CRSP/COMPUSTAT RELEASE NOTES

NOVEMBER 2019 MONTHLY UPDATE

ABOUT THE NOVEMBER 2019 CRSP/COMPUSTAT MERGED DATABASE

The cut date for these release notes is 20191111. This shipment includes the following version of the CRSP/ Compustat Merged Database:

CMZ20191108

 the CCM format database using Compustat's Xpressfeed delivery.

DATABASE CHARACTERISTICS

The following table summarizes general characteristics of the CCM database.

| ATTRIBUTE | CCM FORMAT DATABASE |
|----------------------|---|
| Source | Compustat Xpressfeed |
| Volume Label | CMZyyyymm |
| Size | 11.36 GB |
| Delivery | MOVEit Cloud |
| CRSPAccess version | 3.22 and higher — |
| | ts_print |
| | ccm_print |
| CRSPSift Version | ${\it Yes-all currently supported versions}.$ |
| (Windows only) | |
| SASEXCCM Engine | Version 9.3 (Early Adopters) |
| С | Yes — CA3.22 and higher |
| Number of Data Items | Over 4,000 quarterly & annual data items |

PROGRAMMERS

C-programming is supported with all CRSPAccess versions. C sample programs are included for use with the Xpressfeed data. A SAS Engine that supports the CCM data was released to early adopters in SAS Version 9.3. Since their first maintenance release of SAS version 9.40, the SASEXCCM engine is in full production. The most current ETS release in the field, ETS 13.1 is needed to use the engine. Note that the original SASECRSP engine is still in the field but does not have support for the CCM database.

PARAMETERS

| CMZ MONTHLY | |
|--|----------|
| Total Compustat Records | 49,901 |
| Total GVKEY Companies | 47,703 |
| Total GVKEYX Indexes | 2,198 |
| Total GVKEY/IID Securities | 61,533 |
| Total CRSP Securities Linked | 29,883 |
| Total GVKEYs in Link | 47,653 |
| Total Link Records | 105,171 |
| Total Link Records with a Link to CRSP | 34,677 |
| Database Size | 11.36 GB |

CALENDARS

The CCM database utilizes the CRSP stock calendars to align properly with CRSP data. Data in the CRSP daily Stock (and Indexes) file use daily and annual calendars. Data in the monthly files use monthly, quarterly and annual calendars.

| CALENDAR | DATE RANGE | DATE INDEX RANGE |
|------------------------------|-------------------|---------------------|
| Daily trading calendar | 19251231-20191108 | 1-24758 |
| Monthly trading calendar | 19251231-20231231 | 1-1177 |
| Annual trading calendar | 19251231-20201231 | 1-96 |
| Quarterly trading calendar | 19251231-20201231 | 1-381 |
| Semi-Annual trading calendar | 19251231-20201231 | 1-191 |
| Weekly trading calendar | 19260102-20191108 | 1-4897 |

OCTOBER 2019 NEW DATA ITEMS

Listed in the table below are new data items and new keysets for existing data items that have been added this month.

| ITEM MNEMONIC ITEM NAME | | KEYSET | KEYSET_TAG | DESCRIPTION |
|---------------------------|---|--------|------------|--|
| CSHOPQ_FN | Total Shares Repurchased - Quarter Footnote | 2100 | BSTD | Bank Format, Consolidated Information, Standardized Presentation |

NOVEMBER 2019 LINK EDITS

GVKEY 11161 VICON INDUSTRIES INC

OLD:

| LINKDT | LINKENDDT | LPERMN0 | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19731001 | 19760624 | 0 | 0 | 00X | NU | С |
| 19760625 | 99999999 | 61700 | 4797 | 01 | LU | Р |

NEW:

| LINKDT | LINKENDDT | LPERMN0 | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19731001 | 19760624 | 0 | 0 | 00X | NR | С |
| 19760625 | 20180711 | 61700 | 4797 | 01 | LC | Р |
| 20180712 | 99999999 | 0 | 0 | 01 | NR | P |

GVKEY 28119 BROOKFIELD PROPERTY REIT

OLD:

| LINKDT | LINKENDDT | LPERMNO | LPERMCO | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19920101 | 19930407 | 0 | 0 | 00X | NR | С |
| 19930408 | 20090415 | 79129 | 29807 | 01 | LC | Р |
| 20090416 | 20100304 | 0 | 0 | 01 | NR | Р |
| 20100305 | 20180827 | 79129 | 29807 | 01 | LC | Р |

NEW:

| LINKDT | LINKENDDT | LPERMNO | LPERMCO | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19920101 | 19930407 | 0 | 0 | 00X | NR | С |
| 19930408 | 20090415 | 79129 | 29807 | 01 | LC | Р |
| 20090416 | 20100304 | 0 | 0 | 01 | NR | Р |
| 20100305 | 99999999 | 79129 | 29807 | 01 | LC | Р |
| 20180831 | 99999999 | 0 | 0 | 05 | NU | J |

GVKEY 29921 REVOLUTION LIGHTING TECHNLGS

OLD:

| LINKDT | LINKENDDT | LPERMN0 | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19930101 | 19940321 | 0 | 0 | 00X | NR | С |
| 19940322 | 99999999 | 80368 | 12935 | 01 | LC | Р |

