

# **TIBCO Omni-Gen®**

# Address Cleansing (Loqate $^{\mathbb{R}}$ ) Installation and Configuration Guide

Version 3.16.0 May 2021 DN3502316.0521



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## Data Quality Workbench Extended Support for Address Cleansing

Omni-Gen<sup>™</sup> Master Data Management (MDM) Edition and Data Quality (DQ) Edition version 3.2 provide support for address cleansing operations in the Data Quality Workbench, which is accessible through the Omni Governance Console (OGC). These address cleansing operations require the installation of the Loqate component. The files required to install Loqate are provided in a separate installer and will be prepackaged into the standard Omni-Gen installer distribution in a future release of Omni-Gen MDM Edition and DQ Edition. To obtain the Loqate installer and the required license key, contact iWay Customer Support.

#### In this chapter:

- Installing Logate on Windows
- Installing Logate on Linux
- Testing Address Cleansing Operations

#### **Installing Loqate on Windows**

Loqate is used to enable address cleansing operations in the Data Quality Workbench. Loqate must be installed on the system where Omni-Gen is currently running. Loqate must be installed with an associated license key based on your purchase of Omni-Gen MDM Edition or DQ Edition. If you do not have a license key for Loqate, then contact iWay Customer Support.

#### Procedure: How to Install Loqate on Windows

You must stop Omni-Gen Server and all Omni-Gen services before installing Loqate. To install Loqate on Windows platforms:

1. Create the following folder on your file system:

#### C:\loqate

- 2. Open a Windows command prompt, and make sure to run it as administrator.
- 3. Type the following to change directories and press *Enter*.

cd \omnigen\omniserver

4. Type the following command and press *Enter*.

5. Right-click the provided setup\_64.exe installation file for Loqate, and select *Run* as *Administrator* from the context menu.

The GBG Loqate Setup installation wizard opens and initially displays a Welcome screen, as shown in the following image.

Setup			$\times$
GBG	Loqate	Welcome to the Logate Install Wizard	
		This will install Logate 2017Q4.0 on your computer.	
		It is recommended that you close all other applications before continuing.	
		Click Next to continue or Cancel to exit Setup.	
		Next > Cance	I

6. Click Next.

The License Agreement screen opens, as shown in the following image.

Setup	$\times$
License Agreement GBG Log	ate
Please read the following license agreement carefully.	
1.0 U.S. GOVERNMENT LICENSING RIGHTS; NOTIFICATION OF EXPORT RESTRICTION.	^
1.1 Export Restrictions. Licensee acknowledges that the Reference Data are subject to the export control laws and regulations of the United States, and any amendments thereof. Licensee confirms that with respect to Loqate Reference Data, it will not export or re-export them, directly or indirectly, either to (i) any countries that are subject to United States export restrictions (ii) any end user who Licensee knows or has reason to know will utilize them in the design, development or production of nuclear, chemical or biological weapons; or (iii) any end user who has been prohibited from participating in the United States export transactions by any federal agency of the United States government. Licensee further acknowledges that the Loqate Reference Data may include technical data subject to export and re-export restrictions imposed by United States law.	
2.0 REFERENCE DATA (The Data)	۲
<ul> <li>I accept the terms of the license agreement.</li> <li>I do not accept the terms of the license agreement.</li> </ul>	
< Back Next > Cancel	

7. Select I accept the terms of the license agreement and then click Next.

The Select Components screen opens, as shown in the following image.

Setup				×
Select Components			GBG	Logate
Select the components setup will install.				
Select the components you want to install and o	deselect the	cor	mponents you do not wa	nt to install.
	^	1	Description	The last
C++ Samples			a required componen	inis is
🖃 🗹 Java API				
Java Samples				
🖃 🗹 .Net API				
✓ Demo Interface		۰.		
✓ .Net Samples				
Batch Processor		,		
250.31 MB of space required				
	< Back		Next >	Cancel

8. Accept all of the components that are selected by default for installation and then click *Next*.

The Choose Destination Location screen opens, as shown in the following image.

