

Spectrum™ Technology Platform

Version 12.2 S12

Release Notes

This document contains information about Spectrum™ Technology Platform 12.2 S12. 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?	This product update is intended only for users of the Global Address Validation stage and the Global Type Ahead stage in the Global Addressing Module .
Is this update required?	This product update is optional for users of the Global Addressing Module .

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What's New

New Databases

The 12.2 S12 version of the Global Addressing Module supports new databases.

Global Address Validation Data Support

The Global Address Validation stage supports these new databases for United States (USA) address standardization and validation:

- **GAV_US_DOM** - This new United States (USA) Domestic database is available for clients located within the United States.
- **GAV_US_NON_DOM** - This new United States (USA) Non-Domestic database is available for clients located outside of the United States.

For more information on installing and upgrading databases, see the *Spectrum™ Technology Platform Installation Guide*.

Support Added for the United States (USA)

The Global Address Validation stage now includes enhanced address standardization and validation support for the United States (USA). For more information about the Global Address Module supported countries, see the Global Addressing Module in the *Spectrum™ Technology Platform Addressing Guide*.

Options

The Spectrum™ Technology Platform 12.2 S12 release includes new default options for United States (USA) address processing.

For more information about all Global Address Module default options, see the Global Addressing Module in the *Spectrum™ Technology Platform Addressing Guide*.

Table 1: U.S. Addressing Options

Option Name	Description
U.S. Addressing Options	The options specific to U.S. address processing.

Option Name	Description
CASS flag	<p>Process in a United States Postal Service (USPS) Coding Accuracy Support System (CASS) certified mode.</p> <p>Note: If you are performing Global Address Validation U.S. Addressing processing outside of the physical United States, you must disable the Delivery Point Validation (DPV), LACSLink, SuiteLink, and Residential Delivery Indicator (RDI) options. You will not be able to run in a USPS CASS-certified mode.</p>
Assign abbreviated city	Return abbreviated city names in the label lines.
Remove noise characters	Remove noise characters (for example, unnecessary punctuation and blanks).
Return input firm	Return the input firm.
All street matching	Perform All Street Matching (ASM) processing. ASM applies additional matching logic to correct errors in street names to find a match. For example, when the first letter of a street is misspelled or missing on input, ASM searches all street names in a locality to find an input address. ASM provides the best address validation but may reduce performance.
R777 deliverable	<p>Addresses with Carrier Route code R777 are phantom routes and are not eligible for street delivery. However, since these addresses are assigned a ZIP + 4 code by the USPS, these addresses are marked as deliverable. If you do not want the addresses with Carrier Route code R777 marked as deliverable, disable this option and the following actions are performed for the address:</p> <ul style="list-style-type: none"> • ZIP + 4 code is not assigned. • The address is not counted on the USPS Form 3553 (CASS Summary Report) • DPV Footnote Code R7 is returned.

Option Name	Description
Convert secondary to PMB	<p>Convert secondary information to Private Mail Box (PMB) under the following conditions:</p> <ul style="list-style-type: none"> • A secondary number is present in the returned ZIP + 4 address. • The secondary number does not DPV confirm. • The primary number (and/or other secondary number) confirms as a Commercial Mail Receiving Agency (CMRA). • The unconfirmed unit designator is not a pound sign (#). <p>Note: This processing only applies if the primary address codes to a CMRA.</p>
Save unit in separate field	Do not merge unit on to AddressLine. Save unit in a separate field.
Save PMB in separate field	Do not merge PMB on to AddressLine. Save PMB in a separate field.
Return alias street	<p>Return alias street names in the label line. An alias street name is an alternate name for a street, maintained at the ranged ZIP + 4 Code level.</p> <ul style="list-style-type: none"> • Return input alias or base. If the input address matches to an alias, return the alias. If the input address matches to a base address, but a preferred alias exists, return the preferred alias. If the input address matches to a base address and no Preferred alias exists, return the base address • Return preferred alias or base. If a preferred alias exists, return the preferred alias. Otherwise, return the base street. • Return preferred, abbreviated, input alias or base. Return the preferred alias. If no preferred alias exists, return the abbreviated alias. If no abbreviated or preferred alias exists, but some other alias type was input, return the input alias. If none of these scenarios apply, return the base street name. • Return preferred, abbreviated alias, or base. If a preferred alias exists, return the preferred alias. If no preferred alias exists, return the Abbreviated alias. If neither exists, return the base street name. • Return abbreviated, preferred, input alias or base. Return the abbreviated alias. If no abbreviated alias exists, return the preferred alias. If no abbreviated or preferred alias exists, but some other alias type was input, return the input alias. If no alias exists, return the base street name. • Return abbreviated, preferred, alias or base. Return the abbreviated alias. If no abbreviated alias exists, return the Preferred alias. If neither exists, return only the base street name

