

Geoclient

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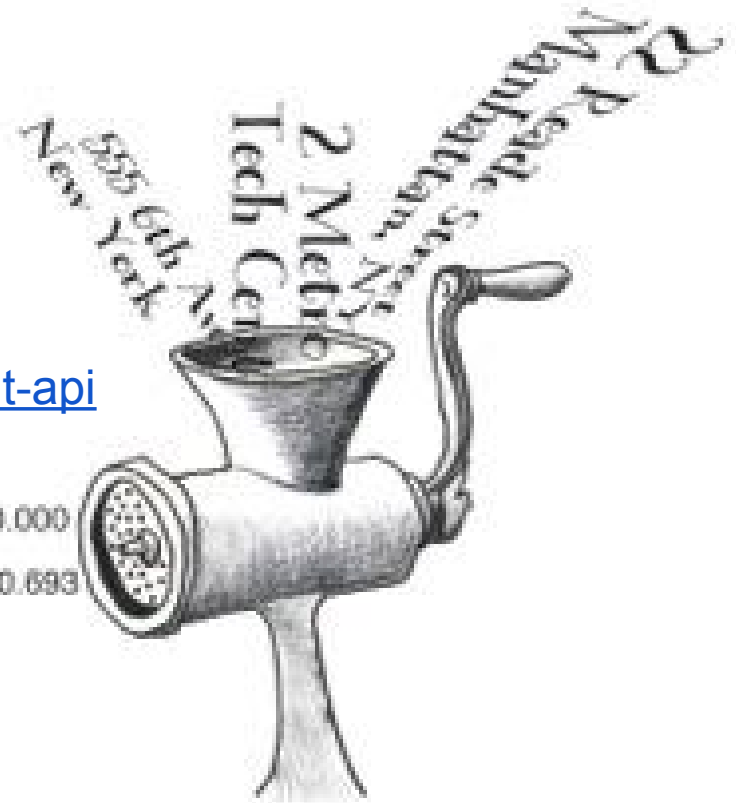
What is it?

- Access to Geosupport
- RESTful web service
- ...

