The Language of Records Disposition

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Abstract

The records disposition process is labor-intensive. There is an opportunity to improve the process through automation. Furthermore, the management of electronic records necessitates automation of the disposition process. The records disposition instructions for the U.S. Army's Modern Army Recordkeeping System (MARKS) are analyzed. A grammar is shown that defines the style of disposition instructions. An automated tool is described for checking whether disposition instructions conform to this grammar. Another automated tool is described that translates generic to definite, dated disposition instructions. The result is a more systematic approach to records disposition, a reduction in the labor and costs associated with the current disposition process, and increased control over the disposition of Army records. Since the Department of Defense and other federal agencies have the same requirements and a similar mode of expression for disposition instructions, there is an opportunity for them to realize similar benefits.

KEYWORDS: records management, recordkeeping, records disposition, records retention, records schedule

Acknowledgments

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1. Introduction

The *Modern Army Recordkeeping System (MARKS)* prescribes the procedures to be used in managing U.S. Army office files [1]. It also contains the comprehensive records schedule for U.S. Army records. Army office personnel must determine the detailed, dated disposition instructions for office filing categories. They currently type these instructions on file folder labels. They also must carry out these disposition instructions. The current procedures are labor intensive. There is an opportunity to improve the disposition process through automation. Other Department of Defense (DoD) and Federal agencies have the same requirements and use a similar style for expressing disposition instructions. Hence, this problem also arises in the records schedules of these agencies. The opportunity exists for them to realize similar benefits.

The National Archives and Records Administration (NARA) provides Federal agencies with guidelines for creating records disposition instructions [2]. NARA's guidelines are based primarily on examples. They leave considerable latitude for expressing disposition instructions. Because there are so many different Army regulations directing the creation, maintenance and use of official records, different people write the disposition instructions of MARKS. The expressive power of English is such that disposition instructions can be stated in many different ways. This variety makes the disposition instructions unnecessarily complex. It also complicates automated interpretation and application of the instructions.

The descriptions of filing categories and generic disposition instructions in MARKS need to be more systematic [3]. If these descriptions can be made more precise, the precision of automated filing and finding aids can be improved. If the generic disposition instructions are more systematic, specific disposition instructions can be automatically generated. The requirement to restructure descriptions of filing categories is addressed in a companion paper [4]. The requirement to restructure disposition instructions is addressed in this paper.

The next section summarizes the procedures prescribed by NARA for creating a records schedule. The third section describes how the MARKS comprehensive records schedule prescribes the retention of U. S. Army records.

Section four summarizes an analysis of the disposition instructions in the MARKS records schedule and makes recommendations for normalizing these instructions to facilitate automated support of records disposition.

Section five identifies patterns occurring in the MARKS generic disposition instructions and uses a set of grammar rules to characterize the most

common patterns. This section also recommends simplifications of the generic disposition instructions that can facilitate automated interpretation and translation to specific disposition instructions.

Section six describes an automated tool that checks whether disposition instructions meet the recommended conventions. An automated tool that translates generic disposition instructions to specific disposition instructions is described in section seven. This section also describes a tool for generating disposition instructions with definite dates. Section eight summarizes this work.

2. Disposition of Federal Records

The National Archives and Records Administration (NARA) is

the oversight agency responsible for appraising all Federal records, approving their disposition, providing program assistance and FRC storage, evaluating records management programs, and serving as final custodian of all permanent records [2, p.I-5].

NARA's regulation (36 CFR 1228) requires each Federal agency develop a *comprehensive records schedule*. This is a collection of schedules that includes the General Records Schedules [5], the SF 115, Request for Records Disposition Authority, and agency disposition instructions for nonrecord materials.

NARA describes how a Federal agency should inventory and evaluate their records to prepare a records schedule. Record series and information (record) systems are the units used for scheduling disposition. *Record series* are

File units or documents arranged according to a filing system or kept together because they relate to a particular subject or function, result from the same activity, document a specific kind of transaction, take a particular physical form, or have some other relationship arising out of their creation, receipt, or use, such as restrictions on access and use. Generally handled as a unit for disposition purposes [2].

An *information system* is

The organized collection, processing, transmission, and dissemination of information in accordance with defined procedures, whether automated or manual. Also called a record system or system. Most often refers to a system containing electronic records, which involves input or source documents, records on electronic media, and output records, along with related documentation and any indexes [2].

An agency must recommend a disposition period and disposition instructions for each record series and system. They must use the NARA General Records Schedules (GRSs), if they apply. There are 23 schedules in the GRS. Figure 1 shows item 7 of General Record Schedule 1.

Item No.	Descriptions of Records	Authorized Disposition
7	**Position Classification Files**	
	a. Position Classification Standards Files	
	(1) Standards and guidelines issued or reviewed by OPM and used to classify and evaluate positions within an agency.	Destroy when superseded or obsolete.
	(2) Correspondence and other records relating to the development of standards for classification of positions peculiar to the agency and OPM approval or disapproval.	
	(a) Case file.	Destroy 5 years after position is abolished or description is superseded.
	(b) Review File.	Destroy when 2 years old.
	b. Position Descriptions.	
	Record copy of position descriptions which include information on title, series, grade, duties and responsibilities, and related documents.	Destroy 2 years after position is abolished or description superseded.
	c. Survey Files.	
	(1) Classification survey reports on various positions prepared by classification specialists, including periodic reports.	Destroy when 3 years old or 2 years after regular inspection, whichever is sooner.
	(2) Inspection, audit and survey files including correspondence, reports, and other records relating to inspections, surveys, desk audits and evaluations.	Destroy when obsolete or superseded.
	d. Appeals Files.	
	(1) Case files relating to classification appeals, excluding OPM classification certificates.	Destroy 3 years after case is closed.
	(2) Certificates of classification issued by OPM.	Destroy after affected position is abolished or superseded.

