USER'S GUIDE

DOE/EIA--M045

DE92 002002

The International Coal Statistics Data Base

June 1991

EIA

Energy Information Administration

THE INTERNATIONAL COAL STATISTICS DATA BASE

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Energy Information Administration
Washington, D.C

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* 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.

ICSD was developed by the EIA Office of Coal, Nuclear, Electric and Alternate Fuels. Any questions about the ICSD, this *User's Guide*, or other related documentation should be addressed to Louise Guey-Lee at (202) 254-5470 or Thelda McMillian at (202) 254-5414.

Be sure to see the README file on Diskette 1 for updated information on machine requirements, installation instructions and operating instructions.

This *User's Manual* and accompanying diskettes are available for purchase from the following source:

National Technical Information Service
Office of Data Base Services
U. S. Department of Commerce
5285 Port Royal Road
Springfield, VA 22161

Any questions about updates to the ICSD or upcoming versions should be addressed to NTIS at the above address.

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Introduction

Objectives of the User's Guide

This manual is designed to provide the basic information necessary to install and run the International Coal Statistics Data Base, using the accompanying package of diskettes. The manual offers the user information on both hardware and software requirements, as well as simple instructions for installing the ICSD system and preparing reports.

Documentation for the ICSD consists of three manuals -- the User's Guide, the Operations Manual, and the Program Maintenance Manual. The User's Guide is an easy to use document which explains how to install the ICSD and how to make the system respond to queries. It describes the ICSD menu structure and what each menu selection will do. Sample reports and graphs generated from individual menu selections and more technical information about the data sources can be found in the Operations Manual. The Program Maintenance Manual is a reference on the structure of the programs and the content of the data tables.

The User's Guide also contains a trouble shooting guide to assist users with some of the common problems which may occur in installing and running the ICSD. The reader should direct any questions beyond the scope of this manual to the EIA representatives listed in the Preface.

Objectives of the International Coal Statistics Data Base

The ICSD is a microcomputer-based system which presents four types of data: (1) the quantity of coal traded between importers and exporters, (2) the price of particular ranks of coal and the cost of shipping it in world trade, (3) a detailed look at coal shipments entering and leaving the United States,[1] and (4) the context for world coal trade in the form of data on how coal and other primary energy sources are used now and are projected to be used in the future, especially by major industrial economies.

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[1] Since this information is derived from a private data series in a copyrighted publication, it is not available on copies of the ICSD that are not for government use.

The ICSD consists of more than 140 files organized into a rapid query system for coal data. It can operate on any IBM-compatible microcomputer with 640 kilobytes memory and a hard disk drive with at least 8 megabytes of available space. The ICSD is:

1. A menu-driven, interactive data base using Dbase III+ and Lotus 1-2-3.

2. Inputs include official and commercial statistics on international coal trade volumes and consumption.

3. Outputs include dozens of reports and color graphic displays. Output report types include Lotus worksheets, dBase data bases, ASCII text files, screen displays, and printed reports.

4. Flexible design permits user to follow structured query system or design his own queries using either Lotus or dBase procedures.

5. Includes maintenance programs to configure the system, correct indexing errors, back-up work, restore corrupted files, annotate user-created files and update system programs, use DOS shells, and much more.

Forecasts and other information derived from the ICSD are published in EIA's *Annual Prospects for World Coal Trade* (DOE/EIA-0363).

General Diskette Information

1. Diskette title: International Coal Statistics Data Base 1991 (ICSD91)

2. ICSD91 diskettes prepared and released: June 1991

3. EIA Product Number:

4. Series of two diskettes - ICSD91-1 and ICSD91-2.

5. Diskette type: high density, 1.2 megabytes, 5 1/4 inch

6. Diskette description:

   a. Diskette ICSD91-1 contains the User's Guide in the README.DOC file, the Installation Programs, and the first of three "ZIPPED" ICSD program and data "EXE" files.

   b. Diskette ICSD91-2 contains the remaining two ICSD programs and data files. (Note: the version of the ICSD which is released outside of the U.S. Federal Government does not contain the third data file.)

7. The ICSD Documentation - the User's Guide, the Operations Manual, and Program Maintenance Manual are available in hard copy. The ICSD system is used for analysis in the *Annual Prospects for World Coal Trade* publication. Some of the data appears in that publication.

8. Specific information regarding the contents of the ICSD may be obtained from Louise Guey-Lee, Coal Data Analysis and Forecasting Branch, EI-522, Washington, D.C. 20585, (202) 254-5470.

9. Data file layouts and data file descriptions are included in the ICSD Program Maintenance Manual which is available upon request.

10. The ICSD requires a hard disk with at least 8 megabytes of free space and must have available the full 640 K of random access memory.

11. The Office of Coal, Nuclear, Electric and Alternate Fuels can provide information on converting the ICSD files to ASCII text format upon request.

Installation

Hardware Requirements

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 present and 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, both in terms of available disk storage space and memory. The system was designed to run on a Compaq 386 computer equipped with color graphic cards and supported by a graphics printer. However, the ICSD system will run on many other 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 (RAM). A hard drive is required to store ICSD programs. Approximately 8 megabytes of storage must be free before installing the program. Any hard drive meeting this requirement may be used to install the ICSD.

A disk drive capable of reading the 5 1/4 inch, 1.2 megabyte floppies supplied with the ICSD must be available. This can be a standard high density drive.

