

The AI That Powers Refinitiv World-Check One

How Refinitiv brought intelligent name matching from BasisTech to the world's largest firms in order to better identify potential financial crime, regulatory, and reputational risk

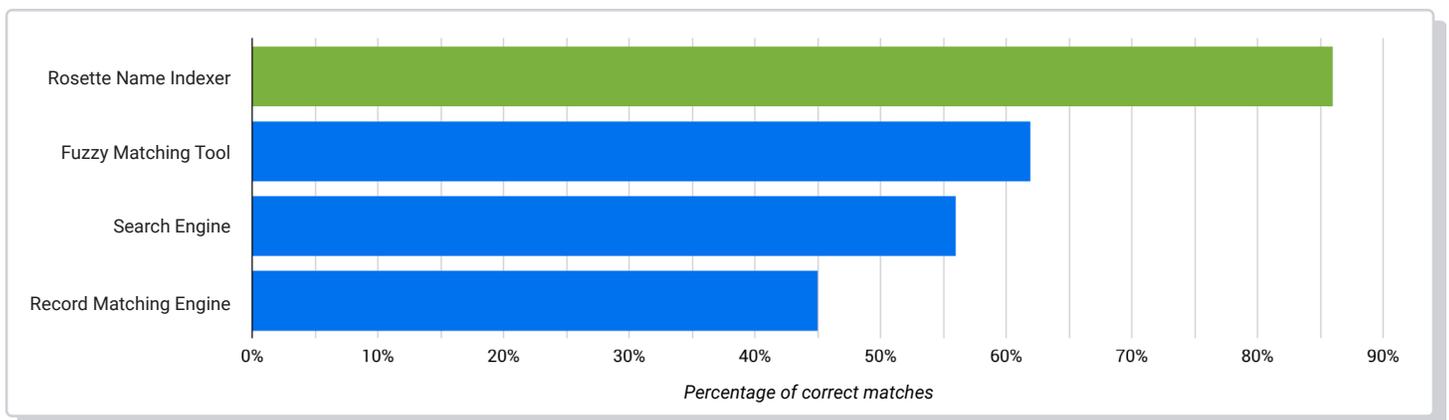
Numerous financial institutions and regulated businesses rely on Refinitiv World-Check One to provide highly curated information from trusted sources, and entity screening capabilities to help them evaluate risk and make informed decisions, as part of their compliance with financial regulations worldwide. Names searches are an essential component of Know Your Customer (KYC) checks, to identify politically exposed persons (PEPs) or sanctioned entities, and detect anti-money laundering (AML) risks. Understanding that person and organization name matching is its own discipline, Refinitiv World-Check One looked for an expert to add high accuracy with flexibility to evolve with ever-changing regulatory requirements.

“Every false positive, or worse, false negative, amplifies the pain points of our customers. That’s why we integrated Rosette. We were impressed with its global language coverage and a level of accuracy that enables our customers to take full advantage of Refinitiv World-Check One data,” Group Head of Customer and 3rd Party Risk Solutions at Refinitiv, an LSEG business, Phil Cotter said.

When Refinitiv World-Check One partnered with BasisTech – their name matching technology Rosette® was already being deployed in mission-critical applications such as high-volume ecommerce sites and high-stakes, government intelligence and border security applications.

Intelligent matching from Rosette by BasisTech

Refinitiv World-Check One chose BasisTech because unlike simplistic search tools, Rosette has multiple layers of name-centric knowledge built into its algorithms. Rosette knows common nicknames in 20+ languages, and it knows how to phonetically search in and across those languages. Like a human, Rosette can tell when a name is out-of-order, or has been shortened. Rosette even knows that John is a common name and Dweezil is rare.



Results from testing Rosette against common commercial systems using a dataset with 7,571 person names, with at least 10 variants for each name.

All of this name intelligence is funneled into a name match scoring algorithm that also thinks like a human, only better, because Rosette is both consistent and explainable.

Simple matching, such as used by OFAC, looks at how many characters differ between two names (aka, edit-distance). Other methods formulaically generate as many name variations as possible (aka, the “brute force” method), or rely on complex Boolean queries that still miss matches. Rosette applies an array of intelligent, machine-learned models (hidden Markov models, deep learning) working in concert with other techniques (phonetics, rules, dictionaries, indexing strategies, and tuning parameters) in a pragmatic and transparent manner.

Rosette applies different techniques for an entity search if it is a person or an organization. For example, a Rosette search for an individual named “Tony Charles Johnson” would return “**Anthony C. Johnson**” but not “**Charles Johnson** and Associates.”

Or, although multi-part Arabic names can be spelled thousands of ways in English, Rosette maps transliterated names back to their single, original Arabic script spelling, from which to more accurately match queried names.

عبد الرشيد

Abdul Rashid	Abdur Rasheed
'Abd-al-Rashid	'Abd-errcheed
Abdul Rasheed	'Abd-errchiyd
Adil Rashid	
Abdal Rashed	And hundreds more...

This Arabic male given name or modern surname alone has hundreds of possible spellings in English due to the ambiguities of transliterating Arabic to English.

Well-positioned for the future

Refinitiv World-Check One is an essential screening platform designed to support, simplify, and accelerate its customers’ KYC and due diligence screening needs. Powered by world-leading risk intelligence data, with an average of 50,000 records added to its database every month, it delivers accurate and reliable information to more than 10,000 customers across the globe.

WHY ISN'T SIMPLE SEARCH ENOUGH?

Multidimensional name search enables semi-automation of a complex task

The danger of simple search is that while it may return too many false positives, it doesn’t protect you from missing true hits for which regulators will penalize you. Multidimensional name search better covers true positives while decreasing false positives. How?

OFAC’s simple search only says “these might be matches.” By contrast, Rosette numerically scores the confidence it has in each match. Suddenly it is possible to set a threshold match score such as 80%, such that all matches greater than 80% trigger an investigation, while those below are safely passed through. Rosette can help you to automate or semi-automate a previously highly manual name matching task.

By nature, matching names is much more like scanning internet search results than sorting red and blue beads. What is a search for “Hudson” looking for? Is it “Hudson, MA,” “Hudson River,” “Hudson Institute” or “Hudson Mitchell”? Furthermore, types of errors and variations in names are not the same as performing spell check, and must be handled accordingly. It’s not just judging “Hudson” versus “Hudsno” but also “Ghaleb Fahmi Fayeze Abusalameh” versus “أبوالمكارم سميح ابوالمكارم عبدالخالق” and “D W P R W Mudiyanse Ralahamilage Gihan” versus “Divakara W P R W M R Gihan Dhananjaya G.”

When it comes to financial compliance screening, nuanced information and controls are powerful tools to reduce reputational risk and increase efficiency that is impossible with simple search.

BasisTech continually invests in Rosette, rolling out new algorithms that leverage advances in natural language processing such as deep learning and text embeddings. This multi-pronged approach of choosing the best approach for each new issue or edge case forms a coordinated team of algorithms.

Consequently, Rosette brings semi-automation to what is an otherwise difficult, laborious, and subjective task for humans. Within the powerful Refinitiv World-Check One platform, Rosette delivers intelligent matching that is accurate, consistent, and auditable to critical stages of the due diligence and KYC screening process.

Request details about how Refinitiv World-Check One can help you protect your business from financial crime and reduce risk by simplifying and making your KYC due diligence screening more efficient [here](#). Learn more about the AI engine powering Refinitiv World-Check One screening [here](#).