CRSP U.S. STOCK & INDEX RELEASE NOTES

DECEMBER 2023 ANNUAL UPDATE

These release notes pertain to the December 2023 Annual release of the CRSP US Stock and Index databases, available in January 2024.

IMPORTANT NOTICE REGARDING DECEMBER 2023 DATA RELEASED IN JANUARY 2024

FOLDER STRUCTURE CHANGE FOR STOCK AND INDEXES DATABASES AND CRSPACCESS

Subscribers who utilize Ipswitch MOVEit Transfer to retrieve files will see an additional Stock and Indexes Database Flat File Format 1.0 (SIZ) folder that contains data files generated from CRSP's new back office available with the December 2023 Stock and Indexes data cut. The new folder reflects the following structure:

- INDICES_SO_format_period*
- STOCK_25_SA _format_period
- STOCK_25i_SI _format_period
- STOCK_62_S6 _format_period
- STOCK_62i_SX _format_period

Subscribers are encouraged to compare the existing files with the new files, as beginning with the January 2024 data cut released in February, only the files generated from CRSP's new back office as indicated above will be provided, as CRSP is sunsetting its legacy back office. The three tables on the next page summarize these known differences.

SIZ files generated from CRSP's new back office will continue to be available to subscribers until December 2024 at which time all subscribers must be migrated to the Stock and Indexes Database Flat File Format 2.0 (CIZ) files, which were made available in summer 2022.

Please contact your Client Services support representative at **support@crsp.org** with questions and if you have not already done so, the preferred file format for your institution: SAS, ASCII, or R. Subscribers will be provided with ASCII format by default.

Also, the following changes will be made to the MOVEit folder structure for CRSPAccess with the January data released in February, as the files will be generated from CRSP's new back office system:

- STOCK_25_SA_CADB_period*
- STOCK 25i SI CADB period
- STOCK_62_S6_ CADB _period
- STOCK_62i_SX_ CADB _period

Please contact your Client Services support representative at support@crsp.org if you need access to the CRSPAccess files.

