CRSP U.S. STOCK & INDEX RELEASE NOTES

DECEMBER 2019 QUARTERLY UPDATE

These release notes pertain to the December 2019 Quarterly release of the CRSP US Stock and Index databases, available in January 2020.

ANNOUNCING CRSP10!

CRSP is pleased to introduce CRSP10, a variation of our research-quality stock database. CRSP10 holds 10 years of monthly history for active and inactive securities and is ideal for use in the classroom and for training. The full dataset, delivered in a single Excel workbook, contains the time series and event history data for which CRSP is renowned. All existing stock database subscribers are entitled to access to this database! Click here for more information.

ANNOUNCING 'R' FORMAT DATASETS – AVAILABLE JANUARY 31, 2020

Starting with the December 2019 data release, the CRSP US Stock and Index Family of Database products will also be available in 'R' format datasets. The 'R' datasets will be in the zip file s*z201912_r. zip in the same folder on MOVEit Cloud as the other formats of the data. The first release of these files will be January 31, 2020. In future months, the 'R' files will be released with the SAS and ASCII file formats.

PRECISION CHANGES

CRSP is in the process of re-engineering our back office to remove phantom precision and increase the real precision throughout the Stock and Indexes flat files. Phantom precision from SAS was removed. For example, IBM's price on 11/27/2015 of \$138.46 was internally in SAS as 138.460006713867. It is now internally 138.46000000000. Second, in preparation for expanded precision in the future any floating point field in ASCII that was previously seven significant digits (e.g. 1.384600E+02) has been expanded to ship with 14 significant digits (the limit of the a 8-byte floating point number) in scientific notation (e.g. 1.38460000000E+02).

DECEMBER 2019 DATA EDITS

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
77763	SUPERIOR ENERGY SERVICES INC	ADDED ZERO NAMELINES FOR 20190927-20191225 TO REFLECT OFF-EXCHANGE TRADING
89281		CHANGED DELIST CODE TO 450 FROM 470 AND CHANGED DISTRIBUTION CODE TO 2255 FROM 2245 AND CHANGED EX-DATE TO 20190503 FROM 20190506

NOVEMBER 2019 DATA EDITS

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
78803	NUVEEN PA PR INC MUNI FD	CHANGED DIVIDEND AMOUNT TO 12.87305 FROM 12.87352 FOR DISTRIBUTION ON EX-DATE 19950208
12490	INTERNATIONAL BUSINESS MACHS COR	CHANGED ASKHIGH TO 209.75 FROM 2090.75 ON 19500919
22744	C N I LIQUIDATING CO	CHANGED FACTOR TO ADJUST PRICE TO 0 FROM 10.1177 ON EX-DATE 19560427
82650	TELECOMUNICACOES BRASILEIRAS S A	CHANGED FACTOR TO ADJUST PRICE TO 0 FOR 12 LIQUIDATING DISTRIBUTIONS ON EX-DATE 19981118
52345	BERGSTROM CAPITAL CORP	CHANGED FACTOR TO ADJUST PRICE TO 0 FROM 557.9545 LIQUIDATING DISTRIBUTION ON EX-DATE 20030414
84216	ROADHOUSE GRILL INC	CHANGED START DATE FOR HALT RECORD IN NAME HISTORY TO 20010801 FROM 20010731
88321	OCCAM NETWORKS INC DEL	CHANGED START DATE FOR HALT RECORD IN NAME HISTORY TO 20010418 FROM 20010417



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PERMNO	COMNAM	DESC
87761	CRAYFISH CO LTD	CHANGED START DATE FOR HALT RECORD IN NAME HISTORY TO 20010424 FROM 20010423
78872	CHROMATICS COLOR SCI INTL INC	CHANGED START DATE FOR HALT RECORD IN NAME HISTORY TO 20010326 FROM 20010323
31211	E I P MICROWAVE INC	REMOVED ALL PRICES FOR 19760809-19760831
76894	INTERNATIONAL BRICAN RES LTD	REMOVED ALL PRICES FOR 19910506 & 19910507
14461	SONESTA INTERNATIONAL HOTELS CP	REMOVED ALL PRICES FOR 19831024
86592	DIGITAL LAVA INC	REMOVED ALL PRICES FOR 20010228
86768	CRITICAL PATH INC	REMOVED ALL PRICES FOR 20010202-20010214
70797	LIBERTY ALL STAR EQUITY FD	CHANGED DISTRIBUTION CODE TO 1234 FROM 1432 ON EX-DATE 20060531
78411	NOBEL INSURANCE LTD	CHANGED DISTRIBUTION CODE TO 2245 FROM 2445 ON EX-DATE 19980706
16125	HOLLANDER A & SON INC	CHANGED DISTRIBUTION CODE TO 3723 FROM 0 AND ADDED RECORD AND PAY DATE FOR DELISTING DISTRIBUTION ON EX-DATE 19570801
25355	RHINELANDER PAPER CO	CHANGED DISTRIBUTION CODE TO 3723 FROM 0 FOR DELISTING DISTRIBUTION ON EX-DATE 19560723
13537	FRANCHISE GROUP INC	ADDED ZERO NAMELINE FOR PERIOD 20140716-2019114 TO REFLECT OFF-EXCHANGE TRADING

