



Geo Addressing SDK

Version 5.1.257

Release Notes

Contents:

What's New.....	2
Fixed Issues.....	14
Known Issues.....	16
Installation Notes.....	17
Past Documentation Links.....	18



What's New

Predict is now Address Autocomplete

Starting this quarter, Predict will be called Address Autocomplete. Predict is no longer used in the SDK Sample application, which now uses Address Autocomplete.

Autocomplete (Predict) capability

With the Predict capability, the candidate ranges and units are flattened out to individual candidates. While the Max Number of candidates constraint helps in grouping of the candidates, it is surpassed by the concept of flattening, since there can be multiple units and ranges in each flattened candidate. The customPreference parameter `EXPANDED_RANGE_UNIT` is used to achieve this capability. Default value for `EXPANDED_RANGE_UNIT` is false, if set to true the candidates get flattened out.

The Request and Response for Autocomplete capability are shown below:

Request:

```
{
  "preferences": {
    "maxResults": 5,
    "returnAllInfo": true,
    "factoryDescription": {
      "label": "",
      "featureSpecific": {}
    },
    "customPreferences": {"EXPANDED_RANGE_UNIT" : "true"}
  },
  "address": {
    "addressLines": ["350 jordan road troy 12180"],
    "country": "USA"
  }
}
```

Response:

EXPANDED_RANGE_UNIT: False	EXPANDED_RANGE_UNIT: True
<pre>{ "status": "OK", "predictions": [{ "prediction": "350 Jordan</pre>	<pre>{ "status": "OK", "predictions": [{ "prediction": "350 Jordan Rd,</pre>

EXPANDED_RANGE_UNIT: False

```

Rd, Troy, NY 12180",
  "distance": {
    "value": 0,
    "distanceUnit": "METER"
  },
  "address": {
    "formattedAddress": "350
Jordan Rd, Troy NY 12180",
    "formattedStreetAddress":
"350 Jordan Rd",
    "formattedLocationAddress":
"Troy, NY 12180",
    "addressNumber": "350",
    "country": {
      "isoAlpha3Code": "USA"
    },
    "admin1": {
      "longName": "NY",
      "shortName": "NY"
    },
    "admin2": {},
    "city": {
      "longName": "Troy",
      "shortName": "Troy"
    },
    "neighborhood": {},
    "postalCode": "12180",
    "street": "Jordan Rd"
  },
  "addressLines": [
    "350 Jordan Rd",
    "Troy NY 12180"
  ],
  "location": {
    "feature": {
      "type": "Feature",
      "properties": {
        "crsName": "epsg:4326"
      }
    },
    "geometry": {
      "type": "Point",
      "coordinates": [
        -73.693205,
        42.679325
      ]
    }
  },
  "parsed": [
    {}
  ]

```

EXPANDED_RANGE_UNIT: True

```

Troy, NY 12180",
  "distance": {
    "value": 0,
    "distanceUnit": "METER"
  },
  "address": {
    "formattedAddress": "350
Jordan Rd, Troy NY 12180",
    "formattedStreetAddress":
"350 Jordan Rd",
    "formattedLocationAddress":
"Troy, NY 12180",
    "addressNumber": "350",
    "country": {
      "isoAlpha3Code": "USA"
    },
    "admin1": {
      "longName": "NY",
      "shortName": "NY"
    },
    "admin2": {},
    "city": {
      "longName": "Troy",
      "shortName": "Troy"
    },
    "neighborhood": {},
    "postalCode": "12180",
    "street": "Jordan Rd"
  },
  "addressLines": [
    "350 Jordan Rd",
    "Troy NY 12180"
  ],
  "location": {
    "feature": {
      "type": "Feature",
      "properties": {
        "crsName": "epsg:4326"
      }
    },
    "geometry": {
      "type": "Point",
      "coordinates": [
        -73.693205,
        42.679325
      ]
    }
  },
  "parsed": [
    {}
  ]

