

These release notes pertain to the December 2014 Quarterly release of the CRSP US Stock and Index databases, shipped in January 2015.

ATTENTION TS_PRINT AND TSQUERY USERS

A defect in converting total dividend amount (TDIVAMT) and factor to adjust price (FACPRC) to a daily time series and their monthly time series equivalents MTDIVAMT and MFACPRC was identified and has been corrected. The defect was introduced in CUPL version 3.86, and CRSPSift Version 4.3.6 and continued into CRSPSift version 4.3.12. If you have installed any of these, a platform specific patch file has been created and is available for download from our MFT site. The patch includes instructions on how to replace the single file; the patch does not require re-installation. The defect impacts only the Time Series Access tools ts_print and TSQuery, and only the above four items. The defect did not impact the underlying data or access through the Event View Access tools, crsp_print, or StkQuery.

For those that have not recently installed a version of CUPL or CRSPSift, or would prefer to do a complete installation, full versions of "CUPL Version 3.86 with Updated ts_print" and the latest CRSPSift Version 4.3.13, will be available for download by close of business February 2.

For assistance, contact CRSP support at 312-263-6400, Option 2 or email support@crsp.chicagobooth.edu.

DECEMBER 2014 DATA EDITS

GROUP EDITS

| BEGDT | ENDDT | DESCRIPTIONS |
|-------|-------|---|
| 2013 | 2014 | Reviewed shares outstanding for securities with acquisitions having stock distributions as part of their merger terms for 2013-2014. We used the merger terms to calculate how many additional shares are expected to be added due to the merger and made corrections to our shares outstanding values as needed on over 30 merger events. Some edits were made to shares outstanding values outside this immediate range corresponding to the stock event. |
| 1925 | 1946 | Reviewed the shares outstanding history from 1925-1946 as part of a larger pre-1946 shares review project. Over 4000 edits were made to 400 PERMNOs. Project is 100% complete. |

INDIVIDUAL EDITS

| PERMNO | COMNAM | DESCRIPTION | BEGDT | ENDT |
|--------|----------------------------------|--|-----------|------------|
| 12877 | H C 2 HOLDINGS INC | Added zero nameline for 20140414-20141228 to reflect off-exchange activities. | 4/14/2014 | 12/28/2014 |
| 78955 | AVID TECHNOLOGY INC | Added zero nameline to reflect off-exchange activities for 20140225-20141207. | 2/25/2014 | 12/7/2014 |
| 12485 | 6D GLOBAL TECHNOLOGIES INC | Added zero namelines to reflect off-exchange activities for 20110302-20141211. | 3/2/2011 | 12/11/2014 |
| 87656 | PLASMATECH BIOPHARMACEUTICALS IN | Added zero nameline to reflect off-exchange activities for 20060201-20141218. | 2/1/2006 | 12/18/2014 |
| 13579 | NATIONAL BANK HOLDINGS CORP | Changed the start date from 20120921 to 20120920. | 9/20/2012 | 9/21/2012 |
| 13580 | SPIRIT REALTY CAPITAL INC | Changed the start date from 20120921 to 20120920. | 9/20/2012 | 9/21/2012 |
| 13584 | SUNOCO LP | Changed the start date from 20120921 to 20120920. | 9/20/2012 | 9/21/2012 |
| 13585 | TRULIA INC | Changed the start date from 20120921 to 20120920. | 9/20/2012 | 9/21/2012 |
| 15139 | VIPER ENERGY PARTNERS LP | Added all historical data from PERMNO 93860 | | |
| 15140 | LANDMARK INFRA PARTNERS LP | Added all historical data from PERMNO 93884 | | |
| 15141 | GULF COAST ULTRA DEEP ROYALTY TR | Added all historical data from PERMNO 93859 | | |

NOVEMBER 2014 DATA EDITS

INDIVIDUAL EDITS

| PERMNO | COMPANY NAME | DESCRIPTION | BEGDT | ENDT |
|--------|---------------------------------|--|-----------|------------|
| 34936 | NETWORK 1 TECHNOLOGIES INC | Added zero namelines for 20030326-20141118 to reflect off-exchange activities | 3/26/2003 | 11/18/2014 |
| 14901 | FIRST TR EXCHANGE TRADED FD III | Changed permco to 54860 from 55010 throughout entire history | | |
| 89382 | S A P SE | Changed company name to S A P SE from S A P AG for 20140708-present | 7/8/2014 | 10/31/2013 |
| 13579 | NATIONAL BANK HOLDINGS CORP | Changed the start date to 20120920 from 20120921, and added prices on 20120920 | 9/20/2012 | 9/20/2012 |
| 13580 | SPIRIT REALTY CAPITAL INC | Changed the start date to 20120920 from 20120921, and added prices on 20120920 | 9/20/2012 | 9/20/2012 |
| 13584 | SUNOCO LP | Changed the start date to 20120920 from 20120921 and added prices on 20120920 | 9/20/2012 | 9/20/2012 |
| 13585 | TRULIA INC | Changed the start date to 20120920 from 20120921 and added prices on 20120920 | 9/20/2012 | 9/20/2012 |

