CRSP U.S. STOCK & INDEX RELEASE NOTES

DECEMBER 2020 ANNUAL UPDATE

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

ADOBE FLASH NOTICE FOR CRSP SIFT USERS

As of December 31, 2020, Adobe Flash is no longer be supported or available. As a result, users of the CRSP Sift interface should be aware of the following:

- Sift gueries will continue to work and extract data
- User training demos on the Sift landing page do not work
- TSQuery Layout tab the output preview is no longer available
- When installing Sift, an error message will display when looking for Flash. Simply click through the message to proceed and successfully install Sift.

CRSP is working on updating Sift to replace Flash and will have a replacement version in the near future. For assistance or more information, please contact support@crsp.org.

CALENDAR FREQUENCY FILES AVAILABLE

CRSP has created a set of tables that accompany all SAS, ASCII, and R Stock database files. Monthly, Quarterly, and Annual frequency tables are built from aggregated daily time series data to facilitate ease of use for subscribers.

These aggregate tables include new reference flag to provide insights into prices, returns, delisting data, and volumes.

The tables are automatically included when downloading the Stock databases from the CRSP MOVEit site. Files became available with the May 2020 databases released in June 2020.

Details can be found in the CRSP US Stock and Indexes Databases for SAS, ASCII, and R.

For more information, contact support@crsp.org.

'R' FORMAT DATASETS

Starting with the December 2019 data release, the CRSP USE Stock and Index Family of Database products became available in 'R' format datasets. The 'R' datasets are in the zip file s*z20*_r. zip in the same folder on MOVEit Cloud as the other formats of the data. The first release of these files was January 31, 2020.

PRECISION CHANGES

CRSP re-engineeringed 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. 1.3846000000000E+02).

NOTES FROM 202009 RELEASE

For the 202009 SAS, ASCII, and R databases, breakpoint data that is projected based on partial year data is now removed. For example, in the 202009 cut of data, the capitalization breakpoints for 2021 are no longer projected based on 9/30/2020 data, and will not be included until after the 12/31/2020 data is available. In addition, the daily and monthly index files will no longer contain rows with missing data prior to the start of an index. The start date of the index is stored in Index Begin Date in the Index Header File.

FILE VERSION SPECIFICS

This table contains version specific information for the CRSP Stock Files with data ending December 2020. 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	34429	28	1538	3960	1	4	2834	10000	93436
MONTHLY	34401	28	1538	3960	1	4	2834	10000	93436

CALENDAR	DATE RANGE	DATE INDEX RANGE
DAILY TRADING CALENDAR	19251231-20201231	1-25046
MONTH-END TRADING CALENDAR	19251231-20201231	1-1141
YEAR-END TRADING CALENDAR	19251231-20201231	1-97
QUARTER-END TRADING CALENDAR	19251231-20201231	1-385
WEEKLY TRADING CALENDAR	19260102-20201231	1-4957

DECEMBER 2020 DATA EDITS

GROUP EDITS

BE	GDT	ENDDT	DESC
20	05	2020	REVIEWED DISTRIBUTIONS WITH PAY DATE EQUAL TO RECORD DATE FROM 2005-2009 AND 2016-2020. CHANGED PAY DATES FOR
			OVER 450 DISTRIBUTIONS FROM 295 PERMNOS.

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
92534	WISDOMTREE CONTINUOUS COMM INDEX	COMPANY NAME CHANGED TO WISDOMTREE CONTINUOUS COMM INDEX FROM WISDOMTREE TRUST FOR 20160104-20201218
15656	NABRIVA THERAPEUTICS PLC	REMOVED ALL DATA FOR 20150918-20170623 AND ADDED IT TO PERMNO 20197. CHANGED SHARE CODE TO 12 FROM 31 AND COMPANY NAME TO NABRIVA THERAPEUTICS PLC FROM NABRIVA THERAPEUTICS AG FOR 20170626-PRESENT
20197	NABRIVA THERAPEUTICS AG	ADDED DATA FROM PERMNO 15656 FOR 20150918-20170623
55782	N E C CORP	CHANGED SHARES OUTSTANDING FOR ALL DATA FROM 19721214-19870330
85399	AMMO INC	ADDED ZERO NAME LINES TO REFLECT OFF-EXCHANGE ACTIVITY FOR 20010126-20201130
41524	HEMOKINETICS INC	REMOVED TICKER AND CHANGED EXCHANGE CODE TO 0 FROM 3 FOR 19831123-19831124
36003	ROLLINS INC	CHANGED DIVIDEND AMOUNT TO \$0.08 FROM \$0.21 FOR INCOME AND ADDED \$0.13 FOR SPECIAL ON EX-DATE 20201109

NOVEMBER 2020 DATA EDITS

GROUP EDITS

BEGDT	ENDDT	DESC
0	0	REVIEWED SHARE CODE ASSIGNMENTS FOR SECURITIES WITH SHARE CODE EQUAL TO 10. CHANGED SHARE CODE TO 11 FROM 10 FOR CASES WHERE SECURITY IS INCORPORATED IN THE US. SHARE CODES FOR 20 PERMNOS WERE CHANGED.
2010	2015	REVIEWED DISTRIBUTIONS WITH PAY DATE EQUAL TO RECORD DATE FROM 2010-2015. CHANGED PAY DATES FOR OVER 400 DISTRIBUTIONS FROM 113 PERMNOS