Figure 1. General Record Schedule 1, Civilian Personnel, Item 7.

An agency must request disposition authority for the remaining series and systems by submitting a SF 115 to NARA. NARA will assign a job number to the submitted SF 115. If the disposition instructions are approved by NARA, this number will become the *disposition authority* for the record series or systems described on that form.

A schedule for disposition of nonrecords is required "because their volume may exceed that of records." Another reason such a schedule is required is to ensure that records are discriminated from nonrecords. A third reason is to ensure that the offices of Federal agencies are managing their information resources according to the Federal Information Resource Management Regulations (FIRMR). Nonrecords include, but are not limited to:

information (or reference) copies of correspondence, directives, forms and manuals,

tickler, follow-up, or suspense copies of correspondence provided they are extra copies, and

technical references such as catalogs, trade journals, and other publications.

Nonrecord materials should be assigned a retention period. NARA's approval of this period is not required.

Federal agencies should collect the disposition instructions from record series and record systems in the GRS and the approved SF 115's into a comprehensive records schedule and publish the schedule as a directive. MARKS is such a directive.

3. MARKS—The Disposition Schedule for U.S. Army Records

The MARKS directive prescribes that file numbers be assigned to Army records according to the list of filing categories in Appendix B of that directive. The list of filing categories is also the records disposition schedule for all Army records. Thus, *the filing system and retention schedule are the same.*

NARA's Records Management Handbook, *Disposition of Federal Records* [2, p. V-14], uses MARKS as an example of arranging a records schedule by coordinating it with a filing system. MARKS is called a *disposition-filing system.* In MARKS,

the disposition plan determines the filing system. Folders or other file units are identified by the schedule's "file numbers," which correspond to the Army's system of regulations. They are then arranged in the same order as the schedule items.

NARA's Records Management Handbook, *Subject Filing* [6, pp. 30-31], points out that records managers agree on the need to coordinate records schedules with file plans. However, they differ as to how to coordinate them. MARKS completely integrates the two. Each functional file category

describes not only the category for filing, but also the instructions for disposition. Furthermore, the abbreviated disposition instructions appear on file folder labels.

Some agencies prefer to keep their filing system and records schedule separate and to relate them in various ways. For instance, the records schedule may list the filing categories that correspond to a particular record series. Alternatively, there may not be an organization-wide file plan. In the U.S. Air Force each office creates its own file plan and the installation Information Manager helps the office coordinate its file plan with the Air Force comprehensive records schedule. There are many other ways to coordinate the records schedule and file plan (see refs. 2, 6).