```

EXPANDED_RANGE_UNIT: False

```

],
"explanation": {
  "addressMatch": {
    "description": [
      {
        "label": "placeName",
        "matchType": "NONE"
      },
      {
        "label":
"addressNumber",
        "matchType": "EXACT",
        "matchedSubstring":
"350"
      },
      {
        "label": "admin1",
        "matchType": "NONE"
      },
      {
        "label": "admin2",
        "matchType": "NONE"
      },
      {
        "label": "city",
        "matchType": "EXACT",
        "matchedSubstring":
"TROY"
      },
      {
        "label":
"neighborhood",
        "matchType": "NONE"
      },
      {
        "label": "suburb",
        "matchType": "NONE"
      },
      {
        "label": "street",
        "matchType": "EXACT",
        "matchedSubstring":
"JORDAN RD"
      },
      {
        "label":
"postalCode",

```

EXPANDED_RANGE_UNIT: True

```

],
"explanation": {
  "addressMatch": {
    "description": [
      {
        "label": "placeName",
        "matchType": "NONE"
      },
      {
        "label":
"addressNumber",
        "matchType": "EXACT",
        "matchedSubstring":
"350"
      },
      {
        "label": "admin1",
        "matchType": "NONE"
      },
      {
        "label": "admin2",
        "matchType": "NONE"
      },
      {
        "label": "city",
        "matchType": "EXACT",
        "matchedSubstring":
"TROY"
      },
      {
        "label":
"neighborhood",
        "matchType": "NONE"
      },
      {
        "label": "suburb",
        "matchType": "NONE"
      },
      {
        "label": "street",
        "matchType": "EXACT",
        "matchedSubstring":
"JORDAN RD"
      },
      {
        "label":
"postalCode",

```

EXPANDED_RANGE_UNIT: False

```

        "matchType": "EXACT",
        "matchedSubstring":
"12180"
    },
    "label":
"streetType",
    "matchType": "NONE"
    },
    "label":
"postalCodeExt",
    "matchType": "NONE"
    },
    "label":
"streetDirectional",
    "matchType": "NONE"
    }
]
},
"source": {
    "label": "ggs"
}
},
"customFields": {
    "DISTANCE": "-0.0",
    "FROM_CUSTOM_DATASET":
"false",
    "MATCHED_FROM_ADDRESSNUMBER":
"350",
    "MATCHED_FROM_STREETNAME":
"JORDAN RD",
    "ADDRESS_NUMBER_FROM":
"350",
    "DATA_PROVIDER":
"MASTERLOCATION",
    "PRODUCT_CODE": "8US",
    "FORMATTED_STRING": "350
Jordan Rd, Troy, NY 12180",
    "RECORD_TYPE": "2",
    "MATCHED_FROM_POSTCODE":
"12180",
    "MATCHED_FROM_AREANAME3":
"TROY",
    "DISTANCE_UNIT": "METERS"
}
}

```

EXPANDED_RANGE_UNIT: True

```

        "matchType": "EXACT",
        "matchedSubstring":
"12180"
    },
    "label":
"streetType",
    "matchType": "NONE"
    },
    "label":
"postalCodeExt",
    "matchType": "NONE"
    },
    "label":
"streetDirectional",
    "matchType": "NONE"
    }
]
},
"source": {
    "label": "ggs"
}
},
"customFields": {
    "PB_KEY": "P0000GL638OL",
    "DISTANCE": "-0.0",
    "FROM_CUSTOM_DATASET":
"false",
    "RANGE_INFO": "350",
    "MATCHED_FROM_ADDRESSNUMBER":
"350",
    "MATCHED_FROM_STREETNAME":
"JORDAN RD",
    "ADDRESS_NUMBER_FROM":
"350",
    "POSTAL_VERIFIED": "NO",
    "DATA_PROVIDER":
"MASTERLOCATION",
    "PRODUCT_CODE": "8US",
    "FORMATTED_STRING": "350
Jordan Rd, Troy, NY 12180",
    "RECORD_TYPE": "2",
    "MATCHED_FROM_POSTCODE":
"12180",
    "FEATUREID": "108535989",
    "ZIP4": "8352",