Setup		×
Choose Destination Location	GBG	Logate
Where should Logate be installed?		
Setup will install Loqate in the following folder.		
To install to this folder, click Next. To install to a different folder, click Br folder.	rowse and selec	t another
Destination Folder	1	
C: Voqate	L	rowse
< Back Ne	ext >	Cancel

**Note:** The recommended installation location (destination folder) is  $C: \logate$ , which matches the default location that is specified in the Data Quality (DQ) cleansing plans that are prepackaged with Omni-Gen<sup>TM</sup> for Customer. If you choose a different installation location, then you will have to manually update the Loqate step in each DQ cleansing plan with your specific path.

9. Ensure that *C*: \logate is specified as the destination folder and then click Next.

The Start Copying Files screen opens, as shown in the following image.

Setup		×
Start Copying Files	GBG	Logate
Review settings before copying files		
Setup has enough information to start copying the program file change any settings, dick Back. If you are satisfied with the se files.	s. If you want to review ettings, click Next to beg	v or in copying
Install Directory: C:Voqate		^
Setup Type: Custom		
<		>
< Back	Next >	Cancel

10. Click Next.

The Installing screen opens and displays a progress bar for the Loqate installation, as shown in the following image.

Setup			×
Installing		GBC	Logate
Installing Loqate			
Please wait while Setup installs Logate on your	computer.		
Unpacking files			
	< Back	Next >	Cancel

During the installation, the Data Installation screen opens, as shown in the following image.



11. Click Next to continue.

A Microsoft Visual C++ 2005 Redistributable (x64) pop-up dialog may open, which you can ignore, as shown in the following image.



When the installation is complete the Loqate Install Wizard Complete screen opens, as shown in the following image.

Setup		$\times$
GBG Loqate	Logate Install Wizard Complete	
	The Logate Wizard has successfully installed Logate. Click Finish to exit the wizard.	
	<b>Finish</b> Cancel	

12. Click Finish.

Verify that your system PATH environment variable has been updated to include the Loqate installation location (for example, *C:\logate*).

You are now ready to install Global Knowledge Repository data on your system.

13. On your file system, navigate to the Loqate installation directory. For example:

C:\loqate

14. Right-click the *InstallManager.bat* file, and select *Run as Administrator* from the context menu.

The Installation Manager v10.0.0 wizard opens and initially displays a Welcome screen, as shown in the following image.

istallation Manager v10.0.0	×	
Welcome to the Installation Manager		
This will install Global Knowledge Repository data on your computer. It is recommended that you close all other applications before continuing.		
Click next to continue or cancel to exit setup.		
Use Proxy Server		
	1	
API 2.25.0.9384 < Prev Next > Finish Cancel		

15. Click Next.

The Choose Data Installation Location screen opens, as shown in the following image.

Installation Manager v10.0.0	×
Choose Data Installation Location	
Please select the data installation folder	
Data installation folder	
C:\loqate\data	Select
Click next to proceed with a data installation.	
< Prev Next > Finish	Cancel

16. Click Select.

The Select Data Install Folder screen opens.

17. Navigate to (and select) the following directory:

C:\loqate\data

18. Click OK.

You are returned to the Choose Data Installation Location screen.

19. Click Next to continue with the installation.

The Enter License Information screen opens, as shown in the following image.

Installation Manager v10.0.0			×
Enter License Information			
Please enter your license ke	ey or specify the loc	ation of your licen	se pack.
I have a license key			
000000000000000000000000000000000000000	000000000000000000000000000000000000000		
○ I have a license pack			
Not selected yet			Select
	< Prev N	lext > Finis	h Cancel

20. Enter the license key that is included with your purchase of Loqate, and then click *Next*. For more information about obtaining a license key, contact iWay Customer Support. The License Details screen opens, as shown in the following image.

Installation Manager v10.0.0	×
License Details	elow
Fieuse review the details of your neerse b	ciow.
Product	Expiry Date
Knowledge Base Common	2018-12-31
Worldwide Geocode Dataset	2018-12-31
Worldwide Verify Dataset(O)	2018-12-31
USA Verify Dataset CASS	2018-12-31
USA Enhance CENSUS Dataset	2018-12-31
CASS Library	2018-12-31
< Prev	Next > Finish Cancel

Note: The list of products that is displayed will vary depending on your license.

