

QualityStage Address Verification Interface

Everything you need to know about **Address Data Quality**

Dan Schallenkamp - Offering Manager - Data Quality



Why We Care About Quality Addresses

- ❖ Central to Data Quality Initiatives
- ❖ Key Customer Demographic Data Attribute
 - ❖ For record matching and de-duplication
- ❖ Part of Data Fuel to AI and ML Applications
- ❖ Cost of Undelivered or Returned Mail & Pkgs
- ❖ Avoid Negative Customer Experiences
- ❖ Avoid Billing & Claim Delays
- ❖ Fraud Prevention



**360-degree View of Customer
Know Your Customer
Master Data Management**

Global Addressing is Complex

Across the more than **245** countries and territories, **6500** spoken languages, **139** character scripts and **130** different address formats, address data is continuously changing. **Let IBM be your address/location data expert so you don't have to do this on your own.**



Address Data Helps Businesses Make Better Decisions



Sales & Marketing

- Geo targeting for campaigns (digital & traditional channels)
- Accurate territory designations



Monitor Trends

- Geography based customer insights
- Visualize hot-spots for product or service demands



Manage Risk

- Fraud detection and prevention (KYC)
- Identify high-risk geographies for insurance and other purposes

Address Data Helps Businesses Make Better Decisions



Plan Infrastructure Changes

- Base analysis on accurate location IDs
- Equipment and network service and support planning



Deliver a Superior Service

- Precise customer communications i.e. account statements, billing, rewards
- Accurate product deliveries & service calls

Global Change

Why is global addressing more important now than ever?



Globalization

Access to vast new markets made accessible by e-commerce and global payment technology – this in turn opens up significant commercial opportunities, but also the potential for fraud.



Personalization

Our customers, whether in our home market or elsewhere increasingly expect a personal relationship, that demonstrates respect for their data, and communication preferences.

Global Change

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Regionalization

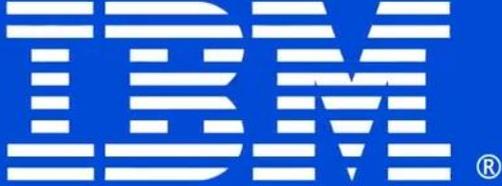
Businesses are organizing themselves around regional service centers covering multiple markets – not always with in-country knowledge.

QualityStage AVI

AVI Within QualityStage Overview



Please view this 1m 40s Overview Video on AVI



InfoSphere® QualityStage®

Address Verification Interface

Powered by 

<https://www.youtube.com/watch?v=ALXQtlzsXHw>

Introduction of AVI in QualityStage

Resolution of address and geocode data quality issues, ensuring a complete, accurate view of a location record across the enterprise

Requirements

- Resolution of address data quality issues
- Standardization of address data formats
- Cleansing of address data
- Enriching of address data
- Managing duplicate address data
- Enabling ongoing address quality

Benefits

- Corrects and verifies addresses
- Enables duplicate removal
- Cross-references matching records
- Creates single best address record
- Enhances and enriches data with auto-complete, geocode and transliteration



Address Verification & Geocode Overview

Continuously update, standardize and enrich address and geocode databases across your applications

1 Rocky neck Ave gloucester ma usa

Enhancing Address

📍	██████████	██████████	██	⚙️
📍	██████	██████	██	✓
📍	██	██████████	██	✓
📍	██████	██████	██	✓

📍 1 Rocky Neck Ave
Gloucester MA 01930-4112
Lat. 42.608360 Long:-70.655270

Key Features

- Parses, Matches, Formats, Transliterates and Enriches address data
- Transliterates words or letters from 8 different global character sets into either native or Latin characters
- Enriches address data by adding missing values and appending Geocode

Address Verification Interface Functionality

Parsing

Performs a lexicon analysis of the address without validation against reference data

555 Bailey St.

san jose, ca



Premise | 555

Street | Bailey St.

Locality | San Jose

Admin Area | CA

Validation, Correction & Suggestion

Validates and if possible corrects (or enhances) an address
Makes suggestions if address validation is ambiguous

555 Bailey St.

san jose, ca



Premise | 555

Street | Bailey St.

