CRSP

CRSPAccess97 Database Format Installation Guide

For the

CRSP NYSE, AMEX, Nasdaq Daily and Monthly Price and Total Return Database

and

CRSP US Stock, Treasury Indices and Portfolio Assignments Database

Updated Monthly and Annually
1925-1998

Center for Research in Security Prices
The University of Chicago Graduate School of Business

CRSP.com

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For the

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Covering over 22,000 Stocks, Updated Monthly and Annually
1925-1998

Center for Research in Security Prices
The University of Chicago Graduate School of Business

CRSP™
The University of Chicago, Graduate School of Business
725 S. Wells Street
Suite 800
Chicago, IL 60607

Phone: 773.702.7467
Fax: 773.702.3036

e-mail: mail@crsp.uchicago.edu
http://www.crsp.com

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DATABASE GUIDES

Additional copies of this database guide are available on the CRSP CD-ROM and on-line through the Database Guide link found at http://www.crsp.com

OVERVIEW

ABOUT THIS GUIDE

This guide will help you to install the CRSP NYSE, AMEX, Nasdaq Daily and Monthly Price and Total Return Databases and the CRSP US Stock, Treasury Indices and Portfolio Assignments Database.

The Getting Started CD-ROM contains the CRSPAccess97 setup or installation files, sample code for the stock and indices data, sample programs and programming libraries for C and FORTRAN, and pre-compiled utility programs to access the CRSPAccess97 stock and indices data without programming. The Getting Started CD-ROM also contains sample databases for each of the CRSP products including: the CRSP NYSE, AMEX, Nasdaq Daily and Monthly Price and Total Return Databases and CRSP US Stock, Treasury Indices and Portfolio Assignments Database data in SFA and CRSPAccess97 format, the CRSP US Government Bills, Notes and Bonds Database, the CRSP Survivor-Bias Free US Mutual Fund Database (based on S&P's Micropal database), and CRSP Cap-Based Portfolios.

INSIDE

Chapter One: Introduction provides an overview of CRSP, the documentation for stock and indices data, sample programs, and the installation process.

Chapter Two: Installation Procedures describes the setup process used to load the CRSPAccess97 data on all supported systems.

Chapter Three: Sample Data gives the user a thorough introduction to our databases; CRSP NYSE, AMEX, Nasdaq Daily and Monthly Price and Total Return Databases, CRSP US Stock, Treasury Indices and Portfolio Assignments Database, CRSP US Government Bills, Notes and Bonds Database, CRSP Survivor-Bias Free US Mutual Fund Database (based on S&P's Micropal database), and the CRSP Cap-Based Portfolios.

Appendix A: CD-ROM data layouts for the Getting Started CD-ROM and data CD-ROMs for stock and indices data.

Appendix B: File version specifics including database characteristics, file sizes, calendar ranges, indices text, and Microsoft Excel and SAS file information.

Other Documentation in this Series

- See CRSP Data Definitions and Coding Schemes Guide for the variable definitions, coding schemes, data organization, data derivations, and index methodologies.
- See the CRSPAccess97 Database Format - Utilities Guide for a description of utilities available to retrieve data without programming.
- See the CRSPAccess97 Database Format - Programmers Guide for instructions on available CRSP supplied sample programs, and programming libraries for programming in C and FORTRAN.
- See the CRSP SFA Database Format Guide for information on using the SFA database format. (The database format delivered prior to 1996.)

Contact us for Technical Support
Telephone: 773.702.7467
e-mail: mail@crsp.uchicago.edu

CHAPTER ONE: INTRODUCTION

OVERVIEW

This chapter provides an overview of CRSP, the documentation for stock and indices data, sample programs, and the installation process.

INSIDE

CHAPTER 1. INTRODUCTION

1.1 About CRSP

Back in 1959, Professor James Lorie fielded a call from Louis Engel, a Vice President at Merrill Lynch, Pierce, Fenner & Smith. The firm wanted to advertise how well people had done investing in common stocks, but Engel needed some solid data. Could the University of Chicago Graduate School of Business help?

That was the start of the Center for Research in Security Prices. Forty years ago, computer technology was in its infancy and no machine-readable data existed.

Professor Lorie and Professor Lawrence Fisher, a colleague on the finance faculty, set out to build a database of historical and current securities data that answered Merrill Lynch's question and, since then, many, many others.

The professors compiled the first machine-readable file. It contained month-end prices and total returns on all stocks listed on the New York Stock Exchange between 1926 and 1960. Over time, CRSP added the American Stock Exchange, the NASDAQ stock exchange, and end-of-day as well as month-end prices. Now CRSP updates US stock data in two frequencies; either once a year or once a month.

In 1999, CRSP is justly considered the best provider by far of US corporate actions information. Specifically, we diligently track name changes and name identifiers, distributions of shares, cash, rights, spin-offs, mergers and liquidation payments. As a result, the history and quality of CRSP capital return, income return and total return numbers are unsurpassed.

CRSP Working Papers

From its founding, the University set for itself the highest standards of research excellence. The Graduate School of Business helped to spawn the modern revolution in finance, and research done here has been incorporated into CRSP Data Files. Among them:

Risk/Return Analysis by Harry Moskovitz
The Sharpe-Lintner Capital Asset Pricing Model
The Efficient Market Hypothesis
Black-Scholes Option Pricing Model
Small Stock Effect

The comprehensiveness and quality of CRSP data has made it the premier source for academic researchers and quantitative analysts for forty years. We have available the latest research on a wide variety of finance topics over the web.

World Wide Web: crsp.com, CRSP Working Papers

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CRSP Historical Data Products

CRSP NYSE, AMEX, Nasdaq Daily and Monthly Price and Total Return Databases

CRSP will provide monthly or annual updates of end-of-day and month-end prices on all listed NYSE, AMEX and NASDAQ common stocks and Foreign stocks, plus basic market indices. CRSP provides the most comprehensive distribution information available, for the most accurate total return calculations.

Important facts regarding CRSP US Stock Data.

- **Annual Update**: Ready in April.
- **Monthly Updates**: Ready by the 15th day of the following month.
- **Daily and Month-End Data:** NYSE / AMEX**:** High, low, bid, ask, closing prices; trading volume; shares outstanding; capital appreciation, income appreciation, and total return; year-end capitalization, and year-end capitalization portfolio. NASDAQ also includes month-end closing bid and ask, number of trades, historical traits information, market maker count, trading status, NASD classification**.**
- **History:** NYSE daily data begins July 1962. Monthly data begins December 1925. AMEX daily and monthly data begins July 1962. NASDAQ daily and monthly data begins December, 14 1972.
- **Identifying Information:** Complete Name History; all historical CUSIPs, Exchange Ticker Symbols, SIC Codes, Share Classes, Share Codes, Exchange Codes, and Security Delisting information. Certain items may change over time -- Name, CUSIP, and Exchange Ticker Symbol. CRSP has developed a unique identifier called the PERMNO™, which does not change and allows for extremely accurate time-series analysis.
- **Distribution Information:** descriptions of all distributions, dividend amounts, factors to adjust price and shares, declarations, ex-distribution, record and payment dates, and security and company linking information.

CRSP US Stock, Treasury Indices and Portfolio Assignments Database

A companion database, the CRSP US Stock, Treasury Indices and Portfolio Assignments Database**,** provides market indices on a daily, monthly, quarterly and annual frequency. This database provides additional market and security level portfolio statistics and decile portfolio assignment data. Four types of indices provide the following information.

- The **CRSP Stock File Indices** includes Value- and Equal-Weighted Indices, with or without dividends, the S&P 500 Composite Index and returns, NASDAQ Composite Index and return and security data needed to link stocks to the CRSP US Market Cap-Based Portfolios. The indices files also contain the US Government Consumer Price Index, US Government Bond Fixed Term Index Series, and the CRSP Risk-Free Rates File.

- Track micro-, small-, mid- and large-cap stocks with CRSP US Market Cap-Based Portfolios. CRSP ranks all NYSE companies by market capitalization and divides them into 10 equally populated portfolios. AMEX and NASDAQ National Market stocks are then placed into deciles according to their respective capitalizations. CRSP Portfolios 1-2 represent large caps, Portfolios 3, 4, 5 represent mid-caps, Portfolios 6, 7, 8 represent small caps, and Portfolios 9-10 benchmark micro-caps.

  Among the monthly data provided are the number of companies in the portfolio at the start of the quarter, portfolio weight at the start of the quarter, total return and index level, capital apprecation return and index level, and income return and index level.

- **CRSP Indices for the S&P 500 Universe** are daily and monthly files which include value- and equal-weighted returns, with and without dividends.

- **CRSP US Treasury and Inflation Series** are monthly files containing returns and index levels on US Treasuries and the Consumer Price Index.

CRSP US Government Bills, Notes and Bonds End-of-Day and Month-End Databases

CRSP provides 1.5 million end-of-day price observations for 3,244 US Treasury bills, notes and bonds since 1961. The monthly database contains 101,986 prices for 5,136 issues since 1925. It also contains supplemental files developed by Professor Eugene F. Fama, Professor of Finance, which are described below. They are updated annually.

Important facts regarding CRSP US Treasury data.

- **Annual updates:** Ready in April.

- **Daily data**: Daily quote dates, delivery dates, 1-, 3-, and 6-month CD rates, 30-, 60-, and 90-day commercial paper rates, and Federal funds effective rate. **Monthly data**: Monthly quote dates and delivery dates. Julian, linear, and other date information to facilitate date arithmetic.

- **History:** Daily data begins on June 14, 1961. Monthly data begins on December, 31 1925.

- **Identifying information:** CRSP Identifier (`CRSPID`), CUSIP, maturity date, coupon rate, among other items, sorted by `CRSPID`.

- **Quote Data:** Bid, ask, and source. **Performance Data**: Accrued interest, yield, return and duration.

- **Debt Data**: Debt outstanding, total and publicly held.

- **Fixed Term Indices Files:** Performance of single Treasury issues at fixed maturity horizons.

- **Supplemental files:** The CRSP **US Treasury Securities Month-End Database** contains files designed by Eugene F. Fama, Professor of Finance, The University of Chicago Graduate School of Business. These files extract term structures and risk-free rates. There are four groups of files. The Treasury Bill Term Structure Files, The Fama-Bliss Discount Bond Files, The Risk-Free Rates File and The Maturity Portfolio Returns File. The data in these files begin in 1952 with the exception of the Risk-Free Rates File, where the data begins in 1925.

CRSP Survivor-Bias Free US Mutual Fund Database

based on the Standard & Poor's© Micropal© Database

In estimating the performance on an equal-weighted index of equity mutual funds, Mr. Carhart found that, "Using only surviving funds biases these (performance) measures upward by about one percent per year."

Recently introduced, the **CRSP Survivor-Bias Free US Mutual Fund Database** records each mutual fund's name and organizational history. CRSP tracks monthly returns, Monthly Total Net Assets, Monthly Net Asset Values and Monthly Distributions for open-ended mutual funds from January 1, 1962, to December 31, 1997. Updated quarterly, the database uses Microsoft Access 97 database software.

Mark M. Carhart developed this unique database for his 1995 dissertation submitted to the Graduate School of Business entitled, *Survivor Bias and Persistence in Mutual Fund Performance.* In it he noted that the explosion in new mutual funds has been "accompanied by a steady disappearance of many other funds through merger, liquidation and other means. …this data is not reported by mutual fund data services or financial periodicals and in most cases is (electronically) purged from current databases. This imposes a selection bias on the mutual fund data available to researchers: only survivors are included."

Sample Data Sets

Sample data sets for all CRSP products are available on the Getting Started CD ROM.

1.2 CRSP Documentation Usage

The CRSP stock and indices guides were reorganized this Spring for the 1998 update. The primary purpose of this reorganization was to separate the information about the CRSP data from the technical information needed to access that data. Stock and Indices documentation have been integrated. Use this section as a map to the different CRSP Guides.

CRSP Guides

The following guides are available with subscriptions to the CRSP NYSE, AMEX, Nasdaq Daily and Monthly Price and Total Return Databases or the CRSP US Stock, Treasury Indices and Portfolio Assignments Database.

- *The CRSP Data Definitions and Coding Schemes Guide* – contains an overview of CRSP databases, variable definitions, data formulas, derivation methodologies, and coding schemes.
- *The CRSPAccess97 Database Format - Utilities Guide* – contains a description of data utilities to retrieve data from CRSP databases.
- *The CRSPAccess97 Database Format - Programmers Guide* – contains instructions for usage of C and FORTRAN programming libraries provided to access stock and indices databases.
- *The CRSPAccess97 Installation Guide* – contains descriptions of CRSPAccess97 CD-ROMs and instructions for installing the data files.
- *The CRSP SFA Database Format Guide* – Contains descriptions, usage, and installation of defined character and binary formats of CRSP data files available on tapes or through conversion utilities.

