NUMBERING SYSTEMS IN GENEALOGY

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Recently a participant in the soc.genealogy.methods newsgroup inquired about "tried-and-true" and "universally accepted" numbering systems for genealogy. As Cheryl Singhal noted in a response: There are plenty of the former - but none of the latter!

The original questioner gave an example of the system he is using. He assigned a number to the progenitor of the family, No. 1 in this case, and then the numbers assigned to the progenitor's children were 1.1, 1.2, 1.3, etc. Similarly, those in the third generation were numbered 1.1.1, 1.1.2, 1.1.3, etc.

This person likely developed this system after thinking through his needs, and doubtless he was unaware that this numbering system has been around long enough to have acquire a name. It is called "the d'Aboville System." This system will be discussed briefly below, as will most of the variations which others have mentioned in messages in the group.

The following, then, is a summary of some of the most common genealogical numbering systems and is adapted from previous articles and lectures I have prepared on the topic.

In reading it, please keep in mind that there are only two undisputed "givens" when it comes to genealogical numbering systems:

1. If you want to be published in a genealogical journal you “will” conform your material to the system used by that publication - no matter how insane it may seem to you.

2. Every genealogist has his or her own idea of what constitutes the world's best numbering system - no matter how insane it may seem to you.

In other words, although the system I "invented" and use is the best, I'm quite willing to concede that yours is also the "best."

Up the Ladder or Down?

A basic notion to keep in mind about genealogical numbering systems is that ancestor and descendant databases are two distinct creatures: When you try to combine them, you run into difficulties. Like oil and water, they do not mix well. If you are keeping a record of your own (or some other person's) ancestors, you should use the Sosa-Stradonitz (Ahnentafel) numbering system (described later). If you are compiling the descendants of one of your ancestors, you will need to use one of the descendant systems discussed below.

The first system discussed below is an “ancestor” numbering system; the remainder are “descendant” numbering systems - with the exception of the mention of “combined systems" and computer program record numbering.

Sosa-Stradonitz or Ahnentafel System

This is the normal - and popular - method of numbering your ancestors and is so easy to understand - and so effective - that it is universally used. In it you assign yourself (or child or parent) the number 1. If you are No. 1, then your father is No. 2, your mother No. 3, your paternal grandfather No. 4, etc. In this system, a person's father's number is always twice the person's number and his or her mother's number is twice-plus-one. This method of numbering ancestors is used worldwide and is called the Sosa-Stradonitz System for the Spanish genealogist Jerome de Sosa, who first used it in 1676, and for Stephan Kekule von Stradonitz, who popularized it in his 1896 "Ahnentafel Atlas." It is also often called the "Ahnentafel Numbering System," after the book. (Translated from the German, ahnentafel is "ancestor table.") This system is used both for numbering ancestors in lists ("tables") or on charts.

The Register System

This is the "formal" numbering system used by U.S. journals and, by long use in these respected journals it, along with its kin, the Record System (see below), has become the "standard" system.

In it, the progenitor or other focal individual is given the number 1. Each child in that family is then

numbered in order of birth with lower-case Roman numerals (i, ii, iii, iv, v, etc.), and those whose lines are carried on in the work are also given an Arabic number. For instance, No. 1 may have had seven children (i through vii), but only one of these had descendants, say iv. No. iv is then also given the Arabic number 2. His children, in turn, are numbered from i upward, with, perhaps, Nos. i, iv and vi having descendants and thus given the additional identifications of 3, 4 and 5. This system is used in the *New England Historic Genealogical Society Register*, from which it gets its name.

A brief example of the Register system (superscript characters are indicated as (1), (2), etc., in this example):

Descendants of Henry Pence

1. Henry(1) Pence (Johann Georg(A), Johannes(B)), born - Oct. 1739 at Iggelheim, Rhineland-Pfalz, Germany; died - Sep. 1824 Champaign County, OH; married ca. 1765 Mary Magdalene Blimly.

Children of Henry Pence and Mary Magdalene Blimly:

i. George(2) Pence born 16 Aug. 1766 Frederick County, VA; married Mary Mauck 9 Nov. 1790 Shenandoah County; died 1810 Shenandoah County. No further information on descendants, but he is believed to have had two sons and a daughter.

2. ii. Jacob Pence, born 15 Sep. 1767 Frederick County, VA.

3. iii. Henry Pence, born 4 Sep. 1768 Frederick County, VA.

4. iv. Abraham Pence, born 4 Sep 1769 Frederick County, VA.

v. Magdalene Pence, born 31 Jan. 1771 Frederick County, VA; possibly dead by father's will 1820; no other information.

