

Appendixes

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The first appendix lists the indexing manuals that were used to review current indexing practices.

Appendixes 2 through 10 detail the results of the review of the indexing manuals.

Appendix 11 summarizes which of the detailed indexing rules apply in an electronic recording system where the name to be indexed is entered by programming rather than key entry from the document.

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Appendix 1—Indexing Standards Manuals Reviewed

The following indexing manuals we used in the preparation of the detailed comparisons between states. The contents of other manuals that come to light during the review of this paper, including ones from private vendors (e.g., title plants), may be included in later drafts. Send any manuals to Carl.Ernst@ernst.cc.

Title	State	Source	Date	Comments
Indexing Information	CA-1	Indexing Committee of the California County Recorder's Association		
Rules of Indexing	CA-2 ¹	Sonoma County., CA	1988; based on ANSI/ARMA Alphabetic Filing Rules- Los Angeles Indexing Manual	
Recommended Guidelines for Indexing Official Records Documents	FL	Florida Indexing Consistency Task Force	For Discussion Draft-June 2000	
Georgia SCCCA Manual	GA ²	Georgia Superior Court Clerk's Cooperative Authority	1997	
Deed Indexing Standards	MA ³	Commonwealth of Massachusetts	January 1, 2000	
Minimum Standards for Indexing Real Property Instruments	NC ¹	North Carolina Association of Registers of Deeds	1997 Revision	
Suggested Indexing Guidelines	NE	From Nebraska Recorders Association Manual		
Indexing Standards Manual	NV	Clark County NV	June 17 1997	Also contains instructions for parsing addresses, PIN's and legal descriptions for their tract index.
Standards for Indexing Land Record Instruments	VA	?	Draft-April 5, 1999	Very detailed

¹ Sonoma follows California suggested rules.

² Georgian and North Carolina rules are very similar. Virginia is also similar to these states.

³ Massachusetts standards manual was not available for including in the first draft.

Appendix 2—General Rules

A. Records Indexed Prior to Rule Change

How are anomalies that arise from different abbreviations, etc. handled in a new indexing standard?

State	Practice
VA	Nonconformities recognized to continue
GA	None
NC	None
FL	None
CA	None
NV	None

B. Disclosure of Rules to the Public

Disclosure includes any directions required in order to operate public access terminals for searching of indexes, and explanations of data fields presented on the terminal screen.

State	Practice
VA	Available to all users including date of adoption
GA	Available to all users including date of adoption
NC	Post in each office, including abbreviations used, deletion or not of “The”; special sectioning of the index; words always abbreviated; list of all document type codes; etc.
FL	None
CA	None
NV	None

C. Separate or Combined Grantors and Grantees

Grantors and grantees may be indexed separately or combined, and the search program may allow searching of the two types of entries either separately or together.

State	Practice
VA	Local option—either separate or combined
GA	None
NC	Consolidated
FL	None
CA	None
NV	?

D. Which Names to Index?

The question of whether the property owner is treated as a party to an assignment of mortgage is not explicitly mentioned in most of the manuals.

State	Practice
VA	“Participating in, or directly affected by, the instrument” “A person can be a party to an instrument without signing the instrument.”

GA	Grantor and grantee only; not name of individual signing for an entity unless the entity is a partnership
NC	All parties; "A person can be a party to an instrument without signing the instrument." Enter names of partners in ULPA partnerships; do not enter names of corporate officers.
FL	All parties that signed and acknowledged
CA	Lists grantor and grantee to be picked up from various types of documents. (This is the most extensive list available to indicate how to code names on documents for cover sheets or electronic recording purposes.) Also has list of "do not record" documents
NV	Principal parties

E. Corrections to Names

Is there a rule that allows correction of "obvious" errors?

State	Practice
VA	None
GA	None
NC	None
FL	Correct as necessary
CA	Corrections OK in some cases
NV	No

F. Single Party Document

How is a document that has only one party indexed?

State	Practice
VA	None
GA	Index as grantor and grantee
NC	None
FL	None
CA	Extensive list of how to index every type of document
NV	Two entries required per document; one can be "NONE SHOWN" or "TO WHOM IT MAY CONCERN"

G. Separate or Combined Name Types

Are human names and non-human names interspersed in the index?

State	Practice
VA	Human and non-human names may be merged or kept separate
GA	None
NC	None
FL	None
CA	Combined? Enter grantor names first, then grantee names
NV	None

H. Spelling Errors in Document

What if there is an “obvious” spelling error in a document? Also see treatment of signatures vs. printed names.

State	Practice
VA	Do not correct
GA	None
NC	None
FL	Enter human names as printed and as signed.
CA	Ignore if they are obvious
NV	Index names as they appear on document, even if obvious misspelling

I. Fields in Index

What information is required to be indexed?

State	Indexed Party	Date Recorded	Reverse Party	Instrument Type	Reference to Original	Descriptive Material	PIN
VA	X	X	X	X	X	X	X
GA							
NC ⁴	X	X	X	X	X	X	X
FL	X	X	X	X			
CA							
NV							

J. Sort Sequence

Is a specific sort sequence specified in the rules?

State	Practice
VA	None
GA	Given in detail; one index for both human and non-human names; ASCII sort sequence for capital letters
NC	ASCII sequence with capital letters
FL	None
CA	None
NV	None

⁴ Also has fields in each index entry for “associated party” which contains an “O” if there are other parties in the same capacity as the indexed party.

Appendix 3—Name Field Lengths

A. Name Field Lengths Designated⁵

Is the length of the name filed designated?

State	Practice
VA	No
GA	70 characters
NC	Minimum 70 characters for surname or non-human name
FL	None
CA	None
NV	35 characters per unit; up to at least 4 units for human names and 6 units for non-human names

B. Name Too Long for Data Field⁶

How do you handle a name that is too long to fit in the name field?

State	Practice
VA	Truncate, leave room for suffix, minimum 50 characters per field
GA	None
NC	None
FL	“Just stop”
CA	None
NV	Truncate

C. Abbreviating Common Words on Key Entry⁷

Are there standards for manually abbreviating words on entry?

State	Practice
VA	Not mentioned
GA	Not mentioned
NC	Always as follows: US, USA and NC (for N. Carolina and North Carolina); United States Steel is US STEEL.
FL	Extensive list
CA	Lots of them; “Use consistently and in all cases; never abbreviate first words; Sonoma, for example, has its own list.
NV	None

⁵ An increase in name field length must be documented so that future searchers do not enter more than the number of places in the old field length.

⁶ Search name entry can be no longer than where a name was truncated.

⁷ Once abbreviations are embedded in an index, it is extremely difficult to re-expand them back to their original form. For example, one company may be named NC Supplies and another North Carolina Linen. If NC is a standard abbreviation, the first of these names cannot be “corrected” to North Carolina.

E. Index Print Standards

Are there standards for printing the names from the index?

State	Practice
VA	None
GA	Given in detail
NC	Order given
FL	None
CA	None
NV	None

Appendix 4—Human Name Rules

A. Name Structure Assumed

American convention is name followed by middle name followed by surname.

State	Practice
VA	American form of human names assumed unless name includes a comma
GA	American form of human names assumed
NC	American form of human names assumed
FL	American form of human names assumed
CA	None
NV	American form of human names assumed

B. Characters Included⁸

What types of characters can be included in a human name?

State	Practice
VA	26 letters only, all caps; ERNST CARL R JR
GA	26 letters only, all caps; commas between last name and given names; ERNST, CARL R JR
NC	26 letters only, all caps; ERNST CARL R JR
FL	26 letters only, all caps; do not abbreviate
CA	None
NV	26 letters; Apostrophe kept in name; Dash kept in name. Names entered by “unit,” which generally means a word. First unit is surname.

C. Signature Different from Print or Typing

What is entered into index if printed name is different from signature?

State	Practice
VA	None
GA	Enter all ways name appears in document
NC	Signature shall govern, unless illegible; if difference is so great that the names would appear in different parts of the index, enter both.
FL	Enter all variations
CA	Enter all variations or use “AKA”; John A. Smith (printed) and John Arthur Smith (signed)-enter both or enter SMITH JOHN A AKA JOHN ARTHUR
NV	Index from body, not from signature, unless signature is clear, then index both ways.