21. Confirm the license details and then click Next.

The Data Pack Selection screen opens, as shown in the following image.

nstallation Manager v10.0.0	×
Data Pack Selection	
Please select whether you wish to download or use local data	packs
Download	
Select data pack download folder	
C:\loqate\download	Select
Ownload data packs	
○ Use local data packs	
< Prev Next > Fin	ish Cancel

22. Click Select.

In the dialog that opens navigate to (and select) the location of the data pack download folder. For example:

C:\loqate\download

23. Click *OK* to close the dialog and then click *Next* on the Data Pack Selection screen to continue.

24. Deselect the Select All check box, as shown in the following image.

Installation Manager v10.0.0		×
Data Pack Selection		
Select required data packs.		
Product	Release	Selected
Africa and Middle East Other Geocode Data	2017-10-18	× .
Africa and Middle East Other Verify Dataset	2017-10-18	× =
Albania Geocode Dataset	2017-10-18	2
Albania Verify Dataset	2017-10-18	2
Algeria Geocode Dataset	2017-10-18	<b>×</b>
Algeria Verify Dataset	2017-10-18	×
Angola Geocode Dataset	2017-10-18	×
Angola Verify Dataset	2017-10-18	<b>v</b>
Arctic Geocode Dataset	2017-10-18	<b></b>
Arctic Verify Dataset	2017-10-18	2
Argentina Geocode Dataset	2017-10-18	× -
· · · · · · · · · · · · · · · · · · ·		
Required disk space Available disk s	space: 56.5 GB	Select All
For Download: 18.7 GB For Install: 34.3 GB	Copy download URLs	to clipboard
< Prev	Next > Finish	Cancel

Note: The list of products that is displayed will vary depending on your license.

25. In the list of data packs, select only the data packs that are shown in the following image.

Canada			
Γ	Canada Geocode Dataset	2017-10-18	~
	Canada Verify Dataset	2017-11-27	2
Knowlada		<b>N</b>	
Knowledg	Jepase Common (REQUIRED	)	
	Knowledge Base Common	2017-11-27	2
Ļ	Knowledge Base Common	2017-11-27	Y
United St	Knowledge Base Common ates	2017-11-27	
United St	Knowledge Base Common ates USA Geocode Dataset	2017-11-27	×
United St	Knowledge Base Common ates USA Geocode Dataset USA Geocode1 Dataset	2017-11-27 2017-10-18 2017-10-18	
United St	Knowledge Base Common ates USA Geocode Dataset USA Geocode1 Dataset USA Geocode2 Dataset	2017-11-27 2017-10-18 2017-10-18 2017-10-18	
United St	Knowledge Base Common ates USA Geocode Dataset USA Geocode1 Dataset USA Geocode2 Dataset USA Geocode2 Dataset USA Geocode3 Dataset	2017-11-27 2017-10-18 2017-10-18 2017-10-18 2017-10-18	

26. Click Next to continue.

27. Deselect all CASS library data packs, and then click Next, as shown in the following image.

Installation Manager v10.0.0			×
Data Pack Selection			
Product	R	elease	Selected
CASS Library (Linux 64)	201	17-07-11	
CASS Library (Windows 32)	201	7-07-11	
USA Verify Dataset CASS	201	17-10-30	
You are running this Install N	lanager on Windows 64	I	
You are running this Install N	lanager on Windows 64		
The compatible library / data are pro You may still extract the other platfor placed in the API installation / data in	e-selected. rm packs.However only the co nstallation folders respectively.	mpatible library / d	ata will be
Required disk space	Available disk space:	247.2 GB	Select All
For Download: 6.8 GB	Copy do	wnload URLs to	clipboard
For Install: 11.8 GB			
	< Prev Next >	Finish	Cancel

The Install Options screen opens, as shown in the following image.

In	stallation Manager v10.0.0	$\times$
	Install Options	
	Selected data items will be installed in : C:\logate\data	
	Disk Space Available : 241.9 GB Required for Install : 11.8 GB	
	Backup existing data packs	
	Existing data packs will be moved to : C:\loqate\data\17-12-15_10-24	
	< Prev Next > Finish Cancel	

The download proceeds and displays its progress.

28. Wait for the download to complete, which can take a few minutes, and then click *Next* to continue.

The License Agreement screen opens, as shown in the following image.