Etc.

The Record System (Modified Register System)

This system varies from the Register System in that each individual is given an Arabic number regardless of whether the line is subsequently carried on. A plus mark (+) prior to the Arabic number is used to indicate the person had descendants and more information can be found later in the work. This is the system used by the *National Genealogical Society Quarterly*.

If the above Register example were to be adapted to the Record system, the first child (i. George) would receive the additional Arabic number 2, the second child (2. ii. Jacob) would become No. 3 and a plus sign would be placed before the 3, indicating that he has descendants and is treated more fully later.

The Record/Register system, as used in some journals, differentiates between generation numbers (for example, the (1) following Henry's name in the example above) and footnotes by putting the superscript generation number in italics and leaving the superscript footnotes or endnotes in Roman (normal) type.

Also, in U.S. genealogies which often treat just the descendants of an immigrant ancestor, previous generations are given alphabetic generation designations. Thus the German father and grandfather of Henry in the example are identified by a superscript italic capital "A" following the father's name and a superscript italic capital "B" following the grandfather's name, indicating that these individuals remained in Germany.

The advantage of the Record system over the Register system is that if you later discover that a person thought not to have had descendants turns out to have indeed had them, he or she already has a number. However, such a discovery with either system is almost certain to require extensive renumbering in subsequent generations.

The Register/Record systems thus are not suitable for identifying persons in a database and should only be used in final production of a work (and save the numbering task until the manuscript is nearly complete). Both of these systems allow you to easily trace down from the progenitor to a specific descendant but is is more difficult to "go up the ladder." This is because, although a person's parent is identified by name under an individual listing, the parent is not identified by number. There may, in fact, be several of that name earlier in the book, sometimes requiring a page-by-page search to locate the previous reference to a person. (You must look among the smaller child's numbers.)

The Henry System

The Henry System is named after Reginald Buchanan Henry, who used it in "Genealogies of the Families of the Presidents" in 1935. In this system, the progenitor or other individual is assigned the number 1 (or sometimes another number or letter if one is tracing the descendants of several progenitors). The progenitor's

oldest child becomes 11, his or her next child is 12, and so on. The oldest child of No. 11 is No. 111, the next 112, etc. When Henry encountered families with more than nine children, he used the Roman numeral X for the 10th child, and then A, B, C for 11th, 12th and 13th children, etc.

The D'Aboville System

The d'Aboville System (mentioned earlier) is a variation of the Henry System, except that each digit (or double digit for numbers larger than 9) is separated by a period. Thus the first child of No. 1 is 1.1; the 10th would be 1.10. The first children of the latter would be 1.10.1.

Modified Henry Systems

There are many other variations of the Henry system. The variations are usually in how the numbers 10 and larger are treated. The most common of these uses parentheses to delineate these" The tenth child of number 131 is 131(10) and his or her children become 131(10)1, etc. The latter number is the equivalent of 121X1 in the original Henry System and 1.3.1.10.1 in the d'Aboville System. The parentheses method is so common it is often mistakenly thought to be the Henry system.)

Another variation used by some is to substitute alpha characters for numbers throughout. This avoids having to use periods or parentheses, but suffers in that most people have to mentally count the alphabetic characters to discern, for example, that H is the equivalent of 8.

The "Modern" Henry System (The "Pence System")

In today's computer world the most common variation of the Henry System uses the letters A, B and C, etc., for the 10th, 11th and 12th children, rather than X, A and B. The reason for this is that personal computers usually sort digits first and then alpha characters: "A" comes after "9," etc., in a normal ASCII sort. This computer-sort ability is a significant and important advantage of the "modern" Henry system over other Henry variations. Another advantage is that it requires only one character per generation, a consideration in both recordkeeping and publishing. (Less important now, but essential when memory and storage space was at a premium.)

In 1978, when I got my first home computer, I wanted a method of identifying and placing the thousands of individuals I was entering into my PENCE database. With the help of a friend who understood computer sorting routines, I "invented" the "Pence numbering system" - the "Modern" Henry System. And it was created without my ever having heard of Mr. Henry! The remarkable thing is that this system is so intuitive and logical in terms of computer applications that dozens, perhaps hundreds, of people have independently "discovered" it. However, the first discussion of the "modern Henry system" in print is apparently my own 1982 article, "Using a Word Processor to Compile a Family History," *Genealogical Computing*, Vol. 1, No. 5, Mar. 1982, pp. 10-11). The system also excels because it seldom needs explanation. So intuitive is it that when I send data to others with the numbers included, even beginners often send back additions that are already properly numbered.

