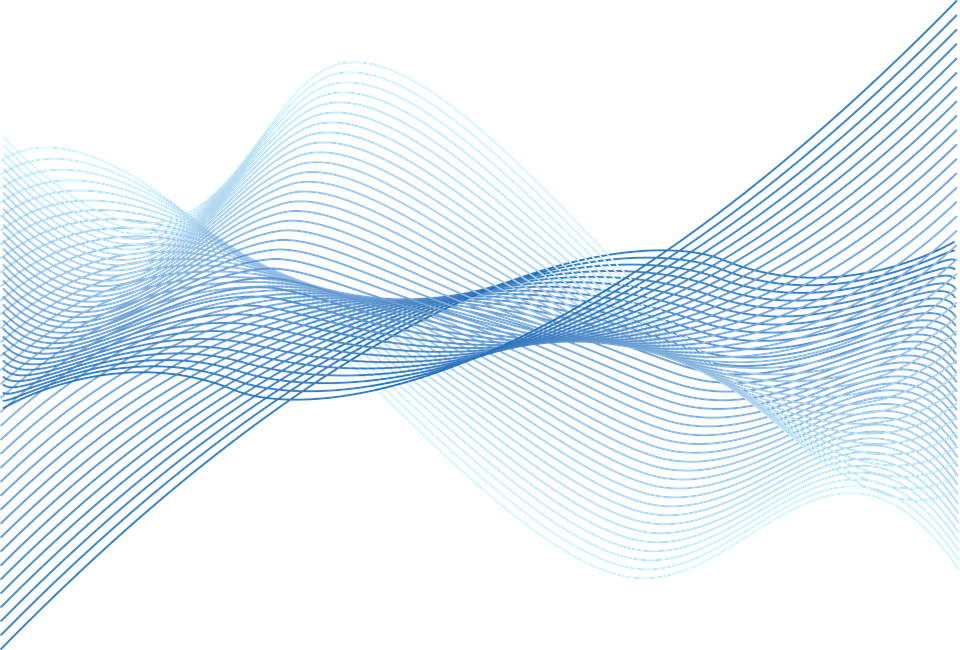
Quantanite –

Scrapping Phone Number - Process Definition Document V1.1

19 February 2020



**Version Control**

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**Approvals**

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**Distribution**

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**Table of Contents**

[1. Introduction 4](#_Toc33004385)

[1.1 Purpose 4](#_Toc33004386)

[1.2 As – Is Process Details 4](#_Toc33004387)

[1.3 Applications used in the process 5](#_Toc33004388)

[1.4 Scope 5](#_Toc33004389)

[1.4.1 Input Data 5](#_Toc33004390)

[1.4.2 Output Data 6](#_Toc33004391)

[1.5 Key Contacts 6](#_Toc33004392)

[1.6 Definitions 6](#_Toc33004393)

[1.7 Document Reference(s) 7](#_Toc33004394)

[2. Process Details 7](#_Toc33004395)

[2.1 Additional Information 9](#_Toc33004396)

[3. Business Exception Details 9](#_Toc33004397)

[3.1 Known Exceptions 10](#_Toc33004398)

[3.2 Unknown Exceptions 10](#_Toc33004399)

[4. Application Error and Exception Handling 10](#_Toc33004400)

[4.1 Known Errors or Exceptions 10](#_Toc33004401)

[4.2 Unknown Errors or Exceptions 11](#_Toc33004402)

[5. Outstanding Queries and Actions 11](#_Toc33004403)

[6. Acceptance 11](#_Toc33004404)

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# 1. Introduction

## 1.1 Purpose

The purpose of this document is to define, with keystroke-level detail, the steps that the automated Scraping Phone Number process will perform.

The document constitutes a key deliverable and is a necessary gateway to the commencement of the technical solution design phase of our delivery of the Scrapping Phone Number process. The sign-off and approval of the PDD serves to solidify the scope and features of the process to be automated.

Any future deviation from the steps outlined in this document will be subject to a relevant change control procedure.

