,56 SAY TRIM(D5)
IF TRIM(D2)=[TOT]
@ 15,56 SAY [ALL SOURCES]
ELSE
@ 15,56 SAY TRIM(D2)
ENDIF
ENDIF

IF LEN(TRIM(C6))>0
@ 16,5 say [ 5. ]+TRIM(C6)
@ 16,56 SAY TRIM(D6)
IF TRIM(D2)=[TOT]
@ 16,56 SAY [ALL SOURCES]
ELSE
@ 16,56 SAY TRIM(D2)
ENDIF
ENDIF

IF LEN(TRIM(C7))>0
@ 17,5 say [ 6. ]+TRIM(C7)
@ 17,56 SAY TRIM(D7)
IF TRIM(D2)=[TOT]
@ 17,56 SAY [ALL SOURCES]
ELSE
@ 17,56 SAY TRIM(D2)
ENDIF
ENDIF

DO WHILE LEN(TRIM(C1))=0    &&LOOP TO ENSURE USER RESPONDS
    @23, 0 SAY [ Importing country or region selected: ]
    @24, 0 SAY [ (Enter ? for list, Q to quit) ] GET C1 PICTURE [0!]
    READ
ENDDO

IF TRIM(C1)=[Q] .AND. LEN(TRIM(C2))=0
    RETURN
ENDIF
IF TRIM(C1)=[Q]
    EXIT
ENDIF

SELECT 1
SEEK TRIM(C1)

IF .NOT. FOUND() .OR. TRIM(C1)=[?] .or. .not. imports
    CLEAR
    IF .NOT. FOUND() .AND. .NOT. TRIM(C1)=[?]
        ? [The country or region selected was not found. A listing of possible]
        WAIT [choices follows . . . ]
        ?
    ELSE
        WAIT [Please select an importing country from the following list . . . ]

```

```

ENDIF
C11=0
GO TOP
DO WHILE C11=0
  DO WHILE .NOT. EOF()
    CLEAR
    DISPLAY FIELDS proper FOR IMPORTS
    ?
    @24,0 SAY [Enter number of country/region or hit enter for ;
other choices: ] get C11 PICTURE [999]
    READ

    IF C11>0
      EXIT
    ENDIF
  ENDDO
  GO TOP
ENDDO
GO TOP
GOTO C11
C1=PROPER
ELSE
  C1=PROPER
ENDIF
* * * .....Determine exporting country
res=[N]
IF COUNTER=1  && ALLOW USER TO SPECIFY EXPORTER OF INTEREST
  @23, 0 CLEAR
  @23, 0 SAY [Do you need imports from a particular country (as opposed to]
  @24, 0 say [imports from all sources) for the importer chosen? (Y/N) ] GET res
PICTURE [0!]
  READ

  IF RES $ [Y]
    C00=0
    GO TOP
    DO WHILE C00=0
      DO WHILE .NOT. EOF()
        CLEAR
        DISPLAY FIELDS PROPER FOR EXPORTS
        ?
        @24,0 SAY [Enter number of exporter: ] get C00 PICTURE [999]
        READ
        IF C00>0
          EXIT
        ENDIF
      ENDDO
      GO TOP
    ENDDO
    GOTO C00
    D1=PROPER
  ELSE
    D1=[TOT]
  ENDIF
ENDIF
ENDIF

C1=TRIM(C1)
D1=TRIM(D1)
* * *

```

```

DO CASE
  CASE counter=1
    C2=C1      ** Store user's choice in a variable for display
    D2=D1      ** Store user's choice of exporter for display
  CASE counter=2
    C3=C1
    D3=D1
  CASE counter=3
    C4=C1
    D4=D1
  CASE counter=4
    C5=C1
    D5=D1
  CASE counter=5
    C6=C1
    D6=D1
  CASE counter=6
    C7=C1
    D7=D1
ENDCASE
* * *
* * *
* * * THE FOLLOWING PROCEDURE IS DESIGNED TO FILL THE PROCESS Data Base, F1,
* * * WITH THE TIME-SERIES DATA TAKEN FROM THE VOLUMES Data Base IN ACCORDANCE
* * * WITH USER SELECTIONS. THE SEARCH VARIABLE user IS FILLED WITH A TYPE
* * * AND AN IMPORTER AND EXPORTER, VOLUMES.DBF IS SEARCHED FOR THAT RECORD,
* * * AND THE RESULTS ARE STORED IN THE PROCESS DBF, WHICH IS LATER TRANSFORMED
* * * INTO A LOTUS WORKSHEET.
* * *
* * * .....
* * * UPDATE NOTE
* * *
* * * WHEN ADDING ADDITIONAL YEARS BEYOND 1988, APPROPRIATE VARIABLES
* * * MUST BE CHOSEN AND ADDED IN THE LISTING BELOW. OF COURSE, THE
* * * STRUCTURE OF THE VOLUMES.DBF MUST ALSO BE MODIFIED TO ADD THE
* * * ADDITIONAL YEARS AS FIELDS WITH THE DESIGNATION Yyear (E.G. Y1989).
* * *
* * * .....
USER1=STR(1,1,0)+TRIM(C1)+TRIM(D1)      ** to match index of Volumes.dbf
USER2=STR(2,1,0)+TRIM(C1)+TRIM(D1)
USER3=STR(3,1,0)+TRIM(C1)+TRIM(D1)
TIMES=1
*-----
DO WHILE TIMES<4                                ** Loop #2

SELECT 2
DO CASE
  CASE TIMES=1
    USER=USER1
  CASE TIMES=2
    USER=USER2
  CASE TIMES=3
    USER=USER3
ENDCASE

SEEK USER
IF .NOT. FOUND()
  CLEAR

```

```

    WAIT [No data was found in reponse to your query . . . ]
ENDIF
X=IMP
XX=EXP
XXX=TYPE
X1980=Y1980
X1981=Y1981
X1982=Y1982
X1983=Y1983
X1984=Y1984
X1985=Y1985
X1986=Y1986
X1987=Y1987
X1988=Y1988
SELECT 3
APPEND BLANK
REPLACE IMP WITH X
REPLACE EXP WITH XX
REPLACE TYPE WITH XXX
REPLACE Y1980 WITH X1980
REPLACE Y1981 WITH X1981
REPLACE Y1982 WITH X1982
REPLACE Y1983 WITH X1983
REPLACE Y1984 WITH X1984
REPLACE Y1985 WITH X1985
REPLACE Y1986 WITH X1986
REPLACE Y1987 WITH X1987
REPLACE Y1988 WITH X1988

TIMES=TIMES+1          && INCREMENT COUNTER

ENDDO                                     && Loop #2
*-----

C1=[                      ]
*D1=[                      ]
COUNTER=COUNTER+1
ENDDO                                     && Loop #1
*-----

CLEAR
?
?
?
?
?
? [ Records are being retrieved for selected importers and exporters.]
? [ Please wait . . . ]
SELECT 3
SET SAFETY OFF
COPY TO F1.WKS WKS
SET SAFETY ON
CLEAR
CLOSE Data Bases

RUN COPY AUTO123.F1 AUTO123.WK1 >NUL
RESTORE FROM CONFIG ADDITIVE
newdrive=SUBSTR(LOTUS,1,2)
RUN &NEWDRIVE
newdirect=[CD ]+lotus

```



```

RUN &newdirect
RUN 123
RESTORE FROM CONFIG ADDITIVE
OLDDRIVE=SUBSTR(LICSD,1,2)
RUN &OLDDRIVE
CDLOC=[CD ]+LICSD
RUN &CDLOC

RETURN

```

* * * Modified by B. de B. on 09/21/90

F2.PRG

```

* * * .....F2.PRG.....

```

```

* * *

```

```

* * * THE FOLLOWING PROGRAM SOLICITS A SELECTION OF YEAR AND COAL TYPE
* * * FROM USER. A QUERY IS THEN MADE OF VOLUMES1.DBF TO COPY THE REQUESTED
* * * DATA TO A PROCESS WORKSHEET, F2.WKS, WHICH IS THEN LOADED INTO THE
* * * F2.WK1 WORKSHEET FOR GRAPHICS AND ANALYSIS.

```

```

* * *

```

```

* * * UPDATE NOTE: THIS PROGRAM ASSUMES THAT THERE ARE A TOTAL OF 44 RECORDS
* * * USED TO DISPLAY ALL IMPORTERS FOR THE MATRIX SPREADSHEETS. THIS IS
* * * CONSISTENT WITH PRESENT EIA PRACTICE. IF OTHER IMPORTERS/IMPORTING
* * * REGIONS SHOULD BE ADDED, THE NUMBER MUST BE CHANGED FROM ITS PRESENT
* * * 44 TO THE CORRECT NUMBER.

```

```

* * *

```

```

* * * A FULL UPDATE MUST INCLUDE RESETTING F2.WK1 LOTUS WORKSHEET, SINCE
* * * COUNTRIES AND REGIONS ARE BROUGHT IN TO WORKSHEET IN ALPHABETICAL
* * * ORDER BUT DISPLAYED IN REGIONAL GROUPINGS.

```

```

* * * .....

```

```

* * *

```

```

* * * MODIFIED BY BRYAN DE BOINVILLE 9/1/88 TO REFLECT TWO NEW COUNTRIES
* * * USED BY EIA IN TRADE FLOWS DATA (ALGERIA AND MOROCCO).

```

```

* * * .....

```

```

* * * MODIFIED BY BRYAN DE BOINVILLE 5/5/89 TO REFLECT TWO NEW COUNTRIES
* * * USED BY EIA AND AGAIN ON 5/11/89 TO ADD ADDITIONAL COUNTRIES

```

```

* * * .....

```

```

CLEAR

```

```

*SET STATUS ON

```

```

SET SCOREBOARD ON

```

```

@2,0 SAY [

```

```

]

```

```

@3,0 SAY [

```

```

]

```

```

@4,0 SAY [ Importer / Exporter Matrix ]

```

```

@5,0 SAY [

```

```

]

```

```

@row()+2, 0 say [ The matrix view shows trade volumes between individual and]
@row()+1, 0 say [ regional coal importers and exporters, as well as relative]
@row()+1, 0 say [ market shares.]
@row()+1, 0 say [

```

```

]

```

```

@row()+2, 0 say [ A year and coal type must be specified: ]

```

```

CYEAR=1987

```

```

CTYPE=3

```

```

@row()+2, 0 say [      . Year to be viewed (1980 - 1988) : ] GET CYEAR PICTURE
[9999] ;
RANGE 1980,1988
@row()+2, 0 say [      . Coal type (1 = Steam; 2 = Metallurgical; 3 = Both) : ] ;
GET CTYPE PICTURE [9] RANGE 1,3
READ
SELECT 1
USE VOLUMES1 INDEX F2
MARKER=STR(CTYPE,1,0)+STR(CYEAR,4,0)
SEEK MARKER
* * * NOTE, THERE ARE FORTY ONE IMPORTERS OR REGIONS IN THE MATRIX
SET SAFETY OFF
COPY NEXT 44 TO F2.WKS WKS
SET SAFETY ON
* * * SWITCH INTO LOTUS TO PICKUP F2.WKS FROM F2.WK1
CLEAR
RUN COPY AUTO123.F2 AUTO123.WK1 >NUL
RESTORE FROM CONFIG ADDITIVE
newdrive=SUBSTR(LOTUS,1,2)
RUN &NEWDRIVE
newdirect=[CD ]+lotus
RUN &newdirect
RUN 123
OLDDRIVE=SUBSTR(LICSD,1,2)
RUN &OLDDRIVE
CDLOC=[CD ]+LICSD
RUN &CDLOC
RETURN

```

```

F3.PRG
* * * ..... F3.PRG .....
* * *
* * * The following program solicits a selection of a coal type
* * * from user. A query is then made of volumes1.dbf to copy the requested
* * * data to a process worksheet, F3.wks, which is then loaded into the
* * * F3.wk1 worksheet for graphics and analysis.
* * *
* * * .....
CLEAR
@2,0 SAY
[.....]
@3,0 SAY
[.....]
@4,0 SAY [      Importer / Exporter (Combined View)]
@5,0 SAY
[.....]
@row()+1, 0 say [      The mixed view shows trade volumes between individual and]
@row()+1, 0 say [      regional coal importers and exporters over several years.]
@row()+1, 0 say
[.....]
@row()+2, 0 say [      A coal type must be specified: ]
CTYPE=3
@row()+2, 0 say [      . Coal type (1=Steam; 2=Met.; 3=Both; 4=Return) : ] ;
GET CTYPE PICTURE [9] RANGE 1,4
READ
IF CTYPE=4
  CLEAR

```

```

RETURN
ENDIF
SELECT 1
USE VOLUMES1 INDEX VOLUMES1
MARKER=STR(CTYPE,1,0)
SEEK MARKER
SET SAFETY OFF
CLEAR
?
?
? [ Records are being retrieved. Please wait . . . ]
SET TALK ON
COPY TO F3.WKS WKS FOR TYPE=CTYPE
SET SAFETY ON
SET TALK OFF
CLEAR
CLOSE Data BaseS
* * * SWITCH INTO LOTUS TO PICKUP F3.WKS FROM F3.WK1
RUN COPY AUTO123.F3 AUTO123.WK1 >NUL
RESTORE FROM CONFIG ADDITIVE
newdrive=SUBSTR(LOTUS,1,2)
RUN &NEWDRIVE
newdirect=[CD ]+lotus
RUN &newdirect
RUN 123
RESTORE FROM CONFIG ADDITIVE
OLDDRIVE=SUBSTR(LICSD,1,2)
RUN &OLDDRIVE
CDLOC=[CD ]+LICSD
RUN &CDLOC
RETURN

```

```

F4.PRG
* * * ..... F4.PRG .....
* * *
* * * THIS PROGRAM LOADS THE DBASE COMMAND INTERPRETER WITH THE VOLUMES.DBF
* * * AND VOLUMES.NDX IN USE. SINCE IT DROPS TO THE DOT PROMPT LEVEL
* * * RETURN TO THE ICSD SYSTEM MAY BE ACCOMPLISHED BY ISSUING THE RESUME
* * * COMMAND
* * *
* * * .....
CLEAR
USE VOLUMES INDEX VOLUMES
? [ ..... ]
? [ After hitting any key, the dBase command interpreter (i.e. ]
? [ the dot prompt) will be invoked with the VOLUMES data base ]
? [ and index in use. To return, either type RESUME or hit ]
? [ the F10 key but issue the command CLOSE Data BaseS first.]
? [ Do not exit directly from dBase.]
?
? [ Type ASSIST for the dBase Assistant. ]
WAIT [ ..... ]
SUSPEND
CLOSE Data BaseS
RETURN

```

F5.PRG

```

* * * ..... F5.PRG .....
* * *
* * * INVOKE THE LOTUS PRINT GRAPH PROGRAM
* * *
* * * .....
CLEAR
RESTORE FROM CONFIG ADDITIVE
newdirect=[CD ]+lotus
RUN &newdirect
RUN PGRAPH
RUN CD\ICSD
RETURN

```

FLows.PRG

```

* * * ..... FLOWs.PRG .....
* * *
* * * CONTAINS THE ROUTINES FOR THE TRADE FLOWs MENU SCREEN AND CALLS THE
* * * SUBROUTINES REQUIRED TO ACCESS THE FLOWs.DBF
* * *
* * * .....
* * ESTABLISH OPERATING MODES
SET HELP OFF
SET TYPEAHEAD TO 0    && Clean out buffer
SET TYPEAHEAD TO 10  && but reestablish it
SET TALK OFF
SET ESCAPE OFF        && prevent exit during periods cursor turned off
* * * LOAD MODULES TO CONTROL CURSOR FROM MASTER MENU
LOAD CURSON.BIN
LOAD CURSOFF.BIN
* * * ADVISE PROGRAM OF LOCATION OF LOTUS
IF .NOT. FILE("CONFIG.MEM")
    DO 01    && CALL THE CONFIGURATION SUBROUTINE
ELSE
    RESTORE FROM CONFIG ADDITIVE
ENDIF
* * * GENERAL VARIABLES
ontos = .T.
choice = 0
moniker = [I·C·S·D]
* * * .....
* * * BEGIN MAIN LOOP FOR MASTER MENU USER SELECTION
* * * .....
DO WHILE ontoS

SET TALK OFF
CLEAR
choice = 0
IF ISCOLOR()
    SET COLOR TO /R,W/B,R
    CLEAR
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF
@ 2,7 say "
IF ISCOLOR()

```

```

    SET COLOR TO /W,,
ELSE
    SET COLOR TO W/N,,
ENDIF
@ 3,7 say "
@ 4,7 say "
IF ISCOLOR()
    SET COLOR TO R/W,,
ELSE
    SET COLOR TO W+/N,,
ENDIF
@ 4,8 say [      Coal Trade Flows From Exporters to Importers ]
IF ISCOLOR()
    SET COLOR TO N/W,,
ELSE
    SET COLOR TO W/N,,
ENDIF
@ 5,7 say "
@ 6,7 say "
@ 7,7 say "
@ 8,7 say "
@ 9,7 say "
@10,7 say "
@11,7 say "
@12,7 say "
@13,7 say "
@14,7 say "
@15,7 say "
@16,7 say "
@17,7 say "
@18,7 say "
@19,7 say "
@20,7 say "
@21,7 say "
@22,7 say "
@23,7 say "
IF ISCOLOR()
    SET COLOR TO R/W,,
ELSE
    SET COLOR TO W+/N,,
ENDIF
@22,35 say [Help = F1]
IF ISCOLOR()
    SET COLOR TO N/W,,
ELSE
    SET COLOR TO W/N,,
ENDIF

CALL CURSOFF  &TURN THE CURSOR OFF WHILE THE PROGRAM WAITS FOR USER TO GO

DO WHILE choice=0

    choice=INKEY()

    * * * DISPLAY CURRENT TIME CONTINUOUSLY ON SCREEN UNTIL KEY PRESSED
    MTIME = TIME()
    IF VAL(SUBSTR(mtime,1,2)) >= 12
        IF VAL(SUBSTR(mtime,1,2)) = 12
            MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ p.m.]

```

```

        MTIME = LTRIM(MTIME)
    ELSE
        mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2)) - 12) + SUBSTR(mtime,3,3)) + [
p.m.]
        mtime = LTRIM(mtime)
    ENDIF
ELSE
    IF VAL(SUBSTR(mtime,1,2)) = 0
        MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ a.m.]
        MTIME = LTRIM(MTIME)
    ELSE
        mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2))) + SUBSTR(mtime,3,3)) + [ a.m.]
        mtime = LTRIM(mtime)
    ENDIF
ENDIF

@22,16 say date()
@22,57 say mtime+[ (F)]

@22,46 SAY CHR(choice)

ENDDO      ** END OF LOOP TO GET USER MENU CHOICE

CALL CURSOR      ** TURN THE CURSOR BACK ON
SET ESCAPE ON      ** SINCE CURSOR IS BACK ON, ESCAPE IS PERMISSIBLE
ON ESCAPE RETURN

* * * EVALUATE WHAT USER WANTED

IF ISCOLOR()
    SET COLOR TO W/B,B/W,B
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF

DO CASE

CASE CHR(choice) $ [^\]      ** User pressed F1 help key

    help1=[TIME SERIES shows trade volumes between selected countries ]
    help2=[over time for both coal types, with emphasis on importer ]
    help3=[comparisons. MATRIX arrays all importers, exporters and ]
    help4=[their market shares for a single coal type and year .....]
    help5=[COMBINATION shows time series data for all countries for a ]
    help6=[single coal type over all years, but only for coal flows from]
    help7=[major exporters. DIRECT ACCESS calls the dBase command inter-]
    help8=[preter(.) PRINT GRAPH loads the Lotus graph printing routine.]
    DO help WITH moniker,help1,help2,help3,help4,help5,help6,help7,help8

CASE CHR(choice) $ [1]

    DO F1                      ** Subroutine call

CASE CHR(choice) $ [2]

    DO F2                      ** Subroutine call

CASE CHR(choice) $ [3]

```

```

ELSE
  IF VAL(SUBSTR(mtime,1,2)) = 0
    MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ a.m.]
    MTIME = LTRIM(MTIME)
  ELSE
    mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2))) + SUBSTR(mtime,3,3)) + [ a.m.]
    mtime = LTRIM(mtime)
  ENDIF

```

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ICSD Program Source Code

```

DO F3                                && Subroutine call
CASE CHR(choice) $ [4]
DO F4                                && Subroutine call
CASE CHR(choice) $ [5]
DO F5                                && Subroutine call
CASE CHR(choice) $ [6]

CLEAR
RETURN

OTHERWISE

  message=[Invalid . . . Try again]
  DO ERRMESS WITH moniker, message
  LOOP

ENDCASE

ENDDO

RETURN

```

```

HELP.PRG
PARAMETERS moniker,help1,help2,help3,help4,help5,help6,help7,help8
* * * ..... HELP.PRG .....
* * *
* * * THIS PROGRAM IS USED TO DISPLAY THE HELP SCREEN THAT POPS UP
* * * OVER THE MENU SCREENS.
* * *
* * * .....
* * * Establish initial screen coloring
IF ISCOLOR()
  SET COLOR TO N/W,W/B,N
ELSE
  SET COLOR TO W/N,N/W,N
ENDIF
* * * .....declare variables.....
holder = LEN(help1)+2
IF holder >=65
  help1=SUBSTR(help1,1,59)
ENDIF
center=ROUND(((80-holder)/2),0)
DO CASE
  CASE holder >=5 .AND. holder <=25
    width = 6
    height =5
  CASE holder >=26 .AND. holder <=45
    width = 5
    height =5
  CASE holder >=46 .AND. holder <=67
    width = 4

```

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```

        heighth =5
    OTHERWISE
        width = 3
        heighth =5
ENDCASE
* * * .....draw boxes.....
@9-height, (center-width)-1 CLEAR TO 15+height, (holder+center)+(width)+1
IF ISCOLOR()
    SET COLOR TO W/B,W/B,N
ELSE
    SET COLOR TO N/W,W/N,N
ENDIF
@10-height, center-width CLEAR TO 14+height, (holder+center)+(width)
@10-height, center-width TO 14+height, (holder+center)+(width)
xxmoniker=moniker+[: Help]
@10-height, (center-width)+2 SAY xxmoniker
IF ISCOLOR()
    SET COLOR TO N/W,W/B,N
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF
@11-(height-1), center-(width-2) CLEAR TO 13+(height-1), (holder+center)+(width-2)
@12-(height-1), center+2 SAY help1
@13-(height-1), center+2 SAY help2
@14-(height-1), center+2 SAY help3
@15-(height-1), center+2 SAY help4
@16-(height-1), center+2 SAY help5
@17-(height-1), center+2 SAY help6
@18-(height-1), center+2 SAY help7
@19-(height-1), center+2 SAY help8
delay=0
DO WHILE delay=0
    * CALL CURSOFF
    delay=INKEY()
ENDDO
*CALL CURSON
RETURN

```

MASTER.PRg

```

* * * ..... MASTER.PRg .....
* * *
* * * CONTAINS THE OPENING MENU AND THE MAJOR SUBROUTINE CALLS. THIS PROGRAM
* * * SHOULD HAVE BEEN INVOKED BY A PROGRAM ORIGINALLY STORED IN THE ICSD
* * * SUBDIRECTORY UNDER THE NAME AUTOMATE.PRg, BUT WHICH WAS COPIED TO THE
* * * DBASE DIRECTORY AND RENAMED MASTER.PRg BEFORE DBASE START-UP. THE
* * * DOS BATCH CODE REQUIRED FOR RENAMING IS STORED IN ICSD.BAT.
* * *
* * * ORIGINALLY PROGRAMMED BY BRYAN DE BOINVILLE OF DECISION ANALYSIS
* * * CORPORATION OF VIRGINIA, 1988.
* * * .....
* * * ESTABLISH OPERATING MODES. MOST CONFIGURATION PARAMETERS HAVE ALREADY
* * * BEEN SET IN THE FILE CONFIG.DB, READ BY DBASE UPON LOADING.
SET TYPEAHEAD TO 0    && Clean out buffer
SET TYPEAHEAD TO 10  && but reestablish it
SET TALK OFF
SET ESCAPE OFF        && prevent exit during periods cursor turned off
* * * SET VALUES FOR FUNCTION KEYS

```



```

SET FUNCTION 10 TO [CLOSE ALL;CLEAR ALL;DO MASTER;]
SET SCOREBOARD ON
* * * LOAD MODULES TO CONTROL CURSOR FROM MASTER MENU
LOAD CURSON.BIN
LOAD CURSOFF.BIN
* * * SINCE THE ICSD MUST KNOW WHERE THE LOTUS FILES ARE LOCATED, THE
* * * FOLLOWING ROUTINE IS USED TO SPECIFY WHERE THEY ARE.
* * * NOTE THAT THE INITIAL BATCH FILE SET CERTAIN ENVIRONMENT VALUES
* * * WHICH ARE CALLED TO ESTABLISH FILE LOCATION.
LOTUS=UPPER(GETENV("ICSDL"))
LDB3=UPPER(GETENV("ICSDDB"))
USE ICSD
SET SAFETY OFF
ZAP
SET SAFETY ON
APPEND FROM ICSD.DIR SDF
LICSD=UPPER(TRIM(ICSD))
USE
DI=SUBSTR(LICSD,1,1)
SET DEFAULT TO &DI
SET PATH TO &LICSD
SET SAFETY OFF
SAVE ALL LIKE L* TO CONFIG
SET SAFETY ON
* * * CONFIRM PATH INFORMATION
LOTUSFIL=Lotus+[\123.EXE]
IF .NOT. FILE(LOTUSFIL)
    WAIT [ERROR! UNABLE TO CONFIRM CORRECT LOTUS PATH INFORMATION]
    QUIT
ENDIF
DBASEFIL=LDB3+[\DBASE.EXE]
IF .NOT. FILE(DBASEFIL)
    WAIT [ERROR! UNABLE TO CONFIRM CORRECT DBASE PATH INFORMATION]
    QUIT
ENDIF
* * * GENERAL PROGRAMMING VARIABLES
ONTOS = .T.
* * * .....
* * * BEGIN MAIN LOOP FOR MASTER MENU USER SELECTIONS
* * * .....
DO WHILE ontos          && LOOP UNTIL ADVISED OTHERWISE

SET TALK OFF
IF ISCOLOR()
    SET COLOR TO N/W,W/B,N
    CLEAR
ELSE
    SET COLOR TO W/N,N/W,N
    CLEAR
ENDIF

choice = 0

@ 2,7 say " "
IF ISCOLOR()
    SET COLOR TO /BG,,
ENDIF
@ 3,7 say " "
@ 4,7 say " "
```

```

IF ISCOLOR()
  SET COLOR TO N/BG,,
ELSE
  SET COLOR TO W+/N,,
ENDIF
@ 4,8 say [      International Coal Statistics Data Base      ]
IF ISCOLOR()
  SET COLOR TO N/BG,,
ELSE
  SET COLOR TO W+/N,,
ENDIF
@ 5,7 say "
@ 6,7 say "
@ 7,7 say "
@ 8,7 say "      1 : Trade Flows
@ 9,7 say "      2 : Energy Demand
@10,7 say "      3 : Prices & Shipping Rates
@11,7 say "      4 : US Exports & Imports
@12,7 say "      5 : Options
@13,7 say "      ~~~~~
@14,7 say "      6 : End the program
@15,7 say "
@16,7 say "
@17,7 say "
@18,7 say "
@19,7 say "
@20,7 say "
@21,7 say "
@22,7 say "
@23,7 say "
IF ISCOLOR()
  SET COLOR TO R/BG,,
ELSE
  SET COLOR TO W+/N,,
ENDIF
@22,35 say [Help = F1]
IF ISCOLOR()
  SET COLOR TO N/BG,,
ELSE
  SET COLOR TO W+/N,,
ENDIF
CALL CURSOFF  &&TURN THE CURSOR OFF WHILE THE PROGRAM WAITS FOR USER TO GO
* * * WAIT FOR, THEN EVALUATE USER INPUT
DO WHILE choice=0

  choice=abs(INKEY())

  * * * DISPLAY CURRENT TIME CONTINUOUSLY ON SCREEN UNTIL KEY PRESSED
  MTIME = TIME()
  IF VAL(SUBSTR(mtime,1,2)) >= 12
    IF VAL(SUBSTR(mtime,1,2)) = 12
      MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ p.m.]
      MTIME = LTRIM(MTIME)
    ELSE
      mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2)) - 12) + SUBSTR(mtime,3,3)) + [
p.m.]
      mtime = LTRIM(mtime)
    ENDIF
  ELSE

```

```

IF VAL(SUBSTR(mtime,1,2)) = 0
    MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ a.m.]
    MTIME = LTRIM(MTIME)
ELSE
    mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2))) + SUBSTR(mtime,3,3)) + [ a.m.]
    mtime = LTRIM(mtime)
ENDIF
ENDIF

@22,16 say date()
@22,57 say mtime

@22,46 SAY CHR(choice)

ENDDO      && END OF LOOP TO GET USER MENU CHOICE

CALL CURSOR      && TURN THE CURSOR BACK ON
SET ESCAPE ON      && SINCE CURSOR IS BACK ON, ESCAPE IS PERMISSIBLE
ON ESCAPE RETURN

* * * EVALUATE WHAT USER WANTED
    moniker = [I·C·S·D]

DO CASE
CASE CHR(choice) $ [^\]      && User pressed F1 help key
    moniker = [I·C·S·D]
    help1=[TRADE FLOWS shows the volume of coal traded between countries]
    help2=[and regions...ENERGY DEMAND looks at historical patterns of ]
    help3=[primary energy use.....PRICES & SHIPPING RATES offer quarterly]
    help4=[prices and rates at major ports.....US EXPORT & IMPORTS shows]
    help5=[detailed prices and volumes of coal from and to US ports.....]
    help6=[Use OPTIONS to configure system, maintain files (e.g. backup]
    help7=[copies, reindexing, annotated file listing), and miscellaneous ]
    help8=[choices (e.g. print graph, dot prompt, etc.)..... ESC to exit]
    DO help WITH moniker,help1,help2,help3,help4,help5,help6,help7,help8

CASE CHR(choice) $ [1]
    DO Flows      && Subroutine call

CASE CHR(choice) $ [2]
    DO Demand      && Subroutine call

CASE CHR(choice) $ [3]
    DO Prices      && Subroutine call

CASE CHR(choice) $ [4]
    DO Exports      && Subroutine call

CASE CHR(choice) $ [5]
    DO Options      && Subroutine call

CASE CHR(choice) $ [6]
    CLEAR

```

```

      QUIT
*      RETURN
      OTHERWISE
        moniker = [I·C·S·D]
        message=[Not a valid selection ... try again]
        DO ERRMESS WITH moniker, message
        LOOP
    ENDCASE

  ENDDO

  RETURN

```

^Z

O1.PRG

```

* * * ..... O1.PRG .....
* * *
* * * IS USED TO PROVIDE OTHER COMPONENTS OF THE ICSD SYSTEM WITH INFORMATION
* * * ON WHERE THE BACKUP FILES ARE LOCATED, IF ANYWHERE.
* * * THE INFORMATION IS STORED IN A SEPARATE MEMORY
* * * FILE (.MEM) AND RESTORED IN OTHER PROGRAMS WHEN NEEDED.
* * *
* * * .....
LAMBDA=.T.
DO WHILE LAMBDA          && MAIN OPERATING LOOP IN SUBROUTINE
  CLEAR
  * * * .....Backup options.....

```

```

  IF FILE("BACKUP.MEM")
    RESTORE FROM BACKUP ADDITIVE
    IF LEN(TRIM(BCK1))<18
      V=[
        BCK1=BCK1+V
      ]
    ENDIF
  ELSE
    bck1=[
    ]
  ENDIF
  @5,4 SAY [
  @6,4 SAY [
  @7,4 SAY [ International Coal Statistics Data Base]
  @8,4 SAY [
  @9,4 say [ If you wish to use the special file restoration function,]
  @10,4 say [ please enter the full DOS path to the storage location for ]
  @11,4 say [ I·C·S·D backup files. These subdirectories must exist in order ]
  @12,4 say [ for the backup option to work properly. Example: D:\BACKUPS ]
  @13,4 SAY [
  @15,4 say [ Path to backup files: (Q to quit) ]
  @18,6 get bck1 picture [0!]
  READ
  bck1=trim(bck1)
  IF TRIM(BCK1)=[Q]
    CLEAR
    CLOSE Data BaseS
    BCK1=[NONE]
    SET SAFETY OFF
    SAVE TO BACKUP ALL LIKE BCK1

```

```

      SET SAFETY ON
      RETURN
ENDIF
IF LEN(TRIM(BCK1))=0
  CLEAR
  WAIT [ERROR: A valid DOS path outside the \ICSD directory must be given for both
  . . .]
  LOOP
ENDIF
SET SAFETY OFF
SAVE TO BACKUP ALL LIKE BCK1
SET SAFETY ON

lambda=.f.
ENDDO

RETURN

```

O2.PRG

```

* * * ..... O2.PRG .....
* * *
* * * CONTAINS THE MAIN REINDEXING ROUTINE. THE PROGRAM USES THE FILE
* * * LISTING INFORMATION CONTAINED IN THE O4.DBF TO COUNT THE INDEX FILES
* * * (PRIMARILY FOR THE SCREEN DISPLAY) AND REINDEXES IN ACCORDANCE WITH
* * * THE REQUIRED COMPOUND OR SIMPLE INDEX KEYS.
* * *
* * * .....
* * * MODIFIED BY BRYAN DE BOINVILLE ON 08/30/88 TO REFLECT CHANGED
* * * CENSUS IMPORT/EXPORT COUNTRY CODES (TO FOUR DIGITS FROM THREE)
* * * AND ON 5/23/89 TO ADD REINDEXING FOR TWO NEW INDEXES USED FOR
* * * REPORTS ON THE FREIGHT RATES Data Base.
* * * .....
CLEAR
? [ ..... ]
? [ ..... ]
? [ I.C.S.D File Maintenance ]
? [ ..... ]
? [ Rebuilding index files can take 15 to 20 minutes and may not be interrupted ]
? [ once started. Frequent reindexing should not be necessary. However, if the ]
? [ ICSD system should ever malfunction, the problem could be corrupted index ]
? [ files and reindexing may be the simplest solution to the problem. ]
? [ ..... ]
?
WAIT [ Proceed? (Y/N) ] to zz
IF UPPER(ZZ)=[Y]
  CLEAR
ELSE
  CLEAR
  CLOSE Data Bases
  RETURN
ENDIF
* * * NOTE THAT THE REINDEXING PROCEDURE DOES NOT RESORT THE
* * * Data Bases. FOR SORT ORDER FOR THE IMPORTS AND EXPORTS
* * * FILES, SEE UPDATE INSTRUCTIONS IN OPERATIONS MANUAL
? [ ..... ]
? [ ..... ]

```

```

? [          I·C·S·D   File Maintenance]
? [ _____]
? [ Necessary index files are being rebuilt.  The process takes as long as]
? [ 25 minutes, depending on the speed of the computer and disk drive.  Once]
? [ started, REINDEXING SHOULD NOT BE INTERRUPTED to avoid damaging the files.]
? [ _____]
?
? [ Reindexing began at ]+time()
?
USE O4 INDEX O4
COUNT ALL FOR EXT=[NDX] TO INDICES
USE
COUNTER=1
SET ESCAPE OFF    && PREVENT DAMAGE TO INDICES BY PREMATURE ESCAPE
SET SAFETY OFF

DO WHILE COUNTER<=INDICES

SET TALK ON    &&GIVE THE USER AN IDEA OF WHERE THE PROCESS STANDS
@12,0 CLEAR TO 16,79
@13,0 SAY [ Last index began at ]+time()
* * * .....
* * * NOTE THAT WHILE THIS PROGRAM DOES NOT RE-SORT Data BaseS, SOME
* * * Data BaseS MUST BE IN A CERTAIN SORTED ORDER:
* * *
* * *      EXPORTS  --   SORT ON YEAR,MONTH,COUNTRYCOD,TYPE,PORTCODE
* * *      IMPORTS  --   SORT ON YEAR,MONTH,COUNTRYCOD,TYPE,PORTCODE
* * * .....
DO CASE
CASE COUNTER=1
  USE COUNTRY
  PACK
  INDEX ON COUNTRY TO COUNTRY
CASE COUNTER=2
  USE COUNTRY
  SET UNIQUE ON
  INDEX ON PROPER TO PROPER
  SET UNIQUE OFF
CASE COUNTER=3
  USE COUNTRY
  SET UNIQUE ON
  INDEX ON COUNTRYID TO CNUMBER
  SET UNIQUE OFF
CASE COUNTER=4
  USE DEMAND
  INDEX ON TRIM(COUNTRY) TO DEMAND
CASE COUNTER=5
  USE DEMAND1
  INDEX ON TRIM(COUNTRY)+TRIM(YEAR) TO DEMAND1
CASE COUNTER=6
  USE VOLUMES
  INDEX ON STR(TYPE,1,0)+TRIM(IMP)+TRIM(EXP) TO VOLUMES
CASE COUNTER=7
  USE EXPORTS
  INDEX ON STR(ICSDTYPE,1,0)+STR(COUNTRYCOD,4,0) TO E2B
CASE COUNTER=8
  USE IMPORTS
  INDEX ON STR(ICSDTYPE,1,0)+STR(COUNTRYCOD,4,0) TO E3B
CASE COUNTER=9

```

```

    USE VOLUMES1
    INDEX ON STR(TYPE,1,0)+TRIM(IMPORTER)+TRIM(YEAR) TO VOLUMES1
CASE COUNTER=10
    USE PORTS
    INDEX ON PORT TO PORTS
CASE COUNTER=11
    USE PORTS
    INDEX ON IDNUMBER TO PORTNO
CASE COUNTER=12
    USE VCOUNTRY
    INDEX ON EXPORTER TO VCOUNTRY
CASE COUNTER=13
    USE EXPORTS
    INDEX ON STR(ICSDTYPE,1,0)+STR(YEAR,2,0) TO E2A
CASE COUNTER=14
    USE IMPORTS
    INDEX ON STR(ICSDTYPE,1,0)+STR(YEAR,2,0) TO E3A
CASE COUNTER=15
    USE VOLUMES1
    INDEX ON STR(TYPE,1,0)+TRIM(YEAR)+TRIM(IMPORTER) TO F2
CASE COUNTER=16
    USE PRICES
    INDEX ON STR(TYPE,1,0)+STR(Y1,2,0) TO PRICES
CASE COUNTER=17
    USE FREIGHT
    INDEX ON STR(Y1,2,0)+STR(M1,2,0) TO FREIGHT
CASE COUNTER=18
    USE 04 INDEX 04
    REINDEX
CASE COUNTER=19
    USE VOLUMES1 INDEX F2
    REINDEX
CASE COUNTER=20
    SET UNIQUE ON
    USE FREIGHT
    INDEX ON REGOFORIG TO P3A
    SET UNIQUE OFF
CASE COUNTER=21
    SET UNIQUE ON
    USE FREIGHT
    INDEX ON REGOFDEST TO P3B
    SET UNIQUE OFF
CASE COUNTER=22
    SET UNIQUE ON
    USE prices
    INDEX ON country TO P2a
    SET UNIQUE OFF
    OTHERWISE
    EXIT
ENDCASE
@17,2 SAY [Index #]+STR(COUNTER,2,0)+[ of ]+STR(INDICES,2,0)+[ completed]
SET TALK OFF
COUNTER=COUNTER+1

ENDDO
* * * .....
CLOSE Data Bases
@12,0 CLEAR TO 16,79
@13,0 SAY [ Reindexing was completed at ]+time()