<https://developer.cityofnewyork.us/api/geoclient-api>

988216.483 192020.000

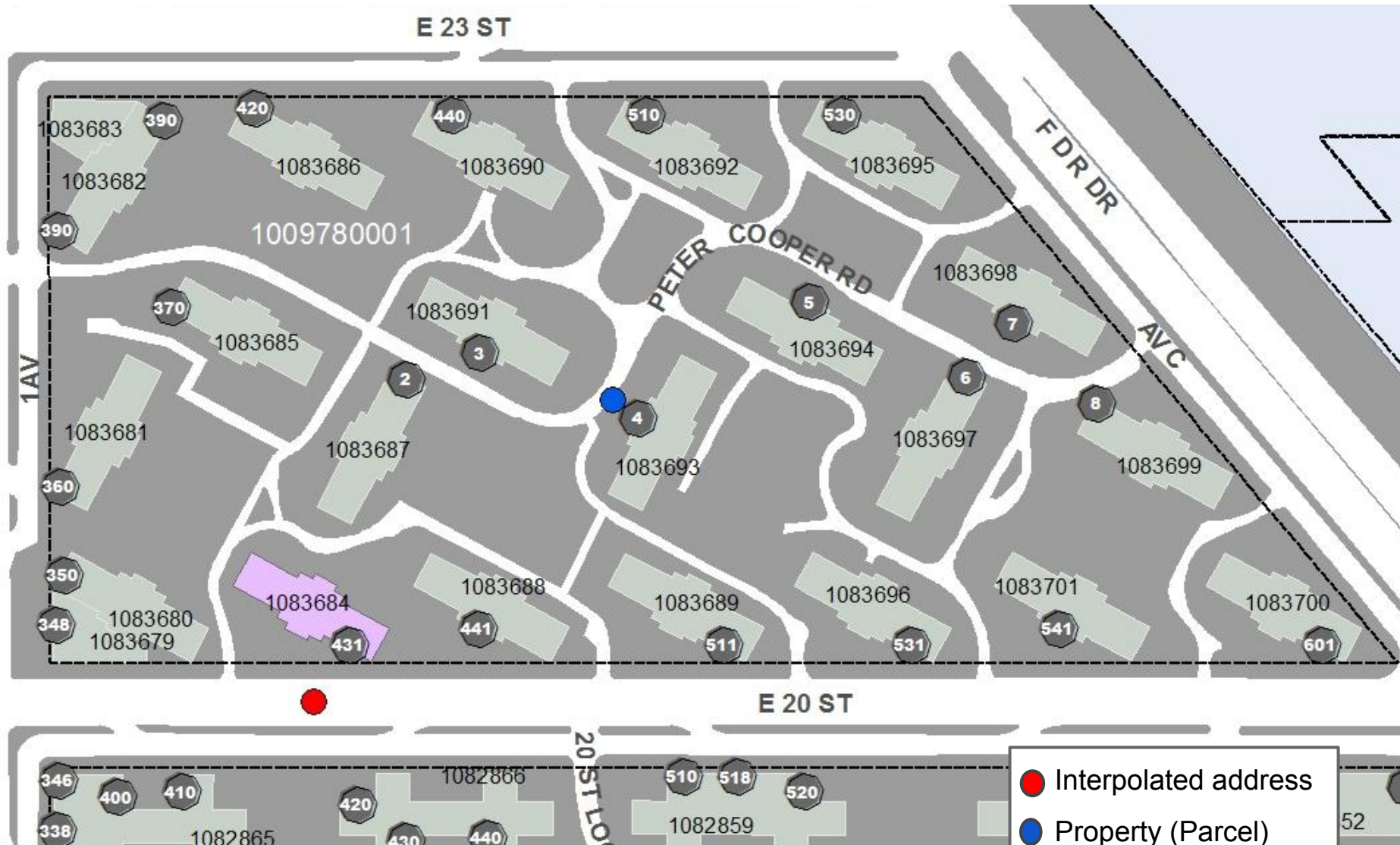
-73.985, 40.693



Why use it?

- Mapping and analysis
- NYC-specific logic and data
- No cost

Geocoding example



The map displays a residential block with the following details:

- Streets:** W 19 ST (North), W 18 ST (South), and 5 AV (East).
- Parcel Numbers and Addresses:**
 - 1015446 (Address 22)
 - 1087504 (Address 16-20)
 - 1015458 (Address 14)
 - 1015457 (Address 12)
 - 1015456 (Address 10)
 - 1015455 (Address 4)
 - 1015454 (Address 138)
 - 1015453 (Address 136)
 - 1015452 (Address 134)
 - 1015451 (Address 130)
 - 1015447 (Address 17)
 - 1015448 (Address 15)
 - 1015449 (Address 7)
 - 1015450 (Address 3)
 - 1015429 (Address 12)
 - 1015424 (Address 10)
 - 1015423 (Address 8)
 - 1015420 (Address 6)
- Highlighted Property:** Parcel 1015450 is highlighted in purple and contains a blue dot representing a property.
- Interpolated Address:** A red dot is located on W 18 ST, representing an interpolated address.
- Legend:**
 - Red dot: Interpolated address
 - Blue dot: Property (Parcel)

5AV

W 18 ST

- Interpolated address
- Property (Parcel)