D. “aka” Also Known As “fka” Formerly Known As

How are these designations handled for key entry?

State	Practice
VA	None
GA	Enter both names without this designation

⁸ If dashes and apostrophes were included in names, it is an easy matter to delete them programmatically.

NC	Enter name after designator, the designator; e.g., for Jane Smith (formerly Jane Simpson) enter SMITH JANE and SIMPSON JANE /FKA
FL	None
CA	See above.
NV	Entered in standard abbreviated form

E. Prefix Titles

Are prefix titles included in index entries?

State	Practice
VA	Omit, except Mrs. Smith without other names enter the MRS and Mrs. John Smith enter SMITH JOHN MRS
GA	Same order as VA; Use Captain, Major, Sarge without any other given name are given names
NC	Same order as VA; Use Captain, Major, Sarge without any other given name are given names
FL	Omit, except Mrs. Smith without other names enter the MRS and Mrs. John Smith enter SMITH JOHN MRS
CA	Omit, except Mrs. Smith (or Dr. Smith) without other names enter the MRS and Mrs. John Smith enter SMITH JOHN MRS
NV	Omit, except Mrs. Smith (or Dr. Smith) without other names enter the MRS and Mrs. John Smith enter SMITH JOHN MRS
NE	Omit, except Mrs. Smith (or Dr. Smith) without other names enter the MRS and Mrs. John Smith enter SMITH JOHN MRS

F. Prefix—Religious Titles (Archbishop Richard Allan)

Are these prefixes included in index entries?

State	Practice
VA	None
GA	If no apparent surname, enter title as surname and last word as surname
NC	None
FL	Omit
CA	If no apparent surname, enter title as surname; Mother Florence = MOTHER FLORENCE
NV	If no apparent surname, enter title as surname; Mother Florence = MOTHER FLORENCE; Santa Claus =SANTA CLAUS; Grandma Moses = GRANDMA MOSES
NE	Omit

G. Given Names (not surname)⁹

Given names are those names other than surname. If John James Joseph is entered JOSEPH JOHN JAMES, given names follow in order after surname.

State	Practice
VA	None
GA	Enter in order listed, after surname
NC	Enter in order listed, after surname
FL	Last name, first name, middle name/initial, suffix, capacity, title

⁹ There is no way to programmatically change the CA index where compound names are concatenated.

CA	Enter in order listed after surname; remove space from compound given names; Jo Anne = JOANNE, Mary-Kay = MARYKAY
NV	Enter in order listed, after surname

H. M', Mc, Mac; Saint, St, Ste

These are some parts of surnames and non-human names. What are the rules for key entry?

State	Practice
VA	No special handling, do not convert
GA	Delete apostrophe; enter Mc and Mac without blanks
NC	Delete apostrophe; enter Mc and Mac without blanks
FL	No special handling; keep space in Mac Donald
CA	Delete apostrophe; enter Mc and Mac without blanks; delete space in St James if last name
NV	Do not delete apostrophe in M'; delete blanks after Mc, Saint, St.

I. Abbreviated Given Names

How are name abbreviations, such as "Chas.," Entered?

State	Practice
VA	None
GA	None
NC	None
FL	Enter as written and printed
CA	None
NV	Enter as written

J. Multiple Last Name Forms (La Sorda, Van Brock, Von, de, etc.)¹⁰

Many people have multiple words for last name. How are they entered?

State	Practice
VA	Enter as last name the way it seems to make sense, keeping the blank (not a good rule)
GA	Enter as one word without blanks; if any question, enter both ways (Called "Prefix" and defined)
NC	Enter the name without a blank
FL	Enter with space using common sense
CA	Extensive list of surname suffix; enter suffix and last word without spaces; Van de Kamp = VANDEKAMP
NV	Enter the name without a blank

K. Last Name with Apostrophe (O'Brien)

How are names that include apostrophes entered?

State	Practice
VA	None

¹⁰ There is no programmatic way to fix an entry where the multiple word name has been concatenated.

GA	Enter without space
NC	Enter without space
FL	Enter without space
CA	Enter with out space
NV	Keep the apostrophe.

L. Multiple-Name (Compound) Surname Unclear

How are what appear to be compound surnames entered?

State	Practice
VA	Enter both ways
GA	Enter both ways
NC	Enter both ways; also Mc-Neil is MCNEIL and MC NEIL
FL	Enter both ways
CA	None
NV	None

M. Name In Parentheses or Quote Marks

How are these entered?

State	Practice
VA	Enter separately
GA	If before or after surname, enter parenthetical and actual last name as surname
NC	If before or after surname, enter parenthetical and actual last name as surname
FL	Enter both ways, also name with quotes such as John “Jack” Jones
CA	Enter separately or after “AKA” at end of name; if parenthetical is before the surname and it appears to be a maiden name, index as a middle name; if parenthetical is after the surname, index each separately as last name.
NV	None

N. Hyphenated Surnames¹¹

How are these entered?

State	Practice
VA	Replace hyphen with blank
GA	Replace hyphen with blank
NC	Enter both surnames with space; Jane Smith-Simpson is SMITH SIMPSON JANE and SIMPSON JANE SMITH
FL	Enter both surnames with space; Jane Smith-Simpson is SMITH SIMPSON JANE and SIMPSON JANE SMITH
CA	Delete the hyphen
NV	Enter hyphen

¹¹ There is no way to programmatically fix an index entry where compound names have been concatenated.

O. One Word Names

Example is “Cher.” How are they entered?

State	Practice
VA	None
GA	Enter as last name
NC	None
FL	None
CA	None
NV	None

P. Husband and Wife Names

How are they entered when they appear together, such as John and Mary Jones?

State	Practice
VA	Enter separately without designation
GA	None
NC	Enter separately without designation; also enter the given names of the other spouse in a separate field or with a lot of spaces before it, so that indexing order is not affected; John and Mary Smith = SMITH JOHN MARY SMITH MARY JOHN
FL	Enter separately without designations
CA	Enter separately without designations
NV	Enter separately without designations ; Mr. And Mrs. John Smith = SMITH JOHN and SMITH JOHN MRS

Q. Suffixes

Lineage suffixes include Jr., Sr., I, II, III, IV. 2nd, 3rd.

State	Practice
VA	Placed at end of name
GA	Enter only lineage at end of given name (John Jones Jr = Jones, John Jr)
NC	Enter only lineage at end of given name (John Jones Jr = JONES JOHN JR)
FL	Enter only lineage at end of given name (John Jones Jr = JONES JOHN JR)
CA	Enter only lineage at end of given name (John Jones Jr = JONES JOHN JR)
NV	Enter only lineage at end of given name (John Jones Jr = JONES JOHN JR)

R. Professional Titles

These include CPA, MD, Esq., etc.

State	Practice
VA	Not entered unless unclear whether name is human or non-human in which case enter both ways
GA	Not entered unless unclear whether name is human or non-human in which case enter both ways
NC	Not entered unless unclear whether name is human or non-human in which case enter both ways
FL	Do not enter
CA	Do not enter

NV	Do not enter
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S. Capacity

Capacity includes trustees, guardians, etc.

State	Practice
VA	See special name rules
GA	See special name rules
NC	See special name rules
FL	Abbreviate; John Jones, Trustee = JONES JOHN TR (Can cause indexing problem)
CA	Standard abbreviations at end of name
NV	Standard abbreviations at end of name

T. Spanish Names

Are certain types of names given any special treatment?

State	Practice
VA	None
GA	None
NC	None
FL	None
CA	“Vda. de” and “V. de” stand for widow of. Drop or use names before and after this term as separate entries.
NV	None

U. Chinese and Similar Names

Many types of Asian names do not follow the American surname convention. How is the surname of an Asian name determined?

