Spectrum™ Technology Platform
Version 12.2 S28

Spectrum™ Technology Platform Release Notes

This document contains information about Spectrum™ Technology Platform 12.2 S28. You have access only to the modules you have licensed. To evaluate any other modules, contact your Pitney Bowes account executive for a trial license key.

Who should apply this update?	Users of the Enterprise Geocoding Module for USA (EGM-USA).
Is this update required?	This product update is optional. If you use Master Location Data (MLD), this update is highly recommended.

Contents:

What's New

This update includes access to Master Location Data (MLD) extended attributes, improvements to alias address details and singleline matching, and updates the geocoding libraries to v32.03.

MLD Extended Attributes including APN and Elevation

(USA) This feature provides access to extended attributes associated with an addressable location that has a pbKey. When matching addresses with Master Location Data (MLD), returns additional property information associated with the address, such as Assessor's Parcel Number (APN), Elevation, Address Type, and Lot Size. APN can be used to identify the parcel so the parcel ID can be linked to additional information for the insurance industry, such as property and insurance risk attributes. For more detail, see the full list of output fields below.

Requirements

The following are required to return MLD Extended Attributes:

- Master Location Data dataset.
- Streets dataset.
- MLD Extended Attributes dataset.
- Recommendation: the vintages of the MLD and MLD Extended Attributes datasets be within 4 months of each other.

Settings

To use MLD Extended Attributes in Spectrum:

- EGM-USA: In the Management Console, review the **Output** or **Output Data** tab and select the **MLD Extended Attributes** option. Output fields will display on the Preview tab or be returned from stages via Enterprise Designer.

MLD Extended Attributes Output Fields (optional)

Field	Description
AddressType	Address Type regarding number of units: S – Single unit M – Multiple units P – Post Office box X – Unknown
APN	Assessor's parcel number.
IncorpPlaceInd	Incorporated Place Indicator. I – Incorporated place N – Not an incorporated place X – Unknown
LotSize	Lot size of the parcel expressed in square feet; 0 if none.
LotSizeMeters	Lot size of the parcel expressed in square meters; 0 if none.
MECLatitude	Latitude of Minimum Enclosing Circle expressed with an implied 6 digits of decimal precision; 0 if none.
MECLongitude	Longitude of Minimum Enclosing Circle expressed with an implied 6 digits of decimal precision; 0 if none.
MECRadius	Radius of Minimum Enclosing Circle (in square feet) expressed as a whole number. For example: 1234 means 1,234 feet.
MECRadiusMeters	Radius of Minimum Enclosing Circle (in meters) expressed with 1 digit of decimal precision.
Elevation	Elevation above sea level (in feet) expressed with 1 digit of decimal precision. For example: 12.5 feet.

Field	Description
ResidentialBusiness	Usage Indicator: R – Residential use B – Business use M – Mixed use – residential and business X – Unknown use
TigerFaceID	TIGER Face Identifier. This field can be used to match to all Census geocodes using external data; 0 if none.
TigerPlace	TIGER Place code; 0 if none.
UrbanAreaID	TIGER Urban Area Identifier. Defines the urban area if any; 0 if none.
UrbanAreaPop	Census population of the urban area; 0 if none.
Urbanicity	Urbanicity Indicator. An indicator that defines, according to the Census, the Urbanicity of the Address using TIGER UACE codes for categorization.

Matching Enhancements

Singleline Matching Enhancements

The following improvements were made to singleline matching:

Improved singleline matching for PO Boxes when entered as POST OFFICE BOX, or when the number is preceded by #.

Improvements have been made in handling of street names that could also be city names in singleline address processing.

For example:

Input address: BOX 58 ASHAWAY RI 02804

Previous match: 58 ASHAWAY RD, 02804

New match: BOX 58, ASHAWAY RI 02804

Input address: BARCLAY PLZ APT 68G NEW WINDSOR NY 12553

Previous match: 68G NEW ST, NEW WINDSOR, NY 12553

New match: 68G BARCLAY PLZ, NEW WINDSOR, NY 12553

Enhancements have been made in singleline POI matching to recognize one or more embedded POIs.

For example:

Input address: FIRST SHORE FEDERAL SAVINGS & LOAN W GREEN ST & PEARL ST SNOW HILL

Result: FIRST SHORE FEDERAL SAVINGS & LOAN, SNOW HILL MD 21863

Improved standard singleline addr2 handling.

For example:

Input address: MARVIN R BECK PT 1108 E PATTERSON/ POB 160 KIRKSVILLE MO 63501

Previous match: PO BOX 160

New match: 1108 E PATTERSON ST

Improved handling of singleline input addresses with missing or out of range house numbers. Matches and non-matches are now returned more accurately.