Who Should Use Each Guide

If You Are:	Refer To:
an end user on a local or third-party access system	*The CRSP Data Definitions and Coding Schemes Guide* for information about the data fields, and available documentation for that access system
an end user on a system with CRSPAccess97 installed	*The CRSP Data Definitions and Coding Schemes Guide* for information about the data fields, and the *CRSPAccess97 Database Format - Utilities Guide* for instructions on extracting data
a C or FORTRAN programmer planning to use the CRSPAccess97 programming libraries and sample programs	*The CRSPAccess97 Database Format - Programmers Guide* for information about data structures, library access and utility functions, sample programs and usage
installing and using CRSPAccess97 on your own PC	*The CRSPAccess97 Installation Guide* for setup and maintenance information and other guides depending on usage
an administrator responsible for installing CRSPAccess97 on a supported Unix system, a Windows NT/Windows 95/98 network, or OpenVMS system	*The CRSPAccess97 Installation Guide* for setup and maintenance information for the file servers and workstations.
an administrator responsible for loading CRSP data on tape	*The CRSP SFA Database Format Guide* for tape layouts and FORTRAN conversion programs.
an administrator responsible for converting CRSPAccess97 data on a supported machine to SFA format on an unsupported machine	*The CRSPAccess97 Installation Guide* to load the CRSPAccess97 data on the conversion machine and *The CRSP SFA Database Format Guide* for information on conversion utilities and access to the data once it is moved.
a FORTRAN programmer, SAS Proc Datasource user, or other user of Stock or Indices data in SFA format	*The CRSP SFA Database Format Guide* for FORTRAN usage and *The CRSP Data Definitions and Coding Schemes Guide* for variable definitions. See SAS documentation for SAS Proc Datasource usage.

All CRSP product documentation is available for download in Adobe Acrobat (.pdf) from crsp.com.

1.3 CRSPAccess97 Installation

The CRSPAccess97 database format includes binary data files and programs, libraries, and sample FORTRAN and C programming code to access the data. CRSPAccess97 stock and indices databases are provided on CD-ROM in IEEE little- and big-endian. CRSP database CD-ROMs can be found in sleeves in the front of the printed copy of this installation guide.

Installation involves loading data and programs from the CD-ROMs and setting system variables with information about the data and program locations. Installation setup programs are provided on the Getting Started CD-ROM for all supported systems. See Section 2 for additional information.

A Getting Started CD-ROM is provided with all CRSP subscriptions. It contains the sample and utility programs needed to access the CRSPAccess97 databases, backward compatible support files for older CRSP database formats, and sample databases for all CRSP products. See Appendix A for the directory and file layouts of the Getting Started CD-ROM and the CRSPAccess97 stock and indices data CD-ROMs.

CRSPAccess97 Supported Systems

CRSP provides support for nine platforms for the Stock and Indices data in CRSPAccess97 format. CRSP has tested programs and libraries on the operating systems and compilers supported. Newer versions of these systems and compilers or other compilers may be compatible, but are not fully supported. The following table identifies the supported system and the compilers they have been tested with.

	Operating System	CPU	FORTRAN Compiler	C Compiler	Binary
PC	Windows NT 4.0	Intel x86	Digital Visual FORTRAN 5.0	Microsoft Visual C++ 5.0	IEEE - Little-Endian
DEC Alpha (NT)	Windows NT 4.0	AXP	Digital Visual FORTRAN 5.0	Microsoft Visual C++ 5.0	IEEE - Little-Endian
PC	Windows 98	Intel x86	Digital Visual FORTRAN 5.0	Microsoft Visual C++ 5.0	IEEE - Little-Endian
PC	Windows 95	Intel x86	Digital Visual FORTRAN 5.0	Microsoft Visual C++ 5.0	IEEE - Little-Endian
SunSparc (Unix)	Sun Solaris 2.5	Sun Sparc	SparcCompiler FORTRAN 4.0	SparcCompiler C3.0.1	IEEE - Big-Endian
DEC Alpha (Unix)	Compaq Tru64*	AXP	DEC FORTRAN	DEC C	IEEE - Big-Endian
HP 715 Compatible (Unix)	HP/UX 10.2	PARISC	f90	gnu C Compiler	IEEE - Big-Endian
AIX	IBM AIX 4.1.4	PowerPC	f77	gnu C Compiler	IEEE - Big-Endian
DEC Alpha (Open-VMS)	OpenVMS 6.2	AXP	DEC FORTRAN 6.3	DEC C 5.3	IEEE - Little-Endian

*Compaq Tru64 Unix was formerly Digital Unix

The product combinations require from 0.2 to 1.65 Gbytes of local hard disk and may require multiple CDs for delivery. PC's should have a minimum of 32Mb RAM.

Indices data and monthly stock data are each provided as a 1-CD set. Daily stock data is provided in a five CD set. IEEE little-endian data files are on the first three CDs and IEEE big-endian data files are on the first, fourth and fifth CDs.

Installation Changes

Database CD-ROMs no longer contain sample or utility programs, or documentation. The sample and utility programs can be found on the Getting Started CD-ROM, with the installation setup programs. The sample and utility programs and the documentation can be downloaded from the CRSP web site, crsp.com. Sample programs on the Getting Started CD-ROM are shared for all CRSPAccess97 stock and indices databases and are only loaded once per site. The programs on the 1998 Getting Started CD-ROM must be loaded to access the latest annual and monthly databases. Check the CRSP web page, crsp.com, for program updates. Documentation is only available in Acrobat Adobe (.pdf) format. Updated versions will be available online from crsp.com.

Several improvements have been made to the installation programs. Program shortcuts and uninstall options have been added to Windows installs, and all systems now support loading of sample databases and have improved checking for compatibility of databases.

Installation and programs are now supported for IBM AIX systems directly on the Getting Started CD-ROM.

Setup programs can be found on the Getting Started CD-ROM and the first CD-ROM of a database set. Windows and Unix installations for all products can be run from the Getting Started CD-ROM. Data installation can also be run from the first CD-ROM of the database set.

A GUI interface is available for the *ts_print* application on Windows systems on Intel x86 processors. The installation programs for Windows will load the *ts_print* application automatically during the programs installation. See the CRSPAccess97 Database Format - Utilities Guide for details about *ts_print* and the *ts_print* windows interface. A workstation version of the install is also available, which can be used to install environment variables and shortcuts needed to access the CRSPAccess97 data on network client workstations.

The Windows installation on Intel x86 systems creates a short cut to start the *stk_print* application from the Start Programs menu. See the CRSPAccess97 Database Format - Utilities Guide for details about *stk_print* application.

CHAPTER TWO: INSTALLATION PROCEDURES

OVERVIEW

This chapter provides installation instructions for loading the CRSPAccess97 data on supported systems.

INSIDE

CHAPTER 2. INSTALLATION PROCEDURES

2.1 Installation Overview

CRSPAccess97 databases are distributed on CD-ROM, containing versions of the data in both IEEE little- and big-endian formats. The Getting Started CD-ROM contains installation setup scripts, code libraries, sample programs, and utility programs. Documentation is available online through crsp.com. The Getting Started CD-ROM also contains data samples for all of the CRSP products.

Setup programs are provided on the Getting Started disk and the first CD-ROM of each data product. CRSP provides installation support for the nine CRSP-supported platforms. The specific disks needed for installation will depend on the platform used. Details on which disks are included are in the platform-specific installation sections.

Installation consists of the following basic steps for all supported systems.

1. Copy program libraries and executables to a root directory on target machine.
2. Copy data to a directory on the target machine.
3. Set CRSP environment variables needed to use the CRSP programs.

The installer must determine locations for program files, data, and log files before installation. Multiple database installations can exist if desired and disk space allows. Program files are identical for each product and should only be copied once from the Getting Started CD-ROM.

Use the CRSPAccess97 Products table (See “Appendix B: File Version Specifics” on page 45) to determine the disk space needed for each CRSP product.

Using Multiple Products

CRSPAccess97 programs can support a daily and monthly database. Each stock database includes security data with capitalization portfolio information plus value-weighted, equal-weighted, and two composite indices. Additional portfolio types and indices in the CRSP US Stock, Treasury Indices and Portfolio Assignments Database can be added. Standalone, fixed format ASCII files, Excel Worksheets (5.0), and SAS datasets (SAS transport format) are also included with the CRSP US Stock, Treasury Indices and Portfolio Assignments Database.

Programs needed for all stock and indices products are available on the Getting Started CD-ROM. CRSP will provide updates to programs on the CRSP web site at crsp.com as they become available. Windows and Unix setup programs on the Getting Started CD-ROM can be used to install product or sample databases at one time. If products are installed from the data CD-ROMs, install the Indices last. Only add indices to a stock database with the same data frequency, delivery frequency and data ending date.

A log directory is shared by all databases and needs to be created only once. The log directory should be set in a scratch area where all intended users have write access. The *ts_print* application also writes to a log file. In a PC network, we recommend that the log directory be created on the hard drive of each client work-station.

2.2 Machine Specific Installation

Windows NT Installation on Intel x86 Computers

Installation programs can be run from the CRSP Getting Started CD-ROM or the first CD-ROM in a set of data CD-ROMs. Programs, sample data, and all product data can be installed by running the setup program from the Getting Started CD-ROM. The setup program on a data CD-ROM can only be used to load or to update product databases.

The setup program will copy program and data files to your machine and can also be used to set CRSP environment variables. To run the setup program.

1. Login to an account with administrator permissions to set CRSP environment variables for all users on the machine.
2. Load the Getting Started disk to your CD-ROM drive.
3. Double click on the `setup.exe` application.
4. Follow the instructions in the setup menus.

When the setup program asks for a database folder, use the `browse...` option to choose a folder other than the default. A folder can be manually typed in or selected with the browse menus. If the folder does not exist the program will ask if you wish to create it. In these screens, the `Back` option is used to skip copying data and does not return to a previous screen. Data CD-ROMs 1, 2, and 3 are needed to load daily stock databases on Windows systems. If the program asks for additional CD-ROMs, make sure the computer registers new CD-ROMs before continuing.

The program installation on Windows NT loads programs, libraries, programming code and the *ts_print* interface. It creates a shortcut folder named CRSPAccess97 in the Windows Start menu with shortcuts to run CRSP data retrieval utilities. An uninstall program is also created in that folder that can be used to remove the CRSP data from the system.

The programs only need to be loaded once from the Getting Started CD-ROM. A monthly update of a database always contains the entire database and can overwrite any existing versions without reloading programs. If loading data from product CD-ROMs, always load the Indices data last. Check the CRSP web page, crsp.com for any updates to CRSPAccess97 programs.

An administrator can set permissions on directories as needed. Write access is not needed for any program or data directories. The log directory, however, requires full write access for all users.

Environment Variables

Environment variables must be set for the CRSP programs to work properly. Environment variables can be set at either the system or user level. At the system level all accounts will have access to the CRSP data. A user with a local copy of the database can set the environment variables at the user level so other users are not affected. An installer without administrator privileges can set environment variables on the user level usable only by their own account.

The setup application can be used to change environment variables in the initial setup or if files are moved. In the initial setup, environment variables can be set based on the destination directories used for program files or data. Run the application and skip the sections up to the environment setup to make changes.

The Environment tab of the Settings / Control Panel / System Window can be used to modify environment variables. The `PATH` may need setting by hand. Use the delete option to remove CRSP environment variables that are no longer needed. The `set` command in a command prompt window can also be used to show the current assignments.

The following list of environment variables are used in CRSPAccess97.

Environment Variable	Usage
`CRSP_ROOT`	Top level program directory. Most other CRSP environment variables are set based on `CRSP_ROOT`
`CRSP_LOG`	Log directory used for user
`CRSP_MSTK`	CRSP Monthly Database directory
`CRSP_DSTK`	CRSP Daily Database directory
`CRSP_INCLUDE`	Programming header files; `include` subfolder of root
`CRSP_SAMPLE`	Sample programs; `sample` subfolder of root
`CRSP_LIB`	Object libraries; `acclib` subfolder of root
`CRSP_BIN`	Executables and scripts; `accbin` subfolder of root
`CRSP_ENV_ULOG`	Usage logs produced by users `; =CRSP_LOG`
`CRSP_ENV_ELOG`	Error logs produced by users; `=CRSP_LOG`
`CRSP_ENV_ROOT`	Location of base CRSPAccess97 database
`PATH`	The `CRSP_BIN` folder must be included in the `PATH` list of directories to run CRSP programs

PC Network Installation of CRSPAccess97

CRSPAccess97 can be installed on a network with Windows NT, Windows 95, or Windows 98 clients. Data, programs and libraries are loaded to a server machine that can be accessed by clients with access to the data. A separate Workstation installation program is provided that can be used to configure the clients. Configuring a client involves installing program shortcuts to CRSP programs and setting environment variables on the client workstation. To configure a client, follow these steps.