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
19807	VONTIER CORP	CHANGED EXCHANGE CODE TO 1 FROM 31 AND TRADING SYMBOL TO VNT FROM VNTWI FOR 20201009-PRESENT
19928	COLONNADE ACQUISITION CORP	CHANGED CLOSE, ASKHI, & BIDLOW PRICES TO BID/ASK AVERAGE, CLOSING ASK & CLOSING BID, RESPECTIVELY, AND SET OPEN PRICE AND VOLUME TO 0 FOR 20201021
10294	HAVERTY FURNITURE COS INC	CHANGED CLOSE, ASKHI, & BIDLOW PRICES TO BID/ASK AVERAGE, CLOSING ASK & CLOSING BID, RESPECTIVELY, AND SET OPEN PRICE AND VOLUME TO 0 FOR 20201021
92912	NUVEEN PENN MUNI VALUE FUND	CHANGED CLOSE, ASKHI, & BIDLOW PRICES TO BID/ASK AVERAGE, CLOSING ASK & CLOSING BID, RESPECTIVELY, AND SET OPEN PRICE AND VOLUME TO 0 FOR 20201021
46068	WATSCO INC	CHANGED CLOSE, ASKHI, & BIDLOW PRICES TO BID/ASK AVERAGE, CLOSING ASK & CLOSING BID, RESPECTIVELY, AND SET OPEN PRICE AND VOLUME TO 0 FOR 20201021
68195	WICKES COMPANIES INC NEW	CHANGED SECURITY STATUS TO 'Q' FROM 'W' FOR 19850128-19850305
79837	HARVARD INDUSTRIES INC	CHANGED SECURITY STATUS TO 'Q' FROM 'W' FOR 19981130-19981222
82567	OPKO HEALTH INC	CHANGED SECURITY STATUS TO 'Q' FROM 'W' FOR 20070611-20070612
85653	ARLINGTON ASSET INVESTMENT CORP	CHANGED SHARE CODE TO 18 FROM 11 FOR 20190102-20201025
19524	GOLDMAN SACHS E T F TRUST	CHANGED PERMCO TO 55415 FROM 57150 FOR ENTIRE HISTORY
19769	GOLDMAN SACHS E T F TRUST	CHANGED PERMCO TO 55415 FROM 57150 FOR ENTIRE HISTORY
13878	MIMEDX GROUP INC	ADDED ZERO NAME LINE TO REFLECT OFF-EXCHANGE ACTIVITY FOR 20181108-20201103
82745	SMITH MIDLAND CORP	ADDED ZERO NAME LINE TO REFLECT OFF-EXCHANGE ACTIVITY FOR 19991005-20201116
91910	U S A TECHNOLOGIES INC	ADDED ZERO NAME LINE TO REFLECT OFF-EXCHANGE ACTIVITY FOR 20190926-20201118
76928	SANARA MEDTECH INC	ADDED ZERO NAME LINES TO REFLECT OFF-EXCHANGE ACTIVITY FOR 19920818-20201101
15029	CALIFORNIA RESOURCES CORP	CHANGED END DATE TO 20200715 AND MOVED ALL POST-20201028 DATA TO PERMNO 20188
20188	CALIFORNIA RESOURCES CORP	ADDED DATA FROM PERMNO 15029 FOR 20201028-PRESENT

OCTOBER 2020 DATA EDITS

PERMNO	COMNAM	DESC
16517	0 S I ETF TRUST	CHANGED COMPANY NAME TO 0 S I ETF TRUST FROM 0 S I E T F TRUST FOR ENTIRE HISTORY
16616	0 S I ETF TRUST	CHANGED COMPANY NAME TO 0 S I ETF TRUST FROM 0 S I E T F TRUST FOR ENTIRE HISTORY
17861	0 S I ETF TRUST	CHANGED COMPANY NAME TO 0 S I ETF TRUST FROM 0 S I E T F TRUST FOR ENTIRE HISTORY
17862	0 S I ETF TRUST	CHANGED COMPANY NAME TO 0 S I ETF TRUST FROM 0 S I E T F TRUST FOR ENTIRE HISTORY
17863	0 S I ETF TRUST	CHANGED COMPANY NAME TO 0 S I ETF TRUST FROM 0 S I E T F TRUST FOR ENTIRE HISTORY
17936	0 S I ETF TRUST	CHANGED COMPANY NAME TO 0 S I ETF TRUST FROM 0 S I E T F TRUST FOR ENTIRE HISTORY
19798	BROOKFIELD INFRASTRUC PARTNER LP	CHANGED SHARE CODE FROM 72 TO 82. REMOVED FROM THE SUBSCRIBER DATABASE
12277	VECTOR AEROMOTIVE CORP	CHANGED SHARE CODE TO 11 FROM 10 FOR ENTIRE HISTORY
76036	BRISTOL RESEARCH CORP	CHANGED SHARE CODE TO 11 FROM 10 FOR ENTIRE HISTORY
19855	INVESTMENT MANAGERS SERIES TRUST	ADDED NEW SECURITY FOR 20200526-PRESENT. SPLIT FROM PERMNO 15554
15554	EXCHANGE LISTED FUNDS TRUST	CHANGED END DATE TO 20200522 AND MOVED ALL POST-20200522 DATA TO NEW PERMNO 19855
82792	FURRS RESTAURANT GROUP INC	CHANGED CLOSING BID TO 0.09375 FROM 0.094 ON 19960103 AND TO 0.140625 FROM 0.141 ON 19960109
90562	MOLSON COORS BEVERAGE CO	CHANGED TRADING SYMBOL TO TAPA FROM TAP FOR 20200102-PRESENT
86408	LIONS GATE ENTERTAINMENT CORP	CHANGED TRADING SYMBOL TO LGFA FROM LGF FOR 20161209-PRESENT
16495	LIONS GATE ENTERTAINMENT CORP	CHANGED TRADING SYMBOL TO LGFB FROM LGF FOR ENTIRE HISTORY
15802	ASSOCIATED CAPITAL GROUP INC	CHANGED TRADING SYMBOL TO ACWD FROM ACWI FOR 20151109-20151130

PERMNO	COMNAM	DESC
16154	KADMON HOLDINGS INC	CHANGED NAME TO KADMON HOLDINGS INC FROM KADMON HOLDINGS LLC FROM 20160727 TO PRESENT.
10349	A M F I CORP	REMOVED DISTRIBUTION ON EX-DATE 20200903
77624	INTRUSION INC	ADDED ZERO NAME LINE TO REFLECT OFF-EXCHANGE ACTIVITY FOR 20061012-20201008
13512	INVESCO E T F TRUST II	CHANGED COMPANY NAME TO INVESCO E T F TRUST II FROM INVESCO EXCHANGE TRADED FD TR II FOR 20180604-PRESENT
14652	FIRST TR EXCHANGE TRADED FD III	CHANGED COMPANY NAME TO FIRST TR EXCHANGE TRADED FD III FROM FIRST TRUST MUNICIPAL E T F FOR ENTIRE HISTORY
16845	U S C F FUNDS TRUST	CHANGED COMPANY NAME TO U S C F FUNDS TRUST FROM U S C F ETF TRUST FOR ENTIRE HISTORY
16848	U S C F FUNDS TRUST	CHANGED COMPANY NAME TO U S C F FUNDS TRUST FROM U S C F ETF TRUST FOR 20170720-20191003
18031	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER E T F TRUST FOR ENTIRE HISTORY
18034	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER E T F TRUST FOR ENTIRE HISTORY
18049	AMERANT BANCORP INC	CHANGED COMPANY NAME TO AMERANT BANCORP INC FROM AMERCANT BANCORP INC FOR 20190614-PRESENT
18238	INVESCO E T F TRUST	CHANGED COMPANY NAME TO INVESCO E T F TRUST FROM INVESCO EXCHANGE TRADED FD TR FOR ENTIRE HISTORY
18417	LEGG MASON ETF INVESTMENT TR	CHANGED COMPANY NAME TO LEGG MASON ETF INVESTMENT TR FROM LEGG MASON ETF INVESTMENT TRUST FOR ENTIRE HISTORY
19321	B N Y MELLON E T F TRUST	CHANGED COMPANY NAME TO B N Y MELLON E T F TRUST FROM B N Y MELLON ETF TRUST FOR ENTIRE HISTORY
19322	B N Y MELLON E T F TRUST	CHANGED COMPANY NAME TO B N Y MELLON E T F TRUST FROM B N Y MELLON ETF TRUST FOR ENTIRE HISTORY
19323	B N Y MELLON E T F TRUST	CHANGED COMPANY NAME TO B N Y MELLON E T F TRUST FROM B N Y MELLON ETF TRUST FOR ENTIRE HISTORY
19535	NORTHERN LIGHTS FUND TR IV	CHANGED COMPANY NAME TO NORTHERN LIGHTS FUND TR IV FROM NORTHERN LIGHTS FUND TRUST IV FOR ENTIRE HISTORY
89749	INVESCO E T F TRUST	CHANGED COMPANY NAME TO INVESCO E T F TRUST FROM INVESCO EXCHANGETRADED FD TRUST FOR 20180604-20200214
93303	FIRST TRUST E T F II	CHANGED COMPANY NAME TO FIRST TRUST E T F II FROM FIRST TRUST ISE GLBL COPP IDX FD FOR 20100312-20151220
93309	FIRST TRUST E T F II	CHANGED COMPANY NAME TO FIRST TRUST E T F II FROM FIRST TRUST ISE GLBL PLAT IDX FD FOR 20100312-20151220
93342	FIRST TRUST E T F II	CHANGED COMPANY NAME TO FIRST TRUST E T F II FROM FIRST TRUST BICK INDEX FUND FOR ENTIRE HISTORY
14223	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR 20171027-20180805
16444	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR 20171027-20180805
16445	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR 20171027-20180805
92573	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR 20171027-20180805
92574	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR 20171027-20180805
92576	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR 20171027-20180805
92848	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR 20171027-20180805
17560	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR 20171027-20190524