3.1 MARKS Filing Categories

Figure 2 shows an example of a MARKS filing category.

```
FN: 20-1f
Title: IG Inspection (HQDA)
Authority: NC1-AU-79-39
Privacy Act: Not Applicable
Description: Information relating to inspections conducted by inspectors general.
Included are inspection reports and related information pertaining to annual general,
procurement, special, nuclear surety, and Federal recognition inspections made of or
conducted by a HQDA agency.
Disposition:
a. Annual general and special inspection files created and maintained by the OTIG
and other DA staff agencies authorized an inspector general: Permanent. PIF on
completion of next inspection and cutoff at the end of that year.
b. All other inspection files: Destroy 1 year after next comparable inspection, or after
5 years, whichever is sooner.
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Figure 2. Example of a MARKS Disposition-Filing Category.

The *file number* (FN) of a filing category is derived from numbers assigned to Army publications. These publications include regulations, pamphlets, and memos. MARKS also prescribes that the proponents of the publications identify the record series created, maintained or used according to their regulations. The file number will consist of the publication number suffixed with letters. Thus, a file number is also a reference to the U.S. Army directive that prescribes that filing category. Each record series is also given a *title*.

A disposition *authority* number is associated with each filing/disposition category. If the GRS applies to a category, then the GRS Schedule number and item will appear in the *authority* field. NARA approves disposition of

Federal records, and serves as the Federal custodian of permanent records. In MARKS filing categories, the *authority* field usually contains the job number assigned by NARA to the SF 115. For example, in the job number NC1-AU-79-39, the symbol "NC1" represents NARA and an internal classification number. The letters "AU" are the record group, "79" the fiscal year of submission, and "39" the thirty-ninth SF 115 submitted for that record group during that year.

If the records in a filing category are subject to a provision of the Privacy Act, the *privacy act* field in the definition of the filing category will contain a Privacy Act system notice number (see DA PAM 25-51). The *description* of a filing category derives from the description of the record series or system on the SF 115, or from the description of records scheduled according to the GRS.

The *disposition* paragraph contains disposition instructions and indications of subcategories and offices to which the instructions apply. *Generic disposition instructions* indicate retention periods and events, for instance, "Destroy after 2 years," "Permanent," or "Destroy 5 years after completion of case." According to NARA

> Agencies may issue general instructions applicable to all their records with a particular retention period, incorporate specific instructions into each schedule item, or issue general instructions into each schedule item, or issue general instructions applicable except where unique cutoff and transfer instructions are included in individual schedule items [2, p. V-10].

The meanings of generic instructions are expressed in specific instructions. MARKS provides rules for translating generic to specific instructions with dates [see Table 7-1, ref. 1]. *Specific instructions* are precise instructions for establishment of inactive files, cutoff, transfer, retirement and destruction.

The following are examples of specific instructions.

> PIF when case is closed.
> Cut off at end of CY.
> Transfer to RHA after 3 years.
> Retire to FRC after 5 years.

Place in inactive folder (PIF) means to move the records from an active folder to an inactive folder. To *cut off* a file means to separate the records in a file from the active or current files. To *transfer* a file means to send or move the records in a file to another location. That location might be

a records holding Area (RHA), another organization, or another file category. To *retire* a file means to transfer the records in a file to a Federal Records Center (FRC).

Definite disposition instructions abbreviate the specific instructions and use definite dates, for instance, COFF 31 Dec 94, Trf Jan 97, Dest Jan 99. In the remainder of the report, the term *instruction* will be used when it is clear that the reference is to a "disposition instruction."

3.2 Basic Types of Generic Disposition Instructions

MARKS identifies three types of generic instructions for temporary records—*time*, *event* and *time-event*. There also are two types of generic instructions for permanent records—*permanent*, and *permanent-event*.

3.2.1 Time

The most common generic instruction is called a *time* instruction. It is of the form "Destroy after *period*." The instruction "Destroy after 5 years" means:

> Cutoff at end of the year.
> Transfer to a RHA after 2 years.
> Destroy 5 years after cutoff date.

Files with *time* disposition instructions are labeled with the year of accumulation. The instruction "Destroy after X years" has the same meaning as "Destroy when X years old." The latter is seldom used in MARKS, but is common in the GRS.

3.2.2 Event

This type of disposition instruction prescribes that records are to be destroyed when a specified event occurs. There is no cutoff date. There is no retention (waiting) period. When the event occurs the records are removed from the file and destroyed. The following are examples of *event* instructions.

1. Destroy when no longer needed for current operations. (FN 1)
2. Destroy on completion of project. (FN 34-1b)
3. Destroy when superseded, obsolete, or no longer needed for reference. (FN 1kk)
4. Destroy when superseded, obsolete, or no longer needed for reference, whichever is first. (FN 525d)

5. Destroy at close of the accounting cycle subsequent to that in which prepared. (FN 37-103nn)
6. Destroy upon death of animal, or transfer of owner. (FN 40-905d)
7. Destroy on supersession or obsolescence. (FN 58-1m)
8. Destroy after publication in AR 570-2. (FN 71-13d)

MARKS contains hundreds of filing categories with the disposition Destroy when no longer needed . . . NARA's handbook *Disposition of Federal Records* [2, p.IV-6] states that

> temporary records should not normally be scheduled for destruction "when no longer needed." Since the application of this retention period would vary from person to person, the agency would in effect lose management control of such records, and the agency may inadvertently destroy records that are still needed.
>
> However, when the GRS disposition authorizes destruction, or deletion, "when no longer needed" for the records, the agency should apply a more specific disposition instruction, such as "Destroy when 1 year old" or "Delete after 2 update cycles," which will meet its particular program needs. [2, p. V-10]

MARKS prescribes that

> Files with a continuing type of disposition, such as "Destroy when no longer needed for current operations," are not cut off. Review them annually and remove and destroy individual records within such files when no longer needed. [1, p. 13]

When documents in a file with such a disposition are filed by many individuals, is it reasonable to expect one individual to make the disposition decisions? Is it practical to expect each individual to annually review all documents that they have filed in categories with the disposition instruction *Destroy when no longer needed . . .* ?

