



Location Intelligence

# GeoTAX<sup>®</sup> Premium

## Version 7.5

# Technical Notes



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# Introduction

Pitney Bowes is pleased to announce the GeoTAX Premium 7.5 release. This release is available for Internet download. This document provides an overview of release documentation, release highlights, product updates, database compatibility and platform-specific changes for this release.

**Note:** Although we will continue to provide Level 1 technical support for release versions of GeoTAX prior to 7.5, any future product updates will only be provided for the 7.5 version of this product.

## Release Documentation

The technical notes, release announcement and User's Guide for GeoTAX Premium 7.5 are available for viewing and download from the Pitney Bowes Software Support Web site, <http://www.q1.com/support>. To access these documents, log into the Support site and select **Documentation**. Then, select **Technical Product Info** for the technical notes, **Customer Communications** for the release announcement or **User Documentation** for the User's Guide.

## Highlights and General Enhancements

The enhancements and new features introduced in GeoTAX Premium 7.5 include:

- **Point Database Installation**  
This release introduces the option of loading point data into a folder other than the GeoTAX DB location.
- **Improved Handling of Hyphenated House Numbers**  
Improvements have been made in cases where the input address has a hyphenated house number (N-M). If the input street does not have a hyphenated range, the match is made using "N" as the house number and "M" as the unit number. For example, 18-20 Morton St., 02907 now returns 18 Morton St #20, 02907 since "Morton St" does not have a hyphenated range. In addition, in cases where the input address has a number, followed by a dash and an ordinal street, a match is now made and returns correct address information.
- **Enhancements in Handling of Misspelled Street Suffixes**  
Enhancements have been made to the handling of misspelled street suffixes. Additional matches are now made in spite of the misspellings; for example, 1861 Lincoln Hgy East, now matches to 1861 LINCOLN HWY E.  
This enhancement also provides improved matches. For example, 5834 Brookstone Ovlk previously matched to 5834 BROOKSTON WALK NW, now returns a correct match to 5834 BROOKSTONE OVERLOOK NW.
- **Improved Matching of Addresses with Conjunction Tokens**  
Improved matching of addresses that contain conjunction tokens (AND, AT and &), such as:
  - Firms or POI's that have conjunction tokens. For example: PARK & RIDE-OLDE TOWN ARVADA, 80002
  - Intersections that start with numeric/ordinal streets. For example: 6 1/2 W AND MILE 9 N, TX 78599
  - Addresses that start with a non-numeric house number. For example: 1504-B 3 AND 20 RD,EASLEY SC 29642
  - Street centroid matches where the street has a conjunction token. For example: HILL AND DALE RD, PLYMOUTH WI 53073
- **Improvement in Singleline Address Matching**  
Refinements have been made to singleline address matching to ensure the best address match is returned, regardless of geocode precision.

- **Additional Data Returned in Control Totals Report**

The Control Totals Report now includes additional information for a completed job. The new data includes detailed information covering:

- *Standardized Address Quality* - This section describes the changes that were made to addresses in order to validate them.
- *Unmatched Address Records* - This section lists the number of unmatched addresses and the reasons why the addresses were not matched.

- **Taxware Changed to Sovos**

Taxware changed their name to Sovos. To bring our products in line, all references to Taxware in the GeoTAX software and documentation have been changed to Sovos.

# Product Updates

## Point Database Installation

### Loading Point Data to a Different Folder

This release introduces the option of loading point data into a folder other than the GeoTAX DB location. If you choose to load the point data into a folder other than the GeoTAX DB location, you will need to modify the **setup.bat** batch file, which is located in:

C:\Program Files\Pitney Bowes\GeoTAX\bin (default install location)

Edit the following command to point to the location of your data:

```
SET GTGSADR=%G1DB%;C:\New Folder\PointData
```

## Deprecated File Support

Support for the following files has been deprecated in GeoTAX 7.5:

- Vertex MatchMaster
- Personal Property Tax Districts (PTD)

## Improved Handling of Hyphenated House Numbers

Improvements have been made in cases where the input address has a hyphenated house number (N-M).

- If the input street does not have a hyphenated range, the match is made using “N” as the house number and “M” as the unit number.
- Further improvements have been made in the handling of an input address line that contains a house number with the pattern N-NA.
- In addition, in cases where the input address has a number, followed by a dash and an ordinal street, a match is now made and returns correct address information.