Software Requirements

DOS — The ICSD was developed using MS-DOS version 3.31. Therefore, the ICSD should also operate under that or any higher version of MS-DOS.

PK-UNZIP — Installation is accomplished using the software routine PK-UNZIP. A copy of the "EXE" module for PK-UNZIP is contained on diskette 1.

LOTUS 1-2-3 — Version 2.0 or 2.2 must be used rather than Version 1 or 1.A. All of the worksheets used by the ICSD contain macros that are not compatible with earlier versions of Lotus. If Lotus 2.2 will be used, there are two requirements: (1) A memory manager must be used to ensure that there is enough room in low memory to load the ICSD worksheets (particularly D1.Wk1). (2) The system must be started by entering: ICSD RESET.

DBASE III PLUS — Either release of dBase III+ may be used. DBase II will not work, nor will dBase IV (because there is insufficient memory to load Lotus simultaneously.) A CONFIG.DB file is supplied by the ICSD.

Operating System and Microprocessors

Any version of MS-DOS after 3.0 can be used. The ICSD system assumes that certain DOS commands will always be available. This means that the subdirectory holding the user's DOS programs must be in the current path, as must the user's Lotus and dBase files. If this is not the case, either issue the DOS command PATH= with appropriate directory listing or consult the DOS operating manual for more information on how your system is set up if these concepts are unfamiliar.

There are no separate microprocessor requirements beyond those required to operate Lotus 1-2-3 and dBase III. Presumably, any system configured with the Intel 8088, 8086, 80286 or 80386, or the NEC V20 and V30 will suffice provided that the system will run those two programs without problems.

Graphics Requirements

The ICSD makes full use of Lotus's graphics capabilities to illustrate the trends in world coal trade and permit data relationships to be analyzed visually. But just as Lotus 1-2-3 can be run on systems without a graphics card of any kind, the ICSD also does not require that graphics capabilities be present. However, they are highly recommended, particularly color graphics. The ICSD will use whatever graphics drivers were installed with Lotus 1-2-3, and no adaptation is needed.

Printing Capabilities

Many printed reports may be generated on the ICSD but it is not required that a printer be available. If one is, it should be capable of printing on at least 130 positions per line and have a compressed mode available. The ICSD includes a miscellaneous option for sending a set-up string to the printer to invoke compressed printing.

The same applies to graphics printing. It is not necessary to have a graphics printer, but if one is available, the Lotus 1-2-3 program for printing graphs may be used to print the graphs generated while using the ICSD. Any printer supported by Lotus 1-2-3 will work.

Environment Space

DOS provides a special area of memory set aside for "the environment" where certain variables, otherwise meaningless to DOS, may be stored for access by programs. The ICSD makes use of this facility to keep track of the location of the Lotus and dBase program files. On some systems and in some versions of DOS the amount of environment space is limited to 128 K bytes and may already be in use by other programs. While the ICSD's environment requirements are limited to specifying two paths which are removed from the environment upon program completion, and most users will not have to be concerned with this parameter, it is possible that some users may receive an error message warning of too little environment space. If this occurs, remove unnecessary SET commands and reboot, remembering not to load "terminate-and-stay-resident" (TSR) programs before or while using the ICSD system. (In fact, no TSR programs should ever be present when the ICSD is invoked.) Alternately, run the ICSD with the RESET parameter, which will reboot the system with only the bare minimum of drivers required to operate the system. The installation program will indicate whether sufficient environment space is present.

Special Hardware/Software Requirements

Memory Requirements

The ICSD system first loads dBase III, which requires a minimum of 256 K bytes but operates better with at least 320 K bytes, and then loads Lotus 1-2-3, requiring on the order another 200 K bytes. Lotus will in turn load worksheets requiring a further 80 K bytes. For this reason, the ICSD is really intended for use on systems having a full 640 K bytes of RAM, and ideally a memory manager and a version of Lotus that can load worksheets into high memory. For the same reason, no TSR

programs (such as Sidekick) should be present when the ICSD is being used. Experiments have shown that somewhat less memory may be available without hampering ICSD operation, but it is better to use the full 640 K DOS address space. The INSTALL.BAT program determines whether the system is capable of running ICSD.

Disk Storage

The files that are supplied with the ICSD require approximately 8 megabytes of fixed disk storage space. It is not feasible to run the system from floppy disk drives. An option included with the system is to set aside other areas of the fixed disk as a storage area for backup copies of key data and program files. This option, which is possible but not usually recommended for experienced users, takes up an additional 8 megabytes. The system's files must be stored in any drive in a subdirectory called ICSD. The backup files may be stored on another drive in any subdirectory.

System Configuration

Since the ICSD relies on Lotus and dBase, it is important that Lotus, in particular, be installed correctly for the system in which it resides on. Most of the dBase configuration is handled by the ICSD and no additional parameters need be supplied. A special CONFIG.DB file is provided with the other ICSD files and users familiar with dBase configuration settings may edit to customize the configuration.

Configuration of Lotus 1-2-3 is handled by both the Lotus installation menu choice called Install when Lotus is first started, and from the /Worksheet Global Default command once a worksheet is loaded. The former is used to select text and graphics printers and type of screen output. The latter establishes default settings. There are only a few mandatory default Lotus settings for the ICSD:

- The default directory must be set to the same directory that holds the Lotus 1-2-3 program files (e.g. 123.COM or 123.EXE). This means that if the Lotus program files, such as 123.COM are in C:\LOTUS, then Lotus must be configured by use of the /Worksheet Global Default Directory command so the initial directory is also C:\Lotus.