Option Name	Description
Dual address	<p data-bbox="683 325 1425 478">If the input file contains dual addresses (one a conventional address, a second containing a PO Box address), this field determines the order to use to process and match the addresses. If the selected address is valid, processing stops. If the selected address does not validate, processing attempts to code the secondary address.</p> <ul data-bbox="683 501 1425 934" style="list-style-type: none"> • Above city and ZIP Code. The address line closest to the last line in the address is given the highest priority in the match process. Any address line above the last line is not used for matching. Default. • Line 1 is given preference. The first line in the dual address is given the highest priority in the match process. • Line 2 is given preference. The second line in the dual address is given the highest priority in the match process. • Conventional is given preference. The conventional address is given the highest priority in the match process. • PO Box is given preference. The PO Box is given the highest priority in the match process. • The first valid address is given preference. The first valid address (in the order Address line 1 and then Address line 2) is given the highest priority in the match process. <p data-bbox="789 953 1425 1037">Note: When dual addresses are contained on a single line and the CASS flag is enabled, the USPS address type priority is used in the following order:</p> <ol data-bbox="789 1056 1019 1251" style="list-style-type: none"> 1. PO Box 2. Firm 3. Highrise 4. Street 5. Rural Route 6. General Delivery
Delivery Point Validation	<p data-bbox="683 1354 1425 1474">Perform Delivery Point Validation (DPV) processing. USPS CASS regulations require DPV processing. If you do not perform DPV processing, Global Address Validation does not generate a USPS Form 3553 (CASS Summary Report). The default is disabled.</p> <p data-bbox="768 1493 1425 1549">Note: When DPV is disabled, all DPV options are also disabled and display in a grayed out mode.</p> <p data-bbox="768 1581 1425 1696">Note: If you are performing Global Address Validation U.S. Addressing processing outside of the physical United States, you must disable the Delivery Point Validation (DPV) option. You will not be able to run in a USPS CASS-certified mode.</p>

Option Name	Description
Commercial Mail Receiving Agency (CMRA)	Perform Commercial Mail Receiving Agency (CMRA) processing. A private company offering mailbox rental services to individuals and businesses is a Commercial Mail Receiving Agency (CMRA). The default is disabled.
PO Box as street address	Perform DPV PO Box Street Address (PBSA) processing. A PBSA address is a street address that represents a USPS PO Box. Use the PBSA table to identify PBSA addresses. Return the PBSA result to the output. The default is disabled.
No-Stat	Perform DPV No-Stat processing. Use the No-Stat table to identify deliveries that are not valid for Computerized Delivery Sequence (CDS) pre-processing. Return the proper No-Stat code to the output. The default is disabled.
Tie Break	<p>The USPS allows DPV processing to be used as a tie breaker for matching inexact street records. If only one of the records in a tie is delivery point validated, a match is allowed to the inexact record. When processing results in an inexact match due to the input address directional, DPV processing can be used as a tie breaker if only one of the records is found to be delivery point validated and the delivery point validated record does not violate the cardinal direction rule. The default is enabled.</p> <p>USPS CASS regulations require DPV Tie Break processing to generate the USPS Form 3553 (USPS CASS Summary Report).</p>
Vacant	Perform DPV Vacant Table processing. Use the Vacant Table to identify delivery addresses that have been active in the past but, according to USPS data, have not been occupied within the last 90 days. Return the proper Vacant code to the output. The default is disabled.
Door Not Accessible	Perform DPV Door Not Accessible (DNA) processing. Use the DNA Table to identify delivery addresses where carriers cannot knock on the door for mail delivery or where carriers cannot physically access a residence/building such as rural/highway contract route (HCR), long driveway, or gated community. Return the proper DNA code to the output. The default is disabled.
Throwback	Perform DPV PO Box Throwback processing. Use the PO Box Throwback Table to identify a delivery point that is a street address where mail is not delivered. Instead, delivery is made to the customer's PO Box address. Return the PO Box Throwback result to the output. The default is disabled.