```

```

SET TALK OFF
COUNTER2=1
DO WHILE COUNTER2<800      &&PROVIDE A BRIEF DELAY TO READ LAST MESSAGE
    COUNTER2=COUNTER2+1
ENDDO
IF COUNTER<INDICES
    ? [ Only the original ICSD indices have been reindexed. It appears]
    ? [ that there are user-created indices that may have to be reindexed ]
    WAIT [ manually. Do this from the dBase dot prompt (Misc. options) . . . ]
ENDIF
SET SAFETY ON
SET ESCAPE ON
RETURN

```

^Z

O3.PRG

```

* * * ..... O3.PRG .....
* * *
* * * THIS PROGRAM IS USED TO BACKUP FILES, EITHER FROM A SPECIAL RESERVE
* * * DIRECTORY ON THE USER'S SYSTEM TO ANY ICSD FILES THAT HAVE BEEN
* * * CORRUPTED FOR ONE REASON OR ANOTHER, OR IT USES DOS BACKUP AND
* * * RESTORE FUNCTIONS TO BACKUP THE SYSTEMS ON FLOPPIES. IT IS ASSUMED
* * * THAT FLOPPY DISK DRIVE A: WILL BE USED FOR THIS PROCESS. IF FOR
* * * SOME REASON DRIVE A: SHOULD NOT BE USED, THE USER MUST EDIT THIS
* * * PROGRAM TO SUPPLY THE CORRECT DRIVE.
* * *
* * * .....
CLEAR
ontos=.T.
*-----
DO WHILE ontos                                     && Loop #1
@3,0 SAY
[ ]
@4,0 SAY
[ ]
@5,0 SAY [ I.C.S.D File Backup]
@6,0 SAY
[ ]
@ 7,0 say [ File backup either (a) copies key files from their present location]
@ 8,0 say [ specified in the system configuration file to replace changed]
@ 9,0 say [ files in the \ICSD directory; or (b) uses the DOS backup program to
copy]
@10,0 say [ key files to floppy disks loaded into drive A. The present ]
@11,0 say [ path to the storage directory for option (a) is: ]
IF FILE("BACKUP.MEM")
    RESTORE FROM BACKUP ADDITIVE
ELSE
    WAIT [Necessary configuration information is missing. Please provide it . . .]
    DO config
    RESTORE FROM BACKUP ADDITIVE
    LOOP
ENDIF
@13,0 say [ Storage directory for original files= ]+bck1
@14,0 say [ ]
@16,0 SAY [ If this is not the right storage location for option (a), reconfigure]
@17,0 say [ the system before running this program again. Option (b) requires at ]

```



```
@18,0 SAY [ least 14 floppies (formatted 360 K, less if 1.2 meg diskettes are
used).]
```

```
@19,0 SAY
```

```
[
?
? [Select (A) to replace corrupted files, (B) backup on floppies, or (Q) to ]
WAIT [ quit (A/B/Q) ] to ans
* * * IF THE USER AGREES TO PROCEED, TURN OFF ESCAPE AND COPY THE FILES
* * * TO THE SPECIFIED LOCATIONS. BUT CHECK TO SEE IF THE BACKUP DIRECTORY
* * * IS REALLY THERE FIRST.
```

```
SET ESCAPE OFF
```

```
DO CASE
```

```
  CASE UPPER(ANS)=[A]
```

```
    TEST=BCK1+[\VOLUMES1.DBF]
```

```
    IF .NOT. FILE("&TEST")
```

```
      ? [Unable to confirm existence of backup files in that ]
```

```
      ? [directory. Run this program again after establishing ]
```

```
      ? [the backup directory and copying original files to it,]
```

```
      WAIT [if you wish to use the special file backup programs. . .]
```

```
      RETURN
```

```
    ENDIF
```

```
  CLEAR
```

```
  SELECT 1
```

```
  USE O4 INDEX O4
```

```
  last=lupdate()
```

```
  IF LUPDATE() < DATE()
```

```
    ? [In order for this option to work correctly, the annotated file ]
```

```
    ? [list must have been updated very recently. It was last up-]
```

```
    ? [dated on ]+DTOC(LAST)+[.]
```

```
    WAIT [Continue? (Y/N) ] to co
```

```
    IF UPPER(CO)=[N]
```

```
      CLOSE Data BaseS
```

```
      CLEAR
```

```
      RETURN
```

```
    ENDIF
```

```
  ENDIF
```

```
  GO TOP
```

```
  REPLACE ALL STATUS WITH .F. FOR OSIZE<>SIZE .OR. ODATE<>DATE
```

```
  ? [ The following files require restoration to original condition: ]
```

```
  SET HEADING ON
```

```
  LIST ALL FIELDS FILENAME,EXT,SIZE,DATE,OSIZE,ODATE FOR ORIGINAL .AND. .NOT.
```

```
STATUS
```

```
  SET HEADING OFF
```

```
  ? [Confirm that listed files should be restored or quit (C/Q) ]
```

```
  WAIT [Hit Q if no files are listed . . . ] to conf
```

```
  IF UPPER(CONF)=[C]
```

```
    GO TOP
```

```
    *-----
```

```
    DO WHILE .NOT. EOF() ** Loop #3
```

```
      IF .NOT. ORIGINAL .OR. STATUS
```

```
        SKIP
```

```
        LOOP
```

```
      ENDIF
```

```
      IF ORIGINAL .AND. .NOT. STATUS
```

```
        FNAME=TRIM(FILENAME)
```

```
        EX=TRIM(EXT)
```

```
        MFNAME=BCK1+[\]+FNAME+[.]+EX
```

ICSD Program Source Code

```

IF FILE([&MFNAME])
  ? [Restoring from backups : ]+fname+[.]+ex
  INSTR=[COPY ]+MFNAME
  RUN &INSTR
ELSE
  ? [NOTE: No ICSD backup file was found for ]+fname+[.]+ex
  WAIT [Backup from other sources . . . ]
ENDIF
ENDIF
IF .NOT. EOF()
  SKIP
ELSE
  EXIT
ENDIF
ENDDO                                     && Loop #3
*-----
ENDIF
CLEAR
CLOSE Data BaseS
RETURN

CASE UPPER(ANS)=[B]
  CLOSE Data BaseS
  CLEAR
  RUN BACKUP *.* a: > NUL
  CLEAR
  RETURN
CASE UPPER(ANS)=[Q]
  CLEAR
  SET ESCAPE ON
  CLOSE Data BaseS
  RETURN

OTHERWISE
  WAIT [Improper selection . . . please try again]
  CLEAR
  LOOP

ENDCASE

ontos=.F.
EXIT

ENDDO                                     && Loop #1
*-----
CLOSE Data BaseS
RETURN

O4.PRG
* * * ..... O4.PRG .....
* * *
* * * CREATES AN INDEXED Data Base OF FILES IN A THE DEFAULT SUBDIRECTORY. A
* * * NOTE ON THE CONTENT OF INDIVIDUAL FILES MAY BE MADE, AND THE REMARKS WILL
* * * SAVED WHEN A NEW SORTED DIRECTORY IS MADE. USER THEN HAS THE OPTION OF
* * * REVIEWING THE PURPOSE OF ANY ICSD FILE, INCLUDING USER-CREATED FILES THAT
* * * HAVE BEEN ANNOTATED. THE FILE LISTING INFORMATION IS USED IN THE
* * * REINDEXING OPTION AND THE FILE BACKUP OPTION.

```

```

* * *
* * * .....
SET SAFETY OFF
CLOSE Data BaseS
CLEAR
?
?
?
? [ ]
? [ ]
? [ I.C.S.D Annotated File List ]
? [ ]
?
?
?
? [ Please wait while file list is updated . . . ]
IF FILE("O4.DBF")
    RUN COPY O4.DBF O4D.DBF >NUL
    RUN COPY O4.NDX O4D.NDX >NUL
    CLEAR
ENDIF
DOSDIR=[DIR >O4D.DOC]
RUN &DOSDIR
SELECT 6
USE O4 INDEX O4
ZAP
APPEND FROM O4D.DOC SDF
DELETE FOR SUBSTR(FILENAME,1,1)=[ ] .OR. SUBSTR(FILENAME,1,1)=[.]
PACK

IF FILE("O4D.DBF")
    SELECT 1    &&COPY FILE ANNOTATIONS FROM PREVIOUS VERSION TO NEW VERSION
    USE O4D INDEX O4D
    BB=[]
    SELECT 6
    GO TOP
    XX=1        && COUNTER TO DISPLAY RECORD BEING WORKED ON
    DO WHILE .NOT. EOF()

        vv=STR(RECCOUNT(),3,0)  &&COUNTER TO SHOW TOTAL RECORDS
        @12,15 SAY [Now annotating file ]+STR(XX,3,0)+[ of ]+vv
        LL=FILENAME
        YY=EXT
        LL=TRIM(LL)+TRIM(EXT)
        SELECT 1
        SEEK LL
        IF FOUND() .OR. TRIM(EXT)=[MEM]
            BB=CONTENT
            c1=odate
            c2=osize
            c3=original
            c4=status
        ELSE
            SELECT 6
            CLEAR
        ?
        ?
        ? [ ]
        ? [ The I.C.S.D annotation program has detected a new]

```

```

? [          file -- probably one prepared by the user -- called]
?
? [          ]+filename+[.]+ext
?
WAIT [          Should it be annotated for future reference? (Y/N)] to anno
IF UPPER(anno)=[Y]
  CLEAR
  @10,10 say [Please enter annotation for ]+trim(filename)+[.]+trim(ext)
  @12,10 get content
  @15,0 to 24,79 double
  @16,6 say [GUIDE TO FILENAME EXTENSIONS: ]
  @18,6 SAY [Binary          = .BIN          Lotus text file      = .PRN]
  @19,6 say [Data Base      = .DBF          Index              = .NDX]
  @20,6 say [Config. info. = .MEM          Text                = .TXT]
  @21,6 say [123 worksheet = .WK1          123 worksheet (by dBase)= .WKS]
  @22,6 say [123 graphs    = .PIC          Batch file           = .BAT]
  @23,6 say [Source code   = .PRG          Executable program    = .COM]
  READ
  bb=trim(content)
ENDIF
CLEAR
SELECT 1
c1=odate
c2=osize
c3=original
c4=status

ENDIF

SELECT 6

REPLACE CONTENT WITH TRIM(BB)
REPLACE ODATE WITH C1
REPLACE OSIZE WITH C2
REPLACE STATUS WITH C4
REPLACE ORIGINAL WITH C3
BB=[]

SKIP
XX=XX+1

ENDDO

ENDIF
CLEAR
RUN ERASE O4D.DOC >NUL
RUN ERASE O4D.DBF >NUL
RUN ERASE O4D.NDX >NUL
CLEAR
SET SAFETY ON
?
?
WAIT [Display annotated files? (Y/N) ] TO ANS
IF UPPER(ANS)=[N]
  CLOSE Data Bases
  CLEAR
  RETURN
ENDIF

```

```

SELECT 1
USE
SELECT 6
GO TOP
CLEAR
@ 2,2 SAY [ I.C.S.D Annotated Alphabetical File List]
@ 4,2 SAY [ ]
@ 5,2 SAY [ ]
@ 6,2 say [ Name of File Content]
@ 7,2 say [ ]
@ 8,0 say []
r=row()
c=col()
c=c+3
DO WHILE .NOT. EOF()
    F=trim(FILENAME)
    E=trim(EXT)
    CC=trim(CONTENT)
    full=f+[.]+e
    IF r>23
        @8,0 clear
        r=8
    ENDIF
    @R,C SAY FULL
    @R,C+15 SAY CC
    IF R>=23
        WAIT [ Hit any key to see more files . . . ]
    ENDIF
    SKIP
    R=R+1
ENDDO
* * * * *
* * * GIVE USER THE CHANCE TO PRINTOUT A LISTING OF FILES BEFORE RETURNING
? [ ]
?
? [ Hit P for a printed listing of this information or hit any other key]
WAIT [ to return to menu . . . ] TO PRINTOUT
IF UPPER(PRINTOUT)=[P]
    GO TOP
    RUN ISITON.BAT && DETERMINE IF PRINTER IS ON, WARN USER IF IT IS NOT
    SET PRINT ON
    ?
    ? [ICSD Annotated file list as of ]+dtoc(date())+[ at ]+time()
    ?
    [ ]
    LIST OFF FIELDS FILENAME,EXT,SIZE,DATE,TIME,CONTENT
    ?
    ?
    SET PRINT OFF
    CLEAR
ENDIF
CLOSE Data BaseS

```

RETURN

^Z

^Z

^Z

O56A.PRG

*** O56A.PRG

*** CALLED FROM O56.PRG, THIS SUBROUTINE IS USED TO UPDATE THE DEMAND.DBF

*** FROM ANY USER UPDATE TO THE DEMAND1.DBF.

***

CLEAR

SET TALK OFF

?

?

?

?

? [-----]

? [I.C.S.D Update Program - Demand.dbf]

? [-----]

?

? [Instructions: The demand.dbf shows time-series data on the energy]

? [usage characteristics of individual countries. While]

? [this format enables the display of certain data, it is awkward to update]

? [since the user would have to add a field for the new year and go through]

? [more than a thousand records. The purpose of this program is to allow]

? [update in one form and then transform the new data into its final form as]

? [the revised demand.dbf.]

?

? [New data should be added for each country in the data base for the year in]

? [question. The field names are abbreviations corresponding to the requested]

? [information. If necessary, a list of countries in the data base will be]

? [provided.]

?

WAIT

ONTOS=.T.

SELECT 1

USE DEMAND1 INDEX DEMAND1

SELECT 2

USE COUNTRY INDEX PROPER

REINDEX

SELECT 1

DO WHILE ontos

WAIT [Skip data entry? (Y/N) Use only when new info entered previously] to que

IF UPPER(QUE)=[Y]

EXIT

ENDIF

WAIT [Display list of countries that must be updated? (Y/N)] to ques

IF UPPER(QUES)=[Y]

SELECT 2

CLEAR

DISPLAY ALL FOR DEMAND FIELDS PROPER

WAIT

```

SELECT 1
ENDIF

CLEAR
APPEND BLANK
@row(), 1 say [Country : ] get country
@row()+1, 1 say [Year : ] get year
@row()+1, 1 say [PRIMARY ENERGY CONSUMPTION ]
@row()+1, 1 say [(Quadrillion Btu) ]
@row()+1, 1 say [-----]
@row()+1, 1 say [Petroleum ] get PEC_OIL
@row()+1, 1 say [Natural Gas ] get PEC_NG
@row()+1, 1 say [Coal ] get PEC_C
@row()+1, 1 say [Nuclear ] get PEC_NUC
@row()+1, 1 say [Hydro ] get PEC_H
@row()+1, 1 say [Other ] get PEC_OTH
@row()+1, 1 say [ ]
@row()+1, 1 say [Total= ] get PEC_TOT
@row()+1, 1 say [-----]
@row()+1, 1 say [ENERGY CONSUMPTION BY]
@row()+1, 1 say [ELECTRIC UTILITIES ]
@row()+1, 1 say [(Quadrillion Btu) ]
@row()+1, 1 say [-----]
@row()+1, 1 say [Thermal]
@row()+1, 1 say [Oil Products ] get EUC_OIL
@row()+1, 1 say [Natural gas ] get EUC_NG
@row()+1, 1 say [Coal ] get EUC_C
@row()+1, 1 say [ ]
@row()+1, 1 say [Subtotal-]
READ SAVE
CLEAR
@row()+1, 1 say [Nuclear ] get EUC_NUC
@row()+1, 1 say [Hydro ] get EUC_H
@row()+1, 1 say [Other ] get EUC_OTH
@row()+1, 1 say [Total= ] get EUC_TOT
@row()+1, 1 say [-----]
@row()+1, 1 say [INDUSTRIAL ENERGY CONSUMP. ]
@row()+1, 1 say [(Quadrillion Btu) ]
@row()+1, 1 say [-----]
@row()+1, 1 say [Oil Products ] get IEC_OIL
@row()+1, 1 say [Natural gas ] get IEC_NG
@row()+1, 1 say [Coal ] get IEC_C
@row()+1, 1 say [Electricity ] get IEC_E
@row()+1, 1 say [Other ] get IEC_OTH
@row()+1, 1 say [Total= ] get IEC_TOT
@row()+1, 1 say [-----]
@row()+1, 1 say [TOTAL COAL CONSUMP. ]
@row()+1, 1 say [(Millions of Metric Tons) ]
@row()+1, 1 say [-----]
@row()+1, 1 say [Electric utilities ]
@row()+1, 1 say [Hard Coal ] get TCC_EUC
@row()+1, 1 say [Lignite ] get TCC_EUL
READ SAVE
CLEAR
@row()+1, 1 say [Subtotal- ] get TCC_EUS
@row()+1, 1 say [Industry ]
@row()+1, 1 say [Iron and Steel ] get TCC_IM
@row()+1, 1 say [Other ]

```

```

@row()+1, 1 say [Hard Coal] ] get TCC_IC
@row()+1, 1 say [Lignite] ] get TCC_IL
@row()+1, 1 say [Subtotal-] ] get TCC_IO
@row()+1, 1 say [Subtotal-] ] get TCC_ITOT
@row()+1, 1 say [Resident. & Comm.] ]
@row()+1, 1 say [Hard Coal] ] get TCC_RC
@row()+1, 1 say [Lignite] ] get TCC_RL
@row()+1, 1 say [Subtotal-] ] get TCC_RS
@row()+1, 1 say [Total=] ] get TCC_TOT
READ SAVE
CLEAR
@row()+1, 1 say [-----]
@row()+1, 1 say [COAL PROD., CONSUMP., &]
@row()+1, 1 say [IMPORTS BY YEAR]
@row()+1, 1 say [(Millions of Metric Tons)]
@row()+1, 1 say [-----]
@row()+1, 1 say [Consumption]
@row()+1, 1 say [Metallurgical] ] get CON_MET
@row()+1, 1 say [Steam]
@row()+1, 1 say [Hard coal] ] get CON_STM
@row()+1, 1 say [Lignite] ] get CON_L
@row()+1, 1 say [Subtotal-] ] get CON_STM
@row()+1, 1 say [Total=] ] get CON_TOT
@row()+1, 1 say [Production]
@row()+1, 1 say [Metallurgical] ] get PRD_MET
@row()+1, 1 say [Steam]
@row()+1, 1 say [Hard Coal] ] get PRD_C
@row()+1, 1 say [Lignite] ] get PRD_L
@row()+1, 1 say [Subtotal-] ] get PRD_STM
@row()+1, 1 say [Total=] ] get PRD_TOT
READ SAVE
CLEAR
@row()+1, 1 say [Imports] ]
@row()+1, 1 say [Metallurgical] ] get IMP_MET
@row()+1, 1 say [Steam]
@row()+1, 1 say [Hard coal] ] get IMP_C
@row()+1, 1 say [Lignite] ] get IMP_L
@row()+1, 1 say [Subtotal-] ] get IMP_STM
@row()+1, 1 say [Total -] ] get IMP_TOT
READ SAVE
CLEAR
@row()+1, 1 say [Electricity] ]
@row()+1, 1 say [ Capacity (GW) by Fuel Type ]
@row()+1, 1 say [ Coal ] get ECAP_COAL
@row()+1, 1 say [ Oil ] get ECAP_OIL
@row()+1, 1 say [ Gas ] get ECAP_GAS
@row()+1, 1 say [ Nuclear ] get ECAP_NUC
@row()+1, 1 say [ Hydro/Geo ] get ECAP_HYDRO
@row()+1, 1 say [ Other ] get ECAP_OTHER
@row()+1, 1 say [ TOTAL ] get ECAP_TOTAL
@row()+1, 1 say [ Generation (TWh) by Fuel ]
@row()+1, 1 say [ Coal ] get EGEN_COAL
@row()+1, 1 say [ Oil ] get EGEN_OIL
@row()+1, 1 say [ Gas ] get EGEN_GAS
@row()+1, 1 say [ Nuclear ] get EGEN_NUC
@row()+1, 1 say [ Hydro/Geo ] get EGEN_HYDRO
@row()+1, 1 say [ Other ] get EGEN_OTHER
@row()+1, 1 say [ TOTAL ] get EGEN_TOTAL
@row()+1, 1 say [-----]

```



```

@row()+1, 1 say [Steel ]
@row()+1, 1 say [ Crude steel prod by process ]
@row()+1, 1 say [ Oxygen ] get CR_ST_OXY
@row()+1, 1 say [ Electric Arc Furnace ] get CR_ST_EARC
@row()+1, 1 say [ Open Hearth ] get CR_ST_OH
@row()+1, 1 say [ Other ] get CR_ST_OTH
@row()+1, 1 say [ TOTAL ] get CR_ST_TOT
@row()+1, 1 say [ Cont. cast steel % of tot. ] get CONTINCAST
@row()+1, 1 say [-----]
@row()+1, 1 say [Imports of steel products ] get ST_IMPORTS
@row()+1, 1 say [Exports of steel products ] get ST_EXPORTS
@row()+1, 1 say [Apparent consump. of fin. st. ] get ST_CONSUMP
@row()+1, 1 say [-----]
@row()+1, 1 say [Pulverized Coal Injection ]
@row()+1, 1 say [ Capacity ] get PCI_CAP
@row()+1, 1 say [ Volume of coal consumed ] get PCI_VOL
@row()+1, 1 say [ Price of coal consumed ] get PCI_PRICE
response=[ ]
DO WHILE .NOT. UPPER(RESPONSE) $ [QC]
  @10.1 SAY [Continue to next country or quit? (C/Q) ] get response picture [!]
  READ
ENDDO
IF UPPER(RESPONSE)=[C]
  LOOP
ENDIF
IF UPPER(RESPONSE)=[Q]
  EXIT
ENDIF

ENDDO      && ONTOS LOOP
CLOSE Data Bases
* * * .....FILE TRANSFORMATION.....
* * *
* * * THE PURPOSE OF THIS PROGRAM IS TO TRANSFORM A LARGE Data Base WITH THE
* * * NAME DEMAND1.DBF TO A FILE CALLED DEMAND.DBF WHICH IS USED SUBSEQUENTLY.
* * * THE VARIABLES USED CORRESPOND TO THE NAMES OF THE FIELDS IN THE DEMAND1.
* * * DBF. THEY IN TURN ARE USED TO PRODUCE A REPORT TO THE USER WHICH HAS THE
* * * FOLLOWING ELEMENTS:
* * *
* * *      ITEM                      FIELDNAME
* * *
* * *      PRIMARY ENERGY CONSUMPTION
* * *      (Quadrillion Btu)
* * *      -----
* * *      Petroleum                  PEC_OIL
* * *      Natural Gas                PEC_NG
* * *      Coal                      PEC_C
* * *      Nuclear                   PEC_NUC
* * *      Hydro                     PEC_H
* * *      Other                     PEC_OTH
* * *
* * *      Total=                    PEC_TOT
* * *      -----
* * *      ENERGY CONSUMPTION BY
* * *      ELECTRIC UTILITIES
* * *      (Quadrillion Btu)
* * *      -----
* * *      Thermal
* * *      Oil Products              EUC_OIL

```

***	Natural gas	EUC_NG
***	Coal	EUC_C
***	Subtotal-	
***	Nuclear	EUC_NUC
***	Hydro	EUC_H
***	Other	EUC_OTH
***	Total=	EUC_TOT
***	-----	
***	INDUSTRIAL ENERGY CONSUMP.	
***	(Quadrillion Btu)	
***	-----	
***	Oil Products	IEC_OIL
***	Natural gas	IEC_NG
***	Coal	IEC_C
***	Electricity	IEC_E
***	Other	IEC_OTH
***	Total=	IEC_TOT
***	-----	
***	TOTAL COAL CONSUMP.	
***	(Millions of Metric Tons)	
***	-----	
***	Electric utilities	
***	Hard Coal	TCC_EUC
***	Lignite	TCC_EUL
***	Subtotal-	TCC_EUS
***	Industry	
***	Iron and Steel	TCC_IM
***	Other	
***	Hard Coal	TCC_IC
***	Lignite	TCC_IL
***	Subtotal-	TCC_IO
***	Subtotal-	TCC_ITOT
***	Resident. & Comm.	
***	Hard Coal	TCC_RC
***	Lignite	TCC_RL
***	Subtotal-	TCC_RS
***	Total=	TCC_TOT
***	-----	
***	COAL PROD., CONSUMP., &	
***	IMPORTS BY YEAR	
***	(Millions of Metric Tons)	
***	-----	
***	Consumption	
***	Metallurgical	CON_MET
***	Steam	
***	Hard coal	CON_STM
***	Lignite	CON_L
***	Subtotal-	CON_STM

```

* * *
* * * Total= CON_TOT
* * *
* * * Production
* * * Metallurgical PRD_MET
* * * Steam
* * * Hard Coal PRD_C
* * * Lignite PRD_L
* * *
* * * Subtotal- PRD_STM
* * *
* * * Total= PRD_TOT
* * *
* * * Imports
* * * Metallurgical IMP_MET
* * * Steam
* * * Hard coal IMP_C
* * * Lignite IMP_L
* * *
* * * Subtotal- IMP_STM
* * *
* * * TOTAL IMP_TOT
* * * .....
* * * Electricity
* * * Capacity (GW) by Fuel Type
* * * Coal ECAP_COAL
* * * Oil ECAP_OIL
* * * Gas ECAP_GAS
* * * Nuclear ECAP_NUC
* * * Hydro/Geo ECAP_HYDRO
* * * Other ECAP_OTHER
* * * TOTAL ECAP_TOTAL
* * *
* * * Generation (TWh) by Fuel
* * * Coal EGEN_COAL
* * * Oil EGEN_OIL
* * * Gas EGEN_GAS
* * * Nuclear EGEN_NUC
* * * Hydro/Geo EGEN_HYDRO
* * * Other EGEN_OTHER
* * * TOTAL EGEN_TOTAL
* * * -----
* * * Steel
* * * Crude steel prod by process
* * * Oxygen CR_ST_OXY
* * * Electric Arc Furnace CR_ST_EARC
* * * Open Hearth CR_ST_OH
* * * Other CR_ST_OTH
* * * TOTAL CR_ST_TOT
* * * Cont. cast steel % of tot. CONTINCAST
* * * -----
* * * Imports of steel products ST_IMPORTS
* * * Exports of steel products ST_EXPORTS
* * * Apparent consump. of fin. st. ST_CONSUMP
* * * -----
* * * Pulverized Coal Injection
* * * Capacity PCI_CAP
* * * Volume of coal consumed PCI_VOL
* * * Price of coal consumed PCI_PRICE
* * *

```

```

* * *
* * * SELECT Data Bases AND WORK AREAS
* * * Note: The demand1.dbf is used for update purposes only. Once new data
* * * have been added for any year, the entire data base must be converted to
* * * the format of the Demand.dbf (i.e. with years as fields). This process
* * * takes several hours on a normal IBM PC compatible running at 7.6
* * * megahertz. The program also destroys the contents of the original
* * * demand.dbf, so a backup may be made before running this program.
* * *
SELECT 1
USE DEMAND1 INDEX DEMAND1
? [Demand1.dbf being reindexed ]
? [_____]
SET TALK ON
REINDEX
set talk off
SELECT 2
USE DREPORT
SELECT 3
USE DEMAND INDEX DEMAND
Clear
? [ _____ ]
? [ _____ ]
? [
? [ W A R N I N G ]
? [ ]
? [ This program requires as much as several hours to run and ]
? [ destroys the original contents of the DEMAND.DBF file. ]
? [ Backup files before proceeding and remove blank records from]
? [ the Demand1.dbf.]
?
WAIT [ Proceed? (Y/N) ] TO PROCEED

IF UPPER(PROCEED)=[Y]
SELECT 3
SET SAFETY OFF
ZAP
SET SAFETY ON
ELSE
CLEAR
RETURN
ENDIF

STARTIME=TIME()
SELECT 1
GO BOTTOM
IF LEN(TRIM(COUNTRY))=0
CLEAR
?
?
? [Please wait while the data base is prepared . . .]
DELETE ALL FOR LEN(TRIM(COUNTRY))=0
PACK
ENDIF
GO TOP
* * * .....MAIN ROUTINE BEGINS.....
*-----*
DO WHILE .NOT. EOF()

```

Loop #1

```

CLEAR
SELECT 1
LCOUNTRY=COUNTRY
? [Now working on: ]+COUNTRY
?
? [The program started at ]+starttime
nowtime=time()
? [Work on the current country began at ]+nowtime
* * *
* * * NUMYEARS HOLDS THE NUMBER OF RECORDS (ONE FOR EACH YEAR) IN THE
* * * DEMAND1.DBF FOR A GIVEN COUNTRY. THE NUMBER OF RECORDS IS NOT
* * * THE SAME FOR EACH COUNTRY.
* * *
PLACE=RECNO()
COUNT FOR COUNTRY=LCOUNTRY TO NUMYEARS
GO PLACE
* * * .....
TIMES=1 && CORRESPONDS TO NUMBER OF YEARS COVERED BY ORIGINAL DEMAND.DBF

DO WHILE TIMES<=NUMYEARS      && RIPPLE THROUGH DEMAND.DBF

    MCOUNTRY=COUNTRY
    MYEAR=YEAR
    SELECT 2
    USE DREPORT      && REESTABLISHED BECAUSE CLOSED ON LAST LOOP

    RYEAR=[Y]+TRIM(MYEAR)  &&FIELD NAMES FOR YEARS BEGIN WITH "Y" THEN YEAR

    DO WHILE .NOT. EOF()    &&RIPPLE THROUGH DREPORT.DBF

        REPLACE DREPORT->COUNTRY WITH MCOUNTRY
        HOLDER=FIELDNAME
        IF LEN(TRIM(HOLDER))=0
            SKIP
        LOOP
        ENDIF
        holder2=DEMAND1->&HOLDER
        REPLACE &RYEAR WITH holder2
        SKIP

    ENDDO
    GO TOP && TO PREPARE DREPORT Data Base FOR NEXT PASS THROUGH

    USE && CLOSE DREPORT.DBF UNTIL NEXT LOOP TO PERMIT APPEND TO DEMAND

    SELECT 1      &&RETURN TO DEMAND1.DBF
    SKIP      && GO ON TO NEXT RECORD IN DEMAND1.DBF TO PICK UP NEXT YEAR
    TIMES=TIMES+1

ENDDO      && END RIPPLE THROUGH DEMAND1.DBF FOR YEAR YEAR

SELECT 3
APPEND FROM DREPORT
SELECT 1

ENDDO
*-----&& Loop #2
CLEAR ALL
SELECT 3

```

```

USE DEMAND INDEX DEMAND
REINDEX
CLEAR ALL
RETURN

```

```
^Z
```

```
O56B.PRG
```

```

* * * ..... O56B.PRG .....
* * *
* * * THE PURPOSE OF THIS PROGRAM IS TO TRANSFORM A LARGE Data Base WITH THE
* * * NAME Volumes1.DBF TO A FILE CALLED volumes.dbf WHICH IS USED SUBSEQUENTLY.
* * * VOLUMES1 HAS THE STRUCTURE OF IMPORTING COUNTRIES AS RECORDS AND EXPORT-
* * * ING COUNTRIES AS FIELDS, WITH ADDITIONAL FIELDS FOR COAL TYPE AND YEAR.
* * * COAL TYPE IS A SINGLE DIGIT, CORRESPONDING TO 1 FOR STEAM, 2 FOR MET. AND
* * * 3 FOR BOTH. WHILE THIS FILE STRUCTURE IS APPROPRIATE FOR MATRIX ANALYSIS,
* * * IT MAKES TIME SERIES ANALYSIS DIFFICULT, PARTICULARLY WHEN LOTUS GRAPHS
* * * WILL BE USED. THEREFORE, IT IS NECESSARY TO PROVIDE AN INTERMEDIATE
* * * PROGRAM TO PERFORM THE TRANSFORMATION.
* * *
* * * THE PROGRAM WORKS BY FILLING AN INTERMEDIATE Data Base WITH THE DATA FROM
* * * THE ORIGINAL MATRIX Data Base. THE INTERMEDIATE Data Base, CALLED VREPORT,
* * * IS THEN APPENDED TO THE VOLUMES.DBF WHICH HAS THE SAME STRUCTURE.
* * *
* * * .....
* * * MODIFIED BY BRYAN DE BOINVILLE ON 9/1/88 TO INCORPORATE 1986
* * * TRADE FLOWS DATA AND REVISED 1985 DATA AND AGAIN ON 5/10/89 TO
* * * ADD 1987 TRADE FLOWS DATA.
* * * .....
* * * VARIABLES IN VOLUMES1.DBF:
* * * YEAR YEAR (ENTERED AS A STRING/LABEL RATHER THAN AS A NUMBER)
* * * IMPORTER -NAME OF IMPORTING COUNTRY
* * * AUSTRALIA -EXPORTING COUNTRY
* * * CANADA -EXPORTING COUNTRY
* * * CHINA -EXPORTING COUNTRY
* * * COLOMBIA -EXPORTING COUNTRY
* * * OTHER -EXPORTING COUNTRY
* * * POLAND -EXPORTING COUNTRY
* * * SAFRICA -EXPORTING COUNTRY
* * * USSR -EXPORTING COUNTRY
* * * UK -EXPORTING COUNTRY
* * * USA -EXPORTING COUNTRY
* * * WGERMANY -EXPORTING COUNTRY
* * * TOTAL TOTAL FOR ALL EXPORTERS
* * * TYPE COAL TYPE (1=STEAM,2=MET,3=BOTH)
* * *
* * * VARIABLES IN VREPORT AND VOLUMES.DBF:
* * * IMP &&NAME OF IMPORTING COUNTRY
* * * EXP &&NAME OF EXPORTING COUNTRY
* * * TYPE &&COAL TYPE (1=STREAM,2=MET,3=BOTH)
* * * Y1980 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1981 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1982 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1983 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1984 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1985 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1986 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1987 &&VOLUME TRADED IN SHORT TONS FOR YEAR

```

```

* * * Y1988          &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * *
* * * .....
* * * SELECT Data Bases AND WORK AREAS
* * * Note: The volumes1.dbf is used for update purposes only. Once new data
* * * have been added for any year, the entire data base must be converted to
* * * the format of the volumes.dbf (i.e. with years as fields). This process
* * * takes up to several hours on a normal IBM PC compatible running at 7.6
* * * megahertz. The program also destroys the contents of the original
* * * volumes.dbf, so a backup should be made before running this program.
* * *
* * * .....
CLEAR
SELECT 1
USE volumes1 INDEX volumes1
REINDEX
SELECT 2
USE vreport
SELECT 3
USE vcountry      && special data base listing exporting countries
SELECT 4
USE volumes INDEX volumes
CLEAR
? [ ..... ]
? [ ..... ]
? [ ..... W A R N I N G ..... ]
? [ ..... ]
? [ This program requires as much as several hours to run and ]
? [ destroys (before rebuilding) the original contents of the ]
? [ Volumes.Dbf. Please backup files before proceeding. ]
?
WAIT [ Proceed? (Y/N) ] TO PROCEED
SELECT 4
IF UPPER(PROCEED)=[Y]
SET SAFETY OFF
ZAP
SET SAFETY ON
ELSE
CLEAR
CLOSE Data Bases
RETURN
ENDIF

* * * PROCEDURE FOR ALLOWING USER TO SELECT A COUNTRY FOR REPORT ON VOLUMES
SELECT 1
GO TOP
* * * CREATE MEMORY VARIABLES FOR INITIALIZATION OF REPORT LOOPS
STARTIME=TIME()
*-----
DO WHILE .NOT. EOF()                                     && Loop #1

SELECT 1
CLEAR
? [Now working on: ]+IMPORTER
?
? [The program started at ]+starttime
nowtime=time()
? [Work on the current country began at ]+nowtime
VTIMES=1                                     && vtimes is a counter for loop 2

```

```

*****
***
*** .....UPDATE NOTE.....
***
*** When updating the program to transform the results of another year's
*** data, it is important to modify the looping criteria used in the
*** following nesting. "VTIMES" should be incremented for the number
*** of years covered in Volumes1.dbf. As it currently contains data
*** between 1980 - 88 inclusive, it must loop 9 times. Of course, this
*** assumes that the proper index has been built for the Volumes1.dbf
*** (i.e. Index on str(type,1,0)+trim(country)+trim(year) to Volumes1.ndx).
***
***
*****
-----
DO WHILE vtimes<10      &&                                  LOOP#2

    SELECT 1
    MIMPORTER=IMPORTER
    MYEAR=YEAR
    MTYPE=TYPE
    RYEAR=[Y]+TRIM(MYEAR)

    * * * .....
    * * * .....
    SELECT 2
    DO WHILE .NOT. EOF()      &&RIPPLE THROUGH VREPORT.DBF
        SELECT 3
        X=TRIM(EXPORTER)
        SELECT 1
        VOL=VOLUMES1->&X
        SELECT 2
        REPLACE IMP WITH MIMPORTER
        REPLACE TYPE WITH MTYPE
        REPLACE &RYEAR WITH VOL
        SKIP
        SELECT 3
        SKIP
        IF EOF()
            GO TOP
        ENDIF
        SELECT 2
    ENDDO      &&END RIPPLE THROUGH VREPORT.DBF
    * * * .....
    GO TOP      && TO PREPARE VREPORT Data Base FOR NEXT PASS THROUGH
    SELECT 1      && RETURN TO VOLUMES1.DBF
    SKIP      && GO ON TO NEXT RECORD IN VOLUMES1.DBF TO PICK UP NEXT YEAR
    VTIMES=VTIMES+1
ENDDO      && Loop #2
* * * .....
SELECT 2
USE && CLOSE VREPORT.DBF UNTIL NEXT LOOP TO PERMIT APPEND TO VOLUMES
SELECT 4
APPEND FROM VREPORT
SELECT 2
USE VREPORT
SELECT 1

ENDDO      && Loop #1

```



```

*-----
CLOSE Data BaseS
* * * THIS PROGRAM IS THE THRID STAGE OF THE TRANSFORMATION OF THE VOLUMES1.
* * * DBF. IT FILTERS THROUGH THE TRANSFORMED VOLUMES.DBF, PRODUCED IN THE
* * * SECOND STAGE, AND CHANGES THE NAMES OF EXPORTING COUNTRIES FROM THE
* * * SHORTENED ABBREVIATED NAME USED AS FIELD HEADERS IN VOLUMES1.DBF TO
* * * THE PROPER NAME THAT WILL BE RECOGNIZED IN SUBSEQUENT SEARCHES.
CLEAR
SELECT 1
USE VCOUNTRY
SET SAFETY OFF
INDEX ON EXPORTER TO VCOUNTRY
SET SAFETY ON
SELECT 2
USE VOLUMES
DO WHILE .NOT. EOF()
    ? STR(RECNO(),4,0)
    MM=TRIM(EXP)
    SELECT 1
    SEEK MM
    IF FOUND()
        VV=TRIM(PROPER)
        IF MM<>VV
            SELECT 2
            REPLACE EXP WITH VV
        ENDIF
        ? VV
    ELSE
        WAIT [NOT FOUND]
    ENDIF
    SELECT 2
    SKIP
ENDDO
SELECT 2
USE
CLOSE Data BaseS

RETURN

```

O56.PRG

```

* * * ..... 056.PRG .....
* * *
* * * OPTION PROGRAM USED TO TRANSFORM STUCTURE AND DATA OF DEMAND AND
* * * VOLUMES Data BaseS. THIS PROGRAM IS ONLY USED WHEN THE DEMAND1 OR
* * * VOLUMES1.DBF HAS BEEN UPDATED WITH NEW DATA AND IT THEREFORE BECOMES
* * * NECESSARY TO UPDATE THE COMPANION Data BaseS.
* * *
* * * .....
CLEAR
? [The transformation of a data base from its original structure to ]
? [a second structure is necessary only after the original has ]
? [been updated (for example, with another year's data). The ICSD ]
? [has two data bases that require this type of transformation -- ]
? [Demand1 and Demand, and Volumes1 and Volumes. Both programs take ]
? [as long as several hours to run and destroy the present contents ]

```

```

? [of the transformed data base. It will be necessary to use these ]
? [programs only when update is to be performed manually (always on ]
? [the data base ending with 1). ]
?