Input Address	New match results	Old match results
<p>18-20 Morton St., 02907</p> <p><i>Previously, the Input address was considered a hyphenated house number. Now the match correctly returns a house and unit number.</i></p>	<p>18 MORTON ST #20 PROVIDENCE, RI 02905-2825</p> <p>Match Code: SF0E Location Code: AP02</p> <p><i>Returns correct street and unit information.</i></p>	<p>18-20 MORTON ST PROVIDENCE, RI 02905-2825</p> <p>Match Code: SF00 Location Code: AP02</p>
<p>108-64B 49 AVE, CORONA NY 11368</p> <p><i>Input address with a N-NA hyphenated house number now returns a better match with correct address information.</i></p>	<p>10864B 49TH AVE, CORONA, NY 11368</p> <p>Match Code: S888 Location Code: AS0</p> <p><i>Returns correct address information.</i></p>	<p>108 RAILROAD PL # 64B, MASPETH, NY 11378</p> <p>Match Code: TB9E Location Code: AS0 Alias Code: A06</p>
<p>120-10TH ST, 10306</p> <p><i>Input address with hyphenated house number and street name now correctly identifies the house number and street name.</i></p>	<p>120 10TH ST STATEN ISLAND, NY 10306-2948</p> <p>Match Code: SE00 Location Code: AP02</p> <p><i>Returns correct street address information.</i></p>	<p>120-10TH SANTO CT STATEN ISLAND, NY 10306-1421</p> <p>Match Code: SE90 Location Code: AS0</p>
<p>5609-4TH AVE S, 98108</p> <p><i>Input address with incorrectly hyphenated house number and street name now able to match.</i></p>	<p>5609 4TH AVE S SEATTLE, WA 98108-2422</p> <p>Match Code: SE00 Location Code: AP02</p> <p><i>Now able to match and returns complete address information.</i></p>	<p>Match Code: E020 Location Code: ZC5X</p>

## Improved Handling and Matching of Addresses with Conjunction Tokens

Improved matching of addresses that contain conjunction tokens (AND, AT and &), such as:

- Firms or POI's that have conjunction tokens
- Intersections that start with numeric/ordinal streets
- Addresses that start with a non-numeric house number
- Street centroid matches where the street has a conjunction token.

Input Address	New match results	Old match results
R&D TROPHY & DESIGN, ARVADA CO  <i>Input address with company name with multiple conjunction tokens now able to match.</i>	13825 W 75TH PL R&D TROPHY & DESIGN ARVADA, CO 80005-3010  Match Code: A9B8 Location Code: AP02  <i>Returns match with complete address.</i>	R & D TROPHY AT DESIGN 80005  Match Code: E020 Location Code: ZC5X
BOULDER FIRE AND POLICE, 80301  <i>Firm name with conjunction token.</i>	BOULDER FIRE AND POLICE 1805 33RD ST BOULDER, CO 80301-2576  Match Code: AE98 Location Code: AP02  <i>Now able to match.</i>	BOULDER FIRE AND POLICE BOULDER, CO 80301  Match Code: E021 Location Code: ZC5X
6 1/2 W AND MILE 9 N, TX 78599  <i>Intersection input address between numeric and ordinal streets.</i>	N MILE 6 1/2 W AT N MILE 9 RD WESLACO, TX 78599  Match Code: Y2A7 Location Code: AX3  <i>Now able to match.</i>	6 1/2 W AND MILE 9 N TX 78599  Match Code: E020 Location Code: ZC5X
1504-B 3 AND 20 RD, EASLEY SC 29642  <i>Input address with a non-numeric house number and the street name has a conjunction token.</i>	1504B THREE AND TWENTY RD EASLEY, SC 29642-9631  Match Code: A888 Location Code: AS0  <i>Now able to match.</i>	1504-B 3 AT 20 RD EASLEY, SC 29642  Match Code: E020 Location Code: ZC5X
HILL AND DALE RD, PLYMOUTH WI 53073  <i>Input address with a conjunctive street name. (Should result in a street centroid match since no house number is given.)</i>	HILL AND DALE RD PLYMOUTH, WI 53073  Match Code: C00 Location Code: CCC  <i>Now able to match.</i>	HILL AT DALE RD PLYMOUTH, WI 53073  Match Code: E021 Location Code: ZC5X



## Enhancements to Handling of Misspelled Street Suffixes

Improvements have been made to the handling of misspelled street suffixes. Additional matches are now made in spite of the misspellings.