Locality | San Jose

Admin Area | Santa Clara

95141-1003, USA

Transliteration

Transliterates and address character set:

- Native > Latin > Native
- Eg. Cyrillic > Latin

Belovezskaja Ulitsa 39

MOCKBA 121353 RUS



Belovezskaja Ulitsa 39

Mozhayskiy

Moscow 121353, RUS

Geocoding

Provides latitude and longitude based on an address

555 Bailey Ave

san jose, ca



Latitude | 37.194380

Longitude | -121.753180

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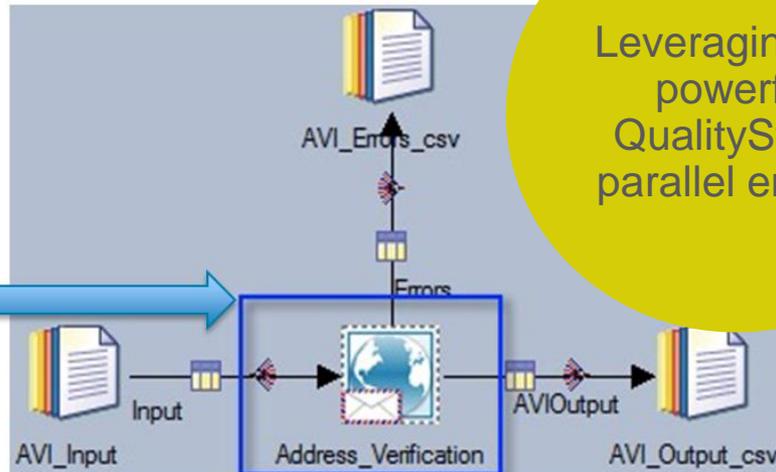
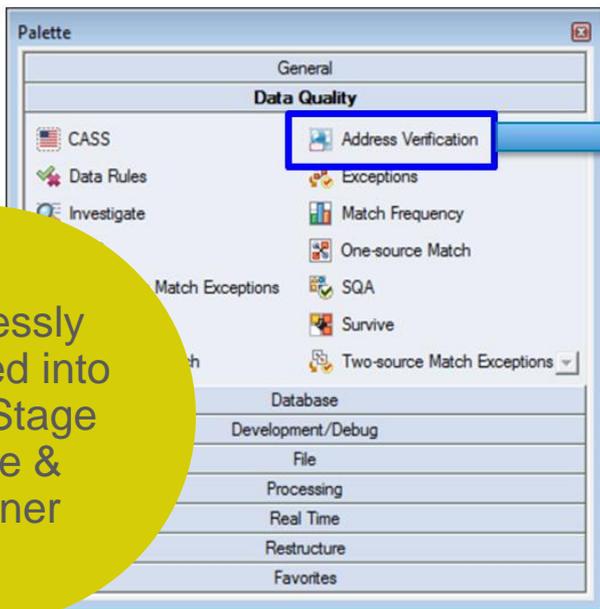


Latitude | 37.194380

Longitude | -121.753180

Seamlessly Integrated with InfoSphere QualityStage

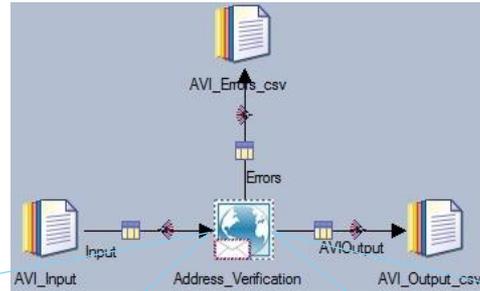
InfoSphere QualityStage
Address Verification Interface is:



Leveraging the powerful
QualityStage
parallel engine

Seamlessly
integrated into
QualityStage
Engine &
Designer

Address Verification Configuration as easy as 1,2,3



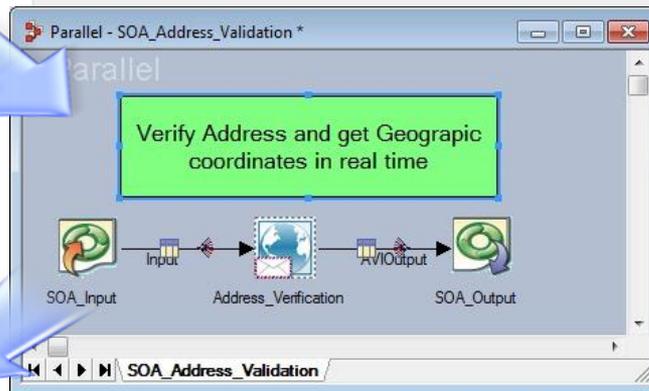
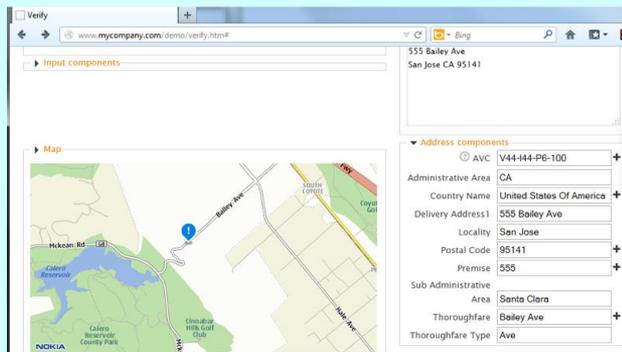
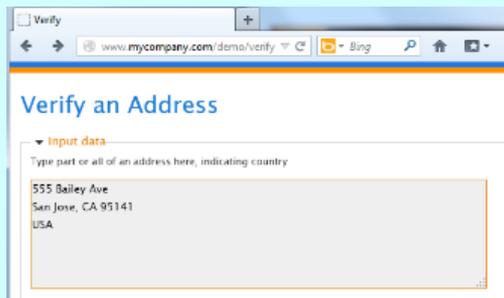
1

2

3

Configuration	Results Options	Options
Processing Type: <input type="text" value="Validation"/>	Include Field Status Codes: <input type="text" value="Yes"/>	Number of address lines to assign: <input type="text" value="3"/>
Validation Type: <input type="text" value="Correction Only"/>	Include Field Match Score: <input type="text" value="Yes"/>	Show additional address fields: <input type="checkbox"/>
Include Geographic Location: <input type="text" value="Yes"/>	Address Output Options	
Include US Enhanced Data: <input type="text" value="Yes"/>	Type of Address Line Separator: <input type="text" value="Vertical bar"/>	Address Line 1
Include GB Enhanced Data: <input type="text" value="Yes"/>	Default Country or Region: <input type="text"/>	Address1
Include Separate Output for Errors: <input type="text" value="Yes"/>	Minimum Verification Level: <input type="text" value="0"/>	Address Line 2
Path for initialization (.ini) and reference files: <input type="text" value="#AVIPParameters.ReferenceDataLoc#"/>	Address Capitalization: <input type="text" value="Title case"/>	Address2
Validation Summary Report	Transliteration Output Script: <input type="text" value="Same as Input"/>	Address Line 3
Path and File Name: <input type="text" value="#AVIPParameters.DataLoc#AVI_Report.txt"/>	Symbolic Transliteration: <input type="text" value="No"/>	Address3
Company Name: <input type="text" value="IBM"/>		
Report Identifier: <input type="text" value="IBM"/>		

Flexible validation execution in Real-time or Batch-style



Feature Summary



Global Data Platform

Contains knowledge base data and location reference data from over 245 countries and territories



Global Parsing Engine

Component level parsing engine will standardize and validate both partial and full global address inputs



Transliteration

Transliterates words or letters from 8 different global character sets into either native or Roman characters



Verify

Component level solution for batch verification needs. Databases are batch cleansed and maintained