Adding phrases such as *for current operations* or *for reference purposes* does not adequately improve the precision of the disposition decision. A method is needed to identify specific operational and reference requirements for the documents in a filing category, and to use these to create more explicit *time, event*, or *time-event* instructions. Only then will the capriciousness and time burden of the instruction *Destroy when no longer needed . . ."* be eliminated.

An *event* instruction with more than one event may be imprecise unless its events are mutually exclusive or it has a qualifying clause "whichever is earlier (or later)." This imprecision is due to the use of the term *or*. The term *or* is subject to conflicting interpretations in ordinary usage. Alternative events are said to be *mutually exclusive,* if the occurrence of one event implies that none of the other events can occur.

The events in the instruction "Destroy when request is approved or request is disapproved" are mutually exclusive. If the request is approved, it could not be disapproved, and vice versa. When either event occurs, the record should be destroyed.

The interpretation of an instruction with more than one event, and with no *whichever* clause, should be that when any of the events occurs, the disposition should be carried out. The interpretation should be the same as if it had a "whichever is earlier (or earliest)" clause.

To ensure that disposition instructions are executed at the proper time, an electronic recordkeeping system needs to know when disposition events occur. This implies that information systems producing electronic records should be required to indicate when disposition events occur. It also implies that office work processes should be designed so that office personnel indicate disposition events when they occur. Alternatively, the electronic recordkeeping system might periodically, say annually, ask if the disposition events had occurred.

3.2.3 Time-Event

This type of instruction prescribes that records be retained a specified period after a specified event and then destroyed. The following are examples of *time-event* instructions.

Destroy 2 years after completion of project.
Destroy 2 years after all classified documents recorded have been transferred, destroyed, declassified, or entered on a new sheet. (FN 1j)
Destroy 6 months after receipt of Individual Soldier's Report or end of test period, whichever is first. (FN 350-37b)

The meaning of a *time-event* instruction is to create an *active* file with the instruction to "Place in inactive file when a specified event(s) occurs." When the event occurs, an *inactive* file is created. It has a cutoff instruction for the end of the year and a definite date X years hence for destruction of the records.

ACTIVE
PIF after events.

INACTIVE
COFF at the end of the year.
Dest X years hence.

If there is more than one event in a *time-event* instruction, the events should be mutually exclusive or followed by a "whichever is earlier (or later)" clause. Files with *time-event* instructions are not labeled with the year of accumulation.

3.2.4 Permanent

The instruction for permanent records consists of the single word—Permanent. Its meaning is:

> Cut off at the end of the year.
> Retain in CFA for 2 years.
> Retire to servicing FRC.
> Permanent.

3.2.5 Permanent-Event

There is a generic instruction for permanent records that is analogous to the *time-event* form for temporary records.

> Permanent. PIF after completion of study.

Its meaning is to create a file folder label with the following instructions.

> ACTIVE
> PIF after completion of study.

When the specified event occurs, create a folder with the following instructions and move the records into that folder.

> INACTIVE
> Cut off at the end of the year.
> Retire to servicing FRC after 2 years.
> Permanent.

4. Analysis of the MARKS Disposition Instructions

There are 2705 filing categories in MARKS. The disposition instructions of all the MARKS categories were read and analyzed. Many subcategories of the filing categories were found. For the same filing category there are different disposition instructions for different offices. When subcategories and offices to which instructions apply are considered, there are better than 6000 categories of disposition. There is considerable variation in the styles used to express disposition instructions.

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4.1 Combinations of Instructions

As discussed previously, the MARKS regulation identifies three types of generic instructions for temporary records—time, event, and time-event. Many disposition instructions include combinations of these basic types. MARKS does not explain the meanings of these combinations. However, people in an Army office are expected to generate specific instructions with definite dates for these types of instructions. In this section an attempt will be made to define what these combinations mean so that specific instructions can be automatically generated. Square brackets, [ ], will be used around the *whichever* clause to indicate that the clause may or may not appear. Eight combinations of *time*, *event*, and *time-event* instructions were found. The form of each of the eight cases is shown followed by examples.

Case 1. Destroy after *period*, or when *events*[, whichever is earlier (later)]

Examples:

 a. Destroy after 5 years or when no longer necessary for current operations. (FN 385-10b)

 b. Destroy after 1 year, or when no longer needed for reference, whichever is sooner. (FN 1mm)

 c. Destroy after 2 years or inspection by representative of USAISC, whichever is first. (FN 25-30m)

 d. Destroy after 3 years or when superseded, obsolete, or no longer needed for reference, whichever is later. (FN 55-355RALa)

Suppose that the definite instructions for example *c* above, were

COFF Dec 31 94

Dest Jan 97, or after inspection by representative of USAISC, whichever is sooner.

This means that the record series is cut off at the end of the calendar year. It is destroyed after two years, or if inspected by the USAISC, sooner. Files with this type of disposition should be labeled with the year of accumulation.

Case 2. Destroy after *period*, or *period* after *events*[, whichever is earlier (later)].

Examples:

 a. Destroy after 2 years, or 2 years after final approval of agreement, as applicable. (FN 34-2b)

b. Destroy after 2 years, or 2 years after completion of project, as applicable. (FNs 70-1e, 70-1f, 70-1g)

c. Destroy after 5 years, or 1 year after termination of membership, whichever is first. (FN 25-6e)

d. Destroy after 1 year or 1 year after last entry on log or register. (FN: 640-10d)

e. Destroy after 2 years or 2 years after publication of the related equipment publication. (FN 750-1b)

If this instruction is primarily a *time* instruction, the label on the file will contain the year of accumulation, and the file will be cutoff at the end of the current year. A definite destruction date would be assigned at cutoff. For example *c* above, the detailed instructions might be

COFF 31 Dec 94

Dest Jan 00, or Dest Jan 96 if membership was terminated

during the year. (1)

Only one of these dates would apply and presumably one of the dates would be crossed out. An alternative interpretation would be

COFF 31 Dec 94

Dest Jan 00, or Dest 1 year after termination of membership (2)

This second interpretation would require that at cutoff each year, the current file be checked to see if membership had been terminated. Then the noncurrent file with the disposition above would have to be checked to see if the destruction date should be changed. This procedure is at variance with all other disposition procedures and so should probably not be the interpretation assigned to the combination of a time and time-event instruction.

