

MEMORANDUM

Date: August 5, 2009

To: Lynn Soukup Chair of the Commercial Finance Committee
Penelope Christophorou Chair of the Uniform Commercial Code Committee

From: Joint Task Force on Filing Office Operations & Search Logic

Re: FOOSL Report on Debtor Name Indexing: Special Characters and Field Lengths¹

I. Introduction

The Joint Article 9 Review Committee (“JRC”) is considering draft revisions to the debtor name sufficiency provisions in Section 9-503(a). The proposed revisions affect both registered organization and individual debtor names. At the JRC meeting in Chicago on March 6-8, 2009, there was much discussion of whether filing offices were capable of indexing special characters and symbols that might appear in the debtor name and how the index debtor name field size could affect the proposals. There was concern that these issues could make it impossible for a secured party to comply with the proposed revisions or create hidden liens for searchers.

The JRC concluded that it did not have enough information to determine the effect of these issues on the revisions under consideration. The Chair of the JRC requested that observers from the Joint Task Force on Filing Office Operations & Search Logic (“FOOSL”) provide analysis and recommendations for how the JRC should approach these two indexing issues.

The following FOOSL report provides an analysis of how special characters and field lengths may affect the proposed revisions and recommends a course of action for the JRC. This report is respectfully submitted to the Commercial Finance and Uniform Commercial Code Committees of the ABA Section on Business Law for consideration and approval prior to delivery to the Joint Article 9 Review Committee.

II. Special Characters

(a)(1). Background

It is particularly important that the secured party provide the correct name of the debtor on a financing statement. Ordinarily, the debtor name will contain only a combination of the ninety-four letters and punctuation characters found on a standard “QWERTY” keyboard.² A list of these characters is provided as Exhibit A.

There are circumstances where the correct name of the debtor will include letters, punctuation or symbols that are not included on the QWERTY keyboard. Examples of non-QWERTY characters include letters with diacritical marks (“Ã”), letters from non-Roman

¹ This is a revised version of the FOOSL memo dated March 26, 2009 that incorporates comments and revisions suggested by members of the FOOSL sponsoring committees.

² “QWERTY” refers to the first six letters in the upper left hand row of the keyboard. This the standard keyboard used in the United States.

alphabets (“Σ”), certain punctuation (“;”) and symbols (“€”) (referred to collectively as “special characters”).

Most computer systems in use today allow data entry of many special characters. Computer operating systems recognize character sets that include characters not found on the keyboard. ASCII and Unicode are two examples of commonly-used character sets.

The additional characters are entered by using specific key combinations. For example, the user can enter a character from the Extended ASCII character set by holding down the ALT key and entering a numeric code for the desired character. Unicode works in a similar manner. The user must hold down the ALT and + keys, then enter a numeric code for the character.

Many word processing programs also allow the use of special characters. Word and WordPerfect, for example, offer a number of different character options. The user also has the ability to add more character sets if necessary. Most enterprise database systems used by state UCC filing offices have the capability of storing these special characters.

Nevertheless, state filing offices struggle with the process for indexing special characters. Some states still use older software or computer systems that are not capable of accepting special characters.³ Even for states with the right software and system capabilities, the large number of special character possibilities makes data entry more cumbersome, increases the risk of errors and requires much more staff training.

There are potentially thousands of special characters that could appear in a debtor name.⁴ The extended character sets generally recognize only a fraction of those characters. The large number of possibilities can make difficult for data entry staff to identify the correct code for a particular special character.

The special character indexing issues are identical for both organization and individual debtor names. Both types of debtor names can include special characters. Organization names may contain foreign characters or symbols, but individual names can also contain foreign alphabet characters and diacritical marks that filing offices are currently unable to index.

(2). Electronic Indexing of Special Characters

Electronic UCC filing systems may be better able to handle special characters because the filer controls the input. Some e-file systems can accept special characters input by cut and paste from word processor documents or by using the ASCII or Unicode numeric codes.⁵ However, not all systems will transfer the special characters into the searchable index.

Special characters also create an issue for state UCC filing offices that scan written records and index them using optical character recognition (“OCR”) software. The OCR programs will not recognize many special characters. Even if recognized by the OCR program, the filing office system may not accept the special characters. In either case, the system will normally note the record as an exception and route it for manual indexing.

(3). Special Characters and Organization Names

³ The Colorado Secretary of State provides one example. The data entry software for indexing written UCC records accepts only the 94 QWERTY characters. It does not recognize the keyboard combinations for entry of extended character sets.

