

# CRSP/COMPUSTAT RELEASE NOTES

JULY 2019 ANNUAL UPDATE

## ABOUT THE JULY 2019 CRSP/COMPUSTAT MERGED DATABASE

The cut date for these release notes is 20190713. This shipment includes the following version of the CRSP/Compustat Merged Database:

- CMZ20190712– 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
<i>Source</i>	<i>Compustat Xpressfeed</i>
Volume Label	CMZyyyyymm
Size	11.22 GB
Delivery	<a href="#">MOVEit Cloud</a>
CRSPAccess version	3.22 and higher – ts_print ccm_print
CRSPSift Version (Windows only)	Yes – all currently supported versions.
SASEXCCM Engine	Version 9.3 (Early Adopters)
C	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 ANNUAL	
Total Compustat Records	49,575
Total GVKEY Companies	47,377
Total GVKEYX Indexes	2,198
Total GVKEY/IID Securities	61,022
Total CRSP Securities Linked	29,704
Total GVKEYs in Link	47,327
Total Link Records	104,566
Total Link Records with a Link to CRSP	34,471
Database Size	11.22 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	19251231-20190712	1-24674
Monthly trading calendar	19251231-20231231	1-1177
Annual trading calendar	19251231-20201231	1-96
Quarterly trading calendar	19251231-20191231	1-381
Semi-Annual trading calendar	19251231-20191231	1-191
Weekly trading calendar	19260102-20190712	1-4880

## REVIEW OF CHANGES IN APRIL

CRSP is preparing to provide additional access to our subscribers for the CRSP/Compustat Merged Database (CCM) in SAS and ASCII file formats. These new formats will be available for general release in the next few months.

Effective with the April release of the CRSP/Compustat Database, the development of these new formats has minimal impact on the current access to the existing CCM database. There are no changes at all to access through the CCM database through in tsQuery and ts\_print.

Changes that are reflected in the current CCMQuery module of Sift are outlined here:

Tree View and table organization:

- Two large groups, Annual Balance Sheet and Annual Income Statement, remain in the Sift tree view to allow for backward compatibility. In addition to these two original groups, each has been split into two more manageable groups:
  - Balance Sheet Annual is renamed “BalSheet All Annual”, and new groups “BalSheet Industrial Ann” and “BalSheet Financial Ann” have been created.
  - Income Statement Annual is renamed “IncStmnt All Annual”, and new groups “IncStmnt Industrial Ann” and “IncStmnt Financial Ann” have been created.
- New groups: The items in these new groups were previously part of the various financial statement groups and were accessed via GVKEYX:
  - Annual Data – group Index Annual is new. Annual time series items available for indexes populate this group and are now prefixed with IDX\_\*
  - Quarterly Data – group Index Quarterly is new. Quarterly time series items available for indexes populate this group and are now prefixed with IDX\_\*
- Item Name Changes:
  - Three items in the Security Data -> Time Series group have been renamed to include a prefix “sec\_”
    - sec\_curcdq – ISO Currency Code
    - sec\_nisa – Net Income (Loss)
    - sec\_nisa\_dc – Net Income (Loss) Data Code
  - Index Annual and Index Quarterly groups contain items all include a prefix “idx\_”. See New Groups above.

Do not hesitate to contact support@crsp.chicagobooth.edu or call 312-263-6400 Option 2 for support and assistance.

## JULY 2019 LINK EDITS

### GVKEY 143770 NEOVASC INC

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120531	20140520	0	0	01	NR	P
20140521	99999999	14660	54865	01	LC	P
20010531	20120530	0	0	01C	NR	C
20120531	20140520	0	0	01C	NR	N
20140521	99999999	14660	54865	01C	LX	N

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120531	20140520	0	0	01	NR	J
20140521	99999999	14660	54865	01	LC	J
20010531	20140520	0	0	01C	NR	P
20140521	99999999	14660	54865	01C	LX	P

## JUNE 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
RECUBQ_FN	Unbilled Receivables - Quarterly Footnote	1	STD	Industrial Format, Consolidated Information, Standardized Presentation