GROUP EDITS

BEGDT	ENDDT	DESC
2004	2019	REVIEWED NAICS CODE FOR ALL ETF SECURITIES AND CHANGED TO 525990 IF THEY WERE MISSING OR SET TO ZERO FROM 20040610-PRESENT. ABOUT 150 RECORDS FOR 30 PERMCOS WERE UPDATED.
1963	1983	REMOVED BID/ASK AVERAGE FOR 56 RECORDS WHERE CLOSING BID AND CLOSING ASK WERE NOT PRESENT.

OCTOBER 2019 DATA EDITS

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
70527	COMMONWEALTH MORTGAGE AMER L P	REMOVED LIQUIDATION PAYMENTS OF \$0.25 & \$0.425 ON EX-DATES 19900627 & 19900712, RESPECTIVELY
91437	FREEDOM HOLDING CORP	ADDED ZERO NAMELINES FOR THE PERIOD 20110930-20191014. TO REFLECT OFF EXCHANGE TRADING, NAME AND CUSIP CHANGE
11275	REPRO MED SYSTEMS INC	ADDED ZERO NAMELINE FOR THE PERIOD 19900605-20191016 TO REFLECT OFF EXCHANGE TRADING.
12890	THERATECHNOLOGIES INC	ADDED ZERO NAMELINE FOR THE PERIOD 20130205-20191009 TO REFLECT OFF EXCHANGE TRADING
92043	INTERACTIVE BROKERS GROUP INC	ADDED SHARE CLASS A FOR ENTIRE HISTORY
15630	AIMMUNE THERAPEUTICS INC	CHANGED ASK AND BID TO 0 ON 20190913
19705	BON AMI CO	CHANGED FACTOR TO ADJUST PRICE TO .011109 FROM 0 FOR DISTRIBUTION ON EX-DATE 19371115
51190	ORANGE COMPANY INC NEW	CHANGED CLOSING PRICE TO 0 FROM -4 ON 19750807 AND TO 0 FROM -3.9375 ON 19750818
16493	LIBERTY EXPEDIA HOLDINGS INC	CHANGED NUMBER OF TRADES TO 0 FROM 4 ON 20161107
93338	SEADRILL LTD NEW	CHANGED FACTOR TO ADJUST SHARES TO996265 FROM .996265 FOR DISTRIBUTION ON EX-DATE 20180703
86526	CENTRAL FEDERAL CORP	CHANGED FACTOR TO ADJUST SHARES TO8181819 FROM8181820 FOR DISTRIBUTION ON EX-DATE 20180821
14947	UNITED CIGAR STORES AMER	REMOVED TOTAL SHARES OUTSTANDING VALUE ON 19330909
92267	CORNERSTONE PROGRESSIVE RET FUND	REMOVED CASH DISTRIBUTIONS ON EX-DATES 20150713 & 20150911

FILE VERSION SPECIFICS

This table contains version specific information for the CRSP Stock Files with data ending December 2019. It contains the number of securities and information about the maximums of the event arrays.

DATA FREQUENCY	# OF SECURITIES	MAX NAMES	MAX DISTS	MAX SHARES	MAX DELISTS	MAX GROUPS	MAX NASDIN	FIRST PERMNO	LAST PERMNO
DAILY	33584	39	1538	3139	1	4	2733	10000	93436
MONTHLY	33556	39	1538	3118	1	4	2733	10000	93436

CALENDAR	DATE RANGE	DATE INDEX RANGE
DAILY TRADING CALENDAR	19251231-20191231	1-24793
MONTH-END TRADING CALENDAR	19251231-20191231	1-1129
YEAR-END TRADING CALENDAR	19251231-20201231	1-96
QUARTER-END TRADING CALENDAR	19251231-20201231	1-381
WEEKLY TRADING CALENDAR	19260102-20191231	1-4905

CRSPACCESS PRODUCT INFORMATION

To simplify installation for our subscribers, data are bundled into product groups. Information relevant to each product group is listed in the table below.