- The default printer must be set for a wide margin, preferably with a set-up string that turns on compressed print if that feature is available. On many printers this is "\027\015". Users should

consult their printer manuals for additional information. If graphs are to be printed, the settings on the Print Graph program may be changed so that the directory where the program looks for graphs to print is properly set for C:\ICSD. While configuration of dBase III is not required, the same considerations apply to most printed reports. It is possible to send set-up strings to the printer from within the ICSD by using Miscellaneous Option 5.[2]

Installation Procedures

Installation of the ICSD is relatively simple. There are three mandatory steps and an optional fourth step:

1. Note Directory Information Make a note of the location of where the Lotus, dBase and DOS files are stored before running the installation program. Use the DOS SET command to get this information. Also make certain that the dBase and Lotus files are in the current path. If this is not the case, issue the DOS command PATH= with the appropriate directory listing. If using Lotus 1-2-3 version 2.2, also note whether the system uses a memory manager. The noted information will be used by the installation program.

2. Run the Installation Program Insert the ICSD INSTALL DISK (ICSD90-8) in drive A. Then type A: and enter INSTALL. Usually, the 5 1/4" floppy drive will be A: and it is in this drive that the INSTALL DISK should be placed.

   Example:

   ```
   A:        <enter>
   INSTALL   <enter>
   ```

   The installation program reads various system parameters to ensure that there is enough room for the ICSD, enough memory, and so forth, and then (a) uses the DOS RESTORE program to copy all files to the location specified by the user; and (b) writes a brief batch file in the system's root directory of the C: drive, C:\ICSD.BAT, to be used to start the program.

   The program will request that each of the seven numbered disks be inserted in turn to send the files to the user's system. Afterwards, the program will request that the batch file be inserted, referring to the INSTALL diskette.

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[2] This option includes both start-up strings for standard printers as well as the codes required to print Laserjet II reports in line printer type, landscape format.

As the files are in DOS BACKUP format, THEY MAY NOT JUST BE COPIED to the chosen directory. However, if the installation fails for any reason, the user may restore the programs by changing to the directory to be used for ICSD files and giving the command: RESTORE A: C:

3. Starting Program Start the ICSD by entering "ICSD" at the drive prompt (C:,D:,or etc.) The ICSD batch file is initially placed in the root directory of drive C: by the installation program, but it may be moved to any location in the system's path. Depending on system capabilities, it may be necessary to call ICSD.BAT with the RESET parameter (i.e. entering ICSD RESET from the DOS prompt). This will be necessary if the system, as currently configured, does not have enough "low" memory to run the ICSD but could have enough if unnecessary programs were deleted. If this condition exists on the user's system, it will be identified at the end of the installation program. It will be necessary to call ICSD RESET if Lotus version 2.2 with a memory manager is used.

   Example: Depending on how much memory is available and the results of the installation process, use either:

   C:\ICSD or D:\ICSD
   C:\ICSD RESET or D:\ICSD RESET

The difference between starting with and without the RESET parameter concerns whether the system will first be rebooted to remove superfluous drivers, resident programs, and the like. Starting with the RESET parameter is optional for systems with free low memory in excess of 350,000 bytes with dBase III loaded. Otherwise, it is mandatory. If RESET is used, the system will be restored to its original configuration upon completion of the ICSD. If not, the ICSD will be called with the current amount of memory and existing system drivers. In order for the original settings to be restored, the ICSD menu system must be used to exit the program (i.e. do not just turn the system off). If the original configuration is not restored for this or some other reason, enter the command C:\ICSD RESTORE

In either case, *dBase III+ must be in the system's path.*

Note that before the opening ICSD menu appears, the dBase licensing screen will come up. This screen is built into dBase. Either press enter once or wait several seconds for it to disappear.

4. Backup directory The ICSD has an OPTIONAL facility that restores copies of the original system and data 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 database procedures.

   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 directory (e.g. COPY C:\ICSD*.* C:\BACKUP). The name of the directory used is requested during installation for users who require data security.

Trouble-Shooting Installation Problems

If the ICSD INSTALL program does not work properly, check the following:

Problem	Check
No dBase intro screen	Check whether dBase is in the path using the DOS SET command. If not, insert it.
dBase intro screen but nothing more	Check whether default drive was set for the ICSD installation disk. If this is drive A, enter the DOS command A: <enter> before typing INSTALL <enter>.
No files are copied	If the restore program says to insert disks but nothing is being copied/restored, rerun installation program and select the name ICSD for the directory to hold ICSD files. If this still doesn't work, create and change to the directory to hold ICSD files (which must be called \ICSD but may be on any hard drive), and give the DOS command

	RESTORE A: C:, where A is the floppy drive and C is the hard drive being used for ICSD files. If this still doesn't work, check whether a compatible version of DOS is being used.
ICSD.BAT used to start program but nothing happens	Check for existence of C:\ICSD.BAT. If it isn't present, rerun installation program.
dBase error message appears during installation (Cancel, Ignore, Suspend)	Select Cancel, type QUIT, rerun installation program.
System configuration problems	Run the batch program, ICSD RESTORE, to return to original configuration. If this fails, manually copy the files AUTOEXEC.OLD to AUTOEXEC.BAT and CONFIG.OLD to CONFIG.SYS.