```

```

WAIT [Proceed? (Y/N) ] to yesno

```

```

IF UPPER(YESNO)=[Y]

```

```

  CLEAR

```

```

  ? [ _____ ]

```

```

  ?

```

```

  ? [      A. Transform Demand1.dbf to Demand.dbf ]

```

```

  ? [      B. Transform Volumes1.dbf to Volumes.dbf ]

```

```

  ? [      C. Do not transform data bases]

```

```

  ? [      ]

```

```

WAIT [      Enter choice ] to ANS

```

```

DO CASE

```

```

  CASE UPPER(ANS)=[A]

```

```

    DO O56A

```

```

  CASE UPPER(ANS)=[B]

```

```

    DO O56B

```

```

  CASE UPPER(ANS)=[C]

```

```

    CLEAR

```

```

    RETURN

```

```

  OTHERWISE

```

```

    WAIT [INVALID SELECTION . . .]

```

```

    CLEAR

```

```

    RETURN

```

```

ENDCASE

```

```

ELSE

```

```

  CLEAR

```

```

- RETURN

```

```

ENDIF

```

```

O57.PRG

```

```

* * * ..... O57.PRG .....

```

```

* * *

```

```

* * * DISPLAYS OR PRINTS CUSTOMS DEPARTMENT COMPUTER CODES THAT

```

```

* * * CORRESPOND TO PORTS AND COAL TYPES. THIS INFORMATION IS

```

```

* * * NEEDED WHEN ANALYZING RESULTS OF QUERY.

```

```

* * *

```

```

* * * .....

```

```

CLEAR

```

```

?

```

```

? [ _____ ]

```

```

? [ _____ ]

```

```

? [      Explanation of Numeric Codes ]

```

```

? [ _____ ]

```

```

? [      The two data bases on U.S. coal imports and exports use numeric codes to ]

```

```

? [      store certain information on coal types, entrance and exit ports, and ]

```

```

? [      importing and exporting countries. These codes are displayed and, if ]

```

```

? [      desired, printed for future reference. ]

```

```

?

```

```

WAIT [      Should results be sent to printer as well? (Y/N) ] TO ANS

```

```

IF UPPER(ANS)=[Y]

```

```

  TOPRT=[ON]

```

```

  RUN ISITON

```

```

ELSE

```

```

  TOPRT=[OFF]

```

```

ENDIF

```

```

CLEAR
SET PRINT &TOPRT
?
? [-----]
? [      Coal and Related Product Types]
? [-----]
? [ Customs Value:      Type:      ICSD Value: ]
? [-----]
? [      10      :      Bituminous (low volatil.) :      2]
? [      20      :      Bituminous      :      1]
? [      30      :      Lignite      :      3]
? [      45      :      Coal coke      :      3]
? [      48      :      Coke fuel use      :      3]
? [      50      :      Petroleum coke      :      3]
? [      60      :      Briquettes      :      3]
? [      70      :      Anthracite      :      1]
? [-----]
?
?
SET PRINT OFF
WAIT
CLEAR
SET PRINT &TOPRT
?
? [-----]
? [      Ports      ]
? [-----]
USE PORTS INDEX PORTNO
DISPLAY ALL OFF
? [-----]
?
?
SET PRINT OFF
WAIT
CLEAR
SET PRINT &TOPRT
?
? [-----]
? [      Countries      ]
? [-----]
USE COUNTRY INDEX CNUMBER
DISPLAY ALL FIELDS PROPER,COUNTRYID OFF FOR EXPDBF .OR. IMPDBF
? [-----]
?
?
SET PRINT OFF
WAIT [Press any key to return to I.C.S.D menus . . . ]
RETURN

```

```

O5.PRG
* * * ..... O5.PRG .....
* * *
* * * CALLS UTILITY ROUTINES, SOME OF THE CODE FOR WHICH IS STORED HERE, SOME
* * * STORED IN SEPARATE SUBROUTINE PROGRAMS.
* * *
* * * .....

```

```

CLEAR
@ 2,12 say [
@ 3,12 say [
@ 4,12 say [
@ 5,12 say [      Miscellaneous Choices      ]
@ 6,12 say [
@ 8,12 say [ 1 : Lotus 1-2-3 print graph program ]
@ 9,12 say [ 2 : dBase prompt (type RESUME to return) ]
@10,12 SAY [ 3 : DOS shell (type EXIT to return) ]
@row()+1,12 SAY [ 4 : Lotus 1-2-3 (blank worksheet) ]
@row()+1,12 SAY [ 5 : Send setup string to printer ]
@row()+1,12 SAY [ 6 : Transform Data Base1 to Data Base2]
@row()+1,12 SAY [ 7 : Examine/print import-export codes ]
@row()+1,12 SAY [ 9 : Return to options menu]
selection=0
*-----
DO WHILE SELECTION=0                                     && Loop #
  @20,10 say [      Please enter selection ] get selection picture [9]
  READ
ENDDO                                                     && Loop #
*-----
DO CASE
CASE SELECTION = 1
  CLEAR
  RESTORE FROM CONFIG ADDITIVE
  newdirect=[CD ]+lotus
  RUN &newdirect
  RUN PGRAPH
  RUN CD\ICSD
CASE SELECTION = 2
  CLEAR
  ? [Hit F10 to return to I.C.S.D menus]
  SUSPEND
CASE SELECTION = 3
  CLEAR
  RUN COMMAND
CASE SELECTION = 4
  CLEAR
  RUN COPY AUTO123.05 AUTO123.WK1 >NUL
  newdrive=SUBSTR(LOTUS,1,2)
  RUN &NEWDRIVE
  newdirect=[CD ]+lotus
  RUN &newdirect
  RUN 123
  RESTORE FROM CONFIG ADDITIVE
  OLDDRIVE=SUBSTR(LICSD,1,2)
  RUN &OLDDRIVE
  CDLOC=[CD ]+LICSD
  RUN &CDLOC
CASE SELECTION = 5
  CLEAR
  ? [Some printers require that a special code be sent to initiate ]
  ? [a particular printing mode such as compressed type, landscape ]
  ? [mode on laser printers, or the like. ]
  ?
  ? [Use the following space to send a code if one is needed. Enter]
  ? [Q to quit without sending a code. Note that dBase conventions ]
  ? [for sending the setup code must be followed. It may be ]
  ? [necessary to consult both the dBase manual and the printer]

```

```

? [manual to be sure of the proper sequence.]
?
IF FILE("PRINTER.MEM")
    RESTORE FROM PRINTER ADDITIVE
ELSE
    STORE space(200) TO SETUPCD
ENDIF
@row()+1,4 GET setupcd PICTURE "@S45"

@row()+2,4 say [Example:  Compressed mode on many printers -- ]
@row()+1,4 say [          CHR(27)+CHR(15)]
@row()+1,4 say [          ]
@row()+1,4 say [          Landscape mode + line printer on Laserjet+ --]
@row()+1,4 say [          CHR(27)+"&11O"+CHR(27)+"(OB"+CHR(27)]
@row()+1,4 say [          .....etc.  If this mode of Laserjet ]
@row()+1,4 say [          printing is needed, enter LJ]
READ
IF UPPER(TRIM(SETUPCD))=[Q] .OR. LEN(TRIM(SETUPCD))=0
    CLOSE Data BaseS
    CLEAR
    RETURN
ENDIF
IF UPPER(TRIM(SETUPCD))=[LJ]
    SETUPCD=[CHR(27)+"&11O"+CHR(27)+"(OB"+CHR(27)+"(sOP"+CHR(27);
+"(s16.66H"+CHR(27)+"(s8.5V"+CHR(27)+"(sOS"+CHR(27)+"(s-1B";
+CHR(27)+"(sOT"+CHR(27)+"&d0"+CHR(27)+"&16D"+CHR(27)+"&11X"]
ENDIF

SET SAFETY OFF
SAVE TO PRINTER ALL LIKE SETUPCD
SET SAFETY ON
RJN ISITON
SET PRINT ON
?? &SETUPCD
SET PRINT OFF
CLEAR
WAIT [Test result? (Y/N) ] to TRYIT
IF UPPER(TRYIT)=[Y]
    SET PRINT ON
    ? [TEST...test...TEST...test...TEST...test...TEST...test...]
    ?
    ? [The sole purpose of the International Coal Statistics Data Base ]
    ? [is to further understanding of world coal flows.]
    ?
    ? [TEST...test...TEST...test...TEST...test...TEST...test...]
    ?
    SET PRINT OFF
ENDIF
CLEAR
RETURN
CASE SELECTION = 6
DO O56
CASE SELECTION = 7
DO O57
CASE SELECTION = 9
CLEAR
RETURN
OTHERWISE
WAIT [That choice is not available . . . ]

```

```
CLEAR
RETURN
ENDCASE
```

```
OPTIONS.PRG
* * * ..... OPTIONS.PRG .....
* * *
* * * HANDLES SCREEN FOR OPTIONS MENU, AND RELATED SUBROUTINE CALLS
* * * .....
* * * ESTABLISH OPERATING MODES
SET TYPEAHEAD TO 0  && Clean out buffer
SET TYPEAHEAD TO 10 && but reestablish it
SET TALK OFF
SET ESCAPE OFF      && prevent exit during periods cursor turned off
* * * LOAD MODULES TO CONTROL CURSOR FROM MASTER MENU
LOAD CURSOR.BIN
LOAD CURSOFF.BIN
* * * ADVISE PROGRAM OF LOCATION OF LOTUS AND DBASE
IF .NOT. FILE("CONFIG.MEM")
    DO CONFIG
ELSE
    RESTORE FROM CONFIG ADDITIVE
ENDIF
* * * GENERAL VARIABLES
ontos = .T.
choice = 0
moniker = [I.C.S.D]
* * * .....
* * * BEGIN MAIN LOOP FOR MASTER MENU USER SELECTIONS
* * * .....
DO WHILE onto

SET TALK OFF
CLEAR
choice = 0
IF ISCOLOR()
    SET COLOR TO /R,W/B,R
    CLEAR
ELSE
    SET COLOR TO W/N,N/W,N
    CLEAR
ENDIF
@ 2,7 say "....."
IF ISCOLOR()
    SET COLOR TO /W,,
ELSE
    SET COLOR TO W/N,,
ENDIF

@ 3,7 say "....."
@ 4,7 say "....."
IF ISCOLOR()
    SET COLOR TO /W,,
ELSE
    SET COLOR TO W+/N,,
ENDIF
```

```

@ 4,8 say [
IF ISCOLOR()
    SET COLOR TO /W,,
ELSE
    SET COLOR TO W/N,,
ENDIF
@ 5,7 say "
@ 6,7 say "
@ 7,7 say "
@ 8,7 say "
@ 9,7 say "
@10,7 say "
@11,7 say "
@12,7 say "
@13,7 say "
@14,7 say "
@15,7 say "
@16,7 say "
@17,7 say "
@18,7 say "
@19,7 say "
@20,7 say "
@21,7 say "
@22,7 say "
@23,7 say "
IF ISCOLOR()
    SET COLOR TO /W,,
ELSE
    SET COLOR TO W+/N,,
ENDIF
@22,35 say [Help = F1]
IF ISCOLOR()
    SET COLOR TO /W,,
ELSE
    SET COLOR TO W/N,,
ENDIF
CALL CURSOFF &&TURN THE CURSOR OFF WHILE THE PROGRAM WAITS FOR USER TO GO

DO WHILE choice=0

    choice=INKEY()

    * * * DISPLAY CURRENT TIME CONTINUOUSLY ON SCREEN UNTIL KEY PRESSED
    MTIME = TIME()
    IF VAL(SUBSTR(mtime,1,2)) >= 12
        IF VAL(SUBSTR(mtime,1,2)) = 12
            MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ p.m.]
            MTIME = LTRIM(MTIME)
        ELSE
            mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2)) - 12) + SUBSTR(mtime,3,3)) + [
p.m.]
            mtime = LTRIM(mtime)
        ENDIF
    ELSE
        IF VAL(SUBSTR(mtime,1,2)) = 0
            MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ a.m.]
            MTIME = LTRIM(MTIME)
        ELSE
            mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2))) + SUBSTR(mtime,3,3)) + [ a.m.]

```

```

        mtime = LTRIM(mtime)
    ENDIF
ENDIF

@22,16 say date()
@22,57 say mtime+[ (0) ]

@22,46 SAY CHR(choice)

ENDDO      && END OF LOOP TO GET USER MENU CHOICE

CALL CURSOR      && TURN THE CURSOR BACK ON
SET ESCAPE ON      && SINCE CURSOR IS BACK ON, ESCAPE IS PERMISSIBLE
ON ESCAPE RETURN
IF ISCOLOR()
    SET COLOR TO W/B,B/W,B
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF

* * * EVALUATE WHAT USER WANTED

DO CASE

CASE CHR(choice) $ [^\]      && User pressed F1 help key

help1=[CONFIGURE SYSTEM lets program know where certain files are stored]
help2=[and user's preference among optional settings ..... INDEX ]
help3=[MAINTENANCE rebuilds indices and should be selected if any]
help4=[part of the program isn't working ..... BACKUP makes ]
help5=[copies of key files ..... FILE LIST provides an annotated ]
help6=[listing of all files and what they do ..... MISCELLANEOUS]
help7=[includes chart printing, dBase command interpreter (dot prompt),]
help8=[blank Lotus 1-2-3 worksheet, DOS shell, etc. ]
    DO help WITH moniker,help1,help2,help3,help4,help5,help6,help7,help8

CASE CHR(choice) $ [1]

    DO update                      && Subroutine call

CASE CHR(choice) $ [2]

    DO O2                          && Subroutine call

CASE CHR(choice) $ [3]

    DO O3                          && Subroutine call

CASE CHR(choice) $ [4]

    DO O4                          && Subroutine call

CASE CHR(choice) $ [5]

    DO O5                          && Subroutine call

CASE CHR(choice) $ [6]

    CLEAR

```



```

RETURN

OTHERWISE

    message=[Only listed menu choices may be selected . . . try again ]
    DO ERRMESS WITH moniker, message
    LOOP

ENDCASE

ENDDO

RETURN

```

```

P1.PRG
* * * ..... P1.PRG .....
* * *
* * * THIS PROGRAM GETS USER CHOICE OF OUTPUT FOR Data Base QUERY
* * *
* * * .....
CLEAR
@2,2 SAY
[.....]
@3,2 SAY
[.....]
@4,2 SAY [      Output Reporting Options:  Coal Prices and Shipping Rates ]
@5,2 SAY
[.....]
ans=1
@row()+2, 3 say [Detailed Reports      (listing of individual records, with totals )]

@row()+2, 5 say [1 : Screen      : Response to query is reported to screen ]
@row()+1, 5 say [2 : Printer      : Specified records are printed ]
@row()+1, 5 say [3 : Text        : Specified records are saved in an ASCII file]
@row()+1, 5 say [4 : Data Base    : Specified records are copied to a dBase .dbf
file]
@row()+1, 5 say [5 : Worksheet    : Specified records are copied to a Lotus .wks
file]
@row()+2, 3 say [Summary Report      (calculated totals only) ]
@row()+2, 5 say [6 : Average      : Average shipment size and price reported on
screen ]
@row()+2, 2 say
[.....]
@row()+1, 5 say [7: Exit          : Return to main I·C·S·D menu ]
@row()+2, 5 SAY [Enter choice      : ] GET ans PICTURE [9] RANGE 1,7
READ
IF ans=7
    ans=1
ENDIF
srreport=ans
SET SAFETY OFF
SAVE ALL LIKE srreport TO srreport
SET SAFETY ON
RETURN

```

```

P2.PRG
* * * ..... P2.PRG .....
* * *
* * * THE FOLLOWING PROGRAM SOLICITS A QUERY OF THE PRICES Data Base. BEFORE
* * * DOING SO, INFORMATION PREVIOUSLY GIVEN ON PREFERRED REPORT OUTPUT IS
* * * RESTORED TO MEMORY FOR USE IN OUTPUT.
* * * .....
* * * MODIFIED BY BRYAN DE BOINVILLE ON 09/05/88 TO REFLECT DATA UPDATE
* * * THROUGH 6/30/88
* * * .....
* * * MODIFIED BY BRYAN DE BOINVILLE ON 09/01/89 TO REFLECT DATA UPDATE
* * * THROUGH 6/27/89
* * * .....
IF FILE("SRREPORT.MEM")
    RESTORE FROM SRREPORT ADDITIVE
ELSE
    SRREPORT=1
ENDIF
DO CASE
    CASE SRREPORT=1
        OUTPT=[ screen]
    CASE SRREPORT=2
        OUTPT=[ printer]
    CASE SRREPORT=3
        OUTPT=[ ASCII file]
    CASE SRREPORT=4
        OUTPT=[ dBase data base]
    CASE SRREPORT=5
        OUTPT=[ Lotus worksheet]
    CASE SRREPORT=6
        OUTPT=[ average]
    OTHERWISE
        SRREPORT=6
        OUTPT=[ average]
ENDCASE
* * * SELECT Data Bases
SELECT 1
    USE PRICES INDEX PRICES
CLEAR
?
? [ ..... ]
? [ ..... ]
? [ Coal Prices Query Procedure ]
? [ ..... ]
? [ Note: The Prices data base currently contains ]+str(reccount(),5,0)+[
records.]
? [ Since a response to a query of a data base of this size]
? [ could result in hundreds of records being output, it is important to ]
? [ select the proper type of report. The method now selected is]+OUTPT+[.]
? [ If this is not correct, a new output format should be selected first. ]
? [ ..... ]
WAIT [ Proceed? (Y/N) ] to ans
IF UPPER(ANS)=[N]
    CLEAR
    CLOSE Data Bases
    RETURN
ENDIF
CLEAR

```

```

?
? [ ]
? [ ]
? [ Coal Prices Query Procedure ]
? [ ]
?
?
? [ A completed query involves specifying three variables: ]
?
? [ 1 : The period (range of dates) to be covered ]
? [ 2 : Coal type (i.e. steam or metallurgical) ]
? [ 3 : Country of interest ]
?
? [ Source note: Prices as reported in Coal Week International, ]
? [ end of quarter issues ]
?
WAIT [ Press any key to proceed . . . ]
* * * .....
CLEAR
* * * FASHION FIRST PART OF QUERY, DEPENDING ON WHETHER USER WANTS TO SEE
* * * .....SELECT DATES.....
CLEAR
? [ ]
? [ Period to be covered by query ]
? [ ]
?
?
?
MONTH1=3
YEAR1=81
MONTH2=6
YEAR2=89
@row(),19 SAY [Starting month : ] get month1 picture [99] range 1,12
@row()+1,19 SAY [Starting year : ] get year1 picture [99] range 80,89
@row()+2,19 SAY [Ending month : ] get month2 picture [99] range 1,12
@row()+1,19 SAY [Ending year : ] get year2 picture [99] range 80,89
READ
* * * UPDATE NOTE:
* * *
* * * REPLACE VALUES FOR MONTH2 AND YEAR2 WITH LATEST DATE IN Data Base
* * *
* * * INCREASE ENDING MONTH BY ONE TO PICK UP ALL DATES IN THAT MONTH
* * *
SET CENTURY OFF
MONTH2=MONTH2+1
IF MONTH2>12
    DAYOFM=[/31/]
    MONTH2=MONTH2-1
ELSE
    DAYOFM=[/01/]
ENDIF
V1=CTOD (STR (MONTH1,2,0)+dayofm+STR (YEAR1,2,0))
V2=CTOD (STR (MONTH2,2,0)+dayofm+STR (YEAR2,2,0))
SEARCH=[ISSUEDATE>=V1 .AND. ISSUEDATE<=V2]
SDATE=[ISSUEDATE>=V1 .AND. ISSUEDATE<=V2]
SELECT 1
MARKER=STR (YEAR1,2,0)+STR (MONTH1,2,0)
kickout=[issuedate<=v2]
CLEAR

```

```

? [-----]
? [ Coal Types ]
? [-----]
?
? [ 1 : Steam ]
? [ 2 : Metallurgical]
?
? [ Note: There are no prices at destination for met. coal. After]
? [ January, 1988, steam destination data is limited to ]
? [ ARA (Amsterdam, Rotterdam and Antwerp). Reported prices]
? [ include both spot and term transactions through 9/87 and]
? [ spot prices only thereafter.]
?
WAIT [ Specify a coal type : ] TO ANS
DO CASE
CASE UPPER(ANS)=[1]
SEARCH=SEARCH+[ .AND. TYPE=1]
MTYPE=1
MARKER=[1]+MARKER
HEAD1=[International Steam Coal Prices]
CASE UPPER(ANS)=[2]
SEARCH=SEARCH+[ .AND. TYPE=2]
MTYPE=2
MARKER=[2]+MARKER
HEAD1=[International Metallurgical Coal Prices]
OTHERWISE
WAIT [Invalid selection . . .]
RETURN
ENDCASE
* * * .....
* * * Determine whether prices at origin or prices at destination are desired
CLEAR
* * * .....
SET INDEX TO P2A
?
? [ Enter the number for the country of interest (999 for any country) ... ]
? [ Note that ARA refers to the main European coal ports of Amsterdam,]
? [ Rotterdam, and Antwerp.]
?
LIST FIELDS country
mreg=0
DO WHILE MREG=0
@row()+2,0 say [ Enter number (0 to exit) ] get mreg picture [999] range 1,999
READ
IF MREG=0
RETURN
ENDIF
@row()-2,0 CLEAR
ENDDO
IF MREG<999
GO MREG
MORIG=LTRIM(TRIM(country))
IF [ ] $ MORIG
PART1=SUBSTR(MORIG,1,AT([ ],MORIG))
PART2=SUBSTR(MORIG,AT([ ],MORIG)+1,LEN(MORIG))
HEAD1=HEAD1+[ For ]+SUBSTR(PART1,1,1)+LOWER(SUBSTR(PART1,2,LEN(PART1)))+[ ]+;
SUBSTR(PART2,1,1)+LOWER(SUBSTR(PART2,2,LEN(PART2)))
ELSE
HEAD1=HEAD1+[ For ]+SUBSTR(MORIG,1,1)+LOWER(SUBSTR(MORIG,2,LEN(MORIG)))

```

```

ENDIF
ELSE
  MORIG=[]
  HEAD1=HEAD1+[ For All Countries]
ENDIF
IF LEN(TRIM(MORIG))=0
  SORIG=[]
ELSE
  SORIG=" .AND. COUNTRY=[&MORIG]"
ENDIF
CLEAR
SEARCH=SEARCH+SORIG
SET INDEX TO prices
ok=.t.
if .not. ok
? [ _____ ]
? [ Price at port of origin or price at port of delivery: ]
? [ _____ ]
?
? [ 1 : Origin]
? [ 2 : Destination]
?
? [ Note: There are no prices at destination for met. coal]
?
WAIT [ Specify a price type : ] TO NS
DO CASE
  CASE UPPER(NS)=[1]
    SEARCH=SEARCH+[ .AND. O_D=1]
    PTYPE=[O_D=1]
    MO D=1
    HEAD1=HEAD1+[ at Port of Origin]
  CASE UPPER(NS)=[2]
    SEARCH=SEARCH+[ .AND. O_D=2]
    PTYPE=[O_D=2]
    MO D=2
    HEAD1=HEAD1+[ at Destination]
  OTHERWISE
    WAIT [Invalid selection . . .]
    RETURN
ENDCASE
endif

* * * .....SHORTEN SEARCH PROCESS.
* * * MARKER VARIABLE HOLDS FIRST YEAR OF SEARCH. JUMP TO THAT YEAR.
SEEK MARKER
IF .NOT. FOUND()
  GO TOP
ENDIF
HEAD2=cmonth(v1)+[, ]+str(year(v1),4,0)+[ to ]+cmonth(v2)+[, ]+str(year(v2),4,0)
* * * .....DISPLAY RESULTS OF SEARCH.....

DO CASE
  CASE SRREPORT=1
    CLEAR
    Wait [Use Pause key (or CTRL + Num Lock) to stop display . . .]
    CLEAR
    ?
    ?

```

```

? HEAD1
? HEAD2
?
REPORT FORM P2A REST FOR &SEARCH
?
? [-----]
? [Key to abbreviations: ]
?
? [   Type   :   1 = Steam       2 = Metallurgical]
?
? [   O_D    :   Price at origin or destination ]
? [           1 = Origin       2 = Destination ]
?
WAIT [Hit any key to return to ICSD menus . . . ]
* * * .....
CASE SRREPORT=2
CLEAR
RUN ISITON
SET PRINT ON
?
? [           ]+HEAD1
? [           ]+HEAD2
? [
]+[-----]
REPORT FORM P2B REST FOR &SEARCH
? [
]+[-----]
?
? [           ]+[-----]
? [           ]+[Key to abbreviations: ]
?
? [           ]+[   Type   :   1 = Steam       2 = Metallurgical]
?
? [           ]+[   O_D    :   Price at origin or destination ]
? [           ]+[           1 = Origin       2 = Destination ]
?
SET PRINT OFF
CLEAR ALL
?
WAIT [Hit any key to return to ICSD menus . . . ]
* * * .....
CASE SRREPORT=3
CLEAR
SET ALTERNATE TO P2.TXT
SET ALTERNATE ON
? [           ]+HEAD1
? [           ]+HEAD2
?
? [
]+[-----]
REPORT FORM P2B REST FOR &SEARCH
? [
]+[-----]
?
?
SET ALTERNATE OFF
WAIT [Data is stored in P2.Txt . . . ]
CLEAR ALL

```

```

* * * .....
CASE SRREPORT=4
CLEAR
?
? [      ]+HEAD1
? [      ]+HEAD2
?
? [      Records are being transferred to a data base file.  Please wait . .
. ]

SET SAFETY OFF
COPY TO P2 FIELDS COUNTRY, PORT, VOLATILE, SULFUR, ASH, TYPE, O_D, ;
TERMLOW, TERMHIGH, SPOTLOW, SPOTHIGH, ISSUEDATE, NOTES FOR &SEARCH
SET SAFETY ON
SET TALK OFF
CLEAR
USE P2
IF RECCOUNT()>0
? [-----]
? [After hitting a key, the results of the search,]
? [now stored in a new data base called P2.DBF,]
? [will be in use in the current work area, and may]
? [be accessed using BROWSE or other dBase commands.]
?
? [ *** Hit F10 to resume *** ]
WAIT [-----]
SUSPEND
CLEAR ALL
ELSE
? [-----]
? [ No records were found during the search . . . ]
? [-----]
?
?
WAIT
CLEAR ALL
RETURN
ENDIF

* * * .....
CASE SRREPORT=5
CLEAR
? [      ]+HEAD1
? [      ]+HEAD2
?
? [      Records are being transferred to a worksheet.  Please wait . . . ]
SET SAFETY OFF
COPY TO P2.WKS FIELDS COUNTRY, PORT, BTUPERLB,VOLATILE, SULFUR, ASH, TYPE,
O_D, ;
*TERMLOW, TERMHIGH, SPOTLOW, SPOTHIGH, Y1, M1, D1 WKS FOR &SEARCH
SET TALK ON
COPY TO P2.WKS WKS FOR &SEARCH
SET TALK OFF
SET SAFETY ON
CLEAR
RUN COPY AUTO123.P2 AUTO123.WK1 >NUL
RESTORE FROM CONFIG ADDITIVE
newdrive=SUBSTR(LOTUS,1,2)
RUN &NEWDRIVE
newdirect=[CD ]+lotus

```

```

RUN &newdirect
RUN 123
RESTORE FROM CONFIG ADDITIVE
OLDDRIVE=SUBSTR(LICSD,1,2)
RUN &OLDDRIVE
CDLOC=[CD ]+LICSD
RUN &CDLOC

CASE SRREPORT=6
  CLEAR
  ? [          ]+[-----]
  ? [          ]+HEAD1
  ? [          ]+HEAD2
  ? [          ]+[-----]
  ?
  NOTZERO1=SEARCH+[ .AND. TERMLOW>0 .AND. TERMHIGH>0]
  NOTZERO2=SEARCH+[ .AND. SPOTLOW>0 .AND. SPOTHIGH>0]
  SEEK MARKER
  IF .NOT. FOUND()
    GO TOP
  ENDIF
  COUNT REST TO C1 FOR &NOTZERO1 while &kickout
  SEEK MARKER
  IF .NOT. FOUND()
    GO TOP
  ENDIF
  AVERAGE REST TERMLOW,TERMHIGH TO A1,A2 FOR &NOTZERO1 while &kickout
  SEEK MARKER
  IF .NOT. FOUND()
    GO TOP
  ENDIF
  COUNT REST TO C2 FOR &NOTZERO2 while &kickout
  SEEK MARKER
  IF .NOT. FOUND()
    GO TOP
  ENDIF
  AVERAGE SPOTLOW,SPOTHIGH REST TO A3,A4 FOR &NOTZERO2 while &kickout
  ?
  ? [          Average term price - Low bound = $]+STR(A1,8,2)
  ? [          Average term price - High bound = $]+STR(A2,8,2)
  ? [          ]+Str(c1,8,0)+[ observations]
  ?
  ? [          Average spot price - Low bound = $]+STR(A3,8,2)
  ? [          Average spot price - High bound = $]+STR(A4,8,2)
  ? [          ]+Str(c2,8,0)+[ observations]
  ?
  ?
  ? [          Note: Averages based on records with non-zero values for]
  ? [          both the high and low bound of either the spot or term]
  ? [          price.]
  ?
  ?
  WAIT [          Hit any key to return to ICSD menus . . . ]

  OTHERWISE
    CLEAR
    ? [Query could not be made because of error in specifying type of]
    WAIT [report output . . . ]
ENDCASE

```



```
CLOSE Data BaseS
RETURN
```

```
^Z
```

```
P3.PRG
```

```

* * * ..... P3.PRG.....
* * *
* * * THE FOLLOWING PROGRAM SOLICITS A QUERY OF THE FREIGHT Data Base. BEFORE
* * * DOING SO, INFORMATION PREVIOUSLY GIVEN ON PREFERRED REPORT OUTPUT IS
* * * RESTORED TO MEMORY FOR USE IN OUTPUT.
* * *
* * * .....
* * * MODIFIED ON 9/5/88 BY BRYAN DE BOINVILLE TO REFLECT DATA UPDATE
* * * THROUGH 6/30/88. MODIFIED ON 5/24/89 TO REFLECT NEW REGIONAL REPORTING
* * * OPTIONS.
* * * .....
IF FILE("SRREPORT.MEM")
    RESTORE FROM SRREPORT ADDITIVE
ELSE
    SRREPORT=6
ENDIF
DO CASE
    CASE SRREPORT=1
        OUTPT=[ listing on screen]
    CASE SRREPORT=2
        OUTPT=[ printer]
    CASE SRREPORT=3
        OUTPT=[ ASCII file]
    CASE SRREPORT=4
        OUTPT=[ dBase data base]
    CASE SRREPORT=5
        OUTPT=[ Lotus worksheet]
    CASE SRREPORT=6
        OUTPT=[ Average to screen]
    OTHERWISE
        SRREPORT=6
        OUTPT=[ Average to screen]
ENDCASE
* * * SELECT Data BaseS
SELECT 1
    USE FREIGHT INDEX freight
CLEAR
?
? [ ..... ]
? [ ..... ]
? [ Coal Freight Rate Query Procedure ]
? [ ..... ]
? [ Note: The Freight data base currently contains ]+str(reccount(),5,0)+[
records.]
? [ Since a response to a query of a data base of this size]
? [ could result in hundreds of records being output, it is important to ]
? [ select the proper type of report. The default reports average rates to the]
? [ screen; the current report is]+OUTPT+[. If this is not correct,]
? [ a new output format should be selected before proceeding. ]
? [ ..... ]
WAIT [ Proceed? (Y/N) ] to ans
IF UPPER(ANS)=[N]
```

```

CLEAR
CLOSE Data BaseS
RETURN
ENDIF
CLEAR
?
? [ _____ ]
? [ _____ ]
? [ Coal Freight Rate Query Procedure ]
? [ _____ ]
?
?
? [ A query involves specifying the period (range of dates) to be covered, ]
? [ and regions of origin and destination. Further analysis of variables ]
? [ is possible by using the worksheet option. ]
?
? [ Source: Freight rates as reported in Coal Week International, ]
? [ end of quarter issues ]
?
? [ Note: CWI did not report comparable rates for period 9/83 - 12/84 ]
? [ After 6/88 all prices are for spot charters. ]
?
WAIT [ Press any key to proceed . . . ]
* * * .....
* * * FASHION FIRST PART OF QUERY, DEPENDING ON DATES USER WANTS TO SEE
* * * .....SELECT DATES.....
CLEAR
? [ _____ ]
? [ Period to be covered by query ]
? [ _____ ]
?
?
?
MONTH1=3 &&3
YEAR1=81 &&81
MONTH2=6
YEAR2=89
* * * UPDATE NOTE: CHANGE MONTH2 AND YEAR2 DEFAULTS AS NEW RECORDS ARE ADDED
@row(),19 SAY [Starting month : ] get month1 picture [99] range 1,12
@row()+1,19 SAY [Starting year : ] get year1 picture [99] range 80,89
@row()+2,19 SAY [Through ending month : ] get month2 picture [99] range 1,12
@row()+1,19 SAY [Ending year : ] get year2 picture [99] range 80,89
READ
* * * INCREASE ENDING MONTH BY ONE TO PICK UP ALL DATES IN THAT MONTH
MONTH2=MONTH2+1
IF MONTH2>12
DAYOFM=[/31/]
MONTH2=MONTH2-1
ELSE
DAYOFM=[/01/]
ENDIF
V1=CTOD (STR (MONTH1,2,0)+dayofm+STR (YEAR1,2,0))
V2=CTOD (STR (MONTH2,2,0)+dayofm+STR (YEAR2,2,0))
SEARCH=[ISSUEDATE>=V1 .AND. ISSUEDATE<=V2]
SDATE=[ISSUEDATE>=V1 .AND. ISSUEDATE<=V2]
SELECT 1
MARKER=STR (YEAR1,2,0)
CLEAR
SET INDEX TO P3A

```

```

?
?
? [      Select a number for the region of origin (999 for any region) ... ... ]
?
LIST FIELDS REGOFORIG
mreg=0
DO WHILE MREG=0
@row()+2,0 say [      Enter number ] get mreg picture [999] range 1,999
READ
@row()-2,0 CLEAR
ENDDO
IF MREG<999
GO MREG
MORIG=LTRIM(TRIM(REGOFORIG))
IF [ ] $ MORIG
PART1=SUBSTR(MORIG,1,AT([ ],MORIG))
PART2=SUBSTR(MORIG,AT([ ],MORIG)+1,LEN(MORIG))
HEAD3=[For shipments from
]+SUBSTR(PART1,1,1)+LOWER(SUBSTR(PART1,2,LEN(PART1)))+[ ]+;
SUBSTR(PART2,1,1)+LOWER(SUBSTR(PART2,2,LEN(PART2)))
ELSE
HEAD3=[For shipments from
]+SUBSTR(MORIG,1,1)+LOWER(SUBSTR(MORIG,2,LEN(MORIG)))
ENDIF
ELSE
MORIG=[ ]
HEAD3=[For shipments]
ENDIF
IF LEN(TRIM(MORIG))=0
SORIG=[ ]
ELSE
SORIG=" .AND. REGOFORIG=[&MORIG]"
ENDIF
CLEAR
SET INDEX TO P3B
?
?
? [      Select a number for the destination region (999 for any region) ... ... ]
?
LIST FIELDS REGOFDEST
MREG=0
DO WHILE MREG=0
@row()+2,0 say [      Enter number ] get mreg picture [999] range 1,999
READ
@row()-2,0 CLEAR
ENDDO
IF MREG<999
GO MREG
MDEST=LTRIM(TRIM(REGOFDEST))
IF [ ] $ MDEST
PART1=SUBSTR(MDEST,1,AT([ ],MDEST))
PART2=SUBSTR(MDEST,AT([ ],MDEST)+1,LEN(MDEST))
HEAD3=HEAD3+[ to ]+SUBSTR(PART1,1,1)+LOWER(SUBSTR(PART1,2,LEN(PART1)))+[ ]+;
SUBSTR(PART2,1,1)+LOWER(SUBSTR(PART2,2,LEN(PART2)))
ELSE
HEAD3=HEAD3+[ to ]+SUBSTR(MDEST,1,1)+LOWER(SUBSTR(MDEST,2,LEN(MDEST)))
ENDIF
ELSE
MDEST=[ ]