1. Install programs and data first on the server machine. The program and data disks must be accessible and mapped on the client workstation. The workstation installer must know the path of the CRSP root folder and monthly and/or daily data folders in terms of the client disk mappings.
2. Execute the zip file *setup_station.zip* on the top level of the Getting Started CD-ROM from the workstation. This file can be copied to a central location on the server accessible to the workstation, sent as an attachment in an E-mail, or used directly from the Getting Started CD-ROM on the workstation.
3. The WinZip application, or a comparable zip/unzip utility, will execute. Choose the Install Option. If you do not have access to a zip/unzip utility, you can download a copy from www.winzip.com.
4. The setup program will ask for locations for the programs, daily and monthly databases, and a log folder. CRSP recommends putting the log folder in a temporary location on a client workstation local disk. If the log folder is on a network drive users must have read and write permissions to that location.

If upgrading to a new version of data and the same data locations are used, it is not necessary to reinstall the environment variables.

Windows 95 and Windows 98 Support

The installation program provided with Windows NT for Intel x86 computers will also work for Windows 95 and Windows 98. See instructions under Windows NT for installation steps and environment variables needed.

Environment variables are set differently on Windows 95 and Windows 98 than Windows NT. There is no Control Panel window and variables are set instead through calls to the *autoexec.bat* file run during startup. CRSP setup creates a file named *crsp_env.bat* in the same directory as the *autoexec.bat* file and adds a line to the end of *autoexec.bat* executing this file.

If there is not enough memory to set the environment variables, the amount can be raised using a DOS command prompt window. Right-click on the top left DOS prompt icon and choose `Properties`.... Increase command line memory as high as needed.

Windows 95 and Windows 98 machines can be used as workstation clients on a network as long as the data and program files are accessible in a mapped network drive on a file server. See Network Installation above for installation instructions for workstation clients.

Windows NT Support on Digital Alpha

The setup application is not currently supported on Alpha Windows NT. Files must be copied by hand with the NT Explorer and environment variables must be set directly in the Control Panel.

Copying Files

Files are copied with the NT Explorer Application.

1. Create a new folder in the target location for CRSP root files (skip 1-5 if not the first CRSP product). The folder must be visible on the left portion of Explorer.
2. Double-click on the `root` folder of the Getting Started CD-ROM. Drag the `include` and `sample` folders to the new root folder.
3. Double-click on the `lib` folder. Drag the `wnt40axp` folder to the new `root` folder. Highlight and select rename with the right mouse button. Type the folder name `acclib`.
4. Select the `bin` folder under root on the CD-ROM. Drag the `wnt40axp` folder from the data disks to the new `root` folder. Highlight and select `rename` with the right mouse button. Type the folder name `accbin`.
5. Create a new folder in a scratch area for CRSP `log` files.
6. Create a new folder in the target location for the CRSP `data` files.
7. Load each product data CD-ROM and navigate the CD-ROM down the `data` and `ieeelit` folders. Double click on the data directory.
8. Use `Select All` and Copy commands in the `Edit` menu.
9. Select the target folder and choose the `Paste` command from the `Edit` menu.
10. Repeat 7-9 for each CD-ROM to be loaded. Daily data requires the data from the first three CD-ROMs in the set to be copied to the target directory.

The CRSP US Stock, Treasury Indices and Portfolio Assignments Database contains extra files for the daily or monthly stock databases. To overlay the additional files, select the data folder with the first two letters matching the existing stock database. Select and copy the files in the folder and paste into the existing database directory. Files will match existing files in this folder. Choose `Yes` to `All` to overwrite.

Environment Variables

Environment variables are entered by hand with the Environment tab of the System window of the Control Panel. You must be logged into an account with Administrator permissions to set system level variables. System level variables are accessible by all users on the computer. User level variables take precedence over system variables, but only for the user setting the variables.

Environment Variable	Set To (end paths with \ unless otherwise noted)
CRSP_ROOT	Path of `root` folder created in step 1
CRSP_LOG	Path of `log` folder created in step 5 (no ending \)
CRSP_MSTK	Path of CRSP Monthly Database directory
CRSP_DSTK	Path of CRSP Daily Database directory
CRSP_INCLUDE	Path of include subfolder of root
CRSP_SAMPLE	Path of sample subfolder of root (not ending \)
CRSP_LIB	Path of `acclib` subfolder of root
CRSP_BIN	Path of `accbin` subfolder of root
CRSP_ENV_ULOG	Usage logs produced by users; =CRSP_LOG
CRSP_ENV_ELOG	Error logs produced by users; =CRSP_LOG
CRSP_ENV_ROOT	Path of base CRSPAccess97 database
PATH	Add a semicolon and the CRSP_BIN path to the end of the current PATH (no ending \ on CRSP_BIN path)

Sun Solaris Installation on Sparcstations

An installation Unix shell script is available on the CRSP Getting Started CD-ROM and the first CD-ROM of a set of data CDs. Programs, sample data, and all product data can be installed by running the setup program from the Getting Started CD-ROM. The setup script on a data CD-ROM can only be used to update that data product.

The setup shell script will copy program and data files to your machine. If overlaying indices on top of an existing stock database, make sure you have permission to overwrite files in the target directory. The shell script can also create a second script that can be used to set environment variables needed to access the CRSPAccess97 data. See Unix Environment Variables (Page 20) for more information about setting CRSP environment variables.

To run the setup script on Sun Sparcstations.

1. Load the CRSP Getting Started CD-ROM or the first CD-ROM of a data set to your CD-ROM drive. The system should automatically mount it.
2. In a terminal window, `cd` to a local directory. Use the `df` command to find the path of the CD-ROM.
3. Copy the `setup.sh` file from the top level directory of the CD-ROM to your local directory, for example

   ```
   cp /cdrom/ca97_ver210/setup.sh .
   ```

4. Execute the script:

   ```
   setup.sh
   ```

5. Answer prompts as needed. Directories must be specified with full pathnames, without trailing slashes.
6. If the program prompts for another CD-ROM, eject the current CD-ROM and insert the requested CD-ROM from outside the terminal window running the script. The `eject cdrom` command at a second terminal window or the `eject disk` button in the file manager can be used to eject a CD-ROM. Data CD-ROMs 1, 4, and 5 are used to load daily stock databases on Sun Sparcstations.

The programs only need to be loaded once from the Getting Started CD-ROM. A monthly update of a database always contains the entire database and can overwrite any existing versions without reloading programs. If loading data from product CD-ROMs, always load the Indices data last. Check the CRSP web page, crsp.com, for any updates to CRSPAccess97 programs.

An administrator can set permissions on directories as needed. Write access is not needed for any program or data directories. The log directory, however, requires full write access for all users.

Compaq Tru64 Unix (formerly Digital Unix) Installation on Digital Alpha

An installation Unix shell script is available on the CRSP Getting Started CD-ROM and the first CD-ROM of a set of data CD-ROMs. Programs, sample data, and all product data can be installed by running the setup program from the Getting Started CD-ROM. The setup script on a data CD-ROM can only be used to update that data product.

The setup shell script will copy program and data files to your machine. If overlaying indices on top of an existing stock database, make sure you have permission to overwrite files in the target directory. The shell script can also create a second script that can be used to set environment variables needed to access the CRSPAccess97 data. See Unix Environment Variables (Page 20) for more information about setting CRSP environment variables.

To run the setup script.

1. Load the CRSP Getting Started CD-ROM or the first CD-ROM of a data set to your CD-ROM drive. You must know the location on your system of the CD-ROM drive.
2. Mount the CD with the command (device `/dev/rz4c` is an example here and may be different on your machine)

   ```
   mount -t cdfs -o noversion /dev/rz4c /cd
   ```

3. In a terminal window, `cd` to a local directory. The path of the CD-ROM is `/cd`. The `df` command will show the status and path of the CD-ROM loaded.
4. Copy the `setup.sh` file from the top level directory of the CD-ROM to your local directory, for example

   ```
   cp /cd/setup.sh .
   ```

5. Execute the script.

   ```
   setup.sh
   ```

6. Answer prompts as needed. Directories must be specified with full pathnames, without trailing slashes.
7. If the program prompts for another CD-ROM, eject the current CD-ROM and insert the requested CD from outside the terminal window running the script. The `umount /cd` command at a second terminal window can be used to eject a CD. Load the new CD with the same command as in step 2. Data CDs 1, 2, and 3 are used to load daily stock databases on Compaq Tru64 Unix Alpha Workstations.

The mount and umount commands must be run on the console with the root account.

The programs only need to be loaded once from the Getting Started CD. A monthly update of a database always contains the entire database and can overwrite any existing versions without reloading programs. If loading data from product CDs always load the Indices data last. Check the CRSP web page, crsp.com for any updates to CRSPAccess97 programs.

An administrator can set permissions on directories as needed. Write access is not needed for any program or data directories. The log directory, however, requires full write access for all users.

HP/UX Installation

An installation Unix shell script is available on the CRSP Getting Started CD-ROM and the first CD-ROM of a set of data CD-ROMs. Programs, sample data, and all product data can be installed by running the setup program from the Getting Started CD-ROM. The setup script on a data CD-ROM can only be used to update that data product.

The setup shell script will copy program and data files to your machine. If overlaying indices on top of an existing stock database, make sure you have permission to overwrite files in the target directory. The shell script can also create a second script that can be used to set environment variables needed to access the CRSPAccess97 data. See Unix Environment Variables (Page 20) for more information about setting CRSP environment variables.

To run the setup script on Sun Sparcstations.

1. Load the CRSP Getting Started CD-ROM or the first CD-ROM of a data set to your CD-ROM drive. You must know the location on your system of the CD-ROM drive.
2. Mount the CD-ROM with the command (device `/dev/dsk/c02d0` is an example here and may be different on your machine).

   ```
   mount /dev/dsk/c02d0 /cdrom
   ```

3. In a separate terminal window, `cd` to a local directory. The path of the CD-ROM is `/cdrom`. The `df` command will show the status and path of the CD-ROM loaded.
4. Copy the `setup.sh` file from the top level directory of the CD-ROM to your local directory, for example

   ```
   cp /cdrom/setup.sh .
   ```

5. Execute the script.

   ```
   setup.sh
   ```

6. Answer prompts as needed. Directories must be specified with full pathnames, without trailing slashes.
7. If the program prompts for another CD-ROM, eject the current CD-ROM and insert the requested CD-ROM from outside the terminal window running the script. The `umount /cdrom` command at a second terminal window or the `eject disk` button in the file manager can be used to eject a CD-ROM. Data CD-ROMs 1, 4, and 5 are used to load daily stock databases on HP/UX workstations.
8. Use `umount /cdrom` to dismount the CD-ROM.

The programs only need to be loaded once from the Getting Started CD-ROM. A monthly update of a database always contains the entire database and can overwrite any existing versions without reloading programs. If loading data from product CD-ROMs always load the Indices data last. Check the CRSP web page, crsp.com for any updates to CRSPAccess97 programs.

An administrator can set permissions on directories as needed. Write access is not needed for any program or data directories. The log directory, however, requires full write access for all users.

AIX Installation

An installation Unix shell script is available on the CRSP Getting Started CD-ROM and the first CD-ROM of a set of data CD-ROMs. Programs, sample data, and all product data can be installed by running the setup program from the Getting Started CD-ROM. The setup script on a data CD-ROM can only be used to update that data product.

The setup shell script will copy program and data files to your machine. If overlaying indices on top of an existing stock database, make sure you have permission to overwrite files in the target directory. The shell script can also create a second script that can be used to set environment variables needed to access the CRSPAccess97 data. See Unix Environment Variables (Page 20) for more information about setting CRSP environment variables.

To run the setup script on AIX workstations.

1 Load the CRSP Getting Started CD-ROM or the first CD-ROM of a data set to your CD-ROM drive.

2 Mount the CD-ROM. Consult your AIX documentation for mounting and unmounting instructions. The `df` command will show the status and path of the CD-ROM loaded.

3 In a terminal window, `cd` to a local directory. Use your AIX documentation to determine the path of the CD-ROM.

4 Copy the `setup.sh` file from the top level directory of the CD-ROM to your local directory, for example

```
cp /cdrom/setup.sh .
```

5 Execute the script.

```
setup.sh
```

6 Answer prompts as needed. Directories must be specified with full pathnames, without trailing slashes.

7 If the program prompts for another CD-ROM, eject the current CD-ROM and insert the requested CD-ROM from outside the terminal window running the script. Data CD-ROMs 1, 4, and 5 are used to load daily stock databases on AIX workstations.