State	Practice
VA	None
GA	None
NC	None
FL	None
CA	Index last name shown as surname. If all names hyphenated, enter as written (first name treated as surname).
NV	None

Appendix 5—Non-Human Name Rules

A. Characters Included¹²

What kinds of characters are entered for non-human names?

State	Practice
VA	26 letters, 10 numbers, & when used to represent “and”, slash “/” when used in fractions and dates
GA	26 letters, 10 numbers, ! # \$ % & * + / (fractions and dates only) = ? @ ; time may have 0-9, colon, A, P, M; remark filed can contain other characters
NC	26 letters, 10 numbers, / as in fraction or date, & (also used in place of “and”), : in time; ! ? # \$ % * + = @ when part of name; Names that state with symbols are set aside in a special section of the index as well as in alphabetical order.
FL	26 letters, 10 numbers; . (period) in “dot-com”-type web company; <u>Net.B@nk</u> = <u>NET.B@NK</u> (which does not follow the standard rules)
CA	26 letters, 10 numbers; &
NV	26 letters, 10 numbers; & - ‘

B. Special Characters¹³

How are special characters handled?

State	Practice
VA	Not replaced by blanks
GA	, a ‘ dropped; / - replaced with blank; dierisis (the funny things above some letters) not used; all other characters not listed here or above are replaced with * (e.g., Mortgage.com Inc. = MORTGAGE*COM INC); if first letter is not mentioned, enter name starting with * and with first acceptable letter
NC	Replace – or / in name with blank
FL	Remove ‘ and leave no space; replace the following with one space: , . (except in dot.com- type company name) - /
CA	Replace - , / with blank; replace “and” with &
NV	Says replace ‘ and – with a space, but examples show dashes and apostrophes are kept in names.
NE	Index all names starting with a number under the “N” section of the index (what does this mean?)

C. Use of Pre-Tabled Names

These are tables of names of grantors and grantees whose name appears frequently in documents. The tables are used to decrease the amount or key entry by using “hot keys.”

¹² If characters are deleted in a new indexing scheme, there is no problem in programmatically deleting them in the existing index. If, on the other hand, characters are added, such as periods for dot-coms, the old index cannot be corrected.

¹³ If characters are deleted in a new indexing scheme, there is no problem in programmatically deleting them in the existing index. If, on the other hand, characters are added, such as periods for dot-coms, the old index cannot be corrected.

State	Practice
VA	None
GA	“Any indexer using automated firm-tables or computer generated look-up tables for indexing must assure that the name selected and indexed is in exact conformance to the standards in this document.”
NC	Same as GA
FL	None
CA	None
NV	None

D. Business Entity Names

Is there an admonitions as to how to enter these names in general?

State	Practice
VA	Enter as is, do not enter associated individual names
GA	None
NC	None
FL	Enter as is; do not abbreviate first word
CA	None
NV	None

E. “The” and “A” Starting a Non-human Name¹⁴

Are these words used to begin names?

State	Practice
VA	Do not enter “The”; “A” not mentioned
GA	Do not enter “The”; “A” not mentioned
NC	Do not enter “The”; “A” not mentioned
FL	Do not enter “The”; enter “A”
CA	Do not enter “The”; “A” not mentioned
NV	Move “The” to end of name; keep A in format of name.
NE	Do not enter “The”

F. Human Names in Business Entity Names¹⁵

Are human names parsed out or entered as given?

State	Practice
VA	Do not reorder
GA	Do not reorder; Do not delete spaces (Mac Donald is not changed.)
NC	Do not reorder; Do not delete spaces (Mac Donald is not changed.)
FL	Do not reorder; Do not delete spaces (Mac Donald is not changed.)
CA	Parse like individual name, that is, St. James = STJAMES (This is interesting.)
NV	None

¹⁴ It is easier to programmatically recognize “The” as the first word programmatically than to make it a keying rule.

¹⁵ Once words have been concatenated, there is no programmatic way to separate them in.

G. Corporate Endings and Other Name Modifiers¹⁶

Are corporate endings entered as shown? Are they abbreviated?

State	Practice
VA	None
GA	None
NC	List of words to be abbreviated anywhere in name except if first word (This is very dangerous; even the examples are inconsistent); see appendix for list.
FL	List of words to abbreviate
CA	List of words to abbreviate
NV	List of words to abbreviate; it appears that Clark County has a separate field in which name modifiers are placed.

H. Words in Parentheses within Name¹⁷

How are these handled?

State	Practice
VA	None
GA	None
NC	None
FL	None
CA	Index as part of name by removing parentheses, but remove all if (1) it is explanation of initials or (2) it is after the name.
NV	Remove parentheses if it is at the end.

I. “In” “At” “Of” Followed by Place of Location

How are these handled?

State	Practice
VA	None
GA	None
NC	None
FL	None
CA	May be dropped
NV	None

J. Alphabetical Numbers

Do you change numbers as written to Arabic numbers?

¹⁶ It is easy to abbreviate corporate endings programmatically according to table logic.

¹⁷ Whether parentheses are to be considered special characters that are allowed or not is a programming policy question.

State	Practice
VA	Do not change, 5 is 5 and five is five
GA	Do not change
NC	Do not change
FL	5 is 5
CA	5 is 5
NV	5 is 5
NE	DO not change written numbers; special indexing applies to names starting with Arabic number.

K. Single Number/Letter/Special Character Series¹⁸

ABC and A.B.C. and A B C are all variations that may be the same entity. How are such variations indexed?

State	Practice
VA	Eliminate spaces, periods or hyphens between them in non-human names, 1 2 3 is 123, 2 4 T Inc is 24T INC, C C Company is CC COMPANY, A T & T is AT&T
GA	Same as VA; also A-1 is A1
NC	Same as VA
FL	J C Penney and J. C. Penney = J C PENNEY
CA	Inconsistent rule-either run together or not; examples are inconsistent A-1 Rental = A 1 RENTAL but W-H Box = WH BOX or W H Box.
NV	W-H = W-H; W.H. = WH

L. “&” Not in Single Character Series¹⁹

What happens to ampersands?

State	Practice
VA	Enter as is
GA	Enter as is
NC	Enter as is with blanks
FL	None
CA	Enter as is, except Savings & Loan = S&L
NV	A. B. & C. Inc. = AB (unit 1) & (unit 2) C (unit 3) INC (unit 4), which is equivalent to AB & C INC; B. J. Lilly = BJ LILLY; rule looks like enter with blanks

M. “And” as a linking Word²⁰

This is as in “John and Mary’s Grocery Store.”

State	Practice
VA	Enter as is
GA	Enter as is

¹⁸ All these types of rules can be programmed. However, once letters are concatenated, they cannot be programmatically separated.

¹⁹ If the indexing system ahs changed “and” to &, there is no programmatic ways to undo the change.

²⁰ If the indexing system ahs changed “and” to &, there is no programmatic ways to undo the change.

NC	Replace with &
FL	Replace with &
CA	Replace with &
NV	Enter as is

N. Division Name

How is a multiple entity name that includes a division name entered?

State	Practice
VA	None
GA	None
NC	None
FL	None
CA	Index as separate name or as part of same name with designator "DIV" (Not a good rule.)
NV	Separate entry followed by DIV

O. Directional Words²¹

These include North , South, East, West, and compound forms such as North East.

State	Practice
VA	None
GA	None
NC	None
FL	None
CA	If abbreviations are used, use standard list for single and compound directions. If part of a one word name, such as Southshore, do not alter.
NV	None

P. Roman Numerals

How are roman numerals entered?

State	Practice
VA	Consider alphabetical characters without spaces
GA	Consider alphabetical characters without spaces
NC	None
FL	Consider alphabetical characters without spaces
CA	None
NV	Consider alphabetical characters without spaces

Q. Fraction²²

How are fractions using a slash entered?

²¹ If abbreviation rules have been used for these words, there is no programmatic way to undo the abbreviations.

²² It is possible programmatically to recognize the different uses of a slash.

State	Practice
VA	None
GA	Enter as is with a space separating whole number and fraction
NC	Enter as is with a space separating whole number and fraction
FL	Replace / with blank
CA	None
NV	None

R. Mount, Mt

Is Mount abbreviated?