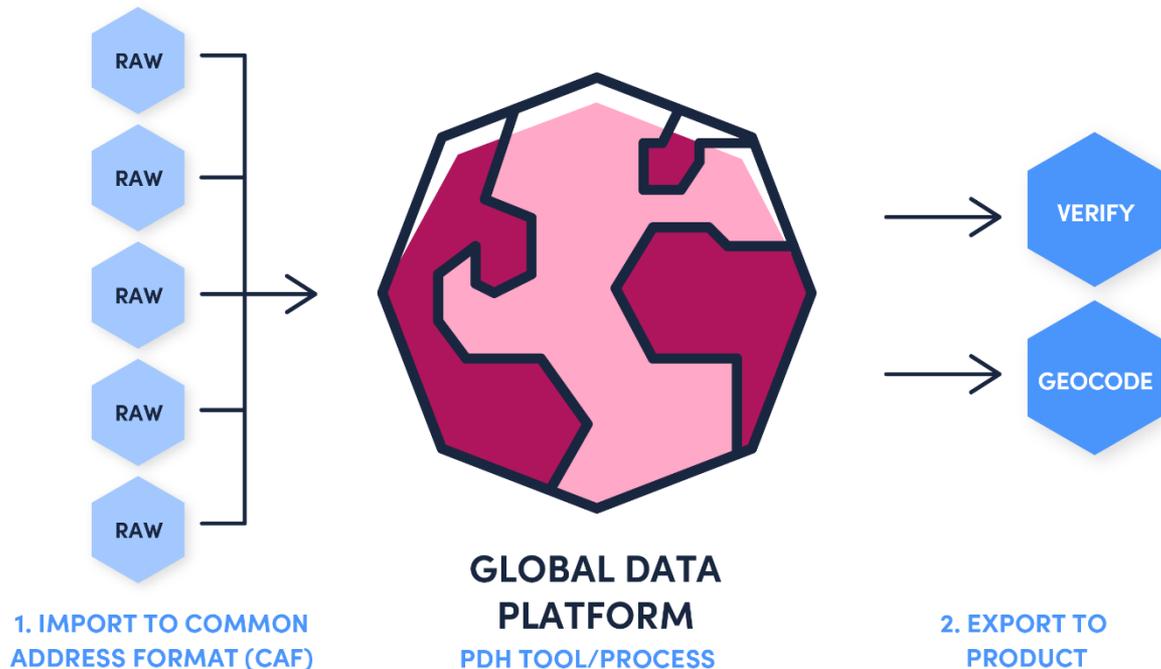
Geocode

Associates a latitude and longitude coordinate to a specific address location

Identifies locations nearest to a latitude and longitude coordinate

Current Accurate Address Data as a Strategic Advantage

IBM partners with best of breed location/address experts Loqate. Loqate continuously curates address and geocode data from multiple sources and applies proprietary processes to create a single best reference record.



DataStage & QualityStage Modernization

Value in modernizing with Cloud Pak for Data

ONE

Reduced infrastructure management effort of 65% to 85%*

- Cloud-ready Data Integration Architecture for AI built on containers and microservices
- DataOps ready through out-of-the-box integration with governance, BI, data virtualization and data science

TWO

Save up to 30% of workload execution time

- Performance gains in heavy workload and resource contention situations
- Design once, run anywhere at extreme scale

THREE

Reduce cost of operations by up to 50%

- Meet mission critical SLAs through automatic failure resolution
- Leverage existing DataStage investments in skills and assets – no costly retraining required

FOUR

Remove network bottlenecks with co-located Netezza or Db2 Warehouse on Cloud Pak for Data System



“One of the great things about the Cloud Pak for Data System is the speed with which we'll be able to launch and scale our analytics platform. The integrated stack contains what we need to improve data quality, catalog our data assets, enable data collaboration, and build/operationalize data sciences. **We're able to move quickly with design, test, build and deployment of new models and analytical applications.**”