The programs only need to be loaded once from the Getting Started CD-ROM. A monthly update of a database always contains the entire database and can overwrite any existing versions without reloading programs. If loading data from product CD-ROMs always load the Indices data last. Check the CRSP web page, crsp.com, for any updates to CRSPAccess97 programs.

An administrator can set permissions on directories as needed. Write access is not needed for any program or data directories. The log directory, however, requires full write access for all users.

Unix Environment Variables

CRSP Environment variables must be set for the CRSPAccess97 programs to work properly on any of the Unix platforms. The installation setup shell script can create a `ksh` initialization script that can be executed for an account to set CRSP environment variables. CRSP also provides standalone `ksh` and `csh` shell scripts that prompt for directories and create initialization scripts. If directory locations change, the setup scripts can be used to recreate the installation files, or the installation files can be edited directly.

The `ksh` initialization script created by the product setup is named `crsp.kshrc`. The new script can be incorporated into all accounts by the system administrator, sourced into initialization files directly by individual users, or executed as needed.

To use a standalone script for generating an initialization script file, follow these steps.

1. `cd` to the root directory where program files have been loaded.

2. `cd accbin`

3. if you are running csh shell
   `source crsp_setup.csh`

   if you are running ksh shell,
   `crsp_setup.sh`

4. the script will prompt for data, root, and log directories. Follow the instructions on the prompts in terms of trailing slashes in directory names.

5. The script will create to new scripts, `crsp.cshrc` in `csh` or `crsp.kshrc` in `ksh`.

One method of incorporating CRSP initializations for `csh` users is.

Move the file `crsp.cshrc` to the `/local/bin` or other common directory

Add `source /local/bin/crsp.cshrc` to the `.cshrc` file of each account using CRSP

One method of incorporating CRSP initialization for `ksh` users is.

Move the file `crsp.kshrc` to the `/local/bin` or other common directory

Add `. /local/bin/crsp.kshrc` to the `.kshrc` file of each account

Add the line `ENV=$HOME/.kshrc` to the `/etc/.login` file

`env | grep CRSP` can be used to check the CRSP environment variables set

The script produced by the CRSP setup script also adds the `$CRSP_BIN` directory to the users' path.

The following list of the Unix environment variables are used in CRSPAccess97.

Environment Variable	Set To (end paths with \ unless otherwise noted)
CRSP_ROOT	Top level program directory. Most other CRSP environment variables are set based on CRSP_ROOT
CRSP_LOG	Log directory used for user
CRSP_MSTK	CRSP Monthly Database directory (if available)
CRSP_DSTK	CRSP Daily Database directory (if available)
CRSP_INCLUDE	Programming header files
CRSP_SAMPLE	Sample programs
CRSP_LIB	Object libraries
CRSP_BIN	Executables and scripts
CRSP_ENV_ULOG	Usage logs produced by users
CRSP_ENV_ELOG	Error logs produced by users
CRSP_ENV_ROOT	Location of base CRSPAccess97 database
PATH	Add a semicolon and the CRSP_BIN path to the end of the current PATH (no ending \ on CRSP_BIN path)

OpenVMS Installation on Digital Alpha

An installation OpenVMS command file is available on the CRSP Getting Started CD-ROM and the first CD-ROM of a set of data CD-ROMs. Programs and sample data can be installed by running the setup command file from the Getting Started CD-ROM. The setup command file on the first CD-ROM of a data set must be used to load the data product.

The setup command file will copy program and data files to your machine. There are also command files included with the programs that can be built into system or user accounts to set logicals and symbols needed to run the CRSPAccess97 programs. To run the setup command file open two terminals.

1. Load the Getting Started disk or the first data disk to your CD-ROM drive.

2. Mount the CD-ROM with the command in terminal 1 (the `LABEL` is the first 11 characters of your external label, and `LABEL#1` is the same label followed by the characters #1).

```
mount /media=cd cd LABEL /undefined_fat=(stream_lf:500)
/shared /bind=LABEL#1
```

3. In terminal 2, set default to a local directory. The path of the CD-ROM is `cd:`.

4. In terminal 2, copy the `setup.com` file from the top level directory of the CD-ROM to your local directory, for example

```
copy cd:[000000]setup.com []
```

5. In terminal 2, execute the command file.

```
@setup
```

6. Answer prompts as needed. The CD-ROM location is `CD:[000000]`. The root directory must be specified with a full directory path, ending with a period following the last subdirectory, and no closing bracket. Data directories must have the closing bracket.

7. When the program prompts for another CD-ROM, return to terminal 1 and execute the command `dismount cd:`. Insert the requested CD-ROM and mount with the same command as step 2 but using the new label based on the first eleven characters of the new CD-ROM's external label. Data CD-ROMs 1, 2 and 3 are needed to load daily stock databases on OpenVMS Systems.

8. Use `dismount cd:` when finished to dismount the CD-ROM

Load the programs from the Getting Started CD-ROM first, then stock data (repeating from step 1) and then indices data (again repeating from step 1) if available. If replacing data or adding indices to a stock database, make sure the existing files have delete protections.

The programs only need to be loaded once from the Getting Started CD-ROM. A monthly update of a database always contains the entire database and can overwrite any existing versions without reloading programs. Check the CRSP web page, crsp.com, for any updates to CRSPAccess97 programs.

An administrator can set permissions on directories as needed. Write access is not needed for any program or data directories. The log directory, however, requires full write access for all users.

OpenVMS Logicals and Symbols

Logicals and symbols must be set for the CRSP programs to work properly. CRSP provides command files that can be used at a system, group, or process level to set directories and program symbols. They are located in the [.BIN] subdirectory of the root directory where program files have been loaded.

crsp_logicals_install.com sets all directories of databases and programs. It is run with five arguments.

1. One of P or G or S - this determines whether logicals will be loaded to the process, group or system logical names table. The account must have GRPNAM permission to load to the group table, and SYSNAM permission to load to the system table.
2. The root directory in the form disk:[root.]
3. A log directory in the form disk:[log.] . The directory and two subdirectories must exist. The names of the two subdirectories are [.usage] and [.errs]. The log disk and directories should be in a scratch disk with write access to any user of CRSP data.
4. A CRSP Daily Database directory. A monthly database directory can be substituted if no daily database directory exists on the system.
5. A CRSP Monthly Database directory. A daily database directory can be substituted if no monthly database directory exists on the system.

crsp_symbols_install.com defines program names so they can be run with arguments. This command file is run with no arguments.

The two initialization files should be called by a system initialization or a user login.com so they are available to targeted users at login. A single user can run them in a local process to set up a personal copy of a database. The command show logicals crsp* can be used to verify the logicals set.

The following list of logicals are used in CRSPAccess97

Environment Variable	Set To (end paths with \ unless otherwise noted)
CRSP_ROOT	Top level program directory. Most other CRSP environment variables are set based on CRSP_ROOT. CRSP_ROOT is set as a concealed logical.
CRSP_LOG	Log directory used for user files. CRSP_LOG is set as a concealed logical
CRSP_MSTK	CRSP Monthly Database directory
CRSP_DSTK	CRSP Daily Database directory
CRSP_INCLUDE	Programming header files
CRSP_SAMPLE	Sample programs
CRSP_LIB	Object libraries
CRSP_BIN	Executables and scripts
CRSP_ENV_ULOGDIR	Usage logs produced by users
CRSP_ENV_ELOGDIR	Error logs produced by users
CRSP_ENV_ROOTDIR	Location of base CRSPAccess97 database

CHAPTER THREE: SAMPLE DATA

OVERVIEW

This chapter provides an overview of the content and scope of sample data sets included on the Getting Started CD-ROM. These provide a comprehensive snapshot of the CRSP databases for promotional purposes only. Information contained in them may only be used for an organization to internally preview our data.

Samples are included for each of the following CRSP Databases:

CRSP NYSE, AMEX, Nasdaq Daily and Monthly Price and Total Return Databases, daily and monthly data files, updated monthly and annually.

CRSP US Stock, Treasury Indices and Portfolio Assignments Database, daily and monthly data files, updated monthly and annually.

CRSP US Government Bills, Notes and Bonds Databases, daily and monthly data files, updated annually.

CRSP Survivor-Bias Free US Mutual Fund Database, monthly and annual data file, updated quarterly.

Cap-Based Portfolios.

INSIDE

CHAPTER 3: SAMPLE DATA

3.1 Sample Stock Data

CRSP NYSE, AMEX, Nasdaq Daily and Monthly Price and Total Return Databases, updated monthly and annually.

CRSPAccess97 format daily and monthly sample databases are provided. Each database contains a 10-year window of data for 101 issues, organized and sorted by PERMNO. Seventy-four of these issues included are still actively traded. Daily and monthly data extends from 1989-1998, and contains a complete cut of the data for the issues. The CRSPAccess97 Installation programs described in Chapter Two of this guide can be used to load these databases.

Using the *stk_print* utility, examples of the Header Information Identification and Summary Data, the Name History Array, the Distribution Event Array, and Returns Time Series Array have been extracted.

See the CRSP Data Definitions and Coding Schemes Guide for data variables, CRSPAccess97 Database Format - Utilities Guide for non-programming access of the CRSPAccess97 data, CRSPAccess97 Database Format - Programmers Guide for programming usage of the CRSPAccess97 data, and CRSP SFA Database Format Guide for conversion and use of data in SFA format.

Sample Header Identification and Summary Data

Header Identification and Summary Data is a set of variables, in a CRSPAccess97 stock database, that identify an issue and summarize its classification. There is no time component to the header data so the data is valid the entire range of the issue. Header Identification and Summary Data contains the most current information on the issue maintained in the file. There is only one header structure per issue for any data iteration.

```
  PERMNO CUSIP  PERMCO  Compno Issuno EXCH SIC Name  Dist Share Delist Nasd
 12490 45920010  20990      0      0   1 3573    3    41   83      1     0


  BegDate/EndDate HTick  DEL Latest Company Name
19890103-19981231 IBM    100 INTERNATIONAL BUSINESS MACHS COR
```

Sample Name History Data

The Name History Array includes sets of identification variables effective at different times during the history of a security. Each set of information, or name structure, contains name and classification fields and the effective date ranges of those fields. Each security has at least one name structure.

```
Namedt     CUSIP    Ticker  Company Name                        CL Cd Exch  SIC
19251231                    INTERNATIONAL BUSINESS MACHS COR       11   1  3570
19620702            IBM     INTERNATIONAL BUSINESS MACHS COR       11   1  3573
19680102 45920010   IBM     INTERNATIONAL BUSINESS MACHS COR       11   1  3573
```

Sample Distribution Data

The Distribution Event Array is a list of events describing cash dividends, capital adjustments, and other distributions to shareholders for a security.

Distribtion Events.

```
Code    Divamt    Facpr   Facshr   Dclrdt     Exdt   Rcrddt    Paydt Aperm Acomp
1232   1.10000   0.0000   0.0000 19890131 19890202 19890208 19890310     0     0
1232   1.21000   0.0000   0.0000 19890424 19890504 19890510 19890610     0     0
1232   1.21000   0.0000   0.0000 19890725 19890803 19890809 19890909     0     0
1232   1.21000   0.0000   0.0000 19891031 19891102 19891108 19891209     0     0
1232   1.21000   0.0000   0.0000 19900130 19900205 19900209 19900310     0     0
 ...     ...      ...      ...      ...      ...      ...      ...     ...    ...
1232   0.22000   0.0000   0.0000 19980728 19980806 19980810 19980910     0     0
1232   0.22000   0.0000   0.0000 19981027 19981106 19981110 19981210     0     0
```

Sample Return Data

Price and Return Data, with and without dividends.

date	prc	ret	retx
19890103	121.87500	-66.000000	-66.000000
19890104	122.50000	0.005128	0.005128
19890105	122.25000	-0.002041	-0.002041
19890106	121.50000	-0.006135	-0.006135
...	...	...	...
19981228	189.25000	0.006984	0.006984
19981229	187.12500	-0.011229	-0.011229
19981230	186.75000	-0.002004	-0.002004
19981231	184.37500	-0.012718	-0.012718

3.2 Sample Indices Data

CRSP US Stock, Treasury Indices and Portfolio Assignments Database, daily and monthly data, updated monthly and annually.

The CRSPAccess97 indices data is designed to be integrated with the CRSPAccess97 stock data. The indices files have a one year window, January through December, 1998. In this format programs and utilities have access to security portfolio assignment data for all market segment portfolio indices and the index results of all CRSP indices, allowing the calculation of excess returns between stock portfolios and a wide range of benchmarks. The sample data in CRSPAccess97 format contains data between 1989 and 1998, including all portfolio assignments in the time range for the selected companies, but only the market indices and the market capitalization decile indices for the NYSE/AMEX/Nasdaq exchanges. See the CRSP Data Definitions and Coding Schemes Guide for the variables, calculations and the methodologies used.