A glance at a "Pence Number" (as is generally true of various Henry systems) instantly tells you at least four important things about a person: which birth-order child in the family he or she is (the last character in the number); the generation number of the individual (the number of characters in the ID No.); the numbers of all of his or her ancestors in that line (they have the same root ID: truncate the last character and you have the parent's number; lop off the last two characters and you have the grandparent's number); and the numbers under which you can search for his or her descendants (all those that start with the same numbers as his or her ID No.). I have arbitrarily assigned an initial number or alpha character to each of the many Pence progenitors I have discovered; thus, with the familiarity of long use, the first character of any ID No. tells me which family a person belongs in.

[I also use the "Pence Number" to key my paper filing system. The files for any individual (and his or her descendants, if I don't have too much on them) are identified by the same number that is used in the database for that person. This system makes it easy to create new files: If you gather a lot of new information on a child of No. 12, for example, you start a new file "121" and place it directly behind the file numbered as "12." Note that files are not kept in normal numerical order, but in "ASCII sort order"; that is, the files numbered 12, 121, 1211, 122, etc., come after 1193, for instance, and before file No. 2.]

Another advantage of the Henry system and its variants is that discovery of "new" descendants requires renumbering only in that family's segment of the database. It is therefor a much more viable system for helping you identify people in a database.

Still another advantage of a properly constructed Henry-type system: If you list descendants in "modern"

Henry number order in your family narrative (that is, in the above-described "sort order"), you can quickly construct an index to your text by using that number instead of a page number (which can constantly change with additions or corrections). I can print out a segment of my database in "sort order," then generate an index of given names keyed to the ID number in a matter of minutes.

[For examples of the "Pence System" and how it can be used for indexing, see either of my 1982 books, "A Guide to the Pence Families in America," Parts I and II, available in many larger libraries; if your library would like a copy, have it write me at 3211 Adams Court, Fairfax, VA 22030 or email me at the address on this message.]

The de Villiers/Pama System

A system much used overseas, primarily in South Africa, is the de Villiers/Pama system. It was invented by Chris. de Villiers, who used it in his published work "Genealogies of Old Cape Families." published in the 1890s and revised more recently by Dr. Cor Pama. The same numbering system is now being used in a work called "Genealogies of South African Families," by Heese & Lombard, published by the Human Sciences Research Council in South Africa [information supplied by Steve Hayes of South Africa].

The original ancestor you start numbering from is a. Every subsequent generation takes the following generation letter, so the children of "a" are designated with "b," the grand children of "a" are "c," and so on. Each child is given a number - the oldest is 1, the second 2, and so on. Thus, the children of a are:

b1
b2
b3
etc.

Their descendants are:

b1
  c1
  c2
    d1
  c3
    d1
    d2
b2
  c1
  c2
and so on.

Thus the third child of the second child is a.b2.c3.

As you can see, the lower case letters describe which generation a person is in and the numbers describe the person's birth position in the family. Also, as you can see, while each person in this system does have a unique number, this number is not apparent until all its elements are combined. In a normal printout, each family will have a child in the third generation that is numbered c1, thus causing confusion and making it difficult to readily locate a specific person.

The Outline System

A number of computerists with word processors which have an outlining mode use that feature to number their genealogies. The progenitor is usually not numbered; his or her children are designated by upper case Roman numerals, their children by capital letters, and so on, as in this illustration:

Henry Pence
  I. George
  II. Jacob
  III. John
    A. Elizabeth
    B. Jacob

1. Mary
2. Catherine
3. George
   a. Eve
   b. Edward
   c. Benjamin
      (1) Arthur
          (a) Judith

IV. Henry

The advantage of this system is the ease of entry (for proficient outliners). Disadvantages are apparent: The outline system consumes a lot of space on printouts and creates cumbersome numbers; for example, the number for Judith in the above example is:

III.B.3.c.(1)(a)

The "Pence No." equivalent for a progenitor with the designation of 1 would be:

1323311

about half as long and not nearly as cluttered - and understandable even by a computer!

Nevertheless, the outline system is a "comfortable" one for many users.

Combined Numbering Systems

Some genealogists try to get a unique identification number for any collateral relative in any line of descent by combining systems. Most often they do this by using the Sosa-Stradonitz (ahnentafel) number of the ancestor, followed by a decimal point and a descent number based on the Henry system (the first child of your ancestor No. 128 would be 128.1 and so on). Spouses of those in resulting descent files might be given unique numbers by adding the letters a, b and c for spouses 1, 2 and 3 of any given individual. The problem with combined systems: If 128.1 is also your ancestor he would additionally have the number 64 in your database or ancestral chart. Confusion soon arises because each person in your direct line (and their descendants) will end up with two numbers. If there are cousin marriages, the confusion becomes even greater.