⁴ A list of the numerous Unicode character sets can be viewed at <http://unicode.org/charts/>.

⁵ Ironically, while the Colorado Secretary of State filing office cannot index special characters in a written record, a filer can submit special characters by filing the record electronically and have them reflected in the index.

Organization debtor names may contain a wide variety of different special characters. Many organizations use special characters to distinguish a name or add flair. Examples might include “ØLE & LENA’S CAFÉ,” “I ♥ FISHING STORE” or “IT’S GRΣΣK TO ME.” Filing offices would encounter difficulty indexing any of those possible names.

The name specified in the formation documents of a registered organization can include special characters. However, those characters are generally not reflected in the state corporations divisions’ filing office databases. A survey conducted in 2008 by the International Association of Commercial Administrators (“IACA”)⁶ demonstrates the variety of state corporations division practices for indexing special characters in business entity names.⁷ The corporations division filing office will normally substitute QWERTY keyboard equivalents or spaces for special characters during data entry. Some corporate filing offices require the filer to change the name if it contains characters the office is unable to index.

While corporate filing office practices may limit the range of special characters reflected on a public organic record, entities that do not fall within the definition of “registered organization” may have a broader range of special characters in the name.

(4). Special Characters and Individual Names

Individual debtor names can contain foreign language characters, but generally will not contain non-alphabet symbols. Regardless, the issues raised by special characters in individual debtor names are indistinguishable from those applicable to organization names.

Indexing all the possible foreign characters that could appear in an individual name can be a particular challenge for states due to the large number of languages in use. For example, there are more than 300 languages spoken in the California K-12 public school system.⁸ The “correct” names of those foreign language speakers and their families might include a wide variety of special characters.

The revisions under consideration by the Committee include various options for using the debtor’s driver’s license to determine the correct individual name. That would actually reduce the special character problem for individual debtor names. Many state driver’s license regulations or other practices by the issuing authorities require the name to appear exclusively in standard QWERTY characters.⁹ If the driver’s license cannot contain special characters, then the issue becomes moot for UCC debtor names that rely on the driver’s license.

However, the driver’s license cannot provide a solution for all individual debtor names. If the individual debtor doesn’t have a driver’s license, the filing offices still face the special character issue.

(b). Current State Procedures for Indexing Special Characters

⁶ IACA is a professional association of state-level government administrators, including those who oversee the secured transactions systems. The IACA Secured Transactions Section plays a significant role in the development of filing office best practices and standardization.

⁷ See IACA Indexing Standard Workgroup Special Character Best Practices 2008 Report available at: http://www.iaca.org/downloads/2008Conference/JointSession/IISW_Special_Character_Best_Practices.pdf.

⁸ See <http://www.ucop.edu/acadinit/consortium.htm>.

⁹ See e.g., *Minn. R. 7410.0400* (2008), which requires source documents that provide an applicant’s name to be translated into the English language. Other states, such as Illinois, require English language characters to be displayed on the driver’s license as standard practice.

Most state UCC filing offices have procedures in place to deal with special characters. However, there is little uniformity among jurisdictions. In some cases a jurisdiction may have procedures for indexing some special characters, but must deal with other special characters on a case-by-case basis.¹⁰

A small number of states will simply refuse to accept any record that contains special characters in the debtor name. These offices rely on Section 9-516(c)(1), which permits the filing office to refuse to accept a record if it is unable to read or decipher the information. In these states a secured party is unable to comply with the requirements of Section 9-503(a) if the debtor name contains special characters. In that case, the secured party must determine how to provide the debtor name in a form that is likely to be disclosed on a search.

The states generally use a combination of methods during the indexing and search process.¹¹ One method is to substitute the nearest QWERTY keyboard equivalent for a special character during the indexing process. For example, an individual last name provided as “PEÑA” would be entered in the searchable index as “PENA.” The substitution method has some significant limitations. It requires the filing office to exercise some degree of judgment, leading to inconsistent standards. Some states use equivalency tables to ensure a consistent substitution policy. However, in some states the choice of character is left to the ad hoc determination by data entry staff. Substitution is also an incomplete solution. There are many special characters that do not have a clear QWERTY equivalent. For example, the Cyrillic “Я” is a vowel and not the equivalent of the English “R.”

Substitution also creates problems for searchers. The searcher must determine what character, if any, the filing office substituted during data entry and search accordingly. That may require searches on several name variations. To further complicate the process, few states actually make their equivalency tables readily available to the public.