If the ICSD does not function properly, check the following:

No ICSD screen	Rerun the installation program, first being sure that dBase is in the path. If it is, try giving the command _ICSD C:\DBASE C:\LOTUS This command MUST be given from inside the ICSD directory. Substitute the correct directory names for dBase and Lotus instead of those in the example.
Not enough environment space	First try running with the ICSD RESET parameter. If still not enough, consult the DOS manual about inserting a SHELL command in the \ICSD\CONFIG.ICS file, then retrying the ICSD RESET program.

Not enough memory	If this error message appears while the ICSD is using Lotus, use a memory manager to increase the size of the worksheet that can be loaded. Rerun the Installation program and select choice under memory managers.
Lotus won't run	Be sure information supplied on location of Lotus files during installation is correct. If so, load 123, select /Worksheet /Global /Status /Directory. Insert the name of the Lotus directory as the initial directory, /Update the Lotus configuration information, and retry.
1-2-3 works with ICSD but other uses always result in ICSD files being loaded and run	This condition occurs if the system is turned off before exiting the ICSD using the ICSD menu system. Run the ICSD batch program with the RESTORE parameter. If that doesn't work, erase the file AUTO123.WK1 from the Lotus directory.
No dBase screen	Check correctness of dBase location specified during installation. Check if dBase will run independently. If so, load dBase from the ICSD directory, issue command DO MASTER from dBase prompt. If this works, rerun installation by issuing CTRL + BREAK before restoring files again and exit from Install batch program. If not, check to see if MASTER.PRG is present in ICSD directory and rerun complete installation if it isn't.

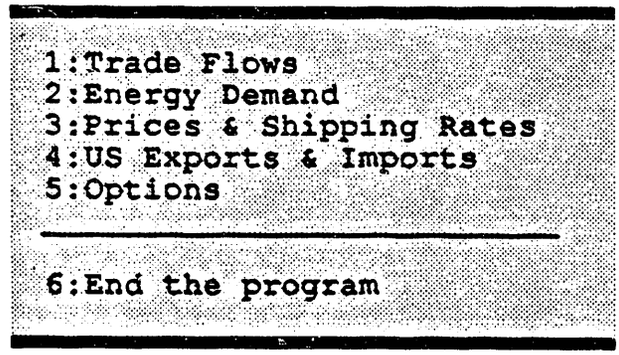
ICSD Operation

To run the ICSD system, once installed, change to the ICSD directory and type ICSD.

The ICSD operates by using dBase programs to create a menu system, operate dBase programs and data storage and activities, make automatic transitions into Lotus whenever spreadsheet capabilities or graphics are needed.

The menu system is organized around four types of data. A user need only understand what the four types of data are, and which ones may be needed to respond to a query in order to make the initial selection from the main menu. The initial menu selection will lead to a submenu of procedures for querying that type of data, followed by programs that interactively select and display responsive data. On-line help is available in the form of a pop-up screen that briefly explains each menu selection. All operations begin and end at the main menu.

ICSD Main Menu



In addition to the four menu choices corresponding to major data types, there is a fifth choice from the main menu which controls access to various system maintenance programs. System maintenance options include routines to rebuild index files in case of a malfunction, an annotated file list explaining the purpose of existing files and allowing newly created files to be noted, and a program to either copy files or restore corrupted files to their original contents. There is also a further sub-menu of miscellaneous programs that perform various non-routine operations, including some file update procedures, DOS shells, blank Lotus worksheets, printer set-up, and so forth.

How to Find Data

What types of coal-related queries can be made? The following listing is provided as an introduction to the menu system. For each query type, a reference to the menu and selection number that would find this data is given in boldface print. A complete explanation of the menu system begins in section II, Operations & Data Retrieval of the Operations Manual.

- The total **volume exported** by a country or region for a specified coal type in a specified year or series of years in user specified units.

  Flows, Choice 1

- The total **volume imported** by a country or region for a specified coal type in a specified year or series of years in user specified units.

  Flows, Choice 2

- The **percent share** that a particular country's imports represented of a given coal exporter's exports for a user specified coal type and a user-specified year.

  Flows, Choice 2

- The **percent share** that a particular country's exports represented of a given coal importer's imports for a user-specified coal type during a user specified period.

  Flows, Choice 2

- A comparative **time series of imported volumes** by coal type for any two to six importing countries or regions from either all exporters or a single coal exporter.

  Flows, Choice 3

- The volume, coal type, transaction value and unit cost of **coal leaving a U.S. port** or region for any foreign country between 1980 and mid-1990.

  Exports & Imports, Choices 1 & 2

- The volume, coal type, transaction value, and unit cost of **coal shipped to the U.S.** from any foreign country between 1980 and mid-1990.

Exports & Imports, Choices 1 & 3

- Representative end-of-quarter **prices and shipping rates** for coal loads leaving domestic and foreign ports, broken down by vessel size, sulphur, heat content and probable destination.

Prices & Rates, Choices 1 & 2

- Prices and rates averaged for user-specified periods broken down by vessel size.

Prices & Rates, Choices 1 & 3

- The **projected coal balance** of major industrial economies through the year 2010, as well as the importance of coal as a primary fuel for all economic sectors, end-users, and the industrial and electric utility sectors.