## JUNE 2019 LINK EDITS

### **GVKEY 5054 GENERAL FINANCE CO**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19640101	19670130	0	0	00X	NR	C
19670131	19671229	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19640101	19640330	24504	23274	00X	LC	C
19640331	19680628	24504	23274	01	LC	P

### **GVKEY 9920 SPARTANS INDUSTRIES INC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19490801	19620130	27553	56025	00X	LC	C
19620131	19620831	27553	56025	01	LC	P
19620901	19710226	27553	56025	01	LC	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19490801	19570217	0	0	00X	NR	C
19570218	19620130	26067	23382	00X	LC	C
19620131	19620927	27553	56025	01	LC	P
19620928	19710226	26067	23382	01	LC	P

### **GVKEY 108391 BELLATRIX EXPLORATION LTD**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20111031	20120923	0	0	01	NR	P
20120924	99999999	13569	54175	01	LC	P
19960731	20111030	0	0	01C	NR	C
20111031	20120923	0	0	01C	NR	N
20120924	99999999	13569	54175	01C	LX	N

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20111031	20120923	0	0	01	NR	P
20120924	20190211	13569	54175	01	LC	P
20190212	99999999	0	0	01	NR	P
19960731	20111030	0	0	01C	NR	C
20111031	20120923	0	0	01C	NR	N
20120924	20190211	13569	54175	01C	LX	N
20190212	99999999	0	0	01C	NR	N

**GVKEY 180635 CLOUD PEAK ENERGY INC****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20040101	20091119	0	0	00X	NR	C
20091120	99999999	93095	53263	01	LC	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20040101	20091119	0	0	00X	NR	C
20091120	20190329	93095	53263	01	LC	P
20190330	99999999	0	0	01	NR	P

**GVKEY 32607 ARSANIS INC****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20150101	20171115	0	0	00X	NR	C
20171116	99999999	17105	56149	01	LC	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20150101	20171115	0	0	00X	NR	C
20171116	20190313	17105	56149	01	LC	P

**MAY 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
HFSUP_FN	Supplies as % of Rev Footnote	1	STD	Industrial Format, Consolidated Information, Standardized Presentation
PPENTQ_FN1	Property Plant and Equipment - Total (Net) Footnote	7	SFAS	Industrial Format, Pre-FASB Reporting, Standardized Presentation

## MAY 2019 LINK EDITS

### GVKEY 18109 JONES ENERGY INC

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20100101	20130723	0	0	00X	NR	C
20130724	99999999	14026	54462	01	LC	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20100101	20130723	0	0	00X	NR	C
20130724	20181126	14026	54462	01	LC	P
20181127	99999999	0	0	01	NR	P

### GVKEY 162941 TRIANGLE PETROLEUM CORP

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20050331	20101104	0	0	01	NR	P
20101105	99999999	12389	53566	01	LC	P
20081231	20101104	0	0	01C	NR	J
20101105	99999999	12389	53566	01C	LX	J

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20050331	20101104	0	0	01	NR	P
20101105	20170324	12389	53566	01	LC	P
20170325	99999999	0	0	01	NR	P
20081231	20101104	0	0	01C	NR	J
20101105	20110430	12389	53566	01C	LX	J

### GVKEY 31692 MB FINANCIAL INC/MD

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19940401	19950406	0	0	00X	NR	C
19950407	99999999	81541	13660	01	LC	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19940401	19950406	0	0	00X	NR	C
19950407	20190321	81541	13660	01	LC	P
20190322	20190329	0	0	01	NR	P
20180531	20190329	0	0	04	NR	J

## APRIL 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
HFOPS_FN	Outpatient services as % of Rev Footnote	1	STD	Industrial Format, Consolidated Information, Standardized Presentation
HFOPSQ_FN	Outpatient services as % of Rev Footnote	1	STD	Industrial Format, Consolidated Information, Standardized Presentation
HFOPSY_FN	Outpatient services as % of Rev Footnote	1	STD	Industrial Format, Consolidated Information, Standardized Presentation
INVOFS_DC	Inventory/Stock - Other Data Code	4	FS	Financial Services Format, Consolidated Information, Standardized Presentation
RVUPI_FN	Reserves for Unearned Premiums (Insurance) Footnote	4	FS	Financial Services Format, Consolidated Information, Standardized Presentation