Option Name	Description
No Secure Location	Perform DPV No Secure Location (NSL) processing. Use the NSL table to identify delivery locations that are not secure. For example, a carrier can access a door but cannot leave a package due to security concerns. The NSL designation alerts mailers to locations where businesses are closed on certain days and locations without mail receptacles (for example, a storefront). Return the NSL result to the output. The default is disabled.
Assign enhanced Line of Travel codes	Assign enhanced Line of Travel (eLOT) codes. The default is disabled.
Early Warning System	Perform Early Warning System (EWS) processing. New address information that is in use, but not yet available on the ZIP + 4 File, can be found as part of the USPS Early Warning System (EWS). The USPS requires all CASS-certified software to verify addresses that are not found in the current ZIP + 4 File against the USPS EWS File. If an address is found in the EWS File, the address is not matched to any similar addresses in the current ZIP + 4 File. Instead, the input address fails and is not coded until the ZIP + 4 File is updated with the correct address from the USPS EWS File. The default is disabled.
Residential Delivery Indicator	<p>Perform Residential Delivery Indicator (RDI) processing. The default is disabled.</p> <p>Note: If you are performing Global Address Validation U.S. Addressing processing outside of the physical United States, you must disable the Residential Delivery Indicator (RDI) option. You will not be able to run in a USPS CASS-certified mode.</p>
LACSLink	<p>Perform LACSLink (Locatable Address Conversion System) processing. USPS CASS regulations require LACSLink processing. If you do not perform LACSLink processing, Global Address Validation does not generate a USPS Form 3553 (CASS Summary Report). The default is disabled.</p> <p>Note: If you are performing Global Address Validation U.S. Addressing processing outside of the physical United States, you must disable the LACSLink option. You will not be able to run in a USPS CASS-certified mode.</p>

Option Name	Description
SuiteLink	<p>Perform SuiteLink processing. USPS CASS regulations require SuiteLink processing. If you do not perform SuiteLink processing, Global Address Validation does not generate a USPS Form 3553 (CASS Summary Report). The default is disabled.</p> <p>Note: If you are performing Global Address Validation U.S. Addressing processing outside of the physical United States, you must disable the SuiteLink option. You will not be able to run in a USPS CASS-certified mode.</p>
Return SuiteLink secondary	<p>Indicate how to return secondary information when SuiteLink secondary information is available.</p> <ul style="list-style-type: none"> • Both SuiteLink and input. Return both SuiteLink and input secondary information. Default. • SuiteLink only. Return SuiteLink secondary only. Do not return input secondary. • Input only. Return input secondary only. Do not return SuiteLink secondary. • None. Do not return SuiteLink secondary or input secondary.
CASS Mailer Information	The Mailer's name and address that displays on the USPS Form 3553 (CASS Summary Report). This information is required if you are running DPV and optional if you are not running DPV.
Name	The Mailer's name displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).
Address	The Mailer's address displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).
Address2	Additional address line for Mailer's address displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).
Address3	Additional address line for Mailer's address displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).
Address4	Additional address line for Mailer's address displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).
City line	The Mailer's city, state, and ZIP Code information displays in section D box 3 on the USPS Form 3553 (CASS Summary Report).

Option Name	Description
Log level	<p>The level of the messages to log.</p> <ul style="list-style-type: none"> • No messages. • Critical messages • Error messages • Warning messages • Info messages • Debug messages <p>Default is "Critical messages".</p> <p>Note: Finalist log messages are written to server/bin/fnl_log.txt.</p>

Input

The Spectrum™ Technology Platform 12.2 S12 release includes the following new input field and new input field values for United States (USA) address processing.

For more information about all Global Address Module input fields, see the Global Addressing Module in the *Spectrum™ Technology Platform Addressing Guide*.

Table 2: Input Fields

Field Name	Format	Description
AddressLine2	String	The second address line (USA only) .
CitySubdivision	String	<p>The name of one of the following depending on the country:</p> <ul style="list-style-type: none"> • Not used—AUS, AUT, BEL, CHE, DEU, DNK, FIN, FRA, IRL, MYS, NLD, NOR, POL, SWE • Dissemination Area and Enumeration Area (DA and EA)—CAN • Locality—BRA, GBR, GRC, ITA, ESP • Suburb—NZL • Urbanization name (Puerto Rico)—USA

Field Name	Format	Description
StateProvince	String	<p>The name of the state or province depending on the country:</p> <ul style="list-style-type: none"> • Not used—BEL, CHE, DNK, IRL, NLD, NOR • Bundesland—DEU • Province—CAN • Province (voivodship)—POL • Region—AUT, ESP, FRA, GBR, GRC, NZL • Region (län)—FIN • Region (lan)—SWE • State—AUS, BRA, USA • State (negeri)—MYS

Output

The Spectrum™ Technology Platform 12.2 S12 release includes the following new output fields and output field values for United States (USA) address processing.

For more information about all Global Address Module output fields, see the Global Addressing Module in the *Spectrum™ Technology Platform Addressing Guide*.