PERMNO	COMNAM	DESC
17557	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR 20171027-20190524
77584	BUCKLE INC	SPLIT DISTRIBUTION ON EXDATE 20200109 FROM 1.55 TO 1.25 SPECIAL AND .30 REGULAR.
17556	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR 20171027-20190524
17555	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR ENTIRE HISTORY
17553	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR ENTIRE HISTORY
17554	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR ENTIRE HISTORY
17552	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR ENTIRE HISTORY
17551	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR ENTIRE HISTORY
17550	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR ENTIRE HISTORY
17549	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR ENTIRE HISTORY
17548	OPPENHEIMER E T F TR	CHANGED COMPANY NAME TO OPPENHEIMER E T F TR FROM OPPENHEIMER REVENUE WGTD ETF TR FOR ENTIRE HISTORY
15029	CALIFORNIA RESOURCES CORP	ADDED ZERO NAME LINE TO REFLECT OFF-EXCHANGE ACTIVITY FOR 20200716-20201027
18042	ALLEGRO MERGER CORP	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED FINAL LIQUIDATION PAYMENT ON EX-DATE 20200421
15450	EAGLE GROWTH & INCOME OPP FD	ADDED LIQUIDATION DISTRIBUTION FOR \$0.10 ON EX-DATE 20200728
17791	SPIRIT M T A REIT	ADDED LIQUIDATION DISTRIBUTION FOR \$0.50 ON EX-DATE 20191024

SEPTEMBER 2020 DATA EDITS

GROUP EDITS

BEGDT	ENDDT	DESC
1972	2018	REVIEWED ALL SECURITIES WITH THE SAME PERMCO WHERE BOTH ZERO AND NON-ZERO SIC CODES ARE ASSIGNED DURING THE SAME
		DATE RANGE. SIC CODE CHANGES WERE MADE TO HAVE CONSISTENCY ON A COMPANY LEVEL FOR OVER 50 SECURITIES FOR DATE
		RANGES COVERING 1972-2018 BUT MOST CHANGES ARE FROM PRE-1986

PERMNO	COMNAM	DESC
91271	COMPASS DIVERSIFIED	CHANGED COMPANY NAME TO COMPASS DIVERSIFIED HOLDINGS FROM COMPASS DIVERSIFIED FOR 20200810-PRESENT
83989	GRAY TELEVISION INC	ADDED CLASS B SHARE CLASS FOR 20020830-20020919
79145	ROYAL CARIBBEAN CRUISES LTD	CHANGED COMPANY NAME TO ROYAL CARIBBEAN CRUISES LTD FROM ROYAL CARIBBEAN GROUP FOR 20200810-PRESENT
19661	ENSCOPLC	ADDED NEW SECURITY FOR 20091223-20120521. SPLIT FROM PERMNO 93159
93159	VALARIS PLC	CHANGED START DATE TO 20120522 AND MOVED ALL PRE-20120522 DATA TO NEW PERMNO 19661
19662	SIGNET GROUP PLC	ADDED NEW SECURITY FOR 19880713-20080910. SPLIT FROM PERMNO 12076
12076	SIGNET JEWELERS LTD	CHANGED START DATE TO 20080911 AND MOVED ALL PRE-20080911 DATA TO NEW PERMNO 19662
19663	INVITEL HOLDINGS A S	ADDED NEW SECURITY FOR 20090227-20100217. SPLIT FROM PERMNO 78157