```

```

    IF MORIG=[]
        HEAD3=[For all shipments]
    ENDIF
ENDIF
IF LEN(TRIM(MDEST))=0
    SDEST=[]
ELSE
    SDEST=" .AND. REGOFDEST=[MDEST]"
ENDIF
SEARCH=SEARCH+SORIG+SDEST
SET INDEX TO FREIGHT
* * * .....SHORTEN SEARCH PROCESS.
* * * MARKER VARIABLE HOLDS FIRST YEAR OF SEARCH. JUMP TO THAT YEAR.
SEEK MARKER
IF .NOT. FOUND ()
    GO TOP
ENDIF
* * * .....DISPLAY RESULTS OF SEARCH.....
HEAD1=[Average International Coal Freight Rates ]
HEAD2=[During the Period From ]+CMONTH(V1)+[, ]+STR(YEAR(V1),4,0)+[ to ]+CMONTH(V2);
+[, ]+STR(YEAR(V2),4,0)

DO CASE
    CASE SRREPORT=1
        CLEAR
        Wait [Use Pause key (or CTRL + Num Lock) to stop display . . .]
        CLEAR
        ?
        ? HEAD1
        ? HEAD2+[ ]+HEAD3
        ?
        REPORT FORM P3A REST FOR &SEARCH
        ?
        ? [-----]
        WAIT [Hit any key to return to ICSD menus . . . ]
* * * .....
    CASE SRREPORT=2
        CLEAR
        RUN ISITON
        SET PRINT ON
        ?
        ? [ ]+HEAD1
        ? [ ]+HEAD2
        ? [ ]+HEAD3
        ? [
        ]+[-----]
            REPORT FORM P3B REST FOR &SEARCH
        ? [
        ]+[-----]
        ?
        ?
        SET PRINT OFF
        CLEAR ALL
        ?
        WAIT [Hit any key to return to ICSD menus . . .]
* * * .....
    CASE SRREPORT=3
        CLEAR
        SET ALTERNATE TO P3.TXT

```

```

SET ALTERNATE ON
? HEAD1
? HEAD2
? HEAD3
REPORT FORM P3B REST FOR &SEARCH
?
?
SET ALTERNATE OFF
CLOSE ALL
WAIT [Hit any key to return to ICSD menus . . .]
* * * .....
CASE SRREPORT=4
CLEAR
?
?
?
? [Records are being transferred to a data base file. Please wait . . . ]
SET SAFETY OFF
COPY TO p3 FIELDS ORIGIN,PORT,DESTINATIO,SHIPSIZE,LOWBOUND,HIBOUND, ;
ISSUEDATE,TERMS,NOTES FOR &SEARCH
SET SAFETY ON
? [-----]
? [After hitting any key, the dBase command interpreter ]
? [(i.e. the dot prompt) will be activated with the P3.dbf ]
? [in use. P3.dbf hold the results of the query to the ]
? [freight.dbf. Hit the F10 key to return.]
WAIT [-----]
USE P3
SUSPEND
CLOSE Data Bases

* * * .....
CASE SRREPORT=5
CLEAR
?
?
?
? [Please wait while records are being transferred to a worksheet.]
SET SAFETY OFF
* COPY TO P3.WKS WKS FIELDS ORIGIN,PORT,DESTINATIO,SHIPSIZE,LOWBOUND,HIBOUND, ;
*Y1,M1,D1,NOTES FOR &SEARCH
SET TALK ON
COPY TO P3.WKS WKS FOR &SEARCH
SET TALK OFF
SET SAFETY ON
CLEAR
RUN COPY AUTO123.P3 AUTO123.WK1 >NUL
RESTORE FROM CONFIG ADDITIVE
newdrive=SUBSTR(LOTUS,1,2)
RUN &NEWDRIVE
newdirect=[CD ]+lotus
RUN &newdirect
RUN 123
RESTORE FROM CONFIG ADDITIVE
OLDDRIVE=SUBSTR(LICSD,1,2)
RUN &OLDDRIVE
CDLOC=[CD ]+LICSD
RUN &CDLOC

```

```

CASE SRREPORT=6
  CLEAR
  ?
  ? [          ]+HEAD1
  ? [          ]+HEAD2
  ? [          ]+HEAD3
  ? [          ]
  BOUNDS=SEARCH+[ .AND. SHIPSIZE>0 .AND. SHIPSIZE<60000 .AND. HIBOUND>0]
  COUNT REST TO A1C FOR &BOUNDS
  SEEK MARKER
  IF .NOT. FOUND ()
    GO TOP
  ENDIF
  AVERAGE HIBOUND TO A1 REST FOR &bounds
  SEEK MARKER
  IF .NOT. FOUND ()
    GO TOP
  ENDIF
  GO TOP
  BOUNDS=SEARCH+[ .AND. SHIPSIZE>=60000 .AND. HIBOUND>0]
  SEEK MARKER
  IF .NOT. FOUND ()
    GO TOP
  ENDIF
  COUNT REST TO A2C FOR &BOUNDS
  SEEK MARKER
  IF .NOT. FOUND ()
    GO TOP
  ENDIF
  AVERAGE HIBOUND TO A2 REST FOR &BOUNDS
  ?
  * . ? [          Ship Sizes Less Than 60,000 Tons:]
      ? [          ]
      ? [          Average freight rate      =          $]+str(a1,5,2)
      ? [          (]+str(a1c,5,0)+[ observations)]
      ?
      ? [          Ship Sizes Greater Than or Equal to 60,000 Tons:]
      * ? [          ]
      ? [          Average freight rate      =          $]+STR(A2,5,2)
      ? [          (]+str(a2c,5,0)+[ observations)]
      ?
      ?
      ? [          Averages are only determined for shipments where ship size ]
      ? [          and freight rates are known. ]
      ?
      ?
  WAIT [          Hit any key to return to ICSD menus . . . ]

  OTHERWISE
    CLEAR
    ? [Query could not be made because of error in specifying type of]
    WAIT [output report . . . ]
  ENDCASE
  CLOSE Data Bases
  RETURN

```

```

P4.PRG
* * * ..... P4.PRG .....
* * *
* * * DROPS USER TO DBASE QUERY PROGRAM TO ALLOW A CUSTOM QUERY TO BE
* * * MADE OF EITHER THE PRICES OR FREIGHT Data BaseS.
* * *
* * * .....
CLEAR
?
?
?
? [          Use dBase query program to make a direct query of]
?
? [          1.  Prices.dbf          ]
? [          2.  Freight.dbf         ]
? [          3.  Return ]
?
? [      Note:  Consult dBase operating manual for further instructions ]
? [      on the MODIFY/CREATE QUERY commands. ]
?
?
?
WAIT [      Enter selection : ] to ANS
DO CASE
    CASE UPPER(ANS)=[1]
        USE FREIGHT
        MODI QUERY P2
        SET FILTER TO FILE P2
        ? [_____]
        ? [After hitting a key, the dBase command]
        ? [interpreter will be activated with the]
        ? [Prices.dbf in use with the just-]
        ? [created filter. Hit F10 to resume.]
        WAIT [_____]
        SUSPEND

    CASE UPPER(ANS)=[2]
        USE FREIGHT
        MODI QUERY P3
        SET FILTER TO FILE P3
        ? [_____]
        ? [After hitting a key, the dBase command]
        ? [interpreter will be activated with the]
        ? [Freight.dbf in use with the just-]
        ? [created filter. Hit F10 to resume.]
        WAIT [_____]
        SUSPEND

    CASE UPPER(ANS)=[3]
        CLEAR
        CLOSE Data BaseS
        RETURN
    OTHERWISE
        CLEAR
        CLOSE Data BaseS
        RETURN
ENDCASE

CLOSE Data BaseS
RETURN

```

P5.PRG

```

* * * ..... P5.PRG .....
* * *
* * * THIS PROGRAM DROPS TO THE DBASE COMMAND INTERPRETER LEVEL TO ALLOW
* * * USER THE CHANCE TO WORK DIRECTLY WITH THE PRICE AND FREIGHT Data BaseS.
* * *
* * * .....
CLEAR
? [Use dBase to directly access one of the following:]
?
? [ 1. Prices.dbf with index set to prices.ndx ]
? [ 2. Freight.dbf with index set to freight.ndx ]
? [ 3. Return ]
?
WAIT [ Selection : ] to ANS
DO CASE
    CASE UPPER(ANS)=[1]
        USE PRICES INDEX PRICES
        ? [ ..... ]
        ? [ After hitting any key, the dBase command interpreter (i.e. ]
        ? [ the dot prompt) will be invoked with the Prices data base ]
        ? [ and index in use. To return, either type RESUME or hit ]
        ? [ the F10 key but issue the command CLOSE Data BaseS first.]
        ? [ Do not exit directly from dBase.]
        ?
        ? [ Type ASSIST for the dBase Assistant. ]
        WAIT [ ..... ]
        SUSPEND

    CASE UPPER(ANS)=[2]
        USE FREIGHT INDEX FREIGHT
        ? [ ..... ]
        ? [ After hitting any key, the dBase command interpreter (i.e. ]
        ? [ the dot prompt) will be invoked with the Freight data base ]
        ? [ and index in use. To return, either type RESUME or hit ]
        ? [ the F10 key but issue the command CLOSE Data BaseS first.]
        ? [ Do not exit directly from dBase.]
        ?
        ? [ Type ASSIST for the dBase Assistant. ]
        WAIT [ ..... ]
        SUSPEND

    CASE UPPER(ANS)=[3]
        CLEAR
        RETURN
    OTHERWISE
        CLEAR
        RETURN
ENDCASE
CLOSE Data BaseS
RETURN

```

PRICES.PRG


```

* * * ..... PRICES.PRG .....
* * *
* * * HANDLES SCREEN MENU CHOICES AND MAKES SUBROUTINE CALLS FOR THE PRICES
* * * AND FREIGHT RATE SECTIONS OF THE ICSD
* * *
* * * .....
* * * ESTABLISH OPERATING MODES
SET TYPEAHEAD TO 0    && Clean out buffer
SET TYPEAHEAD TO 10  && but reestablish it
SET TALK OFF
SET ESCAPE OFF        && prevent exit during periods cursor turned off
* * * LOAD MODULES TO CONTROL CURSOR FROM MASTER MENU
LOAD CURSOR.BIN
LOAD CURSOFF.BIN
* * * ADVISE PROGRAM OF LOCATION OF LOTUS AND DBASE
IF .NOT. FILE("CONFIG.MEM")
    DO CONFIG
ELSE
    RESTORE FROM CONFIG ADDITIVE
ENDIF
* * * TEST TO DETERMINE IF RUNNING ON AN EIA COMPUTER. IF NOT
* * * RETURN BECAUSE OF DATA IN THESE Data Bases IS FOR GOVERNMENT
* * * USE ONLY.
IF .NOT. FILE([ICSD.EIA])
    @10,10 CLEAR TO 14,70
    @10,10 TO 14,70 DOUBLE
    @12,14 SAY [Access to Freight.Dbf and Prices.Dbf not permitted]
    wait []
    return
ENDIF
* * * GENERAL VARIABLES

ontos = .T.
choice = 0
moniker = [I.C.S.D]
* * * .....
* * * BEGIN MAIN LOOP FOR MASTER MENU USER SELECTIONS
* * * .....
DO WHILE onto

SET TALK OFF
choice = 0
IF ISCOLOR()
    SET COLOR TO /R,W/B,R
    CLEAR
ELSE
    SET COLOR TO W/N,N/W,N
    CLEAR
ENDIF
@ 2,7 say " "
IF ISCOLOR()
    SET COLOR TO /W,,
ELSE
    SET COLOR TO W/N,,
ENDIF
@ 3,7 say " "
@ 4,7 say " "
IF ISCOLOR()

```

```

    SET COLOR TO R/W,,
ELSE
    SET COLOR TO W+/N,,
ENDIF
@ 4,8 say [          International Coal Prices & Shipping Rates      ]
IF ISCOLOR()
    SET COLOR TO N/W,,
ELSE
    SET COLOR TO W/N,,
ENDIF
@ 5,7 say "
@ 6,7 say "
@ 7,7 say "
@ 8,7 say "
@ 9,7 say "
@10,7 say "
@11,7 say "
@12,7 say "
@13,7 say "
@14,7 say "
@15,7 say "
@16,7 say "
@17,7 say "
@18,7 say "
@19,7 say "
@20,7 say "
@21,7 say "
@22,7 say "
@23,7 say "
IF ISCOLOR()
    SET COLOR TO R/W,,
ELSE
    SET COLOR TO W+/N,,
ENDIF
@22,35 say [Help = F1]
IF ISCOLOR()
    SET COLOR TO N/W,,
ELSE
    SET COLOR TO W/N,,
ENDIF
CALL CURSOFF  &&TURN THE CURSOR OFF WHILE THE PROGRAM WAITS FOR USER TO GO

DO WHILE choice=0

    choice=INKEY()

    * * * DISPLAY CURRENT TIME CONTINUOUSLY ON SCREEN UNTIL KEY PRESSED
    MTIME = TIME()
    IF VAL(SUBSTR(mtime,1,2)) >= 12
        IF VAL(SUBSTR(mtime,1,2)) = 12
            MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ p.m.]
            MTIME = LTRIM(MTIME)
        ELSE
            mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2)) - 12) + SUBSTR(mtime,3,3)) + [
p.m.]
            mtime = LTRIM(mtime)
        ENDIF
    ELSE
        IF VAL(SUBSTR(mtime,1,2)) = 0

```

```

        MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ a.m.]
        MTIME = LTRIM(MTIME)
    ELSE
        mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2))) + SUBSTR(mtime,3,3)) + [ a.m.]
        mtime = LTRIM(mtime)
    ENDIF
ENDIF

@22,16 say date()
@22,57 say mtime+[ (P)]

@22,46 SAY CHR(choice)

ENDDO      && END OF LOOP TO GET USER MENU CHOICE

CALL CURSOR      && TURN THE CURSOR BACK ON
SET ESCAPE ON      && SINCE CURSOR IS BACK ON, ESCAPE IS PERMISSIBLE
ON ESCAPE RETURN
* * * SET SCREEN COLORS FOR NON-MENU SCREENS
IF ISCOLOR()
    SET COLOR TO W/B,B/W,B
ELSE
    SET COLOR TO W/N,N/W,N
ENDIF

* * * EVALUATE WHAT USER WANTED

DO CASE

CASE CHR(choice) $ [^\]      && User pressed F1 help key

    help1=[SELECT format MUST BE used to specify screen, printer or file]
    help2=[output.  File output includes ASCII, worksheets, and data bases]
    help3=[..... PRICES / RATES queries respective data bases for ]
    help4=[requested transactions ..... CUSTOM QUERY fashions a]
    help5=[special user query of either data base using the dBase ]
    help6=[file filter program. Hit F10 to return ..... ]
    help7=[DIRECT ACCESS loads dBase command interpreter with either ]
    help8=[Prices.dbf or Freight.dbf in use.  Hit F10 to return.]
    DO help WITH moniker,help1,help2,help3,help4,help5,help6,help7,help8

CASE CHR(choice) $ [1]

    DO P1                      && Subroutine call

CASE CHR(choice) $ [2]

    DO P2                      && Subroutine call

CASE CHR(choice) $ [3]

    DO P3                      && Subroutine call

CASE CHR(choice) $ [4]

    DO P4                      && Subroutine call

CASE CHR(choice) $ [5]

```

```

DO P5                                && Subroutine call

CASE CHR(choice) $ [6]

    CLEAR
    RETURN

OTHERWISE

    message=[Only listed menu choices are valid . . .]
    DO ERRMESS WITH moniker, message
    LOOP

ENDCASE

ENDDO

RETURN

U1.PRG
* * * ..... U1.PRG .....
* * *
* * * THIS PROGRAM IS A UTILITY THAT RESETS KEY DATA IN THE
* * * O4.DBF (FILE LISTING) THAT INDICATE THE ORIGINAL DATE AND
* * * ORIGINAL SIZE OF THE FILE STORED IN AN O4 RECORD. THIS
* * * INFORMATION IS USED BY THE RESTORE PROGRAM, WHICH SEARCHES
* * * FOR O4 RECORDS WHOSE CURRENT BYTE SIZE AND MOST RECENT CHANGE
* * * DATE DO NOT MATCH THE INFORMATION STORED IN THE "OSIZE" AND
* * * "ODATE" FIELDS FOR THAT FILE. ONCE THE FOLLOWING PROGRAM IS
* * * RUN, THE VALUES IN ODATE AND OSIZE REFLECT THE CURRENT DATE
* * * AND FILE SIZE SO RUNNING OF THE RESTORE PROGRAM SHOULD FIND
* * * NOTHING TO RESTORE.
* * *
* * * THE PROGRAM ALSO COPIES ALL FILES TO THEIR CONFIGURATION LOCATION.
* * * IT IS ASSUMED THAT A FILE LISTING (OPTIONS MENU, 4TH CHOICE) HAS
* * * BEEN MADE RECENTLY. IF NOT, THAT PROGRAM (O4.PRG) SHOULD BE RUN FIRST.
* * *
* * * AS OF 4/24/89 THIS LATTER FEATURE HAS BEEN DEACTIVATED. IF IT IS
* * * NEEDED, REMOVE THE FIRST "RETURN" COMMAND.
* * * .....
CLOSE Data BaseS
USE O4 INDEX O4
REPLACE ALL ODATE WITH DATE,OSIZE WITH SIZE
REPLACE ALL STATUS WITH .T. FOR ORIGINAL

CLOSE Data BaseS

RETURN
* * * NOTE THAT THE FOLLOWING CODE HAS BEEN DEACTIVATED BY THE INSERTION
* * * ABOVE OF A "RETURN" COMMAND. IF THE FULL BACKUP FEATURE IS REQUIRED,
* * * SIMPLY ERASE THE "RETURN" COMMAND.
* * *
* * * CHECK TO BE SURE THAT THE BACKUP DIRECTORY IS CORRECT
IF FILE([BACKUP.MEM])
    RESTORE FROM BACKUP ADDITIVE
ELSE
    WAIT [Backup storage location missing. Configure system first . . . ]

```

```

RETURN
ENDIF
IF TRIM(BCK1)=[NONE] .OR. LEN(TRIM(BCK1))=0
  CLEAR
  WAIT [ERROR: Must first configure backup option (Options menu) . . .]
  RETURN
ELSE
  WAIT [Hit a key to copy backup files to &bck1 . . . ]
  RUN COPY \ICSD\*.PRG &BCK1
  RUN COPY \ICSD\*.dbf &BCK1
  RUN COPY \ICSD\*.wk1 &BCK1
  RUN COPY \ICSD\*.frm &BCK1
  CLOSE ALL
  RETURN
ENDIF
CLOSE Data Bases
RETURN

```

^Z

```

U2.PRG
* * * ..... U2.PRG .....
* * *
* * * THIS PROGRAM ENSURES CONSISTENCY BETWEEN THE LIST OF COUNTRIES
* * * MAINTAINED IN THE COUNTRY.DBF AND THE NAMES USED FOR COUNTRIES
* * * IN THE DEMAND1 AND VOLUMES1 Data Bases. IF NAMES USED IN THE
* * * TWO LATTER ARE NOT THE SAME AS IN THE COUNTRY LIST,
* * * THE PROPER NAMES ARE PUT IN.
* * *
* * * ONCE RUN DURING THE PROGRAM DEVELOPMENT PHASE, RE-RUNS SHOULD
* * * NOT BE NECESSARY, UNLESS COUNTRIES ARE ADDED TO VOLUMES1 AND
* * * DEMAND1.DBF.
* * * .....
CLEAR

SELECT 1
USE COUNTRY INDEX COUNTRY,PROPER,CNUMBER
REPLACE ALL DEMAND WITH .F.
REINDEX
SELECT 2
USE DEMAND1
GO TOP
*-----
DO WHILE .NOT. EOF()                                     && Loop #1
  SELECT 2
  M=TRIM(COUNTRY)
  SELECT 1
  SEEK M
  IF FOUND()
    REPLACE DEMAND WITH .T.
    SELECT 2
    IF TRIM(COUNTRY) <> TRIM(COUNTRY->PROPER)
      REPLACE COUNTRY WITH TRIM(COUNTRY->PROPER)
    ENDIF
    SELECT 1
  ELSE
    APPEND BLANK
  ENDIF
ENDWHILE

```

```

    REPLACE COUNTRY WITH M
    REPLACE DEMAND WITH .T.
ENDIF
SELECT 2
SKIP
ENDDO
-----
CLOSE Data BaseS
* * * .....
SELECT 1
USE COUNTRY INDEX COUNTRY, PROPER, CNUMBER
GO TOP
REPLACE ALL IMPORTS WITH .F.
REINDEX

SELECT 3
USE VOLUMES1
GO TOP
-----
DO WHILE .NOT. EOF()
SELECT 3
M=TRIM(IMPORTER)
SELECT 1
SEEK M
IF FOUND()
    REPLACE IMPORTS WITH .T.
    SELECT 3
    IF TRIM(IMPORTER) <> TRIM(COUNTRY->PROPER)
        REPLACE IMPORTER WITH TRIM(COUNTRY->PROPER)
    ENDIF
    SELECT 1
ELSE
    APPEND BLANK
    REPLACE COUNTRY WITH M
    REPLACE IMPORTS WITH .T.
ENDIF
SELECT 3
SKIP
ENDDO
-----
CLOSE Data BaseS
* * * .....
RETURN

```

U3.PRG

```

* * * .....
* * *
* * * THIS PROGRAM ENSURES CONSISTENCY BETWEEN THE LIST OF COUNTRIES
* * * MAINTAINED IN THE COUNTRY.DBF AND THE NAMES USED FOR COUNTRIES
* * * IN THE EXPORTS AND IMPORTS Data BaseS. IF THE NUMBERS USED IN THE
* * * TWO LATTER ARE NOT THE SAME AS IN THE COUNTRY LIST,
* * * THE NUMBERS ARE ADDED TO END OF COUNTRY.DBF.
* * * .....
CLEAR
SELECT 1
USE COUNTRY INDEX CNUMBER, PROPER, COUNTRY

```

U3.PRG

```

REPLACE ALL expdbf WITH .F.
REINDEX
SELECT 2
USE exports
GO TOP
*-----
DO WHILE .NOT. EOF()                                     && Loop #1
SELECT 2
M=countrycod
SELECT 1
SEEK M
IF FOUND()
    IF .NOT. EXPDBF
        REPLACE expdbf WITH .T.
    ENDIF
ELSE
    SEEK VAL(SUBSTR(STR(M,4,0),1,3))
    IF FOUND()
        IF .NOT. EXPDBF
            REPLACE expdbf WITH .T.
        ENDIF
    ELSE
        SELECT 1
        APPEND BLANK
        REPLACE COUNTRYID WITH M
        REPLACE EXPDBF WITH .T.
    ENDIF
ENDIF
SELECT 2
SKIP
ENDDO                                                     && Loop #1
*-----
CLOSE Data Bases

* * * .....
CLEAR
SELECT 1
USE COUNTRY INDEX CNUMBER,PROPER,COUNTRY
REPLACE ALL IMPDBF WITH .F.
REINDEX
SELECT 2
USE IMPORTS
GO TOP
*-----
DO WHILE .NOT. EOF()                                     && Loop #1
SELECT 2
M=countrycod
SELECT 1
SEEK M
IF FOUND()
    IF .NOT. IMPDBF
        REPLACE impdbf WITH .T.
    ENDIF
ELSE
    select 1
    APPEND BLANK
    REPLACE COUNTRYID WITH M
    REPLACE IMPDBF WITH .T.
ENDIF

```

```

SELECT 2
SKIP
ENDDO
-----&& Loop #1
CLEAR ALL
CLEAR
? [THE PROGRAM FINISHED RUNNING AT ]+TIME()
RETURN

```

```

U4.PRG
* * * ..... U4.PRG .....
* * * UPDATES THE ICSD EXPORTS.DBF FROM MAINFRAME DATA
* * *
* * * ORIGINALLY PROGRAMMED BY BRYAN DE BOINVILLE ON 08/04/88
* * * .....
* * * THE PURPOSE OF THIS PROGRAM IS TO TAKE AN ASCII FILE, DOWNLOADED FROM
* * * THE EIA MAINFRAME UNDER THE NAME EXPORTS.TXT, AND INCORPORATE
* * * IT INTO THE ICSD EXPORTS Data Base. THE MAINFRAME DATA SET IS TAKEN
* * * FROM THE MOST RECENT CN6524.PRJ.IMEX.EM522 FILE. WHILE DOWNLOADING
* * * MAY BE DONE IN ANY NUMBER OF WAYS, THE PROGRAM FIRST REQUESTS USER
* * * TO VERIFY WHETHER DUMMY CHARACTERS HAVE BEEN ADDED TO THE FRONT OF
* * * EACH LINE TO ENSURE THAT THE PROPER DATA GETS INTO THE PROPER FIELD.
* * * THE STRUCTURE ASSUMED IS POST-JAN 1988 CENSUS FILE FORMAT.
* * *
* * * BEFORE USING THE PROGRAM IT IS NECESSARY TO USE THE DOS TYPE COMMAND
* * * TO LIST A FEW LINES OF THE ASCII FILE EXPORTS.TXT TO SEE HOW MANY,
* * * IF ANY, UNUSABLE CHARACTERS APPEAR AT THE START OF EACH LINE.
* * * FOR INSTANCE, A TYPICAL MICROCOMPUTER COMMUNICATION PROGRAM DOWN-
* * * LOADING THE ASCII FILE ABOVE WILL CONTAIN THE CHARACTER AT THE
* * * START OF EACH LINE. THE PROGRAM NEEDS TO KNOW HOW MANY SUCH
* * * CHARACTERS NEED BE SKIPPED BEFORE TRYING TO EXTRACT DATA.
* * * .....
* CLEAR ALL
CLEAR
IF .NOT. FILE("EXPORTS.TXT")
    ? [Unable to locate "EXPORTS.TXT" (down-loaded ascii file). ]
    WAIT [HIT ANY KEY TO RETURN ... ]
    CLOSE Data BaseS
    RETURN
ELSE
    CLEAR
    USE UEXPORTS          && CHARACTER BUILT INTO THEM
    DROSS=00
    @10,10 SAY [Enter the number of surplus characters at ]
    @11,10 SAY [start of each line, if any. Usually, this will]
    @12,10 SAY [be 1 or 0 depending on the software used to ]
    @13,10 SAY [download EXPORTS.TXT. If not known, enter 99]
    @14,10 SAY [so the program will stop and the number can be]
    @15,10 SAY [determined using the DOS command TYPE EXPORTS.TXT.]
    @16,10 GET DROSS PICTURE [99]
    READ
    IF DROSS=99
        CLEAR
        CLOSE Data BaseS
        RETURN
    ENDIF

```



```

DROSS=DROSS-1          && SINCE SUBSTRINGS CHOSEN BELOW HAVE ONE DROSS
SET SAFETY OFF
ZAP
SET SAFETY ON
SET TALK ON
CLEAR
?
? [Records are being added from the Export.Txt file]
? [-----]
APPEND FROM EXPORTS.TXT SDF
SET TALK OFF
GO TOP
USE
RUN rename EXPORTS.TXT oexports.txt
ENDIF
CLEAR
USE UEXPORTS
nn=reccount()
@10,10 SAY [Update of the UExports.Dbf has reached record #]
* * * .....start main program loop.....
DO WHILE .NOT. EOF()

@10,57 say str(recno(),5,0)+[ of ]+str(nn,5,0)
CH0=SUBSTR(EXPORTS,DROSS + 9,2)
REPLACE type WITH VAL(CH0)
CH1=SUBSTR(EXPORTS,DROSS + 14,4)
IF VAL(CH1)>999
    REPLACE countrycod WITH VAL(CH1)
ELSE
    REPLACE countrycod WITH VAL(CH1)*10
ENDIF
CH2=SUBSTR(EXPORTS,DROSS + 26,12)
REPLACE quantity2 WITH VAL(CH2)
CH3=SUBSTR(EXPORTS,DROSS + 18,2)
REPLACE portcode WITH VAL(CH3)
CH4=SUBSTR(EXPORTS,DROSS + 20,2)
REPLACE month WITH VAL(CH4)
CH5=SUBSTR(EXPORTS,DROSS + 22,2)
REPLACE year WITH VAL(CH5)
CH6=SUBSTR(EXPORTS,DROSS + 38,12)
REPLACE cardcount WITH VAL(CH6)
CH7=SUBSTR(EXPORTS,DROSS + 50,12)
REPLACE quantity WITH VAL(CH7)
CH8=SUBSTR(EXPORTS,DROSS + 62,12)
REPLACE value WITH VAL(CH8)
IF QUANTITY > 0
    REPLACE PRICEPERTN WITH VALUE/QUANTITY
ELSE
    REPLACE PRICEPERTN WITH 0
ENDIF
CH9=SUBSTR(EXPORTS,DROSS + 74,12)
REPLACE shipweight WITH VAL(CH9)
CH10=STR(MONTH,2,0)+[/01/]+STR(YEAR,2,0)
REPLACE date WITH CTOD(CH10)
CH11=SUBSTR(EXPORTS,DROSS + 86,12)
REPLACE shipvalue WITH VAL(CH11)
@10,56 CLEAR TO 10,79
SKIP

```

```

ENDDO
* * * .....main program loop ends
CLEAR
?
? [The file just created, UEXPORTS.DBF, must now be edited to delete]
? [extraneous material at the begining and end of the file. After]
? [pressing a key, the BROWSE command will be used for this purpose.]
? [Use CTRL + U to mark record for deletion. Use CTRL + HOME to move]
? [from the top to the bottom of the file.]
CLEAR TYPEAHEAD
?
WAIT [Read these instructions before going on ...]
BROWSE
SET TALK ON
PACK
SET TALK OFF
USE
CLEAR
TEXT

```

UEXPORTS.DBF is now ready to be appended to EXPORTS.DBF.

The next section of the program does this for you. If you wish to do it manually, enter X to exit.

If you want the program to update the exports file, enter Z if all of the old Exports.Dbf records should be erased and replaced with the new data.

If the old records should be retained and the new ones added at the end, enter A.

ENDTEXT

```

SET TALK ON
CLEAR TYPEAHEAD

```

WAIT [-->] to choice

```

DO CASE
  CASE UPPER(CHOICE)=[X]
    CLEAR
    RETURN
  CASE UPPER(CHOICE)=[A]
    USE EXPORTS
    APPEND FROM UEXPORTS
    USE

  CASE UPPER(CHOICE)=[Z]
    USE EXPORTS
    SET SAFETY OFF
    ZAP
    SET SAFETY ON
    USE

  OTHERWISE
    CLEAR
    RETURN
ENDCASE

```

```
CLEAR
? [The new EXPORTS.DBF file is now complete and reindexed. ]
?
WAIT
CLEAR
RETURN
```

```
U6.PRG
* * * ..... U6.PRG .....
* * *
* * * THIS PROGRAM CREATES AN ALPHABETICAL LIST OF FILES IN THE BACKUP
* * * DIRECTORY FROM THOSE FILES LISTED IN THE ICSD DIRECTORY. THE NEWLY
* * * ALPHABETIZED FILES MAY THEN BE COPIED BACK TO THE MAIN ICSD DIRECTORY
* * * MANUALLY.
* * *
* * * .....
CLEAR ALL
USE 04 INDEX 04
? [REINDEXING . . .]
REINDEX
CLEAR
* * * BCK1 HOLDS THE NAME OF THE BACKUP FILE STORAGE LOCATION AND IS
* * * IN TURN STORED IN BACKUP.MEM
RESTORE FROM BACKUP ADDITIVE
GO TOP
*-----
DO WHILE .NOT. EOF()                                     && Loop #1
    N=TRIM(FILENAME)
    E=TRIM(EXT)
    FN=N+[.]+E
    ? [NOW COPYING ]+FN
    RUN COPY \ICSD\&FN &BCK1
    SKIP
ENDDO                                                       && Loop #1
*-----
CLOSE Data BaseS
RETURN
```

^Z

^Z

^Z

```
U7.PRG
* * * ..... U7.PRG .....
* * *
* * * THIS PROGRAM MANIPULATES THE RAW CUSTOMS DATA FOUND IN EXPORTS.DBF
* * * BY AGGREGATING CUSTOMS COAL TYPES INTO THE COAL TYPES
* * * USED BY THE EIA INTERNATIONAL COAL TRADE MODEL. IT SHOULD BE USED
* * * ONLY AFTER U4.PRG HAS BEEN RUN TO SUPPLY NEW DATA TO THE Data BaseS.
* * *
* * * ORIGINALLY PROGRAMMED BY BRYAN DE BOINVILLE OF DAC OF VIRGINIA,
* * * MARCH, 1988.
* * *
* * * MODIFIED BY BRYAN DE BOINVILLE ON 08/04/88 TO UPDATE WITH NEW
* * * CENSUS FILE FORMAT FOR EXPORTS AND IMPORTS Data BaseS. OLD COUNTRY
```

ICSD Program Source Code

```

* * * CODES WERE REPLACED WITH NEW CENSUS CODES AND THE ICSDPORT CODE
* * * PROCEDURE USED ON EXPORTS.DBF WAS ADDED FOR IMPORTS.DBF, SINCE
* * * THAT INFORMATION IS NOW AVAILABLE.
* * * .....
* CLEAR ALL
CLEAR
starttime=TIME()
C=[COUNTRYCOD]
SET TALK ON
USE EXPORTS
? [Now working on exports.dbf]
* * * .....
* * * SET REGIONAL CODES, WHERE ICSDREG 1 = CANADA; ICSDREG 2 = SOUTH AMERICA;
* * * ICSDREG 3 = NORTH EUROPE; ICSDREG 4 = SOUTH EUROPE & MEDITERRANEAN;
* * * ICSDREG 5 = ASIA; AND ICSDREG 6 = EASTERN BLOC
REPLACE ALL ICSDREG WITH 1 FOR &C=1220
REPLACE ALL ICSDREG WITH 2 FOR &C=1000 .OR. &C>=1610 .AND. &C<=3720
REPLACE ALL ICSDREG WITH 3 FOR &C=4330 .OR. &C>=4000 .AND. &C<=4280 .OR. &C=4419 ;
.OR. &C=1010
REPLACE ALL ICSDREG WITH 4 FOR &C>=4890 .AND. &C<=5040 .OR. &C>=7140 .AND. ;
&C<=7990 .OR. &C>=4670 .AND. &C<=4790
REPLACE ALL ICSDREG WITH 4 FOR &C=4840 .OR. &C=5080 .OR. &C=5120
REPLACE ALL ICSDREG WITH 5 FOR &C>=5130 .AND. &C<=5490 .OR. &C>=5540 .AND. ;
&C<=5680 .OR. &C>=5800 .AND. &C<=6860
REPLACE ALL ICSDREG WITH 5 FOR &C=5110 .OR. &C=5050 .OR. &C=5070
REPLACE ALL ICSDREG WITH 6 FOR &C>=4470 .AND. &C<=4610 .OR. &C>=5500 .AND. ;
&C<=5530 .OR. &C>=5700 .AND. &C<=5790
REPLACE ALL ICSDREG WITH 6 FOR &C=4810 .OR. &C=4850 .OR. &C=4870 .OR. &C=4290 ;
.OR. &C=4350 .OR. &C=4370 .OR. &C=2390
* * * .....
* * * SET ICSD COAL TYPES, WHERE ICSDTYPE 1 = STEAM; ICSDTYPE 2 = MET AND
* * * ICSDTYPE 3 = ALL OTHER
REPLACE ALL ICSDTYPE WITH 1 FOR TYPE=20 .OR. TYPE=70
REPLACE ALL ICSDTYPE WITH 2 FOR TYPE=10
REPLACE ALL ICSDTYPE WITH 3 FOR ICSDTYPE<1 .OR. ICSDTYPE>2
* * * .....
* * * SET ICSD REGIONAL PORTS, WHERE ICSDPORT 1 = EASTERN; 2 = SOUTHERN
* * * 3 = WESTERN; 4 = NORTHERN
P=[PORTCODE]
REPLACE ALL ICSDPORT WITH 2 FOR &P>=18 .AND. &P<=60
REPLACE ALL ICSDPORT WITH 3 FOR &P>=25 .AND. &P<=33
REPLACE ALL ICSDPORT WITH 4 FOR &P>=34 .AND. &P<=45
REPLACE ALL ICSDPORT WITH 1 FOR &P<=17 .OR. &P=54 .OR. &P=59

GO TOP

* * * SORTING THE FILE IN THIS SEQUENCE IS KEY!

SORT ON YEAR,MONTH,COUNTRYCOD,TYPE,PORTCODE TO TEMP
CLOSE Data BaseS
RUN COPY TEMP.DBF EXPORTS.DBF
RUN DEL TEMP.DBF
DELETE FOR YEAR<80
USE EXPORTS INDEX E2A,E2B
PACK
SET SAFETY OFF
USE UEXPORTS
ZAP
SET SAFETY ON

```

USE EXPORTS INDEX E2A,E2B
 REINDEX
 CLEAR

U8.PRG

```

* * * .....
* * * ORIGINALLY PROGRAMMED ON 04/12/89
* * *
* * * PURPOSE: PERMIT AUTOMATIC PRINTOUT OF DEMAND REPORTS FOR ALL COUNTRIES
* * *
* * * THIS PROGRAM ESTABLISHES A COMBINED LOOPING PROGRAM TO GO
* * * THROUGH EVERY COUNTRY IN THE DEMAND1.DBF, LOAD THAT COUNTRY
* * * INTO THE D1.WK1 WORKSHEET, AND AUTOMATICALLY PRINT OUT ALL REPORTS.
* * * IT REQUIRES MANUAL MANIPULATION OF THE D1.WK1 FILE PRIOR TO
* * * RUNNING THIS PROGRAM. THE MANIPULATION IS TO SET A RANGE
* * * CALLED autoprint FROM 0 TO 1 AND SAVE THE WORKSHEET. AFTER
* * * THE PROGRAM HAS RUN, THE WORKSHEET MUST BE RESAVED WITH THE
* * * autoprint RANGE SET FOR 0.
* * *
* * * .....

```

```

parameter auto
close data bases
CLEAR
USE DEMAND INDEX DEMAND
set talk on
reindex
GO TOP
rec=0

```

```

if .not. auto
do while rec=0
  @10,10 say [Starting rec. #? (999 if not sure, 99999 to exit) ] get rec picture
  [99999]
  READ
  if rec=999
    rec=0
    brow
  endif
  if rec=99999
    rec=0
    return
  endif
enddo
else
  rec=1
endif

GO rec

DO WHILE .NOT. EOF()

SET SAFETY OFF
COPY NEXT 149 TO D1.WKS WKS
SET SAFETY ON

```

```

RUN COPY AUTO123.D1 AUTO123.WK1 >NUL
RESTORE FROM CONFIG ADDITIVE
newdrive=SUBSTR(LOTUS,1,2)
RUN &NEWDRIVE
newdirect=[CD ]+lotus
RUN &newdirect
RUN 123
RESTORE FROM CONFIG ADDITIVE
OLDDRIVE=SUBSTR(LICSD,1,2)
RUN &OLDDRIVE
CDLOC=[CD ]+LICSD
RUN &CDLOC

```

```

? [_____]
SKIP 1

```

```

ENDDO
RETURN

```

UCOUNTRY.PRG

```

* * * ..... UCOUNTRY.PRG .....
* * *
* * * THIS PROGRAM ENSURES CONSISTENCY BETWEEN THE LIST OF COUNTRIES
* * * MAINTAINED IN THE COUNTRY.DBF AND THE NAMES USED FOR COUNTRIES
* * * IN THE UPDATE Data Bases. IF NAMES USED IN THE
* * * TWO LATTER ARE NOT THE SAME AS IN THE COUNTRY LIST,
* * * THE PROPER NAMES ARE PUT IN.
* * * .....