State	Practice
VA	None
GA	None
NC	None
FL	None
CA	None
NV	None

Appendix 6—All Name Rules

The following items, some of which also appear in other appendixes refer to both human and non-human names.

A. AKA, Formerly etc. Names

How are these entered?

State	Practice
VA	Enter separately, whether or not in parentheses
GA	Enter names separately
NC	Enter name after designator, the designator; e.g., for Jane Smith (formerly Jane Simpson) enter SMITH JANE and SIMPSON JANE /FKA
FL	None
CA	Enter names separately or put at end of name (See “aka” under Human Names.) Eliminate “for the benefit of”, and enter the name in its proper form.
NV	Extensive list of such terms to be used

B. Apostrophe (O’Brien)

Is the apostrophe used, deleted or replaced with a blank?

State	Practice
VA	Drop in human or non-human name
GA	Drop in all names
NC	Drop in all names
FL	Drop in all names
CA	None
NV	Keep

C. “et al” “and others” “et ux” “and husband”

How are these endings handled for key entry?

State	Practice
VA	None
GA	Do not index
NC	Do not use
FL	John Jones and Spouse = JONES JOHN and JONES SPOUSE; enter “et al” after given name and suffix; Enter “Ringo Starr et al” as The BEATLES
CA	None
NV	None

D. Name Abbreviations

Are any names found in documents abbreviated according to standard rules?

State	Practice
VA	Not used, abbreviations in documents entered as printed, never use “et al” or like shortcuts
GA	Do not abbreviate “United States” “United States of America” or “Georgia” contained in a non-

	governmental name; always abbreviate a long list of words unless they are the first word of a name; if word is abbreviated in document, keep the abbreviation
NC	Lots of them
FL	Lots of them, but never abbreviate the first word of a name except if governmental unit
CA	Enter as written, or redo in your abbreviation form (Subject to a lot of error-example shows INV changed to INVEST.)
NV	Enter as shown on document

E. Ordinal Numbers (2nd, 4th)

How are they entered?

State	Practice
VA	Do not put a blank between the number and the suffix
GA	Do not put a blank between the number and the suffix
NC	Do not put a blank between the number and the suffix
FL	None
CA	None
NV	None

F. Fictitious Names

Are they entered?

State	Practice
VA	None
GA	None
NC	None
FL	Do not enter God, Jesus, John Doe, H=Jane Doe; Do not enter names not acknowledged
CA	None
NV	Do not enter John Doe, Jane Doe, Roe Corporation, Doe Corporation, Black & White Corporations, Individuals A-Z

Appendix 7—Special Name Rules

These are unusual forms of names, whether of individuals with modifiers, such as trustees, trusts and government names.

A. Estate/Decedent Names

How is something like “Estate of Carl R. Ernst” entered?

State	Practice
VA	Enter human name of decedent with EST or DECD status indicated, do not indicate heir as a suffix
GA	Enter human name of decedent only
NC	SMITH JOHN ESTATE OF or SMITH JOHN /EST; ALSO DAVIS JOHN /HEIR
FL	None
CA	None
NV	Deceased or Estate = EST

B. John Smith Trustee, Guardian, Heir

How are modifiers such as these entered?

State	Practice
VA	None
GA	If no other name given, enter designation; SMITH JOHN TRUSTEE
NC	SMITH JOHN/TR; STEWART CO/TR
FL	None
CA	None
NV	Enter Trust = TRUST and Trustee = EE

C. Trust/Trustee Names (Grantor or Grantee)

Is the trustee of a trust that also has a name entered?

State	Practice
VA	Index in name of trustee and name of parties for whom trustee is acting
GA	Index in name of trustee and name of parties for whom trustee is acting
NC	None
FL	None
CA	If personal trust, put surname first, deleting extraneous words; Some counties index trustee who signs reconveyance and some do not; delete words like pension, profit sharing, defined benefit. Enter trustor, trust name and trustee on declaration of trust.
NV	None

D. Trust/Trustee Names (Deed of Trust)

Deeds of trust are used in many states as the usual form of mortgage. In addition to the borrower and the lender, is the trustee name also entered on the index in those states?

State	Practice
VA	If trustee indexed, beneficiary need not be, first trustee only indexed, word “Trustee” entered as

	suffix
GA	N/A
NC	N/A
FL	N/A
None	Enter old and new trustee and trustor on substitution of trustee; enter assignor, assignee and trustor on assignment of deed of trust
NV	Trustee not indexed.

E. Power of Attorney Names

Is the name of a person acting with power of attorney for another entered on the index?

State	Practice
VA	Do not enter
GA	None
NC	None
FL	None
CA	None
NV	None

F. Government Agency Names

Government agencies come in all sorts of forms at all levels of government from the US to a town. How are government agency names entered?

State	Practice
VA	Enter as given, do not enter names of official(s), if multiple agency names given enter all
GA	Do not enter names of official(s); enter agencies of United States, US, USA after the name as given if indicated in the document, e.g., United States Department of Agriculture, otherwise just enter the agency name; State of Georgia indexed under Georgia; County of X indexed under X County; lots of other special rules. Never abbreviated unless name on document is.
NC	List of abbreviations for many counties, cities, towns and villages in NC; abbreviated “whenever used in a non-human name.”; Same as GA except abbreviations US, USA, NC CNTY, etc. as used United States of America, United States Forest Service=USA US FOREST SERVICE
FL	List of standard abbreviations; “Simplify and be consistent”; use state abbreviations for other states ²³ ;
CA	USA; USA Navy; USA IRS, etc. State abbreviations-State of California = CALIFORNIA STATE; County of Ventura = VENTURA COU; City of Orange = ORANGE CY
NV	Index the distinctive department name first (pretty creative); US Bankruptcy Court, District of Nevada = BANKRUPTCY COURT NEVADA UNITED STATES; Nevada Department of Transportation = TRANSPORTATION NEVADA; City of Las Vegas City Clerk = CLERK LAS VEGAS CITY; but Clark County School District =CLARK COUNTY SCHOOL DISTRICT
NV	Do not include names of individuals signing on behalf of agencies; USA; Index city name starting with the name itself, not with “City of”; if signed on behalf of a department without the governmental unit name, enter as signed.

²³ Florida notes that some abbreviations have two meanings, such as CO for Colorado and Company, but thinks the context will tell which is which. This is a dangerous thought.

G. Partnership Names

Partnership documents may contain the name of the partnership and the names of the partners. Are both entered?

State	Practice
VA	ULPA partnership names indexed by partnership name, not by partners
GA	None
NC	ULPA partnership names index by both partnership name and partner name
FL	None
CA	None
NV	None

H. Plats

What names are entered to index plats, surveys, etc.

State	Practice
VA	Enter name of owner(s) of property, enter plat title as a grantor, human names within phrases are indexed as human names
GA	None
NC	Rules of regular and condominium plats; enter name of owner(s); “Property of” “Farm of” and “Farm” -name is entered as human or non-human ignoring these indicators.
FL	None
CA	None
NV	None

Appendix 8—Search/Presentation Elements

A few indexing manuals address the issue of how the index is set up and sequenced, how names appear in the index, how searches are performed and how search results are presented.

A. Name Sequence

For the purposes of this paper a standard sequence is alphabetized as follows:

- Ascending
- Numbers precede letters
- Blanks precede numbers
- Surnames of humans precede first names

State	Practice
VA	Standard
GA	Standard
NC	Standard
FL	None
CA	None

B. Order of Same Name Recordings

If a name appears in the index more than one time, are the entries in any order?

State	Practice
VA	Ascending or descending by date
GA	None
NC	Ascending by date
FL	None
CA	None

C. Order of Human Names

What is the standard sort sequence for human names?

State	Practice
VA	Surname followed by first and other names, in separate fields or with special designated delimiters
GA	Same
NC	Same
FL	None
CA	None

D. Style of Search

What kind of search logic is used to find names on the index?

State	Practice
VA	Telephone book without indication of subsections
GA	?
NC	?

