**Wipo Standard ST.93**

Recommendations on the DATA CLEANING of Names

*Proposal presented for approval by the Committee on WIPO Standards (CWS)*

*at its thirteenth session*

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# INTRODUCTION

This Standard provides general recommendations on the intake, processing, cleaning, and publication of clean name data. This Standard does not provide recommendations on details in relation to approaches to data cleaning, name localization or transformation, such as transliteration, transcription or translation, or approaches to name standardization, such as selection of algorithms, where and when transformations are applied, frequency, or merging strategies. Decisions on such details will vary greatly depending on the party applying the approach, the purpose of transformations, and the quickly evolving nature of matching algorithms.

WIPO Standard ST.20 should be referred to for recommendations to produce indexes to patent documents giving names of applicants and other customers, and to promote a uniform presentation of names occurring in name indexes as well as a uniform method of ordering the names in the index itself.

# DEFINITIONS

In the context of this document:

1. "IPO” refers to an Intellectual Property Office, which manage the application and registration process for intellectual property rights.
2. “Customer data” means data on applicants, registrants, owners, legal representatives, or other parties held by an IPO in connection with an IP right, application, registration, or other instrument. This standard is primarily concerned with customer name data: personal names, business names, and related information such as city, address, or email that can be used to disambiguate potential name matches.
3. “Clean data” means data that is accurate, consistent and reliable. As the degree of cleanness in a large complex data set is difficult to measure, various metrics may be used as proxies for cleanness or related properties, such as fitness for purpose.
4. “Transliteration” means the mapping of a source language character(s) to a target language (phonetic) character(s).
5. “Transcription” means the mapping of a source language character/logogram/syllable/phoneme to something that corresponds to the sound in the respective system of the target language.
6. “Translation” means representing the meaning of a word or concept in the source language with something that corresponds to that meaning in the target language.

# INTAKE

IPOs may provide the ability for customers to create and manage electronic customer records containing published name information: personal names, business names, names of legal representatives, and related information such as city, address, or email.

IPOs should allow a customer record to be associated with multiple applications or registrations for IP rights, so that customers may reuse the same name information for multiple applications or registrations and update their name information in one place.

IPOs may provide forms for customers to use to request the IPO to create or change their name or related information. IPOs may allow customers to enter and update their name or related information themselves, or may require a designated party, such as employees, contractors, or an external service to enter and update customer records at the customer’s request.

Multiple records for one customer may be created and managed by different entities, such as different legal representatives. IPOs should consider this when designing their customer record systems, as multiple records for a single customer may contain slight variations on the same data or be updated at different times by different representatives.

IPOs may support entry of the customer’s name in native characters of the customer’s language, in addition to the customer’s name in the language(s) of operation for an IPO, which should be stored using UTF-8 [[1]](#footnote-2)encoding. For instance, an IPO that works in English could allow separate fields for an applicant name in English and the original applicant name in Korean.

IPOs may optionally use identification codes to identify customers. Identification codes may be created by the IPO or taken from an external source, such as a registered business number or passport number. Identification codes alone do not resolve issues with clean customer data, such as duplicate entries, name changes, and outdated or incorrect information. IPOs using identification codes should continue to pay attention to and address the considerations in other parts of this Standard.

# TRANSFORMATION OF NAMES

For data exchange and processing, including the receipt of international applications or registrations, IPOs may consider the name transformation. It is recommended that IPOs should send and receive name data using UTF-8 encoding.

It should be noted that the localization or conversion of customer names is extremely prone to error as there are no generally accepted or uniform standards. For localization or transformation of names, there are three ways referred to in this Standard: transliteration, transcription and translation. If IPOs transliterate, transcribe or translate names from one language or character set (such as Korean or Latin) to another (such as English or Cyrillic), they should publish their scheme of transliteration, transcription or translation. If IPOs transform a customer’s name, it is recommended to retain the applicant’s name in the native characters or language(s), in accordance with paragraph 8 of this Standard. Transliterated, transcribed or translated documents, or parts of documents, should be made available to the customer for review, and customers should have the opportunity to submit corrections if the transliteration, transcription or translation is flawed.