Ir	stallation Manager v10.0.0	$\times$
	License Agreement	
	1.0 U.S. GOVERNMENT LICENSING RIGHTS; NOTIFICATION OF EXPORT RESTRICTION.	
	1.1 Export Restrictions. Licensee acknowledges that the Reference Data are subject to the export control laws and regulations of the United States, and any amendments thereof. Licensee confirms that with respect to Loqate Reference Data, it will not export or re-export them, directly or indirectly, either to (i) any countries that are subject to United States export restrictions (ii) any end user who Licensee knows or has reason to know will utilize them in the design, development or production of nuclear, chemical or biological weapons; or (iii) any	
	end user who has been prohibited from participating in the United States export transactions by any federal agency of the United States government. Licensee further acknowledges that	-
	<ul> <li>I accept the terms of this license agreement</li> <li>I do not accept the terms of this license agreement</li> </ul>	
	< Prev Next > Finish Cancel	

29. Select I accept the terms of the license agreement and then click Next.

Installation Manager v10.0	).0			×
Unzipping DSGUSA1_5985	_20171018_297	70.Ifz and insta	alling	
	< Prev	Next >	Finish	Cancel

The installation of the selected country data packs begins, which is indicated by a progress bar, as shown in the following image.

30. When the installation is complete, click Finish.

After you have finished downloading and installing the country data packs for Loqate, you must install the address cleansing metadata for Omni-Gen to enable address cleansing operations within Data Quality Workbench.

**Note:** If Omni-Gen Server was running during the Loqate installation, then Omni-Gen Server must be restarted and you must restart all Omni-Gen services.

The address cleansing metadata consists of the following two files:

- complex\_address\_cleanse\_STRING.comp
- complex\_address\_cleanse\_STRING.xml
- 31. Download these files from the Technical Support Center (*https://techsupport.informationbuilders.com/*) along with the appropriate Omni-Gen installer.
- 32. Copy these two files from the download location to the following folder:

<OmniHome>\OmniGenData\OmniDesigner\.repositoryservice\Operations
\cleanse\complex

33. Start Omni-Gen Server.

#### Installing Loqate on Linux

Loqate is used to enable address cleansing operations in Data Quality Workbench, which is accessible through Omni Governance Console (OGC). Loqate must be installed on the system where Omni-Gen is currently running. Loqate must be installed with an associated license key based on your purchase of Omni-Gen MDM Edition or DQ Edition. If you do not have a license key for Loqate, then contact iWay Customer Support.

#### Procedure: How to Install Logate on Linux

To install Logate on Linux platforms:

1. Navigate to the directory containing the installation file (*loqate\_installer\_x86\_64*), and execute the Loqate installer. For example:

```
# ./loqate_installer_x86_64
This will install Logate on your computer. Continue? [n/Y] y
       U.S. GOVERNMENT LICENSING RIGHTS; NOTIFICATION OF EXPORT
1.0
RESTRICTION.
. . . . . . . .
. . . . . . . .
. . . . . . . .
Spain
         "Información geográfica propiedad del CNIG"
Sweden
          "Based upon electronic data National Land Survey Sweden."
Switzerland
                "Topografische Grundlage:
                                               Bundesamt für
Landestopographie."
```

2. Accept the license agreement by typing *y* and pressing *Enter*, as shown below.

Do you agree to the license? [y/n] **y** 

3. Enter the location on your system where you want to install Loqate (for example, / *software/loqate*), as shown below.

Where do you want to install Loqate? [/opt/loqate] /software/loqate

A prompt appears, asking you to select the components to install, as shown below.

 $\ensuremath{\mathsf{Please}}$  select the components to install. Items to install marked with asterisk

- \* 1. Install Manager \* 2. Sample US Data \* 3. Java API \* 4. Node Collector \* 5. C++ API (required) \* 6. Batch Processor \* 7. Java Samples \* 8. Central Collector \* 9. C++ Samples 10. Done
- Select a component: 10
- 4. Type 10 to select all of the components and press Enter.

The Loqate installation is started and a notification appears when the installation is complete, as shown below.