PERMNO	COMNAM	DESC
78157	HUNGARIAN TELEPHONE & CABLE CORP	CHANGED END DATE TO 20090226 AND MOVED ALL POST-20090226 DATA TO NEW PERMNO 19663
19664	INNOCOLL A G	ADDED NEW SECURITY FOR 20140725-20160315. SPLIT FROM PERMNO 14806
14806	INNOCOLL HOLDINGS PLC	CHANGED START DATE TO 20160316 AND MOVED ALL PRE-20160316 DATA TO NEW PERMNO 19664
19665	BENITEC BIOPHARMA LIMITED	ADDED NEW SECURITY FOR 20150818-20200414. SPLIT FROM PERMNO 15631
15631	BENITEC BIOPHARMA INC	CHANGED START DATE TO 20200415 AND MOVED ALL PRE-20200415 DATA TO NEW PERMNO 19665
19666	S P I ENERGY CO LTD	ADDED NEW SECURITY FOR 20160119-20170918. SPLIT FROM PERMNO 15913
15913	S P I ENERGY CO LTD	CHANGED START DATE TO 20170919 AND MOVED ALL PRE-20170919 DATA TO NEW PERMNO 19666
15913	S P I ENERGY CO LTD	CHANGED SHARES OUTSTANDING TO 627961 FROM 62796 FOR 20170919-20171106
19667	SUNDANCE ENERGY AUSTRALIA LTD	ADDED NEW SECURITY FOR 20160902-20191125. SPLIT FROM PERMNO 16306
16306	SUNDANCE ENERGY INC	CHANGED START DATE TO 20191126 AND MOVED ALL PRE-20191126 DATA TO NEW PERMNO 19667
19670	PROFICIENT ALPHA ACQ CORP	ADDED NEW SECURITY FOR 20190620-20200616. SPLIT FROM PERMNO 18781
18781	LION GROUP HOLDING LTD	CHANGED PERMCO TO 57264 FROM 56750 AND CHANGED START DATE TO 20200617 AND MOVED ALL PRE-20200617 DATA TO NEW PERMNO 19670
19671	AVITA MEDICAL LTD	ADDED NEW SECURITY FOR 20191001-20200629. SPLIT FROM PERMNO 19022
19022	AVITA THERAPEUTICS INC	CHANGED START DATE TO 20200630 AND MOVED ALL PRE-20200630 DATA TO NEW PERMNO 19671
19672	ARCADIS NV ARNHEM	ADDED NEW SECURITY FOR 19931230-20010315. SPLIT FROM PERMNO 79976
79976	ARCADIS NV	CHANGED START DATE TO 20010316 AND MOVED ALL PRE-20010316 DATA TO NEW PERMNO 19672
84621	LOGITECH INTERNATIONAL SA	CHANGED SHARES OUTSTANDING TO 191606 FROM 32742 FOR 20061023-20061108
19673	LOGITECH INTERNATIONAL SA	ADDED NEW SECURITY FOR 19970327-20061020. SPLIT FROM PERMNO 84621
84621	LOGITECH INTERNATIONAL SA	CHANGED START DATE TO 20061023 AND MOVED ALL PRE-20061023 DATA TO NEW PERMNO 19673
19674	ICON PLC	ADDED NEW SECURITY FOR 19980515-20130201. SPLIT FROM PERMNO 86072
86072	ICON PLC NEW	CHANGED START DATE TO 20130204 AND MOVED ALL PRE-20130204 DATA TO NEW PERMNO 19674
19675	SOHU COM INC	ADDED NEW SECURITY FOR 20000712-20180531. SPLIT FROM PERMNO 88467
88467	SOHU COM LTD	CHANGED START DATE TO 20180601 AND MOVED ALL PRE-20180601 DATA TO NEW PERMNO 19675
19678	PSIVIDA LTD	ADDED NEW SECURITY FOR 20050127-20080610. SPLIT FROM PERMNO 90542
90542	EYEPOINT PHARMACEUTICALS INC	CHANGED START DATE TO 20080611 AND MOVED ALL PRE-20080611 DATA TO NEW PERMNO 19678
13783	SIBANYE STILLWATER LTD	CHANGED COMPANY NAME TO SIBANYE GOLD LTD FROM SIBANYE STILLWATER FOR 20170921- 20200223 AND TO SIBANYE STILLWATER LTD FROM SIBANYE STILLWATER FOR 20200224-PRESENT
92517	XINYUAN REAL ESTATE CO LTD	CHANGED DIVIDEND AMOUNT TO \$0.025 FROM \$0.0225 ON EX-DATE 20200615
92893	SILVERCORP METALS INC	CHANGED DIST CODE TO 1242 FROM 1342 FOR ALL DISTRIBUTIONS WITH EX-DATES FROM 20170607-20191126
82844	WIDCOM INC	CHANGED COMPANY NAME AND CUSIP TO WIDCOM INC & 96756910 FROM WIDERGREN COMMUNICATIONS INC & 96759210 FOR 19831223-19840109, SIC CODE TO 3660 FROM 0 FOR 19830906-19840109 & TO 3660 FROM 4899 FOR 19840110-19860331 AND SHARE CODE TO 11 FROM 10 FOR ENTIRE HISTORY
91299	GENERAL FINANCE CORP	CHANGED SIC CODE TO 6770 FROM 3412 FOR 20080616-20080930, TO 6770 FROM 6799 FOR 20081001-20100110 AND TO 7359 FROM 6799 FOR 20100111-PRESENT
13755	HUMANIGEN INC	ADDED ZERO NAME LINES TO REFLECT OFF-EXCHANGE ACTIVITY FOR 20151217-20200917.
10107	MICROSOFT CORP	CHANGED VOLUME TO 22213410 FROM 1 ON 20170809
15274	SUMMIT THERAPEUTICS PLC	CHANGED NQ ISSUE IDENTIFIER TO 99995068 FROM 75726 FOR ENTIRE HISTORY

AUGUST 2020 DATA EDITS

GROUP EDITS

BEGDT	ENDDT	DESC	
2001	2020	REVIEWED SHARE CODE ASSIGNMENTS FOR CURRENT BDCS. CHANGED SHARE CODE TO 14 FROM 11 FOR CASES WHERE SECURITY	
		IS LISTED AS A CLOSED-END INVESTMENT COMPANY. SHARE CODES FOR 14 PERMNOS WERE CHANGED.	