Improved handling and reporting of singleline matching of addresses containing multiple intersections when using Master Location Data.

For example: 8th & laurel & 9th 21851.

Enhancements have been made in POI matching for the following cases:

- Singleline input address containing a POI that ends with a city name that matches a given ZIP Code. For example: CHARTER HOSP OF DENVER 80228
- Singleline input address containing a POI that ends with a state name that matches a given ZIP Code. For example: BANK OF COLORADO 80720
- Two-line or singleline input address containing a POI that ends with a number. For example: KBIQ 102 7 80920

Matching Enhancements

The Qualifiers output field **IsAlias** has two new return values when a match occurs:

- **A13** a match is made to ZIPMove data.
- **A14** a match is made to the expanded centroid file us_cent.gsc or to bldgcent.gsc (files contained in the Master Location Structure Centroid data set).

Fixed Issues

This update includes the following fixes for the Enterprise Geocoding Module (EGM) in the Spectrum™ Technology Platform.

- (CENTRUS-11100) Corrected an issue where the output ZIP was not being corrected on a matched address, if the input ZIP was invalid or missing and the Prefer Zip Over City option was being used.

  Example: Incorrect ZIP

  Before

Address	CITY	State	POSTCODE	outMatchCode	outLocCode	outCityPref	outState	outZip	outZIP4
107 PRESTON RD	Cheektowaga	NY	H2N1Y	S800	AS0	BUFFALO	NY	H2N1Y	3626

  After

Address	CITY	State	POSTCODE	outMatchCode	outLocCode	outCityPref	outState	outZip	outZIP4
107 PRESTON RD	Cheektowaga	NY	14215	S900	AP05	BUFFALO	NY	14215	3626

  Example: Missing ZIP

  Before

Address	CITY	State	POSTCODE	outMatchCode	outLocCode	outCityPref	outState	outZip	outZIP4
8649 11TH AVE	SILVER SPRING	MD	0	S800	AS0	SILVER SPRING	MD	00000	3203

  After

Address	CITY	State	POSTCODE	outMatchCode	outLocCode	outCityPref	outState	outZip	outZIP4
8649 11TH AVE	SILVER SPRING	MD	20903	S900	AP02	SILVER SPRING	MD	20903	3203

- (CENTRUS-11341) When doing last line geocoding and “Correct Lastline” is on, the Pref City now returns correctly. Example: Denver CO 80223 returns as Denver, not Aurora.
- (CENTRUS-10996) Fixed a stack overflow crash encountered using DPV and LACSLink data in CASS match mode.
- (CENTRUS-10630) Fixed an issue where an input address with a post-directional resulted in incorrect multimatch returns.
- (CENTRUS-10758) Corrected inconsistent results for an address by modifying the way USPS Preferred aliases are returned outside of the CASS match mode.
- (CENTRUS-11004) Improved handling of input addresses containing underscores; for example, __4750 Walnut St. 80301_.

- (CENTRUS-11005) Improved handling and matching of PO Box addresses that contain a “#” sign in front of the box number; for example, PO BOX #14.
- (CENTRUS-11030) Fixed an issue where an input address containing multiple, single alpha characters and spaces was returning an exception. 1 BOX T T #A now matches.
- (CENTRUS-11031) Fixed an issue where an input address containing an intersection in the address line resulted in a multi-match which caused an exception. W Elkhorn Ave & S Monterey Ave., Cantua Creek, CA 93608 now processes correctly and returns match information.
- (CENTRUS-11130) Fixed an issue where a system error was returned when only the “Return ZIP Code centroids” Centroid preference was selected, and no input ZIP was included when using 2-line address input. Now a non-match is returned instead.

Installation

To install this product update you must have Spectrum™ Technology Platform 12.2 SP2.1 installed.

Important: Before you install this product update, be sure that you have installed all previously-released product updates for your modules and the platform. Unexpected issues may occur if you do not install product updates in the proper order. For a listing of product updates for each module and the platform, see the Product Update Summary on **support.pb.com/spectrum**.

Applying This Product Update to a Cluster

To apply this product update to a cluster you must stop all the nodes in the cluster then install the product update to each node by following the instructions in these release notes. You can start up each node after you update it.

Warning: You must shut down the cluster before installing this patch. Failure to do so may result in data loss and your system may become unusable.

- **Installing on Windows** on page 8
- **Installing on Unix or Linux** on page 9

Installing on Windows

Note: In this procedure, *SpectrumFolder* refers to the folder where you have installed the Spectrum™ Technology Platform server.