Input Address	New match results	Old match results
1861 Lincoln Hgy East <i>Input address with a misspelled street suffix.</i>	1861 LINCOLN HWY E Match Code: S89 <i>Now able to match.</i>	<No match> Match Code: E020
5834 Brookstone Ovlk <i>Input address with an abbreviated street name that appears as a street type.</i>	5834 BROOKSTONE OVERLOOK NW Match Code: S8C <i>Now returns the correct street address.</i>	5834 BROOKSTON WALK NW Match Code: S8D
1213 Hillcrest Cro E <i>Input address with an unsupported street suffix.</i>	1213 HILLCREST XING E Match Code: S81 <i>Now returns the correct street name and suffix.</i>	1213 HILLCREST RD Match Code: S89
5491 WINSLOW CROSSNG <i>Input address with a misspelled street suffix.</i>	5491 WINSLOW XING Match Code: S91 <i>Now returns the correct street address.</i>	5491 WINSLOW XING N Match Code: A9D
1005 61ST AVE TCE <i>Input address with a misspelled street suffix.</i>	1005 61ST AVENUE TER E Match Code: S8D <i>Now returns the correct street suffix.</i>	1005 61ST AVE E Match Code: T8D
25039 WOODRIDGE TRI <i>Input address with an abbreviated street suffix.</i>	25039 WOODRIDGE TRIANGLE Match Code: SA8 <i>Now returns the correct street suffix.</i>	25039 WOODRIDGE DR Match Code: TA9

# Parameter Record Changes

For additional information on parameters, refer to the *GeoTAX Premium 7.5 User's Guide*.

## Removed Parameter Records

The following parameter record has been removed in GeoTAX release 7.5.

### PTDOUT – Property Tax District Output Record

The PTDOUT parameter record provides the means to specify the posting of Property Tax District (PTD) data to the output records to enhance tax jurisdiction assignment.

## Modified Parameter Records

### FILEDF – File Definition Record

The following fields were changed to *Reserved*.

Position	Field Name	Length	Contents
30-33	Device type	4	The device type that contains the input or output file. Enter one of the following:  TAPE 2311 2314 3310 3300  3340 3350 3370 3375 3380  FBA
34	Tape handling	1	Indicates how to handle media.  <b>blank</b> Rewind tape at open or close operations. If non-labeled tapes are detected, this field is changed to a U. <b>U</b> Rewind tape at open operations, and unload at close operations. <b>X</b> Do not reposition tapes at open or close operations. <b>M</b> More than one standard label file; query the operator for EOF/EOV at the end of each input file.  In general, use blank for intermediate references to a single-tape file; use U for multi-tape files; use X for files that require non-standard tape positioning (can be accomplished via MTC commands or equivalent).
35	LABEL TYPE		Indicates if the records on the file have standard or omitted labels:  <b>S</b> Standard labels <b>N</b> No labels.

## Callable Functions Changes

No changes for this release.

## Integrator Series Changes

### Environment Variables

The following database variables were deprecated in GeoTAX 7.5:

- GTBDPTD – ptd.txb – PTD boundary file
- DD\_GTMASTR – Vertex MatchMaster file

# Fixed Change Requests and Known Issues

## Fixed Change Requests

The list below represents all of the change requests addressed in this release. Please review this list carefully to determine whether the following corrections apply to your situation.

Item Number	Change Request	Description
GEOTAX-1814		Fixed an issue where having the Buffer feature enabled when using a tax rate or correspondence file (Sovos and PB Vertex) would sometimes result in the return of incorrect rates or GeoTAXKey data.
GEOTAX-1935		Corrected the GeoStan version displayed in the GeoTAX report generated on mainframe systems.
GEOTAX-1956		Updated the Database Load Utility for UNIX/Linux systems to handle Sovos files with mixed case file names.
GEOTAX-1960		Fixed the return of an incorrect LatLong.MatchLevel code for point-level matches.
GEOTAX-1964		Fixed the return of latitude/longitude coordinates for Palau and other US territories not in the northwestern hemisphere.

## Known Issues

There are no known issues for this release.