PERMNO	COMNAM	DESC
57373	LEE PHARMACEUTICALS	CHANGE DISTRIBUTION CODE TO 5523 FROM 5532 FOR STOCK SPLIT ON EX-DATE 19861027
30437	CENTRAL SECURITIES CORP	CHANGED DISTRIBUTION CODE TO 1212 FROM 5538, DIVIDEND AMOUNT TO 0.25 FROM 0.00, FACTOR TO ADJUST PRICE TO 0 FROM 0.035714 AND FACTOR TO ADJUST SHARES TO 0 FROM 0.035714 FOR DISTRIBUTION ON EX-DATE 19820201
17422	INNOVATOR ETF TRUST II	CHANGED TICKER TO LVHB FROM BUFF FOR 20200717-20200810
29014	HADERA PAPER LTD	CHANGED START DATE TO 19801126 AND MOVED ALL PRE-19801126 DATA TO NEW PERMNO 19580
19580	AMERICAN ISRAELI PAPER MLS LTD	ADDED NEW SECURITY FOR 19620702-19801125. SPLIT FROM PERMNO 29014
75285	MANPOWERGROUP	CHANGED START DATE TO 19910503 AND MOVED ALL PRE-19910503 DATA TO NEW PERMNO 19581
19581	MANPOWER P L C	ADDED NEW SECURITY FOR 19880503-19910502. SPLIT FROM PERMNO 75285
77995	BRILLIANCE CHINA AUTO HLDGS LTD	CHANGED START DATE TO 20000417 AND MOVED ALL PRE-20000417 DATA TO NEW PERMNO 19582
19582	BRILLIANCE CHINA AUTO HLD LTD BM	ADDED NEW SECURITY FOR 19921009-20000414. SPLIT FROM PERMNO 77995
19583	INVESCO LTD	ADDED NEW SECURITY FOR 20071204-PRESENT. SPLIT FROM PERMNO 81910
81910	INVESCO PLC NEW	CHANGED END DATE TO 20071203 AND MOVED ALL POST-20071203 DATA TO NEW PERMNO 19583
19336	FIRST TRUST E T F VIII	CHANGED NASDAQ COMPANY NUMBER TO 2004183 FROM 0 FOR ENTIRE HISTORY
27318	NORTHWESTERN STEEL & WIRE CO	CHANGED NASDAQ COMPANY NUMBER TO 70068682 FROM 0 FOR ENTIRE HISTORY
31878	ORION PICTURES CORP	CHANGED NASDAQ COMPANY NUMBER TO 60011689 FROM 0 FOR ENTIRE HISTORY
46260	UNITRODE CORP	CHANGED NASDAQ COMPANY NUMBER TO 60014003 FROM 0 FOR ENTIRE HISTORY
64928	CONTINENTAL AIRLINES CORP	CHANGED NASDAQ COMPANY NUMBER TO 60005899 FROM 0 FOR ENTIRE HISTORY
67184	CALTON INC	CHANGED NASDAQ COMPANY NUMBER TO 60006090 FROM 0 FOR ENTIRE HISTORY
75187	SPECIALTY EQUIPMENT COS INC	CHANGED NASDAQ COMPANY NUMBER TO 60012507 FROM 0 FOR ENTIRE HISTORY
88284	COMMUNITY HEALTH SYS INC NEW	CHANGED NASDAQ COMPANY NUMBER TO 60018388 FROM 0 FOR ENTIRE HISTORY
92010	J M P GROUP LLC	CHANGED NASDAQ COMPANY NUMBER TO 60065069 FROM 0 FOR ENTIRE HISTORY
32687	FIELDPOINT PETROLEUM CORP	CHANGED SHARE CODE TO 11 FROM 10 FOR 19810113-20050919
78988	HERITAGE GLOBAL INC	ADDED ZERO NAME LINES TO REFLECT OFF-EXCHANGE ACTIVITY FOR 20011001-20200830
60047	OSAGE ENERGY INC	CHANGED SIC CODE TO 1382 FROM 0 FOR 19830413-19830927
13031	PROSHARES TRUST II	CHANGED SIC CODE TO 6726 FROM 6733 AND NAICS CODE TO 525990 FROM 523991 FOR 20200317-PRESENT
13444	PROSHARES TRUST II	${\tt CHANGED~SIC~CODE~TO~6726~FROM~6733~AND~NAICS~CODE~TO~525990~FROM~523991~FOR~20200317-PRESENT}$
13513	PROSHARES TRUST II	CHANGED SIC CODE TO 6726 FROM 6733 AND NAICS CODE TO 525990 FROM 523991 FOR 20200317-PRESENT
17137	BASSETT FURNITURE INDUSTRIES INC	REMOVED DISTRIBUTION OF .125 ON EXDATE 20200514
92111	TIPTREE INC	CHANGED SIC CODE TO 7389 FROM 6798 FOR 20161221-20190910 & 20200812-PRESENT AND TO 6331 FROM 6798 FOR 20190911-20200811
91937	T MOBILE U S INC	CHANGED SHARES OUTSTANDING TO 1235763 FROM 1392946 FOR 20200625-20200629 AND TO 1237339 FROM 1392946 FOR 20200630-20200802
14232	VOXELIET AG	CHANGED SHARES OUTSTANDING FROM 3120 TO VARIOUS NEW VALUES FOR ENTIRE HISTORY

JULY 2020 DATA EDITS

GROUP EDITS

BEGDT	ENDDT	DESC
2001	2020	REVIEWED SHARE CODE ASSIGNMENTS FOR CURRENT BDCS. CHANGED SHARE CODE TO 14 FROM 11 FOR CASES WHERE SECURITY
		IS LISTED AS A CLOSED-END INVESTMENT COMPANY. SHARE CODES FOR 14 PERMNOS WERE CHANGED.

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
79444	TALOS ENERGY INC	CHANGED SHARES OUTSTANDING TO 20001 FROM 1001 FOR 20170301-20170330 AND TO 20001 FROM 20000 FOR 20170331-20170427
12413	ZOGENIX INC	CHANGED SHARES OUTSTANDING TO 153488 FROM 19186 ON 20150630 AND TO 19186 FROM 2398 ON 20150701
19336	FIRST TRUST E T F FUND VIII	CHANGED NAME FROM FIRST TRUST EXCHANGE FUND VIII TO FIRST TRUST E T F FUND VIII AND PERMCO TO 55693 FROM 57060 FOR ENTIRE HISTORY
18237	FIRST TRUST E T F III	CHANGED COMPANY NAME FROM FIRST TR EXCHANGE TRADED FD III TO FIRST TRUST E T F III FOR ENTIRE HISTORY
11918	PHONETEL TECHNOLOGIES INC	CHANGED SHARES OUTSTANDING TO 3392 FROM 1256 FOR 19961115-19961126 AND TO 7640 FROM 2829 FOR 19961127-19961128
18250	ARYA SCIENCES ACQUISITION CORP	CHANGED NAME FROM A R Y A SCIENCES ACQUISITION CORP TO ARYA SCIENCES ACQUISITION CORP FOR ENTIRE HISTORY.
93415	CLEARBRIDGE MLP & MIDSTR FD INC	CHANGED COMPANY NAME TO CLEARBRIDGE MLP & MIDSTR FD INC FROM CLEARBRIDGE ENERGY MLP FUND INC FOR 20181022-PRESENT
13431	CLEARBRIDGE MLP & MID TOT RET FD	CHANGED COMPANY NAME TO CLEARBRIDGE MLP & MID TOT RET FD FROM CLEARBRIDGE ENERGY MLP TOT RET F FOR 20181022-PRESENT
92346	PATRIOT COAL CORP	CHANGED SHARE CODE TO 11 FROM 31 AND EXCHANGE CODE TO 31 FROM 1 FOR 20071018-20071031
14865	AURIS MEDICAL HOLDING LTD	CHANGED COMPANY NAME TO AURIS MEDICAL HOLDING AG NEW FROM AURIS MEDICAL HOLDING AG FOR 20180314-20190317
87404	CREXENDO INC	ADDED ZERO NAMELINE FROM 20151113-20200707 TO REFLECT OVER-THE-COUNTER TRADING

JUNE 2020 DATA EDITS

The following fields have been changed in the SIZ R aggregate files:

FILE	OLD	NEW
SFZ_AGG_ANN.RDS	DISCNT	ANNDISCNT
SFZ_AGG_MTH.RDS	DISCNT	MTHDISCNT
SFZ_AGG_QTR.RDS	DISCNT	QTRDISCNT

GROUP EDITS

В	EGDT	ENDDT	DESC
1	968	2017	RESEARCHED SHARES OUTSTANDING DATA WHERE SECURITIES CHANGED EXCHANGES. EDITS WERE MADE TO ABOUT 150 SECURITIES
			AND INCLUDE CHANGES TO SHARES OUTSTANDING AMOUNTS AND CHANGES TO SHARES FLAG RANGING FROM 1968-2017

PERMNO	COMNAM	DESC
13743	ERA GROUP INC	CHANGED COMPANY NAME TO ERA GROUP INC FROM E R A GROUP INC FOR ENTIRE HISTORY
10275	SENETEK PLC	CHANGED COMPANY NAME TO SENETEK PLC FROM SENETEK P L C FOR 20020211-20041109