^{*}Note: format = ASCII, R, SAS and period = Monthly, Quarterly, Annual

^{*}Note: period = Monthly, Quarterly, Annual

SUMMARY OF KNOWN DIFFERENCES BETWEEN LEGACY SIZ AND NEW BACK OFFICE SIZ

ACCEPTED DIFFERENCE	DESCRIPTION	FIELD IMPACTED	TABLE IMPACTED
SECURITY CAP DIFFERENCES	THERE ARE SECURITY CAPITALIZATION DIFFERENCES DUE TO SHARES ROUNDING AND/OR BID/ASK PRICE PRECISION DIFFERENCES. THIS IS ALSO AFFECTING CLOSEST NON MISSING (CNM) RETURN SERIES.	SHROUT, PRC	SFZ_SHR, SFZ_DP_ DLY
BREAKPOINT – LOW SECURITY KEY	A DIFFERENT SECURITY KEY IS REPORTED DUE TO PRECISION; DOES NOT CAUSE ASSIGNMENT DIFFERENCES (1000028 / 1964-12- 31, 1000109/1983-12-30, 1000107/2017-12-29)	KEYSET	SFZ_PORTD, SFZ_ PORTM
ASSIGNMENT DIFFERENCES – STDDEV	INDNO ASSIGNMENT CHANGE DUE TO STATISTIC VALUE PRECISION - (NASDAQ ONLY 1100172 ON 1972-12-29)	INDFAM	SFZ_PORTD, SFZ_ PORTM, SFZ_MTH
ASSIGNMENT DIFFERENCES – MONTHLY SECURITY CAP	PERMNO 20338 BETWEEN 2020 AND 2021. THIS IS AN EDGE CASE BUG IN LEGACY, THAT IS HANDLED CORRECTLY IN NEW BACK OFFICE (THE SECURITY CHANGES EXCHANGE TWICE IN ONE MONTH)	MTCAP	SFZ_PORTD, SFZ_ PORTM, SFZ_MTH
ASSIGNMENT DIFFERENCES – MONTHLY SECURITY CAP	INDNO ASSIGNMENT CHANGE DUE TO STATISTIC VALUE PRECISION – 1000427/8 ON 1964-12-31	MTCAP	SFZ_PORTD, SFZ_ PORTM, SFZ_MTH
USDVAL DIFFERENCES — STDDEV AND BETA EQ	NEW BACK OFFICE ADDING 0 TO USDVAL WHEN TCAP IS MISSING	USDVAL, TCAP	SFZ_DIND, SFZ_ MIND, SFZ_DP_DLY
ASSIGNMENT DIFFERENCES	ASSIGNMENT FLIPS DUE TO BREAKPOINTS PRECISION - SEE "BREAKPOINT/ASSIGNMENT DIFFERENCES" TABLE. THESE FLIPS ARE CAUSING ASSIGNMENT DIFFERENCES ACROSS ALL RELATED INDNOS, SINCE ALL INDNOS USE THE NYSE SERIES BREAKPOINTS.		ISSUERCAPITALIZATION
CNM SECURITY RETURN SERIES ACCEPTED DIFFERENCES	UPSTREAM CNM RETURN SERIES (NEW BACK OFFICE SECURITY RETURNS) KNOWN DIFFERENCES THAT ARE CAUSING DOWNSTREAM INDEX DIFFERENCES	RET, RETX	SFZ_DP_DLY, SFZ_ MTH
FULL MARKET MISSING ASSIGNMENTS FROM NEW BACK OFFICE – INCLUSION METHODOLOGY	DUE TO INCLUSION METHODOLOGY THERE ARE MISSING ASSIGNMENTS IN THE NEW BACK OFFICE WHEN COMPARED WITH THE LEGACY. SEE "MISSING FULL MARKET ASSIGNMENTS" TABLE		
PORTM REPORTING DIFFERENCES	LAST ROW PER PERMNO/KEYSET COMBINATION IS THE LAST ROW WITH A VALID ASSIGNMENT OR NON-MISSING STATISTICS	PERMNO/KEYSET, PERMCO/KEYSET	SFZ_PORTM
	2. ISSUER STATISTIC MISSING FLAG IS SET PER PERMCO/KEYSET COMBINATION IN NEW BACK OFFICE, AS OPPOSED TO PERMNO/ KEYSET IN LEGACY	PERMNO/KEYSET, PERMCO/KEYSET	SFZ_PORTM
	3. ISSUERS WITH MULTIPLE SECURITIES DURING GAP PERIODS ARE ONLY REPORTED ONCE PER PERIOD, AS OPPOSED TO ONCE PER PERMNO PER PERIOD IN LEGACY	PERMNO/KEYSET, PERMCO/KEYSET	SFZ_PORTM
MIND NULL VS. 0 RETURN	TOTAL, PRICE, AND INCOME RETURN VALUES ARE NULL IN SIZ AND 0 IN LEGACY ON STARTDT FOR CAP-BASED INDNOS	MTRET, MARET, MIRET	SFZ_MIND

BREAKPOINT/ASSIGNMENT DIFFERENCES

PERMCO	NEW BACK OFFICE ICG	NEW BACK OFFICE PORT	LEGACY ICG	LEGACY PORT	PERIODDT
20798	1080302	3	1080301	2	3/31/1932
22856	1080303	4	1080304	5	6/30/1931
22424	1080305	6	1080306	7	6/30/1931
22327	1080307	8	1080308	9	6/30/1931
21665	1080308	9	1080307	8	3/31/1932
22187	1080301	2	1080302	3	3/31/1932
74	1080305	6	1080304	5	3/31/1932
22709	1080303	4	1080302	3	3/31/1932

MISSING FULL MARKET ASSIGNMENTS

CALDT	PERMNO	PERMCO
10/31/77	48864	793
10/31/79	33400	2562
1/31/86	93199	7776
10/31/22	79666	29969
4/30/84	36899	1649
1/29/93	78120	20106
22709	1080303	4

NEW! CRSPMI 2013 HISTORICAL INDEXES RESEARCH DATABASE

CRSP is excited to announce a new research data product that was made available with the 202309 quarterly data cut released in October 2023. This product is initially being offered at no charge through November 2024 to existing academic and government subscribers of both CRSP's 1925 US Stock & 1925 US Indexes Databases. Data is available quarterly, with a one month lag.