## APRIL 2019 LINK EDITS

### GVKEY 126296 EXPEDIA GROUP INC

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19970701	19991109	0	0	00X	NR	C
20050729	99999999	90808	47013	02	LC	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19970701	19991109	0	0	00X	NR	C
19991110	20030808	87388	17323	01	LC	P
20050729	99999999	90808	47013	02	LC	P

### GVKEY 16476 LEVI STRAUSS & CO

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19701001	19710330	0	0	00X	NU	C
19710331	19710523	0	0	01	NU	P
19710524	19850830	52564	25260	01	LU	P
19850831	19850831	0	0	01	NU	P
19860401	99999999	0	0	99X	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19701001	19710330	0	0	00X	NR	C
19710331	19710523	0	0	01	NR	P
19710524	19850830	52564	25260	01	LC	P
20190321	99999999	18424	25260	03	LC	P

**GVKEY 180937 TARONIS TECHNOLOGIES**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20070101	20081030	0	0	00X	NR	C
20081031	20120814	0	0	01	NR	P
20120815	20190228	13556	54166	01	LC	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20070101	20081030	0	0	00X	NR	C
20081031	20120814	0	0	01	NR	P
20120815	99999999	13556	54166	01	LC	P

**MARCH 2019 LINK EDITS****GVKEY 142606 PLATINUM GROUP METALS LTD**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20040528	20070627	0	0	01	NR	P
20070628	20190111	92131	52405	01	LC	P
20010330	20040527	0	0	01C	NR	C
20040528	20070627	0	0	01C	NR	N
20070628	99999999	92131	52405	01C	LX	N

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20040528	20070627	0	0	01	NR	P
20070628	99999999	92131	52405	01	LC	P
20010330	20040527	0	0	01C	NR	C
20040528	20070627	0	0	01C	NR	N
20070628	99999999	92131	52405	01C	LX	N

**GVKEY 34078 IMMUNE BIO INC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20190204	99999999	18406	56651	01	LC	P

**GVKEY 34382 AVALON GLOBOCARE CORP**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161130	20181104	0	0	01	NR	P
20181105	99999999	18253	56585	01	LC	P

**GVKEY 19350 ECO-STIM ENERGY SOLUTIONS****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120101	20131230	0	0	00X	NR	C
20131231	20150409	0	0	01	NR	P
20150410	99999999	15290	55228	01	LC	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120101	20131230	0	0	00X	NR	C
20131231	20150409	0	0	01	NR	P
20150410	20181231	15290	55228	01	LC	P
20190101	99999999	0	0	01	NR	P

**FEBRUARY 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	1	STD	Industrial Format, Consolidated Information, Standardized Presentation

**FEBRUARY 2019 LINK EDITS****GVKEY 34240 ALBERTON ACQUISITION****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181031	20181031	0	0	01	NR	P
20181101	99999999	0	0	01	NR	C

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181031	20181031	0	0	01	NR	P
20181101	20181120	0	0	01	NR	C
20181121	99999999	0	0	01	NR	N
20181121	99999999	18249	56554	02	LC	P

**GVKEY 34003 MDJM LTD****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20190108	99999999	18364	56627	01	LC	P



**GVKEY 34413 WEIDAI LTD -ADR**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181130	99999999	0	0	90	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181115	99999999	18326	56582	90	LC	P