```

EXPANDED_RANGE_UNIT: False

```
]
}
```

EXPANDED_RANGE_UNIT: True

```
"MATCHED_FROM_AREANAME3":
"TROY",
  "DISTANCE_UNIT": "METERS"
},
{
  "prediction": "350 Jordan Rd,
Ste 1, Troy, NY 12180",
  "distance": {
    "value": 0,
    "distanceUnit": "METER"
  },
  "address": {
    "formattedAddress": "350
Jordan Rd, Troy NY 12180",
    "formattedStreetAddress":
"350 Jordan Rd",
    "formattedLocationAddress":
"Troy, NY 12180",
    "addressNumber": "350",
    "country": {
      "isoAlpha3Code": "USA"
    },
    "admin1": {
      "longName": "NY",
      "shortName": "NY"
    },
    "admin2": {},
    "city": {
      "longName": "Troy",
      "shortName": "Troy"
    },
    "neighborhood": {},
    "postalCode": "12180",
    "street": "Jordan Rd"
  },
  "addressLines": [
    "350 Jordan Rd",
    "Troy NY 12180"
  ],
  "location": {
    "feature": {
      "type": "Feature",
      "properties": {
        "crsName": "epsg:4326"
      }
    },
    "geometry": {
      "type": "Point",
      "coordinates": [
        -73.693205,
```

EXPANDED_RANGE_UNIT: False

EXPANDED_RANGE_UNIT: True

```

42.679325
    ]
  }
},
"parsed": [
  {}
],
"customFields": {
  "PB_KEY": "P0000GL410MI",
  "FORMATTED_STRING": "350
Jordan Rd, Ste 1, Troy, NY 12180",
  "UNITNUMBER": "1",
  "UNITDESCRIPTION": "Ste",
  "UNIT_INFO": "Ste 1",
  "FEATUREID": "105104106",
  "ZIP4": "8358",
  "POSTAL_VERIFIED": "YES"
}
},
"prediction": "350 Jordan Rd,
Ste 2, Troy, NY 12180",
"distance": {
  "value": 0,
  "distanceUnit": "METER"
},
"address": {
  "formattedAddress": "350
Jordan Rd, Troy NY 12180",
  "formattedStreetAddress":
"350 Jordan Rd",
  "formattedLocationAddress":
"Troy, NY 12180",
  "addressNumber": "350",
  "country": {
    "isoAlpha3Code": "USA"
  },
  "admin1": {
    "longName": "NY",
    "shortName": "NY"
  },
  "admin2": {},
  "city": {
    "longName": "Troy",
    "shortName": "Troy"
  },
  "neighborhood": {},
  "postalCode": "12180",
  "street": "Jordan Rd"
}

```

EXPANDED_RANGE_UNIT: False

EXPANDED_RANGE_UNIT: True

```

    },
    "addressLines": [
      "350 Jordan Rd",
      "Troy NY 12180"
    ],
    "location": {
      "feature": {
        "type": "Feature",
        "properties": {
          "crsName": "epsg:4326"
        }
      },
      "geometry": {
        "type": "Point",
        "coordinates": [
          -73.693205,
          42.679325
        ]
      }
    }
  },
  "parsed": [
    {}
  ],
  "customFields": {
    "PB_KEY": "P0000GL410MJ",
    "FORMATTED_STRING": "350
Jordan Rd, Ste 2, Troy, NY 12180",

    "UNITNUMBER": "2",
    "UNITDESCRIPTION": "Ste",
    "UNIT_INFO": "Ste 2",
    "FEATUREID": "105104107",
    "ZIP4": "8358",
    "POSTAL_VERIFIED": "YES"
  }
},
{
  "prediction": "350 Jordan Rd,
Ste 3, Troy, NY 12180",
  "distance": {
    "value": 0,
    "distanceUnit": "METER"
  },
  "address": {
    "formattedAddress": "350
Jordan Rd, Troy NY 12180",
    "formattedStreetAddress":
"350 Jordan Rd",
    "formattedLocationAddress":
"Troy, NY 12180",