Another method in use by some states is to simply omit any special characters during the indexing process. Thus, “PEÑA” would appear in the index as “PEA.” A major drawback to omitting special characters is that there is greater risk the filing will not be disclosed by a search. A search of “PENA” would not find the indexed version “PEA.”

Other state practices include substituting a space for special characters. “PEÑA” would be indexed as “PE A.” The search logic used by most states disregards the space and leads to the same result as if the special character was simply omitted. The same issue occurs if states equate the special character with punctuation. Again, in that situation the search logic would equate “PEÑA” with “PEA.”

(c). IACA Recommendations

The IACA Indexing Standards Workgroup (“IISW”) introduced three resolutions at the 2008 IACA Annual Conference concerning how filing offices should deal with special characters.¹² The first resolution was that IACA seek guidance from the UCC Permanent Editorial Board and NCCUSL (presumably through the Joint Article 9 Review Committee). The second resolution was to recommend that those filing offices with the system capability to do so

¹⁰ See *supra* Note 5.

¹¹ See *supra* Note 5.

¹² See 2008 IACA Resolutions,

http://www.iaca.org/downloads/2008Conference/STS/2008%20STS%20Resolutions%20_REV%201_.pdf.

should index special characters. Finally, the IISW recommended that filing offices without the capability to index special characters should reject records that contain a special character or require the filer to submit a different debtor name. The IACA membership adopted all three resolutions.

(d). FOOSL Analysis and Recommendations

(1) Objectives and Considerations

The FOOSL analysis and recommendations are based on the fundamental concept that a secured party should have the ability to submit the exact name required by Section 9-503(a), regardless of whether it contains special characters. Likewise, filing offices should be required to accept records that contain special characters in the debtor name and provide a transparent method indexing those records. It is also critical that filing offices provide a method for conducting a search of the correct name that will disclose the record as originally presented for filing.

In arriving at a proposed solution to the special character issue FOOSL had to take the cost and development resources necessary for implementation into account. Most states are currently running budget deficits and it will not be easy for many filing offices to justify added costs. Likewise, system development resources are limited and expensive. FOOSL believes that implementation costs and reprogramming of existing systems must be kept to a minimum. Added costs and development requirements could make states reluctant to adopt a proposed solution.

(2) Analysis

None of the current filing office special character indexing practices satisfies the FOOSL objectives of allowing filers to submit special characters and searchers to reliably find such records. Therefore, FOOSL has considered other approaches.

One suggestion raised by a member of the JRC is to create a separate index for each foreign language. Filing offices would require the filer to submit foreign language UCC records with an addendum that identifies the language. The filing office would then scan and apply optical character recognition software to the record and enter it in the appropriate language index. A cross reference would be entered into the regular UCC index that directs a searcher to the relevant foreign language index.

The foreign index solution, however, may impose substantial costs on the filing offices. The filing office would have to purchase software to generate each language and possibly additional computer hardware to scan and store the separate databases. Moreover, the ongoing cost of maintaining an unknown number of foreign language databases is likely to be prohibitive for many filing offices.

(3) FOOSL Proposal

There is a solution that FOOSL believes will produce the desired results for filing and searching debtor names that contain special characters. FOOSL recommends that the JRC consider the use of a wildcard placeholder. Every special character would be replaced during

indexing with the wildcard place holder. For purposes of this discussion, that wildcard will be noted as an asterisk (“*”), but it could be any character. If adopted, each filing office would need to determine which wildcard placeholder would be appropriate for its system.

The wildcard placeholder is not punctuation. Punctuation is disregarded by the search logic used in most states. Instead, the placeholder maintains the character length of the name and is the equivalent of any character entered in that character’s position. The result is a system that resolves all the indexing issues created by special characters.

The wildcard placeholder would enable a UCC filer to always provide the name of the debtor required by Section 9-503(a) or any of the revisions currently under consideration. It works equally well for both organization and individual debtor names that contain special characters. Special characters create the same challenges regardless of the type of debtor name. An added benefit is that a wildcard placeholder can even accommodate special characters that have not yet come into existence, such as the symbol used by the artist formerly known as “Prince.”¹³

Likewise, electronic filing systems would operate efficiently with the wildcard placeholder. The electronic filing system would be programmed to automatically substitute the wildcard for any special character submitted in a debtor name field. Again, the result is that the UCC filer always has the ability to submit the name required by Article 9.

The benefits of the wildcard placeholder also extend to state search systems. All UCC records could be searched reliably, regardless of the method used to communicate the record to the filing office.