**GVKEY 3918 DRS TECHNOLOGIES INC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19790401	19810122	0	0	00X	NR	C
19820129	19960331	0	0	01	NR	P
19960401	19960430	0	0	01	NR	J
19830729	19960329	0	0	02	NR	J
19810123	19820128	65226	1387	03	LC	C
19820129	19821231	65226	1387	03	LC	N
19830101	19960331	65226	1387	03	LN	N
19960401	19980331	65226	1387	03	LN	P
19980401	20081021	65226	1387	03	LC	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19790401	19810122	0	0	00X	NR	C
19820129	19960331	65226	1387	01	LC	P
19960401	19960401	65226	1387	01	LC	J
19830722	19960329	65234	1387	02	LC	J
19810123	19820128	65226	1387	03	LC	C
19820129	19821231	65226	1387	03	LD	N
19830101	19960331	0	0	03	NR	N
19960401	19960401	0	0	03	NR	P
19960402	20081021	65226	1387	03	LC	P

**JANUARY 2019 LINK EDITS**

**GVKEY 109186 SONIC FOUNDRY INC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19961001	19980421	0	0	00X	NU	C
19980422	99999999	85953	34728	01	LU	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19980422	20181231	85953	34728	01	LC	P

**GVKEY 215422 MOWI ASA**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20081031	20140127	0	0	90	NR	P
20140128	99999999	14394	54699	90	LC	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20081031	20140127	0	0	90	NR	P
20140128	20170309	14394	54699	90	LC	P
20170310	99999999	0	0	90	NR	P

**DECEMBER 2018 LINK EDITS****GVKEY 63332 DYNARESOURCE INC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19960731	99999999	0	0	01	NP	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19960731	99999999	0	0	01	NR	C

**GVKEY 146432 SCOR HOLDING SWITZERLAND AG**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20000101	20011210	0	0	00X	NP	C
20011211	20080104	89249	42514	90	LC	P
20080105	99999999	0	0	90	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20000101	20011210	0	0	00X	NR	C
20011211	20080104	89249	42514	90	LC	P
20080105	99999999	0	0	90	NR	P

**GVKEY 149092 IMPAC MEDICAL SYSTEMS INC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19991001	20021119	0	0	00X	NP	C
20021120	20050404	89569	43685	01	LC	P
20050405	20050429	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19991001	20021119	0	0	00X	NR	C
20021120	20050404	89569	43685	01	LC	P
20050405	20050429	0	0	01	NR	P

**GVKEY 179781 IPATH GEMS INDEX ETN**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20080430	99999999	0	0	01	NP	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20080430	99999999	0	0	01	NR	C

**GVKEY 184259 S&W SEED CO**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20070701	20100527	0	0	00X	NP	C
20100528	20100531	0	0	01	NR	P
20100601	20100613	0	0	01	NR	C
20100614	20100630	0	0	01	NR	N
20100614	99999999	93434	53427	02	LC	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20070701	20100527	0	0	00X	NR	C
20100528	20100531	0	0	01	NR	P
20100601	20100613	0	0	01	NR	C
20100614	20100630	0	0	01	NR	N
20100614	99999999	93434	53427	02	LC	P

**GVKEY 23184 ISHARES TR EDGE US FIXD INCM**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20150227	20180204	17470	54364	01	LS	P
20180205	99999999	17674	56075	01	LS	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20150227	20180204	17470	54364	01	LS	P
20180205	99999999	17674	37493	01	LS	P

**GVKEY 32429 ISHRS IBD DC 2027 TM CP ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20170701	20170913	0	0	00X	NR	C
20170914	99999999	16954	56075	01	LS	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20170701	20170913	0	0	00X	NR	C
20170914	99999999	16954	37493	01	LS	P

**GVKEY 32653 ISHRS US DIV AND BUYBACK ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20171109	99999999	17518	56075	01	LS	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20171109	99999999	17518	37493	01	LS	P

**GVKEY 33252 ISHRS IBND DC 2024 TR MN BND**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180322	99999999	17513	56075	01	LS	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180322	99999999	17513	37493	01	LS	P

**GVKEY 33306 ISHRS U.S. INFRSTRCTR ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180405	99999999	17514	56075	01	LS	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180405	99999999	17514	37493	01	LS	P

**GVKEY 33325 ISHARES MSCI USA SMLL CP ESG**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180412	99999999	17512	56075	01	LS	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180412	99999999	17512	37493	01	LS	P