The **CRSPMI 2013 Historical Indexes** database provides day-by-day index levels, opening and closing constituents, and proforma data from CRSP's suite of investable Market Indexes from 2013 to present day.

Please email **subscriptions@crsp.org** if your institution subscribes to or would like to subscribe to both the 1925 US Stock and 1925 US Indexes databases in order to obtain a no-charge data license agreement to access this new dataset.

NEW FIELDS IN FLAT FILE FORMAT 2.0 (CIZ) STOCK AND INDEX PRODUCTS WITH 202309 DATA CUT

Starting with the 202309 data cut, the Flat File Format 2.0 (CIZ) Stock and Index files reflect the following changes:

UES SECTOR CLASSIFICATION

A new column named "UESIndustry" has been added to the four following CIZ files, positioned next to the "ICBIndustry" column: StkSecurityInfoHist, StkSecurityInfoHdr, StkIssuerInfoHist, & StkIssuerInfoHdr.

DISAMOUNTSOURCETYPE

A new DisAmountSourceType field is available to subscribers in the CIZ.StkDistributions file. The new column called DisAmountSourceType is at the end of the file. This field describes the amount source type code of the distribution and address the issue where subscribers were unable to differentiate between various codes.

FLAT FILE FORMAT 2.0 (CIZ) FOR STOCK AND INDEX DATABASES

CRSP's Flat File Format 2.0 (CIZ) for the CRSP US 1925 and 1962 Stock and Stock with Index Databases was released mid-2022. **Click here for more information.** As was true for the Flat File Format 1.0 (SIZ), the files are available in SAS, ASCII and R formats.

Please email **support@crsp.org** and indicate your preferred file format. If we do not receive your preferred file format, your organization will not have access to the new Flat File Format 2.0 (CIZ).

FILE VERSION SPECIFICS

This table contains version specific information for the CRSP Stock Files with data ending December 2023. 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	37776	28	1538	4707	1	4	2939	10000	93436
MONTHLY	37747	28	1538	4707	1	4	2939	10000	93436

CALENDAR	DATE RANGE	DATE INDEX RANGE
DAILY TRADING CALENDAR	19251231-20231229	1-25799
MONTH-END TRADING CALENDAR	19251231-20231229	1-1177
YEAR-END TRADING CALENDAR	19251231-20241231	1-100
QUARTER-END TRADING CALENDAR	19251231-20241231	1-397
WEEKLY TRADING CALENDAR	19260102-20231229	1-5113

DECEMBER 2023 DATA EDITS

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
17628	WISDOMTREE TRUST	REMOVED DECLARE DATE FROM DISTRIBUTION ON EX-DATE 20231124
17629	WISDOMTREE TRUST	REMOVED DECLARE DATE FROM DISTRIBUTION ON EX-DATE 20231124
17630	WISDOMTREE TRUST	REMOVED DECLARE DATE FROM DISTRIBUTION ON EX-DATE 20231124
18964	ADAMS NATURAL RESOURCES FUND INC	CHANGED ACQUIRING PERMNO TO 0 FROM -99 AND ACQUIRING PERMCO TO 0 FROM -99 ON EX- DATE 20231117
88818	ENERPLUS CORP	CHANGED DIVIDEND AMOUNT TO \$0.06 FROM \$0.5995 ON EX-DATE 20231129
65665	RAND CAPITAL CORP	CHANGED DIVIDEND AMOUNT TO \$0.20 FROM \$0.38 ON EX-DATE 20221216 AND ADDED DISTRIBUTION WITH DISTRIBUTION CODE 1272 AND DIVIDEND AMOUNT OF \$0.18 ON EX-DATE 20221216
86946	REYNOLDS AMERICAN INC	CHANGED SHARES OUTSTANDING TO 714551 FROM 636832 FOR 20150731-20150830
42906	HUNTINGTON BANCSHARES INC	CHANGED SHARES OUTSTANDING TO 1084782 FROM 799154 FOR 20160930-20161230
86830	INFORMATICA CORP	CHANGED SHARES OUTSTANDING TO 108704 FROM 104311 FOR 20141231-20150129
24497	BROOKFIELD REINSURANCE LTD	CHANGED SHARE CLASS TO 1 FROM A FOR ENTIRE HISTORY