Table 3: Standard Address Output

Field Name	Format	Description
AddressBlock3-6	String	<p>Additional AddressBlock fields for U.S. addresses. For U.S. addresses, starting from AddressBlock1 the data includes:</p> <ul style="list-style-type: none"> • Firm Name • URB name • Extra address line information • Required address line information • Last line

Field Name	Format	Description
AddressLine1	String	<p>The first address line.</p> <p>For example, 34 GLENVIEW ROAD MOUNT KURNING-GAI NSW 2080.</p> <p>In an example of a dual address, the address PO BOX 3220 STN C 181 QUEEN STREET OTTAWA ON K1Y1E4 contains both a PO Box and a street address.</p> <p>If the option "Prefer PO Box over street" is enabled, PO BOX 3220 STN C displays in this field.</p> <p>If the option "Prefer PO Box over street" is not enabled, 181 QUEEN STREET displays in this field.</p> <p>Global Address Validations supports PO Box matching for these countries:</p> <ul style="list-style-type: none"> • Canada (CAN) • France (FRA) • United Kingdom (GBR) • United States (USA)
AddressLine2	String	The second address line (USA only) .
CitySubdivision	String	<p>The name of one of the following depending on the country:</p> <ul style="list-style-type: none"> • Not used—AUS, AUT, BEL, CHE, DEU, DNK, FIN, FRA, IRL, MYS, NLD, NOR, POL, SWE • Dissemination Area and Enumeration Area (DA and EA)—CAN • Locality—BRA, GBR, GRC, ITA, ESP • Suburb—NZL • Urbanization name (Puerto Rico)—USA
StateProvince	String	<p>The name of one of the state or province depending on the country:</p> <ul style="list-style-type: none"> • Not used—BEL, CHE, DNK, IRL, NLD, NOR • Bundesland—DEU • Province—CAN • Province (voivodship)—POL • Region—AUT, ESP, FRA, GBR, GRC, NZL • Region (län)—FIN • Region (lan)—SWE • State—AUS, BRA, USA • State (negeri)—MYS

Field Name	Format	Description
StateProvinceSubdivision	String	<p>The name of the state or province subdivision depending on the country.</p> <ul style="list-style-type: none"> • Not used—AUT, BRA, CAN, FIN, GBR, MYS • County—USA • Department—FRA • District—GRC • District (fylke/counties)—NOR • District (powiat)—POL • Kommun—SWE • Kreis—DEU • Local Government Authority (LGA)—AUS • Province—BEL, CHE, DNK, ESP, IRL, ITA, NLD • Region—NZL

Input Address

The Global Address Validation output can include the input address. With the Spectrum™ Technology Platform 12.2 S12 release, you can now include the new AddressLine2.Input field for U.S. addresses in your output. To include the input address, select the **Input address** output option.

Table 4: Input Address

Field Name	Format	Description
AddressLine1.Input	String	The first address line passed on input.
AddressLine2.Input	String	The second address line passed on input (USA only).
City.Input	String	The city/locality/suburb name passed on input.
CitySubdivision.Input	String	The city/town subdivision passed on input.
StateProvince.Input	String	The state/province passed on input.
StateProvinceSubdivision.Input	String	The state/province subdivision passed on input.
PostalCode.Input	String	The postal code passed on input.
Country.Input	String	The country passed on input.
FirmName.Input	String	The firm name passed on input.

U.S. Specific Output Fields

The Global Address Validation output can now include U.S. specific output fields. To include U.S. specific fields in the output, select the **Country specific fields** output option.

Table 5: United States (USA) Country Specific Fields

Field Name	Format	Description
USA.AbbreviatedCityName	String	The abbreviated city name.
USA.AddressLocation	String	<p>The location where the address information was found.</p> <p>01 Input address found on address line 1.</p> <p>02 Input address found on address line 2.</p> <p>03 Input address found on address lines 1 and 3.</p> <p>04 Firm found on input address line 1. No address line found.</p> <p>06 Input address found on address line 2. Firm found on address line 1.</p> <p>08 Firm found on input address line 2. No address line found.</p> <p>09 Input address found on address line 1. Firm found on address line 2.</p> <p>80 Address line not found.</p>
USA.AdvancedBarcode	String	The returned 14-digit barcode consisting of the beginning frame character, ZIP Code, ZIP + 4, delivery point, check digit, and end framing character.
USA.Apartment1	String	The first apartment (unit) field in the address. This field is used for output. This field will only be populated if the Save unit in separate field is selected. If selected, the data is not included on the AddressLineX field(s).
USA.Apartment2	String	The second apartment (unit) field in the address. This field is used for output. This field will only be populated if the Save unit in separate field is selected. If selected, the data is not included on the AddressLineX field(s).
USA.BCCheckDigit	String	The valid one-digit modulo check digit required for printing the correct barcode.
USA.CarrierRouteCode	String	The returned carrier route code.