If this instruction were primarily a *time-event* instruction, an active file would be created. For example *c* above, the instruction would be

ACTIVE

PIF after termination of membership or Dest Jan 00, whichever

is sooner. (3)

If termination of membership were to occur before Jan 2000, say in 1994, the records would be placed in an inactive file with the following instructions.

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INACTIVE
COFF 31 Dec 94
Dest Jan 96   (4)

Case 6 below, clearly has the meaning illustrated by (3) and (4). It is tentatively assumed that Case 2 has the meaning illustrated in (1). The interpretation given to this combination may not be correct.

Case 3. Destroy when *events*, or after *period*[, whichever is earlier (later)].

Examples:

a. Destroy on arrival of shipment or after 1 year. (FN 55-355FRTd)

b. Destroy on completion of next report, or after 1 year, whichever comes first. (FN 58-1n)

This combination is the reverse of Case 1 above. This instruction should be primarily treated as an *event* instruction. Thus, the file should not be cutoff. It also should not be labeled with the year of accumulation.

The following meaning is suggested for example *b* above.

Dest on completion of next report, or Jan 96, whichever comes first.

Case 4. Destroy when *events*, or when *events*[, whichever is earlier (later)]

Examples:

a. Destroy when superseded, obsolete, or when the property is turned in. (FN 1q)

b. Destroy when superseded, obsolete, when data is included in published standards or guidelines, or on completion of procurement or production of pertinent item, whichever is first. (FN 702-3a)

c. Destroy when superseded by a revised routing, or upon completion of related work, whichever is first. (FN 702-4-1a)

What distinguishes an *event* instruction is the use of an adverb (after, when, on, upon, at) preceding a phrase describing one or more events. Example *b* above, combines three event instructions.

The meaning of this combination instruction is the same as the meaning for an *event* instruction. Unless the events are mutually exclusive this form of instruction should always have a "whichever is earlier (or later)" clause.

Case 5. Destroy when *events*, or *period* after *events*[, whichever is earlier (later)].

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Examples:

a. Destroy after the next periodic application of the procedure, or 1 year after the procedure is obsolete. (FN 1ff)

b. Destroy when no longer needed for current operations, or 1 year after the prescribed cutoff for the district, whichever is earlier. (FN 37-2-10e)

The meaning of example *a* in Case 5 is as follows.

ACTIVE

Dest after the next periodic application of the procedure, or
PIF after the procedure is obsolete.

INACTIVE

Cutoff at end of year.
Destroy after 1 year.

Compare Case 5 with Case 7, which has the same meaning.

Case 6.   Destroy *period* after *events*, or after *period* [, whichever is earlier (later)].

Example:

a. Destroy 1 year after recovery of item or after 5 years, whichever is first. (FN 710-2h)

The description of the filing category 710-2h refers to "Loss, theft, and recovery reports." The meaning of the disposition instruction seems to be as follows.

ACTIVE

PIF after recovery of item, or Dest Jan 2000, whichever is first.

INACTIVE

COFF 31 Dec 94.
Dest Jan 96

In other words, create an active file for such reports. Place the reports in an inactive file if the items are recovered, or destroy the records on a date 5 years from the end of the calendar year in which the active file was created, if the property is not recovered. If the item is recovered, the 5 year retention period is no longer applicable. Assuming the items were

recovered in 1994, the records should be placed in an inactive file, cut off at the end of the year, and destroyed after one year.

Case 7.   Destroy *period* after *events*, or when *events*[, whichever is earlier (later)]

Examples:

  a. Destroy 2 years after preparation of new record or after removal as approved carrier. (FN 55-355FRTq)

  b. Destroy 7 years after supersession, obsolescence, or when no longer needed for current operations. (FN 55-355FRTz)

  c. Destroy 3 years from date of issue or when revoked by proper authority, whichever occurs first. (FN 58-1r)

Each of these examples is ambiguous. In example *a* above, it is not clear whether *2 years* applies to the second event or not. If it is not meant to apply to the second event, the convention that the *time-event* instruction must be separated from the *event* instruction by ", or *adverb*" could be adopted, as follows

> Destroy 2 years after preparation of new record, or after removal as   (1)
> approved carrier.

If *2 years* is meant to apply to the second event, it should be rewritten as the following *time-event* instruction.

> Destroy 2 years after preparation of new record, or removal as   (2)
> approved carrier.

The meaning of the first version (1) is

ACTIVE
PIF after preparation of new record, or Dest after removal as approved carrier.

INACTIVE
COFF end of year
Dest 2 years after cutoff

The meaning of version (2) is simply that of the basic generic *time-event* instruction.

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An alternative would be to paraphrase the *time-event, event* combination as an *event*, or *time-event* combination (case 5 above). Cases 7 and 5 have the same meaning.

Case 8.   Destroy *period* after *events*, or *period* after *events*[, whichever is earlier (later)].

Examples:

a. Destroy 3 years after supersession of specific documents, or 2 years after obsolescence, discontinuance, or removal of the item, whichever is first. (FN 710-1a)

b. Destroy 1 year after preparation of consolidated report or summary of report, or after 3 years if consolidation or summary is not made. (FN 37-55d)

Example *b* uses the term *if* rather than the adverbs *after, when, etc.* This example can be paraphrased as:

Destroy 1 year after preparation of consolidated report or summary of report, or 3 years after not preparing a consolidated report or summary of report.

The combination does not need a *whichever* clause because the events are mutually exclusive. The specific instructions for this form of instruction are:

ACTIVE
PIF after preparation of consolidated report or summary report, or
PIF after not preparing a consolidated report or summary report

INACTIVE
COFF end of year in which a consolidated report was prepared
Dest 1 year after end of year

INACTIVE
COFF end of year in which a consolidated report or summary of report was not prepared
Dest 3 years after end of year.

Two PIF instructions are required on the ACTIVE file. Depending on which event occurs, one of two INACTIVE files will be created.

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4.1.1 Combinations of Instructions in the GRS

All the combinations of basic instructions discovered in MARKS also appear in the GRS. Examples from the GRS of the eight cases discussed above are shown below.

1. Destroy after *period*, or when *events*, whichever is earlier (later)

   Destroy when 3 years old, or when no longer needed, whichever is sooner. (GRS 1, Item 23a(3)(b))

2. Destroy after *period*, or *period* after *events*, whichever is earlier (later).

   Destroy when 3 years old or 2 years after regular inspection, whichever is sooner. (GRS 1, Item 7c(1))

3. Destroy when *events*, or after *period*, whichever is earlier (later).

   Destroy upon separation or transfer of employee or when 1 year old, whichever is sooner. (GRS 1, Item 10)

4. Destroy when *events*, or when *events*, whichever is earlier (later).