NOVEMBER 2023 DATA EDITS

PERMNO	COMNAM	DESC
24384	CALAMOS E T F TRUST	CHANGED COMPANY NAME TO CALAMOS ETF TRUST FROM CALAMOS ETF TRUST FOR ENTIRE HISTORY
18514	ALTA EQUIPMENT GROUP INC	CHANGED COMPANY NAME TO ALTA EQUIPMENT GROUP INC FROM ALTA EQUIPMENT GROUP LLC FOR 20200218-PRESENT
22810	AULT DISRUPTIVE TECH CORP	CHANGED COMPANY NAME TO AULT DISRUPTIVE TECH CORP FROM AULT DISRUPTIVE TECHNOLOGIES COR FOR ENTIRE HISTORY
22908	CONDUIT PHARMACEUTICALS INC	CHANGED COMPANY NAME TO CONDUIT PHARMACEUTICALS INC FROM CONDULT PHARMACEUTICALS INC FOR 20230925-PRESENT
23015	COMERA LIFE SCIENCES HLDGS INC	CHANGED COMPANY NAME TO COMERA LIFE SCIENCES HLDGS INC FROM COMERA LIFE SCIENCES HLDS INC FOR ENTIRE HISTORY
22325	MDXHEALTH S A	CHANGE NASDAQ ISSUE IDENTIFIER TO 99995080 FROM 86009 FOR ENTIRE HISTORY
22780	INCANNEX HEALTHCARE LTD	CHANGE NASDAQ ISSUE IDENTIFIER TO 99995081 FROM 86118 FOR ENTIRE HISTORY

OCTOBER 2023 DATA EDITS

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
82812	BROADWAY FINANCIAL CORP DEL	ADDED CLASS A TO SHARE CLASS FOR 20210401-PRESENT
21365	AMBRX BIOPHARMA INC	CHANGED NQ ISSUER IDENTIFIER TO 99995079 FROM 85466 AND NQ ORGANIZATION IDENTIFIER TO 99995056 FROM 60079216 FOR ENTIRE HISTORY
90291	PROSPECT CAPITAL CORP	ADD NAME CHANGE FROM PROSPECT ENERGY CORP TO PROSPECT CAPITAL CORP ON 20070604.
11850	EXXON MOBIL CORP	ADDED CLOSE, HIGH, LOW & OPEN PRICE AND VOLUME FOR 19611101
82812	BROADWAY FINANCIAL CORP DEL	ADDED CLASS A TO SHARE CLASS FOR 20210401-PRESENT
59555	HONDA MOTOR CO LTD	UPDATED COMPANY NAME TO HONDA MOTOR CO LTD FROM HONDA MOTOR LTD FOR FULL COMPANY HISTORY

SEPTEMBER 2023 DATA EDITS

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
19314	BTC DIGITAL LTD	CHANGED CUSIP TO G6055H15 FROM G6055H14 FOR 20230824-PRESENT
21011	ATLANTIC COASTAL ACQ CORP	ADDED HALT RECORD 20230821- 20230831
14424	AKARI THERAPEUTICS PLC	CHANGED CUSIP TO 00972G20 FROM 00972G10 FOR 20230817-PRESENT

AUGUST 2023 DATA EDITS

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
33400	KING OPTICAL CORP	ADDED PRICE DATA FOR 19790702-19791018 WHEN AVAILABLE. 29 TOTAL DAYS OF PRICES ADDED
31393	EAGLE TELEPHONICS INC	CHANGED COMPANY NAME TO EAGLE TELEPHONICS INC FROM EAGLE TELEFONICS INC FOR ENTIRE HISTORY
10561	H & S TREAT & RELEASE INC	CHANGED SHARE CODE TO 11 FROM 10 FOR 19860812-19920707
12273	TRI R SYSTEMS CORP	CHANGED SHARE CODE TO 11 FROM 10 FOR 19880720-19910520
12274	UNITED BUYING SVC INTL INC	CHANGED SHARE CODE TO 11 FROM 10 FOR 19880712-19910825
76346	ESARCO INTERNATIONAL INC	CHANGED SHARE CODE TO 11 FROM 10 FOR 19900605-19920618
20592	EDTECHX HOLDINGS ACQ CORP II	REMOVED HALT RECORD FROM 20230717- 20230731 AND UPDATED ENDDT TO 20230714