**GVKEY 33739 ISHARE RBTC ARTFCL INTLG-ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180628	99999999	17931	56075	01	LS	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180628	99999999	17931	37493	01	LS	P

**GVKEY 34172 ISHARES IBDS DEC 28 TRM ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180920	99999999	18080	56075	01	LS	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180920	99999999	18080	37493	01	LS	P

**GVKEY 34315 ISHARES ESG US AGG BD ETF****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181023	99999999	18174	56075	01	LS	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181023	99999999	18174	37493	01	LS	P

**GVKEY 15111 RPT REALTY****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19880101	19881227	0	0	00X	NU	C
19881228	99999999	75416	21995	01	LU	P
20021129	20051230	0	0	02	NU	J
20040630	20051230	0	0	03	NU	J

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19880101	19881227	0	0	00X	NU	C
19881228	20181130	75416	21995	01	LC	P
20021129	20051230	0	0	02	NU	J
20040630	20051230	0	0	03	NU	J

**GVKEY 19417 ADVANZ PHARMA CORP****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20130101	20131230	0	0	00X	NR	C
20131231	20150628	0	0	01	NR	P
20150629	99999999	15418	55304	01	LC	P
20131231	99999999	15418	55304	01C	LX	N

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20130101	20131230	0	0	00X	NR	C
20131231	20150628	0	0	01	NR	P
20150629	20180608	15418	55304	01	LC	P
20180609	99999999	0	0	01	NR	P
20131231	20181130	15418	55304	01C	LX	N

## NOVEMBER 2018 LINK EDITS

### GVKEY 034224 INNOVATOR PWR BUFF OCT ETF

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181001	99999999	18166	55239	01	LS	P

### GVKEY 034226 INNOVATOR ULTRA BUFF OCT ETF

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181001	99999999	18167	55239	01	LS	P

### GVKEY 34245 COLUMBIA MS MUN INCM ETF

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181010	99999999	18153	55597	01	LS	P

### GVKEY 34229 LEADERSHRS ALPHAFAC EQ ETF

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181002	99999999	18186	56323	01	LS	P

### GVKEY 034236 ANAPLAN INC

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181012	99999999	18141	56538	01	LS	P

**GVKEY 034248 INVESCO BS 2021 USD EMD ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181004	99999999	18173	56349	01	LS	P

**GVKEY 034249 INVESCO BS 2024 USD EMD ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181004	99999999	18168	56349	01	LS	P

**GVKEY 034250 INVESCO BS 2023 USD EMD ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181004	99999999	18169	56349	01	LS	P

**GVKEY 034251 INVESCO BS 2022 USD EMD ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181004	99999999	18170	56349	01	LS	P

**GVKEY 034252 GOLDMAN S INFL PROT BD ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181004	99999999	18161	55415	01	LS	P

**GVKEY 034253 WESTERN ASSET TR ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181004	99999999	18216	55505	01	LS	P

**GVKEY 034260 OFS CREDIT COMPANY INC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181005	99999999	18207	56566	01	LC	P

**GVKEY 34261 FIRST TRUST IPOX EEO ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181005	99999999	18196	52262	01	LS	P

**GVKEY 034271 FRANKLIN FTSE SA ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181011	99999999	18159	55598	01	LS	P

**GVKEY 034272 FRANKLIN FTSE SAUDI ARAB ET**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181011	99999999	18160	55598	01	LS	P

**GVKEY 034273 FRANKLIN FTSE LATN AMRCA ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20181011	99999999	18158	55598	01	LS	P



**GVKEY 25124 LINDE PLC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19910101	19920629	0	0	00X	NU	C
19920630	19920705	0	0	01	NU	P
19920706	99999999	77768	29540	01	LU	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19910101	19920629	0	0	00X	NR	C
19920630	19920705	0	0	01	NR	P
19920706	20181030	77768	29540	01	LC	P
20181031	99999999	18143	56540	01	LC	P