   Delete when data have been entered into the master file or database and verified, or when no longer required to support reconstruction of, or serve as back-up to, a master file or database, whichever is later. (GRS 20, Item 2b)

5. Destroy when *events*, or *period* after *events,* whichever is earlier (later)

   Destroy after OPM audit or 2 years after the personnel action is completed, whichever is sooner. (GRS 1 Item 32)

6. Destroy *period* after *events*, or after *period*, whichever is earlier (later).

   Destroy 1 year after audit or when 3 years old, whichever is sooner. (GRS 12, Item 2d(2))

7. Destroy *period* after *events*, or when *events*, whichever is earlier (later).

   Destroy 3 years after date of appraisal or when no longer needed, whichever is sooner. (GRS 1, Item 23a(5))

8. Destroy *period* after *events*, or *period* after *events*, whichever is earlier (later).

   Destroy 3 years after superseded or 3 years after separation of employee. (GRS 2, Item 4a(2))

There are many reasons why alternative disposition instructions arise. One is that the federal statutes and regulations upon which NARA and federal agencies base their generic disposition instructions have alternative retention requirements. Another reason is that different federal statutes and regulations have different retention requirements. Furthermore, different divisions within an agency may have differing operational retention requirements.

It would simplify matters to be able to choose between alternatives in these combination instructions when the generic dispositions for a specific federal agency were determined. However, NARA gives no guidance to federal agencies as to how to do so.

An analysis of the process of determining retention requirements and expressing these as generic disposition instructions is needed. Principles for selecting among differing retention requirements, with a view toward simplifying generic disposition instructions, are needed. Such an analysis is beyond the scope of the current work which is focused on identifying the *form* of expression and meaning of generic disposition instructions.

4.1.2 Combinations of Generic and Specific Instructions

Most of the instructions in MARKS are generic. However, unique cutoff, retirement or transfer instructions are sometimes indicated, for instance

> Destroy 20 years after full production of the prototype takes place. Retire after 5 years in the current files area. (FN 702-3b)

The meaning of the first sentence is

ACTIVE
PIF after full production of the prototype takes place.

INACTIVE
Cutoff at end of year.
Retire to FRC after 3 years.
Destroy 20 years after cutoff.

The inclusion of the second sentence changes the meaning of the INACTIVE file to:

INACTIVE
Cutoff at end of year.
Retire to FRC after 5 years.
Destroy 20 years after cutoff.

In MARKS, specific instructions combined with the basic *time* and *time-event* instructions were found. They were not found with combinations of *time*, *event* and *time-event* instructions. They were found with *permanent* and *permanent-event* types of instructions.

Specific instructions can precede or follow the basic generic instructions.

Destroy after 6 years, 3 months. Cut off in FY blocks, hold 1 year, then retire to FRC, Dayton, OH. (FN 37-103dd)

Cut off annually, hold 1 year in CFA, retire to WNRC with next regular shipment. Destroy 25 years after cutoff. (FN 680-31a)

The first pattern is by far the most frequent in MARKS. However, it is not surprising that the second pattern appears because the basic *time* instruction "Destroy after X years" has the specific meaning

Cut off at end of year.

Retire after 3 years.

Destroy X years after cutoff.

in which the cutoff and retire instructions appear before the destroy instruction.

However the second example above can be rewritten to have the specific instructions after the generic instruction.

Destroy after 25 years. Retire to WNRC after 1 year.

It is redundant to allow the specific disposition instructions to both precede and follow the generic *destroy* and *permanent* instructions.

There are some combinations of generic and specific disposition instructions that occur in MARKS that perhaps should not be allowed. For instance

Permanent. Cut off on the completion of litigation. (FN: 27-40a)

This instruction cuts off the file when an event occurs. The file folder label for this instruction should probably contain the following.

5-10c   File Name   (94)
COFF on completion of litigation
Ret WNRC 2 years after cutoff
PERM

However, if this is the proper interpretation, it differs from other specific instructions in that the retire instruction does not have an explicit date. One must calculate it at the time of cutoff.

Perhaps the disposition instructions for file number 27-40a should have been in the form of a *permanent-event* instruction, that is

Permanent. PIF on the completion of litigation.

This generic instruction has the following meaning.

ACTIVE
PIF on the completion of litigation.
INACTIVE
COFF 31 Dec 94
Ret WNRC Jan 97
PERM

In this case the retirement date is not calculated at cut off, but when the records are placed in an inactive file. The original instruction and the rephrased instruction have essentially the same effect. One can simplify the disposition procedures by disallowing the first form and requiring that one use the more common form.

4.1.3 Retain Instructions

MARKS uses the phrase "Retain in CFA until disposition instructions are published in this regulation." to indicate that disposition authority from NARA is pending. NARA suggests that the statement "Do not destroy. Disposition authorization pending NARA's approval" be used for the same situation.

Following are some examples of other disposition instructions that use the terms *retain, hold* or *keep.*

Cut off annually, hold 1 year in CFA, retire to WNRC with the next regular shipment. Destroy 25 years after cutoff. (FN: 680-31a)

Destroy 3 years after case is closed. Keep in CFA until destroyed. (FN: 11-3a)

Destroy after 75 years. Retain 5 years in CFA. (FN: 40-5f)

Each of these examples can be rephrased using a retire instruction or an instruction of the form "Destroy in CFA . . ."

Destroy after 25 years. Retire to WNRC after 1 year.

Destroy in CFA 3 years after case is closed.

Destroy after 75 years. Retire after 5 years.

Except for the retain instruction indicating that disposition authority from NARA is pending, all *retain, keep,* and *hold* instructions in MARKS can be rephrased using the *transfer* and *retire* instructions.

4.2 Subcategories, Offices and Events in the Disposition Paragraph

Often, knowing the file number of a filing caegory is not enough to identify the proper disposition of a record in that category. For example, all General Correspondence filing categories have the instructions:

    a. ACTION: Destroy after 2 years.
    b. NONACTION: Destroy when no longer needed for current operations.

The disposition instructions for a filing category often identify subcategories that are not identified in the description of the filing category. There are 963 filing categories whose disposition instructions indicate subcategories of the filing category. There are only 157 descriptions of filing categories that indicate subcategories of the filing category. The descriptions and disposition instructions of these filing categories need to be brought into harmony. Not doing so increases the likelihood of improper filing and improper disposition.

It is not surprising that MARKS uses subcategories in its records schedule, because NARA also does in its General Records Schedules. The GRSs are a model of how agencies should write disposition instructions for records to which the GRSs do not apply.