Installing Logate ... Installing C+ + . . . Installing C++ Samples... Installing Java... Installing Java Samples... Installing Batch... Installing Batch Samples... Installing SAMPLEDATA LIN... Installing IM\_LINUX64... Installing NC LINUX64... Installing CC\_LINUX64... To install data, cd /software/logate then run ./InstallManager.sh. The Install Manager requires a java runtime version of at least Java 7. A dedicated JRE has been installed in /software/logate/jre. To use a locally installed JRE instead please edit the InstallManager.sh file. Please note that you may need to change the permissions of both the InstallManager.sh file and jre directories to allow your user to run these applications.

Installation complete.

#### Procedure: How to Download and Install the Loqate Data Packs

To download and install the country data packs for Loqate:

1. Change your directory to */software/logate*, as shown below.

# cd /software/logate/

2. Execute the InstallManager.sh executable file, as shown below.

```
# ./InstallManager.sh
Native library STLPort failed to load, ignore this if not using solaris
OS.
java.lang.UnsatisfiedLinkError: no stlport in java.library.path
Welcome to the Installation Manager - version 10.0.0
Running using local API version 2.25.1.9411
```

A prompt appears, asking if your network communication passes through a proxy server, as shown below.

```
Does your network communication pass through a proxy server (y/n)?
```

- 3. Type *n* and press *Enter*.
- 4. Enter the location on your system where you want to install the data packs (for example, / software/logate/data), as shown below.

```
Please enter the path to the data installation folder /software/logate/data
Valid folder found. Proceeding with a data installation.
```

A prompt appears, asking you for a license key, as shown below.

```
Please select from below:
Enter 1 if you have a license key
Enter 2 if you have a license pack
Enter 3 to exit
1
```

- 5. Type 1 and press Enter.
- 6. Type the supplied license key and press *Enter*, as shown below.

Please enter the license key: **<enter\_your\_license\_key\_here>** 

```
Contacting license server to validate the license key.
++++
Details of your current license
------
Product Expiry Date
------
Knowledge Base Common 2018-12-31
Worldwide Geocode Dataset 2018-12-31
Worldwide Verify Dataset(O) 2018-12-31
USA Verify Dataset CASS 2018-12-31
USA Enhance CENSUS Dataset 2018-12-31
CASS Library 2018-12-31
```

A prompt appears, asking you to select how you want to download and install the data packs, as shown below.

```
Please select from below:
Enter 1 if you want to download the data packs but not install
Enter 2 if you want to download and install the data packs
Enter 3 if you want to install using your locally available data packs
Enter 4 to exit
2
```

- 7. Type 2 and press Enter to download and install the data packs.
- 8. Enter the location where you want to store the downloaded data packs (for example, / *software/logate/download/*), as shown below.

```
Please enter a valid download folder path
/software/logate/download
Processing.
Fetching information from server about the available data packs.
Contacting license server for information on available updates.
+++
Done fetching information from server regarding available data packs.
_____
                                         Date of Release
S.No Product
_____
     Africa and Middle East Other Geocode Dataset 2017-10-18
1
     Africa and Middle East Other Verify Dataset 2017-10-18
2
. . . . .
. . . . .

        139
        Kenya Geocode Dataset
        2017-10-18

        140
        Kenya Geocode Dataset
        2017-10-18

140 Kenya Verify Dataset
                                         2017-10-18
141 Knowledge Base Common
                                         2017-11-27
142 Kuwait Geocode Dataset
                                         2017-10-18
143 Kuwait Verify Dataset
                                         2017-10-18
. . . . .
. . . . .
. . . . .

        270
        Turkey Geocode Dataset
        2017-10-18

        271
        Turkey Verify Dataset
        2017-10-18

272 USA Enhance CENSUS Dataset 2016-01-07
273 USA Geocode Dataset
                                         2017-10-18
                                         2017-10-18
274 USA Geocodel Dataset
275 USA Geocode2 Dataset
                                         2017-10-18
276 USA Geocode3 Dataset
                                         2017-10-18
277 USA Verify Dataset
                                         2017-11-27

        278
        Uganda Geocode Dataset
        2017-10-18

        279
        Uganda Verify Dataset
        2017-10-18

. . . . .
. . . . .
. . . . .
```

Note: The available data packs may vary based on your licensing.