## 1.2 As – Is Process Details

General information about the process selected for RPA prior to automation:

|  |  |  |
| --- | --- | --- |
| **#** | **Item** | **Description** |
| **1** | **Process full name** | Scrapping Phone Number |
| **2** | **Process area** | N/A |
| **3** | **Department** | Data Processing |
| **4** | **Process short description** (operation, activity, outcome) | Scrapping phone number for a specific given address |
| **5** | **Role(s) required for performing the process** | SME , Process Owner |
| **6** | **Process schedule and frequency** | 5 days a week (Mon - Fri) from 10.00 am to 06.00 pm |
| **7** | **# number of items processes / reference period** | 470-500 / 7 Hours |
| **8** | **Average handling time per item** | Less than a minute (.95 min approximate) |
| **9** | **Peak period(s)** | No peak period |
| **10** | **Transaction volume during peak period** | N\A |
| **11** | **Total # of FTEs supporting this process** | 1 |
| **12** | **Expected increase of volume in the next reference period** | Sometimes Increases and sometimes decreases. |
| **13** | **Level of exception rate** | N\A |
| **14** | **Input data** | Client Data from Google Sheets |
| **15** | **Output data** | Client Data from Google Sheets |

## 1.3 Applications used in the process

The table includes a comprehensive list all the applications that are used as part of the process automated, at various steps in the flow:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Application name & version** | **Thin/Thick Client** | **Environment / Access Method** | **Comments** |
| **1** | Internet Explorer | Thick Client | Web Browser | Internet Explorer will be used to make all the searches for scrapping Phone number in different websites |

## 1.4 Scope

The process is about scrapping phone numbers for a given address. First, we need to open the excel file in which the addresses are placed. Then copy the address line 1, address line 2, premise city, premise state, premise zip code value and search it to google. If we find the phone number, we need to copy it then update the excel file accordingly with phone number, source of finding. If not, then we search in Facebook and Yelp and Yellow pages and Loopnet with the same search value previously extracted. If a phone number is found from any of these sites, we update the excel file as we did for google. In case the phone number is not found on any of these sites we write unsuccessful in particular columns of the excel file. When the whole process is done for every address, we send an email to notify that the work is done.

### 1.4.1 Input Data

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Input Type** | **Location** | **Inputs are standard? (Yes / No)** | **Inputs are structured? (Yes / No)** | **Data to be used from file** | **Sample file attached** |
| Phone Number Lookup Sheet | Google Sheets | [Phone Number Lookup Sheet link](https://docs.google.com/spreadsheets/d/14YcFXTgHuX-2UJo0oHU_kVbtTzJ0RZi55Zkc7gUCNkU/edit?ts=5e1851dd#gid=1450343560) | Yes | Yes | **Address Line 1 Address Line 2 Premise City Premise State Premise Zip Code** |  |

*\* Inputs are* ***standard*** *if the content is positioned in the same place even if the input types are different.*

*E.g. a process that uses at each transaction the same template, so fields to be extracted are always fixed.*

*Inputs are* ***structured*** *if it is machine readable and digital. Scanned PDF Images/ Free flow texts in Emails are unstructured inputs*

*If the file is marked structured and inputs are marked as standard, then they would need to remain the same and any changes to this will require a change request.*

### 1.4.2 Output Data

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Output Type** | **Location** | **Sample file attached** |
| Phone Number Lookup Sheet | Google Sheets | [Phone Number Lookup Sheet link](https://docs.google.com/spreadsheets/d/14YcFXTgHuX-2UJo0oHU_kVbtTzJ0RZi55Zkc7gUCNkU/edit?ts=5e1851dd#gid=1450343560) | As referenced in input data [**1.4.1**](#_heading=h.1ksv4uv) |

## 1.5 Key Contacts

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **Name** | **Contact Details (email & phone number)** | **Notes** |
| Process SME | Abu Ashik | [Abu.ashik@taskeater.com](mailto:Abu.ashik@taskeater.com) |  |
| Process Reviewer | N/A | N/A |  |
| Process Owner | Imratul Jannat | [Imratul.jannat@quantanite.com](mailto:Imratul.jannat@quantanite.com) |  |

## 1.6 Definitions

|  |  |
| --- | --- |
| TBC | To Be Confirmed |
| TBD | To Be Determined |
| N/A | Not Applicable |
| VM | Virtual Machine |
| RPA | Robotic Process Automation |
| PC | Personal Computer |
| PDD | Process Definition Document |

## 1.7 Document Reference(s)

|  |  |
| --- | --- |
| [1] | Instruction Manual.docx |
| [2] | Quantanite - Brycer Process - Process Definition Document Screenshots v1.0.docx |
|  |