FL	None
CA	None

E. Style of Screen

Is the presentation of index information standardized?

State	Practice
VA	?
GA	?
NC	?
FL	None
CA	None

F. Date Presentation

Is the format of the date of recording standardized?

State	Practice
VA	mm/dd/yyyy
GA	?
NC	?
FL	None
CA	None

G. Style of Name Presentation

How is the name presented on search results?

State	Practice
VA	Specified; minimum 50 characters
GA	?
NC	?
FL	None
CA	None

Appendix 9—Other Subjects

These are miscellaneous items that were mentioned in one or more manual.

A. Document Types

Are there standard document type abbreviations in the index?

State	Practice
VA	Standard instrument type codes
GA	Standard type codes (4 character alphabetic)
NC	Lots of standard type codes (3-4 characters)
FL	None
CA	None

B. Tract Indexes

If tract indexes are maintained in the state, are there any standards give?

State	Practice
VA	No at present
GA	None
NC	None
FL	None
CA	None
NV	Yes

Property Description Abbreviations

State	Practice
VA	List of about 30 names
GA	None
NV	List of address, PIN and legal description standard abbreviations

D. Other Elements

Anything else?

State	Practice
VA	Lists typical entries for grantor and grantee based on type of document

Appendix 10—Name Abbreviations

A. VA, NC and other manuals contain abbreviations for the following types of name modifiers:

Administrator
 Administrix
 Commissioner
 Co-Executor
 Co-Trustee
 Custodian
 Deceased
 Estate
 Executor
 Executrix
 Guardian
 Partner
 Receiver
 Special Commissioner
 Substitute Trustee
 Successor Trustee
 Trustee

B. North Carolina

The following words are “always” abbreviated except in the first word of a non-human name. Each county may develop its own list.

Word	Abbr
And	&
Association	Assn
Associate(s)	Assoc
Bank and Trust	B&T
Company(is)	Co
Condominium	Condo
Corporation.	Corp
County	Cnty
Department	Dept
Finance	Fin
Incorporated	Inc
Insurance	Ins
Limited	Ltd
Mortgage	Mtg
Partner(s)	Ptnr
Partnership(s)	Ptnrp
Savings and Loan	S&L

Appendix 11—Automated Indexing of Electronic Recordings

Each of the rules analyzed in Appendixes 1-10 must be accounted for in a modern grantor/grantee indexing system, and a modern grantor/grantee indexing system is a prerequisite of an electronic recording system that includes programmatic indexing of grantor/grantee names. Following is a summary of the impact of each of the 60 rules on the ability of an electronic recording system to automate name indexing.

Impediments to Fully Automated Indexing

1C—Unless preparers are 100% accurate in determining grantor vs. grantee according to the definition of the recording office, separate indexes cannot be relied on.

1D—Unless preparers are 100% accurate in entering all the names that are required to be indexed by the recording office, automated indexing cannot be relied on.

General Rules

- A. Records Indexed prior to Rule Change—Any restrictions on manual indexing that are inherent in programmatic indexing should be explained to searchers.
- B. Disclosure of Rules to the Public—Indexing rules and changes should be disclosed.
- C. Separate or Combined Grantors and Grantees—a combined index is easier to handle. Experience in Washington State shows that preparers have trouble distinguishing grantors from grantees on some documents.
- D. Which Names to Index—Decided based on which automated fields are indexed programmatically.
- E. Corrections to Names—Not possible in automated indexing system.
- F. Single Party Document—Program can follow whatever rule is decided on.
- G. Separate or Combined Name Types—Human and non-human names should be distinguishable by type of field used for the name.
- H. Spelling Errors—Not possible to recognize in automatic indexing system.
- I. Files in Index—Not an automated indexing issue.
- J. Sort Sequence—Not an automated indexing issue.

Name Field Lengths

- A. Named field Lengths Designated—Not an automated indexing issue.
- B. Name Too Long for Data Field—Consistent truncation rule required to be programmed.
- C. Abbreviating Common Words—Can be programmed.
- D. Index Print Standards—Not an automated indexing issue.

Human Names

A human name entered for computerized indexing on a document to be automatically indexed must have the name parsed into fields. The suggested fields are last name, first name, middle name one, middle name 2, lineage suffix, and capacity suffix. The human name indexing rules are handled as follows in a system that programmatically indexes the names:

- A. Name Structure Assumed—not necessary.
- B. Characters Included—Each field will be truncated, or the whole name truncated according to the field length.
- C. Signature Different from Print or Typing—Signature does not count.
- D. AKA/FKA—Not allowed.
- E. Prefix Titles—Not allowed.
- F. Prefix-Religious Titles—Must be entered in name fields.

- G. Order of Given Names—Determined by entry into fields.
- H. M' Mc Mac, Saint, St, Ste—Whether apostrophe kept or deleted and whether parts concatenated can be determined programmatically by the indexing system.
- I. Abbreviated Given Name—Whatever is in field is entered. Periods and dashes may be programmatically kept or deleted.
- J. Multiple Last Names—Dashes may be programmatically deleted or kept. Compound names may be programmatically concatenated or not.
- K. Last Name with Apostrophe—Apostrophe may be programmatically kept or deleted.
- L. Multiple Name Surname Unclear—No longer can happen.
- M. Name in Parentheses—Parentheses, quotes or other special characters can be programmatically kept or deleted.
- N. Hyphenated Surnames—Hyphen or dash can be pragmatically kept or deleted.
- O. One Word Name—Acceptable in last name field only.
- P. Husband and Wife Name—Cannot happen, but if it does, it will get indexed as placed in the fields.
- Q. Suffixes—Indexed as entered
- R. Professional Titles—Indexed if entered erroneously in Capacity field.
- S. Capacity—Entered as given in Capacity Field.
- T. Spanish Names—Can be programmatically recognized in last name field, and deleted.
- U. Chinese and Similar Names—No problem. Indexed as entered in name fields.

Non-Human Names

A non-human name entered for automated indexing on a document to be recorded electronically may have the name presented in one field or parsed into two fields. The suggested two fields are entity name and corporate ending. The non-human name indexing rules are handled as follows in a system that programmatically indexes these names:

- A. Characters Included—Decision needs to be made. Program will recognize and deal with all logical rules to apply to special characters. Manual indexing system rules should be programmed rather than left to key operator discretion.
- B. Special Characters—Can be handled programmatically as in Rule A.
- C. Use of Pre-Tabled Names—This is a keying issue not applicable to electronic recording.
- D. Business Entity Names—Entered as given, plus special character rules programmed.
- E. “The” and “A”—Programmed according to indexing policy.
- F. Human Names in Business Entity Names—Entered as given.
- G. Corporate Endings and Other Name Modifiers—May be kept separate and abbreviated if two field version of name is used.
- H. Words IN Parentheses within Name—Handle programmatically according to special character rules. Can program to delete, but what if part of actual name?
- I. “In” “At” “Of”—Can be programmed to delete, but may cause search problems. Not recommended.
- J. Alphabetical Numbers—Not changed.
- K. Single Number/Letter/Special Character Series—Program to match manual indexing system.
- L. “&” Not in Single Character Series—Program to match manual indexing system.
- M. “And” as a Linking Word— Program to match manual indexing system.
- N. Division Name—No way to program to handle this case.
- O. Directional Words—Standard list may be programmed. Not recommended.
- P. Roman Numerals—Entered as given.
- Q. Fraction—May be kept intact with slash programmatically.
- R. “Mount” “Mt”—Entered as given.

All Names

The indexing rules are handled as follows in a system that programmatically indexes names:

- A. AKA—Not acceptable.
- B. Apostrophe—Programmed to accept or delete.
- C. “Et al”—Can program to delete or accept in non-human name.
- D. Name Abbreviations—Program may accepted as entered or program to abbreviate according to manual keying system rules.
- E. Ordinal Numbers—Enter as given.
- F. Fictitious Names—Program may look for and redact them.