Field Name	Format	Description
USA.CASSAddressLine1	String	This is Address Line 1 formatted as required by the USPS for CASS test submissions. This field is only returned if the CASS Flag option is turned on.
USA.CASSAddressLine2	String	This is Address line 2 formatted as required by the USPS for CASS test submissions. This field is only returned if the CASS Flag option is turned on.
USA.CASSCityName	String	The city name. The city name returned here is the city name mandated by USPS regulations. Variations of the city name (for example, full, abbreviated, and non-mailing) are returned in alternate fields.
USA.CongressionalDistrict	String	The returned congressional district.
USA.DefaultMatch	String	<p>The returned default match.</p> <p>Y Carrier route, or ZIP + 4, or DPBC default values returned.</p> <p>Blank No default values returned.</p>
USA.DPV	String	<p>The returned Delivery Point Validation (DPV) indicators.</p> <p>N The address is not a valid delivery point. The USPS cannot deliver mail to this address.</p> <p>Y The address is delivery point validated. Primary range and secondary range (when present) are valid. The USPS can deliver mail to this address.</p> <p>S This address contains a valid primary range. Secondary range is present but is not confirmed. The USPS can deliver mail to this address.</p> <p>D This address contains a valid primary range. Secondary range is missing. The USPS can deliver mail to this address.</p>
USA.DPV.CMRA	String	<p>The returned Commercial Mail Receiving Agency (CMRA) indicators.</p> <p>Y The address is a valid CMRA.</p> <p>N The address is a confirmed delivery point but is not a valid CMRA.</p> <p>Blank This field is blank if the address is not a confirmed delivery point.</p>

Field Name	Format	Description
USA.DPV.DNA	String	<p>The DPV Door Not Accessible (DNA) Table status indicator. The DNA Table identifies delivery addresses where carriers cannot knock on the door for mail delivery or where carriers cannot physically access a residence/building such as rural/highway contact route (HCR), long driveway, or gated community.</p> <p>Y The address was found in the DPV DNA Table.</p> <p>N The address was not found in the DPV DNA Table.</p> <p>Blank The DPV DNA Table was not queried.</p>
USA.DPV.FalsePositive	String	<p>The DPV False Positive Flag.</p> <p>Y The address is not a confirmed delivery point and a positive response was received from the False Positive File.</p> <p>N The address is not a confirmed delivery point and a negative response is received from the False Positive File. This field is blank if the address is a confirmed delivery point.</p> <p>Blank The False/Positive Table was not queried.</p>

Field Name	Format	Description
USA.DPV.Footnote	String	The returned DPV footnote code.
		A1 Input address did not match to the ZIP + 4 File.
		AA Input address matched to the ZIP + 4 File.
		BB Input address matched to DPV (all components).
		CC Input address primary number matched to DPV but secondary number did not match (present but invalid).
		F1 Input address matched to a military ZIP Code.
		G1 Input address matched to a General Delivery address.
		M1 Input address primary number missing.
		M3 Input address primary number is invalid.
		N1 Input address primary number matched to DPV but address is missing secondary number.
		P1 Input address missing PO Box, rural route, or highway contract number.
		P3 Input address PO Box, rural route, or highway contract number invalid.
		PB Input address is a PO Box Street Address (PBSA).
		R1 Input address matched to CMRA but secondary number is not present.
		R7 Input address is a Carrier Route R777.
		RR Input address matched to CMRA.
		U1 Input address matched to a unique ZIP Code.
USA.DPV.NoStat	String	The DPV No-Stat Table status.
		Y The address was found in the DPV No-Stat Table.
		N The address was not found in the DPV No-Stat Table.
		Blank The DPV No-Stat Table was not queried.
USA.DPV.NSL	String	The DPV No Secure Location (NSL) Table status.
		Y The address was found in the in the DPV NSL Table.
		N The address was not found in the DPV NSL Table.
		Blank The DPV NSL Table was not queried.

Field Name	Format	Description
USA.DPV.PBSAFound	String	<p>The DPV PO Box Street Address (PBSA) Table status indicator.</p> <p>Y The address was found in the DPV PBSA Table.</p> <p>N The address was not found in the DPV PBSA Table.</p> <p>Blank The DPV PBSA Table was not queried.</p>
USA.DPV.Throwback	String	<p>The DPV PO Box Throwback Table status.</p> <p>Y The address was found in the in the DPV PO Box Throwback Table.</p> <p>N The address was not found in the DPV PO Box Throwback Table.</p> <p>Blank The DPV PO Box Throwback Table was not queried.</p>
USA.DPV.Vacant	String	<p>The DPV Vacant Table status indicator.</p> <p>Y The address was found in the DPV Vacant Table.</p> <p>N The address was not found in the DPV Vacant Table.</p> <p>Blank The DPV Vacant Table was not queried.</p>
USA.EWSFailure	String	The address was not matched because the address was found in the USPS Early Warning System (EWS) File.
USA.FIPSCountyNumber	String	The returned five-digit FIPS code. Positions 1 and 2 contain the state code. Positions 3 through 5 contain the county code. Used for output information only.
USA.FiveDigitBarcode	String	The returned five-digit barcode.
USA.FullCityName	String	The full city name.
USA.LACS	String	<p>The LACSLink status.</p> <p>L The address is eligible for LACSLink processing.</p> <p>Blank No LACSLink processing available.</p>
USA.LACS.Indicator	String	The one-byte CASS Stage file LACSLink Indicator value. If you are not performing a CASS Stage test, this field can be ignored. If you are performing a CASS Stage test, use the value in this field to populate the stage record.

