iCOMPLY

AML Risk Screening Procedures

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Last Update: March 2, 2020

Introduction

iComply's admin tools enable compliance, operations, and IT managers to set and enforce AML risk screening procedures for their compliance and operations teams. Search parameters can be configured for applications such as name screening, payment screening, and daily ongoing monitoring.

In order to effectively screen for AML risk, you must identify if your customer is a match with or affiliate of sanctioned or high risk entities. Both individuals and legal entities can change their name, jurisdiction of domicile, attempt to alter their name or spelling, or simple typos can occur by both the client and the agent.

While the information contained in sanction, adverse media content, and PEP lists can also contain typos, false information, and errors - most regulators expect compliance teams to be able to account for this in their risk screening program and procedures. This document provides a written overview of how the iComply system can be configured to support unique screening profiles, search algorithms, and automation thresholds.

Search Overview

While there are many reasons why it can be difficult to match your KYC subjects with the names in Sanction, Adverse Media, or PEP databases, the most common pitfalls are listed below with tips for how to configure your search profiles to overcome these challenges.

Fuzziness Settings

Fuzzy logic, Edit Distance, or Levenshtein Distance is an algorithm used in information theory, linguistics, and computer science to reduce the impact of spelling errors, typos, deviations, phonetics, translations, and other variations in name spellings.

Fuzziness settings can be controlled systemwide for your entire iComply instance using default or customized Search Profiles by Admin Users. If enabled by an Admin, any User can fine tune the fuzziness setting for any customer from within the AML Search Dashboard or KYC Profile Pages.

The Fuzziness setting will enforce the minimum word length to which Edit Distance can be applied.

Fuzziness Setting	100%	90%	80%	70%	60%	50%	40%	30%	20%	10%	0%
Minimum Word Length	3	3	4	4	5	5	7	9	13	25	None

Typos and Spelling Errors

Fuzziness is used to measure the difference between two sequences or text or numbers. In layman's terms, the Levenshtein distance between two words is the minimum number of single-character edits (insertions, deletions or substitutions) required to change one word into the other.

When combined with name derivatives, phonetically similar names, variation in the name forms, and non-Latin character searches - fuzzy logic Is a powerful application of machine learning that can improve efficiency, effectiveness, automation, and separate the signals from the noise.

To capture potential typos and spelling errors without returning a significant number of false positives, we have capped the maximum edit distance to one character.

Typos & Spelling Errors	iComply Configurations

During risk screening, spelling and typos can occur, increasing the potential for false positives and potentially missing real risk.
 	
The fuzzy distance between "kitten" and "sitting" is 3, the following three edits change one into the other. There is no possible way to change between these two words in less than three edits::
 	
1. **k**itten → **s**itten (substitution of "s" for "k")
2. sitt**e**n → sitt**i**n (substitution of "i" for "e")
3. sittin → sittin**g** (insertion of "g" at the end)
 	
Omissions can further increase the potential for inadequate screening:
 	
4. **s**itting → itting (omission of "s" at the beginning)
	Adjust the "fuzziness" setting of your system configuration from 0% (exact matches only) to 100% (broadest search).
	
	The sensitivity of the Edit Distance algorithm can be modified to prioritize reducing false positives or searching as broadly as possible:
	  1. **Low**
	    Mat**t**hew will not match Mathew
	    Mat**t** will not match Mat
	
	  2. **Medium**
	    Mat**t**hew matches Mathew
	    Mat**t** will not match Mat
	
	  3. **Broad**
	    Mat**t**hew matches Mathew
	    Mat**t** matches Mat

Name Derivatives

Name Derivatives	iComply Configurations
Abbreviations Generic abbreviations can be used in translations and data sources for both individuals and incorporated entities. **I.e.** Incorporation vs Inc, Bank vs Banca vs Banque, Matthias vs Matt	By default, the iComply system will account for known abbreviations. No additional configuration is required.
Aliases Individuals and incorporated entities can change their name, including operating as or doing business as names. **I.e.** Eric Marlon Bishop vs Jamie Foxx	By default, the iComply system will account for known aliases. No additional configuration is required.
Homophones Homophones are antonym names that sound the same but are spelled differently depending on the data source, country, or geographic region. **I.e.** Ksenia vs Xenia, Zarah vs Sahrah	By default, the iComply system will account for homophones. No additional configuration is required.
Hypocorisms Official documentations, data sources, and your own database may refer to the same individual with different nicknames or hypocorisms. **I.e.** Igancio vs Nacho, Richard vs Dick, Matej vs Matt	By default, the iComply system will account for nicknames and hypocorisms. No additional configuration is required.
Translations Different languages and characters sets have a wide variety of translations for most names. **I.e.** Владимир Владимирович Путин vs Vladimir Vladimirovich Putin	By default, the iComply system will account for common translations. No additional configuration is required.

