STS Search Logic
Committee Findings
(2015-2016)

Presented at the 39th Annual IACA Conference in Columbus, Ohio
June 7, 2016
Sponsored by:
Purpose of the Search Logic Committee

At the 38th Annual IACA Conference in Savannah, GA, an STS resolution was passed to form a Search Logic Committee that would report at the 2016 IACA Conference recommendations on the following:

• The appropriate steps for a filing office to take in order to change their standard search office logic;
• Best practices for using Non-Standard Search Logic; and
• Issues to consider when changing indexing methodology concerning search results.

Search Logic committee members:

• Katie Zvolanek, Chair (OH); Cathy Beaudoin (ME); Robert Lindsey (VA); Wally Boggus (Capitol Services, Inc.); Despina Shields (National Corporate Research, Ltd).
Search Logic Committee Results

• Best Practices for Filing Offices that Offer Non-Standard UCC Search Logic
• Best Practices for Filing Offices that Make Changes to Standard Search Logic
• Recommendation to form a standing Search Logic Committee, that will serve as a resource to the section when issues involving search logic should arise, and periodically review IACA STS search logic documents to ensure they are kept up-to-date to reflect current filing office practices.
Best Practices: Non-Standard UCC Search Logic

• What is Standard Search Logic?
  • Standard search logic is that which is defined by each filing office in it’s administrative rules.
  • While each state does not adopt the MARS version of Rule 503.1, each filing office should describe search logic in this rule, or its equivalent.
  • Any search logic offered that deviates from the search logic defined in this rule is considered non-standard.

• Why offer Non-Standard Search Logic?
  • It can be a useful tool to search UCC records, for both customers and filing offices to discover incorrect debtor names, indexing errors, or to discover non-UCC filings.
Best Practices: Non-Standard UCC Search Logic (continued)

Best Practice Recommendations:

• Only make non-standard search logic available on the public website
  • In-house searches should be limited to standard search logic only.

• Non-Standard search logic should have its own search page
  • Make it clear that the user is moving away from the standard search logic page, to avoid confusion about the retrieved results.

• Place a disclaimer on the non-standard search logic page
  • A prominent disclaimer will indicate that search logic being used is non-standard.
Best Practices: Non-Standard UCC Search Logic (continued)

Best Practice Recommendations (continued):

• Printed results of non-standard searches should also have disclaimers
  • A disclaimer or watermark to clearly indicate that the results were retrieved using non-standard search logic.
  • **Example:** *This search was performed using the filing office’s non-standard search logic only available to customers via the filing office’s website. It is provided for informational purposes only.*

• Non-Standard search results should not be certified by the filing office
  • A filing office should never guarantee the accuracy or completeness of data retrieved using non-standard results.

• Publish a list of non-standard search methodologies offered and include in Administrative Rules
  • This list should be available on the filing office website and in the Administrative Rules. The equivalent of model rule 503.2 is the appropriate place for such a list, which has a disclaimer that non-standard search logic is provided for informational purposes only.
No, please, go on.

I find your tale absolutely enthralling.
Best Practices: Changes to Standard Search Logic

• Why is standard search logic so important?
  • Standard search logic is relied upon by many outside parties. If a filing under an incorrect name of the debtor is not revealed in response to a search under the correct name of the debtor, using standard search logic, the filing is ineffective.

• What are the consequences of changing standard search logic?
  • Filings under incorrect names that were previously retrieved may no longer be revealed using the new standard search logic. To remain effective, secured parties must amend filings to ensure debtor names will continue to be retrieved using the new standard search logic.
Best Practices: Changes to Standard Search Logic (continued)

• Consider the impetus for changing your rule
  • Ask yourself: What is the problem we are trying to solve?
  • The answer should guide every step of the development process.
  • Identify how changing search logic could create any new issues.
  • Perform a critical evaluation of any change to protect against any unintended consequences.
Best Practices: Changes to Standard Search Logic (continued)

• Identify Stakeholders
  • Identify those parties that rely on the filing office for searches and other UCC information management services.
  • These parties should be given adequate notice and potentially a period to provide public comments.
  • Reach out to these groups in the early stages of the process, as these groups might be able to provide valuable insight and assistance.
Best Practices: Changes to Standard Search Logic (continued)