```

PARAMETER AUT

```

SELECT 1
SET TALK OFF
IF FILE([UDMD.MEM])
    REST FROM UDMD ADDITIVE
ENDIF
ip=TRIM(MPATHICSD)+[\]
dn=IP+[COUNTRY]

```

USE &DN

```

DNI1=IP+[COUNTRY]
DNI2=IP+[PROPER]
DNI3=IP+[CNUMBER]
SET INDEX to &DNI1,&DNI2,&DNI3
REINDEX
GO TOP

```

```

SELECT 3
IF .NOT. AUT
    FILENAME=[ ]
    @ROW()+1,1 SAY [Name and path of file to check ] GET filename
    READ
    FNAME=[ ]
    @ROW()+1,1 say [Name of field holding countries? ] GET FNAME
    READ

```

```

ELSE
  FILENAME=REQ1
  FNAME=REQ2
ENDIF
*USE &filename
USE UDMD6
CLEAR
SET TALK ON
GO TOP
*-----
DO WHILE .NOT. EOF()                                && Loop #2
  SELECT 3
  M=TRIM(&FNAME)

  SELECT 1
  SEEK M
  IF FOUND()
    SELECT 3
    IF TRIM(&FNAME) <> TRIM(COUNTRY->PROPER)
      REPLACE &FNAME WITH TRIM(COUNTRY->PROPER)
    ENDIF
    SELECT 1
  ELSE
    SELECT 1
    APPEND BLANK
    REPLACE COUNTRY WITH M
  ENDIF
  SELECT 3
  SKIP
ENDDO
*-----                                && Loop #2
CLOSE Data BaseS
* * * .....
RETURN

```

UDEMAND.PRG

* * * THIS PROGRAM CONTROLS UPDATE OF THE DEMAND1.DBF OF THE ICSD.

CLEAR ALL

ISITAUTO=.T.

SET ESCAPE ON

CLEAR

TEXT

UPDATING THE DEMAND Data Base

This program controls access to the six programs that update the DEMAND1.DBF:

1. UDMD1.PRG uses decompressed IEA data to build UDMD1 for the non-IEA countries - units : metric tons . Uses INDIVIDUAL COUNTRY files
2. UDMD2.PRG uses decompressed IEA data to build UDMD2 for the IEA countries - units : metric tons Uses INDIVIDUAL COUNTRY files
3. UDMD3.PRG uses the intermediate file UDMD2 to update data in DEMAND1.DBF
4. UDMD4.PRG uses a data base, UDMD4.DBF, created by translating the DBASE range of UDMD.WK1 from Lotus format to dBase format, to update the outyear forecasts contained in DEMAND1.DBF.
5. UDMD5.PRG uses the intermediate file UDMD1 to update data in DEMAND1.DBF.

```

    (Check units)
6. UDMD6.PRG builds UDMD6.DBF from decompressed IEA BES
   files. Covers both IEA and NON-IEA countries, units= actual metric
7. UDMD7.PRG updates DEMAND1 using UDMD6 data = metric actual
8. UDMD8.PRG creates DEMAND.DBF from DEMAND1.DBF
9. UDMD9.PRG builds UDMD6.DBF from decompressed IEA BAL
   files. Covers both IEA and NON-IEA countries, units= MTOE
ENDTEXT
WAIT
MPATHICSD=SPACE(35)
IF FILE([UDMD.MEM])
    REST FROM UDMD.MEM ADDITIVE
ENDIF
CLEAR
@ 10, 10 SAY [Where are ICSD files stored: full path, do not end with '\']
@ 12, 10 GET MPATHICSD PICTURE [#!]
READ
SET SAFETY OFF
SAVE ALL TO UDMD
close all
SET ESCAPE ON

*DO UDMD1 WITH ISITAUTO
*DO UDMD2 WITH ISITAUTO
*DO UDMD3 WITH ISITAUTO
*DO UDMD4 WITH ISITAUTO
*DO UDMD5a WITH ISITAUTO
DO UDMD6 WITH ISITAUTO
DO UDMD7 WITH ISITAUTO

quit

```

```

UDIR.PRG
* * * ..... UDIR.PRG .....
* * *
* * * CREATES AN INDEXED Data Base OF FILES IN THE SPECIFIED SUBDIRECTORY.
* * *
* * * .....
SET SAFETY OFF
SET TALK OFF
DOSDIR=[DIR d:\ieafile2\bal\*. * >UDIR.DOC]
*DOSDIR=[DIR &mpath >UDIR.DOC]
RUN &DOSDIR
SELECT 6
USE UDIR
ZAP
INDEX ON TRIM(FILENAME)+EXT TO UDIR
APPEND FROM UDIR.DOC SDF
DELETE FOR SUBSTR(FILENAME,1,1)=[ ] .OR. SUBSTR(FILENAME,1,1)=[.] ;
      .OR. [<]$$2
PACK
SET SAFETY ON
USE
ERASE UDIR.DOC
RETURN

```


* * * Modified by B. de B. on 10/17/90

UDMD1.PRG
 * UDMD1.PRG
 PARAMETER AUTO
 CLEAR
 TEXT

INSTRUCTIONS for UDMD1.PRG

UPDATE OF THE NON-IEA COUNTRIES

This program is an intermediate stage in the update of the ICSD DEMAND1.DBF data base. It uses OECD/IEA data, previously converted from OECD compressed file format to DIF format using the OECD DECOM program.

The purpose of the program is to load the data into a template file and then use the template to make up the transitional data base that will be used in conjunction with several other files to update DEMAND1.DBF. Note that this program only covers NON-IEA countries. A similar program, UDMD2.PRG, is used for IEA countries. This two file approach is necessary because of the different data structures used by OECD.

This program requires that the location of the directory holding decompressed is supplied by the user. This directory will now hold individual country balance files now ending with the extension "DIF."

```

ENDTEXT
IF .NOT. AUTO
  WAIT [Proceed? (Y/N)] to ff
  IF UPPER(FF)<>[Y]
    RETURN
  ENDIF
ENDIF
CLEAR
MPATH1=SPACE(25)
IF FILE([UDMD.MEM])
  REST FROM UDMD.MEM ADDITIVE
ENDIF
IF .NOT. AUTO
  @ROW(),2 SAY [Path of directory holding Non-OECD files in DIF format ]
  @ROW()+1,2 SAY [Do not end path with '\\' ] GET MPATH1 PICTURE [?!]
  READ
ENDIF
PN=TRIM(MPATH1)+[\\]
MPATH=TRIM(MPATH1)
SET SAFETY OFF
SAVE ALL LIKE MPATH* TO UDMD
SET TALK ON
* * * CALL TO UDIR IS FOR A DIRECTORY LISTING
DO UDIR

```

```

CLOSE Data Bases
SET SAFETY OFF
SET TALK ON

```

```

SELECT 1
USE UDIR INDEX UDIR

```

```

SELECT 2
USE UDMD1TEM
ZAP

```

```

SELECT 3
USE UDMD1
ZAP

```

```

SELECT 1
GO TOP
SET SAFETY OFF

```

```

DO WHILE .NOT. EOF()

```

```

    SELECT 1
    IF EXT<>[DIF]
        SKIP
    LOOP
    ENDIF

```

```

    FN=PN+TRIM(FILENAME)+[.]+EXT

```

```

    SELECT 2
    USE UDMD1TEM
    ZAP

```

```

    APPEND FROM &FN TYPE DIF

```

```

    GO TOP

```

```

    CN=VARIABLE

```

```

    EN=LTRIM(TRIM(SUBSTR(CN,AT(":",CN)+1,LEN(CN))))

```

```

    REPLACE ALL COUNTRY WITH UPPER(EN)

```

```

    GO TOP

```

```

    DELETE

```

```

    SKIP

```

```

    DELETE

```

```

    GO BOTT

```

```

    DELETE

```

```

    SKIP -1

```

```

    DELETE

```

```

    SUM ALL TOT TO TEST

```

```

    ? TEST

```

```

    IF TEST=0

```

```

        REPL ALL TOT WITH ELE,HEA WITH 0,ELE WITH HYD,HYD WITH NUC,NUC WITH 0

```

```

    ENDIF

```

```

DELETE ALL FOR VAL(SUBSTR(VARIABLE,2,4))<1987

```

```

PACK

```

```

USE

```

```

SELECT 3

```

```

APPEND FROM UDMD1TEM

```

```

SELECT 1

```

```

SKIP

```

```

ENDDO

```

```

CLOSE Data BaseS
SET SAFETY ON
RETURN

```

* * * Modified by B. de B. on 09/10/90

```

UDMD2.PRG

```

```

* * * UDMD2.PRG

```

```

* * * -----

```

```

* * * NOTE CURRENT IEA PRACTICE IS TO SHIP TWO FILES FOR EACH COUNTRY
* * * FOR INSTANCE CAN8688.DIF AND CAN8788.DIF. THE LATTER IS NOT
* * * JUST A LATER VERSION OF THE FORMER. THE 8688 VERSION IS IN
* * * THOUSANDS OF METRIC TONS OF OIL EQUIVALENT, WHILE THE 8788 IS
* * * IN PHYSICAL UNITS FOR THE FLOW SPECIFIED. THIS FEATURE IS
* * * UNDOCUMENTED.

```

```

PARAMETER AUTO

```

```

CLEAR

```

```

SET ESCAPE ON

```

```

TEXT

```

```

INSTRUCTIONS for UDMD2.PRG

```

```

UPDATE OF THE IEA COUNTRIES

```

This program is an intermediate stage in the update of the ICSD DEMAND1.DBF data base. It uses OECD/IEA data, previously converted from OECD compressed file format to DIF format using the OECD DECOM program.

The purpose of the program is to load the data into a template file and then use the template to make up the transitional data base that will be used in conjunction with several other files to update DEMAND1.DBF. Note that this program only covers IEA countries. A similar program, UDMD1.PRG, is used for non-IEA countries. This two file approach is necessary because of the different data structures used by OECD.

This program requires that the location of the directory holding decompressed is supplied by the user. This directory will now hold individual country balance files now ending with the extension "DIF."

```

ENDTEXT

```

```

IF .NOT. AUTO

```

```

    WAIT [Continue? (Y/N)] to ff

```

```

    IF UPPER(FF) <> [Y]

```

```

        RETURN

```

```

    ENDIF

```

```

ENDIF

```

```

    CLEAR

```

```

MPATH2=SPACE(25)

```

```

IF FILE([UDMD.MEM])

```

```

    REST FROM UDMD.MEM ADDITIVE

```

```

ENDIF

```

```

IF .NOT. AUTO

```

```

@ROW(),2 SAY [Path of directory holding OECD files in DIF format ]
@ROW()+1,2 SAY [Do not end path with '\' ] GET MPATH2 PICTURE [0!]
READ
ENDIF
MPATH=TRIM(MPATH2)
PN=TRIM(MPATH2)+[\]
SET SAFETY OFF
SAVE ALL LIKE MPATH* TO UDMD
SET TALK ON
* * * CALL TO UDIR IS FOR A DIRECTORY LISTING
DO UDIR

CLOSE Data BaseS
SET SAFETY OFF
SET TALK ON

SELECT 1
USE UDIR. INDEX UDIR

SELECT 2
USE UDMD2TEM
ZAP

SELECT 3
USE UDMD2
ZAP

ITER=1

do while ITER<3

SELECT 1
GO TOP
SET SAFETY OFF

DO WHILE .NOT. EOF()

    SELECT 1
    IF EXT<>[DIF]
        SKIP
    LOOP
ENDIF

    * SEE NOTE AT START OF FILE WHY XXX8688.DIF WON'T WORK
MUNITS=0
IF ITER=1
    IF [6] $ FILENAME
        SKIP
    LOOP
MUNITS=1
ENDIF
ENDIF

IF ITER=2
    IF [7] $ FILENAME
MUNITS=0
        SKIP
    LOOP

```

ENDIF
ENDIF

* * * NOTE, UNITS VALUE =1 FOR '000 TONS OF OIL EQUIVALENT, 0 FOR
* * * ANY OTHER VALUE
FN=PN+TRIM(FILENAME)+[.]+EXT

SELECT 2
USE UDMD2TEM
ZAP
APPEND FROM &FN TYPE DIF
GO TOP
CN=VARIABLE
EN=LTRIM(TRIM(SUBSTR(CN,AT(":",CN)+1,LEN(CN))))
REPLACE ALL COUNTRY WITH UPPER(EN)
REPLACE ALL UNITS WITH MUNITS
GO TOP
DELETE
SKIP
DELETE
GO BOTT
DELETE
SKIP -1
DELETE
DELETE ALL FOR SUBSTR(VARIABLE,1,5)<>[1988]
PACK
USE
SELECT 3
APPEND FROM UDMD2TEM
SELECT 1
SKIP

ENDDO

ITER=ITER+1

ENDDO

CLOSE Data BaseS
SET SAFETY ON
RETURN

UDMD3.PRG
* * * UDMD3.PRG
PARAMETER AUTO
CLEAR
SET SAFETY OFF
TEXT

Updating DEMAND1.DBF STEP 3

This program uses the values stored in UDMD2.DBF to update the national demands stored in DEMAND1.DBF of the ICSD. The former file must have been created prior to running this program. In essence,

it holds the values from the most recent IEA data fiels, decompressed,
and loaded into dBase format by UDMD2.PRG. The values are for IEA / OECD
countries.

It takes as much as several hours to run.
ENDTEXT

```
IF .NOT. AUTO
  WAIT [Continue (Y/N)] to xx
  IF UPPER(XX) <> [Y]
    ? [PROGRAM ENDS...]
    RETURN
  ENDIF
ENDIF
IF .NOT. FILE([UDMD2.DBF])
  CLEAR
  WAIT [The program requires that UDMD2.DBF be present ... ]
  RETURN
ENDIF

CLEAR
TEXT
```

Before running the program it is necessary to ensure consistency
in the names used for countries.

In response to the questions required to run UCOUNTRY.PRG note
the following:

Data Base=UDMD2.DBF
Fieldname holding country name=COUNTRY

```
ENDTEXT
REQ1=[UDMD2.DBF           ]
REQ2=[COUNTRY             ]
IF .NOT. AUTO
  WAIT
ENDIF
REST FROM UDMD ADDITIVE
* * * CALL SUBROUTINE THAT CHECK COUNTRY NAMES
* DO UCOUNTRY WITH AUTO
* * * RETURN TO PROGRAM UPDATE
CLOSE Data BaseS

SET ESCAPE ON
SET TALK ON
* * * ESTABLISH YEAR TO BE UPDATED
MYEAR=[ 1988.]
XYEAR=[1988]
* * * SELECT FILES
SELECT 1
  USE UDMD2
*INDEX ON STR(UNITS,1,0)+TRIM(VARIABLE)+TRIM(COUNTRY) TO udmd2a
*INDEX ON SUBSTR(COUNTRY,1,8) TO udmd2b
  SET INDEX TO udmd2a
SELECT 2
  USE DEMAND1 INDEX DEMAND1
SELECT 3
  ip=trim(mpathicsd)+[\\]
```

```

dn=ip+[COUNTRY]
inl=ip+[PROPER]
USE &DN INDEX &IN1
SELECT 4
USE ICSDIEA
* * * .....LOOP 1.....
* * * SELECT COUNTRY TO BE WORKED ON FROM LIST OF COUNTRIES
* * * INCLUDED IN DEMAND1

ITER=2

DO WHILE ITER<3

SELE 3
GO TOP

DO WHILE .NOT. EOF()
? [-----LOOP 1]
SELE 3
IF .NOT. DEMAND
    SKIP
    LOOP
ENDIF
* CNAME=SUBSTR(UPPER(COUNTRY),1,8)
* CNAME2=COUNTRY
CNAME=SUBSTR(UPPER(PROPER),1,8)
CNAME2=PROPER
CNAME=TRIM(CNAME)
* * * WITH COUNTRY SELECTED, GO TO IEA DATA AND SEE IF
* * * THAT COUNTRY IS INCLUDED FOR THE YEAR IN QUESTION.
SELE 2
LOCATE FOR UPPER(TRIM(COUNTRY))=CNAME .AND. YEAR=XYEAR
IF .NOT. FOUND()
    ? [ERROR! Country not in IEA data base]
    * * * IF NOT INCLUDED, GO BACK TO THE COUNTRY LIST
    * * * AND GET THE NEXT COUNTRY
    SELECT 3
    SKIP
    LOOP
ENDIF
* * * QUICK TEST TO SEE IF IEA COVERS THIS COUNTRY
SELE 1
SET INDEX TO udmd2b
SEEK TRIM(CNAME)
IF .NOT. FOUND()
    SET INDEX TO udmd2a
    ? CNAME
    ? [COUNTRY IN DEMAND1.DBF BUT NOT IN IEAFILE ... ]
    SELE 3
    SKIP
    LOOP
ENDIF
CLEAR
@ 10,10 SAY [NOW WORKING ON ]+CNAME
PASS=1
SELECT 4
* * * SINCE IEA DATA IS AVAILABLE FOR THE COUNTRY IN QUESTION,
* * * BEGIN THE PROCESS OF FINDING THE IEA DATA THAT WILL

```

```

* * * BE USED TO UPDATE DEMAND1.DBF
GO TOP
* * * .....LOOP 2.....

DO WHILE .NOT. EOF()
  ? [-----LOOP 2]

SELECT 4
* * * FIRST TIME THROUGH, SKIP TO A RECORD IN THE ICSD/IEA TRANS
* * * FORMATION INSTURCTIONS THAT IS ONE TO BE UPDATED
IF SUBSTR(IEAVAR2,1,1)=[*] .AND. DOIT=1
  SELECT 4
  FIND1=SUBSTR(IEAVAR2,2,AT([+],IEAVAR2)-2)
  FIND2=SUBSTR(IEAVAR2,LEN(TRIM(FIND1))+3,LEN(TRIM(IEAVAR2)))
  ICSDNAME=FIELDNAME
  TOTOTAL=SUBSTR(IEAVAR2,2,LEN(TRIM(IEAVAR2)))

  SELECT 2
  SEEK TRIM(CNAME2)+XYEAR
  IF .NOT. FOUND()
    ? [ERROR! COUNTRY NOT FOUND IN DEMAND1.DBF, DESPITE TESTS...]
    WAIT
  * RETURN
ELSE
  ? [-----]
  ?
  ? [      UPDATING RECORD      ]
  ? [-----]
  ?
  ? CNAME2
  ? ICSDNAME
  ? TOTOTAL
  XX=&TOTOTAL
  REPLACE &ICSDNAME WITH XX
  SELECT 4

ENDIF

SELECT 4
      SKIP
      LOOP

ENDIF

SELECT 4
if ITER=1
  munits=1
else
  munits=0
endif
if iter=1
  IF PASS=1
    IF DOIT<>1
      SKIP
      LOOP
    ENDIF
  ENDIF
endif
endif

```



```

if iter=2
  if pass=1
    if doit<>2
      skip
      loop
    endif
  endif
endif

* * * NOW THAT RECORD HAS BEEN FOUND, ASSIGN VARIABLES TO HOLD
* * * THE INSTRUCTION AND THE ICSD NAME OF THE VARIABLE
ICSDNAME=FIELDNAME
X=TRIM(UPPER(IEAVAR2))
PASSES=LEN(X)/4
IF MOD(LEN(X),4)<>0
  WAIT [PROBLEM WITH X ]+X
ENDIF

* * * AS SOME OF THE INSTRUCTIONS ON HOW TO COMPUTE
* * * IEA TOTALS INVOLVE MORE THAN ONE VARIABLE
* * * IT IS NECESSARY TO PASS THROUGH ONE TIME
* * * FOR EACH VARIABLE.
* * * .....PASS LOOP.....
OFFSET=4
MARKER=1
Q=0

DO WHILE PASS<=PASSES
  ? [Passes to be completed: ]+str(passes,1,0)
  ? [Now working on pass # ]+str(pass,1,0)
  ? [-----PASS LOOP]

SELECT 4

X1=SUBSTR(X,MARKER,OFFSET)
XSIGN=SUBSTR(X1,1,1)
*****X2=SUBSTR(X,5,3)
Y=TRIM(UPPER(IEAVAR1))

SELECT 1
SET INDEX TO udmd2a
* C=TRIM(COUNTRY)
  C=TRIM(CNAME)
  A=STR(MUNITS,1,0)+MYEAR+substr(TRIM(X1),2,3)+TRIM(C)
  SEEK TRIM(A)
  IF .NOT. FOUND()
    * * * MEANS COUNTRY IS IN DEMAND1.DBF BUT NOT COVERED
    * * * BY THIS IEAFILE
    ?
    ? [UNSUCCESSFUL SEEK FOR : ]+A
    ? [ERROR! @@COUNTRY IN DEMAND1.DBF BUT NOT IN IEAFILE]
    SUSPEND
  IF 1=0
    IF MUNITS=1
      MUNITS=0
    ELSE
      MUNITS=1
    ENDIF
    A=STR(MUNITS,1,0)+MYEAR+substr(TRIM(X1),2,3)+TRIM(C)

```

```

        SEEK TRIM(A)
        IF .NOT. FOUND()
            ? [NOT FOUND AFTER SECOND TRY ...]
            WAIT
            RETURN
        ENDIF
        IF MUNITS=1
            MUNITS=0
        ELSE
            MUNITS=1
        ENDIF
    ENDIF
ENDIF
ENDIF
* * * WHEN ITER=1 UNITS ARE TONS OF COAL
if iter=1
    IF XSIGN=[-]
        V=4Y
        V=V/1000
        Q=Q-V
    ELSE
        V=4Y
        V=V/1000
        Q=Q+V
    ENDIF
endif
* * * WHEN ITER=2 UNITS ARE 000 TONS OF OIL EQUIVALENT
if iter=2
    IF XSIGN=[-]
        V=4Y
        V=V*4.3253*10^-5
        Q=Q-V
    ELSE
        V=4Y
        V=V*4.3253*10^-5
        Q=Q+V
    ENDIF
endif

? [COUNTRY      = ]+C
? [VALUE OF Q = ]+STR(Q,8,3)
? [PASS        = ]+STR(PASS,5,0)
? [VALUE OF Y = ]+Y
* * * NOW GO TO DEMAND1.DBF, FIND THE RIGHT RECORD, AND
* * * UPDATE WITH THE CALCULATED VALUE.
SELECT 2
SEEK TRIM(CNAME2)+XYEAR
IF .NOT. FOUND()
    ? [ERROR! COUNTRY NOT FOUND IN DEMAND1.DBF, DESPITE TESTS...]
    WAIT
    * RETURN
ELSE
    ? [_____]
    ?
    ? [_____ UPDATING RECORD ]+STR(PASS,3,0)
    ? [_____]
    ?
    ? CNAME2
    ? ICSDNAME

```

```

REPLACE &ICSDNAME WITH Q
ENDIF

SELECT 4

PASS=PASS+1
MARKER=MARKER+OFFSET
*IF MARKER>LEN(X)
*   MARKER=1
*   WAIT [LEAVING PASS LOOP BECAUSE OF NOTHING ELSE TO DO]
*   EXIT
*ENDIF

* * * .....END PASS LOOP·
ENDDO

PASS=1
SELECT 4
SKIP
* * * .....END LOOP2·.....
ENDDO

SELE 3
SKIP
* * * .....END LOOP1·.....

ENDDO

ITER=ITER+1

ENDDO

RETURN

```

```

UDMD4.PRG
* PROGRAM TO UPDATE THE FORECAST VALUES OF DEMAND1.DBF OF THE ICSD.
PARAMETER AUTO
CLOSE Data Bases
CLEAR

```

TEXT

INSTRUCTIONS

This program updates the forecast values for the years 1995, 2000, 2005, and 2010 that are contained in the ICSD data base, DEMAND1.DBF.

Before running it, the file UDMD4.DBF must be present after having been created by the special worksheet UDMD.WK1. UDMD4.DBF results after using the Lotus TRANSLATE program to convert the UDMD.WK1 range DBASE from Lotus file format to dBase III format. This UDMD.WK1 worksheet uses Lotus macros to process approximately two dozen files that hold forecasts for key coal economies. IF THESE

FILES HAVE NOT BEEN PREPARED, DO NOT RUN THIS PROGRAM....

This program will take approximately a half hour to complete.

```

ENDTEXT
IF .NOT. AUTO
  WAIT [Continue (Y/N)] to xx
  IF UPPER(XX) <> [Y]
    ? [PROGRAM ENDS...]
  RETURN
ENDIF
ENDIF
CLEAR
TEXT

```

Before running the program it is necessary to ensure consistency in the names used for countries.

In response to the questions required to run UCOUNTRY.PRG note the following:

```

      Data Base=UDMD4.DBF
      Fieldname holding country name=COUNTRY

```

```

ENDTEXT
IF .NOT. AUTO
  WAIT
ENDIF
REQ1=[UDMD4.DBF]
REQ2=[COUNTRY]
DO UCOUNTRY WITH AUTO
CLOSE Data BaseS

SELECT 1
USE UDMD4
*UDMD4 IS A WORKING Data Base HOLDING THE RESULTS OF UDMD.WK1
SELECT 2
USE DEMAND1 INDEX DEMAND1
* demand1 index uses trim(country)+trim(year)
REINDEX
CLEAR
SELECT 1
GO TOP

DO WHILE .NOT. EOF()      ** MAIN LOOP THROUGH UDMD4

  SELECT 1
  MCOUNTRY=COUNTRY
  MYEAR=STR(YEAR,4,0)
  MVAR=TRIM(VARIABLE)
  MVAL=abs(VALUE)

  SELECT 2
  MARKER=TRIM(MCOUNTRY)+TRIM(myear)
  SEEK MARKER
  IF FOUND()
    REPLACE &MVAR WITH MVAL
  ELSE

```

```

    CLEAR
    ? [MARKER = ]+MARKER
    WAIT [ERROR! VALUE NOT FOUND]
ENDIF

```

```

SELECT 1
IF .NOT. EOF()
    SKIP
ELSE
    ? [FINISHED UPDATE]
    EXIT
ENDIF

```

```

ENDDO                                && MAIN LOOP THROUGH UDMD4
RETURN

```

* * * Modified by B. de B. on 09/20/90

* * * Modified by B. de B. on 10/08/90^Z
^Z

```

UDMD5.PRG
* * * UDMD5a.PRG
PARAMETER AUTO
CLEAR
SET SAFETY OFF
TEXT

```

Updating DEMAND1.DBF STEP 5

This program uses the values stored in UDMD1.DBF to update the national demands stored in DEMAND1.DBF of the ICSD. The former file must have been created prior to running this program. In essence, it holds the values from the most recent IEA data files, decompressed, and loaded into dBase format by UDMD1.PRG. The values are for non IEA / OECD countries.

It takes as much as several hours to run.
ENDTEXT

```

IF .NOT. AUTO
    WAIT [Continue (Y/N)] to xx
    IF UPPER(XX) <> [Y]
        ? [PROGRAM ENDS...]
        RETURN
    ENDIF
ENDIF
IF .NOT. FILE([UDMD1.DBF])
    CLEAR
    WAIT [The program requires that UDMD1.DBF be present ... ]
    RETURN
ENDIF

CLEAR
TEXT

```

Before running the program it is necessary to ensure consistency in the names used for countries.

In response to the questions required to run UCOUNTRY.PRG note the following:

Data Base=UDMD1.DBF
Fieldname holding country name=COUNTRY

```

ENDTEXT
REQ1=[UDMD1.DBF           ]
REQ2=[COUNTRY             ]
IF .NOT. AUTO
    WAIT
ENDIF
REST FROM UDMD ADDITIVE
* * * CALL SUBROUTINE THAT CHECK COUNTRY NAMES
* DO UCOUNTRY WITH AUTO
* * * RETURN TO PROGRAM UPDATE
CLOSE Data Bases

SET ESCAPE ON
SET TALK ON
* * * ESTABLISH YEAR TO BE UPDATED
MYEAR=[ 1988.]
XYEAR=[1988]
* * * SELECT FILES
SELECT 1
    USE UDMD1
*INDEX ON STR(UNITS,1,0)+TRIM(VARIABLE)+TRIM(COUNTRY) TO udmd1a
*INDEX ON SUBSTR(COUNTRY,1,8) TO udmd1b
    SET INDEX TO udmd1a
SELECT 2
    USE DEMAND1 INDEX DEMAND1
SELECT 3
    ip=trim(mpathicsd)+[\\]
    dn=ip+[COUNTRY]
    in1=ip+[PROPER]
    USE &DN INDEX &IN1
SELECT 4
    USE ICSDIEA
* * * .....LOOP 1.....
* * * SELECT COUNTRY TO BE WORKED ON FROM LIST OF COUNTRIES
* * * INCLUDED IN DEMAND1

ITER=1

DO WHILE ITER<2

SELE 3
GO TOP

DO WHILE .NOT. EOF()
    ? [-----LOOP 1]
    SELE 3
    IF .NOT. DEMAND
        SKIP

```

```

        LOOP
    ENDIF
* CNAME=SUBSTR(UPPER(COUNTRY),1,8)
* CNAME2=COUNTRY
CNAME=SUBSTR(UPPER(UPPER(COUNTRY)),1,8)
CNAME2=PROPER
CNAME=TRIM(CNAME)
* * * WITH COUNTRY SELECTED, GO TO IEA DATA AND SEE IF
* * * THAT COUNTRY IS INCLUDED FOR THE YEAR IN QUESTION.
SELE 2
LOCATE FOR UPPER(TRIM(COUNTRY))=CNAME .AND. YEAR=XYEAR
IF .NOT. FOUND()
    ? [ERROR! Country not in IEA data base]
    * * * IF NOT INCLUDED, GO BACK TO THE COUNTRY LIST
    * * * AND GET THE NEXT COUNTRY
    SELECT 3
    SKIP
    LOOP
ENDIF
* * * QUICK TEST TO SEE IF IEA COVERS THIS COUNTRY
SELE 1
SET INDEX TO udmd1b
SEEK TRIM(CNAME)
IF .NOT. FOUND()
    SET INDEX TO udmd1a
    ? CNAME
    ? [COUNTRY IN DEMAND1.DBF BUT NOT IN IEAFILE ... ]
    SELE 3
    SKIP
    LOOP
ENDIF
CLEAR
@ 10,10 SAY [NOW WORKING ON ]+CNAME
PASS=1
SELECT 4
* * * SINCE IEA DATA IS AVAILABLE FOR THE COUNTRY IN QUESTION,
* * * BEGIN THE PROCESS OF FINDING THE IEA DATA THAT WILL
* * * BE USED TO UPDATE DEMAND1.DBF
GO TOP
* * * .....LOOP 2.....

DO WHILE .NOT. EOF()
    ? [-----LOOP 2]

SELECT 4
* * * FIRST TIME THROUGH, SKIP TO A RECORD IN THE ICSD/IEA TRANS
* * * FORMATION INSTRUCTIONS THAT IS ONE TO BE UPDATED

IF SUBSTR(NIEAVAR2,1,1)=[*] .AND. DOIT=1
    SELECT 4
    FIND1=SUBSTR(NIEAVAR2,2,AT([+],NIEAVAR2)-2)
    FIND2=SUBSTR(NIEAVAR2,LEN(TRIM(FIND1))+3,LEN(TRIM(NIEAVAR2)))
    ICSDNAME=FIELDNAME
    TOTOTAL=SUBSTR(NIEAVAR2,2,LEN(TRIM(NIEAVAR2)))

    SELECT 2
    SEEK TRIM(CNAME2)+XYEAR
    IF .NOT. FOUND()
        ? [ERROR! COUNTRY NOT FOUND IN DEMAND1.DBF, DESPITE TESTS...]

```

```

    WAIT
*   RETURN
ELSE
  ? [ _____ ]
  ?
  ? [      UPDATING RECORD      ]
  ? [ _____ ]
  ?
  ? CNAME2
  ? ICSDNAME
  ? TOTOTAL
  XX=&TOTOTAL
  REPLACE &ICSDNAME WITH XX
  SELECT 4

ENDIF

  SELECT 4
    SKIP
    LOOP

ENDIF

SELECT 4
if ITER=1
  munits=1
else
  munits=0
endif
if iter=1
  IF PASS=1
    IF DOIT<>1 .OR. LEN(TRIM(NIEAVAR1))=0
      SKIP
      LOOP
    ENDIF
  ENDIF
endif

if iter=2
  if pass=1
    if doit<>2 .OR. LEN(TRIM(NIEAVAR1))=0
      skip
      loop
    endif
  endif
endif

* * * NOW THAT RECORD HAS BEEN FOUND, ASSIGN VARIABLES TO HOLD
* * * THE INSTRUCTION AND THE ICSD NAME OF THE VARIABLE
ICSDNAME=FIELDNAME
X=TRIM(UPPER(NIEAVAR2))
PASSES=LEN(X)/4
IF MOD(LEN(X),4)<>0
  WAIT [PROBLEM WITH X ]+X
ENDIF

* * * AS SOME OF THE INSTRUCTIONS ON HOW TO COMPUTE
* * * IEA TOTALS INVOLVE MORE THAN ONE VARIABLE
* * * IT IS NECESSARY TO PASS THROUGH ONE TIME

```



```

* * * FOR EACH VARIABLE.
* * * .....PASS LOOP.....
OFFSET=4
MARKER=1
Q=0

DO WHILE PASS<=PASSES
  ? [Passes to be completed: ]+str(passes,1,0)
  ? [Now working on pass # ]+str(pass,1,0)
  ? [-----PASS LOOP]

SELECT 4

X1=SUBSTR(X,MARKER,OFFSET)
XSIGN=SUBSTR(X1,1,1)
*****X2=SUBSTR(X,5,3)
Y=TRIM(UPPER(NIEAVAR1))
IF LEN(Y)=0
  WAIT [ERROR! NOTHING IN NIEAVAR1]
  EXIT
ENDIF

SELECT 1
SET INDEX TO udmd1a
* C=TRIM(COUNTRY)
C=TRIM(CNAME)
A=STR(MUNITS,1,0)+MYEAR+substr(TRIM(X1),2,3)+TRIM(C)
SEEK TRIM(A)
  IF .NOT. FOUND()
    * * * MEANS COUNTRY IS IN DEMAND1.DBF BUT NOT COVERED
    * * * BY THIS IEAFIELD
    ?
    ? [UNSUCCESSFUL SEEK FOR : ]+A
    ? [ERROR! @@COUNTRY IN DEMAND1.DBF BUT NOT IN IEAFIELD]
    * WAIT
    EXIT
  IF 1=0
    IF MUNITS=1
      MUNITS=0
    ELSE
      MUNITS=1
    ENDIF
    A=STR(MUNITS,1,0)+MYEAR+substr(TRIM(X1),2,3)+TRIM(C)
    SEEK TRIM(A)
    IF .NOT. FOUND()
      ? [NOT FOUND AFTER SECOND TRY ...]
      WAIT
      RETURN
    ENDIF
    IF MUNITS=1
      MUNITS=0
    ELSE
      MUNITS=1
    ENDIF
  ENDIF
ENDIF
ENDIF
* * * WHEN ITER=1 UNITS ARE TONS OF COAL
if iter=1
  IF XSIGN=[-]

```

```

        V=&Y
        V=V/1000
        Q=Q-V
    ELSE
        V=&Y
        V=V/1000
        Q=Q+V
    ENDIF
endif
* * * WHEN ITER=2 UNITS ARE 000 TONS OF OIL EQUIVALENT
if iter=2
    IF XSIGN=[-]
        V=&Y
        V=V*4.3253*10^-5
        Q=Q-V
    ELSE
        V=&Y
        V=V*4.3253*10^-5
        Q=Q+V
    ENDIF
endif

? [COUNTRY      = ]+C
? [VALUE OF Q = ]+STR(Q,8,3)
? [PASS        = ]+STR(PASS,5,0)
? [VALUE OF Y = ]+Y
* * * NOW GO TO DEMAND1.DBF, FIND THE RIGHT RECORD, AND
* * * UPDATE WITH THE CALCULATED VALUE.
SELECT 2
SEEK TRIM(CNAME2)+XYEAR
IF .NOT. FOUND()
    ? [ERROR! COUNTRY NOT FOUND IN DEMAND1.DBF, DESPITE TESTS...]
    WAIT
    * RETURN
ELSE
    ? [_____]
    ? [_____]
    ? [      UPDATING RECORD ]+STR(PASS,3,0)
    ? [_____]
    ?
    ? CNAME2
    ? ICSDNAME
    REPLACE &ICSDNAME WITH Q
ENDIF

SELECT 4

PASS=PASS+1
MARKER=MARKER+OFFSET
*IF MARKER>LEN(X)
    * MARKER=1
    * WAIT [LEAVING PASS LOOP BECAUSE OF NOTHING ELSE TO DO]
    * EXIT
*ENDIF

* * * .....END PASS LOOP
ENDDO

```

```

PASS=1
  SELECT 4
  SKIP
  * * * .....END LOOP2.....
ENDDO

  SELE 3
  SKIP
  * * * .....END LOOP1.....

ENDDO

ITER=ITER+1

ENDDO

RETURN

```

```

* * * Modified by B. de B. on 09/17/90
^Z

```

```

UDMD6.PRG
* UDMD6.PRG
PARAMETER AUTO
CLEAR

```

TEXT

INSTRUCTIONS for UDMD6.PRG

UPDATE OF THE IEA COUNTRIES AND NON-IEA COUNTRIES: BES FILES

This program is an intermediate stage in the update of the ICSD DEMAND1.DBF data base. It uses OECD/IEA data, previously converted from OECD compressed file format to DIF format using the OECD DECOM program.

The purpose of the program is to load the data into a template file and then use the template to make up the transitional data base that will be used in conjunction with several other files to update DEMAND1.DBF.

This program requires that the location of the directory holding decompressed is supplied by the user. This directory will now hold individual country balance files now ending with the extension "DIF."