Special Names

The indexing rules are handled as follows in a system that programmatically indexes names:

- A. Estate/Decedent Names—If entered as human names, handle that way. If entered as non-human name handle that way.
- B. John Smith, Trustee—Modifier entered as given.
- C. Trust/Trustee Names—Indexed if given as party.
- D. Trust/Trustee—Deed of Trust—Indexed if programmed to accept the field for trustee.
- E. Power of Attorney Name—Indexed if given in party field.
- F. Government Agency Names—Program rules must depend on table to recognize agency name formats. May be a programming nightmare for the rules quoted in this paper.
- G. Partnership Names—Programmed as given in fields to be indexed.
- H. Plats— Programmed as given in fields to be indexed.

Appendix 12—Modern Name Indexing System Rules

Draft 1—February 28, 2001

Presented to Task Force, March 1, 2001

Draft 2—April 25, 2001

This draft clarifies that names are keyed as they appear on the document (in either or both printed and signed form), including all keyable special characters. Normalized names are generated from the entered name using the character set and logic given for human and non-human names.

Presented to IACREOT, June 2001

Introduction

The principal objectives of a land recording offices is to make records of land transactions available to interested parties, such as land owners, lien holders, buyers and lenders. In order to accomplish this goal, land recording offices, among other procedures, maintain an index of the names of the parties that appear on each document recorded.

The technology for maintaining this index has grown from postings in a deed book to sorting names on index cards to the computer indexes available in most recording offices today.

In the transition from a written index to a computerized index in the 1960's, '70's and even later, decisions were made that have haunted recording offices ever since. Basically, rather than taking advantage of the logic available in programming a computer, the system designers put all the work on key entry operators as to determine how names would be entered into the computer index. As explained in the position paper developed by the Property Records Industry Joint Task Force, this approach has led to a morass of some 60 rules that every key operator is supposed to remember in order to consistently and accurately index names from land recording documents.

Because of these design errors, the grantor/grantee index in most recording offices today is a hodgepodge of different keying rules that have been in effect over the years that the computerized index has been maintained. As the volume of real estate transactions continues to rise in the United States, it is becoming more and more difficult to accurately find all the instances of many types of names in these indexes, which in some recording offices have grown to millions of entries.

The following sections of this paper summarize an alternative indexing system that can be implemented using current technology, and that addresses most of the issues that make today's indexes inaccurate. The system is based on the idea that key entry operators should be given a minimum set of rules to remember, and that the power of computer programming should be brought to bear on translating names as entered to names as indexed in an entirely consistent manner.

It would not be costly for any recording office to implement such a system today, which would assure accessible records in the future.

Back-Index Conversion

One issue is keeping most recording offices from implementing such a modern indexing system. Recorders are concerned that the new indexing method will be inconsistent with the old method. The first answer to this concern is that the index is already inconsistent in ways that are not properly documented. The new index will be documented in a way that is always consistent from the day it is implemented. The second answer is that the same power of computer programming can be brought to bear on fixing the old index entries as can be used in the new indexing system. I am in the process of illustrating how back-index conversion can be done on various real recording office indexes today.

Two Types of Names

There are two types of names to contend with: Human and non-human. Each has its own peculiarities. Therefore, a separate set of rules must be applied to each, as detailed in the following sections.

There are other types of more sophisticated name indexing systems that have rules different from these. Such systems can later be built on the backbone of the indexing system presented here.

1. Human

A. General

1. Index character set is A-Z only. (Change from draft 1: Blank is not a character). Numbers may appear in suffixes but they are not part of the index entry.
2. American name sequence assumed.
3. Record is marked as a human name record.

B. Key Entry

1. Split names into five fields: SURNAME, FIRST, MIDDLE, SUFFIX²⁴, ROLE²⁵
2. Enter all words as printed in the document [and signed, if different] that appear to be part of surname in SURNAME field.
3. Place professional and honorary titles, degrees, capacity, aka, fka, and other extraneous information in ROLE field.²⁶
4. Enter all forms of name on document: signature and printed names. Enter multiple last names in longest form (DE LA CRUZ)
5. Enter hyphens and apostrophes in names.
6. Separate multiple names (including AKA, FKA, etc.) into separate entries: John and Mary Smith=John Smith, Mary Smith.
7. Enter Estates and Trusts naming individuals under all variations of the human name given in the document.

C. Computer Normalization Rules

1. Multiple surnames indexed all ways²⁷: Van der Kampen=VANDERKAMPEN; DERKAMPEN; KAMPEN
2. Delete apostrophes and hyphens.
3. Delete remaining blanks (Change from draft 1).

2. Non-Human

A. General

1. Index character set is A-Z, 0-9, the conjunction & (Change from draft 1: blanks not a character; & is a character).
2. Name sequence as given. Do not alter the name.
3. Record is marked as a non-human name record.

B. Key Entry

1. Separate multiple names into separate entries: ABC Inc. DBA Jones Company=ABC Inc. and Jones Company

²⁴ Lineage only: JR, SR, 2RD, 3RD, III. Lineage is not necessarily part of index sort

²⁵ ROLE is not part of index sort.

²⁶ MD, CPA, MRS. Capacity may be TRUSTEE, GUARDIAN, etc.

²⁷ D', DA, DE, DEL, DE LA, DELLA, DEN, DES, DI, DU, IL, FITZ, L', LA, LAS, LE, LES, LO, LOS, M', MAC, MC, O', SAN, ST, STE, TE, TEN, TER, VAN, VAN DE, VAN DER, VON, VON DER

2. Key the name as it appears in the document, including all special characters, except:
 - (a) special government agency name rules (not included in this example)
3. Enter Estate and Trust names other than individuals as given.

C. Computer Normalization Rules

1. Change all instances of the conjunction “and” to “&.” (Change from draft 1)
2. Delete “The” at beginning of name.
3. Delete all blanks (Change from draft 1).
4. Names that are too long for the index field length are truncated **after** normalizing.

Legacy Correction and Other Rules

1. Need to decide how to handle single party documents.
2. Prepare abbreviation list and run against legacy index to add unabbreviated index entry.
3. If human names in non-human names were reversed, find by manual means and add entry in other order.

Examples

The following examples of human and non-human names have been modified according to the logic of this model name indexing system.

Index Example-Human

A. Names as Indexed

First field is name as entered. Second field is name as normalized in index. The comma as space are included in the list for readability. They do not appear in the index entry in the index database. Suffixes listed after semi-colons are not part of the index itself.

O. Betty Green;GREEN, O BETTY
 Wm. David Michel Kelly;KELLY, WM DAVIDMICHEL
 Mary J. Saint Thomas;SAINTTHOMAS, MARY J
 Mary J. Saint Thomas;THOMAS, MARY JSAIN
 Donna McAllister;MCALLISTER, DONNA
 Donna Mc Allister;MCALLISTER, DONNA
 John MacDonald;MACDONALD, JOHN
 John Mac Donald;MACDONALD, JOHN
 Helen M'Peters;MPETERS, HELEN
 Joseph H. St. John;STJOHN, JOSEPH H
 Joseph H. St. John;JOHN, JOSEPH H
 F. P. Van Der Linden;VANDERLINDEN, F P
 F. P. Van Der Linden;DERLINDEN, F PVAN
 F. P. Van Der Linden;LINDEN, F PVANDER
 Dan De Leon;DELEON, DAN
 Dan De Leon;LEON, DAN DE
 John J. Johnson, 3rd;JOHNSON, JOHN J; 3RD
 John J. Johnson, CPA;JOHNSON, JOHN J; CPA
 Dr. John J. Johnson;JOHNSON, JOHN J; DR
 Major John J. Johnson;JOHNSON, JOHN J; MAJOR
 Mrs. John Johnson;JOHNSON, JOHN; MRS
 Mary Kay De Winter;DEWINTER, MARY KAY
 Mary Kay De Winter;WINTER, MARY KAYDE