- 9. Enter the corresponding number for each of the following data packs, and press *Enter* after each.
  - Knowledge Base Common
  - USA Geocode Dataset
  - USA Geocode1 Dataset
  - USA Geocode2 Dataset
  - USA Geocode3 Dataset
  - USA Verify Dataset
- 10. When complete, type Done and press Enter, as shown below.

```
-----
```

```
Enter : 1 to install the first Product, 2 to install the second Product
and so on
Enter : all if all products are to be installed
Enter : done to complete the selection of products
Enter your selection:
141
Enter your selection:
273
Enter your selection:
274
Enter your selection:
275
Enter your selection:
276
Enter your selection:
277
Enter your selection:
Done
```

11. If you are prompted for the CASS data packs, type *none* and press *Enter*. Then type *done* and press *Enter*. Otherwise, you can skip this step and proceed directly to step 12.

```
_____
S.No Certification Product Date of Release
_____
                                _____

        1
        CASS Library (Linux 64)
        2017-07-11

        2
        CASS Library (Windows 32)
        2017-07-11

        3
        USA Verify Dataset CASS
        2017-10-30

_____
Enter : 1 to install the first Product, 2 to install the second Product
and so on
Enter : none to skip certification products
Enter : all if all products are to be installed
Enter : done to complete the selection of products
*** Note : You are running Install Manager on Linux 64
You may extract the other platform packs as well. However only the
compatible library / data will be placed in the API installation / data
installation folders respectively
Enter your selection:
none
Skipping Certification products
Enter your selection:
done
LICENSE AGREEMENT
_____
1.0 U.S. GOVERNMENT LICENSING RIGHTS; NOTIFICATION OF EXPORT
RESTRICTION.
. . . . . .
. . . . . .
. . . . . .
Switzerland "Topografische Grundlage: Bundesamt für
Landestopographie."
```

12. Accept the license agreement by typing *y* and pressing *Enter*, as shown below.

```
Have you read the license agreement and agree to its contents (y/n)?
V
Space available : 53.4 GB
Space required for download : 6.0 GB
_____
Downloading data packs.
Completed downloading KBCOMMON_9100_20171127_115.lfz
+++++++
Completed downloading DSGUSA2_5985_20171018_901.lfz
+++++++
+++++++
Completed downloading DSGUSA_5985_20171018_2642.lfz
Completed downloading DSGUSA1 5985 20171018 2970.lfz
+++++
Completed downloading DSVUSA 5985 20171127 3953.lfz
++
Completed downloading data packs.
Space available : 47.3 GB
Space required for install : 10.3 GB
_____
Beginning installing of data packs.
Unzipping DSGUSA_5985_20171018_2642.lfz and installing
Unzipping DSGUSA3_5985_20171018_1.lfz and installing
+
Unzipping DSGUSA1_5985_20171018_2970.lfz and installing
Unzipping DSGUSA2_5985_20171018_901.lfz and installing
Unzipping KBCOMMON_9100_20171127_115.lfz and installing
+++
Unzipping DSVUSA_5985_20171127_3953.lfz and installing
+++++++
Completed installing the data packs.
```

Successfully installed the data packs.

When you receive a message indicating *Successfully installed the data packs*, then the download and installation process for the Loqate data packs is complete.

#### Procedure: How to Install Address Cleansing Metadata

After you have finished downloading and installing the country data packs for Loqate, you must install the address cleansing metadata for Omni-Gen to enable address cleansing operations within Data Quality Workbench.

1. Start Omni-Gen Server.

**Note:** If Omni-Gen Server was running during the Loqate installation, then Omni-Gen Server must be restarted and you must restart all Omni-Gen services.

The address cleansing metadata consists of the following two files:

- complex\_address\_cleanse\_STRING.comp
- complex\_address\_cleanse\_STRING.xml
- Download these files from the Technical Support Center (https:// techsupport.informationbuilders.com/) along with the appropriate Omni-Gen installer.
- 3. Copy these two files from the download location to the following folder:

<OmniHome>/OmniGenData/OmniDesigner/.repositoryservice/Operations/
cleansecomplex

#### Procedure: How to Set Logate Environment Variables

Depending on your operating system, you must first modify the *.profile* and *bash\_profile* files that are called when opening a shell.

1. Add the following lines at the end of these files:

export LD\_LIBRARY\_PATH=\$LD\_LIBRARY\_PATH:/software/loqate
export LIBPATH=\$LIBPATH:/software/loqate

- 2. Save and then close these files.
- 3. Open a new shell to implement any changes that were made to your environment variables.