1. Stop the Spectrum™ Technology Platform server. To stop the server, right-click the Spectrum™ Technology Platform icon in the Windows task bar and select **Stop Server**. Alternatively, you can use the Windows Services control panel and stop the Pitney Bowes Spectrum™ Technology Platform service.
2. Back up this file to a different location:

   `SpectrumFolder\server\app\deploy\geostan-12.2.car`

3. Delete the `geostan-xx.xx.xx-api.jar` file (where *xx.xx.xx* is the .jar file version number) in:

   `SpectrumFolder\server\modules\geostan\lib`

4. Check for a `geostan-xx.xx.xx-api.jar` file in:

   `SpectrumFolder\server\modules\geostan\bin\udwriter\support`

   If one exists, it should be deleted.

5. Download the file containing the patch for your version of the Windows operating system and extract the contents to a temporary location.

   The product update announcement includes a link to download the software and Release Notes.

6. Extract the `cdq122S28.zip` file to the folder where you installed Spectrum. For example, `C:\Program Files\Pitney Bowes\Spectrum`.

   Choose to overwrite the existing files.

7. On any machines that have Management Console, Enterprise Designer, or Interactive Driver installed, delete `WindowsTemporaryDirectory\g1Assemblies`, where *WindowsTemporaryDirectory* is one of the following: %TMP%, %TEMP%, %USERPROFILE%, or the Windows directory. Typically the path is:

   `C:\Users\UserName\AppData\Local\Temp\g1Assemblies`

8. Start the Spectrum™ Technology Platform server. To start the server, right-click the Spectrum™ Technology Platform icon in the Windows task bar and select **Start Server**. Alternatively, you can use the Windows Services control panel to start the Pitney Bowes Spectrum™ Technology Platform service.

Installing on Unix or Linux

Note: In this procedure, *SpectrumDirectory* refers to the directory where you have installed the Spectrum™ Technology Platform server.

1. Source the `SpectrumDirectory/server/bin/setup` script.
2. Run the `SpectrumDirectory/server/bin/server.stop` script to stop the Spectrum™ Technology Platform server.
3. Back up this file to a different location:

   `SpectrumDirectory/server/app/deploy/geostan-12.2.car`

4. Delete the `geostan-xx.xx.xx-api.jar` file (where *xx.xx.xx* is the .jar file version number) in:

   `SpectrumDirectory/server/modules/geostan/lib`

5. Check for a `geostan-xx.xx.xx-api.jar` file in:

   `SpectrumDirectory/server/modules/geostan/bin/udwriter/support`

   If one exists, it should be deleted.

6. Download the zip file containing the patch and extract the contents to a temporary location.

   The product update announcement includes a link to download the software and Release Notes.

7. Locate the `cdq122S28.tar` file for your operating system.

   For HP-UX 11.31 (Itanium), there is a single extracted `cdq122S28.tar` file contained in the destination folder.

   For Red Hat and CentOS, SUSE, Solaris and AIX, there are folders for the OS release or glibc versions as listed below. Choose the appropriate folder, then select the `cdq1221S08.tar` file.

   - The `REDHAT` folder contains version-specific folders for the `glibc` support library:
     - `2.5` - Red Hat Enterprise Linux 5, CentOS 5
     - `2.12` - Red Hat Enterprise Linux 6, CentOS 6
     - `2.17` - Red Hat Enterprise Linux 7, CentOS 7
   - The `SUSE` folder contains a version-specific folder for the `glibc` support library:
     - `2.9` - SUSE Enterprise Linux Server 11
   - The `SOLARIS` folder contains OS version folders:
     - `5.10` - Solaris 10
     - `5.11` - Solaris 11
   - The `AIX` folder contains OS version folders:

- `6.1` - AIX 6.1
- `7.1` - AIX 7.1

8. FTP the `cdq122S28.tar` file in binary mode to a temporary directory on the Spectrum™ Technology Platform machine.
9. Change to the directory where Spectrum™ Technology Platform is installed.
10. Untar the file using this command:

    `tar -xvf` *`SpectrumDirectory`*`/cdq122S28.tar`

11. Be sure you have execute permission on the updated files by typing the following command:

    `chmod -R a+x` *`SpectrumDirectory`*`/server`

12. On any machines that have Management Console, Enterprise Designer, or Interactive Driver installed, delete *`WindowsTemporaryDirectory`*`\g1Assemblies`, where *WindowsTemporaryDirectory* is one of the following: %TMP%, %TEMP%, %USERPROFILE%, or the Windows directory. Typically the path is:

    `C:\Users\`*`UserName`*`\AppData\Local\Temp\g1Assemblies`

13. Run the *`SpectrumDirectory`*`/server/bin/server.start` script to start the Spectrum™ Technology Platform server.

3001 Summer Street
Stamford CT 06926-0700
USA

www.pitneybowes.com