Sample stand-alone index files in fixed format ASCII character, Excel Worksheets (5.0), and SAS datasets (SAS transport format) are also provided. The five sample indices in these formats include, The CRSP Indices on the S&P 500® Universe, the CRSP Treasury and Inflation Series (CTI), CRSP Decile Portfolios, CRSP Cap-based Monthly History Data, and Cap-Based Reports Rebalancing History. Snapshots for each of the ASCII text index files are show below.

CRSP Indices on the S&P® 500 Universe

The CRSP Indices on the S&P 500® series contain value- and equal-weighted returns with and without dividends for a market of stocks in the S&P 500® universe. Monthly data beginning January 1998 are provided. The published S&P 500® index and returns are also included for comparison.

A Snapshot of the CRSP Indices on the S&P500® Universe

```
CALDT         19980130
VWRETD        0.0119998       VWRETX          0.01108473
EWRETD        -0.002322844    EWRETX          -0.00314853
TOTVAL        7543656440      TOTCNT          500
USDVAL        7439790910      USDCNT          500
SPINDX        980.28          SPRTRN          0.01015014
...           ...             ...             ...
CALDT         19981231
VWRETD        0.05975607      VWRETX          0.05853809
EWRETD        0.02909605      EWRETX          0.02754574
TOTVAL        9795148010      TOTCNT          500
USDVAL        9257198980      USDCNT          500
SPINDX        1229.23         SPRTRN          0.05637529
```

CRSP Treasury and Inflation Indices

CRSP US Treasury and Inflation Series (CTI). CTI Files are provided on a monthly frequency. The series contains returns adapted from the CRSP US Government Bond Fixed Term Index Series, the CRSP Risk Free Rates File, and the US Government Consumer Price Index. These derived files offer 10 groups of indices with the following target maturities: 30-year, 20-year, 10-year, 7-year, 5-year, 2-year, and 1-year for Bonds, 90-day, and 30-day for Bills, and the US Government Consumer Price Index.

A Snapshot of the CRSP Treasury and Inflation Series

```
CALDT          19980331
B30RET         0.01186238          B30IND       817.3503
B20RET         0.01525088          B20IND       919.3337
B10RET         0.01576495          B10IND       918.5594
B7RET          0.01610542          B7IND        916.4847
B5RET          0.01562222          B5IND        847.1784
B2RET          0.01500997          B2IND        789.2033
B1RET          0.01427584          B1IND        778.484
T90RET         0.01330619          T90IND       657.2613
T30RET         0.01258835          T30IND       560.1195
CPIRET         0.005579344         CPIIND       381.647
 ...             ...                 ...          ...
CALDT          19981231
B30RET         -0.0128904          B30IND       945.6798
B20RET         -0.01247868         B20IND       1023.712
B10RET         -0.007378545        B10IND       1022.713
B7RET          -0.005395729        B7IND        1009.872
B5RET          -0.00293251         B5IND        911.8426
B2RET          0.007045779         B2IND        834.0456
B1RET          0.01060485          B1IND        814.6771
T90RET         0.01136777          T90IND       683.0251
T30RET         0.01040077          T30IND       579.6037
CPIRET         0.001833509         CPIIND       385.647
```

CRSP Stock File Capitalization Decile Indices

CRSP Stock File Capitalization Decile Indices are calculated for each of the Stock File Indices market groups. In these Market Segment Indices all securities excluding American Depositary Receipts on a given exchange or combination of exchanges are ranked according to capitalization and then divided into ten equal parts each rebalancing period.

The portfolios are rebalanced each year, using the security market capitalization at the end of the previous year to rank the securities. If a security starts trading in the middle of a year its first capitalization of the year is used in the ranking. The largest securities are placed in portfolio 10 and the smallest in portfolio 1. A security not assigned to a portfolio is not used in the index and has its Portfolio Assignment set to 0.

A Snapshot of the CRSP Decile Portfolios

CALDT	19980102		
VWRETD	0.002462378	VWINDD	1984.059
VWRETX	0.002431649	VWINDX	792.6545
EWRETD	0.009858352	EWINDD	23374.03
EWRETX	0.009847197	EWINDX	13397.23
SPRTRN	0.004709253	SPINDX	975
DECRET1	0.03758826	DECIND1	8129.254
DECRET2	0.01704156	DECIND2	2504.582
...	...	...	...
DECRET9	-0.00160756	DECIND9	2317.722
DECRET10	0.002759151	DECIND10	1872.08
TOTVAL	10719164300	TOTCNT	8819
USDVAL	10692321900	USDCNT	8816
CALDT	19980105		
VWRETD	0.002236513	VWINDD	1988.496
VWRETX	0.002217484	VWINDX	794.4123
EWRETD	0.005633355	EWINDD	23505.7
EWRETX	0.005622799	EWINDX	13472.56
SPRTRN	0.002123077	SPINDX	977.07
DECRET1	0.01112264	DECIND1	8219.673
DECRET2	0.008773679	DECIND2	2526.557
...	...	...	...
DECRET9	0.00145359	DECIND9	2321.091
DECRET10	0.002136699	DECIND10	1876.08
TOTVAL	10743283500	TOTCNT	8819
USDVAL	10718759100	USDCNT	8815

Cap-Based Portfolios

CRSP Cap-Based Portfolios are monthly series of capitalization-based market segments using a different methodology and universe than the CRSP Stock File Capitalization Decile Indices. Cap-Based Portfolio indices are monthly series based on portfolios rebalanced quarterly. Monthly history data are provided.

All eligible companies listed on the NYSE are ranked by market capitalization and then split into ten equally populated groups, or deciles. The capitalization of the largest company in each decile serves as the breakpoint for that decile. When multiple issues of a company trade, the sum of the issue capitalizations is used for the company capitalization so that the company is counted only once. The portfolios are reformed every quarter using the price and shares at the end of the previous quarter.

A Snapshot of the CRSP Cap-Based Monthly History Data

```
CALDT           19980130
PRTNAM          1               PRTCNT          219
PRTWGT          6248308986
TOTRET          0.017612        TOTIND          1091.19
CAPRET          0.016664        CAPIND          49.485
INCRET          0.000948        INCIND          22.144

CALDT           19980130
PRTNAM          2               PRTCNT          227
PRTWGT          1302687043
TOTRET          -0.022708       TOTIND          2199.121
CAPRET          -0.023463       CAPIND          91.99
INCRET          0.000756        INCIND          24.106
  ...             ...             ...             ...
CALDT           19980130
PRTNAM          10              PRTCNT          2688
PRTWGT          141537512
TOTRET          0.009142        TOTIND          10694.223
CAPRET          0.008503        CAPIND          2648.326
INCRET          0.000639        INCIND          4.053

CALDT           19980130
PRTNAM          1_2             PRTCNT          446
PRTWGT          7550996029
TOTRET          0.010656        TOTIND          1228.645
CAPRET          0.009741        CAPIND          55.033
INCRET          0.000915        INCIND          22.443

CALDT           19980130
PRTNAM           3_5            PRTCNT          822
PRTWGT          1492640541
TOTRET          -0.011791       TOTIND          2905.568
CAPRET          -0.012416       CAPIND          139.584
INCRET          0.000625        INCIND          20.902

CALDT           19980130
PRTNAM           9_10           PRTCNT          3669
PRTWGT          314276969
TOTRET          -0.002112       TOTIND          5301.643
CAPRET          -0.002679       CAPIND          856.823
INCRET          0.000567        INCIND          6.206

CALDT           19980130
PRTNAM          Mrkt            PRTCNT          6347
PRTWGT          10050435020
TOTRET          0.005814        TOTIND          1424.268
CAPRET          0.004982        CAPIND          67.852
INCRET          0.000832        INCIND          21.104
```

Cap-Based Reports Rebalancing History Arrays

Cap-Based Reports Rebalancing History Arrays are a set of arrays containing calendar and rebalancing data for Cap-Based Portfolios.

A Snapshot of the Cap-Based Quarterly Rebalancing History

```
YYMM      199803
PRTNO     1           PRTCCT    208
MINCWT    8838378     MINCNM    MARRIOTT INTERNATIONAL INC
MAXCWT    240136270   MAXCNM    GENERAL ELECTRIC CO

YYMM      199803
PRTNO     2           PRTCCT    223
MINCWT    3805386     MINCNM    CINTAS CORP
MAXCWT    8806833     MAXCNM    DELTA AIR LINES INC
  ...       ...         ...         ...
YYMM      199803
PRTNO     10          PRTCCT    2670
MINCWT    608         MINCNM    COUNTRY STAR RESTAURANTS INC
MAXCWT    124058      MAXCNM    T B WOODS CORP
```

3.3 Sample Bond Data

CRSP US Government Bills, Notes and Bonds Databases, daily and monthly data, updated annually.

The CRSP US Government Bills, Notes and Bonds Databases are primarily made up of three files: the Calendar File, the Master File, and the Cross-Sectional File.

The monthly sample contains complete data for the year 1997 and daily sample contains all data for the last six months of 1997. A snapshot of primary files for the monthly database follow.

Sample Calendar File Data

The Calendar File is composed of 11 one-dimensional arrays. Fields that begin with “Day number” use an internal day numbering scheme.

A Snapshot of the Calendar File

Day number of Quotation Date	35460
Day number of zero’th day of month	35429
Day number of delivery date	35460
Year and month(YYYYMM) of quote date	199701
Day of month of quotation date (DD)	31
Linear number of days in a half year	184
Nbr of days from last quotation date to this quotation date	31
Delivery date (YYYYMMDD)	19970131
Quotation date (YYYYMMDD)	19970131
Quotation date (YYMMDD)	970131
Number of data records	241

Sample Master File Data

The Master File is made up of two types of data records, header records and data records. The master file contains one header record for each issue and one data record for each month the issue is traded.

A Snapshot of the Header Record

CRSPID	19980102.4	CUSIP	9127945Z
NAME	BILL	MATURITY	19980102
ISSUE TYPE	4	COUPON RATE	0
UNIQUENESS NBR	0		
MONTH NBR OF 1ST PRICE	859	MONTH NBR OF LAST PRICE	865
REASON FOR END	1	DATED DATE	19970703
BANK ELIGIBILTIY DATE	0	FIRST CALL DATE	
FIRST CALL NOTICE	0	NOTICE REQUIRED	
TAXABILITY OF INTEREST	1	PAYMENT OF ESTATE TAXES	1
NBR OF PAYMENTS/YEAR	0	DATE OF FIRST COUPON	0
AMT OF FIRST COUPON	0		

CRSPID	19980115.20787	CUSIP	912827ZT
NAME	NOTE	MATURITY	19980115
ISSUE TYPE	2	COUPON RATE	7.875
UNIQUENESS NBR	0		
MONTH NBR OF 1ST PRICE	854	MONTH NBR OF LAST PRICE	865
REASON FOR END	1	DATED DATE	19910115
BANK ELIGIBILTIY DATE	0	FIRST CALL DATE	
FIRST CALL NOTICE	0	NOTICE REQUIRED	
TAXABILITY OF INTEREST	1	PAYMENT OF ESTATE TAXES	1
NBR OF PAYMENTS/YEAR	2	DATE OF FIRST COUPON	19910715
AMT OF FIRST COUPON	3.9375		

A Snapshot of the Data Record

CRSPID	19980102.4000	MONTH NBR OF OBS	859
BID PRICE	97.341751	ASK PRICE	97.352081
FACE VALUE OUT	0	FACE VALUE HELD	
PRIMARY DATA SOURCE	X	ACCRUED INTEREST	0
INTEREST PAYABLE	0	PROMISED DAILY YIELD	0.000144565
UNADJ RETURN	-99	ADJ EXCESS RETURN	-99
YIELD Cmp. Semi	0.0534685	DURATION	186
CRSPID	19980102.4000	MONTH NBR OF OBS	860
BID PRICE	97.805244	ASK PRICE	97.81385
FACE VALUE OUT	12039	FACE VALUE HELD	0
PRIMARY DATA SOURCE	X	ACCRUED INTEREST	0
INTEREST PAYABLE	0	PROMISED DAILY YIELD	0.00014289
UNADJ RETURN	0.0047524	ADJ EXCESS RETURN	0.000260826
YIELD Cmp. Semi	0.0528409	DURATION	155
CRSPID	19980102.4000	MONTH NBR OF OBS	861
BID PRICE	98.211502	ASK PRICE	98.218498
FACE VALUE OUT	12039	FACE VALUE HELD	0
PRIMARY DATA SOURCE	X	ACCRUED INTEREST	0
INTEREST PAYABLE	0	PROMISED DAILY YIELD	0.000142946
UNADJ RETURN	0.00414531	ADJ EXCESS RETURN	-0.00000709802
YIELD Cmp. Semi	0.0528619	DURATION	126

Sample Cross-Sectional Data

The Cross-Sectional file contains a variable number of data records for each quotation date. Where the Master File is organized by issue, the Cross-Sectional File is organized by date.