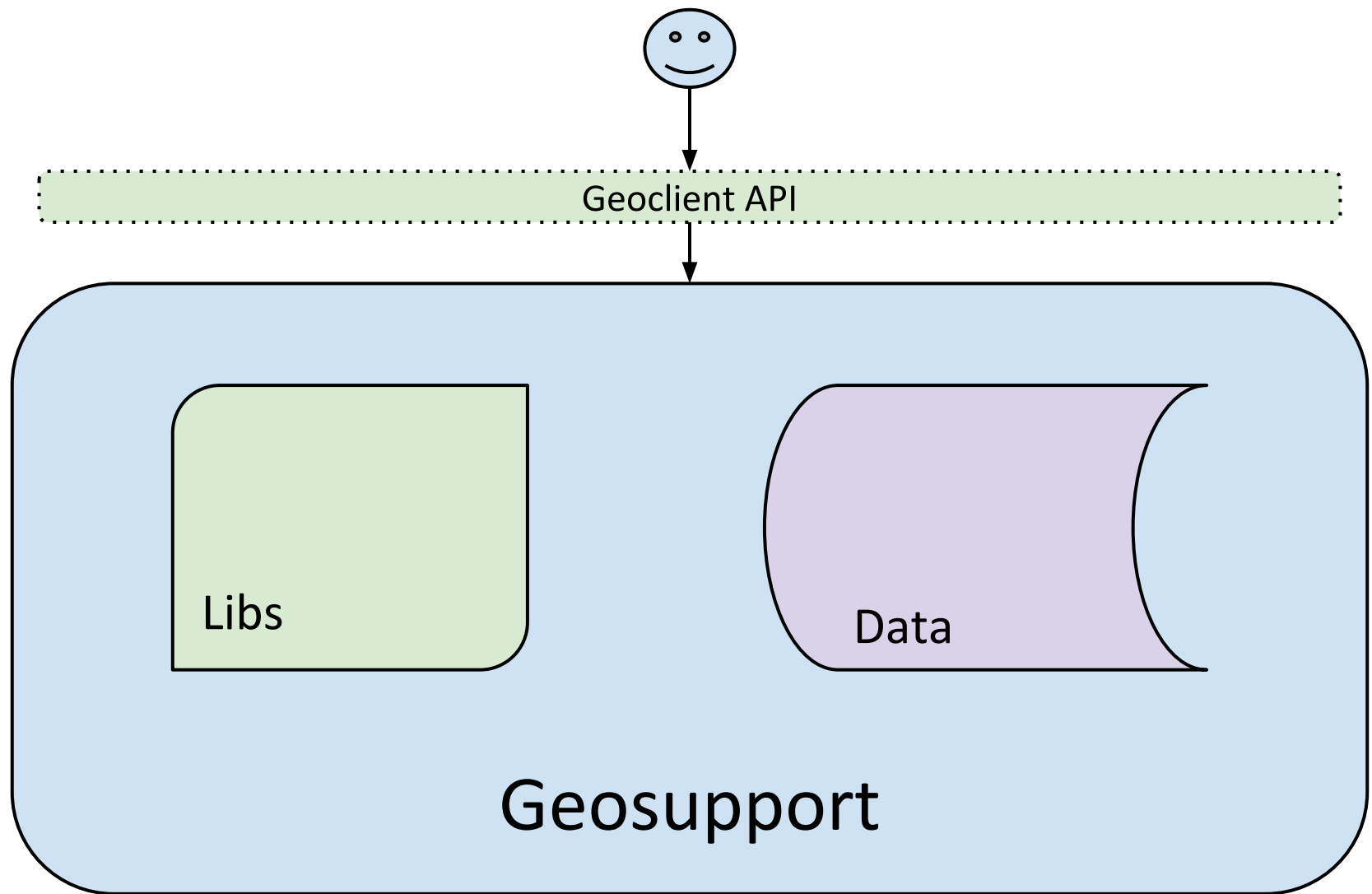
Plans

- Release under Apache 2.0 license
- Batch mode
- New Geosupport functionality
- Autocomplete
- ...

Next steps

- Code clean up & migration
- Geosupport

Technical Details



The Heavy Lifting

Design Goals

- Simple to use
- Easy to integrate
- Happy to change

Strategy

80-20 rule

Request Types

- Locations
- Documentation
- Service info

Location to Function

Location Type	Geosupport Function
Address	Function 1B
BBL	Function BLX
BIN	Function BNX
Blockface	Function 3
Intersection	Function 2
Search	Based on input recognition
Place	Function 1B

Deliverables

- REST service
- Java libraries
- C/JNI bindings
 - Linux (x86_64)
 - Windows (mingw32-i686)

