City of New York Department of City Planning
Information Technology Division
Geographic Systems Section

GEOSUPPORT SYSTEM TECHNICAL BULLETIN 09-02

SUBJECT: Version 10.7 Enhancements

Date: 01 July 2009

Target audience: All Geosupport users
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Introduction

The principal enhancements to Geosupport for Version 10.7 include:

I. Return DCP-Preferred or BOE-Preferred Street Name for Functions 1, 1A and 1E when Called with Borough and 5-Digit Street Code (B5SC) (COW[1] and MSW[2])
II. Function 3S Enhancement (COW and MSW)
III. Implement Fuzzy Street Name Search for Functions 3 and 3C (COW and MSW)
IV. Return Business Improvement District (BID) with Functions 1A, BL and BN (COW and MSW)
V. Miscellaneous Enhancements and Corrections

User Programming Considerations

I. Return DCP-Preferred or BOE-Preferred Street Name for Functions 1, 1A and 1E when Called with Borough and 5-Digit Street Code (B5SC) (COW and MSW)

Prior to Geosupport Version 10.7, if the user supplied a borough and five-digit street code (B5SC) in place of a street name as input to a Function 1, 1A or 1E call, Geosupport returned the primary street name. In a few situations, this could create a problem, because the primary street name did not always apply to the entire street stretch. If the location specified happened to be in an area where the primary street name did not apply, then the street name returned by Geosupport would produce an error when used as input for a subsequent call for that location.

To resolve this problem and, in general, to return a more desirable street name, Geosupport now returns the DCP-preferred street name and its corresponding B10SC for Functions 1 and 1A and the BOE-preferred street name for Function 1E instead of the primary street name. This means that in certain situations, a different street name will be returned than had been returned with previous releases of Geosupport.

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[1] Character-Only Work Area
[2] Mainframe-Specific Work Area

An example of this would be for Functions 1/1A calls for addresses on 7 Avenue in Manhattan north of West 110th Street. In the past if the user supplied the B5SC of 110610, the street name 7 AVENUE would be returned. Now ADAM C. POWELL BOULEVARD will be returned. Since ADAM C. POWELL BOULEVARD is the street name most commonly used in this location, it is a better choice. Function 1E will continue to return 7 AVENUE since this is the BOE-preferred street name.

II. Function 3S Enhancement (COW and MSW)

Prior to Geosupport Version 10.7, when a user requested a particular portion of a street as opposed to an entire street stretch, the first entry in the list returned in Work Area 2 contained the distance from the previous intersection to the specified intersection. This is not appropriate, because the user has requested that the stretch start at the specified intersection; consequently the distance associated with the first node is now set to zero.

Similarly, if there is a gap between the first intersection in the list and the preceding intersection in the entire street, the gap flag is now set to blank, since from the user's point of view there is no gap within this stretch.

An example of this is the partial street stretch of Broadway in Manhattan between East 17 Street and East 20 Street. There is a gap between East 14 Street and East 17 Street, but there will no longer be any indication of that gap in the list of intersections. If, on the other hand, the user requested the partial street stretch of Broadway in Manhattan between East 10 Street and East 20 Street, the gap between East 14 Street and East 17 Street will appear in the list.

III. Implement Fuzzy Street Name Search for Functions 3 and 3C (COW and MSW)

Under certain conditions, Functions 3 and 3C will return data when front-truncated street names are given as input; e.g. 14 STREET instead of EAST 14 STREET or WEST 14 STREET.

When a user supplies a street that is a front-truncated street name, Geosupport will process that front-truncated street name if the front-truncated street name supplied may only refer to a single street name. For example, if a user supplies '7 STREET' in Manhattan as an input street, Geosupport knows that the only possibility is 'EAST 7 STREET' in Manhattan since there is no 'WEST 7 STREET'.

When a user supplies a street name that is a front-truncated street name such as 57 STREET where there are two viable street names, such as EAST 57 STREET and WEST 57 STREET in Manhattan, then Function 2 is used inside Geosupport to determine which of the two street names actually intersects with the other input street. As an example, if a user inputs '57 STREET' between 'PARK AVENUE' and 'MADISON AVENUE', Geosupport will provide data, because in Manhattan 'EAST 57 STREET' intersects 'PARK AVENUE' and 'MADISON AVENUE'. If a user inputs 'PARK AVENUE'

between 57 STREET and 58 STREET, Geosupport will accept the call, because in Manhattan EAST 57 STREET intersects 'PARK AVENUE' as does EAST 58 STREET.