This program takes as much as several hours to run.

```

ENDTEXT
IF .NOT. AUTO
  WAIT [      Proceed? (Y/N)] to ff
  IF UPPER(FF) <> [Y]
    RETURN
  ENDIF
ENDIF

```

```

CLEAR
MPATH6=SPACE(25)
IF FILE([UDMD.MEM])
  REST FROM UDMD.MEM ADDITIVE
ENDIF
SET SAFETY OFF
IF .NOT. AUTO
  @ROW(),2 SAY [Path of directory holding BAL files in DIF format ]
  @ROW()+1,2 SAY [Do not end path with '\' ] GET MPATH6 PICTURE [0!]
  READ
ENDIF
MPATH=TRIM(MPATH6)
PN=TRIM(MPATH6)+[\]
SAVE ALL LIKE MPATH* TO UDMD
SET TALK ON
* * * CALL TO UDIR IS FOR A DIRECTORY LISTING
DO UDIR

CLOSE Data Bases
SET SAFETY OFF
SET TALK ON
IF FILE([UDMD.MEM])
  REST FROM UDMD ADDITIVE
ENDIF
ip=TRIM(MPATHICSD)+[\]
dn=IP+[COUNTRY]

SELECT 5
USE &DN
SET UNIQUE ON
INDEX ON OECDABBREV TO UDMD6C1
SET UNIQUE OFF
SET INDEX TO UDMD6C1

SELECT 1
USE UDIR INDEX UDIR

SELECT 2
USE UDMD6TEM
ZAP

SELECT 3
USE UDMD6
ZAP

SELECT 1
GO TOP

DO WHILE .NOT. EOF()

  SELECT 1
  * IF THE PROPOSED FILE IS NOT A BES FILE SKIP IT
  IF EXT<>[DIF] .OR. SUBSTR(FILENAME,1,3)<>[BES]
    SKIP
    LOOP
  ENDIF
  s=filename
  S=UPPER(S)
  FN=PN+TRIM(FILENAME)+[.]+EXT

```

```

* * * CHECK TO SEE IF COUNTRY IS USED IN ICSD
xna=SUBSTR(S,4,3)
SELECT 5
SEEK XNA
IF .NOT. FOUND() .OR. .NOT. DEMAND
    DELETE
    SELECT 1
    SKIP
    LOOP
ENDIF
MOECD=OECDABBREV

SELECT 2
USE UDMD6TEM
ZAP
APPEND FROM &FN TYPE DIF
GO TOP
CN=VARIABLE
EN=LTRIM(TRIM(SUBSTR(CN,1,AT(":",CN))))
REPLACE ALL COUNTRY WITH UPPER(EN)
* * * .....
* * * NOTE ON UNITS:  THE BALxxx.DIF FILES ARE IN MILLION OF
* * *                  METRIC TONS OF OIL EQUIVALENT
* * *                  THE BESxxx.DIF FILES ARE IN PHYSICAL
* * *                  UNITS THAT VARY WITH FLOW TYPE
* * * .....
DO CASE
    CASE SUBSTR(s,1,3)=[BES]
        REPLACE ALL UNITS WITH 0, ABBREV WITH MOECD, FILETYPE WITH [BES]
    CASE SUBSTR(s,1,3)=[BAL]
        -REPLACE ALL UNITS WITH 1, ABBREV WITH MOECD, FILETYPE WITH [BAL]
    OTHERWISE
        REPLACE ALL UNITS WITH 0, ABBREV WITH MOECD, FILETYPE WITH [XXX]
ENDCASE
GO TOP
DELETE
SKIP
DELETE
GO BOTT
DELETE
SKIP -1
DELETE
* DELETE ALL FOR SUBSTR(VARIABLE,1,5)<>[ 1988]
PACK
USE
SELECT 3
APPEND FROM UDMD6TEM
SELECT 1
SKIP

ENDDO

CLOSE Data BaseS
SET SAFETY ON
RETURN

```

* * * Modified by B. de B. on 09/17/90

```
UDMD7.PRG
* * * UDMD7.PRG
PARAMETER AUTO
CLEAR
```

```
*IF 1=0
```

```
SET SAFETY OFF
TEXT
```

Updating DEMAND1.DBF Using both BAL and BES files
for both IEA and Non-IEA countries

This program uses the values stored in UDMD6.DBF to update the national demands stored in DEMAND1.DBF of the ICSD. The former file (UDMD6) must have been created prior to running this program by running UDMD6.PRG. In essence, it holds the values from the most recent IEA data files, decompressed, and loaded into dBase format by UDMD6.PRG. The values are for IEA / OECD countries.

This program uses both BES and BAL files (physical units and mtoe data for both IEA and non-IEA countries).

It several hours to run.

```
ENDTEXT
```

```
IF .NOT. AUTO
  WAIT [Continue (Y/N)] to xx
  IF UPPER(XX)<>[Y]
    ? [PROGRAM ENDS...]
    RETURN
  ENDIF
ENDIF
IF .NOT. FILE([UDMD6.DBF])
  CLEAR
  WAIT [The program requires that UDMD6.DBF be present ... ]
  RETURN
ENDIF
IF FILE([UDMD.MEM])
  RESTORE FROM UDMD ADDITIVE
ENDIF

CLEAR
TEXT
```

Before running the program it is necessary to ensure consistency in the names used for countries.

In response to the questions required to run UCOUNTRY.PRG note the following:

```
Data Base=UDMD6.DBF
Fieldname holding country name=COUNTRY
```

```

ENDTEXT
REQ1={UDMD6.DBF          ]
REQ2={COUNTRY           ]
IF .NOT. AUTO
    WAIT
ENDIF

* * * CALL SUBROUTINE THAT CHECK COUNTRY NAMES
*DO UCOUNTRY WITH AUTO
* * * RETURN TO PROGRAM UPDATE

CLOSE Data Bases
specs=0
SET ESCAPE ON
SET TALK ON
* * * ESTABLISH YEAR TO BE UPDATED
MYEAR=[ 1988.]
XYEAR=[1988]

* * * SELECT FILES

SELECT 1
    USE UDMD6
    INDEX ON TRIM(VARIABLE)+TRIM(FILETYPE) TO udmd6a
    INDEX ON trim(COUNTRY) TO udmd6b
    SET INDEX TO udmd6a

SELECT 2
    USE DEMAND1 INDEX DEMAND1
    REINDEX

SELECT 3
    REST FROM UDMD ADDITIVE
    IP=TRIM(MPATHICSD)+[\]
    DN=IP+[COUNTRY]
    IN1=IP+[PROPER]
    USE &DN
    SET UNIQUE ON
    INDEX ON OECDABBREV TO UDMD6C1
    SET UNIQUE OFF
    USE &DN INDEX &dn
    REINDEX
    USE &DN INDEX &IN1
    REINDEX
    GO TOP

SELECT 4
    USE ICSDIEA

* * * ICSDIEA IS A SPECIAL Data Base HOLDING FORMULAS TO CONVERT IEA
* * * / OECD DATA DO ICSD COUNTERPARTS
* * * NOTE FIELD IEAVAR1= IEA PRODUCT CODE
* * *       FIELD IEAVAR2= IEA FLOW CODE
* * * .....LOOP 1.....
* * * SELECT COUNTRY TO BE WORKED ON FROM LIST OF COUNTRIES
* * * INCLUDED IN DEMAND1
* * * .....

```

```

SELE 3
DO WHILE .NOT. EOF()

    ? [-----LOOP 1]
    SELE 3
    rr=recno()
    IF .NOT. DEMAND .OR. LEN(TRIM(OECDABBREV))=0
        SKIP
        LOOP
    ENDIF
    * CNAME=SUBSTR(UPPER(COUNTRY),1,8)
    * CNAME2=COUNTRY
    ** CNAME=SUBSTR(UPPER(PPROPER),1,8)
    CNAME=trim(PPROPER)

    CNAME2=trim(PPROPER)
    CNAME=TRIM(CNAME)
    CABBREV=OECDABBREV
    MOECD=OECD
    * * * WITH COUNTRY SELECTED, GO TO IEA DATA AND SEE IF
    * * * THAT COUNTRY IS INCLUDED FOR THE YEAR IN QUESTION.

    SELE 2
    MARKER=CNAME+XYEAR
    * LOCATE FOR UPPER(TRIM(COUNTRY))=CNAME .AND. YEAR=XYEAR
    SEEK MARKER
    IF .NOT. FOUND()
        ? [ERROR! Country not in IEA data base]
        * * * IF NOT INCLUDED, GO BACK TO THE COUNTRY LIST
        * * * AND GET THE NEXT COUNTRY
    *? chr(7)
    *? chr(7)
        SELECT 3
        SKIP
        LOOP
    ENDIF
    * * * QUICK TEST TO SEE IF IEA COVERS THIS COUNTRY
    SELE 1
    SET INDEX TO udmd6b
    SEEK TRIM(CNAME)
    IF .NOT. FOUND()
        SET INDEX TO udmd6a
        ? CNAME
        ? [COUNTRY IN DEMAND1.DBF BUT NOT IN IEAFILE ... ]
        SELE 3
        SKIP
        LOOP
    ENDIF
    sele 1
    set index to UDMD6B
    CLEAR
    *****
    do case
        case moecd
            mtype1=[IEAVAR1]
            mtype2=[IEAVAR2]
        case .not. moecd
            mtype1=[NIEAVAR1]

```



```

        mtype2=[NIEAVAR2]
    endcase
*****

    @ 10,10 SAY [NOW WORKING ON ***** ]+CNAME
    PASS=1
    SELECT 4
    * * * SINCE IEA DATA IS AVAILABLE FOR THE COUNTRY IN QUESTION,
    * * * BEGIN THE PROCESS OF FINDING THE IEA DATA THAT WILL
    * * * BE USED TO UPDATE DEMAND1.DBF
    GO TOP
    * * * .....LOOP 2.....

SS=0
DO WHILE .NOT. EOF()
    ? [-----LOOP 2]
    SELECT 4
    * * * FIRST TIME THROUGH, SKIP TO A RECORD IN THE ICSD/IEA TRANS
    * * * FORMATION INSTRUCTIONS THAT IS ONE TO BE UPDATED
    ICSDNAME=FIELDNAME
    IF SUBSTR(&MTYPE2,1,1)=[*] .AND. DOIT=1
        SELECT 4
        FIND1=SUBSTR(&MTYPE2,2,AT([+],&MTYPE2)-2)
        FIND2=SUBSTR(&MTYPE2,LEN(TRIM(FIND1))+3,LEN(TRIM(&MTYPE2)))
        ICSDNAME=FIELDNAME
        TOTOTAL=SUBSTR(&MTYPE2,2,LEN(TRIM(&MTYPE2)))

        SELECT 2
        SEEK TRIM(CNAME2)+XYEAR
        IF .NOT. FOUND()
            ? [ERROR! *** SECTION]
            WAIT
            * RETURN
        ELSE
            ? [-----]
            ? [
            ? [          UPDATING RECORD:TYPE *****          ]
            ? [-----]
            ?
            ? CNAME2
            ? ICSDNAME
            ? TOTOTAL
            SS=0
            XX=&TOTOTAL
            REPLACE &ICSDNAME WITH XX
        SELECT 4
        ENDIF
        SELECT 4
        SKIP
        LOOP
    ENDIF

***** CHANGE REFERENCES TO DOIT TO 2 FOR TONS OF OIL EQIV.
SELECT 4
IF PASS=1
    IF DOIT<>1 .OR. LEN(TRIM(&MTYPE1))=0
        SKIP
        LOOP
    ENDIF

```

```

ENDIF
* * * NOW THAT RECORD HAS BEEN FOUND, ASSIGN VARIABLES TO HOLD
* * * THE INSTRUCTION AND THE ICSD NAME OF THE VARIABLE
ICSDNAME=FIELDNAME

*****

X=TRIM(UPPER(&MTYPE2))
PASSES=LEN(X)/4
IF MOD(LEN(X),4)<>0
    WAIT [PROBLEM WITH X ]+X
ENDIF

*****
* * * AS SOME OF THE INSTRUCTIONS ON HOW TO COMPUTE
* * * IEA TOTALS INVOLVE MORE THAN ONE VARIABLE
* * * IT IS NECESSARY TO PASS THROUGH ONE TIME
* * * FOR EACH VARIABLE.
* * * .....PASS LOOP.....
OFFSET=4
MARKER=1
Q=0

DO WHILE PASS<=PASSES
    ? [Passes to be completed: ]+str(passes,1,0)
    ? [Now working on pass # ]+str(pass,1,0)
    ? [-----PASS LOOP]

SELECT 4

X1=SUBSTR(X,MARKER,OFFSET)
XSIGN=SUBSTR(X1,1,1)
FLOW=SUBSTR(X1,2,LEN(X1))

Y=TRIM(UPPER(&MTYPE1))
TRY=LEN(Y)/4
IF MOD(LEN(Y),4)<>0
    WAIT [PROBLEM WITH Y ]+Y
ENDIF

V=0
TRY=1
YOFFSET=4
YMARKER=1

DO WHILE TRY<=TRY=1

SELECT 4
    ? [-----TRY LOOP]
Y1=SUBSTR(Y,YMARKER,YOFFSET)
YSIGN=SUBSTR(Y1,1,1)
PRODUCT=SUBSTR(Y1,2,LEN(Y1))

PRODUCT=TRIM(PRODUCT)
FLOW=TRIM(FLOW)

```

```

SELECT 1
SET INDEX TO udmd6a
* C=TRIM(COUNTRY)
C=TRIM(CNAME)
UTYPE=[BES]
A=[ ]+CABBREV+[.] +PRODUCT+[.] +FLOW+UTYPE
SEEK TRIM(A)
IF .NOT. FOUND()
?
? [UNSUCCESSFUL SEEK FOR : ]+A
? [ERROR!-----FLOW NOT FOUND FOR THIS COUNTRY----]
* WAIT
* RETURN
YMARKER=YMARKER+YOFFSET
IF YMARKER<=LEN(Y)-YOFFSET
TRY=TRY+1
LOOP
ELSE
EXIT
ENDIF
ENDIF

IF YSIGN=[-]
P=Y1988
V=V-P+SS
SS=0
ELSE
P=Y1988
V=V+P+SS
SS=0
ENDIF

YMARKER=YMARKER+YOFFSET
TRY=TRY+1
? [ Pass = ]+STR(PASS,1,0)
? [ Try = ]+STR(TRY,1,0)
? [ P = ]+STR(P,9,3)
? [ V = ]+STR(V,9,3)
? [ E N D T R Y L O O P ]

ENDDO

IF XSIGN=[-]
V=V/1000
Q=Q-V
ELSE
V=V/1000
Q=Q+V
ENDIF

? [COUNTRY = ]+Cname
? [VALUE OF Q = ]+STR(Q,8,3)
? [PASS = ]+STR(PASS,5,0)
? [VALUE OF Y = ]+Y

* * * NOW GO TO DEMAND1.DBF, FIND THE RIGHT RECORD, AND
* * * UPDATE WITH THE CALCULATED VALUE.
if q<>0

```

```

SELECT 2
SEEK TRIM(CNAME2)+XYEAR
IF .NOT. FOUND()
    ? [ERROR! COUNTRY NOT FOUND IN DEMAND1.DBF, DESPITE TESTS...]
    WAIT
    * RETURN
ELSE
    *CLEAR
    ? [ ]
    ?
    ? [ [ ] [ ] [ ] UPDATING RECORD ]+STR(PASS,3,0)+[ [ ] [ ] [ ] ]
    ? [ ]
    ?
    ? CNAME2
    ? ICSDNAME

IF SUBSTR(icsdname,1,1)=[X]
    specs=q
ELSE
    q=q+specs
    REPLACE &ICSDNAME WITH abs(q)
    specs=0
ENDIF
ENDIF
endif

SELECT 4

PASS=PASS+1
MARKER=MARKER+OFFSET
TRY=1
* * * .....END PASS LOOP
ENDDO

PASS=1
SELECT 4
SKIP
* * * .....END LOOP2.....
ENDDO

SELE 3
SKIP
* * * .....END LOOP1.....
ENDDO

*ENDIF   &&& IF 1=0 IF

```

```

* * * .....
* * *
* * * NOTE THE PROGRAM NOW REPEATS AB INITIO TO DO THE 'BAL' FILES
* * *
* * * .....
CLOSE Data BaseS

CLEAR
SET SAFETY OFF

IF .NOT. AUTO
    WAIT {Continue (Y/N)} to xx
    IF UPPER(XX) <> [Y]
        ? [PROGRAM ENDS...]
        RETURN
    ENDIF
ENDIF
IF .NOT. FILE([UDMD6.DBF])
    CLEAR
    WAIT [The program requires that UDMD6.DBF be present ... ]
    RETURN
ENDIF
IF FILE([UDMD.MEM])
    RESTORE FROM UDMD ADDITIVE
ENDIF

CLEAR
CLOSE Data BaseS
SET ESCAPE ON
SET TALK ON
* * * ESTABLISH YEAR TO BE UPDATED
MYEAR=[ 1988.]
XYEAR=[1988]

* * * SELECT FILES

SELECT 1
    USE UDMD6
*INDEX ON trim(VARIABLE)+trim(FILETYPE) TO udmd6a
*INDEX ON SUBSTR(COUNTRY,1,8) TO udmd6b
    SET INDEX TO udmd6a

SELECT 2
    USE DEMAND1 INDEX DEMAND1
    reindex

SELECT 3
    REST FROM UDMD ADDITIVE
    IP=TRIM(MPATHICSD)+[\\]
    DN=IP+[COUNTRY]
    IN1=IP+[PROPER]
    USE &DN

```

```

SET UNIQUE ON
INDEX ON OECDABBREV TO UDMD6C1
SET UNIQUE OFF
USE &DN INDEX &IN1
REINDEX
go top

SELECT 4
USE ICSDIEA
* * * ICSDIEA IS A SPECIAL Data Base HOLDING FORMULAS TO CONVERT IEA
* * * / OECD DATA DO ICSD COUNTERPARTS
* * * NOTE FIELD IEAVAR1= IEA PRODUCT CODE
* * * FIELD IEAVAR2= IEA FLOW CODE
* * * .....LOOP 1.....
* * * SELECT COUNTRY TO BE WORKED ON FROM LIST OF COUNTRIES
* * * INCLUDED IN DEMAND1
* * * .....

SELE 3
DO WHILE .NOT. EOF()
  ? [-----LOOP 1]
  SELE 3
  IF .NOT. DEMAND .OR. LEN(TRIM(OECDABBREV))=0
    SKIP
    LOOP
  ENDIF
  * CNAME=SUBSTR(UPPER(COUNTRY),1,8)
  * CNAME2=COUNTRY
  ** CNAME=SUBSTR(UPPER(PROPER),1,8)
  CNAME=trim(PROPER)

  CNAME2=trim(PROPER)
  CNAME=TRIM(CNAME)
  CABBREV=OECDABBREV
  MOECL=OECD
  * * * WITH COUNTRY SELECTED, GO TO IEA DATA AND SEE IF
  * * * THAT COUNTRY IS INCLUDED FOR THE YEAR IN QUESTION.

  SELE 2
  MARKER=CNAME+XYEAR
  * LOCATE FOR UPPER(TRIM(COUNTRY))=CNAME .AND. YEAR=XYEAR
  SEEK MARKER
  IF .NOT. FOUND()
    ? [ERROR! Country not in IEA data base]
    * * * IF NOT INCLUDED, GO BACK TO THE COUNTRY LIST
    * * * AND GET THE NEXT COUNTRY
    SELECT 3
    SKIP
    LOOP
  ENDIF
  * * * QUICK TEST TO SEE IF IEA COVERS THIS COUNTRY
  SELE 1
  SET INDEX TO udmd6b
  SEEK TRIM(CNAME)
  IF .NOT. FOUND()
    SET INDEX TO udmd6a
    ? CNAME

```

```

        ELSE
            MUNITS=1
        ENDIF
    ENDIF
ENDIF
ENDIF
* * * WHEN ITER=1 UNITS ARE TONS OF COAL
if iter=1
    IF XSIGN=[-]

```

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ICSD Program Source Code

```

        ? [COUNTRY IN DEMAND1.DBF BUT NOT IN IEAFILE ... ]
        SELE 3
        SKIP
        LOOP
    ENDIF
    CLEAR
    SELE 1
    SET INDEX TO udmd6b
*****
    do case
        case moecd
            mtype1=[IEAVAR1]
            mtype2=[IEAVAR2]
        case .not. moecd
            mtype1=[NIEAVAR1]
            mtype2=[NIEAVAR2]
        endcase
*****
    clear
    @ 10,10 SAY [NOW WORKING ON -----*****-- ]+CNAME
    PASS=1
    SELECT 4
    * * * SINCE IEA DATA IS AVAILABLE FOR THE COUNTRY IN QUESTION,
    * * * BEGIN THE PROCESS OF FINDING THE IEA DATA THAT WILL
    * * * BE USED TO UPDATE DEMAND1.DBF
    GO TOP
    * * * .....LOOP 2.....

SS=0
DO WHILE .NOT. EOF()
    ? [-----LOOP 2]
    SELECT 4
    * * * FIRST TIME THROUGH, SKIP TO A RECORD IN THE ICSD/IEA TRANS
    * * * FORMATION INSTRUCTIONS THAT IS ONE TO BE UPDATED
    ICSDNAME=FIELDNAME
    IF (SUBSTR(&MTYPE2,1,1)=[*] .OR. SUBSTR(&MTYPE2,1,1)=[X]) .AND. DOIT=2
        SELECT 4
        FIND1=SUBSTR(&MTYPE2,2,AT([+],&MTYPE2)-2)
        FIND2=SUBSTR(&MTYPE2,LEN(TRIM(FIND1))+3,LEN(TRIM(&MTYPE2)))
        ICSDNAME=FIELDNAME
        TOTOTAL=SUBSTR(&MTYPE2,2,LEN(TRIM(&MTYPE2)))
        SELECT 2
        SEEK TRIM(CNAME2)+XYEAR
        IF .NOT. FOUND()
            ? [ERROR! *** SECTION]
            WAIT
            * RETURN
        ELSE
            ? [-----]
            ? [-----]
            ? [      UPDATING RECORD:TYPE **      ]
            ? [-----]
            ?
            ? CNAME2
            ? ICSDNAME
            ? TOTOTAL
            XX=&TOTOTAL
            REPLACE &ICSDNAME WITH XX
            SELECT 4

```

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```

ENDIF
SELECT 4
SKIP
LOOP
ENDIF

```

```

***** CHANGE REFERENCES TO DOIT TO 2 FOR TONS OF OIL EQUIV.

```

```

SELECT 4
IF PASS=1
  IF DOIT<>2 .or. len(trim(&MTYPE1))=0
    SKIP
    LOOP
  ENDIF
ENDIF

```

```

*****
* * * NOW THAT RECORD HAS BEEN FOUND, ASSIGN VARIABLES TO HOLD
* * * THE INSTRUCTION AND THE ICSD NAME OF THE VARIABLE

```

```

ICSDNAME=FIELDNAME

```

```

*****
* * * NOTE BECAUSE IEA/OECD USES IRREGULAR VARIABLE NAMING
* * * CONVENTIONS, AN EXCEPTION MUST BE MADE FOR SEVERAL
* * * NECESSARY VARIABLES THAT HAVE NAMES LONGER THAN
* * * THREE CHARACTERS.
* * *

```

```

IF SUBSTR(&MTYPE2,1,1)=[%]
  PASSES=1
  X=TRIM(UPPER(&MTYPE2))

```

```

ELSE
  X=TRIM(UPPER(&MTYPE2))
  PASSES=LEN(X)/4
  IF MOD(LEN(X),4)<>0
    ? [

```

PROBLEM WITH X]+X

```

  ENDIF
ENDIF

```

```

*****

```

```

* * * AS SOME OF THE INSTRUCTIONS ON HOW TO COMPUTE
* * * IEA TOTALS INVOLVE MORE THAN ONE VARIABLE
* * * IT IS NECESSARY TO PASS THROUGH ONE TIME
* * * FOR EACH VARIABLE.
* * * .....PASS LOOP.....

```

```

OFFSET=4
MARKER=1
Q=0

```

```

DO WHILE PASS<=PASSES
  ? [Passes to be completed: ]+str(passes,1,0)
  ? [Now working on pass # ]+str(pass,1,0)
  ? [-----PASS LOOP]

```

```

SELECT 4
IF SUBSTR(&MTYPE2,1,1)=[%]
  X1=substr(X,2,len(x))
  x1=trim(x1)
  XSIGN=[+]
  FLOW=X1

```



```

ELSE
  X1=SUBSTR(X,MARKER,OFFSET)
  XSIGN=SUBSTR(X1,1,1)
  FLOW=SUBSTR(X1,2,LEN(X1))
ENDIF

IF SUBSTR(&MTYPE1,1,1)=[%]
  TRYS=1
  Y=TRIM(UPPER(&MTYPE1))
ELSE
  Y=TRIM(UPPER(&MTYPE1))
  TRYS=LEN(Y)/4
  IF MOD(LEN(Y),4)<>0
    ? [
  ENDIF
  ENDIF
  V=0
  TRY=1
  YOFFSET=4
  YMARKER=1

DO WHILE TRY<=TRYS

SELECT 4
? [-----TRY LOOP]
IF SUBSTR(&MTYPE1,1,1)=[%]
  Y1=substr(Y,2,len(y))
  y1=trim(y1)
  YSIGN=[+]
  PRODUCT=Y1
ELSE
  Y1=SUBSTR(Y,YMARKER,YOFFSET)
  YSIGN=SUBSTR(Y1,1,1)
  PRODUCT=SUBSTR(Y1,2,LEN(Y1))
  PRODUCT=TRIM(PRODUCT)
ENDIF

PRODUCT=TRIM(PRODUCT)
FLOW=TRIM(FLOW)

SELECT 1
SET INDEX TO udmd6a
* C=TRIM(COUNTRY)
  C=TRIM(CNAME)
  UTYPE=[BAL]
  A=[ ]+CABBREV+[.]+PRODUCT+[.]+FLOW+UTYPE
  SEEK TRIM(A)
  IF .NOT. FOUND()
    ?
    ? [UNSUCCESSFUL SEEK FOR : ]+A
    ? [ERROR!@@@@@@@@@@@@@@@@@@@@]
  * WAIT
  * RETURN
  YMARKER=YMARKER+YOFFSET
  IF YMARKER<=LEN(Y)-YOFFSET
    TRY=TRY+1
    LOOP
  ELSE
    EXIT
  
```

PROBLEM WITH Y]+Y

FLOW NOT FOUND FOR THIS COUNTRY ...]

```

        ENDIF
    ENDIF
    IF YSIGN=[-]
        P=Y1988
        v=v-P
    ELSE
        P=Y1988
        v=v+P
    ENDIF

YMARKER=YMARKER+YOFFSET
TRY=TRY+1
clear
? [
? [
? [
? [
? [
? [
        Pass = ]+str(pass,1,0)
        Try = ]+str(try,1,0)
        P = ]+str(p,9,3)
        V = ]+str(V,9,3)
        ]
        E N D T R Y L O O P
    ]
ENDDO

    IF XSIGN=[-]
        if moecd
*           V=v*0.043118
            V=v*0.0396867
        else
*           V=v*0.000043118
            V=v*0.0000396867
        endif
        Q=Q-V
    ELSE
        if moecd
*           V=v*0.043118
            V=v*0.0396867
        else
*           V=v*0.000043118
            V=v*0.0000396867
        endif
        Q=Q+V
    ENDIF
clear
? [SEARCH WAS FOR ]+A
? [COUNTRY = ]+Cname
? [VALUE OF Q (quads) = ]+STR(Q,8,3)
? [PASS = ]+STR(PASS,5,0)
? [VALUE OF Y = ]+Y
* * * NOW GO TO DEMAND1.DBF, FIND THE RIGHT RECORD, AND
* * * UPDATE WITH THE CALCULATED VALUE.
if q<>0
SELECT 2
SEEK TRIM(CNAME2)+XYEAR
IF .NOT. FOUND()
    ? [ERROR! COUNTRY NOT FOUND IN DEMAND1.DBF, DESPITE TESTS...]
    WAIT
* RETURN
ELSE
*CLEAR
? [
? [

```

ICSD Program Source Code

```

? [      ] UPDATING RECORD ]+STR(PASS,3,0)+[      ]
? [      ]
?
? CNAME2
? ICSDNAME
REPLACE &ICSDNAME WITH abs(q)
ENDIF
endif

SELECT 4

PASS=PASS+1
MARKER=MARKER+OFFSET
TRY=1
* * * .....END PASS LOOP
ENDDO

PASS=1
SELECT 4
SKIP
* * * .....END LOOP2.....
ENDDO

SELE 3
SKIP
* * * .....END LOOP1.....
ENDDO

RETURN

UDMD8.PRG
* * * .....UDMD8.PRG .....
* * *
* * * CALLED FROM UDEMAND.PRG, THIS SUBROUTINE IS USED TO UPDATE THE DEMAND.DBF
* * * FROM ANY UPDATE TO THE DEMAND1.DBF.
* * *
* * * .....
PARAMETER AUTO
CLEAR
SET TALK OFF
IF .NOT. AUTO
?
?
?
?
? [-----]
? [I·C·S·D Update Program - Demand.dbf ]
? [-----]
?
? [Instructions:      The demand.dbf shows time-series data on the energy]
? [      usage characteristics of individual countries. While]
? [this format enables the display of certain data, it is awkward to update]
? [since the user would have to add a field for the new year and go through]

```

```

? [more than a thousand records. The purpose of this program is to allow ]
? [update in one form and then transform the new data into its final form as]
? [the revised demand.dbf.]
?
? [New data should be added for each country in the data base for the year in]
? [question. The field names are abbreviations corresponding to the requested]
? [information. If necessary, a list of countries in the data base will be]
? [provided.]
?
WAIT
ENDIF
REST FROM UDMD ADDITIVE
ONTOS=.T.
SELECT 1
USE DEMAND1 INDEX DEMAND1
SELECT 2
FN=TRIM(MPATHICSD)+[\\COUNTRY INDEX ]+TRIM(MPATHICSD)+[\\PROPER]
USE &FN
REINDEX
SELECT 1
IF .NOT. AUTO

DO WHILE ontos
WAIT [Skip data entry? (Y/N) Use only when new info entered previously ] to que
IF UPPER(QUE)=[Y]
EXIT
ENDIF
WAIT [Display list of countries that must be updated? (Y/N) ] to ques
IF UPPER(QUES)=[Y]
SELECT 2
CLEAR
DISPLAY ALL FOR DEMAND FIELDS PROPER
WAIT
SELECT 1
ENDIF

CLEAR
APPEND BLANK
@row(), 1 say [Country : ] get country
@row()+1, 1 say [Year : ] get year
@row()+1, 1 say [PRIMARY ENERGY CONSUMPTION ]
@row()+1, 1 say [(Quadrillion Btu) ]
@row()+1, 1 say [-----]
@row()+1, 1 say [Petroleum ] get PEC_OIL
@row()+1, 1 say [Natural Gas ] get PEC_NG
@row()+1, 1 say [Coal ] get PEC_C
@row()+1, 1 say [Nuclear ] get PEC_NUC
@row()+1, 1 say [Hydro ] get PEC_H
@row()+1, 1 say [Other ] get PEC_OTH
@row()+1, 1 say [ ]
@row()+1, 1 say [Total= ] get PEC_TOT
@row()+1, 1 say [-----]
@row()+1, 1 say [ENERGY CONSUMPTION BY]
@row()+1, 1 say [ELECTRIC UTILITIES ]
@row()+1, 1 say [(Quadrillion Btu)]
@row()+1, 1 say [-----]
@row()+1, 1 say [Thermal]
@row()+1, 1 say [Oil Products ] get EUC_OIL
@row()+1, 1 say [Natural gas ] get EUC_NG

```

```

@row()+1, 1 say [Coal ] get EUC_C
@row()+1, 1 say []
@row()+1, 1 say [Subtotal-]
READ SAVE
CLEAR
@row()+1, 1 say [Nuclear ] get EUC_NUC
@row()+1, 1 say [Hydro ] get EUC_H
@row()+1, 1 say [Other ] get EUC_OTH

@row()+1, 1 say [Total= ] get EUC_TOT
@row()+1, 1 say [-----]
@row()+1, 1 say [INDUSTRIAL ENERGY CONSUMP. ]
@row()+1, 1 say [(Quadrillion Btu) ]
@row()+1, 1 say [-----]
@row()+1, 1 say [Oil Products ] get IEC_OIL
@row()+1, 1 say [Natural gas ] get IEC_NG
@row()+1, 1 say [Coal ] get IEC_C
@row()+1, 1 say [Electricity ] get IEC_E
@row()+1, 1 say [Other ] get IEC_OTH
@row()+1, 1 say [Total= ] get IEC_TOT
@row()+1, 1 say [-----]
@row()+1, 1 say [TOTAL COAL CONSUMP. ]
@row()+1, 1 say [(Millions of Metric Tons) ]
@row()+1, 1 say [-----]
@row()+1, 1 say [Electric utilities ]
@row()+1, 1 say [Hard Coal ] get TCC_EUC
@row()+1, 1 say [Lignite ] get TCC_EUL
READ SAVE
CLEAR
@row()+1, 1 say [Subtotal- ] get TCC_EUS
@row()+1, 1 say [Industry ]
@row()+1, 1 say [Iron and Steel ] get TCC_IM
@row()+1, 1 say [Other ]
@row()+1, 1 say [Hard Coal ] get TCC_IC
@row()+1, 1 say [Lignite ] get TCC_IL
@row()+1, 1 say [Subtotal- ] get TCC_IO
@row()+1, 1 say [Subtotal- ] get TCC_ITOT
@row()+1, 1 say [Resident. & Comm. ]
@row()+1, 1 say [Hard Coal ] get TCC_RC
@row()+1, 1 say [Lignite ] get TCC_RL
@row()+1, 1 say [Subtotal- ] get TCC_RS
@row()+1, 1 say [Total= ] get TCC_TOT
READ SAVE
CLEAR
@row()+1, 1 say [-----]
@row()+1, 1 say [COAL PROD., CONSUMP., & ]
@row()+1, 1 say [IMPORTS BY YEAR ]
@row()+1, 1 say [(Millions of Metric Tons) ]
@row()+1, 1 say [-----]
@row()+1, 1 say [Consumption ]
@row()+1, 1 say [Metallurgical ] get CON_MET
@row()+1, 1 say [Steam ]
@row()+1, 1 say [Hard coal ] get CON_STM
@row()+1, 1 say [Lignite ] get CON_L
@row()+1, 1 say [Subtotal- ] get CON_STM
@row()+1, 1 say [Total= ] get CON_TOT
@row()+1, 1 say [Production ]
@row()+1, 1 say [Metallurgical ] get PRD_MET
@row()+1, 1 say [Steam ]

```

```

@row()+1, 1 say [Hard Coal ] get PRD_C
@row()+1, 1 say [Lignite ] get PRD_L
@row()+1, 1 say [Subtotal- ] get PRD_STM
@row()+1, 1 say [Total- ] get PRD_TOT
READ SAVE
CLEAR
@row()+1, 1 say [Imports ]
@row()+1, 1 say [Metallurgical ] get IMP_MET
@row()+1, 1 say [Steam ]
@row()+1, 1 say [Hard coal ] get IMP_C
@row()+1, 1 say [Lignite ] get IMP_L
@row()+1, 1 say [Subtotal- ] get IMP_STM
@row()+1, 1 say [Total - ] get IMP_TOT
READ SAVE
CLEAR
@row()+1, 1 say [Electricity ]
@row()+1, 1 say [ Capacity (GW) by Fuel Type ]
@row()+1, 1 say [ Coal ] get ECAP_COAL
@row()+1, 1 say [ Oil ] get ECAP_OIL
@row()+1, 1 say [ Gas ] get ECAP_GAS
@row()+1, 1 say [ Nuclear ] get ECAP_NUC
@row()+1, 1 say [ Hydro/Geo ] get ECAP_HYDRO
@row()+1, 1 say [ Other ] get ECAP_OTHER
@row()+1, 1 say [ TOTAL ] get ECAP_TOTAL
@row()+1, 1 say [ Generation (TWh) by Fuel ]
@row()+1, 1 say [ Coal ] get EGEN_COAL
@row()+1, 1 say [ Oil ] get EGEN_OIL
@row()+1, 1 say [ Gas ] get EGEN_GAS
@row()+1, 1 say [ Nuclear ] get EGEN_NUC
@row()+1, 1 say [ Hydro/Geo ] get EGEN_HYDRO
@row()+1, 1 say [ Other ] get EGEN_OTHER
@row()+1, 1 say [ TOTAL ] get EGEN_TOTAL
@row()+1, 1 say [-----]
@row()+1, 1 say [Steel ]
@row()+1, 1 say [ Crude steel prod by process ]
@row()+1, 1 say [ Oxygen ] get CR_ST_OXY
@row()+1, 1 say [ Electric Arc Furnace ] get CR_ST_EARC
@row()+1, 1 say [ Open Hearth ] get CR_ST_OH
@row()+1, 1 say [ Other ] get CR_ST_OTH
@row()+1, 1 say [ TOTAL ] get CR_ST_TOT
@row()+1, 1 say [ Cont. cast steel ] get CONTINCAST
@row()+1, 1 say [-----]
@row()+1, 1 say [Imports of steel products ] get ST_IMPORTS
@row()+1, 1 say [Exports of steel products ] get ST_EXPORTS
@row()+1, 1 say [Apparent consump. of fin. st. ] get ST_CONSUMP
@row()+1, 1 say [-----]
@row()+1, 1 say [Pulverized Coal Injection ]
@row()+1, 1 say [ Capacity ] get PCI_CAP
@row()+1, 1 say [ Volume of coal consumed ] get PCI_VOL
@row()+1, 1 say [ Price of coal consumed ] get PCI_PRICE
response=[ ]
DO WHILE .NOT. UPPER(RESPONSE) $ [QC]
  @10,1 SAY [Continue to next country or quit? (C/Q) ] get response picture [!]
  READ
ENDDO
IF UPPER(RESPONSE)=[C]
  LOOP
ENDIF
IF UPPER(RESPONSE)=[Q]

```

```
EXIT
ENDIF
```

```
ENDDO      && ONTOS LOOP
```

```
ENDIF
```

```
CLOSE Data BaseS
```

```
*****FILE TRANSFORMATION*****
```

```
*****
***** THE PURPOSE OF THIS PROGRAM IS TO TRANSFORM A LARGE Data Base WITH THE
***** NAME DEMAND1.DBF TO A FILE CALLED DEMAND.DBF WHICH IS USED SUBSEQUENTLY.
***** THE VARIABLES USED CORRESPOND TO THE NAMES OF THE FIELDS IN THE DEMAND1.
***** DBF. THEY IN TURN ARE USED TO PRODUCE A REPORT TO THE USER WHICH HAS THE
***** FOLLOWING ELEMENTS:
```

```
*****
*****      ITEM                      FIELDNAME
*****
*****      PRIMARY ENERGY CONSUMPTION
*****      (Quadrillion Btu)
*****      -----
*****      Petroleum                  PEC_OIL
*****      Natural Gas                PEC_NG
*****      Coal                      PEC_C
*****      Nuclear                    PEC_NUC
*****      Hydro                      PEC_H
*****      Other                      PEC_OTH
*****
*****      Total=                     PEC_TOT
*****      -----
*****      ENERGY CONSUMPTION BY
*****      ELECTRIC UTILITIES
*****      (Quadrillion Btu)
*****      -----
*****      Thermal
*****      Oil Products                EUC_OIL
*****      Natural gas                 EUC_NG
*****      Coal                       EUC_C
*****
*****      Subtotal-
*****
*****      Nuclear                    EUC_NUC
*****      Hydro                      EUC_H
*****      Other                      EUC_OTH
*****
*****      Total=                     EUC_TOT
*****      -----
*****      INDUSTRIAL ENERGY CONSUMP.
*****      (Quadrillion Btu)
*****      -----
*****      Oil Products                IEC_OIL
*****      Natural gas                 IEC_NG
*****      Coal                       IEC_C
*****      Electricity                 IEC_E
*****      Other                      IEC_OTH
*****      Total=                     IEC_TOT
*****      -----
*****      TOTAL COAL CONSUMP.
*****      (Millions of Metric Tons)
*****      -----
*****      Electric utilities
```

***	Hard Coal	TCC_EUC
***	Lignite	TCC_EUL
***	Subtotal-	TCC_EUS
***	Industry	
***	Iron and Steel	TCC_IM
***	Other	
***	Hard Coal	TCC_IC
***	Lignite	TCC_IL
***	Subtotal-	TCC_IO
***	Subtotal-	TCC_ITOT
***	Resident. & Comm.	
***	Hard Coal	TCC_RC
***	Lignite	TCC_RL
***	Subtotal-	TCC_RS
***	Total=	TCC_TOT
***	-----	
***	COAL PROD., CONSUMP., &	
***	IMPORTS BY YEAR	
***	(Millions of Metric Tons)	
***	-----	
***	Consumption	
***	Metallurgical	COM_MET
***	Steam	
***	Hard coal	CON_STM
***	Lignite	CON_L
***	Subtotal-	CON_STM
***	Total=	CON_TOT
***	Production	
***	Metallurgical	PRD_MET
***	Steam	
***	Hard Coal	PRD_C
***	Lignite	PRD_L
***	Subtotal-	PRD_STM
***	Total=	PRD_TOT
***	Imports	
***	Metallurgical	IMP_MET
***	Steam	
***	Hard coal	IMP_C
***	Lignite	IMP_L
***	Subtotal-	IMP_STM
***	TOTAL	IMP_TOT
***		
***	Electricity	
***	Capacity (GW) by Fuel Type	


```

* * *      Coal      ECAP_COAL
* * *      Oil       ECAP_OIL
* * *      Gas       ECAP_GAS
* * *      Nuclear   ECAP_NUC
* * *      Hydro/Geo ECAP_HYDRO
* * *      Other     ECAP_OTHER
* * *      TOTAL     ECAP_TOTAL
* * *      Generation (TWh) by Fuel
* * *      Coal      EGEN_COAL
* * *      Oil       EGEN_OIL
* * *      Gas       EGEN_GAS
* * *      Nuclear   EGEN_NUC
* * *      Hydro/Geo EGEN_HYDRO
* * *      Other     EGEN_OTHER
* * *      TOTAL     EGEN_TOTAL

```

```

* * * -----
* * * Steel
* * *      Crude steel prod by process
* * *      Oxygen      CR_ST_OXY
* * *      Electric Arc Furnace CR_ST_EARC
* * *      Open Hearth  CR_ST_OH
* * *      Other       CR_ST_OTH
* * *      TOTAL       CR_ST_TOT
* * *      Cont. cast steel CONTINCAST

```

```

* * * -----
* * * Imports of steel products ST_IMPORTS
* * * Exports of steel products ST_EXPORTS
* * * Apparent consump. of fin. st. ST_CONSUMP
* * * -----

```

```

* * * Pulverized Coal Injection
* * *      Capacity      PCI_CAP
* * *      Volume of coal consumed PCI_VOL
* * *      Price of coal consumed PCI_PRICE

```

* * * SELECT Data BaseS AND WORK AREAS

* * * Note: The demand1.dbf is used for update purposes only. Once new data
 * * * have been added for any year, the entire data base must be converted to
 * * * the format of the Demand.dbf (i.e. with years as fields). This process
 * * * takes several hours on a normal IBM PC compatible running at 7.6
 * * * megahertz. The program also destroys the contents of the original
 * * * demand.dbf, so a backup may be made before running this program.