Demand, Choice 1

Each of the four data types is associated with a menu selection from the master menu. When chosen, a submenu is loaded, which controls further user options. Each submenu contains a final selection to return to the master menu. Each submenu in turn loads a program to accomplish the selected task. Many of these programs also offer a possible way to return to the menu system in case selection of that component program was made in error and will return to the menu system after execution in any case. Many component programs perform a portion of their function in dBase and then load Lotus to analyze query results. With only a few exceptions, once in a Lotus worksheet, a light-bar type menu system similar to the familiar Lotus menu, is used to guide the user through program decision points and to aid in preparing reports and graphics.

The menu system is organized like an inverted tree, with the main menu at the top, five operating menus (the first major program branches) beneath that, and further menus and decision points beneath each of the five operating menus. All major decisions are made through the main menu, and it is necessary to return to the main menu in order to switch to a different branch of the structure. Help on the meaning of menu choices may be accessed by hitting the F1 key. By convention, the background of the main menu is cyan, secondary menus have a red background, and tertiary menus are in blue.

Main Menu Options

I. Trade Flows

The Trade Flows selection contains both time series and matrix views of the international trade in coal between importing and exporting countries and regions. It should be used for official data on how much coal went from a nation or region to another nation or region. Data are complete for all years between 1980 and 1990. Data exist for steam and metallurgical coal, and the combination of the two.

One of the limitations of both Lotus or dBase is the presentation of multi-dimensional data. It is not possible to get all information from this type of data in a simple two-dimensional table. To compensate for this, and to make available the most significant views of the four-dimensional arrays of importer/exporter volumes by year and coal type, the ICSD offers separate choices for either a time series or an importer/exporter matrix, or a combination of the two. Among the three possibilities, the user can see every possible view of the data. Market share penetration analysis for both importers and exporters is available from the matrix view.

II. Energy Demand

The Energy Demand selection contains historical data and projections that show how major industrial economies use coal, how much they depend on imports, and how coal usage compares with other primary fuels. Historical data range from 1980 to 1989, with projections for many variables through 2010. Data may be accessed using either color or monochrome graphics. The dBase program generates multiple reports on coal use in the electric utility and industrial sectors, shows coal import balances, and projects coal imports through 2010. Data are most complete for OECD European countries and Japan. Not all data elements are available for smaller industrial economies.

III. Prices & Freight Rates[3]

The Prices & Rates selection contains a commercial data series from Coal Week International (CWI). Data are taken from the monthly issue nearest the end of a quarter for each quarter since 1980. Changes in the data series by CWI affect some data elements during some periods. Prices include both prices at origin and prices at destination for steam coal and prices at origin only for metallurgical coal. Data includes significant

[3] Since this information is derived from a private data series in a copyrighted publication, it is not available on copies of the ICSD that are not for government use.

pricing variables such as heat content per unit of weight, ash content, volatility, etc. Freight rates are reported price quotes from main coal exporting ports of major coal exporting countries, varying by ship size and port of destination.

For copyright protection reasons, these two databases are not supplied on non-government versions of the ICSD.

IV. U.S. Exports & Imports

This selection contains Census Bureau figures derived from U.S. Department of Commerce data on coal transactions entering and leaving the United States. The period of coverage begins in January 1980 and extends to December 1990. Coal shipments are reported in short tons with corresponding total dollar values. For export shipments, the free alongside ship (f.a.s.) value is given; for imports the cost, insurance and freight (c.i.f.) value is given. EIA ordinarily applies several filters to these data for publication purposes which have not been applied in the ICSD. For example, EIA suppresses records where average coke prices exceed $200.00 per ton (usually where small quantities are shipped on an experimental basis to test the suitability of coke for a particular boiler) or where percent changes fluctuate by 500 percent or more. These filters apply primarily to small shipments and do not effect weighted average prices significantly. Documentation for these alterations may be found in the notes accompanying EIA's *Quarterly Coal Report (DOE/EIA-0121)*. If desired, the Custom Query menu choice may be used to construct similar filters.

V. Options

The Options selection contains configuration, file maintenance, and miscellaneous options. Configuration should be selected when the system is first used. There are also option selections to restore index files, list all files with an explanation of their purpose, and back-up files. The Options selection also leads to a series of miscellaneous options.

The existence of the system of menus does not mean that every option is governed by pre-established selections. The user is free to leave either the dBase menu structure or the Lotus menus whenever independent analysis appears desirable. To make use of this option, it is necessary to be familiar with the general usage conventions described in the following section.

The ICSD allows users a wide range of choices, both to access data from within a menu-driven system, and to fashion custom queries from within and without the menu system. This is done by design to encourage flexibility and to make the system as

useful as possible to those already familiar with dBase and Lotus conventions. No experience with either program is required; the ICSD menu structure will provide an overview of world coal trade and particular aspects of interest to the user through the menu system alone. But as not every possible type of query can be anticipated in advance, the ICSD permits users familiar with Lotus and dBase query and reporting capabilities to take control of the databases. In the case of the dBase environment, this is referred to as the dot prompt level, as that is where dBase commands are given. In the Lotus environment, the CMD light at the bottom of the screen is off and movement of the cell pointer is left unrestricted.

However, this flexibility is provided at the possible expense of file security and possible jeopardy to program operation. For example, a user may continue working with data from the dBase command prompt level when the dot prompt level is invoked with a database (and, in some cases, associated indexes) in use. A careless return from the dot prompt to the ICSD menu system could leave databases open which could interfere with the proper functioning of the prepared programs or cause an error message to appear. **Particular care should be taken to close files, and update associated indexes if the data in particular tables is changed by the user without opening the index.** A listing of many Lotus and dBase commands applicable to direct database access is found in the General Usage Conventions section below. The user should be familiar with these commands before escaping from the ICSD menu system. Further information may be found in either the Lotus 1-2-3 or dBase operating manuals.