Reverse transliteration should be avoided, if possible; instead, it is recommended that the original name should be used instead. For instance, an application filed by “Phony Corp” in Latin characters might be transliterated to Greek characters as “Φονι Κορπ” in an IPO system, and on publication might be reverse transliterated from Greek back to Latin characters as “Foni Corp”, leading to mismatches.

# VALIDATION AND DISAMBIGUATION

Validation and disambiguation approaches should be designed to meet specific objectives, either administrative or statistical, and appropriate methods applied given the objectives. Approaches to name matching and disambiguation should be appropriately scoped and risk assessed in the light of their design objective to ensure appropriate levels of disambiguation are achieved for the use case.

14. IPOs may choose to perform validation of submitted customer information, including automated checks. The validation of such results should be communicated to the customer. Where necessary, any corrections must be approved by the customer prior to implementation in the system. Furthermore, provisions should be made to allow bypassing the automated validation mechanism in instances where it produces inaccurate or incomplete results.

15. IPOs attempting to disambiguate name records (i.e., find duplicate entries) may wish to consider more than just customer names. Names are not inherently unique. For example, there may be multiple individuals named “John Smith” or multiple companies named “Data Corp”. Comparing related data points such as city, post code, birthdate, or other information, where available, can increase the likelihood of successful matches.

16. Any validation or disambiguation process initiated by an IPO that could potentially have legal effects, such as correcting or standardizing the name of the registered owner of an IP right, should be confirmed by the customer before the change is made in the IPO’s system.

# MAINTENANCE

17. IPOs should develop a strategy to periodically clean data in customer name databases, including searching for and attempting to resolve duplicate records, i.e., multiple records for the same customer. In some instances, duplicates may be merged or combined, for instance, records with slight unintentional differences in spelling such as “ABC Corp” and “ABC Corp.” could be consolidated. In other instances, maintaining separate records might be preferable. Each IPO should decide what approach best fits its own name record management system. The strategy may include involving the customers concerned with the records in the data cleaning process and the responsibility of the cleaned data.

18. IPOs should provide a mechanism for customers to update their name information on multiple applications or IP rights by entering the information once. For instance, this could be achieved by associating each application or IP right with a single customer record containing name information, or by allowing customers to select multiple applications or IP rights and submit one instance of updated name information to be applied to all of them.

19. IPOs may designate someone to be responsible for data cleaning issues, including the development of metrics for measuring data cleanness, regular monitoring and reporting of those metrics, and taking action to improve customer data when needed.

# PUBLICATION AND DATA EXCHANGE

20. IPOs should make available updates to name information that are submitted after an IP document has been published. For instance, if “ABC Corp” changes its name to “XYZ Corp” in its customer record, then the name “XYZ Corp” should be associated with the IP right in online publications. The original name may also appear in published IP documents, depending to the legal requirements of the IPO.

21. If an IPO holds other forms of a customer’s name, such as an original name expressed using native characters, these should be included in published IP documents and documents exchanged with other IPOs.

22. If an IPO uses identification codes to identify entities, the codes should be included in published data and data exchanged with other IPOs, unless the identification codes are sensitive and cannot be shared.

# STATISTICAL PURPOSES

23. For statistical purposes, IPOs may attempt to match customer data with variations in customer names, or other fields, to achieve counts that are more accurate. In such cases, IPOs should publish their matching strategy or algorithm along with the statistical results so that others can understand the methodology used.

## References

24. References to the following Standard are of relevance to this Standard:

WIPO Standard [ST.20](https://www.wipo.int/documents/d/standards/docs-en-03-20-01.pdf) Recommendation for the preparation of name indexes to patent documents

[End of the proposed Standard]

[End of Annex and the document]

1. UTF-8 is an encoding system for Unicode. [↑](#footnote-ref-2)