• Provide Adequate Public Notice
  • Method
    • Press release, online statement, flyer with UCC acknowledgments, STS listserv update
  • Timing
    • Notice should provide exact date/time of changes
    • The notice should be provided at least 30 days prior to the changes going into effect.
  • Who Receives Notice
    • Online filing account holders, website users, bar associations, bulk data customers, STS listserv
  • What Notice Should Contain
    • Identify how search results will change and include examples, attach new set of search logic rules
  • Retention of Notice
    • The exact date/time of the programming change should be maintained by the filing office

It is important to consider any Administrative Rule that prescribes guidelines for providing notice.
Best Practices: Changes to Standard Search Logic (continued)

• Testing
  • Testing should occur as early as possible to allow time to make necessary changes and then to thoroughly test those changes.
  • User testing should be performed at each phase of development.
  • Both the in-house system and the public search functionality should be tested to ensure search results are the same in both settings.
  • Testing should be performed by:
    • In-house users
    • End users – this is to the extent it is feasible.
Best Practices: Changes to Standard Search Logic (continued)

• Maintain legacy search logic on website as non-standard search logic.
  • A public search page with the legacy search logic should be maintained for one year.
  • This allows filers to compare searches using both search logics.
  • The legacy search logic page should follow the IACA Best Practices recommendations for Non-Standard Search Logic.
HANG IN THERE
BUDDY
Name Normalization: Search Logic & Examples

The Effect of Changing Search Logic on Results
Model Administrative Rules (MARS)

Provides guidance on how name data is communicated, indexed, and searched in numerous sections:

- 101.7 Means of communication (see comment)
- 301.7 Indexes of names
- 401 Data entry
- 501.4 Search logic
- 503 Search methodology
- 504 Changes in standard search logic
Search Logic – Organization Names

1. Case-insensitive (A = a) [503.1.2]
2. Ampersand (&) turned into AND [503.1.3(a)]
3. Punctuation removed [503.1.3(b)]
4. “Accents disregarded” [503.1.3(b)]
   • Accent-insensitive OR accented-chars removed?
   • Topic of previous IACA work groups
5. Noise endings disregarded [503.1.3(c)]
   ❑ Remove all noise endings [Alternative 1]
     1. Longer to shorter (National Bank before Bank)
     2. Repeat until none are removed
   ❑ Remove only the last noise ending [Alternative 2]
6. Beginning “THE” removed [503.1.3(d)]
7. Spaces removed [503.1.3(e)]
Search Logic – Individual Names

- Individual names have additional special rules for handling initials for first and additional (middle) names
  - First and additional initials are equivalent to names starting with those initials [503.1.4(b) and (c) (1) and (2)]
    - J ≡ James, John, Jorge, etc.
  - No first or additional names initials are equivalent to all names initials [503.1.4(b) and (c) (3)]
    - ∅ ≡ ∞
- Single names (“Cher” or “Prince”) should be treated as Surnames [302.1 and 503.1.4(e)]
- Name suffixes searched when included in the Surname by the filer [302.2]
- Search = John Aaron Smith
  - Surname = Smith
  - First = John or J
  - Additional = Aaron or A
- Results may include
  - John Aaron Smith
  - John A Smith
  - J A Smith
Adding Special Characters

• 2015 MARS default language is to replace accented characters with their closest reasonable equivalent during data entry [401]
• Publish your list of acceptable characters [401]
• Electronic data is stored exactly as submitted, including special characters [401]
  • May result in inconsistent search results if your web/XML system allows accented characters but you follow 401 for data entry
• When searching, accented characters are disregarded from organization names only [503.1.3(b)]
  • Nonissue post-2010? As of 2016, US passports and state driver’s licenses do not allow diacritical/accent marks (CA bill stalled in 2014) and non-US passports include transliterated “Latinized” names
  • What about filings pre-2010 amendments?
**Example of Normalization**

The ABC & XYZ Company, Inc.

1. Make it all uppercase
2. Replace & with AND
3. Remove punctuation
4. Disregard accents; assuming that we’re transliterating
5. Remove INC noise word ending
6. Remove COMPANY noise word ending
7. Removing leading THE
8. Remove any spaces

→ Perform exact match search on normalized name
Example of Normalization

Search: The ABC & XYZ Cómpany, Inc.