General Usage Conventions

I. Lotus and dBase

Users wishing to take advantage of ICSD flexibility should note the following general rules and escape conventions:

<u>While in a dBase environment:</u>

F10 - Closes any open filter files, closes data bases and restarts the controlling menu program, MASTER.PRG.

DO MASTER - restarts the system, but does not close open files

RESUME - if issued after being in the ICSD system, will return to the system, which will then close open files. The on-screen instructions which appear before being dropped to the dot prompt level explain what is required to return.

QUIT - This dBase command will close files and avoid possible file corruption, but is less preferable than returning via the menu system.

ESCAPE - is usually permitted except during operations, such as reindexing, where files would be damaged if the operation were interrupted. Escape will cause a return to the previous menu level, except from the dot prompt.

ERROR - if a dBase error message is given, first try to ignore it, but if error messages recur, cancel and hit F10.

<u>While in a Lotus environment</u>

MENUS - all Lotus main menus have common elements: Report, Print, and Graph to invoke the respective functions. After selecting Report from any Lotus menu, the cell pointer is positioned on the reported data and the user is free to move it elsewhere to see other sections of the report. To return to the menus, hit "enter" several times.

ALT M - returns to the ICSD worksheet menu system.

/QY - returns to the ICSD dBase menu system. While the transition is usually smooth, for some of the larger worksheets, like that for the first demand choice, it may be unpredictable depending on the operations performed while in the worksheet. This means that, if the ICSD menus are not reloaded, the F10 command should be given to restart. On versions of Lotus later than 2.01, it may be necessary to use /QYY to leave the worksheet.

ALT I - goes to ICSD program macros.

CTRL + BREAK - Escapes from the ICSD worksheet menu system. This is less desirable that selecting the "Free" menu choice.

It is important to be familiar with these commands before escaping from the ICSD menu system. This manual does not cover Lotus or dBase operation outside of the ICSD menu system. Many very powerful types of analysis are possible, and open access means that each data element may be found, but it is necessary to consult the user's guides to those programs for further information.

II. File Names

As the ICSD uses more than 140 files, certain rules had to be devised to identify them. These are fully described in the

Program Maintenance Manual. Each of the submenus bears a single letter in parentheses in the lower right-hand corner. That letter will supply the first letter of the files associated with that menu. The second character of each of the operational files will be a number corresponding to the number of the menu selection that uses that program or file. File extensions adhere to the general dBase conventions described in the dBase manual (e.g. a file ending in .frm is a report form, a file ending in .ndx is an index, and so on.). An on-line explanation of the function of each file is always available through the fourth choice from the Options Menu.

III. Background Colors

The background color visible on color monitors also follows a convention. The master menu has a blue-green background, each submenu has a red background, and subsequent operations take place against a solid colored background. The purpose of this scheme is only to give the user some sense of location in the menu tree from a non-obtrusive visual clue. These color schemes will not be visible on monochrome monitors.

Data Sources
Periods Covered in Data bases

The information contained in the ICSD data bases is current up to the following dates:

World coal trade (Volumes.dbf and Volumes1.dbf):

December 1989

Coal demand of national economies (Demand.dbf and Demand1.dbf):

December 1989

U.S. imports and exports of coal (Imports.dbf and Exports.dbf):

December 1990

Spot market prices at major ports and freight rates (Prices.dbf and Freight.dbf):

June 1990

Further information on data currency is contained in the discussion of separate data bases below.

World Coal Trade

Information on the volumes of coal traded between countries (also sometimes referred to as flows data herein) is taken from the Energy Information publication, *Annual Prospects for World Coal Trade (Prospects)*. The data in the data base for any given year and coal type is exactly the same as that shown in the counterpart tables (A1 through A6) in the publication.

The following information on sources is a full listing of the sources cited in *Prospects*. This appendix provides supplemental historical data on worldwide steam, metallurgical, and total coal flows from the coal-exporting countries to the coal-importing countries and regions for the years 1987 and 1988. Tables for 1980-1986 can be found in previous issues of *Prospects*, as follows: 1980-1984, *Prospects 1987;* 1985, *Prospects 1988;* 1986, *Prospects 1989*.

International coal trade statistics can be obtained from either (a) export statistics of coal-exporting countries or (b) import statistics of coal-importing countries. Between any two countries for which both sets of data are available, the two sets may not be the same. Consequently, the worldwide coal trade figures obtained from summing up exporting country totals are not the same as those obtained by summing the importing country totals.

In Tables A1 through A6 of *Prospects* and the flows section of ICSD, import statistics were used, whenever available, as the basis of the historical trade data in the body of the tables above the Balancing Line. For OECD countries, which accounted for 60 percent of world coal exports and 65 percent of world coal imports in 1988 (Table A6), data on coal imports by coal type are published in the OECD/International Energy Agency report, *IEA Coal Information 1989*. That report provides a uniform set of data on coal imports by the OECD countries by coal type, i.e., steam and metallurgical, and is the principal source of the data in Tables A1 through A6. For non-OECD countries, a number of sources were used. In some cases, data on coal imports by coal type are available from the overall trade statistics of the importing country. In other cases, only total coal import data are provided in the country trade statistics, and the breakdown for steam and metallurgical coal was estimated by EIA. In still other cases, no importing country data are available, and the imports were estimated by summing up the data of exporters for that country. Data sources or the derivation of the data for individual countries are shown below.