```


EXPANDED_RANGE_UNIT: False

EXPANDED_RANGE_UNIT: True

```

"addressNumber": "350",
"country": {
  "isoAlpha3Code": "USA"
},
"admin1": {
  "longName": "NY",
  "shortName": "NY"
},
"admin2": {},
"city": {
  "longName": "Troy",
  "shortName": "Troy"
},
"neighborhood": {},
"postalCode": "12180",
"street": "Jordan Rd"
},
"addressLines": [
  "350 Jordan Rd",
  "Troy NY 12180"
],
"location": {
  "feature": {
    "type": "Feature",
    "properties": {
      "crsName": "epsg:4326"
    }
  },
  "geometry": {
    "type": "Point",
    "coordinates": [
      -73.693205,
      42.679325
    ]
  }
}
},
"parsed": [
  {}
],
"customFields": {
  "PB_KEY": "P0000GL41OMK",
  "FORMATTED_STRING": "350
Jordan Rd, Ste 3, Troy, NY 12180",
  "UNITNUMBER": "3",
  "UNITDESCRIPTION": "Ste",
  "UNIT_INFO": "Ste 3",
  "FEATUREID": "105104108",
  "ZIP4": "8358",
  "POSTAL_VERIFIED": "YES"
}

```

EXPANDED_RANGE_UNIT: False	EXPANDED_RANGE_UNIT: True
	<pre> } }] } </pre>

SERP Validation Code support in Addressing Geocode API

The CA9 SERP support for Geo Addressing SDK is now available. SERP return codes indicate the quality of the input address as determined by the Canada Post's Software Evaluation and Recognition Program regulations. From Geo Addressing SDK different SERP validation codes will be returned as a part of Custom Fields with the key `SERP_VALIDATION_CODE`. The customPreference parameter `SERP_MODE` is used to achieve this capability, default value for `SERP_MODE` is false.

SERP Validation Codes can be:

V: Validated the address or the input provided was valid.

C: The input was correctable. "Correctable" address is one that can be corrected to match on.

N: No Match or the input was non-correctable.

The Request and Response for SERP support are shown below:

Request

```

{
  "preferences": {
    "maxResults": 1,
    "returnAllInfo": true,
    "factoryDescription": {
      "label": "",
      "featureSpecific": {}
    },
    "clientLocale": "",
    "clientCoordSysName": "",
    "distance": {
      "value": 150,
      "distanceUnit": "METER"
    },
    "streetOffset": {
      "value": 7,
      "distanceUnit": "METER"
    },
    "cornerOffset": {
      "value": 7,
      "distanceUnit": "METER"
    },
    "customPreferences": {"SERP_MODE": "true"}
  },

```

```

"addresses": [
  {
    "addressLines": ["7816 GRIST MILL RD RAMARA TP"],
    "country": "CAN",
    "addressNumber": "",
    "admin1": "ON",
    "admin2": "",
    "city": "WASHAGO",
    "postalCode": "L0K2B0"
  }
]
}

```

. Response

```

{
  "responses": [
    {
      "status": "OK",
      "results": [
        {
          "score": 100,
          "address": {
            "formattedAddress": "GRIST MILL RD RAMARA TP, WASHAGO ON L0K 2B0, Canada",
            "formattedStreetAddress": "7816 GRIST MILL RD RAMARA TP",
            "formattedLocationAddress": "WASHAGO ON L0K 2B0",
            "country": {
              "name": "Canada",
              "isoAlpha2Code": "CA",
              "isoAlpha3Code": "CAN",
              "isoNumericCode": "124"
            },
            "admin1": {
              "longName": "Ontario",
              "shortName": "ON"
            },
            "city": {
              "longName": "WASHAGO",
              "shortName": "WASHAGO"
            },
            "postalCode": "L0K",
            "postalCodeExt": "2B0",
            "street": "GRIST MILL RD RAMARA TP"
          },
          "addressLines": [
            "GRIST MILL RD RAMARA TP",
            "WASHAGO ON L0K 2B0",
            "Canada"
          ],
          "location": {
            "explanation": {