PERMNO	COMNAM	DESC
35917	FIRST MIDWEST BANCORP INC	CHANGED COMPANY NAME TO FIRST MIDWEST BANCORP INC FROM FIRST MIDWEST BANCORP DE FOR ENTIRE HISTORY
14565	F S K K R CAPITAL CORP	UPDATED SHARE CODE FROM 11 TO 14 FOR PERIOD 20140416-20200615.
14306	FUQUA ENTERPRISES INC	CHANGED SHARES OUTSTANDING TO 3712 FROM 8095 FOR 19900629-19900927
25735	COMPUTER COMMUNICATIONS INC	CHANGED SHARES OUTSTANDING TO 6742 FROM 5642 FOR 19840525-19840628
84911	STEPHAN CO	CHANGED SHARES OUTSTANDING TO 3675 FROM 4726 FOR 19940526
86319	EMRISE CORP	CHANGED SHARES OUTSTANDING TO 2940 FROM 11391 FOR 19961231-19970330
13405	CARLYLE GROUP L P	CHANGED COMPANY NAME TO CARLYLE GROUP L P FROM THE CARLYLE GROUP L P FOR 20200102-PRESENT
16309	TRADE DESK INC	CHANGED COMPANY NAME TO TRADE DESK INC FROM THE TRADE DESK INC FOR ENTIRE HISTORY
17891	LOVESAC CO	CHANGED COMPANY NAME TO LOVESAC CO FROM THE LOVESAC COMPANY FOR ENTIRE HISTORY
37728	FRESHER COOKER INC	CHANGED COMPANY NAME TO FRESHER COOKER INC FROM THE FRESHER COOKER INC FOR ENTIRE HISTORY
51327	1411 HOLDING CO	CHANGED COMPANY NAME TO 1411 HOLDING CO FROM THE 1411 HOLDING CO FOR 19850919-19860205
80603	GROUP INC	CHANGED COMPANY NAME TO GROUP INC FROM THE GROUP INC FOR 19900205-19900808
82225	PET PRACTICE INC	CHANGED COMPANY NAME TO PET PRACTICE INC FROM THE PET PRACTICE INC FOR ENTIRE HISTORY
86989	MEET GROUP INC	CHANGED COMPANY NAME TO MEET GROUP INC FROM THE MEET GROUP INC FOR 20170410-PRESENT
87093	KEITH COMPANIES INC	CHANGED COMPANY NAME TO KEITH COMPANIES INC FROM THE KEITH COMPANIES INC FOR ENTIRE HISTORY
92240	CUSHING MLP & INFRA TOT RET FD	CHANGED COMPANY NAME TO CUSHING MLP & INFRA TOT RET FD FROM THE CUSHING MLP & INFRA TT R FD FOR 20180220-PRESENT

MAY 2020 DATA EDITS

GROUP EDITS

BEGDT	ENDDT	DESC
1968	2019	RESEARCHED DISTRIBUTIONS WITH EX-DATES GREATER THAN A SECURITY'S DELISTING DISTRIBUTION EX-DATE. EDITS WERE MADE
		TO ABOUT 90 SECURITIES AND INCLUDE CHANGES TO DIVIDEND AMOUNTS, DISTRIBUTION CODES, EX-DATES AND REMOVING ENTIRE
		DISTRIBUTIONS RANGING FROM 1968-2019

PERMNO	COMNAM	DESC
19314	METEN EDTECHX EDUCATION GRP LTD	CHANGED COMPANY NAME TO METEN EDTECHX EDUCATION GRP LTD FROM METEN EDTECHX EDUCATION GROUP LT FOR ENTIRE HISTORY
89475	SANOFI	CHANGED DISTRIBUTION AMOUNT TO 1.6994 FROM 1.75345 FOR DISTRIBUTION ON EX-DATE 20200430
89169	DELCATH SYSTEMS INC	ADDED ZERO NAMELINES FOR THE PERIOD 20170915-20200430 TO REFLECT OFF EXCHANGE TRADING
82156	WINDTREE THERAPEUTICS INC	ADDED ZERO NAMELINES FOR THE PERIOD 20170505-20200519 TO REFLECT OFF EXCHANGE TRADING
13017	INVESCO CURRENCYSHARES CHI REN T	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED FINAL LIQUIDATION PAYMENT ON EX-DATE 20200218
91290	INVESCO CURRENCYSHARES SE KRONA	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED FINAL LIQUIDATION PAYMENT ON EX-DATE 20200218
13767	INVESCO CURRENCYSHARES SG DLR TR	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED FINAL LIQUIDATION PAYMENT ON EX-DATE 20200218
13504	STRATEGY SHARES	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED LIQUIDATION PAYMENT ON EX-DATE 20200421

APRIL 2020 DATA EDITS

GROUP EDITS

BEGDT	ENDDT	DESC
1962	2020	RESEARCHED SHARES OUTSTANDING DATA WHERE SECURITIES CHANGED EXCHANGES OR HAD SHARES CHANGES ON 19620702.
		EDITS WERE MADE TO ABOUT 50 SECURITIES AND INCLUDE CHANGES TO SHARES OUTSTANDING AMOUNTS AND CHANGES TO SHARES
		FLAG RANGING FROM 1962-2020

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
15165	VIRGINIA CAROLINA CHEM CORP	CHANGED SECURITY STATUS TO W FROM Q FOR 19251231-19260603
15927	VANECK VECTORS E T F TRUST	CHANGED TICKER TO EINC FROM YMLP FOR 20191202-PRESENT
13744	EXCHANGE TRADED CONCEPTS TR	CHANGED TRADING SYMBOL AND TICKER TO FLAG FROM DUAL ON 20200331
19147	WISEKEY INTERNATIONAL HOLDING AG	CHANGED CLOSING PRICE TO -5.51 FROM 0, ASKHIGH TO 6.07 FROM 0, BIDLOW TO 4.95 FROM 0 AND VOLUME TO 0 FROM 115 ON 20200323
17311	BIOFRONTERA AG	CHANGED CLOSING PRICE TO -7.735 FROM 0, ASKHIGH TO 8.05 FROM 0, BIDLOW TO 7.42 FROM 0 AND VOLUME TO 0 FROM 98 ON 20200316
17080	RHINE WESTPHALIA ELEC PWR CORP	CHANGED SHARE CODE TO 30 FROM 10 FOR ENTIRE HISTORY
68929	LIBERTY ALL STAR GROWTH FD INC	ADDED RIGHTS DISTRIBUTION OF .456 ON EXDATE 20200207.
14575	NEW YORK REIT INC	CHANGED DELIST CODE TO 470 FROM 450, CHANGED DISTRIBUTION CODE TO 2844 FROM 2255 ON EX-DATE 20181105, AND ADDED LIQUIDATION PAYMENTS ON EX-DATES 20190315, 20190513, 20190812 & 20191112
13162	MID CON ENERGY PARTNERS L P	REMOVED REVERSE SPLIT ON EX-DATE 20200324
15962	INVESCO E T F TRUST II	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED FINAL LIQUIDATION PAYMENT ON EX-DATE 20200218
89749	INVESCO EXCHANGETRADED FD TRUST	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED FINAL LIQUIDATION PAYMENT ON EX-DATE 20200218
14931	INVESCO E T F TRUST II	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED FINAL LIQUIDATION PAYMENT ON EX-DATE 20200218
15781	INVESCO E T F TRUST II	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED FINAL LIQUIDATION PAYMENT ON EX-DATE 20200218
89561	INVESCO BLDRS INDEX FDS TRUST	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED FINAL LIQUIDATION PAYMENT ON EX-DATE 20200214
89560	INVESCO BLDRS INDEX FDS TRUST	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED FINAL LIQUIDATION PAYMENT ON EX-DATE 20200214
89563	INVESCO BLDRS INDEX FDS TRUST	CHANGED DELIST CODE TO 450 FROM 470 AND ADDED FINAL LIQUIDATION PAYMENT ON EX-DATE 20200214