Field Name	Format	Description
USA.LACS.PreLACSAddress	String	The input address before LACSLink processing.
USA.LACS.PreLACSLeadingDirectional	String	The input address street predirectional determined before LACSLink processing.
USA_LACS.PreLACSMatchedZIP	String	The input address matched ZIP Code determined before LACSLink processing.
USA_LACS.PreLACSMatchedZIP4	String	The input address matched ZIP+4 Code determined before LACSLink processing.
USA_LACS.PreLACSRange	String	The input address street primary range determined before LACSLink processing.
USA_LACS.PreLACSStreetName	String	The input address street name determined before LACSLink processing.
USA_LACS.PreLACSSuffix	String	The input address street suffix determined before LACSLink processing.
USA_LACS.PreLACSTrailingDirectional	String	The input address street postdirectional determined before LACSLink processing.
USA_LACS.PreLACSUnitD	String	The input address unit designator determined before LACSLink processing.
USA_LACS.PreLACSUnitN	String	The input address unit number determined before LACSLink processing.
USA.LACS.ReturnCode	String	<p>The LACSLink return code.</p> <p>A LACS^{Link} processing successful. Record matched through LACS^{Link} processing.</p> <p>00 LACS^{Link} processing failed. No matching record found during LACS^{Link} processing.</p> <p>09 LACS^{Link} processing matched the input address to an older highrise default address. The address has been converted. However, rather than provide an imprecise address, LACS^{Link} processing does not provide a new address.</p> <p>14 LACS^{Link} processing failed. Match found during LACS^{Link} processing but conversion did not occur due to other USPS regulations.</p> <p>92 LACS^{Link} processing successful. Record matched through LACS^{Link} processing. Unit number dropped on input.</p>

Field Name	Format	Description
USA.LACS.SeedHit	String	<p>Indicates if the address was found in the LACSLink False Positive (Seed) Table.</p> <p>Y The address was found in the LACS^{Link} False Positive (Seed) Table.</p> <p>N The address was not found in the LACS^{Link} False Positive (Seed) Table.</p>
USA.LOTCode	String	The returned enhanced Line of Travel (eLOT) code. Used for output information only. If eLOT is unavailable, the default value is 0000D.
USA.LOTSequence	String	<p>The last character of the eLOT code indicates eLOT sequence.</p> <p>A Ascending.</p> <p>D Descending.</p>
USA.MatchLevel	String	<p>The returned match level.</p> <p>F Firm record match.</p> <p>G General delivery match.</p> <p>H Highrise match.</p> <p>P PO Box match.</p> <p>R Rural route/highway contract match.</p> <p>S Street level match.</p>
USA.NonMailingCityName	String	The non-mailing city name. A city name that is recognized by the USPS, but is not the preferred name for the ZIP Code. This is often a vanity name for the area.
USA.POBoxOnly	String	<p>The PO Box only delivery zone status indicator.</p> <p>Y The address ZIP Code is a PO Box only delivery zone.</p> <p>N The address ZIP Code is not a PO Box only delivery zone.</p> <p>Blank Unable to determine USPS ZIP Code for input address.</p>
USA.PostalBarcode	String	The returned delivery point barcode.

Field Name	Format	Description
USA.PreferredCityName	String	<p>The preferred city name for ZIP Code.</p> <p>Note: For successfully-coded addresses, the USA.PreferredCityName and the USA.PreferredState fields are always populated.</p> <p>For non-coded addresses, the USA.PreferredCityName and the USA.PreferredState fields are populated in the following scenarios:</p> <ul style="list-style-type: none"> • ZIP Code only input (city not input, or not found). • Single ZIP Code city input (ZIP Code not input, or not found). • City/State/ZIP Code input and agree (ZIP Code is part of city). <p>For all other non-coded scenarios, the preferred fields are blank.</p>
USA.PreferredState	String	<p>The preferred state abbreviation for the preferred city name.</p> <p>Note: For successfully-coded addresses, the USA.PreferredCityName and USA.PreferredState fields are always populated.</p> <p>For non-coded addresses, the USA.PreferredCityName and USA.PreferredState fields are populated in the following scenarios:</p> <ul style="list-style-type: none"> • ZIP Code only input (city not input, or not found). • Single ZIP Code city input (ZIP Code not input, or not found). • City/State/ZIP Code input and agree (ZIP Code is part of city). <p>For all other non-coded scenarios, the preferred fields are blank.</p>
USA.PrivateMailbox	String	The returned matched Private Mail Box (PMB) or Mail Stop Code (MSC).
USA.PrivateMailbox.Input	String	Reserved for future use.
USA.PrivateMailbox.Type	String	Reserved for future use.
USA.PrivateMailbox.Type.Input	String	Reserved for future use.
USA.RDI	String	<p>The returned Residential Delivery Indicator (RDI).</p> <p>Y The address is a residential delivery.</p> <p>N The address is a business delivery.</p> <p>Blank The address failed address lookup (did not return a ZIP+4), or RDI was not active.</p>
USA.Status	String	<p>The match status of the address.</p> <p>F The address failed to match.</p> <p>Blank The address was successfully matched.</p>