Numbering Systems in Genealogical Software

Most genealogical software packages rely entirely on the computer to assign numbers to individuals in the database and use these numbers for internal identification and control. Husbands are then linked to wives and parents linked to their children on the basis of these numbers - which are usually random or serial and carry no particular significance to relationships.

Note that a characteristic of most genealogical databases is that each person has a number; this is not true for most of the above-described descendant systems because spouses are usually not uniquely numbered.

Some programs also allow a user-selected ID number; most often, those used are based on the ahnentafel system (for ancestors) or a form of the Henry system (for descendants). However, linkage is not keyed to these numbers.

This randomness and lack of linkage is what forces users of some programs to rely on printed lists of persons and their record numbers as an aid to quickly locating a person in the database. While each person has a unique number, this number does not reveal any information about the person's relative place in the database.

It is worth noting that another advantage of the modern Henry system is that no additional linkage needs to be created to tie the parent to a child. The ID No. carries its own linkage: A "parent field" can be created and automatically filled with a database manager. Simply truncate the last character of a person's ID and have the resulting number inserted in the new field.

Most genealogical database programs, of course, print out charts or lists using ahnentafel numbers and some allow you to print out your finished product using the Record/Register system or a Henry system variation (such numbers are generated "on the fly" by the program). If not, there are utilities that will print out your database using either the Register/Record system or a Henry system. (PAFAbility for PAF and GENBOOK, which handles

several formats, are two.)

One school of thought about numbering is that it's best just to let the computer do the numbers and keep track of the linking for you; therefore you need not worry about another numbering system until publication time. Others, however, want to have a "static" and meaningful ID number that can help them identify persons within the database. (I am definitely in the latter camp and rely heavily on the assigned numbers in my PENCE database to identify individuals and their line of descent. Also, most genealogy programs will alter the RINs - Record Identification Numbers - during "clean-up" sessions, thus making it impossible to key a filing system or any older printout to the database number. And just when you were starting to remember some of them.)

Summary

As you have seen, genealogists use a wide variety of numbering systems. If you decide to adopt a numbering system for either recordkeeping or publishing, you will no doubt select one based on your own experience and needs. You would be wise, however, not to create one that varies significantly from those touched on here. The soundest approach, especially for a descendant-type publication, is to select a system that is readily understood. This means selecting one that has been used so often by others that most readers will have encountered it (the Register/Record system) or one that is so intuitive that most readers can understand it with little or no explanation (a Henry system variation).

Don't be like the fellow (an engineer) who proudly sent me a copy of a large book produced by his one-name family association, in particular because he wanted me to see the "great" numbering system they had devised. After four years, I still can't understand it!

Further Reading

The above is excerpted, with additions, from: Richard A. Pence, "Numbering Systems in Genealogy," a presentation made to the National Genealogical Society's Computer Interest Group in July, 1986, and to the Seattle Genealogical Society's Computer Interest Group in December, 1987. While this presentation has been published (see, for instance, "Numbering Systems In Computer Genealogy, *ABT PAF* [Newsletter of the Capital Personal Ancestor File User Group], Vol. 3, No. 4, Jul.-Aug.-Sep., 1989, p. 1), a more recent version is available from the National Genealogical Society's BBS (703-528-2612) under the file name NUMBERS?.ZIP, where "?" is now 3, but should change soon as an update is underway.

For an in-depth discussion and excellent examples of the Register/Record systems, see: Joan Ferris Curran, "Numbering Your Genealogy: Sound and Simple Systems," *NGS Quarterly*, Vol. 79, No. 3, Sep., 1991, pp. 183-193. This article is sketchy on - and rejects - other numbering systems. While many find the Register/Records systems less than "sound" and not "simple," if you want to publish in a journal, you must use its system. (And if your book doesn't use the Register/Record system, the review in a journal will critically note that sin!) The NGS has published this article in book form and subsequent refinements have appeared in later issues of the *Quarterly*.

An excellent brief summary of numbering systems is: Donn Devine, "How to Number People in Pedigrees and Genealogies," *Ancestry Newsletter*, Vol. 4, No. 1, Jan-Feb, 1986, p. 1. It is the basis for some of the discussion above.

For additional comments on numbering see: Richard A. Pence, "Still More Heresy by the Numbers," *NGS Newsletter*, Vol. 20, Nos. 1 & 2, Jan.-Feb. & Mar.-Apr., 1994; this two-part article references several additional sources.