John-Henry Smith;SMITH, JOHN HENRY
 Kathy Winter-Smith;WINTER SMITH, KATHY
 Kathy Winter-Smith;WINTERSMITH, KATHY
 Kathy Winter-Smith;SMITH, KATHY WINTER
 Kathy Winter-Smith;WINTER, KATHY SMITH
 Dr. Suess;SUESS, ; DR
 Grandma Moses;MOSES, ; GRANDMA
 Pope John Paul;JOHN PAUL, ; POPE
 Pope John Paul;JOHNPAUL, ; POPE
 Pope John Paul;PAUL, JOHN; POPE
 Queen Elizabeth II;ELIZABETH, ;II QUEEN
 Sister Teresa;TERESA, ; SISTER
 Father William Buckner;BUCKNER, WILLIAM ; FATHER
 Sister Mary Elizabeth;MARY ELIZABETH, ; SISTER
 Sister Mary Elizabeth;MARYELIZABETH, ; SISTER
 Sister Mary Elizabeth;MARY, ; SISTER
 Sister Mary Elizabeth;ELIZABETH, MARY; SISTER
 Sri Muljono;MULJONO, SRI
 Lim Yan Ng;NG, LIM YAN
 Jimmy Carter;CARTER, JIMMY
 James (Jimmy) Carter;CARTER, JAMES ; JIMMY
 Jay Hanna "Dizzy" Dean;DEAN, JAY HANNA; DIZZY
 Bill R. De La Rosa;DELLAROSA, BILL R
 Bill R. De La Rosa;LA ROSA, BILL RDE
 Bill R. De La Rosa;ROSA, BILL RDELA
 Miss Marion Brown;BROWN, MARION; MISS
 Mrs. Marian Brown;BROWN, MARIAN; MRS
 Chas. Peterson;PETERSON, CHAS
 Charles Peterson;PETERSON, CHARLES
 Mary Kay De Winter;DEWINTER, MARY KAY
 Mary Kay De Winter;WINTER, MARY KAYDE
 Grandma Moses;MOSES, GRANDMA
 John O'Brien;OBRIEN, JOHN ;
 AKA Harry Davis;DAVIS, HARRY ; AKA
 FKA Betty Jones;JONES, BETTY ; FKA
 Santa Claus;SANTA CLAUS,
 Santa Claus;CLAUS,
 Joseph H. Saint John;SAINT JOHN, JOSEPH H
 Joseph H. Saint John;JOHN, JOSEPH H
 Sister Bernadette;SISTER BEDRNADETTE,
 Sister Bernadette;SISTERBERNADETTE,
 Sister Bernadette;BERNADETTE, ;SISTER

B. Name as Indexed—Alphabetical Order

Indexed Name	Modifier	Name as Given	Comments
r			
BERNADETTE, SISTER		Sister Bernadette	
BROWN, MARIAN	MRS	Mrs. Marian Brown	
BROWN, MARION	MISS	Miss Marion Brown	
BUCKNER, WILLIAM	FATHER	Father William Buckner	
CARTER, JAMES	JIMMY	James (Jimmy) Carter	
CARTER, JIMMY		Jimmy Carter	
CLAUS, SANTA		Santa Claus	
DAVIS, HARRY	AKA	AKA Harry Davis	
DEAN, JAY HANNA	DIZZY	Jay Hanna "Dizzy" Dean	
DELEON, DAN		Dan De Leon	
DELLAROSA, BILL R		Bill R. De La Rosa	
DEWINTER, MARY KAY		Mary Kay De Winter	
ELIZABETH,	II QUEEN	Queen Elizabeth II	
ELIZABETH,	SISTER	Sister Mary Elizabeth	
GREEN, O BETTY		O. Betty Green	
JOHN PAUL,	POPE	Pope John Paul	
JOHN,	POPE	Pope John Paul	
JOHN, JOSEPH H		Joseph H. St. John	
JOHN, JOSEPH H		Joseph H. Saint John	
JOHNPAUL,	POPE	Pope John Paul	
JOHNSON, JOHN	MRS	Mrs. John Johnson	
JOHNSON, JOHN J	3RD	John J. Johnson, 3rd	
JOHNSON, JOHN J	CPA	John J. Johnson, CPA	
JOHNSON, JOHN J	DR	Dr. John J. Johnson	
JOHNSON, JOHN J	MAJOR	Major John J. Johnson	
JONES, BETTY	FKA	FKA Betty Jones	
KELLY, WM DAVID MICHEL		Wm. David Michel Kelly	
LAROSA, BILL RDE		Bill R. De La Rosa	
LEON, DAN		Dan De Leon	
LINDEN, F PVANDER		F. P. Van Der Linden	
MACDONALD, JOHN		John MacDonald	
MACDONALD, JOHN		John Mac Donald	
MARY ELIZABETH,	SISTER	Sister Mary Elizabeth	
MARY,	SISTER	Sister Mary Elizabeth	
MARYELIZABETH,	SISTER	Sister Mary Elizabeth	
MCALLISTER, DONNA		Donna McAllister	
MCALLISTER, DONNA		Donna Mc Allister	
MOSES,	GRANDMA	Grandma Moses	
MOSES, GRANDMA		Grandma Moses	
MPETERS, HELEN		Helen M'Peters	
MULJONO, SRI		Sri Muljono	
NG, LIM YAN		Lim Yan Ng	
OBRIEN, JOHN		John O'Brien	
PAUL,	POPE	Pope John Paul	
PETERSON, CHARLES		Charles Peterson	
PETERSON, CHAS		Chas. Peterson	
ROSA, BILL RDELA		Bill R. De La Rosa	
SAINTTHOMAS, MARY J		Mary J. Saint Thomas	

SANTA CLAUS,		Santa Claus
SISTER BEDRNADETTE,		Sister Bernadette
SISTERBERNADETTE,		Sister Bernadette
SMITH, JOHN HENRY		John-Henry Smith
SMITH, JOHNHENRY		John-Henry Smith
SMITH, KATHYWINTER		Kathy Winter-Smith
STJOHN, JOSEPH H		Joseph H. St. John
SUESS,	DR	Dr. Suess
TERESA,	SISTER	Sister Teresa
THOMAS, MARY JSAIN		Mary J. Saint Thomas
VANDERLINDEN, F P		F. P. Van Der Linden
WINTER, KATHY SMITH		Kathy Winter-Smith
WINTER, MARY KAYDE		Mary Kay De Winter
WINTER, MARYKAY		Mary Kay De Winter
WINTERSMITH, KATHY		Kathy Winter-Smith

Index Example—Non-Human

A. Names as Indexed

First field is name as entered. Second field is name as normalized in index. Entries from the old indexing system that have been normalized are interspersed with the notation “(Legacy entry).”

The UCC Guide Inc;UCCGUIDEINC
A-1 Company;A1COMPANY (Legacy entry)
A 1 Company;A1COMPANY (Legacy entry)
A 1 Company;A1COMPANY
B@nk.com Inc;BNKCOM INC
A and B Company, Inc.;A&BCOMPANYINC
A and B Company, Inc.;A&BCOMPANYINC
3M;3M
3 M;3M
XXI Club;XXICLUB
1_A Photo Service;1APHOTOSERVICE
A.B.C. Company;ABCCOMPANY
A B C Company; ABCCOMPANY
A-B-C Company; ABCCOMPANY
Delta National Company;DELTANATLCOMPANY (Legacy entry)
Delta National Company;DELTANATIONALCOMPANY
Carl R Ernst LLC;ERNSTCARLRLLC (Legacy entry)
Carl R Ernst LLC;CARLRERNSTLLC
AFL-CIO;AFLCIO
Angel's Store;ANGELSSTORE
Century 21;CENTURY21
1/2 Downing Street Co.;12DOWNINGSTREETCO
Dr. Spock's Clinic;DRSPOCKSCLINIC
Ft. Ord Taxi;FTORDTAXI
ABC Company;ABCCOMPANY
Northwest Rock Pile;NWROCKPILE (Legacy entry)
Northwest Rock Pile;NORTHWESTROCKPILE
Coal Co. of Colorado;COALCOOFCO (Legacy entry)
Coal Co. of Colorado;COALCOOFCOLORADO
Ore-Ida Foods;OREIDAFOODS
Old Mac Donald's Farm;OLDMACDONALDSFARM
Old MacDonald's Farm;OLDMACDONALDSFARM
North-East Data Co., Inc;NORTHEASTDATAACOINC
NE Concrete;NECONCRETE
The Longest Possible Company Name of a Company That I Can Think Of, Limited
Liability
Company;LONGESTPOSSIBLENAMEOFACOMPANYTHATICANTHINKOFLIMITEDLIABIL
J.C. Penney;JCPENNEY (Legacy entry)
J.C. Penney;JCPENNEY
J. C. Penney;JCPENNEY (Legacy entry)
J. C. Penney;JC Penney
Garfield For President Club;GARFIELDFORPRESIDENTCLUB
Geo. Banta Company, Inc.;GEOBANTACOMPANYINC