# 2. Process Details

Red – Business Exception

Green – Note to Developer

Blue – Clarification required / Question

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Step** | **Process Map Ref** | **Fig** | **Detail** | **Comments** |
| **1.0 Scrapping Phone Number – Overall Process** | | | | |
| 1.1 | Navigate to Google Sheet Location | [Figure 1](#_heading=h.3j2qqm3) | The file given by the Client from where the address should be Scrapped |  |
| 1.2.1 | Copy Address Line 1, Address Line 2, Premise City, Premise State, Premise Zip Code | [Figure 2](#_heading=h.3j2qqm3) | Extracting the full address |  |
| 1.2.2 | If the address field contains only a PO box other fields are missing | [Figure2.1](#_heading=h.3j2qqm3) | Information missing |  |
| 1.2.3 | Update Excel file for missing information | Figure2.2 | Update with ‘n’ in column ‘J’ |  |
| 1.3 | Open web Browser and navigate to Google Map | [Figure 3](#_heading=h.3j2qqm3) | Open Google Map for searching the address |  |
| 1.4.1 | Type the extracted value in the search field of Google Map | [Figure 4](#_heading=h.3j2qqm3) | Search for Phone number using the Scrapped Address |  |
| 1.4.2 | If the phone Number is not available in google map | [Figure 4.1](#_heading=h.3j2qqm3) | Moving to the next process |  |
| 1.4.3 | Scrap the phone number if available on Google map and matches the property name | [Figure 5](#_heading=h.3j2qqm3) | Omit +1, symbols and spaces and scrape the 10 digit phone number.  If the address is found along with multiple property names, we need to match the exact property name for the address |  |
| 1.4.4 | Update the Excel File with the Scrapped data and other additional info | [Figure 6](#_heading=h.3j2qqm3) | Adding the phone number  and additional info in column ‘I’, ‘J’, ‘K’, ‘L’ of the Excel file. Date format should be in (Month-Date-Year) format. |  |
| 1.5 | If Phone number not found in google map |  |  |  |
| 1.5.1 | Type the extracted Address value for Yellow Pages in the search field | [Figure 7](#_heading=h.3j2qqm3) | Type the full address and then Yellow pages and Search for the Phone Number in google |  |
| 1.5.2 | Scrape the phone number if available on the Yellow Pages | [Figure 8](#_heading=h.3j2qqm3) | Omit +1, symbols and spaces and scrape the 10-digit phone number |  |
| 1.5.3 | Update the Excel File with the Scrapped data and other additional info | [Figure 6](#_heading=h.3j2qqm3) | Adding the phone number  and additional info in column ‘I’, ‘J’, ‘K’, ‘L’ of the Excel file. Date format should be in (Month-Date-Year) format. |  |
| 1.6 | If Phone number not found in Yellow Pages |  |  |  |
| 1.6.1 | Type the extracted Address value for Yelp in the search field | [Figure 9](#_heading=h.3j2qqm3) | Type the full address and then Yelp and Search for the Phone Number in google |  |
| 1.6.2 | Scrape the phone number if available on the Yelp | [Figure 10](#_heading=h.3j2qqm3) | Omit +1, symbols and spaces and scrape the 10 digit phone number |  |
| 1.6.3 | Update the Excel File with the Scrapped data and other additional info | [Figure 6](#_heading=h.3j2qqm3) | Adding the phone number  and additional info in column ‘I’, ‘J’, ‘K’, ‘L’ of the Excel file. Date format should be in (Month-Date-Year) format. |  |
| 1.7 | If Phone number not found in Yelp |  |  |  |
| 1.7.1 | Type the extracted Address value for Facebook in the search field | [Figure 11](#_heading=h.3j2qqm3) | Type the full address and then Facebook and Search for the Phone Number in google |  |
| 1.7.2 | Scrape the phone number if available on the Facebook | [Figure 12](#_heading=h.3j2qqm3) | Omit +1, symbols and spaces and scrape the 10 digit phone number |  |
| 1.7.3 | Update the Excel File with the Scrapped data and other additional info | [Figure 6](#_heading=h.3j2qqm3) | Adding the phone number  and additional info in column ‘I’, ‘J’, ‘K’, ‘L’ of the Excel file. Date format should be in (Month-Date-Year) format. |  |
| 1.8 | If Phone number not found in Facebook |  |  |  |
| 1.8.1 | Type the extracted Address value for Loopnet in the search field | [Figure 13](#_heading=h.3j2qqm3) | Type the full address and then Loopnet and Search for the Phone Number in google |  |
| 1.8.2 | Scrape the phone number if available on the Loopnet | [Figure 14](#_heading=h.3j2qqm3) | Omit +1, symbols and spaces and scrape the 10 digit phone number |  |
| 1.8.3 | Update the Excel File with the Scrapped data and other additional info | [Figure 6](#_heading=h.3j2qqm3) | Adding the phone number  and additional info in column ‘I’, ‘J’, ‘K’, ‘L’ of the Excel file. Date format should be in (Month-Date-Year) format. |  |
| 1.9 | If Phone number not found in Google, Facebook, Yelp, Yellow page and Loopnet |  |  |  |
| 1.9.1 | Update the Excel File with “Unsuccessful” in column “K” | [Figure 15](#_heading=h.3j2qqm3) | Updating the Excel file with “Unsuccessful” Status |  |
| 1.9.2 | If no more data is available in the Excel file for Scrapping Phone Number |  |  |  |
| 1.9.3 | Email SME and Process Owner | [Figure 16](#_heading=h.3j2qqm3) | Informing Updates about the process  “Hello,  The process ends Successfully and there is no more data left to process.  Thank you’’ |  |