In referencing the GRS as an authority for disposition of a record series, one suffixes the GRS schedule number with the item no, e.g., GRS 1, Item a(1). A similar approach to establishing unique filing and disposition categories for MARKS is suggested.

File numbers in MARKS are based on a *duplex numeric* coding system consisting of numbers, hyphens and alphabetics. The MARKS file numbers end in alphabetic characters. The first subdivision of a disposition paragraph consists of alphabetic characters. It is suggested that a hyphen be placed after the alphabetic characters of the file number and the alphabetic characters designating subcategories.

For example, file number 11-2-240i has two subcategories of disposition.

a. End of FY reports: Permanent.

b. Other information: Destroy when no longer needed for current operations.

The extended MARKS file numbers for these two subcategories would be:

11-2-240i-a

11-2-240i-b

Army publication AR-25-50, *Preparing and Managing Correspondence*, requires that the proper MARKS file number be placed on each piece of correspondence. Army publication AR-25-11, *Record Communications and the Privacy Communication System* (chap. 13), requires that the proper MARKS file number be placed on electronic correspondence, e.g., e-mail. However, the disposition of the correspondence may be different for the sending and receiving office due to different disposition instructions for different offices.

Most frequently, the subcategory is indicated in a header phrase. Sometimes it is mentioned in the instruction. The instruction "*subcategory*: Destroy after 5 years" has the same meaning as "Destroy *subcategory* after five years." For consistency, it is recommended that only one of the two be used.

An alternative is to indicate subcategories in the descriptive part of a filing-disposition category. The indices a, b, c, etc, could then be used to relate subcategories in the descriptive paragraph to disposition instructions in the disposition paragraph.

The patterns used in MARKS for relating disposition instructions to subcategories, offices and events were analyzed. The patterns have been grouped into six cases.

Case 1. Different dispositions for subcategories

Example: (FN 1n)
a. Accountable Mail receipts: Destroy after 2 years.
b. Other documents: Destroy after 3 months.

Case 2. Different dispositions for different offices

Example: (FN 1-1j)
a. Office of the Comptroller of the Army and office responsible for presenting the justification of testimony: Permanent.

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b. Other offices: Destroy after 2 years.

Notice that the letters *a* and *b* are not indicating subcategories of records within the filing category, but different offices. Letters indicating different offices should not be suffixed to the MARKS file number to indicate different filing categories. It is recommended that all disposition paragraphs indicating different dispositions for the same category of records, but for different offices, be restructured to use the indices (1), (2), etc.

Case 3. Different dispositions for offices within subcategories

Example: (FN 25-1e)

a. Approved Requirements:

    (1) Requesting office: Destroy 1 year after disposal of resource or termination of service.

    (2) Approving office: Destroy after 5 years or when no longer needed for current operations whichever is shorter.

b. Disapproved Requirements: Destroy after 1 year.

Case 4. Different dispositions for subcategories within offices

Example: (FN 25-30cc)

a. Office responsible for preparation of CARDS:

    1) CARDS: Permanent.

    2) Other information: Destroy after 20 years.

b. Other offices: Destroy after 2 years.

The first task in determining proper disposition is to determine the proper filing category. Next, to determine the office. As discussed above, MARKS file numbers should be extended to identify subcategories of a filing category. It is recommended that different dispositions for subcategories within offices be rewritten in the style of case 3, with subcategories at the first level and offices at the second. For instance, the example above would be rewritten as:

a. CARDS: Office responsible for preparation of CARDS: Permanent

b. Other information:

    (1) Office responsible for preparation of CARDS: Destroy after 20 years.

    (2) Other offices: Destroy after 2 years.

Case 5. Different Dispositions for Different Events

There may be different dispositions for different events. For instance, FN 621-5e, Individual Educational Development Files, consists of DA Form 669, Educational Development Record, and related information.

The instructions for records in this filing category are:

Disposition:
a. PCS of individual: Forward record and its contents with MPRJ.
b. Separation of the individual: Withdraw and give to individual.
c. Death of the individual: Destroy on death of individual.

In this instruction "permanent change of station (PCS) of individual," "separation of the individual," and "death of the individual," are events, not subcategories of records in the individual education development files. When one of these events occurs, the corresponding instruction indicates the disposition of the records for an individual.

In MARKS there are other ways of expressing different dispositions based on different events. For instance, FN 621-5b, Basic Skills Education (BSEP) files, has instructions with the same meaning as the disposition instructions in the preceding example, but a different form of expression.

Disposition: On permanent change of station (PCS), forward with MPRJ; on separation, give to individual; on death, destroy.

A third way of expressing different dispositions for different events is used in filing category 1aa.

Disposition:
a. Send to the servicing personnel office when the employee is transferred or separated. There it will be checked for documents that should be permanently filed in the Official Personnel Folder.
b. Withdraw and place in Separation for Military Service File (1cc) for employees separated to enter military service who have restoration rights.
c. Send to gaining official for employees transferred within the same authority on an installation.
d. When employees are separated or transferred to an installation having different appointment authority, destroy the file (except that DD FORM 1435 will be sent to the gaining authority within the Federal Government).
e. Review at end of each year and destroy documents when superseded or no longer applicable.

A fourth way of expressing disposition instructions for different events is exemplified in filing category 1cc.

> Disposition: Return to active file (1aa) if employee is restored at end of obligation period. Destroy if not restored.

There are many other examples of events determining different disposition. Adopting one form for expressing different dispositions for the same filing category (or subcategory) will facilitate automatic interpretation of these instructions. The form adopted should be consistent with the other conventions adopted for subcategories of a filing category, different dispositions for different offices, and the forms of disposition instructions themselves.

Using *header phrases* to indicate different events, as in the first example above, contributes to the ease of interpretation of different dispositions for different events. However, if events are allowed to be header phrases, some convention must be adopted to distinguish them from the other two types of header phrases in the disposition paragraph—subcategory descriptions and offices.