```

SELECT 1
USE DEMAND1 INDEX DEMAND1
? [Demand1.dbf being reindexed ]
? [ ]

```

```

SET TALK ON
REINDEX
SET TALK OFF

```

```

SELECT 2
USE DREPORT
SELECT 3
USE DEMAND INDEX DEMAND

```

Clear

```

? [ ]
? [ ]
?
? [ ]

```

W A R N I N G]

ICSD Program Source Code

```

? [ ]
? [ This program requires as much as several hours to run and ]
? [ destroys the original contents of the DEMAND.DBF file. ]
? [ Backup files before proceeding and remove blank records from]
? [ the Demand1.dbf.]
?
IF .NOT. AUTO
    WAIT [ Proceed? (Y/N) ] TO PROCEED
ELSE
    PROCEED=[Y]
ENDIF
    IF UPPER(PROCEED)=[Y]
        SELECT 3
        SET SAFETY OFF
        ZAP
        SET SAFETY ON
    ELSE
        CLEAR
        RETURN
    ENDIF
STARTIME=TIME()
SELECT 1
GO BOTTOM
IF LEN(TRIM(COUNTRY))=0
    CLEAR
    ?
    ?
    ? [Please wait while the data base is prepared . . .]
    DELETE ALL FOR LEN(TRIM(COUNTRY))=0
    PACK
ENDIF
GO TOP
* * * .....MAIN ROUTINE BEGINS.....
*-----*
DO WHILE .NOT. EOF()                                     && Loop #1

CLEAR
SELECT 1
LCOUNTRY=COUNTRY
? [Now working on: ]+COUNTRY
?
? [The program started at ]+starttime
nowtime=time()
? [Work on the current country began at ]+nowtime
* * *
* * * NUMYEARS HOLDS THE NUMBER OF RECORDS (ONE FOR EACH YEAR) IN THE
* * * DEMAND1.DBF FOR A GIVEN COUNTRY. THE NUMBER OF RECORDS IS NOT
* * * THE SAME FOR EACH COUNTRY.
* * *
PLACE=RECNO()
COUNT FOR COUNTRY=LCOUNTRY TO NUMYEARS
GO PLACE
* * * .....
TIMES=1 && CORRESPONDS TO NUMBER OF YEARS COVERED BY ORIGINAL DEMAND.DBF

DO WHILE TIMES<=NUMYEARS      && RIPPLE THROUGH DEMAND.DBF

    MOUNTRY=COUNTRY
    MYEAR=YEAR

```

ICSD Program Source Code

```

SELECT 2
USE DREPORT    && REESTABLISHED BECAUSE CLOSED ON LAST LOOP

RYEAR=[Y]+TRIM(MYEAR)    &&FIELD NAMES FOR YEARS BEGIN WITH "Y" THEN YEAR

DO WHILE .NOT. EOF()    &&RIPPLE THROUGH DREPORT.DBF

    REPLACE DREPORT->COUNTRY WITH MOUNTRY
    HOLDER=FIELDNAME
    IF LEN(TRIM(HOLDER))=0
        SKIP
        LOOP
    ENDIF
    holder2=DEMAND1->&HOLDER
    REPLACE &RYEAR WITH holder2
    SKIP

ENDDO
GO TOP && TO PREPARE DREPORT Data Base FOR NEXT PASS THROUGH

USE && CLOSE DREPORT.DBF UNTIL NEXT LOOP TO PERMIT APPEND TO DEMAND

SELECT 1    &&RETURN TO DEMAND1.DBF
SKIP    && GO ON TO NEXT RECORD IN DEMAND1.DBF TO PICK UP NEXT YEAR
TIMES=TIMES+1

ENDDO    && END RIPPLE THROUGH DEMAND1.DBF FOR YEAR YEAR

SELECT 3
APPEND FROM DREPORT
SELECT 1

ENDDO
-----&& Loop #2
CLOSE Data BaseS
SELECT 3
USE DEMAND INDEX DEMAND
REINDEX
CLOSE Data BaseS
RETURN

* * * Modified by B. de B. on 10/24/90

UDMD9.PRG
* UDMD9.PRG
PARAMETER AUTO
CLEAR

TEXT

INSTRUCTIONS for UDMD9.PRG

UPDATE OF THE IEA COUNTRIES AND NON-IEA COUNTRIES: BAL FILES

This program is an intermediate stage in the update of the ICSD

```

DEMAND1.DBF data base. It uses OECD/IEA data, previously converted from OECD compressed file format to DIF format using the OECD DECOM /IEADECOM program.

The purpose of the program is to load the data into a template file and then use the template to make up the transitional data base that will be used in conjunction with several other files to update DEMAND1.DBF.

This program requires that the location of the directory holding decompressed files is supplied by the user. This directory will now hold individual country balance files now ending with the extension "DIF."

This program takes as much as several hours to run.

```

ENDTEXT
IF .NOT. AUTO
    WAIT [          Proceed? (Y/N)] to ff
    IF UPPER(FE) <> [Y]
        RETURN
    ENDIF
ENDIF
CLEAR
MPATH6=SPACE(25)
IF FILE([UDMD.MEM])
    REST FROM UDMD.MEM ADDITIVE
ENDIF
IF .NOT. AUTO
    @ROW(),2 SAY [Path of directory holding BAL files in DIF format ]
    @ROW()+1,2 SAY [Do not end path with '\' ] GET MPATH6 PICTURE [0!]
READ
ENDIF
MPATH=TRIM(MPATH6)
PN=TRIM(MPATH6)+[\]
SET SAFETY OFF
SAVE ALL LIKE MPATH* TO UDMD
SET TALK ON
* * * CALL TO UDIR IS FOR A DIRECTORY LISTING
DO UDIR

CLOSE Data Bases
SET SAFETY OFF
SET TALK ON
IF FILE([UDMD.MEM])
    REST FROM UDMD ADDITIVE
ENDIF
ip=TRIM(MPATHICSD)+[\]
dn=IP+[COUNTRY]

SELECT 5
USE &DN
SET UNIQUE ON
INDEX ON OECDABBREV TO UDMD6C1
SET UNIQUE OFF
SET INDEX TO UDMD6C1

SELECT 1
USE UDIR INDEX UDIR

```

```

SELECT 2
USE UDMD6TEM
ZAP

SELECT 3
USE UDMD6
ZAP

SELECT 1
GO TOP

DO WHILE .NOT. EOF()

  SELECT 1
  * IF THE PROPOSED FILE IS NOT A BAL FILE SKIP IT
  IF EXT<>[DIF] .OR. SUBSTR(FILENAME,1,3)<>[BAL]
    SKIP
    LOOP
  ENDIF

  s=filename
  S=UPPER(S)
  FN=PN+TRIM(FILENAME)+[.]+EXT
  * * * CHECK TO SEE IF COUNTRY IS USED IN ICSD
  xna=SUBSTR(S,4,3)
  SELECT 5
  SEEK XNA
  IF .NOT. FOUND() .OR. .NOT. DEMAND
    DELETE
    SELECT 1
    SKIP
    LOOP
  ENDIF
  MOECD=OECDABBREV

  SELECT 2
  USE UDMD6TEM
  ZAP
  APPEND FROM &FN TYPE DIF
  GO TOP
  CN=VARIABLE
  EN=LTRIM(TRIM(SUBSTR(CN,1,AT(":",CN))))
  REPLACE ALL COUNTRY WITH UPPER(EN)
  * * * .....
  * * * NOTE ON UNITS:  THE BALxxx.DIF FILES ARE IN MILLION OF
  * * *                      METRIC TONS OF OIL EQUIVALENT
  * * *                      THE BESxxx.DIF FILES ARE IN PHYSICAL
  * * *                      UNITS THAT VARY WITH FLOW TYPE
  * * * .....
DO CASE
  CASE SUBST (s,1,3)=[BES]
    REPLACE ALL UNITS WITH 0, ABBREV WITH MOECD, FILETYPE WITH [BES]
  CASE SUBSTR(s,1,3)=[BAL]
    REPLACE ALL UNITS WITH 1, ABBREV WITH MOECD, FILETYPE WITH [BAL]
  OTHERWISE
    REPLACE ALL UNITS WITH 0, ABBREV WITH MOECD, FILETYPE WITH [XXX]
ENDCASE
GO TOP
DELETE

```

```

SKIP
DELETE
GO BOTT
DELETE
SKIP -1
DELETE
* DELETE ALL FOR SUBSTR(VARIABLE,1,5)<>[ 1988]
PACK
USE
SELECT 3
APPEND FROM UDMD6TEM
SELECT 1
SKIP

```

ENDDO

```

CLOSE Data Bases
SET SAFETY ON
RETURN

```

* * * Modified by B. de B. on 09/17/90

* * * Modified by B. de B. on 09/20/90

UEXPORTS.PRG

```

* * * .....UEXPORTS.PRG.....
* * * UPDATES THE ICSD EXPORTS.DBF FROM MAINFRAME DATA
* * *
* * * ORIGINALLY PROGRAMMED BY BRYAN DE BOINVILLE ON 08/04/88
* * * .....
* * * THE PURPOSE OF THIS PROGRAM IS TO TAKE AN ASCII FILE, DOWNLOADED FROM
* * * THE EIA MAINFRAME UNDER THE NAME EXPORTS.TXT, AND INCORPORATE
* * * IT INTO THE ICSD EXPORTS Data Base. THE MAINFRAME DATA SET IS TAKEN
* * * FROM THE MOST RECENT CN6524.PRJ.IMEX.EM522 FILE. WHILE DOWNLOADING
* * * MAY BE DONE IN ANY NUMBER OF WAYS, THE PROGRAM FIRST REQUESTS USER
* * * TO VERIFY WHETHER DUMMY CHARACTERS HAVE BEEN ADDED TO THE FRONT OF
* * * EACH LINE TO ENSURE THAT THE PROPER DATA GETS INTO THE PROPER FIELD.
* * * THE STRUCTURE ASSUMED IS POST-JAN 1988 CENSUS FILE FORMAT.
* * *
* * * BEFORE USING THE PROGRAM IT IS NECESSARY TO USE THE DOS TYPE COMMAND
* * * TO LIST A FEW LINES OF THE ASCII FILE EXPORTS.TXT TO SEE HOW MANY,
* * * IF ANY, UNUSABLE CHARACTERS APPEAR AT THE START OF EACH LINE.
* * * FOR INSTANCE, A TYPICAL MICROCOMPUTER COMMUNICATION PROGRAM DOWN-
* * * LOADING THE ASCII FILE ABOVE WILL CONTAIN THE CHARACTER AT THE
* * * START OF EACH LINE. THE PROGRAM NEEDS TO KNOW HOW MANY SUCH
* * * CHARACTERS NEED BE SKIPPED BEFORE TRYING TO EXTRACT DATA.
* * *
* * * UNFORTUNATELY, THERE ARE SOME QUIRKS TO THE DATA SET AS IT EXISTS
* * * ON THE EIA MAINFRAME. THE BEGINNING OF THE FILE USES NULLS TO
* * * REPRESENT BLANKS, WHILE THE END OF THE FILE USES HEX 40, A SPACE.
* * * IF LISTED ON THE MAINFRAME, DOWNLOADED VIA A MODEM AND THEN CAPTURED
* * * AS A FILE ON THE PC,
* * * A PROCESS THAT MIGHT TAKE SEVEN OR EIGHT HOURS, THIS WON'T BE A

```

```

* * * PROBLEM. IT WILL BE IF A TRANSFER FACILITY LIKE EITHER ARBITER OR
* * * PC3270 IS USED, AS THEY WILL FAITHFULLY TRANSLATE THE NULLS AS NULLS.
* * * AS DBASE CAN'T DEAL PROPERLY WITH NULLS, IT IS IMPORTANT TO REPLACE
* * * NULLS WITH 0 IN THE ORIGINAL FILE BEFORE DOWNLOADING IT.

```

```

* * * .....

```

```

* * * UEXPORTS

```

```

CLEAR

```

```

DO WHILE .T.

```

```

CLEAR

```

```

TEXT

```

UPDATE OF EXPORTS.TXT in two parts

1. Use EXPORTS.TXT (which user must have already created) for loading into UEXPORTS.DBF and, ultimately, EXPORTS.DBF
2. Edit EXPORTS.DBF by putting in proper ICSD codes
3. Return

Complete steps 1 and 2 in sequence. The process takes about four hours. APPROXIMATELY 10 MEGABYTES OF DISK SPACE IS NECESSARY to hold the large intermediate files. Do not start the update unless EXPORTS.TXT has been downloaded to the PC, and the required amount of storage space is available.

```

ENDTEXT

```

```

WAIT [          Enter number - ] to RS

```

```

RS=UPPER(RS)

```

```

DO CASE

```

```

    CASE RS=[1]

```

```

        DO U4

```

```

    CASE RS=[2]

```

```

        DO U7

```

```

    OTHERWISE

```

```

        RETURN

```

```

ENDCASE

```

```

ENDDO

```

```

RETURN

```

```

UIMPORTS.PRG

```

```

* * * .....UIMPORTS.PRG

```

```

* * * UPDATES THE ICSD IMPORTS.DBF FROM MAINFRAME DATA

```

```

* * *

```

```

* * * ORIGINALLY PROGRAMMED BY BRYAN DE BOINVILLE ON 08/04/88

```

```

* * * .....

```

```

* * * THE PURPOSE OF THIS PROGRAM IS TO TAKE AN ASCII FILE, DOWNLOADED FROM

```

```

* * * THE EIA MAINFRAME UNDER THE NAME IMPORTS.TXT, AND INCORPORATE

```

```

* * * IT INTO THE ICSD IMPORTS Data Base.  THE MAINFRAME DATA SET IS TAKEN
* * * FROM THE MOST RECENT CN6524.PRJ.IMEX.IM145 FILE.  WHILE DOWNLOADING
* * * MAY BE DONE IN ANY NUMBER OF WAYS, THE PROGRAM FIRST REQUESTS USER
* * * TO VERIFY WHETHER DUMMY CHARACTERS HAVE BEEN ADDED TO THE FRONT OF
* * * EACH LINE TO ENSURE THAT THE PROPER DATA GETS INTO THE PROPER FIELD.
* * * TO DETERMINE THIS, USE THE COMMAND .TYPE IMPORTS.TXT AND THEN PAUSE
* * * TO SEE IF EACH RECORD BEGINS WITH SOME CHARACTER OTHER THAN 1.
* * * FOR INSTANCE, A TYPICAL MICROCOMPUTER COMMUNICATION PROGRAM DOWN-
* * * LOADING THE ASCII FILE ABOVE WILL CONTAIN THE CHARACTER  AT THE
* * * START OF EACH LINE.  THE PROGRAM NEEDS TO KNOW HOW MANY SUCH
* * * CHARACTERS SHOULD BE SKIPPED BEFORE TRYING TO EXTRACT DATA.
* * *
* * * THE STRUCTURE ASSUMED IS POST-JAN 1989 CENSUS FILE FORMAT, BUT ALL
* * * CURRENT FILE FORMATS FOR THE DATA SHOULD WORK.
* * * .....
CLEAR ALL
CLEAR
SET TALK OFF
starttime=TIME()
IF .NOT. FILE("IMPORTS.TXT")
    ? [Unable to locate "imports.txt" (down-loaded ascii file). ]
    WAIT [If file has already been incorporated into UIMPORTS.DBF enter P...] TO PR
    IF UPPER(PR)=[P]
        CLEAR
        DROSS=0
        ? [After next hitting a key the program will begin to type the contents]
        ? [of the IMPORTS.TXT file.  Note whether each line begins with special]
        ? [control characters, and how many, if any, there are.]
        ?
        ? [Hit ESC to stop the display of IMPORTS.TXT after a few lines have passed]
        WAIT
        TYPE IMPORTS.TXT
        WAIT
        CLEAR
        @10,10 SAY [Number of surplus characters at start of each line? ] GET DROSS ;
    PICTURE [9]
    READ
    DROSS=DROSS-1      && SINCE SUBSTRINGS CHOSEN BELOW HAVE ONE DROSS
ELSE
    WAIT [HIT ANY KEY TO RETURN ... ]
    CLOSE Data Bases
    RETURN
ENDIF
ELSE
    CLEAR
    CLEAR
    DROSS=0
    ? [After next hitting a key the program will begin to type the contents]
    ? [of the IMPORTS.TXT file.  Note whether each line begins with special]
    ? [control characters, and how many, if any, there are.]
    ?
    ? [Hit ESC to stop the display of IMPORTS.TXT after a few lines have passed]
    WAIT
    TYPE IMPORTS.TXT
    WAIT
    CLEAR
    @10,10 SAY [Number of surplus characters at start of each line? ] GET DROSS ;
    PICTURE [9]
    READ

```



```

DROSS=DROSS-1      && SINCE SUBSTRINGS CHOSEN BELOW HAVE ONE DROSS
USE UIMPORTS        && CHARACTER BUILT INTO THEM
SET SAFETY OFF
ZAP
SET SAFETY ON
SET TALK ON
CLEAR
? [Records are being added from the Imports.Txt file]
? [-----]
APPEND FROM IMPORTS.TXT SDF
SET TALK OFF
GO TOP
CLEAR
? [Elank records are being deleted from the Uimports.Dbf file]
? [-----]
SET TALK ON
DELETE ALL FOR LEN(TRIM(IMPORTS))<10
PACK
SET TALK OFF
USE
RUN rename IMPORTS.TXT oimports.txt
ENDIF
CLEAR
@10,10 SAY [Update of the Uimports.Dbf has reached record #]
USE UIMPORTS
* * * .....start main program loop.....
DO WHILE .NOT. EOF()
* * * FIRST ENSURE THAT OF THE TWO RECORDS THAT CORRESPOND TO ONE RECORD
* * * IN THE ORIGINAL BUREAU OF CENSUS Data Base, THE FIRST RATHER THAN
* * * THE SECOND IS BEING USED.  THESE ARE THE ODD RECORDS ...
IF MOD(RECNO(),2)=0
SKIP
ENDIF
* * * LOAD FIELDS CORRESPONDING TO THOSE USED BY ICSD IMPORTS.DBF BY
* * * USING A SERIES OF SUBSTRINGS OF THE DOWNLOADED DATA, NOW STORED
* * * IN A FIELD CALLED IMPORTS OF THE UIMPORTS.DBF.
@10,57 SAY STR(RECNO(),5,0)
CH1=SUBSTR(IMPORTS,DROSS + 7,2)
REPLACE type WITH VAL(CH1)
CH2=SUBSTR(IMPORTS,DROSS + 12,4)
IF VAL(CH2)>999
REPLACE countrycod WITH VAL(CH2)
ELSE
REPLACE countrycod WITH VAL(CH2)*10
ENDIF
CH3=SUBSTR(IMPORTS,DROSS + 17,2)
REPLACE portcode WITH VAL(CH3)
CH4=SUBSTR(IMPORTS,DROSS + 26,8)
REPLACE cardcount WITH VAL(CH4)
CH5=SUBSTR(IMPORTS,DROSS + 23,2)
REPLACE month WITH VAL(CH5)
CH6=SUBSTR(IMPORTS,DROSS + 25,2)
REPLACE year WITH VAL(CH6)
* * * USE GENERAL QUANTITY FROM MAINFRAME FILE
CH7=SUBSTR(IMPORTS,DROSS + 118,12)
REPLACE quantity WITH VAL(CH7)
* * * USE GENERAL VALUE FROM MAINFRAME FILE
v=SUBSTR(IMPORTS,DROSS+142,12)
x=VAL(V)*100

```

```

skip 1
y=VAL(SUBSTR(IMPORTS,DROSS+2,2))
SKIP -1
CH8=X+Y
REPLACE value WITH CH8
* * *
IF QUANTITY > 0
    REPLACE PRICEPERTN WITH VALUE/QUANTITY
ELSE
    REPLACE PRICEPERTN WITH 0
ENDIF
CH10=STR(MONTH,2,0)+[/01/]+STR(YEAR,2,0)
REPLACE date WITH CTOD(CH10)
@10,56 CLEAR TO 10,79
SKIP 1
CH11=SUBSTR(IMPORTS,DROSS + 123,20)
SKIP -1
REPLACE harmonizat WITH CH11
SKIP 2

ENDDO
* * * .....main program loop ends
CLEAR
? [Now removing extraneous records]
* * * BEFORE APPENDING DATA TO IMPORTS.DBF, EACH EVEN NUMBERED RECORD
* * * MUST BE DELETED (SINCE IT WAS ORIGINALLY A CONTINUATION OF THE
* * * PRECEDING ODD RECORD).
DELETE ALL FOR MOD(RECNO(),2)=0
PACK
* * * THE UIMPORTS.DBF IS NOW IN SHAPE TO BE ADDED TO THE IMPORTS.DBF
* * * THIS IS DONE WITH THE APPEND COMMAND WHICH WILL PROBABLY ALSO
* * * INCLUDE A CONDITIONAL -- E.G. APPEND FROM UIMPORTS FOR
* * * DATE>CTOD([MM/01/YY]). THIS STEP MUST BE PERFORMED MANUALLY...
* * *
* * * NOTE THAT WHILE THE UIMPORTS.DBF PICKS UP THE GENERAL C.I.F. VALUE
* * * IT IS NOT NOW USED IN IMPORTS.DBF.
CLEAR
TEXT

```

In the next section the user must decide whether the newly created data base holding the IMPORTS.TXT data should:

1. Replace the current IMPORTS.DBF
2. Be added to the end of IMPORTS.DBF
3. Do nothing further, return

The answer will depend on what data is included in IMPORTS.TXT. Usually, this will be all records, so 1 should be chosen.

```

ENDTEXT
WAIT [ Enter selection: ] to ans
ar.s=upper(ans)
DO CASE
    CASE ANS=[1]
        CLEAR
        SET TALK ON
        USE IMPORTS

```

```

    APPEND FROM UIMPORTS
    SORT ON YEAR,MONTH,COUNTRYCOD,TYPE,PORTCODE TO TEMP
    CLOSE Data Bases
    RUN COPY TEMP.DBF imports.DBF
    RUN DEL TEMP.DBF
    USE IMPORTS INDEX E3A,E3B
    PACK
    SET SAFETY OFF
    USE UIMPORTS
    ZAP
    SET SAFETY ON
    USE
CASE ANS=[2]
    CLEAR
    SET TALK ON
    USE IMPORTS
    SET SAFETY OFF
    ZAP
    SET SAFETY ON
    APPEND FROM UIMPORTS
    SORT ON YEAR,MONTH,COUNTRYCOD,TYPE,PORTCODE TO TEMP
    CLOSE Data Bases
    RUN COPY TEMP.DBF imports.DBF
    RUN DEL TEMP.DBF
    USE IMPORTS INDEX E3A,E3B
    PACK
    SET SAFETY OFF
    USE UIMPORTS
    ZAP
    SET SAFETY ON
    USE
OTHERWISE
    RETURN
ENDCASE
* * *
* * * THIS PROGRAM MANIPULATES THE RAW CUSTOMS DATA FOUND IN IMPORTS.DBF
* * * BY AGGREGATING CUSTOMS COAL TYPES INTO THE COAL TYPES
* * * USED BY THE EIA INTERNATIONAL COAL TRADE MODEL. IT SHOULD BE USED
* * * ONLY AFTER U5.PRG HAS BEEN RUN TO SUPPLY NEW DATA TO THE Data Bases.
* * *
* * * ORIGINALLY PROGRAMMED BY BRYAN DE BOINVILLE OF DAC OF VIRGINIA,
* * * MARCH, 1988.
* * *
* * * MODIFIED BY BRYAN DE BOINVILLE ON 08/04/88 TO UPDATE WITH NEW
* * * CENSUS FILE FORMAT FOR EXPORTS AND IMPORTS Data Bases. OLD COUNTRY
* * * CODES WERE REPLACED WITH NEW CENSUS CODES AND THE ICSDPORT CODE
* * * PROCEDURE USED ON EXPORTS.DBF WAS ADDED FOR IMPORTS.DBF, SINCE
* * * THAT INFORMATION IS NOW AVAILABLE.
* * * .....
CLEAR
C=[COUNTRYCOD]
SET TALK ON

CLEAR
? [Now working on imports.dbf]
?
?
* * * .....
USE IMPORTS

```

ICSD Program Source Code

```

* * * SET REGIONAL CODES, WHERE ICSDREG 1 = CANADA; ICSDREG 2 = SOUTH AMERICA;
* * * ICSDREG 3 = NORTH EUROPE; ICSDREG 4 = SOUTH EUROPE & MEDITERRANEAN;
* * * ICSDREG 5 = ASIA; AND ICSDREG 6 = EASTERN BLOC
REPLACE ALL ICSDREG WITH 1 FOR &C=1220
REPLACE ALL ICSDREG WITH 2 FOR &C=1000 .OR. &C>=1610 .AND. &C<=3720
REPLACE ALL ICSDREG WITH 3 FOR &C=4330 .OR. &C>=4000 .AND. &C<=4280 .OR. &C=4419 ;
.OR. &C=1010
REPLACE ALL ICSDREG WITH 4 FOR &C>=4890 .AND. &C<=5040 .OR. &C>=7140 .AND. ;
&C<=7990 .OR. &C>=4670 .AND. &C<=4790
REPLACE ALL ICSDREG WITH 4 FOR &C=4840 .OR. &C=5080 .OR. &C=5120
REPLACE ALL ICSDREG WITH 5 FOR &C>=5130 .AND. &C<=5490 .OR. &C>=5540 .AND. ;
&C<=5680 .OR. &C>=5800 .AND. &C<=6860
REPLACE ALL ICSDREG WITH 5 FOR &C=5110 .OR. &C=5050 .OR. &C=5070
REPLACE ALL ICSDREG WITH 6 FOR &C>=4470 .AND. &C<=4610 .OR. &C>=5500 .AND. ;
&C<=5530 .OR. &C>=5700 .AND. &C<=5790
REPLACE ALL ICSDREG WITH 6 FOR &C=4810 .OR. &C=4850 .OR. &C=4870 .OR. &C=4290 ;
.OR. &C=4350 .OR. &C=4370 .OR. &C=2390
* * * SET ICSD COAL TYPES, WHERE ICSDTYPE 1 = STEAM; ICSDTYPE 2 = MET AND
* * * ICSDTYPE 3 = ALL OTHER
REPLACE ALL ICSDTYPE WITH 1 FOR TYPE=20 .OR. TYPE=70
REPLACE ALL ICSDTYPE WITH 2 FOR TYPE=10
* * * .....
* * * SET ICSD REGIONAL PORTS, WHERE ICSDPORT 1 = EASTERN; 2 = SOUTHERN
* * * 3 = WESTERN; 4 = NORTHERN
P=[PORTCODE]
*REPLACE ALL PORTCODE WITH 14 FOR PORTCODE = 59 && 59 IS AN ICTM CREATION
REPLACE ALL ICSDPORT WITH 2 FOR &P>=15 .AND. &P<=60
REPLACE ALL ICSDPORT WITH 3 FOR &P>=25 .AND. &P<=33
REPLACE ALL ICSDPORT WITH 4 FOR &P>=34 .AND. &P<=45
REPLACE ALL ICSDPORT WITH 1 FOR &P<=17 .OR. &P=54 .OR. &P=59
REPLACE ALL ICSDTYPE WITH 3 FOR ICSDTYPE<1 .OR. ICSDTYPE>2
USE IMPORTS INDEX E3A,E3B
REINDEX
CLOSE Data Bases
SET TALK OFF
CLEAR
? [The imports/exports update program began at ]+starttime
fintime=TIME()
? [It finished at ]+fintime
WAIT
RETURN

```

^Z

```

UPDATE.PRG
* * * ..... UPDATE.PRG .....
* * *
* * * CONTAINS THE ROUTINES FOR THE TRADE FLOWS MENU SCREEN AND CALLS THE
* * * SUBROUTINES REQUIRED TO ACCESS THE FLOWS.DBF
* * *
* * * .....
* * ESTABLISH OPERATING MODES
SET HELP OFF
SET TALK OFF
SET ESCAPE OFF      && prevent exit during periods cursor turned off
* * * LOAD MODULES TO CONTROL CURSOR FROM MASTER MENU

```

```

LOAD CURSON.BIN
LOAD CURSOFF.BIN
* * * ADVISE PROGRAM OF LOCATION OF LOTUS
IF .NOT. FILE("CONFIG.MEM")
    DO 01    && CALL THE CONFIGURATION SUBROUTINE
ELSE
    RESTORE FROM CONFIG ADDITIVE
ENDIF
* * * GENERAL VARIABLES
ontos = .T.
choice = 0
moniker = [I·C·S·D]
* * * .....
* * * BEGIN MAIN LOOP FOR MASTER MENU USER SELECTION
* * * .....
DO WHILE onto

    SET TALK OFF
    CLEAR
    choice = 0
    IF ISCOLOR()
        SET COLOR TO /W,W/B,R
        CLEAR
    ELSE
        SET COLOR TO W/N,N/W,N
    ENDIF
    @ 2,7 say " "
    IF ISCOLOR()
        SET COLOR TO /W,,
    ELSE
        SET COLOR TO W/N,,
    ENDIF
    @ 3,7 say " "
    @ 4,7 say " "
    IF ISCOLOR()
        SET COLOR TO R/W,,
    ELSE
        SET COLOR TO W+/N,,
    ENDIF
    @ 4,8 say [          I C S D   Data Base Update Routines   ]
    IF ISCOLOR()
        SET COLOR TO N/W,,
    ELSE
        SET COLOR TO W/N,,
    ENDIF
    @ 5,7 say " "
    @ 6,7 say " "
    @ 7,7 say " "
    @ 8,7 say " "
    @ 9,7 say " "
    @10,7 say " "
    @11,7 say " "
    @12,7 say " "
    @13,7 say " "
    @14,7 say " "
    @15,7 say " "
    @16,7 say " "
    @17,7 say " "
    @18,7 say " "

```

1	:	Flows data
2	:	Demand data
3	:	Imports to the U.S.
4	:	Exports from the U.S.
5	:	Prices and freight rates

```

@19,7 say "          6 : Return to Main Menu          "
@20,7 say "_____ "
@21,7 say "_____ "
@22,7 say "_____ "
@23,7 say "_____ "
IF ISCOLOR()
    SET COLOR TO R/W,,
ELSE
    SET COLOR TO W+/N,,
ENDIF
@22,35 say [Help = F1]
IF ISCOLOR()
    SET COLOR TO N/W,,
ELSE
    SET COLOR TO W/N,,
ENDIF

CALL CURSOFF  &&TURN THE CURSOR OFF WHILE THE PROGRAM WAITS FOR USER TO GO

DO WHILE choice=0

    choice=INKEY()

    * * * DISPLAY CURRENT TIME CONTINUOUSLY ON SCREEN UNTIL KEY PRESSED
    MTIME = TIME()
    IF VAL(SUBSTR(mtime,1,2)) >= 12
        IF VAL(SUBSTR(mtime,1,2)) = 12
            MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ p.m.]
            MTIME = LTRIM(MTIME)
        ELSE
            mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2)) - 12) + SUBSTR(mtime,3,3)) + [
p.m.]
            mtime = LTRIM(mtime)
        ENDIF
    ELSE
        IF VAL(SUBSTR(mtime,1,2)) = 0
            MTIME = TRIM(STR(12) + SUBSTR(mtime,3,3)) + [ a.m.]
            MTIME = LTRIM(MTIME)
        ELSE
            mtime = TRIM(STR(VAL(SUBSTR(mtime,1,2))) + SUBSTR(mtime,3,3)) + [ a.m.]
            mtime = LTRIM(mtime)
        ENDIF
    ENDIF

    @22,16 say date()
    @22,57 say mtime+[ (F)]

    @22,46 SAY CHR(choice)

ENDDO    && END OF LOOP TO GET USER MENU CHOICE

CALL CURSON    && TURN THE CURSOR BACK ON
SET ESCAPE ON    && SINCE CURSOR IS BACK ON, ESCAPE IS PERMISSIBLE
ON ESCAPE SUSPEND

* * * EVALUATE WHAT USER WANTED

IF ISCOLOR()
    SET COLOR TO W/B,B/W,B

```

```

ELSE
  SET COLOR TO W/N,N/W,N
ENDIF

DO CASE

  CASE CHR(choice) $ [^\]  && User pressed F1 help key
    help1=[Select which data base to update      ]
    help2=[]
    help3=[]
    help4=[]
    help5=[]
    help6=[]
    help7=[]
    help8=[]
    DO help WITH moniker,help1,help2,help3,help4,help5,help6,help7,help8

  CASE CHR(choice) $ [1]
    DO UVOLUME

  CASE CHR(choice) $ [2]
    DO UDEMAND

  CASE CHR(choice) $ [3]
    DO UIMPORTS

  CASE CHR(choice) $ [4]
    DO UEXPORTS

  CASE CHR(choice) $ [5]
    DO UPRICES

  CASE CHR(choice) $ [6]
    CLEAR
    RETURN

  OTHERWISE
    message=[Invalid . . . Try again]
    DO ERRMESS WITH moniker, message
    LOOP

ENDCASE

ENDDO

RETURN

```

* * * Modified by B. de B. on 09/20/90

```

UPRICES.PRG
* THIS PROGRAM IS USED TO UPDATE THE PRICES.DBF OF ICSD
USE UPRICES
DO WHILE .T.
  CLEAR
  MDATE=DATE()
  @10,10 SAY [Update Prices.Dbf with what issue date of Coal Week Intl?]
  @11,10 GET mdate PICTURE [d]
  READ
  MM1=MONTH(MDATE)
  MD1=DAY(MDATE)
  MY1=YEAR(MDATE)
  MY1=MY1-1900
  REPL ALL ISSUEDATE WITH MDATE, M1 WITH MM1, D1 WITH MD1, Y1 WITH MY1
  BROW
  CLEAR
  ANS=[N]
  @10,10 SAY [Is the update finished for this issue? (Y/N)] GET ANS ;
  PICTURE [!]
  READ
  CONF=[N]
  IF ANS=[Y]
    @11,10 SAY [Permanently update data base? (Y/N)] GET CONF PICTURE [!]
    READ
  ENDIF
  USE
  DO CASE
    CASE CONF=[Y] .AND. ANS=[Y]
      USE PRICES
      APPEND FROM UPRICES
  ENDCASE
  USE UPRICES
  CLEAR
  EXI=[N]
  @10,10 SAY [Exit from update program? (Y/N)] GET EXI PICTURE [!]
  READ
  IF EXI=[Y]
    EXIT
  ENDIF

ENDDO

RETURN

```

UV1.PRG

```

* * * ..... UV1.PRG .....
* * *
* * * THE PURPOSE OF THIS PROGRAM IS TO TRANSFORM A LARGE Data Base WITH THE
* * * NAME Volumes1.DBF TO A FILE CALLED volumes.dbf WHICH IS USED SUBSEQUENTLY.
* * * VOLUMES1 HAS THE STRUCTURE OF IMPORTING COUNTRIES AS RECORDS AND EXPORT-
* * * ING COUNTRIES AS FIELDS, WITH ADDITIONAL FIELDS FOR COAL TYPE AND YEAR.
* * * COAL TYPE IS A SINGLE DIGIT, CORRESPONDING TO 1 FOR STEAM, 2 FOR MET. AND
* * * 3 FOR BOTH. WHILE THIS FILE STRUCTURE IS APPROPRIATE FOR MATRIX ANALYSIS,
* * * IT MAKES TIME SERIES ANALYSIS DIFFICULT, PARTICULARLY WHEN LOTUS GRAPHS
* * * WILL BE USED. THEREFORE, IT IS NECESSARY TO PROVIDE AN INTERMEDIATE
* * * PROGRAM TO PERFORM THE TRANSFORMATION.

```



```

* * *
* * * THE PROGRAM WORKS BY FILLING AN INTERMEDIATE Data Base WITH THE DATA FROM
* * * THE ORIGINAL MATRIX Data Base. THE INTERMEDIATE Data Base, CALLED VREPORT,
* * * IS THEN APPENDED TO THE VOLUMES.DBF WHICH HAS THE SAME STRUCTURE.
* * *
* * * .....
* * * MODIFIED BY BRYAN DE BOINVILLE ON 9/1/88 TO INCORPORATE 1986
* * * TRADE FLOWS DATA AND REVISED 1985 DATA, AND AGAIN ON 5/10/89 TO
* * * ADD 1987 TRADE FLOWS DATA, AND AGAIN ON 9/19/90 FOR 1988 DATA.
* * * .....
* * * VARIABLES IN VOLUMES1.DBF:
* * * YEAR YEAR (ENTERED AS A STRING/LABEL RATHER THAN AS A NUMBER)
* * * IMPORTER =NAME OF IMPORTING COUNTRY
* * * AUSTRALIA =EXPORTING COUNTRY
* * * CANADA =EXPORTING COUNTRY
* * * CHINA =EXPORTING COUNTRY
* * * COLOMBIA =EXPORTING COUNTRY
* * * OTHER =EXPORTING COUNTRY
* * * POLAND =EXPORTING COUNTRY
* * * SAFRICA =EXPORTING COUNTRY
* * * USSR =EXPORTING COUNTRY
* * * UK =EXPORTING COUNTRY
* * * USA =EXPORTING COUNTRY
* * * WGERMANY =EXPORTING COUNTRY
* * * TOTAL TOTAL FOR ALL EXPORTERS
* * * TYPE COAL TYPE (1=STEAM,2=MET,3=BOTH)
* * *
* * * VARIABLES IN VREPORT AND VOLUMES.DBF:
* * * IMP &&NAME OF IMPORTING COUNTRY
* * * EXP &&NAME OF EXPORTING COUNTRY
* * * TYPE &&COAL TYPE (1=STREAM,2=MET,3=BOTH)
* * * Y1980 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1981 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1982 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1983 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1984 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1985 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1986 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1987 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * * Y1988 &&VOLUME TRADED IN SHORT TONS FOR YEAR
* * *
* * * .....
* * * SELECT Data Bases AND WORK AREAS
* * * Note: The volumes1.dbf is used for update purposes only. Once new data
* * * have been added for any year, the entire data base must be converted to
* * * the format of the volumes.dbf (i.e. with years as fields). This process
* * * takes up to several hours on a normal IBM PC compatible running at 7.6
* * * megahertz. The program also destroys the contents of the original
* * * volumes.dbf, so a backup should be made before running this program.
* * *
* * * .....
PARAMETER auto
CLOSE ALL
CLEAR
SELECT 1
USE volumes1 INDEX volumes1
REINDEX

SELECT 2

```

```

USE vreport

SELECT 3
USE vcountry      && special data base listing exporting countries
GO TOP

SELECT 4
USE volumes INDEX VOLUMES
CLEAR
? [ 
? [ 
? [ 
? [          W A R N I N G ]
? [ This program requires as much as several hours to run and ]
? [ destroys (before rebuilding) the original contents of the ]
? [ Volumes.Dbf. Please backup files before proceeding.]
? 