The wildcard placeholder works by equating special characters with any character. For example, the name “PEÑA” would be entered in the searchable UCC index as “PE*A.” The asterisk would allow the name to be disclosed on any search of a four-character name that matched the three QWERTY keyboard character positions. The result is that a search submitted on the following last names would disclose a record indexed as “PE*A.”

PEÑA	PEΣA
PENA	PE¥A
PEXA	PEЖA
PETA	PE©A

Conversely, a search of “PE*A” would disclose UCC records that provide any of the names listed above.

The wildcard placeholder eliminates the need for filing officers to exercise their judgment when indexing special character and the need for equivalency tables or special search logic. There remains a risk of keying errors during manual indexing. For example, the data entry operator could mistakenly enter “N” when a wildcard placeholder is required for “Ñ.” However, that risk already exists today.

Searchers would also benefit from a wildcard placeholder solution because they do not need to guess how a name with special characters was indexed. As long as the name is the same length and the QWERTY characters match the correct positions, a searcher can find the record.

The wildcard placeholder solution is not perfect. It will require filing offices to reprogram both indexing and search systems. However, that is not expected to be a particularly

¹³ In 1993 it was widely reported that Prince changed his stage name to an unpronounceable symbol. However, the artist’s correct name for UCC purposes arguably remains his birth name, Prince Rogers Nelson.

difficult, costly or time-consuming programming project. Nor would any new hardware be required in most cases. This would be a one-time expense and, once complete, would be unlikely to increase ongoing system maintenance costs.

One concern raised about the wildcard placeholder proposal following release of the first draft of this memorandum, dated March 26, 2009, is that the search results for a name consisting of all special characters would include too many false matches.¹⁴ For example, if the wildcard placeholder were adopted in California, a search of a fifteen-character name consisting of all special characters would match more than three hundred thousand records.¹⁵

Search logic programming can substantially reduce the number of false matches on a special character name search. For example, limiting the search results only to names that contain at least one special character represented by a wildcard placeholder would reduce the number of false matches without increasing the risk of missing effective records. The searcher would still need to review some false matches on search results, but the added burden would be small and similar to the burden for other special debtor names, such as those that consist entirely of ending “noise” words.

Another important consideration for the JRC is how to deal with UCC records that provided special characters but were indexed under the current rules. These “legacy” records may be difficult, if not impossible for the filing office to identify. A transition period may be necessary to bring existing records into compliance.

The JRC may also want to consider whether the D.C. Recorder’s Office will cooperate in adopting the recommended solution. As the designated filing location for many foreign debtors, the D.C. Recorder is more likely to face special character indexing issues than most other jurisdictions.

One other downside of using a wildcard placeholder is that searches will often generate a greater number of matches. That will increase the time and cost of conducting searches.

If the JRC considers the wildcard placeholder solution, FOOSL recommends that it consult with IACA concerning potential filing office implementation costs, development lead times and estimates of how the solution would impact the number of matches on search results.

III. Debtor Name Field Lengths

(a). Background

The JRC has asked FOOSL to review the impact of debtor name index field length on the ability of a UCC filer to provide the correct debtor name and the ability of a search to disclose the record. If the UCC index name fields are not long enough to accommodate the vast majority of debtor names, a search on the correct name of the debtor may not disclose active interests. The issue is particularly important in regard to individual name fields. The JRC appears committed to drafting a standard for sufficiency of individual names based on the name provided on a debtor’s driver’s license. The viability of that solution may depend on whether field length prevents the secured party from entering a debtor name shown on the individual’s driver’s license.

¹⁴ Memorandum from Kenneth Kettering to Paul Hodnefield and James Prendergast, Co-Chairs, FOOSL (May 28, 2009). The Kettering memorandum is attached as Exhibit D.

¹⁵This number is based on a count of the fifteen character organization debtor names found in UCC data purchased from the California Secretary of State during 2009.

(b). Impact of Field Length on Debtor Name Indexing

Currently, most filing offices maintain a UCC index with more than sufficient field length to index very long debtor names. Most states can accommodate organization debtor names up to 300 characters. An analysis of filed financing statements shows that only 1 out of approximately 900 organization debtor names exceeds 120 characters.¹⁶ While the numbers could be higher for certain types of organization debtors, such as trusts, and it is questionable whether organization names that long satisfy the sufficiency requirements of Section 9-503(a). In most cases, debtor names that exceed 80 characters appear to combine superfluous information with the correct debtor name, making the financing statement seriously misleading.¹⁷ On rare occasions when the debtor name exceeds the maximum index field length, the filing offices simply truncate the name.