A warning message with Reason Code J will be issued when Geosupport assumes a name that is different from the input street name.

The fuzzy search involving Functions 3 and 3C is similar to the fuzzy search for Function 2 Intersection Processing, which was described in Geosupport Technical Bulletin 07-02, Geosupport Version 10.3 and the fuzzy search for Function 3S Processing which was described in Geosupport Technical Bulletin 09-01, Geosupport Version 10.6.

IV. Return Business Improvement District (BID) with Functions 1A, BL and BN (COW and MSW)

Upon the request of the Fire Department, the Business Improvement District (BID) is being returned with Functions 1A, BL and BN. The BID is being returned in Work Area 2 as a borough and five-digit street code (B5SC). Function D may be used to obtain the name of the BID. The "Street Attribute Indicator" is set as **C** for BIDs.

The following table shows the field name of the BID's B5SC in the Work Area 2.

Language	**Label (COW)**	**Label (MSW)**
BAL	P21ABID	W21ABID/W21ALBID
C	bid_id	bid_id
COBOL	PIWA2-1A-BID / PIWA2-1AL-BID	GEO-WA2-1A-BID / GEO-WA2-1AL-BID
PL/1	PIWA2_1A_BID/PIWA2_1AL-BID	GEO_WA2_1A_BID/GEO_WA2_1AL_BID
Natural	PIWA2-1A-BID / PIWA2-1AL-BID	GEO-WA2-1A-BID / GEO-WA2-1AL-BID

V. Miscellaneous Enhancements and Corrections

If a free form address is supplied containing multiple blanks either within the house number or between the house number and the street name, the multiple blanks are replaced with a single blank.

In addition, various minor reported bugs have been fixed.

TABLE OF GEOSUPPORT FUNCTIONS

Function	User Input	Selected Geosupport Output Items
1	Address	Standardized Street Name and Street Code, Address Range, List of Cross Streets, Zip Code, Community District, Health Area, Health Center District, 1990 Census Tract, 2000 Census Tract and block, Fire Engine or Ladder Company, School District, Police Precinct, XY Coordinates (based on the State Plane Coordinate System)
1E	Address	Same as for Function 1 + Political Geography (Election District, Assembly District, Congressional District, City Council District, Municipal Court District and State Senatorial District)
1A	Address	Standardized Street Name and Street Code, Tax Block and Lot, Alternative Addresses for Lot, Building Identification Number, RPAD Building Class, Interior Lot Flag, Vacant Lot Flag, Irregularly-Shaped Lot Flag, Corner Code, etc.
1N	Street Name	Standardized Street Name and Street Code (not available in the Desktop Edition of GOAT)
2	Pair of Intersecting Streets or Named Intersection	Standardized Street Name and Street Codes, List of Additional Cross Streets, Zip Code, Community District, Health Area, 1990 and 2000 Census Tract, Fire Districts, School District, Police Precinct, XY Coordinates (based on State Plane Coordinate System)
3	On Street and a pair of Consecutive Cross Streets	Standardized Street Names and Street Codes, Lists of Cross Streets at both ends, and information about both sides of the street, (including Zip Codes, Community Districts, Health Areas, 1990 and 2000 Census Tracts, Fire Districts, School Districts, Police Precincts)
3C	On Street and a Pair of Consecutive Cross Streets & a Compass Direction (Side of Street)	Same as Function 3 but for one side of the street only (Blockface information)
3S	On Street and an Optional pair of any Intersecting Street along the On Street	Street Stretch information: List of intersecting streets in order along 'on' street, the distance between them and node IDs
BF, BB	Character String	List of street names in alphabetic order - supports street name browsing
BL	Tax Block and Lot	List of Addresses for Lot, List of Building Identification Numbers (BINs), RPAD Building Class, Interior Lot Flag, Vacant Log Flag, Flag, Corner Code, etc.
BN	Bldg Identification Number	List of Address Ranges for Building, Tax Block and Lot, RPAD Building Class, Interior Lot Flag, Vacant Lot Flag, Irregularly Shaped Lot Flag, Corner Code etc.
D,DG,DN	Street Code and/or House Number	Street Name and./or House Number in Displayable Format