#### *Procedure:* How to Verify Loqate Functionality

To verify Loqate functionality:

- 1. Edit the *runbatch.sh* file, as shown below.
  - # vi runbatch.sh

2. Modify line 8 by changing -p "V" to -p "VG", as shown in the following image.



- 3. Save and then close the *runbatch.sh* file.
- 4. Execute the *runbatch.sh* file, as shown below.

# ./runbatch.sh

5. Edit the result file, which is named *sample.txt\*Output.txt*, as shown below.

```
# vi sample.txt*Output.txt
```

6. Verify that the address verification codes (in the format of V44-I44-P7-100) and geolocation columns are populated, as shown in the following image.



#### Procedure: How to Set the DQ Cleanse JVM Arguments

To set the DQ cleanse JVM arguments:

- 1. Log in to the Omni Console.
- 2. Expand Configuration in the left pane, as shown in the following image.



3. Click *Managed Services*, as shown in the following image.

mniConsole E Configuration: Services					
Services	Controller Server Cleansing Matching Merging Reme	diation Workben			
Configuration •	Setting	Value			
Runtime	Service Name	cleansing			
Databases	Listener Port	9502			
Managed Services	Listener Max Threads	20			
Deployment     Procession =	JVM Process Max Memory	512M			
System Logs	JVM Process Arguments	-Duser.timezo			
* Testing	JVM Process Classpath	Isoftware/omr			

4. Click the Cleansing tab.

Services	Controller	Server	Cleansing	Matching	Merging	Remediation	Workbencl
🖌 Configuration 👻	Setti	ng				Val	lue
Runtime	Serv	ice Name				cle	ansing
Databases	✔ Liste	ner Port				950	02
Managed Services	✔ Liste	ner Max T	hreads			20	

5. Click the edit icon to the left of the *JVM Process Arguments* parameter, as shown in the following image.

JVM Process Max Memory	512M
JVM Process Arguments	-Duser.timezone=UTC
JVM Process Classpath	/software/omnigen/OmniServer/mastering/rur

The JVM Process	Arguments	dialog o	pens, as	shown i	in the	following	image.
-----------------	-----------	----------	----------	---------	--------	-----------	--------

JVM Process Arguments ×					
Value:	Duser.timezone=UTC -Djava.library.path=/software/loqate				
Expanded Value:	-Duser.timezone=UTC				
Property:	server.dq.cleansing.jvm-arguments				
Description:	Defines the JVM arguments to use when starting the this service.				
✓ Update 🗙	Cancel				

6. In the Value field, enter the following syntax and ensure there is a space between UTC and the new value.

-Djava.library.path=/software/loqate

7. Click Update.

The new value is now displayed for the *JVM Process Arguments* parameter, as shown in the following image.

	JVM Process Max Memory	512M
	JVM Process Arguments	-Duser.timezone=UTC -Djava.library.path=/software/loqate
/	JVM Process Classpath	/software/omnigen/OmniServer/mastering/runtime/lib/* /software/omnige

# *Procedure:* How to Modify Data Quality Server Components for the Correct Loqate Installation Location

To modify the Data Quality Server (DQS) components for the correct Loqate installation location:

1. Change your directory to the location of the DQS address cleansing component. For example:

# cd /software/omnigen/OmniServer/mastering/services/cleansing/ components/sub

2. Edit the generic\_address\_cleanse.comp file, as shown below.

# vi generic\_address\_cleanse.comp

3. Modify the path on line 171 from *C:\logate\data* to */software/logate/data*, as shown in the following image.

```
<!-- (Loqate) --><step id="Loqate" className="com_atarcama.doc_loqate_loqate@loorithm" disabled="false" mode="NORMAL">
<properties geocoding="true" dataFolder="/software/loqate/data">
<inputElements>
```

4. Save the generic\_address\_cleanse.comp file and then exit.

#### Procedure: How to Restart Omni-Gen

To restart Omni-Gen:

- 1. Open a new shell (terminal window) to ensure that the new environment variables are set.
- 2. Completely stop, then start all of Omni-Gen.