Individual name field length is also a concern, especially since the JRC appears ready to provide for some form of safe harbor or “only if” individual debtor name standard based upon the individual’s driver’s license. Fortunately, state UCC index field lengths are more than sufficient to contain the name text on a driver’s license.

A review of driver’s licenses issued by various states indicates that the maximum name size on the driver’s license is far less than the space available to store individual debtor names in the state UCC index. Typically, the space available for a driver’s name is between 24 and 45 characters. Driver’s licenses simply do not have the space to display very long names in a legible font.

Most jurisdictions display the name as one line on the driver’s license. Exhibit B shows how each state driver’s license displays the name. In many cases the name is saved at the Department of Motor Vehicles in a single field. In Minnesota, for example, that single field is 32 characters in length. The name submitted for the driver’s license must be 32 characters or less.¹⁸ In contrast, only one state has less than 64 total characters available in the UCC individual debtor name fields. Most state UCC systems can store individual debtor names in excess of 100 characters.

(c). Impact of Debtor Name Field Length on Search Logic

There are only rare circumstances where a search on the correct name of the debtor may fail to disclose a financing statement that also provides the correct name. That may occur if the state’s debtor name field length is too short. The same issue can affect both organization and individual debtor names. Fortunately, the debtor name field length is more than adequate in most jurisdictions. A list of state debtor name field lengths is attached as Exhibit C.

One of the few examples of this problem occurs in Vermont. The debtor name field in the Vermont Secretary of State’s UCC system is only 33 characters long. The last space in the field is a field end code, so only 32 characters of the name can be placed in the index.

¹⁶ This number is based on an analysis of organization debtor names filed electronically by Corporation Service Company in 2008.

¹⁷ A FOOSL review of long debtor names currently on file with several jurisdictions identified a number of common errors in long debtor names.

¹⁸ See Minn. R. 7410.0300 (2008). This rule also explains how the DMV is to truncate names that exceed 32 characters.

A search of “VERMONT ASSOCIATION OF SNOW TRAVELERS, INC.” will fail to disclose a financing statement filed with that exact name. Nor will a search on just the 32 indexed characters “VERMONT ASSOCIATION OF SNOW TRAV” disclose the record due to the application of search logic to the shortened field.¹⁹

Vermont is unusual because it has a very short debtor name field. In most other states the organization and individual debtor name fields are sufficiently long that the problem will almost never occur on a search of the correct debtor name.

(d). FOOSL Analysis and Recommendations

After careful review, FOOSL does not believe that state index field lengths will create an issue for any of the debtor name revisions under consideration by the JRC. The length of debtor name fields in the vast majority of state UCC databases is sufficient to enable a secured party to provide the full correct name of the debtor. The field length in these state databases will not effect the ability of a searcher to locate records that correctly provide the debtor name.

There are some states with debtor name fields that are short enough to potentially interfere with searches on a lengthy debtor name. However, only a tiny fraction of debtor names are long enough to possibly create an issue in those jurisdictions.

IACA has formed a workgroup to identify the optimal minimum size for debtor name and persuade states to adopt those standards. The IACA workgroup includes representatives of FOOSL and other stakeholders. FOOSL believes that IACA, through this workgroup, is in the best position to encourage states to meet minimum system field size standards. Therefore, FOOSL recommends that the JRC defer to IACA at this time. If IACA is unsuccessful in its effort to bring states into compliance with minimum system requirements, then the matter should be addressed in future revisions to Article 9.

IV. Conclusion

The Joint Task Force on Filing Office Operations & Search Logic recommends that the JRC, in consultation with IACA, consider the feasibility of solving the special character indexing problem through the use of a wildcard placeholder and that this approach be codified in the statute.

FOOSL has determined that state UCC index field lengths will not create any barriers for either UCC filers or searchers under any of the revisions currently under consideration. Consequently, FOOSL recommends that IACA take responsibility for setting preferred minimum system capabilities and encouraging states to comply with those standards.