The Balancing Item contained in the tables generally is the difference between the total of individual country coal exports and reported imports summed. Shipments in transit and

distribution losses are the principal reasons for the discrepancies between export and import statistics for coal flows as a whole. Another issue is the sometimes different definitions of steam coal and metallurgical coal by exporters and importers. Although total coal trade reported between any two countries may agree, the more detailed data on steam coal and metallurgical coal may not agree, because the coal may have been used in the importing country in different ways than initially anticipated when it was shipped from the exporting country.

Sources: Export Statistics

1988:

OECD Countries (except the United States): International Energy Agency (IEA), *Coal Information 1989* (*IEA Coal Information 1989*) (Paris, 1989).

United States: *Monthly Report EM-522.*

Non-OECD Countries (except Colombia, U.S.S.R. and "Other Exporters"): International Coal Report's *Coal Year 1989* (*ICRCY 89*) (London 1989) and *Coal Year 1989 Supplement*.

Colombia: Estimate from Office of Coal, Nuclear, Electric and Alternate Fuels (CNEAF) Includes El Cerrejon mines and others.

U.S.S.R.: *Vneshnaya Torgovlya 1989*, p. 61.

Other Exporters: Estimated from importing countries' statistics (see below). These countries include: France, Indonesia, Venezuela, India, Vietnam, Czechoslovakia, and others.

Sources: Import Statistics

1988:

OECD Countries (except the United States and Ireland): *IEA Coal Information 1989.*

Europe and Mediterranean:

Algeria: Exporters' data, United States (*EM-522*), Australia (*ICRCY89*, p. 25), Poland (*ICRCY 89*, p. 30).

Egypt: Exporters' data, United States (*EM-522*), Australia (*ICRCY 89*, p. 25), Canada (*ICRCY 89* p. 27), Soviet Union (*Vneshnaya Torgovlya 1989*, p. 61).

Ireland: Imports are as reported in *IEA Coal Information 1989* except Colombia which was reassigned from "other."

Israel: *ICRCY 89 Supplement*, p. 5.

Morocco: Exporters' data, United States (*EM-522*), United Kingdom (*ICRCY 89*, p. 31), Colombia (*ICRCY 89*, p. 28).

Yugoslavia: *IEA Coal Information 1989*. Type assigned according to exporters' data, United States (*EM-522*).

Other: Exporters' data, Australia (*ICRCY 89*, p. 25), Canada (*ICRCY 89*, p. 27), Poland (*ICRCY 89*, p. 30), Colombia (CNEAF Estimate), and United States (*EM-522*).

Non-OECD Asia:

Hong Kong: *ICRCY 89*, p. 36.

South Korea: *ICRCY 89 Supplement*, p. 7. Imports of coal from "other" were assigned to South Africa and China according to market information, (*Coal Week International*, April 6, 1988, p. 2).

Malaysia: Exporters' data, Australia (*ICRCY 89*, p. 25) and Indonesia (*Foreign Trade Statistics Indonesia Exports 1989*).

Taiwan: *ICRCY 89*, p. 40. Steam coal/metallurgical coal breakout was based on exporters' data for Australia, the United States, and Canada. Exports from South Africa and other countries were assigned to steam coal.

Other Asia: Exporters' data, United States (*EM-522*), Australia (*ICRCY 89*, p. 25), U.S.S.R. (*Vneshnaya Torgovlya*, p. 61), Indonesia (*Foreign Trade Statistics Indonesia Exports 1989*), China (*Coal Advisory #1, "China's Near-Term Coal Expectations"*), East-West Center (Honolulu, Hawaii), May 19, 1988.

Eastern Europe:

Exporters' data, United States (*EM-522*), Australia (*ICRCY 89*, p. 25), Poland (*ICRCY 89*, p. 30), West Germany (*ICRCY 89*, p. 33), U.S.S.R. (*Vneshnaya Torgovlya 1989*, p. 61), China (*IEA Coal Information 1989*, p. I.43-44), Czechoslovakia (United Nations, Economic and Social Council, Economic Commission For Europe, *The Coal Situation in the ECE Region in 1988 and Global Prospects for Coal*, August 23, 1989). The steam coal /metallurgical coal breakouts for imports from the U.S.S.R. and Czechoslovakia were assigned.

South America:

Argentina: Exporters' data, United States (*EM-522*), Australia (*ICRCY 89*, p. 25), Poland (*ICRCY 89*, p. 30), Canada (*ICRCY 89*, p. 27), Colombia (*Coal Statistics International*, June 1989, p. 65).

Brazil: Exporters' data, United States (*EM-522*), Australia *ICRCY* 89, p. 25), Canada (*ICRCY 89*, p. 27), Poland (*ICRCY 89*, p. 30), Colombia (*Coal Week International*, March 7, 1989, p. 4).

Chile: Exporters' data, United States (*EM-522*), Australia (*ICRCY 89*, p. 25), Canada (*ICRCY 89*, p. 27).

Mexico: Exporters' data, United States (*EM-522*), Canada (*ICRCY 89*, p. 27).

Other: Exporters' data, United States (*EM-522*), Colombia (CNEAF estimate).