#### **Testing Address Cleansing Operations**

To load the proper paths to the Loqate components, ensure to restart the Omni-Gen Controller and all Omni-Gen services after Loqate is installed. This section uses sample data for demonstration purposes only.

- 1. Log on to Omni Governance Console (OGC).
- 2. Click the Workbench tab.
- 3. From the table, select the address (*addr*) attribute column, and then expand the rules panel, as shown in the following image.



4. Click Add Rule, as shown in the following image.

360 Vie	wer Remediation	Data Quality Monitor	Workbench	Administration	super_a (Data Sup	ervisor, group.one, System Administrator)	Logout ⑦ •
al	Customer 2000 records			Customer		👻 Highlight defects	Execute rules
	- Customer		•	Add Filter		Rules	+ Add rule
					addr - All Records - 2000		
				Populated 1268	Blank 732 Dt	5	

The Rules dialog opens, as shown in the following image.

Rules	+ Add rule
<ul> <li>O addr Cleanse</li> <li>Created by super_a on 2017-12-14 03:48:37:273 PM</li> </ul>	:
There are no operations in this r	rule
+ Add operation	
OR	
+ Add complex operation	

5. Click Add complex operation.

6. Click Cleanse US Address, as shown in the following image.

New Operation	n
	CLEANSE
	COMPLEX
Cleanse US Ad	dress

7. Map the parameters and add all tags for testing purposes, as shown in the following image.

create of solution of solution of the solution of the	:
Cleanse US Address	٦
Street	
addr 🔻	
City	
city 🔻	
State	
state 🔻	
Zip	
zip 🔻	
Country	
country 🔻	
CASS validation	
Aggressive cleansing	
Tags	
Address blank 🔻	
ADDRESS_BLANK	
× Delete tag	
Address invalid 🔻	
ADDRESS_INVALID	
× Delete tag	
Address international 🔹	
ADDDECC INTERNATIONAL	
ADDRESS_INTERNATIONAL	
× Delete tag	
	-

8. Click Save to save the operation.

9. Click *Execute rules*, as shown in the following image.



While the process is running, a message displays indicating that the rules are locked, as shown in the following image.



When a rule has completed execution, a corresponding success message is displayed, as shown in the following image.



10.Close the dialog or wait for the dialog to automatically close.

The data in the table is refreshed.

11.Expand the chart located at the top using the drop-down arrow, as shown in the following image.

	Custo	mer							
13	+ Add F	ilter							
				addr - All R	ecords - 2000				
	Populated 1268		268	Blank 732		Distinct 1268			
	≡	firstName [A-Z]	middleNa [A-Z]	lastName [A-Z]	fullName [A-Z]	ssn [A-Z], SSN	dateOfBir [MM/ , Date	gender [A-Z]	
	4			Midamin	1 Midaman	451010705	05/25/1002	5.4	T

	addr - All Re	cords - 2000			
Populated 1268	Blan	k 732	Distinct 1268		
Frequency	Patterns	First/Last Value	5	Tags	
10 most fre	equent values		10 least frequent v	alues	
1 ADOBE CT	1	1 W FLING D	R Filment	1	
1 AMERICAN RD	1	1 STONALL R	D	1	
1 CHARLES ST	1	1 RIVEOAT D	R	1	
1 CROSALL RD	1	1 RAILAD AV	E	1	
1 EASTE MALL	the second s	1 PARKNG PL	Z	1	
1 PARKNG PLZ	1	1 EASTE MAL	L (ILLI)	1	
1 RAILAD AVE	1	1 CROSALL R	D	1	
1 RIVEOAT DR	1	1 CHARLES S	T	1	
1 STONALL RD	1	1 AMERICAN R		1	
1 W FLING DR	1	1 ADOBE C	T	1	

12.Click Tags, as shown in the following image.

13.Click Individual, as shown in the following image.

	addr - All F	Records - 2000		
Populated 1268	Bla	ink 732	Distinct 1268	
Frequency	Patterns	First/Last Values	Tags	
	Distinct	Individual		
ADDRIONAL			745	
ADDRBLANK			732	

From here you can confirm that the address cleansing operation ran successfully, since tags are being created.

14.Click Tags to filter the results.

**Note:** The initial results are going to be poor due to the country not being part of the 3-digit ISO standard. Adding country cleansing to ISO3 would greatly improve the results.

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