OCTOBER 2014 DATA EDITS

INDIVIDUAL EDITS

| PERMNO | COMPANY NAME | DESCRIPTION | BEGDT | ENDDT |
|--------|--------------------------------|---|------------|------------|
| 77569 | APTOSE BIOSCIENCES INC | Added zero nameline for 20081031-20141022 to reflect off-exchange activities. | 10/31/2008 | 10/22/2014 |
| 91376 | ATLAS ENERGY L P | Changed distribution code to 3763 from 1232, declare date to 20120216 from 20120314, acquiring PERMNO to 13204 from 0, acquiring PERMCO to 53980 from 0 for distribution on ex-date 20120314. | 3/14/2012 | 3/14/2012 |
| 93755 | COLLABRIUM JAPAN ACQUISIT CORP | Changed shares outstanding to 5600 from 1533 for 20130930-20141031. | 9/30/2013 | 10/31/2014 |
| 14545 | LIPOCINE INC | Removed all prices and volume history on 20140917 to reflect one-day halt. | | |
| 83827 | MMA CAPITAL MANAGEMENT LLC | Added zero namelines for 20080206-20141008 to reflect off-exchange activities. | 2/6/2008 | 10/8/2014 |
| 80560 | N P S PHARMACEUTICALS INC | Removed all prices and volume history on 20140912 to reflect one-day halt. | | |
| 14835 | VASCULAR BIOGENICS LTD | Removed all data from 20140808-present and added delisting record on 20140807. | | |
| 14835 | VASCULAR BIOGENICS LTD | Changed PERMCO to 55080 from 54979 and org_id to 99995037 from 60074540 throughout entire history | | |
| 77011 | ZOOM TECHNOLOGIES INC | Removed all data from 20140821-present and added delisting record on 20140820. | | |

FILE VERSION SPECIFICS

This table contains version specific information for the CRSP Stock Files with data ending December 2014. It contains the number of securities and information about the maximums of the event arrays.

| FILE CODE | # OF SECURITIES | MAX NAMES | MAX DISTS | MAX SHARES | MAX DELISTS | MAX GROUPS | MAX NASDIN | FIRST PERMNO | LAST PERMNO |
|-----------|-----------------|-----------|-----------|------------|-------------|------------|------------|--------------|-------------|
| DAZ | 30658 | 39 | 1538 | 1901 | 1 | 4 | 2532 | 10000 | 93436 |
| MAZ | 30687 | 39 | 1538 | 1901 | 1 | 4 | 2532 | 10000 | 93436 |

| CALENDAR | DATE RANGE | DATE INDEX RANGE |
|------------------------------|-------------------|------------------|
| Daily trading calendar | 19251231-20141231 | 1-23535 |
| Month-end trading calendar | 19251231-20141231 | 1-1069 |
| Year-end trading calendar | 19251231-20151231 | 1-91 |
| Quarter-end trading calendar | 19251231-20151231 | 1-361 |
| Weekly trading calendar | 19260102-20141231 | 1-4644 |

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 | FIZyyyyymm | 3.9 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 | FAZyyyyymm | 3.5 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 | A6Zyyyyymm | 3.2 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 | AXZyyyyymm | 3.5 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 | IFZyyyyymm | 120 MB | | | IF - CRSP Supplemental US Indexes |
| CRSP/Compustat Merged Database | CMZyyyyymm | 8.86 GB | | | CM - Compustat Data formatted in CRSPAccess Database |
| Daily & Monthly Treasuries in CRSPSift | TRZyyyyymm | 263 MB | | | TR - Database format for use with CRSPSift |
| Daily & Monthly Treasuries Files | TFZyyyyymm | 1.35 GB | | | TF - Expanded daily and monthly files in EXCEL, SAS, and ASCII formats |
| Daily & Monthly Legacy Treasuries Files | TLZyyyyymm | 1.2 GB | | | TL - Legacy daily and monthly files in EXCEL, SAS, and ASCII formats - FINAL SHIPMENT |
| Mutual Fund Database | MFZyyyyymm | 10 GB | | | MF - Mutual Funds |
| CRSP/Ziman Daily & Monthly REIT | RAZyyyyymm | 234 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

The following tables include new and old naming conventions.