Name Variations

Name Variations	iComply Configurations
Name Order First, Last, and Middle Names are ordered differently depending on the geographical region and language. For example, Last Names are used first in Japan and first in North America. Sanctions, watchlists, political exposure lists, and adverse media searches must account for alternative ordering. **I.e.** John Smith vs. SMITH John	By default, the iComply system will account for alternative name orderings. No configuration is required. To enhance accuracy and reduce false positives, use additional filtering such as entity type, country, or year of birth/incorporation in your search criteria.
Naming Conventions Data sources for sanctions, watchlists, political exposure lists, and adverse media may be missing Middle names or partial names. To further complicate things, these data sources can also include Middle names or regional naming conventions that you may not include in your search. **I.e.** Angela Dorothea Merkel vs Angela Merkel	By default, the iComply system will account for alternative naming conventions. No configuration is required. To enhance accuracy and reduce false positives, use additional filtering such as entity type, country, or year of birth/incorporation in your search criteria.
Initials In some cases, sanction, watch lists, political exposure lists, and adverse media sources will replace a full, first, middle, last, or partial name with initials. **I.e.** Donald John Trump vs. Donald J Trump	By default, the iComply system will account for alternative initials. No configuration is required. To enhance accuracy and reduce false positives, use additional filtering such as entity type, country, or year of birth/incorporation in your search criteria.

Phonetics

Phonetics	iComply Configurations
Pronunciations Some alternative spellings can come from varying phonetics (i.e. English has similar phonetics for a, o, ah, aw, augh). Furthermore, pronunciations can change by geographic region, language, and dialect. **I.e.** Ashleigh & Ashley	By default, the iComply system will account for phonetics. No additional configuration is required.

Non-Latin Characters

Fuzziness is not performed on non-Latin characters, only exact search matches, variants, derivatives, and translations will appear. To optimize the effectiveness of risk screening with non-Latin character sets we perform the following steps:

1. Store the native non-Latin text as the "Search Criteria"
2. Search for exact matches against data sources with the same non-Latin character sets
3. Convert the non-Latin text into Latin and perform fuzzy matching algorithms

Non-Latin Characters	iComply Configurations
Chines, Japanese, and Korean Searching with Latin characters can cause translation errors as some of the character sets used in Chinese, Japanese and Korean are shared among the three - while many have different meanings in each. **I.e.** Google Translate detects "文在寅", the full name of South Korean President "Moon Jae-in", as Japanese characters and is translated as "Sentence Tiger"	By default, the iComply system will use Latin characters natively. Changing this setting will impact other search functions, fuzziness, and other procedures using artificial intelligence. Contact the iComply Customer Support team to enable or disable native support for Asian language character sets.

2. Minimize False Positives

Filtering

To enhance the accuracy of your searches and reduce false positives, use additional filtering criteria such as entity type, country, or year of birth/incorporation. By default, the iComply system is configured without filtering. Contact the iComply Customer Support team to change your default filtering settings.

Filtering Option	Default Configuration
Entity Type	All
Year of Birth	Optional
Year of Incorporation	Optional
Country	Optional

Search Profiles

Contact your iComply Customer Support team to adjust your default search profile, or create multiple search profiles to execute based on triggers and thresholds from user activity and data. Search Profiles can be configured to across broad categories (i.e. sanctions, watchlists, political exposure, adverse media), sub-categories (i.e. violent crime, fraud, sex crime, etc), or by specific data sources (IOSCO warnings, OFAC, FBI Most Wanted, etc).

Each iComply instance will have a default search profile configuration. Enterprise users can create multiple unique search profiles to support unique risk screening procedures and automatically support multiple jurisdictions, risk profiles, transaction thresholds, etc.

Consolidated Risk Profiles

In most cases, risk information on one entity can come from many different publicly available data sources. By consolidating all of these Listings into a single Risk Profile for any entity we can uniquely identify we are able to reduce the false positives and more effectively identify risk. This enables users to identify whether the potential match is a true or false positive quickly and accept or reject the entire risk profile.

For example: a search through all data sources for sanctions, watchlists, PEP, and adverse media may produce 200 potential matches consisting of multiple references to only 5 unique entities. All potential matches that are related to the entity identified in the risk profile will be consolidated into a single risk profile, resulting in only 5 unique risk profiles to assess.