Sources: Export Statistics

1987:

OECD Countries (except the United States): *IEA Coal Information 1989*.

United States: Monthly Report, EM-522.

Non-OECD Countries (except the U.S.S.R. and "Other Exporters"): *ICRCY 89* and *ICRCY 89 Supplement*, and *ICRCY 88*.

Colombia: Exporters' data (Coal Division estimate).

U.S.S.R.: *Vneshnaya Torgovlya 1989*, p. 61. Steam coal/metallurgical coal breakout based on importing countries data, principally the Western Europe OECD.

Other Exporters: Estimated from importing countries' statistics. (See below.) These exporters include: France, Indonesia, Venezuela, India, Vietnam and others.

Sources: Import Statistics

1987:

OECD Countries (except the United States): *IEA Coal Information 1989*.

Europe and Mediterranean:

Algeria: Exporters' data, United States (*EM-522*), Australia

(*ICRCY 88*, p. 33), and Poland (*ICRCY 89*, p. 30).

Egypt: Exporters' data, United States (*EM-522*), Australia (*ICRCY 88*, p. 33), and U.S.S.R. (*Vneshnaya Torgovlya*, p. 61).

Israel: *ICRCY 89 Supplement*, p. 5.

Morocco: Exporters' data, United States (*EM-522*), Australia (*ICRCY 88*, p 33), Colombia (*International Coal Report*, February 23, 1989, p. 15).

Yugoslavia: *IEA Coal Information 1989*. Coal type assigned according to exporters' data, United States (*EM-522*).

Non-OECD Asia:

Hong Kong: *ICRCY 89*, p. 36.

South Korea: *ICRCY 89 Supplement*, p. 7. Imports from "other" were assigned to Colombia based on exporter data, (*International Coal Report*, February 1989, p. 15), and to South Africa according to market shares for January-August 1988 (*Coal Statistics Monthly*, November 1988, p. 6).

Taiwan: *ICRCY 89*, p. 40. Steam coal/metallurgical coal breakout was based on exporters' data for Australia, the United States, and Canada. Exports from South Africa and other countries were assigned to steam coal.

Other Asia: Exporters' data, United States (*EM-522*), Australia (*ICRCY 88*, p. 33), Canada (*ICRCY 89*, p. 27), U.S.S.R. (*Vneshnaya Torgovlya*, p. 61), and Indonesia (*Foreign Trade Statistics Indonesia Exports 1988*). The total for China in *IEA Coal Information 1988* was used to estimate Other Asian imports.

Eastern Europe:

Exporters' data, United States (*EM-522*), Australia (*ICRCY 88*, p. 33), Poland (*ICRCY 89*, p. 30.), U.S.S.R. (*Vneshnaya Torgovlya 1989*, p. 61), China (*IEA Coal Information 1989*, p. I.203), West Germany (*IEA Coal Information 1989*, p. II.198-II.199), and Czechoslovakia (United Nations, Economics and Social Council, Economic Commission for Europe, *The Coal Situation in the ECE Region in 1988 and Global Prospects for Coal*, August 23, 1989). The steam coal/metallurgical coal breakouts for imports from the U.S.S.R. and Czechoslovakia were assigned.

South America:

Argentina: Exporters' data, United States (*EM-522*), Australia (*ICRCY 88*, p. 33), Poland (*ICRCY 89*, p. 30), Colombia (CNEAF estimate).

Brazil: Importers' data for metallurgical coal (*ICR Coal Statistics Monthly*, June 15, 1988, p. 15). Exporters' data for steam coal: United States (*EM-522*), Canada (*ICRCY 89*, p. 27), and Colombia (CNEAF estimate).

Chile: Exporters' data, United States (*EM-522*), Canada (*ICRCY 89*, p. 27) and Australia (*ICRCY 88*, p. 33).

Mexico: Exporters' data, United States (*EM-522*).

Other South America: Exporters' data, Colombia (CNEAF estimate).

United States: Monthly Report *IM-145*.

United States Coal Exports and Imports

Data on US imports and exports is taken directly from computer files maintained by the U.S. Department of Commerce, Bureau of the Census, for Monthly Report EM-522. A copy of this information is transferred to the Department of Energy computer center, where it is accessible from the partitioned data sets designated as:

CN6524.PRJ.IMEX.EM522(0)

CN6524.PRJ.IMEX.IM145(0)

The data contained in these files is not raw transaction data but data that has been aggregated into monthly statistics for the port and coal type in question. This is necessary to maintain the confidentiality of proprietary information that could in some cases be derived from raw transaction data were no aggregations made. In any event, the aggregations have already been made before the data are received by EIA.

Prices and Freight Rates

Both the prices data base and the freight rates data base are derived from the copyrighted World Scan section of *Coal Week International*. The information included in the ICSD data bases are from the last issue for any quarter.

Energy Demand

The principal sources of data for the energy demand data base are:

IEA Countries: Supply and Consumption data, *Energy Statistics of OECD Countries 1987-1988*, (IEA), pps. 78-177.

Non-IEA Countries: Energy Balances data, *World Energy Statistics and Balances 1985-1988*, (IEA), pps. 144-370.

See also the sources referred to in Section on World Coal Trade. Data for years beginning in 1989 and following were derived from electronic data bases maintained by the International Energy Agency in Paris, France. These data bases were used to create the two reports referred to above. They are documented in *World Energy Statistics and Balances, Diskette Service Documentation*, (IEA, June 1990)

END

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12/19/91