MARCH 2020 DATA EDITS

GROUP EDITS

BEGDT	ENDDT	DESC
1925	1962	REVIEWED ALL SECURITIES WITH TRADING BEFORE 7/2/1962 WITH ZERO NAMELINES LESS THAN FOUR MONTHS. ZERO NAMELINES
		WERE REMOVED FROM NAME HISTORY FOR 31 SECURITIES.

INDIVIDUAL EDITS					
PERMNO	COMNAM	DESC			
17595	PROSHARES TRUST	CHANGED ASKHIGH TO 61.22 FROM 58.30 AND OPEN TO 61.22 FROM 0 ON 20200211			
19252	PROFESSIONAL HOLDING CORP	CHANGED OPEN PRICE FROM \$4.10 TO \$19.95 ON 20200212			
83532	MOUNTAIN PROVINCE DIAMONDS INC	CHANGED DELIST CODE FROM 562 TO 552			
85674	AUTOSPA CORP	ADDED ASKHI AND BIDLO ON 19890201			
17850	BEVERLY HILLS SVGS & LN ASSN	ADDED ASKHI AND BIDLO ON 19850416			
35271	FIRST CAPITAL FINANCIAL CORP	ADDED ASKHI AND BIDLO ON 19830908			
10051	HANGER INC	CHANGED EXCHANGE CODE TO 0 FROM 1 FOR 20160229-20180226			
77375	TRIPLE CHECK INC	REMOVED NEXT DATE FROM DELISTING ARRAY ON 19820915			
64768	NEWHALL INVESTMENT PPTYS	REMOVED NEXT DATE FROM DELISTING ARRAY ON 19880916			
13346	NATIONAL BELLAS HESS CO INC	REMOVED NEXT DATE FROM DELISTING ARRAY ON 19320317			
14621	STUDEBAKER CORP NJ	REMOVED NEXT DATE FROM DELISTING ARRAY ON 19350223			
12335	HOUSTON OIL CO TEX	CHANGED DISTRIBUTION WITH DISTRIBUTION CODE 5543 ON EX-DATE 19301021 TO TWO DISTRIBUTIONS WITH DISTRIBUTION CODES 5523 AND 5533			
12861	LIMA HAMILTON CORP	CHANGED DISTRIBUTION CODE TO 5533 FROM 5552 AND DIVIDEND AMOUNT TO 0 FROM 0.8875 ON EX-DATE 19411117			
13610	OLIN CORP	CHANGED DISTRIBUTION CODE TO 5533 FROM 5552 AND DIVIDEND AMOUNT TO 0 FROM 0.54687 ON EX-DATE 19290905			
17291	SAFEWAY STORES INC	CHANGED DISTRIBUTION CODE TO 5533 FROM 5552 AND DIVIDEND AMOUNT TO 0 FROM 1.43125 ON EX-DATE 19291210			
17486	SPENCER KELLOGG & SONS INC	CHANGED DISTRIBUTION CODE TO 5533 FROM 5552 AND DIVIDEND AMOUNT TO 0 FROM 0.58375 ON EX-DATE 19370730			
10089	ALPHA TECHNOLOGIES GROUP INC	CHANGED DISTRIBUTION CODE TO 4999 FROM 4888 ON EX-DATE 20001130			
85355	BELL CANADA INTL INC	CHANGED DISTRIBUTION CODE TO 4999 FROM 4888 ON EX-DATE 20011214			
83850	C C C INFORMATION SVCS GROUP INC	CHANGED DISTRIBUTION CODE TO 4999 FROM 4888 ON EX-DATE 20011204			
27634	CORDERO INDUSTRIES INC	CHANGED DISTRIBUTION CODE TO 5523 FROM 5543 ON EX-DATE 19870217			
33372	EQUITEX INC	CHANGED DISTRIBUTION CODE TO 4999 FROM 4888 ON EX-DATE 20050203			
87107	FOCAL COMMUNICATIONS CORP	CHANGED DISTRIBUTION CODE TO 4999 FROM 4888 ON EX-DATE 20011217			
61111	HARCOR ENERGY INC	CHANGED DISTRIBUTION CODE TO 5523 FROM 5553 ON EX-DATE 19910410			
74393	KESTREL ENERGY INC	CHANGED DISTRIBUTION CODE TO 4999 FROM 4888 ON EX-DATE 20000202			
77642	BANCO COMERCIAL PORTUGUES SA	CHANGED DISTRIBUTION CODE TO 4999 FROM 4888 ON EX-DATE 20010309			
75036	BLUE CHIP VALUE FUND INC	CHANGED DISTRIBUTION CODE TO 4563 FROM 4848 AND DIVIDEND AMOUNT TO 0.046 FROM 0 ON EX-DATE 20020222			
30437	CENTRAL SECURITIES CORP	CHANGED DISTRIBUTION CODE TO 5533 FROM 5552 ON EX-DATE 19800129			
30437	CENTRAL SECURITIES CORP	ADDED DISTRIBUTION WITH DISTRIBUTION CODE OF 5533 AND FACTOR TO ADJUST PRICE & FACTOR TO ADJUST SHARES OF 0.071429 TO REPLACE TWO DISTRIBUTIONS WITH DISTRIBUTION CODES OF 5552 & 5554 ON EX-DATE 19790205			
75604	COOKER RESTAURANT CORP	CHANGED DISTRIBUTION CODE TO 4999 FROM 4888 ON EX-DATE 20000114			
79767	ENEL AMERICAS S A	CHANGED DISTRIBUTION CODE TO 4999 FROM 4888 ON EX-DATE 20001006			
75957	INTEGRATED ORTHOPAEDICS INC	CHANGED DISTRIBUTION CODE TO 4999 FROM 4888 ON EX-DATE 20001129			
22605	N V F CO	REMOVED DISTRIBUTION WITH DISTRIBUTION CODE 5543 AND REPLACED IT WITH 2 DISTRIBUTIONS WITH DISTRIBUTION CODES 5523 & 5533 ON EX-DATE 19750602			
13688	P G & E CORP	CHANGED DISTRIBUTION CODE TO 4999 FROM 4888 ON EX-DATE 20010102			
79064	CONSORCIO G GRUPO DINA SA DE CV	REMOVED NEXT DATE AND NEXT AVAILABLE PRICE FROM DELISTING ARRAY ON 20010216			