¹⁹ The online search is available at http://www.sec.state.vt.us/seek/ucc_seek.htm

Joint Review Committee Indexing Memo Exhibit A

Chart of IACA Acceptable Characters Set

Letters:

A	B	C	D	E	F	G	H	I	J
K	L	M	N	O	P	Q	R	S	T
		U	V	W	X	Y	Z		

a	b	c	d	e	f	g	h	i	j
k	l	m	n	o	p	q	r	s	t
		u	v	w	x	y	z		

Numbers:

0	1	2	3	4	5	6	7	8	9
---	---	---	---	---	---	---	---	---	---

Symbols:

~ Tilde	! Exclamation Point	@ At	# Number	\$ Dollar	% Percent	^ Carrot	& Ampersand	* Asterisk
(Open or Left Parenthesis) Close or Right Parenthesis	_ Underscore or Horizontal Bar	+ Plus	` Acute	- Dash or Hyphen	= Equals	{ Open or Left Curly Brace	} Close or Right Curly Brace
[Open or Left Square Bracket] Close or Right Square Bracket	: Colon	“ Quote	 Or or Vertical Bar	; Semi Colon	' Apostrophe or Single Quote	\ Reverse Solidus or Backslash	< Less Than
> Greater Than	? Question Mark	, Comma	. Dot, Period or Full Stop	/ Solidus or Forward Slash				

Note: The combination of characters listed above, such as “Ñ,” creates a single character that would be excluded from this character set.

**JRC MEMO EXHIBIT B
State-By-State Driver's License Name Format**

	Multi-Line	Format Line 1	Format Line 2	Public Finance Transactions
Alabama	Yes	First Name	Last Name	See Example Below
Alaska	Yes	Full Name	Repeat Full Name	JANE QUINCY PUBLIC
Arizona	No	Full Name	NA	JANE QUINCY PUBLIC
Arkansas	No	Last, First	NA	PUBLIC, JANE
California	No	First MI Last	NA	JANE Q. PUBLIC
Colorado	No	First Last	NA	PUBLIC, JANE
Connecticut	Yes	First Name	Last Name	See Example Below
District of Columbia	No	First/Middle/Last	NA	JANE QUINCY PUBLIC
Delaware	No	Last/First/MI	NA	PUBLIC, JANE Q.
Florida	No	First/Middle/Last	NA	JANE QUINCY PUBLIC
Georgia	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY
Hawaii	No	Last/First/MI	NA	
Idaho	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY
Illinois	No	First/MI/Last	NA	JANE Q. PUBLIC
Indiana	No	First/MI/Last	NA	JANE Q. PUBLIC
Iowa	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY
Kansas	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY
Kentucky	No	Last/First	NA	PUBLIC, JANE
Louisiana	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY
Maine	Yes	Last	First/MI	See Example Below
Maryland	No	First/Middle/Last	NA	JANE QUINCY PUBLIC
Massachusetts	Yes	Last	First/Middle	See Example Below
Michigan	No	First/Middle/Last	NA	JANE QUINCY PUBLIC
Minnesota	No	First/Middle/Last	NA	JANE QUINCY PUBLIC
Mississippi	No	Last/First/MI	NA	PUBLIC, JANE Q.
Missouri	Yes	Last	First	See Example Below
Montana	No	First/Middle/Last	NA	JANE QUINCY PUBLIC
Nebraska	No	First/Last	NA	PUBLIC, JANE
Nevada	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY
New Hampshire	No	First/MI/Last	NA	JANE Q. PUBLIC
New Jersey	No	First/MI/Last	NA	JANE Q. PUBLIC
New Mexico	No	First/MI/Last	NA	JANE Q. PUBLIC
New York	Yes	Last/DOB	First/Middle	See Example Below
North Carolina	No	First/Middle/Last	NA	JANE QUINCY PUBLIC
North Dakota	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY

JRC MEMO EXHIBIT B

Ohio	No	First/MI/Last	NA	JANE Q. PUBLIC
Oklahoma	No	Last/First	NA	PUBLIC, JANE
Oregon	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY
Pennsylvania	No	First/MI/Last	NA	JANE Q. PUBLIC
Rhode Island	No	First/Middle/Last	NA	JANE QUINCY PUBLIC
South Carolina	No	Last/First	NA	PUBLIC, JANE
South Dakota	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY
Tennessee	No	First/Middle/Last	NA	JANE QUINCY PUBLIC
Texas	No	Last/First	NA	PUBLIC, JANE
Utah	No	First/Middle/Last	NA	JANE QUINCY PUBLIC
Vermont	No	Last/First	NA	PUBLIC, JANE
Virginia	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY
Washington	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY
West Virginia	No	Last/First/Middle	NA	PUBLIC, JANE QUINCY
Wisconsin	No	First/MI/Last	NA	JANE Q. PUBLIC
Wyoming	Yes	Last/DL#	First/MI	See Example Below

MULTI-LINE EXAMPLES:

ALABAMA	Line 1	JANE
	Line 2	PUBLIC
ALASKA	Line 1	JANE QUINCY PUBLIC
	Line 2	JANE QUINCY PUBLIC
CONNECTICUT	Line 1	JANE
	Line 2	PUBLIC
MAINE	Line 1	PUBLIC
	Line 2	JANE Q.
MASSACHUSETTS	Line 1	PUBLIC
	Line 2	JANE QUINCY
MISSOURI	Line 1	PUBLIC
	Line 2	JANE
NEW YORK	Line 1	PUBLIC 03-23-58
	Line 2	JANE QUINCY
WYOMING	Line 1	PUBLIC-DL1234567890
	Line 2	JANE Q.