A Snapshot of the Cross-Sectional Record

QUOTATION DATE	19970131	CRSPID	19980108.4000
BID PRICE	95.02912	ASK PRICE	95.04813
ACCRUED INTEREST	0	INTEREST PAYABLE	0
TAXABILITY OF INTEREST	1	PAYMENT OF ESTATE TAXES	1
ANNUALIZED YTM	5.4309	HOLDING PERIOD RETURN	0.5057
DURATION	342		
FACE VALUE OUT	20610	PAR VALUE PUBLICLY HELD	0

3.4 Sample Mutual Fund Data

CRSP Survivor-Bias Free US Mutual Fund Database (based on S&P's® Micropal database) monthly and annual data combined into one database, updated quarterly.

This sample is provided in Microsoft Access 97 database format. The data contains the complete file history for 51 funds.

See the CRSP Survivor-Bias Free US Mutual Fund Database Guide for data variables definitions and data usage.

The Fund Name File

Below is an example of the Fund Names File in the Mutual Fund Database. The file contains a record for every different name that the fund has had during the life of the fund. It contains the ICDI number associated with the fund, the fund name and the beginning and ending year for which the name applies.

A Snapshot of the Fund Name File

```
ICDI_No_A               01558
Fund_name               SHEARSON LEHMAN BROTHERS TELECOMM GROWTH
begyear                 1992
endyear                 1992

ICDI_No_A               01558
Fund_name               Smith Barney Telecommunications Growth/B
begyear                 1993
endyear                 1996
```

The Fund List File

The Funds List File contains one record for every ICDI number in the database. The information found on this record is the historical tracking information for the fund. This record includes ICDI Number of the fund, a flag denoting whether the fund is dead, if dead a reason the fund died, the date the fund disappeared, the ICDI number of the fund this fund merged/split into (if applicable), and the dates of the first and last data for the fund on the database.

A Snapshot of the Fund List File

```
ICDI Fund                 01558
Dead Fund?                Y
ECD code                  M
Fund                      10/1/1996
Merged Into               36300
Split Into
Date Fund Data Begins     11/30/1992
Date Fund Data Ends       10/1/1996
```

Annual Summary Data File

The Annual Summary Data File contains one record for every year the fund exists. For example the Smith Barney Telecommunications Growth Fund has the following record for 1994. It contains the ICDI Number, the year for which the record applies, objective codes so the fund type can be classified, total net assets, net asset value of the fund as of December, income and capital gains distributions for the year, Income yield, turnover ratio, load fees, expense ratios, ticker, and fund asset allocation.

A Snapshot of the Annual Summary Data File

ICDI_No_A	01558	Year_A	1994
YEAR_ORG	1992		
Fund_name	Smith Barney Telecommunications Growth/B		
Obj		Policy	
ICDI_OBJ	SF	SI_OBJ	TEC
TNA	$185.50	NAV	$11.82
INCOME	$0.00	CAP_gns	$0.00
Yield	0	TURNOVER	0.19
Max_LOAD	0	OTH_LOAD	5
Tot_Load	5	EXPENSES	0.0207
TICKER	ATGBX	Stocks %	95.56
Bonds %	0	Prfd Stocks %	1.17
Cash %	3.27		

The Annual Summary Data Supplemental File

The Annual Summary Data Supplemental File accompanies the information found in the Annual Summary Data File. It contains one record for each year the fund exists. Data in this file begins in 1992. For example the Smith Barney Telecommunications Growth Fund has the following record for 1994. It contains the ICDI Number, the year for which the record applies, information regarding the manager of the fund, a breakdown of the fees associated with the fund, and a more detailed breakdown of the asset allocation.

A Snapshot of the Annual Summary Data Supplemental File

ICDI_No_A_S	01558	Year_A_S	1994
MGMT_NO	375	MGMT_NAME	SHEARSON LEHMAN BROTHERS
MGR_DATE	199211	MGR_NAME	Guy R Scott
Max_LOAD	0	DEF_LOAD	0
REAR_LOAD	0.05	12B1	0.01
MATUR	AC_DATE	199412	
AC_COM	0.9556	AC_PREF	0.0117
AC_CONV	0	AC_WARR	0
AC_CORP	0	AC_MUNI	0
AC_GOVT	0	AC_OTH	0
AC_CASH	0.0327		

Monthly Net Asset Value/Share File

The Monthly Net Asset Value/Share File contains one record for every year the fund exists. It contains the ICDI Number, the year for which the record applies, and month-end Net Asset Value for each month in the year.

A Snapshot of the Monthly Net Asset Value/Share File

ICDI_No_N	01558	Year_N	1994
Jan_NAV	12.92	Jul_NAV	12.1
Feb_NAV	12.39	Aug_NAV	12.72
Mar_NAV	11.46	Sep_NAV	12.52
Apr_NAV	11.42	Oct_NAV	12.81
May_NAV	11.83	Nov_NAV	12.05
Jun_NAV	11.37	Dec_NAV	11.82

Total Net Assets (TNA) File

The Total Net Assets File contains one record for every year the fund exists. It contains the ICDI Number, the year for which the record applies, and the month-end Total Net Asset value for each month in the year.

A Snapshot of the Total Net Assets (TNA) File

```
ICDI_No_T     01558       Year_T      1994
Jan_TNA       178.7       Jul_TNA     198.5
Feb_TNA       183.5       Aug_TNA     210.9
Mar_TNA       177.187     Sep_TNA     199.3
Apr_TNA       179.9       Oct_TNA     204.7
May_TNA       190.506     Nov_TNA     191.1
Jun_TNA       185.345     Dec_TNA     185.5
```

Distributions File

The Distributions file contains one record for every dividend payment. It contains the ICDI number of the fund, year/month/day of the ex-dividend date for the payment, amount of the dividend, type of the dividend (income, capital gain, or split), and net asset value of the fund on the close of the pay date of the dividend.

A Snapshot of the Distributions File

```
ICDI_No_D     01558
X_YR          1994        X_MO        12
X_DAY         30          X_TYP       D
X_Amt         0.0344
RE_NAV        11.82
```

Monthly Total Returns File

The Monthly Total Returns File contains one record for every year the fund exists. It contains the ICDI Number, the year for which the record applies, and month-end Total Return value for each month in the year.

A Snapshot of the Monthly Total Returns File

```
CDI_No_R       01558      Year_R        1994
Jan_RET        0.01       Jul_RET       0.06
Feb_RET        -0.04      Aug_RET       0.05
Mar_RET        -0.08      Sep_RET       -0.02
Apr_RET        0.00       Oct_RET       0.02
May_RET        0.04       Nov_RET       -0.06
Jun_RET        -0.04      Dec_RET       -0.02
```

3.5 CRSP Cap-Based Portfolio Reports

The CRSP Cap-Based Portfolios are created to track and analyze performance differentials created when the US Equity Market is segmented into size-relative portfolios. These differentials have been the subject of much academic study over the last decade. CRSP capitalization data is often used as a fundamental source for cap-based portfolio research.

Ten CRSP Cap-Based Portfolios are created – CRSP 1, which contains the largest companies, CRSP 10, the smallest. Six additional portfolios are created by combining two or more of these decile portfolios. Because an investment universe is often limited by exchange restrictions, CRSP produces three versions of the sixteen portfolios – one includes all eligible securities trading on the New York Stock Exchange, another covers all eligible securities from NYSE and AMEX combined, and a third includes all eligible securities from NYSE, AMEX, and the Nasdaq National Market.

There are four different types of reports available. The monthly or quarterly results reports, monthly or quarterly history reports, quarterly breakpoint reports, and a security list report.

The Monthly or Quarterly Results Report

Offered as an annual subscription, the Monthly or Quarterly Results Report includes 12 or 4 performance results reports respectively and 4 quarterly breakpoint reports. The performance results reports include current portfolio population, portfolio weight, total return, capital appreciation, and income return.

A Snapshot of a Quarterly Results Report

Mar-30-1999/199902 Copyright © 1999

Prepared by the Center for Research in Security Prices

CRSP Cap-Based Portfolios
Quarterly Results Report
For Quarter Ended December 31, 1998

Breakpoints based on NYSE Companies at end of Quarter ended September 30, 1998

Portfolios include NYSE/AMEX/Nasdaq National Market Companies

Index Levels set to 1.0 on December 31, 1925

Portfolio	Initial Count	Weight	Total Return/Level		Capital Appreciation/Level		Income Return/Level	
CRSP 1	222	8,056,594,832,938	0.228643	1450.67	0.224769	64.95	0.003383	22.44
CRSP 2	224	,350,204,845,250	0.193248	2537.21	0.188383	104.50	0.004323	24.49
CRSP 3	254	699,576,433,094	0.194513	2887.89	0.190314	129.19	0.003730	22.45
CRSP 4	290	444,662,514,750	0.184318	3049.77	0.180793	153.92	0.003147	19.87
CRSP 5	318	302,465,174,813	0.195456	3619.17	0.192187	181.19	0.002908	20.06
CRSP 6	375	239,246,938,375	0.205370	3620.65	0.202744	187.98	0.002323	19.19
CRSP 7	445	185,757,848,047	0.141770	3275.82	0.139615	219.61	0.001975	14.89
CRSP 8	540	141,062,240,250	0.170488	3177.22	0.167745	272.19	0.002478	11.62
CRSP 9	850	141,535,308,922	0.202684	3668.75	0.200373	462.76	0.002045	7.96
CRSP 10	2602	122,703,076,953	0.115149	9447.88	0.113227	2323.58	0.001782	4.08
CRSP 1-2	446	9,406,799,678,188	0.223531	1598.01	0.219513	70.63	0.003518	22.75
CRSP 3-5	862	1,446,704,122,656	0.191544	3101.20	0.187749	147.34	0.003379	21.14
CRSP 6-8	1360	566,067,026,672	0.175714	3429.76	0.173216	215.48	0.002247	15.86
CRSP 9-10	3452	264,238,385,875	0.160936	4944.00	0.158817	793.48	0.001917	6.25
CRSP 1-5	1308	10,853,503,800,844	0.219171	1751.27	0.215184	78.99	0.003499	22.30
CRSP 6-10	4812	830,305,412,547	0.170936	3375.60	0.168557	252.20	0.002147	13.34
CRSP Market	1120	11,683,809,213,391	0.215689	1760.49	0.211819	82.83	0.003403	21.37

The Monthly or Quarterly History Report

The Monthly or Quarterly History Report is offered as a one-time report and contains monthly or quarterly data for each of the sixteen Cap-Based portfolios plus the market from December, 1925 to the present. The report contains: issue count, portfolio weight, total return/index level, capital appreciation/index level, and income return/index level.

A Snapshot of a Quarterly History Report

Date	Port	Issue Count	Wght	Tot Retrn	Index Level	Capital App	Index Level	Income Return	Index Level
19980331	1	219	6248308986	0.149114	1232.2	0.145052	55.734	0.003726	22.206
19980331	2	227	1302687043	0.105452	2487.508	0.1014	103.752	0.003846	24.181
19980331	3	246	696008480	0.116741	2994.948	0.113635	135.296	0.002923	22.235
19980331	4	280	480826440	0.125258	3240.957	0.122185	164.994	0.002853	19.7
19980331	5	296	315805621	0.114765	4024.514	0.112207	203.121	0.00241	19.896
19980331	6	403	295872577	0.125321	4049.788	0.123149	211.661	0.002016	19.064
19980331	7	401	201296064	0.109202	3691.894	0.106165	249.053	0.002893	14.802
19980331	8	606	195352839	0.137308	3611.485	0.135575	311.422	0.001597	11.541
19980331	9	981	172739457	0.108234	4206.64	0.106218	533.649	0.001891	7.911
19980331	10	2688	141537512	0.123975	11911.15	0.121838	2945.944	0.00198	4.059
19980331	1_2	446	7550996029	0.141579	1387.806	0.137518	61.997	0.003745	22.507
19980331	1_5	1268	9043636570	0.137859	1567.808	0.133977	71.45	0.00359	22.07
19980331	3_5	822	1492640541	0.119048	3290.264	0.116067	157.743	0.002793	20.947
19980331	6_10	5079	1006798450	0.121302	3875.395	0.119073	291.348	0.002082	13.262
19980331	6_8	1410	692521481	0.124031	3862.275	0.12173	244.23	0.00215	15.762
19980331	9_10	3669	314276969	0.115294	5925.405	0.113223	956.398	0.001932	6.215
19980331	Mrkt	6347	1.005E+10	0.1362	1608.899	0.132483	76.461	0.00344	21.159
19980630	1	219	7193093330	0.049273	1292.914	0.045743	58.284	0.003417	22.281
19980630	2	221	1411077369	-0.00523	2474.489	-0.00907	102.811	0.003859	24.274
19980630	3	262	827480080	-0.03224	2898.387	-0.03505	130.554	0.002867	22.299

The Quarterly Breakpoint Report

The breakpoints which determine the upper limits of each of the ten CRSP Cap-Based Portfolios are determined on a quarterly basis by ranking all of NYSE securities by capitalization and then dividing them into ten equally populated portfolios. AMEX and Nasdaq companies are added on the basis of these NYSE-determined breakpoints. The data in the top half of the Breakpoint Report refers only to the NYSE Companies which determine the CRSP Cap-Based Portfolio breakpoints. The data in the lower half reflects the inclusion of AMEX and Nasdaq companies; which is why the populations of the small-cap portfolios (i.e. CRSP 9 & 10) are so large.