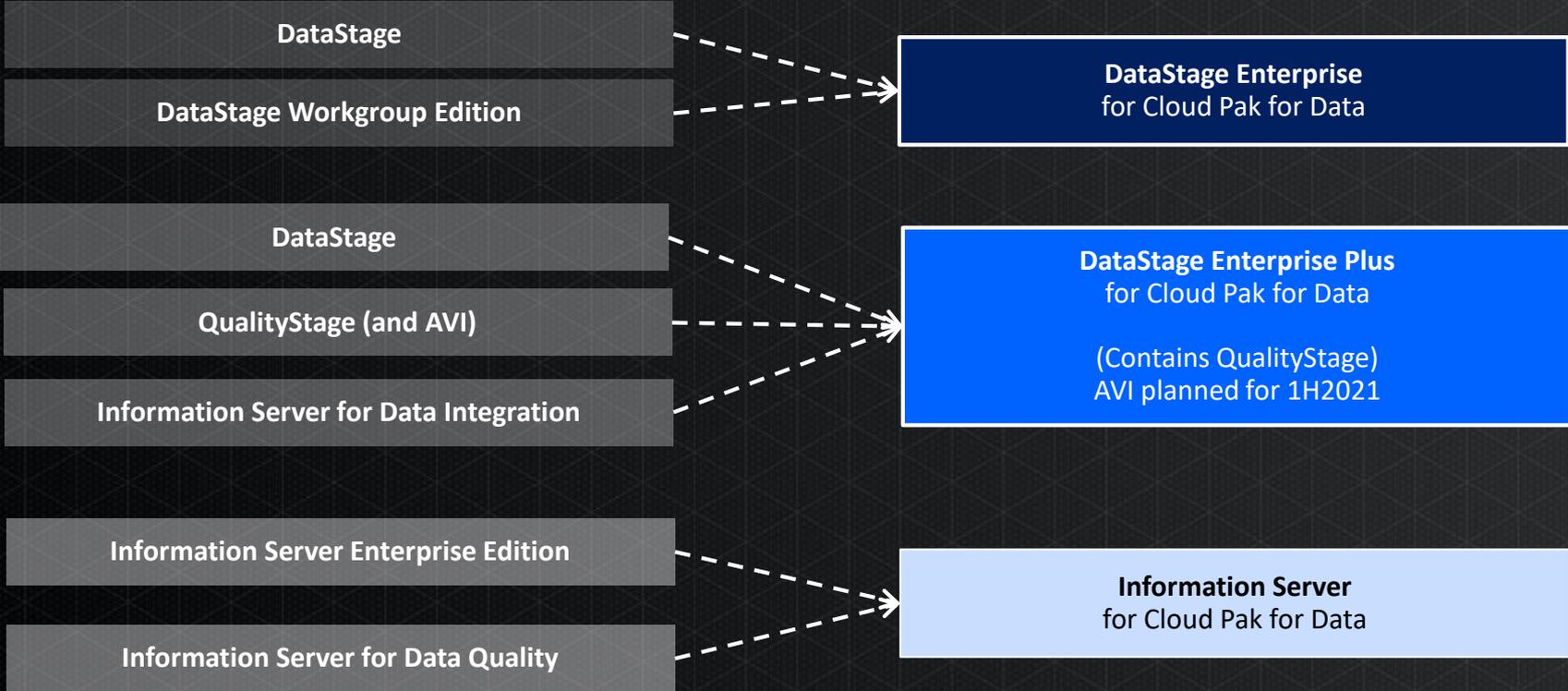
Steve Lueck
Vice President, Data Management
Associated Bank

*TEI report: <https://www.ibm.com/downloads/cas/V5GNQKGE> "Reduced infrastructure management effort: 65% to 85%" [link](#)

Paths to Modernize

Today

Modernization Offering



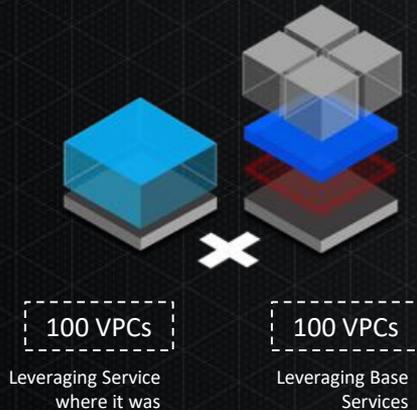
How entitlements traded up to Modernization Upgrade can be allocated

Scenario: Your existing DataStage

- Today: 7000 PVUs of DataStage Standalone (Prod)
- At renewal: trade-up to DataStage Enterprise Upgrade
- Get at a minimum: 100 VPCs of DataStage Enterprise + 100VPCs of Cloud Pak for Data
- Once they trade-up, they can allocate this entitlement in an infinite number of ways, some shown below:

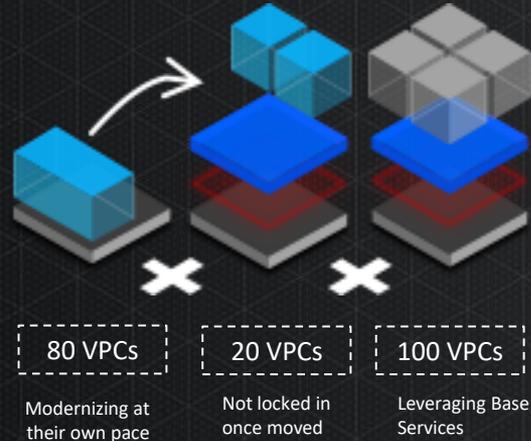
Example

Trade-up license entitlement but workload still runs on stand-alone offering



Example

Trade-up license entitlement and move workload to extension gradually



Learn more about QualityStage AVI and DataStage

Webpage: [Modernization upgrade for existing customers](#)

Whitepaper: [QualityStage AVI and IBM DataStage](#)

Join the online Information Server and DataStage community:
bit.ly/datastage-community