WINDOWS 7/XP PRODUCTS:

| PRODUCT LABEL | PRODUCT NAME | OLD NAME | NEW NAME |
|-----------------|------------------------------|----------------|--------------------|
| A6Z1_yyyymm_SLD | CRSP 1962 US Stock | setupwin32.exe | a6zyyyymm_cadb.zip |
| AXZ1_yyyymm_SLD | CRSP 1962 US Stock and Index | setupwin32.exe | axzyyyymm_cadb.zip |
| FAZ1_yyyymm_SLD | CRSP 1925 US Stock | setupwin32.exe | fazyyyymm_cadb.zip |
| FIZ1_yyyymm_SLD | CRSP 1925 US Stock and Index | setupwin32.exe | fizyyymm_cadb.zip |
| IFZ1_yyyymm_SGD | CRSP 1925 Indexes | setupwin32.exe | ifzyyyymm_cadb.zip |

RED HAT LINUX PRODUCTS:

| PRODUCT LABEL | PRODUCT NAME | OLD NAME | NEW NAME |
|-----------------|------------------------------|----------------|--------------------|
| A6Z1_yyyymm_SLD | CRSP 1962 US Stock | setuplinux.bin | a6zyyyymm_cadb.zip |
| AXZ1_yyyymm_SLD | CRSP 1962 US Stock and Index | setuplinux.bin | axzyyyymm_cadb.zip |
| FAZ1_yyyymm_SLD | CRSP 1925 US Stock | setuplinux.bin | fazyyyymm_cadb.zip |
| FIZ1_yyyymm_SLD | CRSP 1925 US Stock and Index | setuplinux.bin | fizyyymm_cadb.zip |
| IFZ1_yyyymm_SGD | CRSP 1925 Indexes | setuplinux.bin | ifzyyyymm_cadb.zip |

SOLARIS SPARC PRODUCTS:

| PRODUCT LABEL | PRODUCT NAME | OLD NAME | NEW NAME |
|-----------------|------------------------------|------------------|---------------------|
| A6Z1_yyyymm_SBD | CRSP 1962 US Stock | setupsolaris.bin | a6zyyyymm_sparc.zip |
| AXZ1_yyyymm_SBD | CRSP 1962 US Stock and Index | setupsolaris.bin | axzyyyymm_sparc.zip |
| FAZ1_yyyymm_SBD | CRSP 1925 US Stock | setupsolaris.bin | fazyyyymm_sparc.zip |
| FIZ1_yyyymm_SBD | CRSP 1925 US Stock and Index | setupsolaris.bin | fizyyymm_sparc.zip |
| IFZ1_yyyymm_SGD | CRSP 1925 Indexes | setupsolaris.bin | ifzyyyymm_sparc.zip |

STEPS TO INSTALL:

- From the directory containing your downloaded zip file, right click (in Windows) or run File Roller (in Red Hat and Solaris)
- 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 and Solaris)
- 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 AND SUN SOLARIS

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_MSTK=~/.crspdata/miz201308`)
 - ♦ `CRSP_IND=<full path name>/<index directory>` (example: `CRSP_IND=~/.crspdata/ifz201308`)
- If you are using the bash shell (or any Bourne-style shell), enter the same commands above and export each one. This will make changes for your current session only and does not save to the .profile file.
- A shell script is available to make changes that can be reused for each update done. Note that this will only make changes to your current session and does not save to the .profile file.
 - ♦ Navigate to where the CUPL tools are loaded and then enter: `cd accbin`
 - ♦ Start the script by entering: `./crsp_setup.sh`
 - ♦ The script will prompt for the following:
 - File name (*will be appended with .kshrc*)

- Top level directory (this should be where CUPL tools are located (*example: ~/crsp*))
- Scratch directory for error messages – name can be anything
- Enter path for daily stock directory (*example: ~/crspdata/diz201308*)
- Enter path for monthly stock directory (*example: ~/crspdata/miz201308*)
- Enter path for index directory (*example: ~/crspdata/ifz201308*)
- Enter path for CCM directory – enter to leave blank
- Enter path for CST directory – enter to leave blank

- Execute script by running: `. ./<file name created above>.kshrc` (*note there is a space between the two dots*)

WINDOWS:

The CRSP Client Environment utility provides users a way to check the location of the software and to set environment variables. The utility can be started by locating it under installed programs CRSPAccess/CRSP Client Environment, or by navigating to the /acbin 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.

The screenshot shows the 'CRSP Client Environment: (CUPL_ver322 64-bit)' window. It contains several sections for setting directories, each with a text input field and a 'Browse' button:

- CRSP Root:** CRSP Root Directory. This folder/directory contains the CRSP root subfolders that will allow the CRSP utilities to function properly. Path: `C:\crsp\`
- CRSP Work:** CRSP Work Directory. This folder/directory is used for storage of temporary files, log files and contains subfolders that may hold user created files. Path: `C:\crsp\`
- CRSP Daily Stock:** CRSP Daily Stock Database Directory. Path: `C:\crspdata\diz201308`
- CRSP Monthly Stock:** CRSP Monthly Stock Database Directory. Path: `C:\crspdata\miz201308`
- CRSP Compustat CCM:** CRSP Compustat CCM Database Directory. Path: `C:\crspdata\CMZ201308\`

At the bottom, there is a red warning: **Administrator privileges are required to set system level environment variables.** Below this are three buttons: 'Do', 'Remove', and 'Exit'.

FILE FORMATS

A number of subscribers have requested flat-file versions of the CRSP databases that can be more easily consumed and built into automated processes. In response to these requests, CRSP is actively working on creating these flat-file versions, which once created, will also be available through the “MFT” delivery.