NOTES:

This data was compiled from a review of sample driver's licenses created by the states in 2005.

Name formats reflect name shown on sample license. It is possible that actual licenses could contain full middle names instead of initials or vice versa.

Due to the small size, the maximum space available on single name line driver's licenses is generally under 40 characters for the full name. Multi-line names may permit more characters, depending on DMV data field size.

State UCC Index Field Length Chart

State	Data Field Maximum Sizes							Character Set
	D -Org	D- Ind LN	D -Ind FN	D-Ind MN	SP-Org	Address	Collateral	
Alabama	150	60	60	60	150	100	Unlimited	Other
Alaska	?	?	?	?	?	?	Unlimited	QWERTY
Arizona	?	?	?	?	?	?	?	?
Arkansas	300	100	100	100	300	100	Unlimited	QWERTY
California	300	50	50	50	300	110	512,000	Extended
Colorado	120	35	35	35	120	35	5,000	QWERTY
Connecticut	?	?	?	?	?	?	?	?
Delaware	120	40	40	30	120	96	24,000	QWERTY
District of Columbia	50	30	20	14	50	35	75,000	?
Florida	?	?	?	?	?	?	?	Extended
Georgia	?	?	?	?	?	?	?	QWERTY
Hawaii	?	?	?	?	?	?	?	?
Idaho	255	255	50	50	255	?	32,000	QWERTY
Illinois	200	30	20	20	64	32	65,535	QWERTY
Indiana	?	?	?	?	?	?	?	?
Iowa	100	50	50	50	100	60	9,200	QWERTY
Kansas	175	175	25	25	100	140	4,000	QWERTY
Kentucky	300	50	50	50	300	50	8,000	QWERTY
Louisiana	?	?	?	?	?	?	?	QWERTY
Maine	150	50	15	15	150	70	4,000	QWERTY
Maryland	?	?	?	?	?	?	?	QWERTY
Massachusetts	175	35	25	25	175	110	65,535	QWERTY
Michigan	250	70	40	20	250	50	64,000	QWERTY
Minnesota	300	50	50	50	300	110	6,000	QWERTY
Mississippi	300	100	100	100	500	500	Unlimited	QWERTY
Missouri	300	100	100	100	500	500	Unlimited	QWERTY
Montana	128	64	32	32	128	26	25,000	QWERTY
Nebraska	150	70	40	20	150	50	65,535	QWERTY
Nevada	160	40	25	20	150	50	10,000	QWERTY
New Hampshire	300	100	100	100	500	500	Unlimited	QWERTY
New Jersey	60	60	60	60	60	60	1,500	QWERTY
New Mexico	300	100	100	100	500	500	Unlimited	QWERTY
New York	200	85	60	30	200	90	32,767	Other
North Carolina	300	100	100	100	500	500	Unlimited	QWERTY
North Dakota	80	40	22	10	80	20	300	QWERTY
Ohio	300	100	100	100	300	255	Unlimited	Extended
Oklahoma	64	64	64	64	64	64	65,000	Other
Oregon	300	100	100	100	500	500	Unlimited	QWERTY
Pennsylvania	300	100	100	100	500	500	Unlimited	QWERTY
Rhode Island	175	35	25	25	175	110	65,535	QWERTY
South Carolina	?	?	?	?	?	?	?	Other
South Dakota	50	44	44	44	80	30	10,000	Other
Tennessee	?	?	?	?	?	?	?	QWERTY
Texas	300	50	50	50	300	110	Unlimited	QWERTY
Utah	125	14	14	14	125	50	4,000	Extended
Vermont	33	33	33	33	33	30	12,000	QWERTY
Virginia	?	?	?	?	?	?	?	QWERTY
Washington	300	100	100	100	300	250	28,500	QWERTY
West Virginia	75	30	20	16	75	34	?	Other
Wisconsin	300	100	100	100	300	100	150,000	QWERTY
Wyoming	128	?	?	?	128	?	98,000	QWERTY