Delloitte & Touche;DELOITTE&TOUCHE
Delloitte & Touche;DELOITTE&TOUCHE
A-Jay-Zee Co.;AJAYZEECO
A-Jay-Zee Co.;AJAYZEECO (if alternative hyphen rule used)
Co-Operative Marketing;COOPERATIVEMARKETING
U-and-I Laundry;U&ILAUNDRY
U-and-I Laundry;U&ILAUNDRY (if alternate hyphen rule)
O'Brien Clothes;OBRIENCLOTHES
Five 1 Train Store;FIVE1TRAINSTORE
2nd Avenue Pharmacy;2NDAVENUEPHARMACY
Intl Business Machines;INTLBUSINESSMACHINES
Estate of John L. Ernst;ESTATEOFJOHNLERNST (also enter in human index according to keying rule)
Carl R. Ernst Trust;CARLRERNSTTRUST (also enter in human index according to keying rule)

Appendix 13—Modern Name Indexing System Search Instructions

Introduction

To state the obvious, the goal of any indexing system is that a searcher can find what she is looking for efficiently and accurately. In a name indexing system, this translates into being able to find whether a particular human or non-human name appears anywhere in the index.

Legacy (That is, Existing) Name Indexing Systems

I have postulated that

- (1) In a typical legacy name indexing system, the key entry of names is based on a bunch of rules (60 or so) that when written down take 20-50 pages or more.
- (2) In a typical legacy name indexing system, searchers must be aware of these rules in order to frame the search name so that the computer program will return occurrences of name variations as entered in the index.

As result of the complexity that these two sets of rules create, there are few, if any, name indexing systems that are fully documented so that a searcher can accurately find entries in the index that are other than simple, “ordinary,” names. A proper set of search instructions for the indexes in existence today would, I believe, run to at least 10-20 pages, which is of course too long for any reasonable searcher to remember. Further, the review of existing standards manuals in the Appendixes above clearly illustrates that none of the standard indexing manuals that have been developed even covers all the rules necessary to fully document a name indexing system.²⁸

Normalized Name Indexing System

This position paper contends that an indexing system can be designed that through program logic can normalize names in ways that make both key entry and searching a lot easier and more accurate than any legacy system in existence today. (Of course if your office has one of these new systems, you should be congratulated.)

The challenge, to put it in one succinct way, is to design an indexing system that is so efficient to use that the search instructions can be given completely in only one page! This can be done.

In a normalized indexing system, both the start and end points in the indexing/searching process—key entry and search name entry—do the same thing: They enter names as they see them. The computer takes care of making the names conform with a simple set of rules for indexing purposes.

Chapter 5, “Keying Process,” examines the difference between manual decision-making and programming. It suggests that manual decision-making rules can be limited to those necessary to make sense out of the contents of a document so that the names in the document can be completely and accurately indexed. One of the crucial features of these limited manual decision-making rules is that **in a normalized indexing system, a searcher is not required to know any of the manual decision-making key operator rules in order to conduct an accurate search.**

Below are search instructions for the fully normalized indexing system that follows the rules given in Appendix 12.

²⁸ Further, I have mentioned that it is impossible to have a fully automated indexing system tied to electronic recording without getting the rules to work automatically so that the entries on documents by the preparer can be fully parsed by the indexing system.

Grantor/Grantee Index Search Instructions For Normalized County

Latest Update: September 9, 2001

In order to conduct an accurate search to find a name in our model name indexing system, you need to know the following information about how the index is set up in this office.

1. How to Enter a Name to Be Searched

General Rule—When you enter a set of characters into the search program to begin a search, the computer will do two things:

- (1) It will adjust what you enter to the format of the characters set used in the index (see item 3 below).
- (2) It will point you to the place in the index that best fits with the characters you have entered.

Once you are pointed to a location in the index, you can page forward [and backward] to find the exact name you are looking for.²⁹

Understanding these two things about the search system will help you find what you are looking for in the most efficient manner. You may enter as few or as many characters of the name you are searching for. However, if you enter “Smith” to find “Zeb Smith,” you may spend all day looking through all the Smith’s whose first names start with the letters A-Y. On the other hand, if you narrow your search by putting in the whole name, you may miss a variation that is a match to the name you are searching for. For example, “Smith, Robert John” may put you quite a ways away from “Smith R. John.” Through experience you will learn how to expand or narrow your search based on the commonness of the name.

Human Name—Enter part or all of the surname (last name). If you wish to enter part or all of a given (that is, first and middle) name, enter a comma after the surname³⁰ (Ern; Ernst, C; Ernst, Carl; Ernst, Carl R). Enter apostrophes and hyphens as they appear in the name (O’Brien, J; Smith-Jones, A).

Non-Human Names—Enter part or all of the first two to three words of the name (The UCC; The UCC Guide; O’Conn; O’Connor Gr; O’Connor Grocery Supply). Enter names as you know them (B@nk.com); do not worry about the special characters. All names are automatically adjusted (“normalized”) to match how the index is set up. Do not enter corporate-type endings (Inc, LLC).

2. How We Index Certain Names in a Document

Preparers of documents are not generally aware that the way they enter names on a document affects how this office indexes the names. Since documents to be recorded are usually not prepared on standardized forms, a name may appear in the document in a format that is ambiguous for indexing purposes. Our key entry operators are instructed to enter all names given in a document in a manner that allows our indexing system to index as many reasonable variations as possible through a combination of operator decision and program logic.

²⁹ In some systems, only those entries starting with the input letters are returned. The instructions would need to be adjusted to explain this restriction. (This form of pick list is more limited than most experienced name searchers wish to have available.)

³⁰ Even better, have separate fields for the searcher to enter surname and given names.

3. Character Set in the Index

We key in the name as it appears on a document in capital letters only, but characters other than the following are excluded for the indexing logic. The characters in names that are indexed are as follows:

Human names: A-Z

Non-human Names: A-Z, 0-9, and & (The conjunction “and” is also converted into &.)

After the excluded characters are deleted and other rules are programmatically applied, the words name is concatenated (Charles M. O’Brien=OBRIENCHARLESM; Harry’s #9 Restaurant and Bar=HARRY9RESTAURANT&BAR).

4. Order of Index

The index is sorted in the usual alphabetical order, left to right, based on the character set.

[Alternative A—Combined human, non-human index]

Human names and non-human names appear together. Human surnames are separated from given names by a comma (the comma is not indexed).

[Alternative B—Separate human, non-human index]

Human names and non-human names are indexed separately. Choose the index to search based on the type of name to search for.

5. Historical Indexing Variations

Prior to the implementation of this indexing system, we used varying rules to create the index of names. We have scoured the old index to make entries in it conform to this current system. Our methodology was as follows:

- A. We identified all abbreviations used in the past, and have created additional index entries that expand the abbreviated words into the likely full words.
- B. We have reindexed words that contain special characters that are no longer included in the character set.
- C. We have reviewed human names, and have reentered those to which our new indexing rules apply.

The following variations could not be adjusted to conform to the new indexing system:

[Enter list here.]

If the name you wish to search has any of these characteristics, search for them as indicated. Also, please bring to our attention any remaining illogical name formats that you may run across during your searching, as our goal is to constantly improve the completeness and accuracy of the index.