GROUP EDITS

BEGDT	ENDDT	DESC
2022	2023	RESEARCHED ACTIVE NASDAQ SECURITIES WHERE SHARES OUSTANDING DAT A HAS NOT BEEN UPDATED IN OVER SIX MONTHS.
		UPDATED ABOUT 105 SECURITIES WITH SHARES OUTSTANDING DATA FROM SEPTEMBER 2022- AUGUST 2023

JULY 2023 DATA EDITS

PERMNO	COMNAM	DESC
28652	ARMSTRONG PHARMACEUTICALS INC	ADDED ZERO NAME LINES TO REFLECT OFF EXCHANGE ACTIVITY FOR 19841228-19900109
22647	FINANCIAL STRATEGIES ACQ CORP	ADDED ZERO NAME LINES TO REFLECT OFF EXCHANGE ACTIVITY FOR 20230626- 20230710
22216	MINORITY EQUALITY OPP ACQ INC	REMOVED HALT RECORD FROM 20230524-20230630 AND UPDATED ENDDT TO 20230524
5726	MINORITY EQUALITY OPP ACQ INC	REMOVED HALT RECORD FROM 20230524-20230630 AND UPDATED ENDDT TO 20230524
91845	EVOLVE TRANSITION INFRASTR LP	ADDED ZERO NAMELINES TO REFLECT OFF-EXCHANGE TRADING FOR THE PERIOD 20230607-20230730.

PERMNO	COMNAM	DESC
93123	GLOBAL CORD BLOOD CORP	REMOVED HALT RECORD FOR PERIOD 20220926-20230630 AND UPDATED ENDDT TO 20220923
10659	BIO REFERENCE LABORATORIES INC	CHANGED TRADING SYMBOL TO BRLID FROM BRLIE ON 19911007
91952	VANGUARD BOND INDEX FUNDS	ADDED ALL SHARES OUTSTANDING VALUES FROM 20080919-20180725

JUNE 2023 DATA EDITS

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC
76082	COTERRA ENERGY INC	CHANGED DIVAMT TO \$0.15 FROM \$0.20 FOR EX-DATE 20220812 AND ADDED SPECIAL DIVIDEND AMOUNT OF \$0.50 FOR EX-DATE 20220812; CHANGED DIVAMT TO \$0.20 FROM \$0.57 FOR EX-DATE
14047	E T D 0014D414F0 INO	20230315 AND ADDED SPECIAL DIVIDEND AMOUNT OF \$0.37 FOR EX-DATE 20230315
14247	F T D COMPANIES INC	CHANGED SIC CODE TO 5992 FROM 9999 AND ADDED NAICS CODE 453110 FOR ENTIRE HISTORY
14929	FOAMIX PHARMACEUTICALS LTD	CHANGED SIC CODE TO 8731 FROM 9999 AND ADDED NAICS CODE 541715 FOR ENTIRE HISTORY
21968	PEAK FINTECH GROUP INC	CHANGED SIC CODE TO 6799 FROM 9999 AND ADDED NAICS CODE 523910 FOR ENTIRE HISTORY
23057	SWVL HOLDINGS CORP	CHANGES SHARES OUTSTANDING TO 118883 FROM 34500 FOR 20220401-20220629
21755	ARIES I ACQUISITION CORP	CHANGED END DATE TO 20230321 FROM 20230331 AND DELIST CODE TO 450 FROM 100.
12961	PINGTAN MARINE ENTERPRISE LTD	REMOVED PRC, ASKHI, BIDLO, BID, ASK, OPEN & VOL FROM PRICE ARRAY ON 20221221
14590	AGROFRESH SOLUTIONS INC	CHANGED ENDDT TO 20230330 FROM 20230331, CHANGED DELIST CODE TO 233, AND INCLUDED DISTRIBUTION CODE OF 3225 AND DISTRIBUTION AMOUNT OF \$3.
19833	CALCIMEDICA INC	CHANGED ENDDT TO 20230329 FROM 20230331, AND CHANGED DELIST CODE TO 584.