Exhibit D

To: Paul Hodnefield
James Prendergast

Date: May 28, 2009

CC: Lynn Soukup
Stephen Sepinuck

From: Kenneth Kettering

Re: “FOOSL Report on Debtor Name Indexing: Special Characters and Field Lengths”,
dated March 26, 2009, from “Joint Task Force on Filing Office Operations & Search Logic”
to Soukup and Sepinuck

The Article 9 Review Committee today circulated by email to all interested parties the above report, which I had not previously seen. (Until late last year I was on the FOOSL email distribution list, but seem to have been dropped from it – reasonably enough, as I was contributing nothing. The report names only an institutional author, but I assume that Messrs. Hodnefield and Prendergast are still co-chairs and so I address this memorandum to them.)

The report is very interesting and I applaud the effort and care that went into researching and writing it. I write this to address FOOSL’s recommendation to deal with “special characters” by mandating use of a wildcard in lieu of any special character that appears in a debtor’s name.

I use the phrase “special character” in the same sense as the report, which defines the phrase broadly to mean any character not included on the QWERTY keyboard. Hence the term includes, among other things, any letter in a non-Roman alphabet. I assume that the term would also include such non-alphabetic symbols as ideographs (e.g., Japanese kanji, Chinese characters), and syllabary characters (e.g., Japanese hiragana and katakana).

I question the workability of the FOOSL’s recommendation on this subject. The recommendation would seem workable on its face (subject to the qualifications noted in the report) in respect of a debtor name that includes only one special character, as in the example given in the report, or even a few special characters. But it seems to break down for debtor names that are composed entirely or largely of special characters, as would be the case for any debtor name in a non-Roman alphabet, ideographs or syllabary (not to speak of more exotic possibilities). I would expect that “foreign” names quite commonly would be composed entirely or largely of special characters.

Consider, for example, a Japanese organization or individual (“Debtor X”) whose true name is composed of, say, ten Japanese characters, all of which are special characters in the above sense. As I understand the proposal, a secured party filing against that debtor on paper would submit a financing statement that sets forth the debtor’s name in Japanese characters.¹ The filing office then indexes the financing statement in its own records, using in the index ten wildcard characters as the name of the debtor.²

¹ I am not clear on whether an electronic filer would be expected to code the name as a string of digital equivalents of the respective Japanese characters, assuming that there are such digital equivalents, or instead to code the name as a string of ten wildcards.

² I am not clear on whether the filing office would be expected to retain the original or an image of the financing statement that includes the actual Japanese characters, but I will assume that it would be so required. However, the question arises whether the filing office likewise would be expected to retain an intelligible record of the actual Japanese characters if the filing is made electronically. That could only be the case if, at a minimum, (a) there is some standard digital code for those Japanese characters, and (b) the filer is required to file using that code instead of a string of wildcards (see the preceding footnote).

Assume, then, that a searcher submits a search request against the name of the debtor. The report (p. 6) assumes that the search request could be submitted either with special characters or with special characters replaced by wildcards. Hence the report contemplates a search request either against the character string consisting of the ten actual Japanese characters, or the character string consisting of ten wildcards. But in performing the actual search, the filing office would replace each special character with a wildcard. So in either case, the actual search would be performed against the character string consisting of ten wildcards. That search would return every financing statement in the filing office's index in which the debtor's name consists of exactly ten characters (and not just special characters, but any characters at all, including QWERTY characters).

That seems on its face to be unworkable, for it would surely return to the searcher an astronomical number of hits, almost all of which are bound to be false positives. Would the searcher be expected to review every actual financing statement returned by such a search, in order to spot those which contain the actual Japanese characters? Quite aside from the cost to the searcher of such a review, that would not be feasible unless the filing office retains an intelligible representation of the actual Japanese characters (see footnotes 1 and 2 above). Query whether that is even possible in the case of an electronic filing (per footnote 2).

The "state search logic" rule of 9-506(c) as it currently stands would also break down in such a situation, for it would declare all the filings disclosed by such a search – that is, all filings against debtors whose names are exactly ten characters long – sufficient to perfect against Debtor X. The original filer might as well not even bother to set forth Debtor X's true name in Japanese characters on the financing statement, but instead set forth ten random letters.

There may be ways around the problems that arise when the debtor's name is entirely or largely comprised of special characters, but I believe that the subject must be dealt with in order for the report's recommendation to be workable.

KCK