IF .NOT. AUTO
    WAIT [ Proceed? (Y/N) ] TO PROCEED
    PROCEED=UPPER(PROCEED)
ELSE
    PROCEED=[Y]
ENDIF
SELECT 4
IF UPPER(PROCEED)=[Y]
    SET SAFETY OFF
    ZAP
    *USE VOLUMES
    SET SAFETY ON
ELSE
    CLEAR
    CLOSE Data Bases
    RETURN
ENDIF
clear
*** PROCEDURE FOR ALLOWING USER TO SELECT A COUNTRY FOR REPORT ON VOLUMES
SELECT 1
GO TOP
*** CREATE MEMORY VARIABLES FOR INITIALIZATION OF REPORT LOOPS
STARTIME=TIME()

set talk off
*-----
DO WHILE .NOT. EOF( )                                     && Loop #1

SELECT 1
CLEAR
? [Now working on: ]+IMPORTER
? [Coal type       : ]+str(type,1,0)
? 
? [The program started at ]+starttime
nowtime=time()
? [Work on the current country began at ]+nowtime
VTIMES=1                                             && vtimes is a counter for loop 2
*****
***** .....UPDATE NOTE.....
*****
*** When updating the program to transform the results of another year's

```

```

* * * data, it is important to modify the looping criteria used in the
* * * following nesting. "VTIMES" should be incremented for the number
* * * of years covered in Volumes1.dbf. As it currently contains data
* * * between 1980 - 88 inclusive, it must loop 9 times. Of course, this
* * * assumes that the proper index has been built for the Volumes1.dbf
* * * (i.e. Index on str(type,1,0)+trim(country)+trim(year) to Volumes1.ndx).
* * *
* * *
* * *

```

```

*-----
TYEAR=1980
DO WHILE TYEAR<=1988 && VTIMES<=9                                LOOP#2

    SELECT 1
    MIMPORTER=IMPORTER
    IF STR(TYEAR,4,0)<>TRIM(YEAR )
        ? [PROBLEM WITH VOLUMES1.DBF ...]
        WAIT
        RETURN
    ENDIF
    MTYPE=TYPE
    MYEAR=STR(TYEAR,4,0)
    RYEAR=[Y]+TRIM(MYEAR)
    ? ryear+{-----}
    * * * .....

    SELECT 2
    DO WHILE .NOT. EOF()    &&RIPPLE THROUGH VREPORT.DBF

        *SELECT 2
        SELECT 3
        X=TRIM(EXPORTER)
        SELECT 1
        VOL=VOLUMES1->&X
        SELECT 2
        REPLACE IMP WITH MIMPORTER
        REPLACE TYPE WITH MTYPE
        REPLACE &RYEAR WITH VOL
        SKIP
        SELECT 3
        SKIP
        IF EOF()
            GO TOP
        ENDIF
        SELECT 2
        ENDDO    &&END RIPPLE THROUGH VREPORT.DBF
        * * * .....

    GO TOP                                && TO PREPARE VREPORT Data Base FOR NEXT PASS THROUGH
*   VTIMES=VTIMES+1
    TYEAR=TYEAR+1

    SELECT 1                                && RETURN TO VOLUMES1.DBF
    SKIP                                && GO ON TO NEXT RECORD IN VOLUMES1.DBF TO PICK UP NEXT YEAR

ENDDO                                && Loop #2

* * * .....

SELECT 2

```

```
USE          && CLOSE VREPORT.DBF UNTIL NEXT LOOP TO PERMIT APPEND TO VOLUMES
SELECT 4
APPEND FROM VREPORT
SELECT 2
USE VREPORT
SELECT 1
```

```
ENDDO                                              && Loop #1
*-----
```

```
CLOSE Data Bases
* * * THIS PROGRAM IS THE THIRD STAGE OF THE TRANSFORMATION OF THE VOLUMES1.
* * * DBF. IT FILTERS THROUGH THE TRANSFORMED VOLUMES.DBF, PRODUCED IN THE
* * * SECOND STAGE, AND CHANGES THE NAMES OF EXPORTING COUNTRIES FROM THE
* * * SHORTENED ABBREVIATED NAME USED AS FIELD HEADERS IN VOLUMES1.DBF TO
* * * THE PROPER NAME THAT WILL BE RECOGNIZED IN SUBSEQUENT SEARCHES.
```

```
CLEAR
SELECT 1
USE VCOUNTRY
SET SAFETY OFF
INDEX ON EXPORTER TO VCOUNTRY
SET SAFETY ON
SELECT 2
USE VOLUMES
DO WHILE .NOT. EOF()
  ? STR(RECNO()),4,C;
  MM=TRIM(EXP)
  SELECT 1
  SEEK MM
  IF FOUND()
    VV=TRIM(PROPER)
    IF MM<>VV
      SELECT 2
      REPLACE EXP WITH VV
    ENDIF
    ? VV
  ELSE
    WAIT [NOT FOUND]
  ENDIF
  SELECT 2
  SKIP
```

```
ENDDO
SELECT 2
USE
CLOSE Data Bases
```

```
RETURN
```

```
* * * Modified by B. de B. on 09/20/90
```

```
UVOLUME.PRG
* THIS PROGRAM CONTROLS UPDATE OF THE TRADE FLOWS DATA IN VOLUME1.DBF
CLEAR ALL
CLEAR
TEXT
```

Update of the Trade Flows Data

After pressing a key, the update template for the trade flow data will be loaded. Use Tables A4, A5, and A6 of Annual Prospects for World Coal Trade (for steam, met. and total coal flows in short tons) as the source of the data to be entered.

Note that the last field is TYPE, in the order 1 - 3 where 1 corresponds to steam coal, 2 to metallurgical and 3 to total. The same update template is used for each of the three tables.

Menu choices in the dBase Browse program may be accessed by CTRL + HOME. Press F1 for Help while browsing.

```

ENDTEXT
WAIT [Continue (Y/N)] to con
IF UPPER(CON)<>[Y]
    RETURN
ENDIF
CLEAR
UYEAR=[1989]
@10,10 SAY [Year to be updated : ] get uyear picture [9999]
READ
USE UVOLUME
REPLACE ALL YEAR WITH UYEAR
GO TOP
BROW
CLEAR
CLOSE ALL
UEND=[N]
@10,10 SAY [Is the update complete (Y/N)] GET UEND PICTURE [!]
READ
IF UPPER(UEND)$[YT]
    USE VOLUMES1
    APPEND FROM UVOLUME
    USE
    DO UV1.PRG
ENDIF
USE
RETURN

```

ICSD.BAT

```

ECHO OFF
PATH >C:\ICSPATH.BAT
SET RBT=0
REM CHECK FOR RESET PARAMETER
IF %1X==X GOTO NOPARAMS
IF %1==RESET GOTO REBOOT
IF %1==RESET GOTO REBOOT
IF %1==RESTORE GOTO RESTORE
IF %1==RESTORE GOTO RESTORE
ECHO ERROR. INCORRECT PARAMETER
GOTO EXIT
:RESTORE
ECHO ORIGINAL SYSTEM CONFIGURATION NOW BEING RESTORED. REBOOT...
IF EXIST C:\AUTOEXEC.OLD COPY C:\AUTOEXEC.OLD C:\AUTOEXEC.BAT

```

```

IF EXIST C:\CONFIG.OLD COPY C:\CONFIG.OLD C:\CONFIG.SYS
IF EXIST C:\AUTOEXEC.OLD DEL C:\AUTOEXEC.OLD
IF EXIST C:\CONFIG.OLD DEL C:\CONFIG.OLD
IF EXIST C:\DBASE\MASTER.PRG ERASE C:\DBASE\MASTER.PRG
IF EXIST C:\DBASE\CONFIG.DB ERASE C:\DBASE\CONFIG.DB
IF EXIST C:\DBASE\CONFIG.OLD RENAME C:\DBASE\CONFIG.OLD CONFIG.DBG
IF EXIST C:\DBASE\MASTER.OLD RENAME C:\DBASE\MASTER.OLD MASTER.PRG
IF EXIST C:\LOTUS\AUTO123.WK1 ERASE C:\LOTUS\AUTO123.WK1
IF EXIST C:\LOTUS\AUTO123.OLD RENAME C:\LOTUS\AUTO123.OLD AUTO123.WK1
GOTO EXIT
:REBOOT
REM REBOOT SYSTEM TO GET RID OF DRIVERS & TSRS
CLS
ECHO.
ECHO          The International Coal Statistics Data Base
ECHO
ECHO
ECHO Now running in system reset mode.  System will now reboot to
ECHO increase available memory without unnecessary drivers.
ECHO
ECHO In order to avoid configuration problems during normal use, IT IS
ECHO IMPORTANT TO USE THE ICSD MENU SYSTEM TO EXIT.  DO NOT JUST TURN
ECHO SYSTEM OFF.
ECHO
ECHO If these instructions are not followed, and problems develop, enter
ECHO
ECHO          ICSD RESTORE

ECHO To return the system to the original settings.
ECHO
PAUSE
SET RBT=1
IF EXIST C:\AUTOEXEC.BAT COPY C:\AUTOEXEC.BAT C:\ICAS.MRK
IF EXIST C:\AUTOEXEC.OLD COPY C:\AUTOEXEC.OLD C:\AUTOEXEC.BAT
IF EXIST C:\CONFIG.SYS COPY C:\CONFIG.SYS C:\CONFIG.OLD
IF EXIST D:\ICSD\AUTOEXEC.ICS COPY D:\ICSD\AUTOEXEC.ICS C:\AUTOEXEC.BAT
IF EXIST D:\ICSD\CONFIG.ICS COPY D:\ICSD\CONFIG.ICS C:\CONFIG.SYS
IF EXIST D:\ICSD\COLDBOOT.COM COPY D:\ICSD\COLDBOOT.COM
ECHO ERROR REBOOT PROCESS FAILED
PAUSE
GOTO EXIT
:NOPARAMS
REM PROGRAM CALLED WITHOUT PARAMETERS.  START ICSD NORMALLY
REM BY GOING TO ICSD DIRECTORY AND INVOKING ICSD.BAT
IF EXIST C:\ICSD.MRK SET RBT=1
IF EXIST C:\ICSD.MRK ERASE C:\ICSD.MRK
PATH=C:\;C:\DOS;C:\LOTUS;C:\DBASE;
D:
CD D:\ICSD
ICSD C:\DBASE C:\LOTUS %RBT%
GOTO EXIT
:EXIT
SET RBT=

ICSD.BAT
ECHO OFF

```

```

REM  THIS BATCH FILE REQUIRES TWO PARAMETERS -- LOCATION OF DBASE
REM  PROGRAMS AND LOCATION OF LOTUS PROGRAMS.  ONCE LOCATION OF
REM  THESE FILES HAS BEEN ESTABLISHED, TWO ENVIRONMENT VARIABLES
REM  ARE SET SO THE MAIN PROGRAM CAN REFER TO THESE LOCATIONS
REM  WHEN CALLING ROUTINES.
REM
REM  CHECK TO SEE IF USER ENTERED PARAMETERS
CLS
IF %1X==X GOTO ERROR
IF %2X==X GOTO ERROR
REM  CHECK TO SEE IF THE PARAMETERS ENTERED ARE THE CORRECT
REM  LOCATIONS FOR THE NECESSARY FILES
REM  IF USER DID NOT SPECIFY PARAMETERS CORRECTLY (PRESUMABLY FROM
REM  A BATCH FILE), DISPLAY ERROR MESSAGE
GOTO START
:ERROR
ECHO *****
ECHO The name of the drive and directory where dBASE III+ files
ECHO are located must be entered as a parameter.  The same
ECHO information for Lotus 1-2-3 files must be entered as a second
ECHO parameter.
ECHO *****
ECHO          Example:  %0 C:\dBASE C:\LOTUS
ECHO *****
ECHO Note:  Put a space between batch file name, dbase directory, and
ECHO lotus directory.  Include drive letter.
GOTO EXIT

:START
CLS
IF %RBT%==1 GOTO CLEANFILE
GOTO CHECK

:CLEANFILE
IF EXIST C:\AUTOEXEC.old    COPY C:\AUTOEXEC.old    C:\AUTOEXEC.BAT
IF EXIST C:\CONFIG.old     COPY C:\CONFIG.old     C:\CONFIG.SYS
IF EXIST C:\AUTOEXEC.old    DEL C:\AUTOEXEC.old
IF EXIST C:\CONFIG.old     DEL C:\CONFIG.old
GOTO CHECK

:CHECK
IF NOT EXIST %1\DBASE.* GOTO NODBASE
IF NOT EXIST %2\LOTUS.* GOTO NOLOTUS
GOTO CONTINUE
:NODBASE
CLS
ECHO Unable to confirm existence of dBase program files
ECHO at location given in first parameter, try again . . .
GOTO EXIT
:NOLOTUS
CLS
ECHO Unable to confirm existence of Lotus 1-2-3 program files
ECHO at location given in second parameter, try again . . .
GOTO EXIT
REM  SINCE IT APPEARS THAT APPROPRIATE LOCATIONS HAVE BEEN GIVEN,
REM  THE MAIN PROGRAM CAN BE RUN.  HOWEVER, FIRST ENVIRONMENT
REM  STRINGS MUST BE SET
:CONTINUE
SET ICSDDB=%1

```

```

SET ICSDL=%2
CD >ICSD.DIR
CD >C:\ICSD.DIR
REM C:
REM CD %1
REM  DISPLAY THE FOLLOWING PARTIAL LOGO AS DBASE LOADS
CLS
ECHO OFF
ECHO.
ECHO.
ECHO
ECHO
ECHO
ECHO
ECHO
ECHO
ECHO
ECHO
ECHO
ECHO
ECHO
ECHO
ECHO.
REM  CHECK TO SEE IF USER ALREADY HAS FILES WITH SAME NAMES AS ARE
REM  USED BY THE ICSD.  IF SO, SAVE AND RENAME THEM.  COPY SPECIAL
REM  ICSD CONFIGURATION FILES TO THEIR LOCATIONS IN DBASE/LOTUS
REM  DIRECTORIES
IF EXIST %1\MASTER.PRG RENAME %1\MASTER.PRG MASTER.OLD >NUL
IF EXIST %1\CONFIG.DB RENAME %1\CONFIG.DB CONFIG.OLD >NUL
REM COPY AUTOMATE.PRG %1\MASTER.PRG >NUL
REM COPY CONFIG.DB %1 >NUL
IF EXIST %2\AUTO123.WK1 RENAME %2\AUTO123.WK1 AUTO123.OLD >NUL
COPY ICSDAUTO.WK1 %2\AUTO123.WK1 >NUL
REM  INVOKE ENTRY.COM WITH PARAMETERS TO HURRY THOUGH THE DBASE
REM  OPENING SCREEN
REM  INVOKE DBASE; CONFIG.DB FILE CONTAINS INSTRUCTION TO START
REM  WITH MASTER.PRG NOW LOCATED IN DBASE DIRECTORY
%1\DBASE MASTER.PRG
REM  THE REMAINDER OF THIS BATCH FILE CLEANS UP DBASE & LOTUS
REM  DIRECTORIES TO ORIGINAL CONTENT AND RESTORES ENVIRNONMENT SPACE
CLS
ECHO
ECHO
ECHO
International Coal Statistics Data Base : Returning to DOS
ECHO
IF EXIST %ICSDD%\MASTER.PRG ERASE %ICSDD%\MASTER.PRG
IF EXIST %ICSDD%\CONFIG.DB ERASE %ICSDD%\CONFIG.DB
IF EXIST %ICSDD%\CONFIG.OLD RENAME %ICSDD%\CONFIG.OLD CONFIG.DB >NUL
IF EXIST %ICSDD%\MASTER.OLD RENAME %ICSDD%\MASTER.OLD MASTER.PRG >NUL
IF EXIST %ICSDL%\AUTO123.WK1 ERASE %ICSDL%\AUTO123.WK1 >NUL
IF EXIST %ICSDL%\AUTO123.OLD RENAME %ICSDL%\AUTO123.OLD AUTO123.WK1 >NUL
SET ICSDDB=
SET ICSDL=
ERASE C:\ICSD.DIR
CLS
IF %RBT%==1 GOTO REBOOT
SET RBT=
GOTO EXIT

```

```
:REBOOT
COLDBOOT
```

```
:EXIT
```

Source Code for ICSD Installation Programs

```
INSTALL.BAT
ECHO OFF
CLS
SET DTEST=AAAABBBBCCCCDDDDDEEEEEFFFF
IF EXIST COPYFILE.BAT      DEL COPYFILE.BAT
```

```
:STEP1
DBASE INSTALL1
SET DTEST=
CLS
```

```
:STEP2
IF NOT EXIST COPYFILE.BAT  GOTO FAILURE
IF EXIST COPYFILE.BAT     CALL COPYFILE.BAT
```

```
:STEP3
DBASE INSTALL2
GOTO EXIT
```

```
:FAILURE
CLS
ECHO.
ECHO ERROR! Tranfer of files cannot be completed because a file
ECHO      that should have been created during the installation
ECHO      was not found. Try running INSTALL.BAT again ...
ECHO.
```

```
:EXIT
```

```
INSTALL1.PRG
* * * .....
* * *
* * * Purpose:  INSTALLS ICSD FILES.  CALLED BY INSTALL.BAT
* * *
* * * .....
SET TALK OFF
SET COLOR TO B/W,N/BG,N
CLEAR
MM=SPACE(45)
IF FILE([INSTALL.MEM])
    RESTORE FROM INSTALL.MEM ADDITIVE
ENDIF
FATAL=.F.
NEEDRESET=.F.
MTOTAL=000000
MFREE=000000
```

```

REQSPACE=7800000
I_DIR = [C:\ICSD]+SPACE(45)
I_LOTUS=[E:\LOTUS]+SPACE(45)
I_DBASE=[E:\DBASE]+SPACE(45)
MREQTOT=630000
MREQFREE=320000
U_DIR=[A]

```

TEXT

Installing the International Coal
Statistics Data Base

Installation of the ICSD requires:

- The seven ICSD program and data disks
- Lotus 1-2-3 (version 2.01 of 2.2), dBase III+, and DOS 3.x or greater.
- Approximately 570,000 bytes of free memory available before dBase III is loaded, or approximately 315,000 bytes of free memory with dBase III loaded (as it is now)
- Approximately 8,000,000 bytes of hard disk storage space

```

ENDTEXT
WAIT [ Proceed (Y/N)? ] to CH
IF .NOT. UPPER(CH)$[YT]
    QUIT
RETURN
ENDIF
CLEAR
I_PATH=UPPER(GETENV([PATH]))
@ 0,10 say [1. File names and paths ]
@ 2,10 say [ Current path known to the system: ]
@ 3,16 say I_PATH
@ 4,10 say [ (Even if Lotus and dBase are in path, answer all questions) ]
@ 6,10 SAY [ - Name of drive and directory for ICSD files ]
@ 7,16 GET I_DIR PICTURE [! ]
@ 8,16 SAY [Example - E:\ICSD ]
READ
I_DIR=LTRIM(TRIM(I_DIR))
IF .NOT. SUBSTR(I_DIR,2,1)=[:]
    WAIT [ERROR! Not valid. Follow example ...]
    QUIT
ENDIF
I_DRIVE=SUBSTR(I_DIR,1,1)
ICSDDRI=I_DRIVE+[:]
I_DRIVE=UPPER(I_DRIVE)
SET DEFAULT TO &I_DRIVE
* * * GET LOTUS DIRECTORY
@10,10 SAY [ - Name of drive and directory for Lotus 1-2-3 files ]
@11,16 GET I_LOTUS PICTURE [! ]
@12,16 SAY [Example - C:\123 ]
READ

```

```

I_LOTUS=LTRIM(TRIM(I_LOTUS))
* * * GET DBASE DIRECTORY
@14,10 SAY [      - Name of drive and directory for dBase files ]
@15,16 GET I_DBASE PICTURE [@!]
@16,16 SAY [Example -   D:\DBASE           ]
READ
I_DBASE=LTRIM(TRIM(I_DBASE))
I_DOSPATH=[]
* * * GET DOS FILES IF NECESSARY
@ 18,10 SAY [      - Name of drive and directory holding DOS files:   ]
I_DOSPATH=[C:\DOS]+SPACE(40)
@19,16 GET I_DOSPATH PICTURE [@!]
@ 20,16 SAY [Example -   C:\DOS           ]
READ
IF RIGHT(TRIM(I_DOSPATH),1)<>[\]
    I_DOSPATH=TRIM(I_DOSPATH)+[\]
ELSE
    I_DOSPATH=TRIM(I_DOSPATH)
ENDIF
@22,16 SAY [Letter of drive holding this installation program: ] get ;
U DIR PICTURE [!]
READ

* * * EVALUATE WHETHER LOTUS AND DBASE ARE IN THE PATH AND FILES ARE THERE
DBFILE=I_DBASE+[\DBASE.EXE]
IF .NOT. FILE(DBFILE)
    WAIT [ERROR! Unable to confirm that dBase files are present]
    QUIT
ENDIF
LFILE=I_LOTUS+[\LOTUS.COM]
IF .NOT. FILE(LFILE)
    WAIT [ERROR! Unable to confirm that Lotus files are present]
    QUIT
ENDIF
DOSFILE=I_DOSPATH+[BACKUP.COM]
IF .NOT. FILE(DOSFILE)
    WAIT [ERROR! Unable to confirm that necessary DOS files are present]
    QUIT
ENDIF
INSTFILE=U_DIR+[:INSTALL1.PRG]
IF .NOT. FILE(INSTFILE)
    WAIT [ERROR! Unable to confirm that installation disk was identified correctly]
    QUIT
ENDIF
SET DEFAULT TO &I_DRIVE
* * * .....MEMORY MANAGER
DO WHILE .T.
CLEAR
TEXT

```

Memory Manager

Some systems require that a memory manager file be present in the system configuration. Others use a memory manager when using Lotus 1-2-3 version 2.2.

If a memory manager is used on your system, select one of the following:

1. Don't know whether a memory manager is used, and/or not sure what it's called (will display contents of CONFIG.SYS)
2. Don't use a memory manager
3. Use a memory manager, name and path to be supplied by user
4. Continue (after selecting either 2 or 3)

```

ENDTEXT
WAIT [Enter choice : ] to ANS
ANS=UPPER(ANS)
*MM=SPACE(45)
DO CASE
  CASE ANS=[1]
    CLEAR
    IF FILE([C:\CONFIG.SYS])
      ? [Contents of the present CONFIG.SYS file:]
      ?
      TYPE C:\CONFIG.SYS
      ? [Look for lines beginning DEVICE= (except DEVICE=ANSI.SYS)]
      ? [Note the name and path, if any, of the memory manager]
      ?
      @row()+1, 10 SAY [Enter name and path of the memory manager device]
      @row()+1, 10 SAY [DEVICE=] GET MM PICTURE [!]
      READ
    ELSE
      WAIT [ERROR! Can't find your system configuration file ...]
    ENDIF
    IF .NOT. FILE(MM)
      WAIT [ERROR! Unable to confirm that the memory manager is present]
    ELSE
      EXIT
    ENDIF
  CASE ANS=[2]
    EXIT
  CASE ANS=[3]
    @row()+1, 10 SAY [Enter name and path of the memory manager device]
    @row()+1, 10 SAY [DEVICE=] GET MM PICTURE [!]
    READ
    IF .NOT. FILE(MM)
      WAIT [ERROR! Unable to confirm that the memory manager is present]
    ELSE
      EXIT
    ENDIF
  CASE ANS=[4]
    EXIT
ENDCASE
ENDDO
MM=TRIM(MM)

```

* * *

```

CLEAR
? [
?
IF LEN(TRIM(I_DOSPATH))>0
  MEMTEST=trim(I_DOSPATH)+[CHKDSK ]+I_DRIVE+[:\]

```

```

ELSE
    MEMTEST=[CHKDSK ]+I_DRIVE+[:\]
ENDIF
SET CONSOLE OFF
RUN &MEMTEST
SET CONSOLE ON
@ROW(),1 SAY [Enter total memory = ] GET MTOTAL PICTURE [9999999999]
@ROW(),COL()+7 SAY [ and free memory = ] GET MFREE PICTURE [9999999999]
READ
CLEAR
TEXT

```

3. System Checkout

```

ENDTEXT
?
? [      Available disk space on drive ]+I_DRIVE+[ - ]+str(diskspace(),9,0)
? [      Version of DOS now in use      - ]+OS()
? [      Version of dBase now is use     - ]+VERSION()
? [      _____ ]
? [      Comments]
?
IF DISKSPACE()<REQSPACE
    FATAL=.T.
    ? [      - FATAL ERROR!   There is not enough disk space to on ] ;
    +I_DRIVE+[: ]
    ? [      for the installation.  Either make additional space]
    ? [      available or select a different disk drive.]
    wait [ ]
    quit
ELSE
    ? [      - OK: There appears to be enough disk space.]
ENDIF
?
IF [3.]$OS() .OR. [4.]$OS() .OR. [5.]$OS()
    ? [      - OK: No problem anticipated with use of DOS BACKUP / ]
    ? [      RESTORE programs.]
ELSE
    ? [      - FATAL ERROR!   Incompatible DOS BACKUP / RESTORE programs ]
    ? [      More recent version of DOS required. ]
    FATAL=.T.
    wait [ ]
    quit
ENDIF
?
IF MTOTAL<MREQTOT
    ? [      - FATAL ERROR!   Not enough memory to run ICSD even after ]
    ? [      unneeded drivers and TSR's are removed ]
    FATAL=.T.
    WAIT [ ]
    QUIT
ENDIF
? [      - OK: There is enough installed memory to run the ICSD ]
ENDIF
?
IF MTOTAL>MREQTOT .AND. MFREE<MREQFREE
    NEEDRESET=.T.
    ? [      - ERROR! As now configured, the system does not have enough]

```

```

? [      free memory to run the ICSD.  However, it is possible to]
? [      run the system by rebooting with fewer drivers. ]
ELSE
? [      - OK:  Enough free memory]
ENDIF
?
WAIT
CLEAR
* * * EVALUATE WHETHER ENOUGH DOS ENVIRONMENT SPACE EXISTS
TEXT

```

3. System Checkout (Continued)

```

ENDTEXT
?
I_TEST=[AAAABBBBCCCCDDDDDEEEFFFFF]
FROMENV=GETENV([DTEST])
IF LEN(TRIM(I_TEST))>LEN(TRIM(FROMENV))
    NEEDRESET=.T.
    ? [      - ERROR! As now configured, the system does not have enough]
    ? [      DOS environment space to run the ICSD.  However, it is possible to]
    ? [      run the system by rebooting with fewer drivers. ]
    ?
    ? [      Original test value      : ]+i_test
    ? [      As saved in environment: ]+ffromenv
ELSE
    NEEDRESET=.F.
    ? [      - OK:  There is enough environment space for ICSD use ]
    ?
    ? [      Original test value      : ]+i_test
    ? [      As saved in environment: ]+ffromenv
ENDIF
? .
?
WAIT
CLEAR
ENDIF
* * * WRITE FILES REQUIRED TO START THE ICSD
SET SAFETY OFF
SET CONSOLE OFF
SET DEFAULT TO
RUNPROG=[MD ]+I_DIR
RUN &RUNPROG
* * * WRITE AUTOEXEC.BAT
A=I_DIR+[\AUTOEXEC.ics]
SET ALTERNATE TO &A
SET ALTERNATE ON
? [ECHO OFF]
? [PROMPT $P $G ]
? [PATH=C:\;]+I_DOSPATH+I_DOSPATH+[;]+I_LOTUS+[;]+I_DBASE+[;]+I_PATH
? [ICSD]
SET ALTERNATE OFF
* * * WRITE CONFIG.SYS
B=I_DIR+[\CONFIG.ics]
SET ALTERNATE TO &B
SET ALTERNATE ON
? [FILES=45]
? [BUFFERS=15]
IF LEN(MM)>0

```

```

? [DEVICE=]+UPPER(MM)
ENDIF
SET ALTERNATE OFF
* * * WRITE CALLING BATCH PROGRAM
C=[C:\ICSD.BAT]
SET ALTERNATE TO &C
SET ALTERNATE ON
? [ECHO OFF]
? [SET RBT=0]
? [REM CHECK FOR RESET PARAMETER]
? [IF %1X==X GOTO NOPARAMS]
? [IF %1==RESET GOTO REBOOT]
? [IF %1==reset GOTO REBOOT]
? [IF %1==RESTORE GOTO RESTORE]
? [IF %1==restore GOTO RESTORE]
? [ECHO ERROR! INCORRECT PARAMETER]
? [GOTO EXIT]
? [:RESTORE]
? [ECHO Original system configuration now being restored. Reboot ... ]
? [IF EXIST C:\AUTOEXEC.old COPY C:\AUTOEXEC.old C:\AUTOEXEC.BAT]
? [IF EXIST C:\CONFIG.old COPY C:\CONFIG.old C:\CONFIG.SYS ]
? [IF EXIST C:\AUTOEXEC.old DEL C:\AUTOEXEC.old ]
? [IF EXIST C:\CONFIG.old DEL C:\CONFIG.old ]
? [IF EXIST ]+I_DBASE+[\MASTER.PRG ERASE ]+I_DBASE+[\MASTER.PRG ]
? [IF EXIST ]+I_DBASE+[\CONFIG.DB ERASE ]+I_DBASE+[\CONFIG.DB ]
? [IF EXIST ]+I_DBASE+[\CONFIG.OLD RENAME ]+I_DBASE+[\CONFIG.OLD CONFIG.DB ]
? [IF EXIST ]+I_DBASE+[\MASTER.OLD RENAME ]+I_DBASE+[\MASTER.OLD MASTER.PRG ]
? [IF EXIST ]+I_LOTUS+[\AUTO123.WK1 ERASE ]+I_LOTUS+[\AUTO123.WK1 ]
? [IF EXIST ]+I_LOTUS+[\AUTO123.OLD RENAME ]+I_LOTUS+[\AUTO123.OLD AUTO123.WK1 ]
? [GOTO EXIT]
? [:REBOOT]
? [REM REBOOT SYSTEM TO GET RID OF DRIVERS & TSRS]
? [CLS]
? [ECHO.]
? [ECHO The International Coal Statistics Data Base]
? [ECHO ]
? [ECHO.]
? [ECHO Now running in system reset mode. System will now reboot to increase]
? [ECHO available memory without unnecessary drivers, TSR's and so forth.]
? [ECHO.]
? [ECHO In order to avoid configuration problems during normal use, IT IS]
? [ECHO IMPORTANT TO USE THE ICSD MENU SYSTEM TO EXIT. DO NOT JUST TURN THE]
? [ECHO SYSTEM OFF. ]
? [ECHO.]
? [ECHO If these instructions are not followed, and problems develop, enter ]
? [ECHO.]
? [ECHO ICSD RESTORE ]
? [ECHO.]
? [ECHO to return the system to the original settings.]
? [ECHO.]
? [PAUSE]
? [SET RBT=1]
? [IF EXIST C:\AUTOEXEC.BAT COPY C:\AUTOEXEC.BAT C:\ICSD.MRK]
? [IF EXIST C:\AUTOEXEC.BAT COPY C:\AUTOEXEC.BAT C:\AUTOEXEC.old]
? [IF EXIST C:\CONFIG.SYS COPY C:\CONFIG.SYS C:\CONFIG.old]
? [IF EXIST ]+I_DIR+[\AUTOEXEC.ics COPY ]+I_DIR+[\AUTOEXEC.ics C:\AUTOEXEC.BAT]
? [IF EXIST ]+I_DIR+[\CONFIG.ics COPY ]+I_DIR+[\CONFIG.ics C:\CONFIG.SYS]
? [IF EXIST ]+I_DIR+[\COLDBOOT.COM ]+I_DIR+[\COLDBOOT.COM]
? [ECHO ERROR! REBOOT PROCESS FAILED]

```

```

? [PAUSE]
? [GOTO EXIT]
? [:NOPARAMS]
? [REM      PROGRAM CALLED WITHOUT PARAMETERS.  START ICSD NORMALLY]
? [REM      BY GOING TO ICSD DIRECTORY AND INVOKING ICSD.BAT]
? [IF EXIST C:\ICSD.MRK SET RBT=1 ]
? [IF EXIST C:\ICSD.MRK ERASE C:\ICSD.MRK]
? [PATH=C:\]+I_DOSPATH+[,]+I_DOSPATH+[,]+I_LOTUS+[,]+I_DBASE+[, ]
? I_DRIVE+[: ]
? [CD ]+I_DIR
? [ ICSD ]+I_DBASE+[ ]+I_LOTUS+[ %RBT%]
? [GOTO EXIT]
? [:EXIT]
? [SET RBT=]
SET ALTERNATE OFF
SET ALTERNATE TO
SET CONSOLE ON
CLEAR
SET SAFETY OFF
SET CONSOLE OFF
SET DEFAULT TO

* * * WRITE FILE CONTAINING INSTRUCTIONS FOR RESTORING FROM BACKUPS

D=U_DIR+[:\COPYFILE.BAT]
SET ALTERNATE TO &D
SET ALTERNATE ON
? [ECHO OFF]
? I_DRIVE+[: ]
? [CD ]+I_DIR
? [CLS]
? [ECHO This section of the installation program uses the DOS RESTORE]
? [ECHO program to move files from the floppy diskettes to this directory.]
? [ECHO It requires all the ICSD program and data disks.]
? [ECHO.]
? [ECHO Place disk #1 in drive .....]
? [ECHO.]
? [RESTORE ]+U_DIR+[: ]+I_DRIVE+[: ]
? U_DIR+[: ]
? [::LOOP]
? [CLS]
? [ECHO.]
? [ECHO          Put the ICSD INSTALL disk in drive ]+U_DIR+[: ]
? [ECHO          _____]
? [ECHO.]
? [PAUSE]
? [IF NOT EXIST INSTALL1.PRG GOTO LOOP]
?
SET ALTERNATE OFF
SET ALTERNATE TO
SET CONSOLE ON
SET SAFETY OFF
SAVE TO INSTALL
SET SAFETY ON
QUIT

```



```

INSTALL2.PRG
* * * .....
* * *
* * * Purpose:  COMPLETES ICSD INSTALLATION. CALLED BY INSTALL.BAT
* * *
* * * .....
SET TALK OFF
SET COLOR TO B/W,N/BG,N
CLEAR
IF FILE([INSTALL.MEM])
    RESTORE FROM INSTALL.MEM ADDITIVE
ENDIF
*RUNPROG=[CALL ]+I_DIR+[\COPYFILE.BAT]
*RUN &RUNPROG
E=I_DIR+[\MASTER.PRG]
IF .NOT. FILE(E)
    WAIT [ERROR! Unable to confirm that files were restored successfully. Try again.]
    QUIT
ENDIF
CLEA
* * * .....

IF NEEDRESET
    TEXT

```

As presently configured, this system does not have
either the free memory or the DOS environment space
needed to run the ICSD.

However, the ICSD can still be run by changing some system
variables. To do so, start the ICSD from the DOS prompt
(and from the root directory C:\) by entering:]

C:\ICSD RESET

This will cause the system to restart without the same
drivers as are now loaded. These will be restored upon
completion of the ICSD.

```

ENDTEXT
ELSE
    TEXT

```

Start the ICSD from the root directory
of C:\ by entering:

C:\ICSD

Alternately, to reboot the system with
maximum (low) memory, enter:

C:\ICSD RESET

```
ENDTEXT  
ENDIF  
WAIT  
CLEAR  
QUIT
```

4.6 Security

All data on the ICSD are non-proprietary, therefore no security measures (e.g., passwords) are provided.

END

**DATE
FILMED**

12/10/91