## New GeoTAX Premium

```

*           1           2           3           4           5           6           7           8
*2345678901234567890123456789012345678901234567890123456789012345678901234567890
FILEDF GTBMPRM   00080 08000
FILEDF GTBMNAM   L02000 02000
FILEDF GTBMCOK   L02000 30000
ADDRDF L 041 40 001 40
CS ZIP S 111 C 081 28 109 02           116 C
ALOUT 120 001 40 041 40 081 28 109 111 116
GEOOUT 124           129 131           148           127
LLOUT 125           400   C C Y
SPDOUT 208           210 215
SPDOUT           255 260
SPDOUT           300 305
SPDOUT           345 350
PCOUT 134 168           126           128           139
REPORT N N
HEADER

```

If your system relies on a custom program to process your customer data the change to single step processing is also a relatively simple change. The simplified COBOL code examples below provide an example of the needed changes. Any references to Code-1 Plus can be removed and the input address elements are then moved directly to the GeoTAX calling area.

## Existing two-step processing

```

*** CODE 1 PLUS SETTINGS AND CALL

    MOVE INPUT-STREET-INFO TO P9IAD1.
    MOVE INPUT-CITY-STATE TO P9ICST.
    MOVE INPUT-ZIP-CODE TO P9IZIP.
    MOVE INPUT-ZIP-4 TO P9IZIP4.

    CALL "C1MATCHL" USING P9IN P9OUT P9AUDIT.

* Optional logic for handling of cleansed address

*** GEOTAX SETTINGS AND CALL

    MOVE "N" TO MCA-BMN.
    MOVE "N" TO MCA-GTX.
    MOVE "B" TO MCA-LATLONG-OFFSET.
    MOVE SPACES TO MIA-STREET-1.
    MOVE P9OSAD TO MIA-STREET-1.
    MOVE SPACES TO MIA-CITY.
    MOVE P9OCTL TO MIA-CITY.
    MOVE P9OSTA TO MIA-STATE.
    MOVE P9OCZP TO MIA-ZIP.
    MOVE P9OZP4 TO MIA-Z4.
    MOVE SPACES TO MATCHER-OUTPUT-AREA.

    CALL "GTMATCH" USING MATCHER-PARAMETERS.

* Optional logic for handling of jurisdiction assignments

```

## GeoTAX Premium one-step processing

```
*** GEOTAX SETTINGS AND CALL

MOVE "N"           TO MCA-BMN.
MOVE "N"           TO MCA-GTX.
MOVE "B"           TO MCA-LATLONG-OFFSET.
MOVE SPACES        TO MIA-STREET-1.
MOVE INPUT-STREET-INFO TO MIA-STREET-1.
MOVE INPUT-CITY-STATE TO MIA-STREET-3. * Use if City and State are in the same input field
MOVE SPACES        TO MIA-CITY.
MOVE INPUT-CITY     TO MIA-CITY.
MOVE INPUT-STATE    TO MIA-STATE.
MOVE INPUT-ZIP-CODE TO MIA-ZIP.
MOVE INPUT-ZIP-4    TO MIA-Z4.
MOVE SPACES        TO MATCHER-OUTPUT-AREA.

CALL "GTMATCH" USING MATCHER-PARAMETERS.

* Optional logic for handling of cleansed address
* Optional logic for handling of jurisdiction assignments
```

This same logic applies to applications that utilize the Enterprise Tax Module on the Spectrum Platform. Custom programs or data flows that use the ValidateAddress service can now pass their input records directly to the AssignGeoTAXInfo service.

## Database Compatibility

The following information should be noted for database compatibility for the GeoTAX Premium 7.5 release:

- There are no data format changes to the street and point data sets for this release.
- Support for the Vertex MatchMaster data file has been deprecated.
- Support for the Personal Property Tax Districts (PTD) data has been deprecated.

## Platform-specific Changes

### New Platform

For this GeoTAX software release, the following additional platform is supported:

- Windows Server 2016

### Retired Platform

Please note that we are no longer supporting:

- Red Hat Enterprise Linux 5.0

### Platform Retirement Notice

This is the last release we will support the following platform:

- SUSE Linux 10

## AIX

By default, AIX processes use 256 MB of memory. To avoid encountering memory problems using GeoTAX, please update your environment with the variable list below prior to starting your daemon:

```
export LDR_CNTRL=MAXDATA=0xN0000000  
rc.osseal start
```

**NOTE:** where N is in OxN0000000, N can be any number 1 through 8.

## For Further Assistance

If you have any questions about this release, please contact us via the web, email, or phone for further assistance:

- Create a case in our [Online Case Management System](#),
- Send an email to [software.support@pb.com](mailto:software.support@pb.com), or
- Call our toll-free number, +1 800.367.6950.

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