```

```

    "type": "UNKNOWN"
  },
  "feature": {
    "type": "Feature",
    "properties": {
      "crsName": "epsg:4326"
    },
    "geometry": {
      "type": "Point",
      "coordinates": [
        0,
        0
      ]
    }
  }
},
"explanation": {
  "addressMatch": {
    "type": "ADDRESS",
    "description": [
      {
        "label": "placeName",
        "matchType": "EXACT"
      },
      {
        "label": "addressNumber",
        "matchType": "EXACT"
      },
      {
        "label": "admin1",
        "matchType": "EXACT"
      },
      {
        "label": "admin2",
        "matchType": "EXACT"
      },
      {
        "label": "city",
        "matchType": "EXACT"
      },
      {
        "label": "neighborhood",
        "matchType": "EXACT"
      },
      {
        "label": "suburb",
        "matchType": "NONE"
      },
      {
        "label": "street",
        "matchType": "EXACT"
      }
    ]
  }
}

```

```

        "label": "postalCode",
        "matchType": "EXACT"
      },
      {
        "label": "streetType",
        "matchType": "EXACT"
      },
      {
        "label": "postalCodeExt",
        "matchType": "EXACT"
      },
      {
        "label": "streetDirectional",
        "matchType": "EXACT"
      }
    ]
  },
  "source": {
    "label": "ggs"
  }
},
"customFields": {
  "LANGUAGE": "en",
  "RESULT_CODE": "S0HPNTSCZA",
  "SPECIAL_KEEP_AS_UNCHANGED": "true",
  "GEOHASH": "s00000000000",
  "STREETDATATYPE": "2",
  "MATCH_TYPE": "ADDRESS",
  "SERP_ADDRESS_LINE1": "7816 GRIST MILL RD RAMARA TP",
  "CPC_RECORD_TYPE": "52",
  "MAIN_ADDRESS": "GRIST MILL RD RAMARA TP",
  "PRECISION_CODE": "S0HPNTSCZA",
  "CAN_DB_VINTAGE": "2022/09/19",
  "CAN_ADDRESS_CHANGED": "FALSE",
  "SERP_VALIDATION_CODE": "V"
},
"parsed": [
  {
    "classifications": [
      {
        "label": "street",
        "value": "GENERAL DELIVERY"
      },
      {
        "label": "admin1",
        "value": "ON"
      },
      {
        "label": "city",
        "value": "WASHAGO"
      },
      {
        "label": "postalCodeExt",

```

```

        "value": "2B0"
      },
      {
        "label": "postalCode",
        "value": "L0K"
      },
      {
        "label": "country",
        "value": "CAN"
      },
      {
        "label": "formattedInputStreet",
        "value": "GENERAL DELIVERY"
      }
    ]
  }
}

```

Better Handling of Country Code

With Geo Addressing SDK's improved logic for handling country codes, if a user has only configured one country's data, that country will be used by default, and the user will have the option of including the country code in the request parameter for Geocoding / Verify.

For SingleLine Input, Country Name at the End, and 3 letter Country ISO code are supported.

For Country in Country Field – User can provide ISO 3 Letter ISO code, 2 Letter ISO code, Country Name and the country Numeric Code.

Fixed Issues

This release contains the following fixed issues.

Item Number	Description
GN-44104	Improved CA9 SERP support for Geo Addressing SDK
GN-45233	Working as designed with the provided address input.

Item Number	Description
GN-45172	Fixed the cases where the house numbers were zero, by no longer returning zero as HNR.

Known Issues

There are no known issues for this release.

Installation Notes

The Geo Addressing SDK Distribution is a ga-sdk-dist-5.1.257 zip file which includes the Geocoding CLI Utility used to deploy and configure the Geo Addressing SDK.

For complete installation instructions, see the [Geo Addressing SDK Developer Guide](#).

System Requirements

Operating Systems

Geo Addressing SDK is supported on the following operating systems.

Windows Operating Systems

- Windows Server 2012, 2012 R2
- Windows Server 2016
- Windows Server 2019

Linux Operating Systems

- Red Hat Enterprise Linux 7.x, 8.x
- SUSE® LINUX Enterprise Server 12, 15 SP1
- Cent OS 7.x, 8.x
- Ubuntu 16.04, 18.04, 20.04 LTS
- Oracle Linux 7.x, 8.x

Other Requirements

For more details about application servers, disk space, and memory recommendations, please see the Geo Addressing SDK Developer Guide > [System Requirements](#).

Past Documentation Links

All release notes and past versions of the SDK continue to be posted on the [Precisely Support](#) site.



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