## 2.1 Additional Information

Before we scrape the phone number for a given address, we need to match the address from Google, Facebook, Yellow Pages for the given address as these sites have address and phone number together.

But LoopNet and Yelp do not show addresses. Hence, we will only match names and scrape phone numbers for these sites.

# 3. Business Exception Details

The Business Process Owner and Business Analysts are expected to document below all of the business exceptions identified in the automation process. These can be classified as:

|  |  |
| --- | --- |
| **Known** | **Unknown** |
| Previously encountered. A scenario is defined with clear actions and workarounds for each case. | New situation never encountered before. It can be caused by external factors. Cannot be predicted with precision, however if it occurs, it must be communicated to an authorised person for evaluation. |

## 3.1 Known Exceptions

The table below reflects all the business process exceptions captured during the process capture. These are known exceptions, met in practice before. For each of these exceptions, a corresponding expected action is defined that the robot should complete if it encounters the exception.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **BE #** | **Exception Name** | **Step** | **Parameters** | **Action to be taken** |
|  | Any data field is missing | [2. Process Details in 1.2.C](#_heading=h.1y810tw) | Address properties missing information | Update with ‘n’ in column **‘J’** |

## 3.2 Unknown Exceptions

For all the other unanticipated or unknown business (process) exceptions, the robot should:

Send an email notification at {insert email address} and error message screenshot attached.

# 4. Application Error and Exception Handling

A comprehensive list of all errors, warnings or notifications should be consolidated here with the description and action to be taken, for each, by the Robot.

Errors identified in the automation process can be classified as:

|  |  |  |
| --- | --- | --- |
| **Area** | **Known** | **Unknown** |
| **Technology / Applications** | Experienced previously, action plan or workaround available for it. | New situation never encountered before or may happened independent of the applications used in the process. |

## 4.1 Known Errors or Exceptions

The table below reflects all the errors identifiable in the process capture. For each of these errors or exceptions, a corresponding expected action is defined that the robot should complete if it encountered.

## 4.2 Unknown Errors or Exceptions

For all the other unanticipated or unknown application exceptions/errors, the robot should:

Send an email notification at {Insert email address} and error message screenshot attached.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Error Name** | **Step** | **Parameters** | **Action to be taken** |
| **1** | Web Browser unresponsive | Any step | No response / blank page | 1. Retry 3 times. 2. Close the google sheet and open it again |

# 5. Outstanding Queries and Actions

Detailed below are a list of questions or anomalies found by Quantanite during the analysis phase. In order to proceed each of these needs to be clarified or addressed.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Query** | **Reference** | **Owner** | **Date to be resolved by** | **Comment** | **Resolved (Y/N)?** |

# 6. Acceptance

By signing off and accepting this document the nominated approver is on behalf of Quantanite confirming that the contents of this document are accurate and in so doing is authorising Quantanite to proceed to the design phase for this process.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Approved on behalf of Quantanite:** | | | | |
| **Document Section** | **Name of Approver** | **Title of Approver** | **Date** | **Signed** |
| Full Section | Imratul Jannat | Process Owner |  |  |
| Full Section | Abu Ashik | SME | 22.1.2020 | Ashik |