**GVKEY 025874 PETROQUEST ENERGY INC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19920101	19920130	0	0	00X	NR	C
19921026	99999999	78186	11777	01	LC	P
19920131	19921025	0	0	01C	NR	C
19921026	20010131	78186	11777	01C	LX	N

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19920101	19920130	0	0	00X	NR	C
19921026	19990505	78186	11777	01	LC	P
19990506	19991222	0	0	01	NR	P
19991223	20180504	78186	11777	01	LC	P
20180505	99999999	0	0	01	NR	P
19920131	19921025	0	0	01C	NR	C
19921026	20010131	78186	11777	01C	LX	N

**OCTOBER 2018 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
TXPDY_DC	Income Taxes Paid Data Code	2100	BSTD	Bank Format, Consolidated Information, Standardized Presentation

**OCTOBER 2018 LINK EDITS****GVKEY 17754 AUDIOEYE INC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20130430	99999999	0	0	01	NR	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20130430	20180903	0	0	01	NR	P
20180904	99999999	18098	56512	01	LC	P

**GVKEY 162870 BRP INC****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20100201	20130530	0	0	00X	NR	C
20130731	99999999	0	0	01	NR	N
20130531	99999999	0	0	01C	NR	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20100201	20130530	0	0	00X	NR	C
20130731	20180913	0	0	01	NR	N
20180914	99999999	18109	56519	01	LC	N
20130531	99999999	18109	56519	01C	LX	P

**GVKEY 15248 PRIMARK CORP****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19880101	20000913	64071	21445	01	LC	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19880101	19890227	64071	21445	00X	LC	C
19890228	20000913	64071	21445	01	LC	P

**GVKEY 20791 BLACKSTONE MORTGAGE TR INC****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19890101	19890730	0	0	00X	NR	C
19890731	99999999	62156	20378	01	LC	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19890101	19900329	0	0	00X	NR	C
19900330	99999999	62156	20378	01	LC	P

**GVKEY 29483 PACIFIC CREST CAPITAL-OLD****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19890101	19931222	0	0	00X	NR	C
19931223	20000229	80010	12727	01	LC	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19890101	19931222	0	0	00X	NR	C
19931223	19991029	80010	12727	01	LC	P
19991030	20000229	0	0	99X	NR	C

**GVKEY 34089 XTRACKERS MSCI LDRS EQ ETF****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180906	99999999	18072	53807	01	LS	P

**GVKEY 34090 DORSEYWRIGHT MNTM & VAL ETF****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180906	99999999	18110	54165	01	LS	P

**GVKEY 34091 DORSEYWRIGHT MNTM & LOW ETF****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180906	99999999	18111	54165	01	LS	P

**GVKEY 34092 VANGUARD TOTAL WORLD BD ETF****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
0	0	0	0	01	NU	C

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180906	99999999	18101	53292	01	LS	P

**GVKEY 3937 PYXUS INTERNATIONAL INC****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19710129	19721213	0	0	01	NU	P
19721214	99999999	29867	1263	01	LU	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19710129	19721213	0	0	01	NR	P
19721214	99999999	29867	1263	01	LC	P

**GVKEY 007993 NORTHWEST NATURAL HLDNG CO****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19580101	19620130	0	0	00X	NU	C
19620131	19721213	0	0	01	NU	P
19721214	99999999	58334	3306	01	LU	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19580101	19620130	0	0	00X	NR	C
19620131	19721213	0	0	01	NR	P
19721214	20180930	58334	3306	01	LC	P

**GVKEY 029165 NOVELSTEM INTERNATIONAL CORP****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19930101	19931111	0	0	00X	NU	C
19931112	99999999	79802	12567	01	LU	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19930101	19931111	0	0	00X	NR	C
19931112	20140214	79802	12567	01	LC	P
20140215	99999999	0	0	01	NR	P

**SEPTEMBER 2018 LINK EDITS****GVKEY 165556 CHAPARRAL ENERGY INC****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20020101	99999999	0	0	00X	NR	C

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20020101	20170530	0	0	00X	NR	C
20170531	20180723	0	0	10	NR	P
20180724	99999999	17981	56468	10	LC	P
20180430	99999999	0	0	11	NR	J