GROUP EDITS

BEGDT	ENDDT	DESC
2006	2023	CHANGED 'ACQUISITION' TO 'ACQ' FOR 5 SECURITIES FOR DATE RANGES COVERING 2006-2023.
1982	1997	REVIEWED SECURITIES WITH THE SAME PERMCO WHERE SIC CODE INCONSISTENCIES EXISTED. CHANGES WERE MADE TO HAVE
		CONSISTENCY ON A COMPANY LEVEL FOR 21 SECURITIES FOR DATE RANGES COVERING 1982-1997.

MARCH 2023 DATA EDITS

PERMNO	COMNAM	DESC	
22508	S D C L EDGE ACQUISITION CORP	CHANGED COMPANY NAME TO S D C L EDGE ACQUISITION CORP FROM S D L C EDGE ACQUISITION CORP FOR ENTIRE HISTORY	
12355	HORIZON TECHNOLOGY FINANCE CORP	CHANGED SIC CODE TO 6726 FROM 9999 FOR ENTIRE HISTORY	
90291	PROSPECT CAPITAL CORP	CHANGED SIC CODE TO 6159 FROM 6211 FOR 20040817-20060629 AND TO 6726 FROM 6211 FOR 20060630-PRESENT	
93357	FIRST EAGLE ALT CAP BDC INC	CHANGED SIC CODE TO 8742 FROM 9999 FOR 20100422-20190828, TO 6726 FROM 9999 FOR 20190829-20200802 AND TO 6282 FROM 9999 FOR 20200803-PRESENT	
20960	PIVOTAL INVESTMENT CORP III	ADDED NEXT DATE OF 20230301 AND NEXT PRICE OF \$9.96 TO DELISTING ARRAY ON 20230209	
76118	NEW IRELAND FUND INC	UPDATED DELIST CODE TO 450 FROM 470, ADDED DISTRIBUTION CODE OF 2255 AND LIQUIDATION AMOUNT OF \$10.43 ON EX-DATE 20230228	
22400	CIAN PLC	CHANGED END DATE TO 20220225 FROM 20230228 AND DELIST CODE TO 584 FROM 100	
92309	MAIN STREET CAPITAL CORP	CHANGED DISTRIBUTION CODE TO 1272 FROM 1222 FOR EX-DATES 1/2/13, 7/18/13, 12/17/13, 6/18/14, 12/16/14, 6/16/15, 12/15/15, 6/16,16, 12/14/16, 6/15/17, 12/18/17, 6/18/18, 12/17/18, 6/17/19, 12/21/21, 3/21/22, 6/21/22, 9/19/22, AND 12/19/22	

PERMNO	COMNAM	DESC
90731	HERCULES CAPITAL INC	SPLIT DISTRIBUTION INTO DIST CODES TO 1272 AND 1232 FOR THE FOLLOWING EX-DATES: 5/10/19, 8/9/19, 11/7/19, 2/28/20, 11/6/20, 3/5/21, 5/11/21, 8/10/21, 11/9/21, 3/8/22, 5/16/22, 8/8/22 AND 11/9/22.