PRODUCT NAME	DATABASE	SIZE	INDEXES	PORTFOLIOS	COMPONENTS & DESCRIPTION
CRSP 1925 US STOCK AND INDEX DATABASE	FIZYYYYMM SIZYYYYMM (R/SAS/ASCII)	4.1 GB	ALL CRSP INDEXES AND PORTFOLIO ASSIGNMENTS	ALL PORTFOLIOS	DI - 1925 DAILY US STOCK & INDEX DATABASE MI - 1925 MONTHLY US STOCK & INDEX DATABASE IF - CRSP SUPPLEMENTAL US INDEXES
CRSP 1925 US STOCK	FAZYYYYMM SAZYYYYMM (R/SAS/ASCII)	3.7 GB	CRSP NYSE/ AMEX/ NASDAQ VALUE-WEIGHTED MARKET, CRSP NYSE/ AMEX/ NASDAQ EQUAL-WEIGHTED MARKET, S&P 500 COMPOSITE, NASDAQ COMPOSITE		DA - 1925 DAILY US STOCK MA - 1925 MONTHLY US STOCK IN - CRSP LIMITED US INDEXES
CRSP 1962 US STOCK	A6ZYYYYMM S6ZYYYYMM (SAS/ASCII)	3.3 GB	CRSP NYSE/ AMEX/ NASDAQ VALUE-WEIGHTED MARKET, CRSP NYSE/ AMEX/ NASDAQ EQUAL-WEIGHTED MARKET, S&P 500 COMPOSITE, NASDAQ COMPOSITE		D6 - 1962 DAILY US STOCK M6 - 1962 MONTHLY US STOCK IN - CRSP LIMITED US INDEXES
CRSP 1962 US STOCK AND INDEX DATABASE	AXZYYYYMM SXZYYYYMM (R/SAS/ASCII)	3.6 GB	SEE FIZ	ALL PORTFOLIOS	DX - 1962 DAILY US STOCK & INDEX DATABASE MX - 1962 MONTHLY US STOCK & INDEX DATABASE IF - CRSP SUPPLEMENTAL US INDEXES
CRSP 1925 US INDEXES	IFZYYYYMM SFZYYYYMM	122 MB			IF - CRSP SUPPLEMENTAL US INDEXES
CRSP/COMPUSTAT MERGED DATABASE	CMZYYYYMM CFZYYYYMM (FULL PRODUCT) CLZYYYYMM (LINK PRODUCT) (R/SAS/ASCII)	10.37 GB			CM - COMPUSTAT DATA FORMATTED IN CRSPACCESS DATABASE
DAILY & MONTHLY TREASURIES IN CRSPSIFT	TRZYYYYMM	278 MB			TR - DATABASE FORMAT FOR USE WITH CRSPSIFT
DAILY & MONTHLY TREASURIES FILES	TFZYYYYMM	1.75 GB			TF - EXPANDED DAILY AND MONTHLY FILES IN EXCEL, SAS, AND ASCII FORMATS
MUTUAL FUND DATABASE	MFZYYYYMM	10 GB			MF - MUTUAL FUNDS
CRSP/ZIMAN DAILY & MONTHLY REIT	RAZYYYYMM	251 MB			RD - DAILY REITS RM - Monthly Reits

DELIVERY METHOD, INSTALLS, AND DATA FORMATS

DELIVERY

CRSP data delivery for all products is available only through the Cloud, utilizing IPSwitch's MOVEit Cloud product. (https:// crsp.moveitcloud.com)

If you have not yet accessed your account, or need assistance, contact support@crsp.chicagobooth.edu, or call 312-263-6400, Option 2.

While DVDs are no longer available from CRSP, you are welcome to create your own once you have downloaded the data, and use as long as you have an active license to do so.

ZIP INSTALLS

CRSP uses a zip process for data installation. ZIP utilities that are standard on all platforms should work to unzip the databases. On Windows computers, CRSP recommends using 7-ZIP, which can be downloaded from this site: http://www.7-zip.org/

Several important items to note follow:

- All directories are extracted to lower case letters. For example: C:\crspdata\miz201308
- All Windows Users: Extracting a zipped file does not create an installed program in Windows. It will not show in the Windows Control Panel. When uninstalling the data, just delete the directories that contain the detailed files
- Red Hat Linux Users: If your version of Red Hat is earlier than 6.0, you will need to install an updated version of the "File Roller" program in order to install the data

ZIP FILE STRUCTURE AND PROCESS

WINDOWS 7/XP PRODUCTS:

PRODUCT LABEL	PRODUCT NAME	FILE NAME
A6Z1_YYYYMM_SLD	CRSP 1962 US STOCK	A6ZYYYYMM_CADB.ZIP
AXZ1_YYYYMM_SLD	CRSP 1962 US STOCK AND INDEX	AXZYYYYMM_CADB.ZIP
FAZ1_YYYYMM_SLD	CRSP 1925 US STOCK	FAZYYYYMM_CADB.ZIP
FIZ1_YYYYMM_SLD	CRSP 1925 US STOCK AND INDEX	FIZYYYYMM_CADB.ZIP
IFZ1_YYYYMM_SGD	CRSP 1925 INDEXES	IFZYYYYMM_CADB.ZIP

RED HAT LINUX PRODUCTS:

PRODUCT LABEL	PRODUCT NAME	FILE NAME
A6Z1_YYYYMM_SLD	CRSP 1962 US STOCK	A6ZYYYYMM_CADB.ZIP
AXZ1_YYYYMM_SLD	CRSP 1962 US STOCK AND INDEX	AXZYYYYMM_CADB.ZIP
FAZ1_YYYYMM_SLD	CRSP 1925 US STOCK	FAZYYYYMM_CADB.ZIP
FIZ1_YYYYMM_SLD	CRSP 1925 US STOCK AND INDEX	FIZYYYYMM_CADB.ZIP
IFZ1_YYYYMM_SGD	CRSP 1925 INDEXES	IFZYYYYMM_CADB.ZIP

FLAT FILE PRODUCTS:

PRODUCT NAME	FILE NAME
SAS ZIP	S*ZYYYYMM_SAS.ZIP
ASCII ZIP	S*ZYYYYMM_ASCII.ZIP
R ZIP	S*ZYYYYMM_R.ZIP

STEPS TO INSTALL:

- From the directory containing your downloaded zip file, right click (in Windows) or run File Roller (in Red Hat)
- Set the extract destination to the current higher level directory where data is normally stored and unzip will add the rest of the path (default is C:\ in Windows or /home in Red Hat)
- For example, in Windows, extracting to C:\ will install the data under C:\crspdata

Contact CRSP Client Services for assistance at: support@crsp.chicagobooth.edu or call 312-263-6400, Option 2.

SETTING ENVIRONMENT VARIABLES

The zip process will not automatically set environment variables for use with command line tools. The following steps will do so.

NOTE: CRSPSift does not use and therefore does not require environment variables.

LINUX

NOTE: The new zip installs are now saving to directories with lower case letters - for example, ~/crspdata/diz201308

Check the current state of the environment variables by entering this command: env | grep crsp

- If you have admin privileges on your machine, open the .profile file, and make updates to the following lines to update the paths for the new data installed:
 - CRSP_DSTK=<full path name>/<daily stock directory> (example: CRSP_DSTK=~/crspdata/diz201308)
 - CRSP_MSTK==<full path name>/<monthly stock directory> (example: CRSP DSTK=~/crspdata/miz201308)
 - CRSP_IND=<full path name>/<index directory> (example: CRSP IND=~/crspdata/ifz201308)
- If you are using the bash shell (or any Bourne-style shell), enter the same commands above and export each one. This will make changes for your current session only and does not save to the .profile file.
- A shell script is available to make changes that can be reused for each update done. Note that this will only make changes to your current session and does not save to the .profile file.
 - Navigate to where the CUPL tools are loaded and then enter: cd accbin
 - Start the script by entering: ./crsp_setup.sh
 - The script will prompt for the following:
 - File name (*will be appended with* .kshrc)
 - Top level directory (this should be where CUPL tools are located (*example:* ~/crsp)
 - Scratch directory for error messages name can be anything
 - Enter path for daily stock directory (*example:* ~/crspdata/diz201308)
 - Enter path for monthly stock directory (*example:* ~/crspdata/miz201308)
 - Enter path for index directory (*example:* ~/crspdata/ifz201308)
 - Enter path for CCM directory enter to leave blank
 - Enter path for CST directory enter to leave blank
 - Execute script by running: . ./<file name created above>.kshrc (note there is a space between the two dots)

WINDOWS:

The CRSP Client Environment utility provides users a way to check the location of the software and to set environment variables. The utility can be started by locating it under installed programs CRSPAccess/CRSP Client Environment, or by navigating to the /accbin folder where the CUPL tools are installed and running: Client_Environment.exe (screen shot is displayed below). After making any changes, be sure to log off and back into Windows for the settings to be saved.

Note: For subscribers of the CRSP Compustat Merged database, additional CCM database environments will be displayed for the location of the Compustat data.