**GVKEY 13312 BHP BILLITON GROUP**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19820129	99999999	75039	653	90	LC	"P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19820129	99999999	75039	653	90	LC	P
20010731	20030624	0	0	91	NR	J
20030625	99999999	89760	44121	91	LC	J

**GVKEY 13431 BERRY PETROLEUM**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19850101	19870630	0	0	00X	NU	C
19870701	20131231	11478	9309	1	LU	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19850101	19870630	0	0	00X	NU	C
19870701	20131216	11478	9309	1	LC	P
20170630	20180730	0	0	3	NR	C
20180731	99999999	17956	56450	3	LC	C

**GVKEY 23002 COMSTOCK RESOURCES INC -OLD**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19870101	19870129	0	0	00X	NR	C
19870130	19870827	0	0	2	NR	P
19870828	99999999	11644	9465	2	LC	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19870101	19870129	0	0	00X	NR	C
19870130	19870827	0	0	2	NR	P
19870828	20180813	11644	9465	2	LC	P

**AUGUST 2018 LINK EDITS****GVKEY 11670 SPECTRUM BRND HLDG INC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19591001	19660130	0	0	00X	NR	C
19660131	99999999	38295	21948	01	LC	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19591001	19620701	0	0	00X	NR	C
19620702	19660130	38295	21948	00X	LC	C
19660131	99999999	38295	21948	01	LC	P

**GVKEY 014757 HIGH INCOME SECURITIES FUND****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19860901	19870708	0	0	00X	NU	C
19870709	99999999	75183	21463	01	LU	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19860901	19870708	0	0	00X	NR	C
19870709	99999999	75183	21463	01	LC	P

**GVKEY 033477 IPL PLASTICS INC****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180629	99999999	0	0	01C	NU	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20180629	99999999	0	0	01C	NR	P

**GVKEY 123415 CORUS ENTERTAINMENT INC****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19970901	19990830	0	0	00X	NR	C
20000510	20100804	88211	37491	01	LC	P
20100805	99999999	0	0	01	NR	P
19990831	20000509	0	0	01C	NR	C
20000510	20100804	88211	37491	01C	LX	N
20100805	99999999	0	0	01C	NR	N
20180430	99999999	0	0	2	NU	J

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19970901	19990830	0	0	00X	NR	C
20000510	20100804	88211	37491	01	LC	P
20100805	99999999	0	0	01	NR	P
19990831	20000509	0	0	01C	NR	C
20000510	20100804	88211	37491	01C	LX	N
20100805	99999999	0	0	01C	NR	N
20180430	99999999	0	0	02	NR	J

**GVKEY 015462 INVESCO MUNI INCOME OPP II**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19890301	19890621	0	0	00X	NR	C
19890622	19981218	76152	26052	01	LC	P
19981219	19981220	0	0	01	NR	P
19981221	20120831	86468	34961	01	LC	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19890301	19890621	0	0	00X	NR	C
19890622	19981218	76152	26052	01	LC	P
19981219	19981220	0	0	01	NR	P
19981221	20100528	86468	34961	01	LC	P
20100529	20100531	0	0	01	NR	P
20100601	20120824	17204	56197	01	LC	P

**GVKEY 027852 INVESCO CALIF MUNI INCM TR**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19921101	19930218	0	0	00X	NR	C
19930219	19981218	78939	29755	01	LC	P
19981219	19981220	0	0	01	NR	P
19981221	20120831	86473	34961	01	LC	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
19921101	19930218	0	0	00X	NR	C
19930219	19981218	78939	29755	01	LC	P
19981219	19981220	0	0	01	NR	P
19981221	20100528	86473	34961	01	LC	P
20100529	20100531	0	0	01	NR	P
20100601	20120824	17206	56199	01	LC	P

**GVKEY 32570 REPUBLICAN POLICIES FUND ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20171031	20180430	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20171031	20180430	17386	56315	01	LS	P

**GVKEY 032568 DEMOCRATIC POLICIES FUND ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20171031	20180430	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20171031	20180424	17387	56315	01	LS	P