Field Name	Format	Description
USA.Status.Code	String	The returned match status code.
USA.Status.Description		4101 No city, state, and ZIP Code in address.
		4102 No ZIP Code and no city name in address.
		4103 No ZIP Code and no state name in address.
		4104 Cannot match to Unique ZIP Code.
		4211 Invalid ZIP Code and no city name in address.
		4212 No ZIP Code and invalid city name in address.
		4213 Invalid ZIP Code and invalid city name in address.
		4301 No street name in input address.
		4399 Blank address record.
		4411 No primary street name found in the Global Address Validation database.
		4412 No primary names ranked with certainty.
		4421 Invalid range or house number.
		4422 Incorrect or missing directional.
		4423 Incorrect or missing suffix.
		4425 Incorrect or missing suffix and directional.
		4450 No range in input address.
		4451 Multiple component failure. An address component had multiple options causing the address to fail assignment.
		4460 EWS Failure. Address found on EWS table.
		4461 eLOT assignment has failed. Address coded successfully but eLOT code not assigned.
		4465 The address requires a firm. No firm was provided or the firm failed to match.
		4466 The address requires secondary addresses (there is no default street address). No secondary was provided or the secondary did not match.
		4467 The address coded but was flagged for ZIP Move processing. The address failed to meet the final ZIP Move criteria. ZIP Move processing requires an exact match of street, suffix, and directional (both pre and post).
		4500 Unable to code. If reason for inability to code cannot be determined, this error is issued.
		4600 Undeliverable address in the Global Address Validation database.

Field Name	Format	Description
<p>Note: This status code can still be valid with a successfully matched address. The combination of the two codes indicates that this is a valid address but is not deliverable by USPS standards.</p>		
	4601	The address failed Delivery Point Validation (DPV) processing.
	4602	The address is flagged as Carrier Route R777 and is not eligible for street delivery. This status code is only generated if the option R777 Deliverable is not activated.
	4801	Address is locked and was not processed.
	5101	Warning: Missing apt/suite number.
	5102	Warning: Apt/suite was input but is not valid.
	5103	Warning: Input firm name is missing or invalid.
	5104	Warning: Multiple firms returned for address.
	5105	Warning: PO Box number is invalid or unavailable.
	5106	Warning: Apt/Suite was input but not allowed for this address.
	5200	Information: Address bypassed counted correct in Process Unassign run.
USA.SuiteLink.Fidelity	String	<p>The SuiteLink fidelity code.</p> <p>1 All words in the business name match.</p> <p>2 Acceptable match. One or more words in the business name did not match, but acceptance criteria was still met.</p> <p>3 Unacceptable match. One or more words in the business name did not match. Acceptance criteria was not met.</p>
USA.SuiteLink.MatchCode	String	<p>The SuiteLink match code.</p> <p>A SuiteLink match found.</p> <p>B No SuiteLink match found.</p> <p>C Business name normalized to a blank value.</p> <p>D ZIP + 4 Code not recognized as a high-rise default.</p> <p>E Suite^{Link} database expired.</p>

Field Name	Format	Description
USA.SuiteLink.ReturnCode	String	The SuiteLink return code.
		A Successful SuiteLink match.
		00 Failed SuiteLink match.
USA.VeriMoveDataBlock	String	Reserved for future use.
USA.ZIPValid	String	The returned ZIP Code.
USA.ZIP4Valid	String	The returned ZIP + 4 Code.

Reports

Global Address Validation can produce reports for batch processing. The Spectrum™ Technology Platform 12.2 S12 release includes statistics for United States (USA) address processing in the following Global Address Validation reports.

Match Analysis by Country

The Global Address Validation Match Analysis by Country Report provides address matching summary statistics for each country processed in your job.

Address Matching Summary Report

The Address Matching Summary Report provides summary matching statistics for each country processed.

USPS Form 3553 (CASS Summary Report)

The United States Postal Service® (USPS) Form 3553 (CASS Summary Report) is a facsimile of the Postal Form 3553. Global Address Validation generates this form automatically when you are using a USPS Coding Accuracy Support System (CASS) certified configuration. The USPS requires this form to verify CASS certification.