NEW:

| LINKDT | LINKENDDT | LPERMN0 | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19930101 | 19940321 | 0 | 0 | 00X | NR | С |
| 19940322 | 20191011 | 80368 | 12935 | 01 | LC | Р |
| 20191012 | 99999999 | 0 | 0 | 01 | NR | P |

GVKEY 20441 GWG HOLDINGS INC

OLD:

| LINKDT | LINKENDDT | LPERMN0 | LPERMCO | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 20120101 | 20140924 | 0 | 0 | 00X | NR | С |
| 20140925 | 20181230 | 14930 | 55026 | 01 | LC | Р |

NEW:

| LINKDT | LINKENDDT | LPERMN0 | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 20120101 | 20140924 | 0 | 0 | 00X | NR | С |
| 20140925 | 99999999 | 14930 | 55026 | 01 | LC | Р |

GVKEY 10845 UNILEVER PLC

OLD:

| LINKDT | LINKENDDT | LPERMN0 | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19620101 | 19620130 | 28302 | 21802 | 00X | LU | С |
| 19620131 | 99999999 | 28302 | 21802 | 90 | LU | Р |

NEW:

| LINKDT | LINKENDDT | LPERMNO | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19620101 | 19620130 | 28302 | 21802 | 00X | LC | С |
| 19620131 | 19931231 | 28302 | 21802 | 90 | LC | P |
| 19940101 | 99999999 | 0 | 0 | 99X | NR | C |

GVKEY 13498 CARNIVAL CORPORATION & PLC

OLD:

| LINKDT | LINKENDDT | LPERMN0 | LPERMCO | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19851001 | 19870723 | 0 | 0 | 00X | NR | С |
| 19870724 | 99999999 | 75154 | 20394 | 01 | LC | Р |

NEW:

| LINKDT | LINKENDDT | LPERMN0 | LPERMCO | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19851001 | 19870723 | 0 | 0 | 00X | NR | С |
| 19870724 | 99999999 | 75154 | 20394 | 01 | LC | Р |
| 20031128 | 99999999 | 0 | 0 | 04 | NR | N |
| 20030421 | 99999999 | 89728 | 56248 | 90 | LC | J |

GVKEY 140821 CARNIVAL CORP/PLC (GBR)

OLD:

| LINKDT | LINKENDDT | LPERMN0 | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19980101 | 20001022 | 0 | 0 | 00X | NR | С |
| 20001023 | 20030417 | 88671 | 40151 | 90 | LC | Р |
| 20030421 | 99999999 | 89728 | 56248 | 90 | LC | Р |

NEW:

| LINKDT | LINKENDDT | LPERMNO | LPERMCO | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19980101 | 20001022 | 0 | 0 | 00X | NR | С |
| 20001023 | 20021231 | 88671 | 40151 | 90 | LC | Р |

GVKEY 10846 THE UNILEVER GROUP

OLD:

| LINKDT | LINKENDDT | LPERMN0 | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19500101 | 19620130 | 0 | 0 | 00X | NR | С |
| 19620131 | 99999999 | 28310 | 21803 | 90 | LC | Р |

NEW:

| LINKDT | LINKENDDT | LPERMN0 | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 19500101 | 19611228 | 0 | 0 | 00X | NR | С |
| 19611229 | 19620130 | 28310 | 21803 | 00X | LC | С |
| 19620131 | 99999999 | 28310 | 21803 | 90 | LC | P |
| 19940101 | 99999999 | 28302 | 21802 | 91 | LC | J |

GVKEY 32270 UNITED STATES 3X SRT OIL ETF

OLD:

| LINKDT | LINKENDDT | LPERMN0 | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 20170101 | 20170731 | 0 | 0 | 00X | NR | С |
| 20170801 | 20190930 | 16848 | 56022 | 01 | LS | P |

NEW:

| LINKDT | LINKENDDT | LPERMNO | LPERMCO | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 20170101 | 20170731 | 0 | 0 | 00X | NR | С |
| 20170801 | 99999999 | 16848 | 56022 | 01 | LS | Р |

GVKEY 253355 AVITA MEDICAL LTD

OLD:

| LINKDT | LINKENDDT | LPERMN0 | LPERMC0 | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 20030930 | 20120229 | 0 | 0 | 01 | NR | С |
| 20120301 | 20120329 | 0 | 0 | 01 | NR | C |
| 20120330 | 99999999 | 0 | 0 | 01 | NR | N |
| 20120330 | 99999999 | 0 | 0 | 90 | NR | Р |

NEW:

| LINKDT | LINKENDDT | LPERMNO | LPERMCO | LIID | LINKTYPE | LINKPRIM |
|----------|-----------|---------|---------|------|----------|----------|
| 20030930 | 20120229 | 0 | 0 | 01 | NR | С |
| 20120301 | 20120329 | 0 | 0 | 01 | NR | С |
| 20120330 | 99999999 | 0 | 0 | 01 | NR | N |
| 20120330 | 20190930 | 0 | 0 | 90 | NR | P |
| 20191001 | 99999999 | 19022 | 56920 | 90 | LC | P |

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_CCM=<full path name>/<compustat directory> (example: CRSP_CCM=~/crspdata/cmz201309)
- 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 (example: CRSP CCM=~/crspdata/cmz201309)
 - 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. After making any changes, be sure to log off and back into Windows for the settings to be saved.