PERMNO	COMNAM	DESC
50412	M C M CORP	REMOVED NEXT DATE AND NEXT AVAILABLE PRICE FROM DELISTING ARRAY ON 20010216
87173	LOOKSMART LTD	REMOVED REVERSE SPLIT ON EX-DATE 20151028, CHANGED EX-DATE FOR DISTRIBUTION WITH DISTRIBUTION CODE 3723 FROM 20151029 TO 20151028 AND DIVIDEND AMOUNT FROM \$6.5602 TO \$0.99166 AND CHANGED EX-DATE FOR DISTRIBUTION WITH DISTRIBUTION CODE 3863 FROM 20151029 TO 20151028, DISTRIBUTION CODE TO 3823 FROM 3863, SET FACTORS TO ADJUST SHARES AND PRICES TO -1 FROM 0 AND DIVIDEND AMOUNT TO \$0.00907 FROM \$0.06.
14816	TOOTSIE ROLL INDS INC	CHANGED SHARES OUTSTANDING TO 101 FROM 100 FOR 19320415-19321230
13407	FACEBOOK INC	CHANGED SIC CODE TO 7373 FROM 9999 FOR 20190917-20200102 AND TO 7375 FROM 9999 FOR 20120518-20190916 & 20200103-PRESENT
18125	PARINGA RESOURCES LIMITED	REMOVED HALT RECORD FROM 20191223-20200228 AND CHANGED DELIST DATE TO 20191220
16379	BANK MANHATTAN	CHANGED FACTOR TO ADJUST PRICE FROM 0.9856 TO 0 AND FACTOR TO ADJUST SHARES FROM 0.1428 TO 0 FOR RIGHTS DISTRIBUTION ON EX-DATE 19281029
78922	CITIZENS FINANCIAL CORP KY	REMOVED REVERSE SPLIT ON EX-DATE 20071114, CHANGED DATE OF NEXT AVAILABLE INFORMATION TO 20080304 FROM 20071114 AND NEXT AVAILABLE PRICE TO \$3.52 FROM \$1150 ON DELISTING ARRAY
91285	VESTIN REALTY MORTGAGE II INC	REMOVED REVERSE SPLIT ON EX-DATE 20170330, CHANGED DATE OF NEXT AVAILABLE INFORMATION TO 20170629 FROM 20170331 AND NEXT AVAILABLE PRICE TO \$3.50 FROM \$2349.50 ON DELISTING ARRAY
16459	NATIONAL PK BK	CHANGED FACTOR TO ADJUST PRICE FROM 0.7165 TO 0 AND FACTOR TO ADJUST SHARES FROM 0.25 TO 0 FOR RIGHTS DISTRIBUTION ON EX-DATE 19290523
28281	LERNER STORES CORP	CHANGED NEXT DATE OF AVAILABLE INFORMATION TO 0 FROM 19620511 FOR DELISTING ARRAY ON 19620511
36863	STELLAR INDUSTRIES INC DE	CHANGED NEXT DATE OF AVAILABLE INFORMATION TO 0 FROM 19751119 FOR DELISTING ARRAY ON 19741118

FEBRUARY 2020 DATA EDITS

PERMNO	COMNAM	DESC
19150	BLACKROCK HEALTH SCIENCES TR II	CHANGED SHARE CODE FROM 41 TO 44
91283	BATTALION OIL CORP	ADDED ZERO NAMELINES FOR THE PERIOD 20190723 - 20200219 TO REFLECT OFF EXCHANGE TRADING
20415	JEFFERIES FINANCIAL GROUP INC	CHANGED DISTRIBUTION CODE TO 3753 FROM 3783 AND REMOVED THE -1 FACTORS TO ADJUST SHARES AND PRICES FROM DISTRIBUTION ON EX-DATE 20190927
19227	U S XPRESS ENTERPRISES INC	ADDED THE 1994-2007 DATA FROM PERMNO 81021, ASSIGNED A DUMMY CUSIP TO DIFFERENTIATE FROM PERMNO 81021 AND ASSIGNED NEW PERMNO 19227
81021	U S XPRESS ENTERPRISES INC NEW	REMOVED THE 1994-2007 DATA FROM PERMNO 81021 (ADDED IT TO PERMNO 19227) AND CHANGED COMPANY NAME TO U S XPRESS ENTERPRISES INC NEW FROM U S XPRESS ENTERPRISES INC FOR 20180614-PRESENT
87043	QUANTUM CORP	ADDED ZERO NAMELINE FOR THE PERIOD 20190115 - 20200131 TO REFLECT OFF EXCHANGE TRADING
18933	ISHARES TRUST	CHANGED PERMCO TO 37493 FROM 56884 FOR ENTIRE HISTORY
19156	ISHARES TRUST	CHANGED PERMCO TO 37493 FROM 56884 FOR ENTIRE HISTORY
19157	ISHARES TRUST	CHANGED PERMCO TO 37493 FROM 56884 FOR ENTIRE HISTORY
19160	ISHARES TRUST	CHANGED PERMCO TO 37493 FROM 56884 FOR ENTIRE HISTORY
27407	COSMO COMMUNICATIONS CORP	CHANGED START DATE TO 19830429 FROM 19830520 AND ADDED MISSING PRICE RECORDS FOR 19830429-19830519
34981	INTERACTIVE DATA CORP	CHANGED START DATE TO 19820714 FROM 19820817 AND ADDED MISSING PRICE RECORDS FOR 19820714-19820816
15704	AMERICAN PWR & LT CO	CHANGED SHARES OUTSTANDING TO 1648 FROM 1681 ON 19260513

JANUARY 2020 DATA EDITS

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
91907	SUPER MICRO COMPUTER INC	ADDED ZERO NAMELINE FOR THE PERIOD 20180823 - 20200113 TO REFLECT OFF EXCHANGE TRADING
10349	AMFICORP	REMOVED DISTRIBUTIONS WITH EX-DATES 20150714, 20170720, 20180727 & 20190729
12141	ALTAIR CORP	REMOVED DISTRIBUTIONS WITH EX-DATES 20131231, 20141210, 20151209, 20161207, 20171201, 20181203 & 20191203
41276	HAYWARD MANUFACTURING INC	REMOVED DISTRIBUTIONS WITH EX-DATES 20070831, 20081016, 20091013, 20201130, 20111028, 20121130, 20151029 & 20161031
71837	ECOLOGY & ENVIRONMENT INC	CHANGED END DATE TO 20191230 FROM 20191231 AND ADDED DELISTING INFORMATION

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 10	STZYYYYMM	121KB	ROLLING 10-YEAR WINDOW OF US STOCK DATA		MONTHLY DATA - ROLLING 10 YEARS
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)
 - o 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.
 - o 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.