**GVKEY 031584 AMPLIFY YLDSHR OL MLP IN ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20170630	20180430	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20170601	20180419	17396	55546	01	LS	P

**GVKEY 170791 BATS GLOBAL MARKETS INC**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20100101	20160428	0	0	00X	NR	C
20160429	20170228	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20100101	20160414	0	0	00X	NR	C
20160415	20170228	17402	56317	01	LC	P

**GVKEY 026631 ELKHORN FTSE RAFI US EQ INCM**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20151231	20170331	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20151210	20170313	17416	55267	01	LS	P

**GVKEY 029637 ELKHORN S&P MIDC CNSMR DSTY**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170929	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170914	17418	55267	01	LS	P

**GVKEY 029651 ELKHORN S&P MIDCP CNSR STPL**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170929	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170914	17421	55267	01	LS	P



**GVKEY 029652 ELKHORN S&P MIDCAP EGY PRFL**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170929	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170914	17423	55267	01	LS	P

**GVKEY 028023 ELKHORN FUNDMNTL CMDTY STRGY**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20160930	20180430	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20160921	20180413	17424	55267	01	LS	P

**GVKEY 029653 ELKHORN S&P MIDCAP UTILTS PF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170929	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170914	17425	55267	01	LS	P

**GVKEY 029648 ELKHORN S&P MIDCAP MATRL PF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170929	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170914	17426	55267	01	LS	P

**GVKEY 029646 ELKHORN S&P MDCP INF TECH PF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170929	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170914	17429	55267	01	LS	P

**GVKEY 029641 ELKHORN S&P MIDCAP INDSTL PF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170929	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170914	17430	55267	01	LS	P

**GVKEY 029664 ELKHORN S&P MICP HTH CR PTFL**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170929	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170914	17431	55267	01	LS	P

**GVKEY 029660 ELKHORN S&P MIDCAP FNL PRTFL**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170929	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20161230	20170914	17432	55267	01	LS	P

**GVKEY 171135 ISHARES BAA-BA RATED CRP ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120512	20160831	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120426	20160823	17471	37493	01	LS	P

**GVKEY 171136 ISHARES B - CA RATED CRP ETF**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120512	20170630	0	0	01	NR	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120426	20170630	17472	37493	01	LS	C

**GVKEY 21958 ISHARES MSCI EMRG MK HORIZON**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20141031	20160831	0	0	01	NR	C

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20141016	20160823	17474	31600	01	LS	C

**GVKEY 26641 PACER AUTOPILOT HEDGD EUR IN**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20151231	99999999	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20151215	20161222	17564	56319	01	LS	P

**GVKEY 21319 PROSHARES CDS LNG NA HY CRDT**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20140829	20160531	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20140807	20160518	17597	50846	01	LS	P

**GVKEY 28122 VANECK VECTORS AMT-FR 6-8 YR**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20160930	20170930	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20160920	20170929	17618	50699	01	LS	P

**GVKEY 28121 VANECK VECTORS AMT-F 12-17YR**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20160930	20170930	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20160920	20170929	17619	50699	01	LS	P

**GVKEY 26437 WISDOMTREE GLB EXUS HG RL ES**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20151030	20180329	0	0	01	NR	P

NEW:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20151029	20180316	17640	50852	01	LS	P

**GVKEY 26436 WISDOMTREE STRG DLLR EMG MKT**

OLD:

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20151030	20180329	0	0	01	NR	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20151029	20180316	17643	50852	01	LS	P

**GVKEY 170577 ISHARES MSCI AUS SM-CP ETF****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120131	20150831	0	0	01	NR	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120126	20150821	17661	37493	01	LS	P

**GVKEY 170578 ISHARES MSCI CANADA SMCP ETF****OLD:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120131	20150831	0	0	01	NR	P

**NEW:**

LINKDT	LINKENDDT	LPERMNO	LPERMCO	LIID	LINKTYPE	LINKPRIM
20120126	20150821	17664	37493	01	LS	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](mailto: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.