1. THE ABC & XYZ CÓMPANY, INC.
   • Make it all uppercase

2. THE ABC AND XYZ CÓMPANY, INC.
   • Replace & with AND

3. THE ABC AND XYZ CÓMPANY INC
   • Remove punctuation

4. THE ABC AND XYZ COMPANY INC
   • Disregard accents; assuming that we’re transliterating

5. THE ABC AND XYZ COMPANY
   • Remove INC noise word ending

6. THE ABC AND XYZ
   • Remove COMPANY noise word ending

7. ABC AND XYZ
   • Removing leading THE

8. ABCANDXYZ
   • Remove any spaces

✓ The ABC & XYZ Cómpany, Inc.
✓ The aBc AnD xyZ Bank
✓ ABC & XYZ Co., Inc.
✓ The abc and XYZ, LLC
✓ The ABC & XYZ Company, Inc.
Changing the Rules…
No longer removing ending noise words

Search: The ABC & XYZ Company, Inc.
1. THE ABC & XYZ COMPANY, INC.
   • Make it all uppercase
2. THE ABC AND XYZ COMPANY, INC.
   • Replace & with AND
3. THE ABC AND XYZ COMPANY INC
   • Remove punctuation
4. THE ABC AND XYZ COMPANY INC
   • Disregard accents; assuming that we’re transliterating
5. THE ABC AND XYZ COMPANY
   • Remove INC noise-word ending
6. THE ABC AND XYZ
   • Remove COMPANY noise-word ending
7. ABC AND XYZ COMPANY INC
   • Removing leading THE
8. ABCANDXYZCOMPANYINC
   • Remove any spaces

 ✓ The ABC & XYZ Company, Inc.
 ✗ The aBc AnD xyZ Bank
 ✗ ABC & XYZ Co., Inc.
 ✗ The abc and XYZ, LLC
 ✓ The ABC & XYZ Company, Inc.
Changing the Rules… Searching for “& Co.”

IACA Rule: & → AND

1. & CO.
   • Make it all uppercase
2. AND CO.
   • Replace & with AND
3. AND CO
   • Remove punctuation
4. AND
   • Remove CO noise word ending
5. AND
   • Remove any spaces

Actual California UCC Debtors:
✓ & CO.
✓ AND COMPANY
✓ AND Company, LLC
✓ AND COMPANY, LLC

Different Rule: Disregard & and AND

1. & CO.
   • Make it all uppercase
2. CO.
   1. Disregard & and AND
3. CO
   • Remove punctuation
4. ...nothing...
   • Remove CO noise word ending

New Results:
✗ & CO.
✗ AND COMPANY
✗ AND Company, LLC
✗ AND COMPANY, LLC
✗ *.*, LLC
Changing the Rules...
Disregard (not transliterate) accented characters

Search: The ÁBC & XYZ Cómpany, Inc.
1. THE ÁBC & XYZ CÓMPANY, INC.
   • Make it all uppercase
2. THE ÁBC AND XYZ CÓMPANY, INC.
   • Replace & with AND
3. THE ÁBC AND XYZ CÓMPANY INC
   • Remove punctuation
4. THE BC AND XYZ CMPANY INC
   • Disregard accented characters (Á, Ó)
5. THE BC AND XYZ COMPANY
   • Remove INC noise word ending
6. THE BC AND XYZ COMPANY
   • CMPANY is no longer a noise word
7. BC AND XYZ CMPANY
   • Removing leading THE
8. BCANDXYZCMPANY
   • Remove any spaces

What happens when someone performs this search but your old data entry rules called for replacing accented characters with their closest equivalent? Hidden liens!

✓ The ÁBC & XYZ Cómpany, Inc.
× The aBc AnD xyZ Bank
× ABC & XYZ Co., Inc.
× The abc and XYZ, LLC
× The ABC & XYZ Company, Inc.
A Fun Example

Search: The Corporation Company, As Trustee

➢ THE CORPORATION COMPANY, AS TRUSTEE
  • Make all uppercase

➢ THE CORPORATION COMPANY AS TRUSTEE
  • Remove punctuation

➢ THE CORPORATION COMPANY
  • Remove AS TRUSTEE noise word ending

➢ THE CORPORATION
  • Remove CORPORATION noise word ending

➢ THE
  • Remove leading THE

➢ Nothing
  • *If you do a partial match search, you may just return EVERYTHING!*
  • Don’t search “The Company” on Massachusetts’ site 😐
Well Done Ben
Resolution for a Standing Search Logic Committee

- Committee comprised of 3 members and 2 non-members.
- Members will serve staggered terms of three years.
- STS Chair will be the committee chair.
- Will report developments at the IACA conferences, as needed