To create a report, in Enterprise Designer, drag the report icon you want to the canvas. Double click the report to select the stage associated with the report. For instructions on how to use reports, see the *Spectrum™ Technology Platform Dataflow Designer's Guide*.

Known Issues

- (IACODE-536) Unable to add all countries to one Database Resource. This issue occurs when all countries for the Global Addressing Validation stage and the Global Type Ahead stage are added into just one Database Resource. In this instance, the Database Resource creation times out and fails to be created. Currently, customers are advised to group countries into regional Database Resources. For example, group the APAC countries into one Database Resource and the EMEA countries into another Database Resource.
- The Global Address Module requires the Visual C++ Redistributable Packages for Visual Studio 2013 for the Windows platform that is available for download at <https://www.microsoft.com/en-us/download/details.aspx?id=40784>.

Installation

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

Important: Product update 12.2 S12 does not need to be installed in any specific order with respect to other Spectrum™ Technology Platform 12.2 product updates.

Applying This Product Update to a Cluster

To apply this product update to a cluster, install the product update to each node by following the instructions in these release notes. You can apply the product update to one node at a time without stopping all the nodes in the cluster.

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. Execute the *SpectrumDirectory/server/bin/server.stop* script to shut down the Spectrum™ Technology Platform server.
3. Back up the following directories to a different location:

```
SpectrumDirectory/server/app/deploy/
SpectrumDirectory/server/modules/GlobalAddressValidation
```


4. Download the zip file containing the patch from www.g1.com/support
5. Extract the contents of the zip file to a temporary location.
6. FTP the `cdq1220S12.tar` file in binary mode to a temporary directory on the Spectrum™ Technology Platform machine.
7. Change the directory to the **\$G1DCG** directory.
8. Untar the file using this command:

```
tar -xvf TemporaryDirectory/cdq1220S12.tar
```
9. Execute the `SpectrumDirectory/server/bin/server.start` script to start the Spectrum™ Technology Platform server.

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 system tray and select **Stop Spectrum™**. Alternatively, you can use the Windows Services Control Panel and stop the Pitney Bowes Spectrum™ Technology Platform service.
2. Back up the following folders to a different location:

```
SpectrumFolder\server\app\deploy\  
SpectrumFolder\server\modules\GlobalAddressValidation
```

3. Download the zip file containing the patch from www.g1.com/support.
4. Extract the contents of the zip file to a temporary location.
5. Extract the resulting zip file (`cdq1220S12.zip`) to the folder where you installed Spectrum. For example, `C:\Program Files\Pitney Bowes\Spectrum`.

Choose to overwrite the existing files.

6. Start the Spectrum™ Technology Platform server. To start the server, right-click the Spectrum™ Technology Platform icon in the Windows system tray and select **Start Spectrum™**. Alternatively, you can use the Windows Services Control Panel to start the Pitney Bowes Spectrum™ Technology Platform service.

Installing Global Addressing Module Databases

Follow this procedure to download and install Global Addressing Module databases in the Spectrum™ Product Database (SPD) format from the Pitney Bowes estore.

1. Select and download your licensed SPD files (xxx.spd) from the Pitney Bowes estore using the link provided in the release announcement or welcome email.
2. The database is downloaded as a zip file. Unzip the database before proceeding with the installation.
3. Install the SPD files:
 - a) Place the SPD files in `<SpectrumLocation>/server/app/dataimport`. This is the default location for SPD files. The Spectrum™ Technology Platform server monitors this folder and looks for new files in two-second intervals.

You can change the location of the data import directory by altering the **platform** property in the `<SpectrumLocation>/server/app/conf/dataimportdirectories.properties` file.
 - b) When the server detects new SPD files, the server automatically extracts the SPD files to `<SpectrumLocation>/server/app/repository/datastorage`.

You can change the location of the data storage folder by altering the **spectrum.data.manager.storage.directory** property in the Data Manager settings section of the `<SpectrumLocation>/server/app/conf/spectrum-container.properties` file.
 - c) By default, the SPD files are deleted after the files are extracted. However, you can archive SPD files by setting the **spectrum.data.manager.archive.data** property to "true" in the Data Manager settings section of the `<SpectrumLocation>/server/app/conf/spectrum-container.properties` file.
 - d) At this point the data will become available and you can add it as a Spectrum™ database resource in the **Spectrum™ Databases** section of Management Console.
 - e) After you install the database files, use either the Database Resource tool in the Management Console or the Global Addressing Administration Utility database commands to define the database as a resource. For more information on the Administration Utility database commands, see the section "Global Addressing Module Databases" in the *Spectrum™ Technology Administration Guide*.



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