A Snapshot of a Quarterly Breakpoint Report

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Prepared by the Center for Research in Security Prices

CRSP Cap-Based Portfolios

Breakpoint Report
For Quarter beginning October 1, 1998

Breakpoints based on NYSE Companies at end of Quarter ended September 30, 1998
Portfolios include NYSE/AMEX/Nasdaq National Market Companies

Portfolio Breakpoints by company as of beginning of Quarter

Portfolio	Number of Companies	Lowest Cap	Company Name	Highest Cap	Company Name
CRSP 1	189	8,194,312,000	MATTEL INC	258,871,233,250	GENERAL ELECTRIC CO
CRSP 2	189	3,537,567,000	INTERNATIONAL FLAVORS & FRAG INC	8,191,964,000	PROGRESSIVE CORP OH
CRSP 3	188	1,855,860,000	SODEXHO MARRIOTT SVCS	3,536,737,500	ASHLAND INC
CRSP 4	189	1,075,529,438	LENNAR CORP	1,851,795,000	BARNES & NOBLE INC
CRSP 5	189	716,568,750	T I G HOLDINGS INC	1,074,984,000	BALL CORP
CRSP 6	189	465,972,000	HOUSTON EXPLORATION CO	715,805,313	XTRA CORP
CRSP 7	189	308,762,000	INTERNATIONAL MULTIFOODS CORP	465,930,000	GRACO INC
CRSP 8	188	190,753,750	MARVEL ENTERPRISES INC	306,203,063	AARON RENTS INC
CRSP 9	189	99,488,750	NASHUA CORP	189,924,000	GETTY REALTY CORP NEW
CRSP 10	189	3,470,750	WORLDCORP INC	98,991,938	INTERNATIONAL SHIPHOLDING CORP

Portfolio Composition by companies (highest/lowest cap) as of beginning of Quarter

Portfolio	Number of Companies	Lowest Cap	Company Name	Highest Cap	Company Name
CRSP 1	214	8,194,312,000	MATTEL INC	273,835,500,000	MICROSOFT CORP
CRSP 2	222	3,537,567,000	INTERNATIONAL FLAVORS & FRAG INC	8,191,964,000	PROGRESSIVE CORP OH
CRSP 3	249	1,852,384,875	DOLLAR TREE STORES INC	3,536,737,500	ASHLAND INC
CRSP 4	285	1,075,529,438	LENNAR CORP	1,851,795,000	BARNES & NOBLE INC
CRSP 5	319	715,904,000	WISCONSIN CENTRAL TRANSN CORP	1,074,984,000	BALL CORP
CRSP 6	371	465,972,000	HOUSTON EXPLORATION CO	715,805,313	XTRA CORP
CRSP 7	439	306,535,500	G T INTERACTIVE SOFTWARE CORP	465,930,000	GRACO INC
CRSP 8	528	190,047,500	ADVANTICA RESTAURANT GROUP INC	306,203,063	AARON RENTS INC
CRSP 9	846	99,225,000	QUIXOTE CORP	189,924,000	GETTY REALTY CORP NEW
CRSP 10	2653	515,438	U S A BRIDGE CONST OF NY INC	98,991,938	INTERNATIONAL SHIPHOLDING CORP

The Security List Report

Offered as either a one-time historical report (1, 3, and 5 years are available) or an annual subscription of 12 monthly reports. The Security List Report contains the following data for each security included in the portfolios. The report contains: CUSIP, ticker, company name, exchange code, SIC code, shares outstanding, share price, portfolio assignment, total return, capital appreciation, PERMNO, and PERMCO.

A Snapshot of a Security List Report

CUSIP	Ticker	Company Name	Exg Code	SIC Code	Shares Outstanding	Share Price	Port Asgnt	Total Return	Capital Appreciation	PERMNO	PERMCO
86681010	SUNW	SUN MICRO	3	3570	380586	74.0625	1	0.15611814	0.15611814	10078	8021
68389X10	ORCL	ORACLECORP	3	7370	959712	34.25	1	0.2591241	0.2591241	10104	8045
59491810	MSFT	MICROSOFT	3	7370	2493567	122	1	0.13678278	0.13678278	10107	8048
28485310	ELGT	ELECTRIC & GA.	3	3820	8158	0.875	10	0.71428573	0.71428573	10155	8079
00195710	T	AT&TCORP	1	4812	1806338	62.1875	1	0.22339699	0.21809046	10401	20103
08658U10	BFO	BESTFOODS	1	2046	287435	58.125	1	-0.07965592	-0.08387097	10989	20365
55268B10	WCOM	MCI WORLDCO.	3	4810	1833426	59	1	0.21610169	0.21610169	11042	61
24702510	DELL	DELL COM	3	3570	1272253	60.8125	1	0.20349434	0.20349434	11081	9833
37044210	GM	GENERAL M	1	3711	654477	69.875	1	0.02415027	0.02415027	12079	20799
45920010	IBM	INTERNAT	1	3573	922852	165.125	1	0.11657835	0.11657835	12490	20990
45091110	IIN	I T T INDUS-TRIE.	1	0	118445	36	2	0.10416666	0.10416666	12570	20964
57777810	MAY	MAY DEPART	1	5311	231723	60.3125	1	0.00103627	0.00103627	13100	21172
81238710	S	SEARS ROEB	1	5311	383099	47.4375	1	-0.10408432	-0.10408432	14322	21592
03783310	AAPL	APPLE COMP	3	3573	135638	31.9375	2	0.28180039	0.28180039	14593	7
43850610	HON	HONEYWELL	1	3483	125937	79.9375	2	-0.0578577	-0.0578577	18374	20928
90254950	UAL	UALCORP	1	4512	58364	63.6875	2	-0.06280667	-0.06280667	19596	21793
92552R10	VVI	VIADCORP	1	4131	99412	23.3125	0.302 94907	0.30294907	19721	20851	3
29101110	EMR	EMERSONEL	1	3621	440458	65	1	-0.06923077	-0.06923077	22103	20643
13442910	CPB	CAMPBELL SO	1	2032	445585	57.125	1	-0.03719912	-0.03719912	25320	20384
20491210	CA	COMPUTE…	1	7372	538261	44.25	1	-0.03581921	-0.03672316	25778	5220
78108810	RBD	RUBBERMAID	1	3079	149976	33.0625	2	-0.04914934	-0.04914934	26884	21536
18589610	CLF	CLEVELAND CL.	1	1011	11148	38.0625	7	0.0591133	0.0591133	27422	20462

APPENDICES

OVERVIEW

The appendices include supplemental information for the Getting Started CD-ROM.

INSIDE

APPENDIX A: CRSP CD-ROM MAPS

A.1 Getting Started CD-ROM Map

The Getting Started CD-ROM contains the following directory layout.

- the top level contains setup programs, CD-ROM descriptions, license information, and four folders.

root – contains four folders containing programs, libraries, header files, and sample programs.

bin – contains executable programs and scripts; there is a subfolder for each supported operating system/platform

wnt40x86 - Windows NT 4.0 on Intel x86
w9840x86 - Windows 98 4.0 on Intel x86
w9540x86 - Windows 95 4.0 on Intel x86
vms65axp - OpenVMS 6.2 on AXP
sol25spa - Solaris 2.5 on Sparc
unx40axp - Compaq Tru64 Unix (formerly Digital Unix) 4.0 on AXP
wnt40axp - Windows NT 4.0 on AXP
hpu10par - HP/UX Unix 10.20 on PARISC
aix42ppc - AIX PowerPC Version 4.1.4

lib – contains object libraries and initialization files; there is a subfolder for each supported operating system

wnt40x86 - Windows NT 4.0 on Intel x86
w9840x86 - Windows 98 4.0 on Intel x86
w9540x86 - Windows 95 4.0 on Intel x86
vms65axp - OpenVMS 6.2 on AXP
sol25spa - Solaris 2.5 on Sparc
unx40axp - Compaq Tru64 Unix (formerly Digital Unix) 4.0 on AXP
wnt40axp - Windows NT 4.0 on AXP
hpu10par- HP/UX Unix 10.20on PARISC
aix42ppc - AIX PowerPC Version 4.1.4

include – FORTRAN and C programming header files

sample – FORTRAN and C sample programs

data – contains sample databases for all CRSP products

ieeelit – CRSPAccess97 databases for IEEE Little-Endian systems (PC, Alpha)

masample - sample monthly stock-only databases
dasample - sample daily stock-only databases
misample - sample monthly stock plus indices database
disample - sample daily stock plus indices database

ieeebig – CRSPAccess97 databases for IEEE Big-Endian systems (Sun, HP, AIX)

masample - sample monthly stock-only databases
dasample - sample daily stock-only databases
misample - sample monthly stock plus indices database
disample - sample daily stock plus indices database

ascii – ASCII fixed-length formatted text files of CRSPAccess97 databases

insample - sample indices text files in SFA format

excel – ASCII fixed-length formatted text files of CRSPAccess97 databases

insample - sample indices files in Excel spreadsheets

sas – SAS transport files with SAS datasets of CRSPAccess97 database files

insample - sample indices files in SAS format

mfsample - CRSP Survivor-Bias Free US Mutual Fund Database sample Microsoft Access database

bmsample - Sample Monthly CRSP US Government Bills, Notes and Bonds Database

data - sample monthly CRSP US Government Bills, Notes and Bonds Database in ASCII format

doc - Monthly CRSP US Government Bills, Notes and Bonds Database (see CRSP.com to download)

excel - sample monthly CRSP US Government Bills, Notes and Bonds Database in Microsoft Excel spreadsheets

sas - sample monthly CRSP US Government Bills, Notes and Bonds Database in SAS datasets in SAS transport format

src - sample FORTRAN source code that can access the monthly CRSP US Government Bills, Notes and Bonds Database in ASCII format

bdsample - Sample Daily CRSP US Government Bills, Notes and Bonds Database

data - sample daily CRSP US Government Bills, Notes and Bonds Database in ASCII format

doc - Daily CRSP US Government Bills, Notes and Bonds Database (see CRSP.com to download)

excel - sample daily CRSP US Government Bills, Notes and Bonds Database in Microsoft Excel spreadsheets

forsrc - sample FORTRAN source code that can access the daily CRSP US Government Bills, Notes and Bonds Database in ASCII format

sas - sample daily CRSP US Government Bills, Notes and Bonds Database in SAS datasets in SAS transport format

src - sample C source code that can access the daily CRSP US Government Bills, Notes and Bonds Database in ASCII format

cbsample - Sample CRSP Cap-Based Portfolios reports

doc - contains PDF versions of stock and indices guides. PDF versions can be printed or viewed with Adobe Acrobat software. (see CRSP.com to download)

sfa - contains source code and sample data used to access stock and indices data in the CRSP SFA Database format

data - sample SFA format data

ascii - sample files in SFA character format

bigunix -sample files in SFA binary format written in IEEE Big-Endian format with Unix FORTRAN record delimiters

litnone - sample files in SFA binary format written in IEEE Little-Endian format with no record delimiters

ibm - SFA FORTRAN source code for IBM mainframes

src - SFA source code for IBM mainframes for FTP from Unix or OpenVMS platforms

wsrc - SFA source code for IBM mainframes for FTP from Windows platforms

unix - SFA FORTRAN source code for Unix platforms

bin - SFA libraries compiled on Sun Solaris
src - SFA source code for Unix platforms
vms - SFA FORTRAN source code for OpenVMS platforms
bin - SFA libraries compiled on OpenVMS Alpha
src - SFA source code for OpenVMS platforms
win - SFA FORTRAN source code for Windows platforms
bin - SFA libraries compiled with Digital Visual FORTRAN 6.0
src - SFA source code for Windows platforms

A.2 Stock Data CD-ROM Map

The CRSP NYSE, AMEX, Nasdaq Daily and Monthly Price and Total Return Database CD-ROMs contain the following directory layout.