Endpoints

/geoclient/v1/<location type>.<media type>?param1=foo

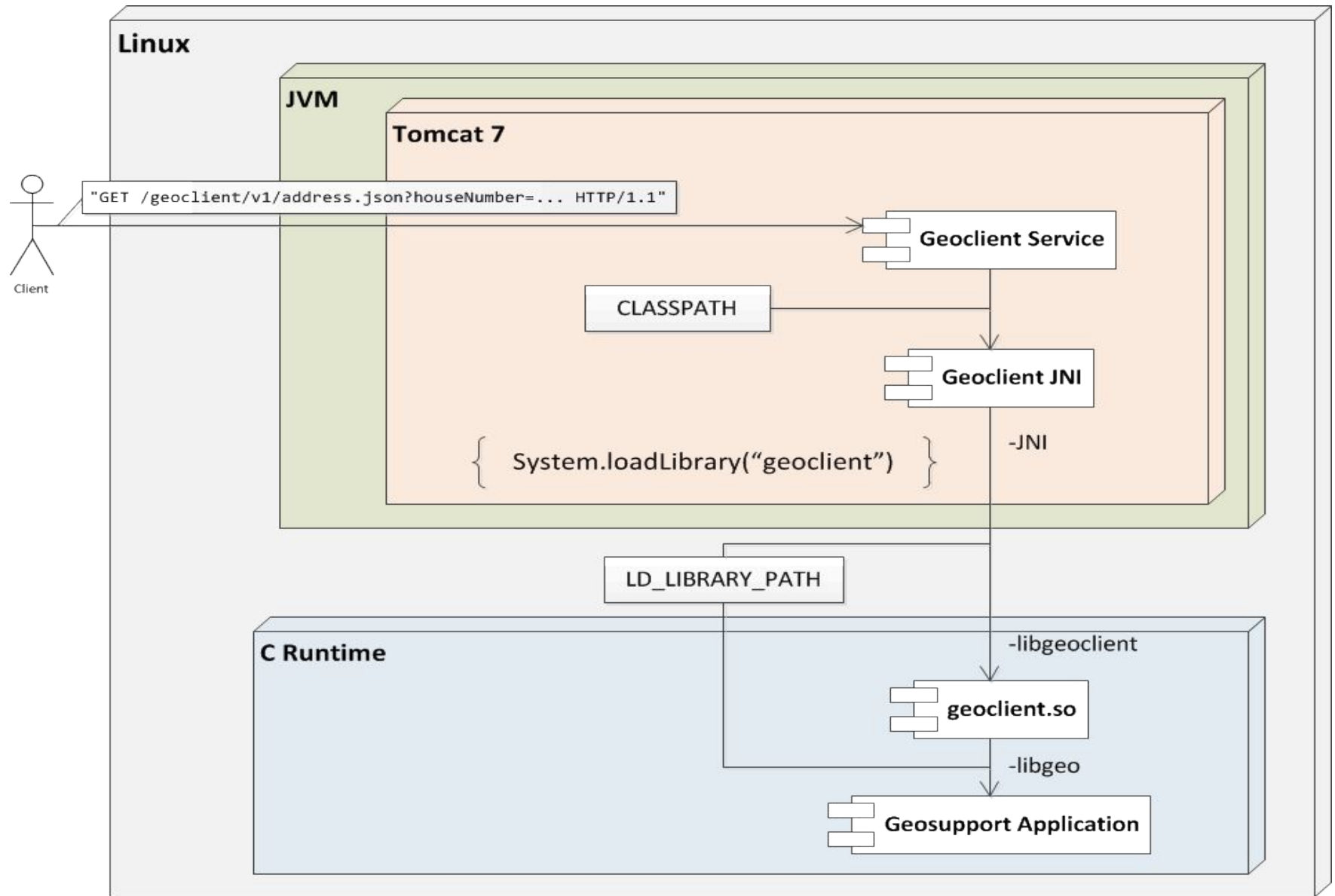
- location type ::= address | bbl | bin | blockface | intersection | place | search
- media type ::= json | xml

/geoclient/v1/version.<media type>

- media type ::= json | xml

/geoclient/v1/doc

- media type ::= html



TODO

- OSX (x86_64)
- Documentation
- C bindings for Python, Ruby, etc.
- Batch API
- Autocomplete

Ingredients

Java

Eclipse
GeoTools
Gluegen
Gradle
Groovy
Jackson
JDK 1.7**
JUnit
Maven
Mockito
Spock
Spring Framework
Tymeleaf
VIM
XStream

C

AWK
Bash
GCC
Git
GNU Make
MinGW
Sed
Subversion
VIM

Ruby

Minitest
PdfReader
Treetop
VIM

Python

PyUnit
VIM