FEBRUARY 2023 DATA EDITS

INDIVIDUAL EDITS

PERMNO	COMNAM	DESC	
91859	GAFISA S A	ADDED NEXT DATE OF 20181218 AND NEXT PRICE OF \$69.75 TO DELIST ARRAY ON 20181214	
91135	BAYTEX ENERGY CORP	ADDED ZERO NAME LINE TO REFLECT OFF-EXCHANGE ACTIVITY FOR 20201204-20230222	
17743	BERKLEY W R CORP	CHANGED DISTRIBUTION CODE TO 1272 FROM 1232 ON EX-DATE 20230112	
77379	FIRST FINANCIAL CORP IN	CHANGED DIVIDEND AMOUNT TO \$0.54 FROM \$0.74 ON EX-DATE 20230105 AND ADDED SPECIAL DIVIDEND OF \$0.20 ON 20230105	
87394	IMMERSION CORP	CHANGED DISTRIBUTION CODE TO 1232 FROM 1212 ON EX-DATE 20230112	
78981	LANDSTAR SYSTEM INC	CHANGED DISTRIBUTION CODE TO 1272 FROM 1232 ON EX-DATE 20230105	
87505	NATIONAL BANKSHARES INC	CHANGED DISTRIBUTION CODE TO 1272 FROM 1242 ON EX-DATE 20230120	
22879	EMBECTA CORP	CHANGED DISTRIBUTION CODE TO 1232 FROM 1212 ON EX-DATE 20220825 AND TO 1232 FROM 1242 ON EX-DATE 20221229	
77860	ABRDN JAPAN EQUITY FUND INC	CHANGED DISTRIBUTION CODE TO 1232 FROM 1262 ON EX-DATES 20220323 & 20220823	
79229	PUTNAM MUNICIPAL OPPTYS TR	CHANGED DISTRIBUTION CODE TO 1223 FROM 1222 FOR ALL DISTRIBUTIONS WITH EX-DATES BETWEEN 20210121 AND 20230123	
23330	R B B FUND INC	CHANGED DISTRIBUTION CODE TO 1222 FROM 1212 ON EX-DATE 20221003, ADDED \$0.073351 DIVIDEND ON 20221101 AND CHANGED DISTRIBUTION CODE TO 1212 FROM 1222 ON EX-DATES 20221116 & 20221216	
23521	R B B FUND INC	CHANGED DISTRIBUTION CODE TO 1222 FROM 1262 ON EX-DATE 20221228	
23339	R B B FUND INC	CHANGED DISTRIBUTION CODE TO 1222 FROM 1262 ON EX-DATE 20221228 AND TO 1222 FROM 1212 ON EX-DATE 20221003	
23338	R B B FUND INC	CHANGED DISTRIBUTION CODE TO 1222 FROM 1212 ON EX-DATES 20221003 & 20221101, TO 1222 FROM 1232 ON EX-DATE 20221201 AND TO 1222 FROM 1262 ON EX-DATE 20221228	
15304	MERCURITY FINTECH HOLDING INC	CHANGED NASDAQ ISSUE IDENTIFIER TO 99995077 FROM 75825 FOR ENTIRE HISTORY	

GROUP EDITS

BEGDT	ENDDT	DESC
1988	2022	UPDATED/FORMATTED APPROXIMATELY 45 SPAC NAMES FROM 1988-2022.

JANUARY 2023 DATA EDITS

PERMNO	COMNAM	DESC
91934	VANECK E T F TRUST	REMOVED HALT RECORD FROM 20220307-20221230 AND ADDED DELIST CODE 470 ON 20220304
12665	VANECK E T F TRUST	REMOVED HALT RECORD FROM 20220307-20221230 AND ADDED DELIST CODE 470 ON 20220304
23215	LISTED FUNDS TRUST	CHANGED PERMCO TO 56315 FROM 59331 FOR ENTIRE HISTORY
23292	LISTED FUNDS TRUST	CHANGED PERMCO TO 56315 FROM 59331 FOR ENTIRE HISTORY
23589	LISTED FUNDS TRUST	CHANGED PERMCO TO 56315 FROM 59331 FOR ENTIRE HISTORY
23590	LISTED FUNDS TRUST	CHANGED PERMCO TO 56315 FROM 59331 FOR ENTIRE HISTORY
16780	CARLYLE SECURED LENDING INC	CHANGED SHARE CODE TO 14 FROM 11 FOR ENTIRE HISTORY

PERMNO	COMNAM	DESC
18222	BAIN CAPITAL SPECIALTY FIN INC	CHANGED SHARE CODE TO 14 FROM 11 FOR ENTIRE HISTORY
18798	EAGLE POINT INCOME CO INC	CHANGED SHARE CODE TO 14 FROM 11 FOR ENTIRE HISTORY
21227	NEUBERGER BERMAN NEXT GEN CON FD	CHANGED SHARE CODE TO 14 FROM 11 FOR ENTIRE HISTORY

GROUP EDITS

BEGDT	ENDDT	DESC
1980	2022	REVIEWED ALL SECURITIES WITH THE SAME PERMCO WHERE COMPANY NAME INCONSISTENCIES EXISTED. CHANGES WERE
		MADE TO HAVE CONSISTENCY ON A COMPANY LEVEL FOR OVER 84 SECURITIES FOR DATE RANGES COVERING 1980-2022

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.org, or call 312-263-6400, Option 2.

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: https://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

EZIP 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
 - o 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.