- the top level contains CD-ROM descriptions, license information, and one data folder. The first CD-ROM in a set also contains setup programs.

  data - contains database files.

  ieeelit - CRSPAccess97 databases for IEEE Little-Endian systems (PC, Alpha). Subfolders are named as the product code and the year and month of data. This folder is only present on the first three CDs of a daily CD set.

  PPYYYYMM - where PP is ma if a monthly database and da, a daily database.

  ieeebig - CRSPAccess97 databases for IEEE Big-Endian systems (Sun, HP, AIX). Subfolders are named as the product code and the year and month of data. This folder is only present on the first, fourth, and fifth CDs of a daily CD set.

  PPYYYYMM - where PP is ma if a monthly database and da, a daily database.

  litnone - SFA format database with IEEE Little-Endian data and no record delimiters. This is only present on monthly stock databases.

  maYYYYMM - where YYYYMM is the year and month of data.

  bigunix - SFA format database with IEEE Big-Endian data and Unix record delimiters. This is only present on monthly stock databases delivered annually.

  maYYYYMM - where YYYYMM is the year and month of data.

A.3 Indices Data CD-ROM Map

The CRSP US Stock, Treasury Indices and Portfolio Assignments Database CD-ROMs contain the following layout.

- the top level contains setup programs, CD-ROM descriptions, license information, and one data folder.

data - contains database files.

ieeelit - CRSPAccess97 databases for IEEE Little-Endian systems (PC, Alpha).

daYYYYMM - additional indices and portfolio assignment data to overlay on a daily stock database. YYYYMM is the year and month of data.

diYYYYMM - CRSPAccess97 format daily standalone indices-only database.

maYYYYMM - additional indices and portfolio assignment data to overlay on a monthly stock database. YYYYMM is the year and month of data.

miYYYYMM - CRSPAccess97 format monthly standalone indices-only database.

ieeebig – CRSPAccess97 databases for IEEE Big-Endian systems (Sun, HP, AIX).

daYYYYMM - additional indices and portfolio assignment data to overlay on a daily stock database. YYYYMM is the year and month of data.

diYYYYMM - CRSPAccess97 format daily standalone indices-only database.

maYYYYMM - additional indices and portfolio assignment data to overlay on a monthly stock database. YYYYMM is the year and month of data.

miYYYYMM - CRSPAccess97 format monthly standalone indices-only database.

ascii – Indices data files in ASCII fixed format SFA format.

inYYYYMM - where YYYYMM is the year and month of the indices data

excel – Indices SFA files in Microsoft Excel spreadsheets

inYYYYMM - where YYYYMM is the year and month of indices data.

sas – Indices SFA files in SAS datasets in SAS transport format

inYYYYMM - where YYYYMM is the year and month of indices data.

APPENDIX B: FILE VERSION SPECIFICS

Use the following table to determine the disk space needed for each CRSP product. All CD sets contain both IEEE big and little-endian data files. Any single installation only requires one of these sets. The target machine will determine which set is required during the installation. The fifth column indicates the size needed for a daily or monthly database used in conjunction with the Indices product. See Index Methodologies in the CRSP Data Definitions and Coding Schemes Guide for a complete list and brief description of indices and portfolio types.

CRSPAccess97 Products for Data Ending December 31, 1998

Flle Code	Description	CDs in Set*	Disk Space (Mb)	Required Disk Space with Indices Added	Indices provided	Portfolio Types provided
DA	Daily CRSP NYSE, AMEX, Nasdaq Daily and Monthly Price and Total Return Database	5	1,356	1,414	CRSP NYSE/AMEX/Nasdaq Value-Weighted Market Index, CRSP NYSE/AMEX/Nasdaq Equal-Weighted Market Index, S&P 500 Composite, Nasdaq Composite	NYSE/ AMEX/ Nasdaq Capitalization Deciles
MA	Monthly CRSP NYSE, AMEX, Nasdaq Daily and Monthly Price and Total Return Database	1	192	227	CRSP NYSE/AMEX/Nasdaq Value-Weighted Market Index, CRSP NYSE/AMEX/Nasdaq Equal-Weighted Market Index, S&P 500 Composite, Nasdaq Composite	NYSE/ AMEX/ Nasdaq Capitalization Deciles
IX	CRSP US Stock, Treasury Indices and Portfolio Assignments Database	1	48 ASCII file 47 (daily `CRSPDB`) 7.5 (monthly `CRSPDB`)		All	All

Additional Disk space required		
Programs	Executables, object libraries, include files, sample programs (supplied with each product)	14-22 depending on system
Log Directory	Set aside on the system as scratch space for applications (shared by each product)	50+

* in a five CD set, IEEE little-endian data files are on the first three CDs and IEEE big-endian data files are on the first, fourth, and fifth CDs. In a 1 CD set, both big and little-endian files are on the CD.

Stock Database Characteristics

This table contains version specific information for the CRSP stock files with data ending December 31, 1998. It contains the number of securities, information about the maximums of the event arrays, and the approximate megabyte size of the data files converted with the `stk_dump_bin` or `stk_dump_char` utilities, described in the CRSP SFA Database Format Guide.

File Code	Number of Securities	Max Names	Max Dists	Max Shares	Max Delists	Max Nasdin	Size Binary	Size Character
DA	21827	14	443	197	1	921	950	3032
MA	22328	14	874	228	1	921	138	370
AF is a pricing bundle containing both the DA and MA products								

Stock Calendars

Calendar	Date Range	Index Range
Daily trading calendar	19620702-19981231	1-9191
Weekly trading calendar	19620706-19981231	1-1905
Month-end trading calendar	19251231-19981231	1-877
Quarter-end trading calendar	19251231-19991231	1-301
Year-end trading calendar	19251231-19991231	1-76

Monthly databases only use quarterly calendars if the Indices are added. Weekly calendars are only used when deriving data in *ts_print*. Quarterly and Annual calendars are extended one year to allow future portfolio assignments to be based on data at the end of the date range.

Indices ASCII Character File Names

The following table lists ASCII text file names loaded from the CD. Refer to the CD layout for directory location.

Name	Description	Record Length
DSIA.DAT	Daily NYSE Indices/Cap. Deciles	468
MSIA.DAT	Monthly NYSE Indices/ Cap. Deciles	468
QSIA.DAT	Quarterly NYSE Indices/Cap. Deciles	468
ASIA.DAT	Annual NYSE Indices/ Cap. Deciles	468
DSIB.DAT	Daily AMEX Indices/Cap. Deciles	468
MSIB.DAT	Monthly AMEX Indices/Cap. Deciles	468
QSIB.DAT	Quarterly AMEX Indices/Cap. Deciles	468
ASIB.DAT	Annual AMEX Indices/Cap. Deciles	468
DSIC.DAT	Daily NYSE/AMEX Indices/Cap. Deciles	468
MSIC.DAT	Monthly NYSE/AMEX Indices/Cap. Deciles	468
QSIC.DAT	Quarterly NYSE/AMEX Indices/Cap. Deciles	468
ASIC.DAT	Annual NYSE/AMEX Indices/Cap. Deciles	468
DSIO.DAT	Daily NASDAQ Indices/Cap. Deciles	468
MSIO.DAT	Monthly NASDAQ Indices/Cap. Deciles	468
QSIO.DAT	Quarterly NASDAQ Indices/Cap. Deciles	468
ASIO.DAT	Annual NASDAQ Indices/Cap. Deciles	468
DSIX.DAT	Daily NYSE/AMEX/NASDAQ Indices	468
MSIX.DAT	Monthly NYSE/AMEX/NASDAQ Indices	468
QSIX.DAT	Quarterly NYSE/AMEX/NASDAQ Indices	468
ASIX.DAT	Annual NYSE/AMEX/NASDAQ Indices	468
DSBC.DAT	Daily NYSE/AMEX Indices/Beta Deciles	468
DSSC.DAT	Daily NYSE/AMEX Indices/Standard Deviation Deciles	468
DSBO.DAT	Daily Nasdaq Indices/Beta Deciles	468
DSSO.DAT	Daily Nasdaq Indices/Standard Deviation Deciles	468
MHISTN.DAT	Monthly Cap-Based NYSE Results	94
MHISTA.DAT	Monthly Cap-Based NYSE/AMEX Results file	94
MHISTQ.DAT	Monthly Cap-Based NYSE/AMEX/NASDAQ National results file	94
REBALN.DAT	Quarterly Cap-Based NYSE Results	102
REBALA.DAT	Quarterly Cap-Based NYSE/AMEX Results file	102
REBALQ.DAT	Quarterly Cap-Based NYSE/AMEX/NASDAQ National Market rebalancing file	102
132DSP500.DAT	Daily CRSP Index file on the S&P 500®	132
MSP500.DAT	Monthly CRSP Index file on S&P 500®	132
290MCTI.DAT	Monthly CTI file	290
QCTI.DAT	Quarterly CTI file	290
ACTI.DAT	Annual CTI file	290

Indices File Version Specifics

This section contains version specific information for the CRSPAccess97 Indices Text Files with data ending December 31, 1998. The table below contains the number of records, the applicable dates and records, and the file sizes in character format for each file. The calendar is always the same for all files with the same frequency. All file sizes are in kilobytes and rounded to the nearest kilobyte.

The indices files are also available in SAS (SAS Transport format) and Microsoft Excel (Worksheet 5.0). The SAS Transport file is named `indices.trp`, and the Excel files have the same filenames but they end in `.xls` rather than `.DAT`. See "A.3 Indices Data CD-ROM Map" on page 43 for location of text, Excel and SAS files.

File Name	Number of Records	Calendar Range	Index Range	Size Character
NYSE Only				
DSIA.DAT	9191	19620702-19981231	1-9191	4301
MSIA.DAT	877	19251231-19981231	1-877	410
QSIA.DAT	297	19251231-19981231	1-297	139
ASIA.DAT	75	19251231-19981231	1-75	35
AMEX Only				
DSIB.DAT	9191	19620702-19981231	1-9191	4301
MSIB.DAT	877	19620731-19981231	440-877	410
QSIB.DAT	297	19620958-19981231	148-297	139
ASIB.DAT	75	19621231-19981231	38-75	35
NYSE and AMEX Combined				
DSIC.DAT	9191	19620702-19981231	1-9191	4301
MSIC.DAT	877	19251231-19981231	1-877	410
QSIC.DAT	297	19251231-19981231	1-297	139
ASIC.DAT	75	19251231-19981231	1-75	35
NASDAQ Only				
DSIO.DAT	9191	721214-19981231	2610-9191	4301
MSIO.DAT	877	721229-19981231	565-877	410
QSIO.DAT	297	721229-19981231	189-297	139
ASIO.DAT	75	721229-19981231	48-75	35
NYSE, AMEX and NASDAQ Combined				
DSIX.DAT	9191	19620702-19981231	1-9191	4301
MSIX.DAT	877	19251231-19981231	1-877	410
QSIX.DAT	297	19251231-19981231	1-297	139
ASIX.DAT	75	19251231-19981231	1-75	35
NYSE And AMEX Risk-Class Portfolios				
DSBC.DAT	9191	19620702-19981231	1-9191	4301
DSSC.DAT	9191	19620702-19981231	1-9191	4301
Nasdaq Risk-Class Portfolios				
DSBO.DAT	9191	721229-19981231	2610-9191	4301
DSSO.DAT	9191	721229-19981231	2610-9191	4301
CRSP Cap-Based Portfolios				
MHISTN.DAT	877 x 17 = 14909	19251231-19981231	1-877	1401
MHISTA.DAT	877 x 17 = 14909	19620731-19981231	1-877	1401
MHISTQ.DAT	877 x 17 = 14909	19820430-19981231	1-877	1401
REBALN.DAT	296 x 10 = 2960	192603-199812	1-296	302
REBALA.DAT	296 x 10 = 2960	196209-199812	1-296	302
REBALQ.DAT	296 x 10 = 2960	198206-199812	1-296	302
CRSP Indices For The S&P 500® Universe				
DSP500.DAT	9191	19620702-19981231	1-9191	1213
MSP500.DAT	877	19251231-19981231	1-877	116
CRSP US Treasury and Inflation Series				
MCTI.DAT	877	19251231-19981231	1-877	254
QCTI.DAT	297	19251231-19981231	1-297	86
ACTI.DAT	75	19251231-19981231	1-75	22