**2016 Candidate Project**

**Introduction**

Opta Information Intelligence provides information solutions to the property insurance industry. A key piece to this information is the property address and OPTA parses millions of addresses a month. This evaluation task will help you understand the finer points of address parsing and will help us evaluate your problem solving and programming skills.

**Task**

Parse/separate the addresses in provided list you received into the individual elements and output the results to a pipe ‘|’ delimited file.

Here is the layout of the output file:

|  |  |
| --- | --- |
| Element | Description |
| Street Address | The original address |
| Street Number | The street number or street range |
| Street Name | The name of the street |
| Street Type | The street type (i.e. AVE, ST,DR) |
| Street Direction | The street direction |
| Unit/APT | The suite, apartment or unit number |
| Municipality | The town, village, city or other municipality |
| Province | The two digit province code |
| Postal Code | The Canada Post Postal Code. |

Here is a sample of what the file should look like:

|  |
| --- |
| 14028 151 AVE NW EDMONTON AB T6V1T6|14028|151|AVE|NW||EDMONTON|AB| T6V1T6  2214 PLESSER ST OTTAWA ON K1G2X3|2214|PLESSER|ST|||OTTAWA|ON|K1G2X3  2418 ROUTE 106 BOUNDARY CREEK NB E1G4L8|2418|ROUTE 106||||BOUNDARY CREEK|NB|E1G4L8 |

Notes:

* If an element is not present in the unparsed address please create an empty element as illustrated in the sample.
* If an address cannot be parsed, only provide the unparsed address along with the empty elements.
* Please process the complete set of addresses provided
* Your program will also be evaluated against other address sets

**Implementation**

The program should be developed in Microsoft C# as either a console, or Windows Forms application. There are no restriction to the approach taken.

The following free Express versions can be used to create the solution:

Microsoft SQL Server Express

<http://www.microsoft.com/en-us/server-cloud/products/sql-server-editions/sql-server-express.aspx>

Microsoft .Net Framework

C# development

<http://www.visualstudio.com/en-US/products/visual-studio-express-vs>

**Deliverables**

There are two deliverables that should be available for the interview:

* Commented source code for the solution
* The delimited file containing the parsed addresses.

Both can be emailed to [edward.dawe@scm.ca](mailto:edward.dawe@scm.ca) in advance of your interview.

**Please note that incomplete solutions are accepted, one of the prime purposes of this project is to evaluation problem solving techniques.**