On the other hand, instructions for disposition of temporary records incorporate events in the disposition instruction itself. Also it will be seen that events are part of cutoff, retire and transfer instructions. It would be at variance with these other patterns to allow events to be *header phrases* to a disposition instruction. Consequently, it is recommended that different dispositions for different events be written as a sequence of disposition instructions in which the events are indicated in the instructions, rather than in header phrases.

Case 6. Disposition Paragraphs with three levels

Disposition paragraphs for about a dozen filing/disposition categories that had three levels were found. Six of these were instructions for documents converted to microform, e.g., FNs 71-3c, 351-17e, 870-5a. Each of these can be paraphrased into a two-level paragraph of the form of cases 3 or 4 above. Four of the twelve had multiple levels of subcategories or offices that could be paraphrased in the form of cases 3 or 4.

In FN 40-66s, workflow procedures have been put into the disposition paragraph. In this category, three-levels are used to indicate the addresses to which coding offices should forward field medical cards "on completion of weekly coding." There is a close relationship between workflow and disposition (see ref. 7) and between workflow and the definition of records included in a filing category (see ref. 4). These disposition instructions involve events and transfer of records and are related to the patterns discussed in case 5 above.

FN 360-81d, General Command Information, adds a third level to discriminate between records created during peacetime or during mobilization. This disposition paragraph uses events to discriminate cases and so is related to case 5 above.

Two-level structures in the disposition paragraph are adequate for expressing the relationships of disposition instructions to subcategories and offices. It is recommended that all three-level structures be rewritten as two-level structures.

In summary, it is recommended that:

Disposition instructions mentioning a subcategory of records should be rephrased to express the subcategory as a header phrase.

To assure proper disposition, MARKS file numbers should be extended to include an additional level for subcategories.

Disposition paragraphs with subcategories within offices should be rewritten as offices within subcategories.

Disposition paragraphs indicating different dispositions for different offices consistently use the indices (1), (2), etc.

Different disposition instructions for different events should be written as a sequence of disposition instructions.

The use of cases in the disposition paragraph be limited to two levels.

4.3 Offices to which Disposition Instructions Apply

The disposition paragraphs for the majority of MARKS filing categories do not mention an Army office. The implication is that the disposition instructions apply to any, or all, Army offices. However, 744 of the filing categories have disposition instructions that are dependent on the responsibilities of an office, organizational code, or organizational level. Examples of this were shown in section 4.2.

The header phrases indicating the office to which an instruction applies vary in format, for instance

Contractor offices using MARKS
Inspected Office
Inspecting Office
MACOMs
Major Command Headquarters
Reserve Components

Surveyed activities
Training agencies
Unit mailroom
Units subordinate to HQ, INSCOM

The header phrases do not always contain the words *office* or *offices*. So it is difficult to discriminate whether the disposition instruction is for an office or a subcategory. In section 4.2 (case 2) it was recommended that when there are different dispositions for different offices, the indication of the offices consistently use the indices (1), (2), etc. On the other hand, subcategories will be indexed by letters. If this convention is followed, one can automatically determine whether a header phrase indicates a subcategory or an office.

4.3.1 Organization Acronyms, Abbreviations and Brevity Codes

The following are examples of organization acronyms, abbreviations and brevity codes found in the MARKS disposition instructions. The meaning is also shown [8].

ACCOR - Army COMSEC Central Office of Record
ARFCOS - Armed Forces Courier Service (obsolete, see DEFCOURIERSVC)
ASA (FM) - Assistant Secretary of the Army, Financial Management
DCSINT - Deputy Chief of Staff for Intelligence
HQ USACIDC - United States Army Criminal Investigation Command
HQ INSCOM - Intelligence and Security Command
HQ MTMC - Military Traffic Management Command
HQ TRADOC - U.S. Army Training and Doctrine Command
MAAGs - Military Assistance Advisory Group
OASA (FM) - Office of the Assistant Secretary of the Army, Financial Management
OCE - Office of the Chief of Engineers
OSA - Office of the Secretary of the Army
OTIG - Office of the Inspector General
OTJAG - Office of the Judge Advocate General
OTSG - Office of the Surgeon General
PERSCOM - U.S. Total Army Personnel Command
USAAA - U.S. Army Audit Agency
USACE - U.S. Army Corps of Engineers
USALSA - U. S. Army Legal Services Agency
USDBs - U.S. Army Disciplinary Barracks
USMA - U.S. Army Military Academy

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The following examples of terms indicating organizational level were found.

HQDA - Headquarters, Department of the Army

MACOMs - Major Army Commands

SUBMACOMs - Subordinate Major Army Commands; Major Army
   Subcommand

field operating agency (FOA)

staff support agency

unit

installation

brigade

missions

4.3.2 Knowledge of Organizational Terms

Disposition instructions often specify the organizational level, for instance, MACOM, SUBMACOM, installation, or field office. Some of the instructions mention offices with specific responsibilities. If an automated tool is provided knowledge of organizational terms and knows the description of an organizational element and its responsibilities, it can select the proper instructions.

To determine whether an instruction applies to a specific office, an automated system will need to know the meaning of such terms as HQDA, MACOM, and SUBMACOM. The meanings of these terms can be represented by relating them to other terms. Then specific offices or organizational elements can be related to the defined terms. The following definitions were derived from the Army Dictionary [9], except where otherwise indicated.

HQDA is composed of the Army Secretariat, Army General Staff, Army Special Staffs, and staff support agencies.

If an army office is not an office of HQDA, then it is a field office [1, Glossary].

A MACOM is a command subordinate to HQDA.

A SUBMACOM is subordinate to a MACOM.

A FOA is a agency supervised by HQDA.

A directorate is a component of HQDA, MACOM headquarters staff office, or installation headquarters.

A division is a component of a directorate.

A branch is a component of a division

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From organizational charts the following relationships can be derived:

FORSCOM is a MACOM of the U.S. Army.

ISC is a MACOM of the U.S. Army.

TRADOC is a MACOM of the U.S. Army.

AMC is a MACOM of the U.S. Army.

PERSCOM is a FOA of DCSPERS.

USMA is a FOA of DCSPERS.

USAAA is a FOA of the Auditor General.

The knowledge described above can be used with additional knowledge about a particular office to determine whether an instruction applies to that office. For instance, consider the office of the Software Technology Branch (STB). Suppose it is known that:

STB is a branch of CSTD.

CSTD is a division of ACIS.

ACIS is a directorate of ARL.

ARL is a SUBMACOM of AMC.

From this additional knowledge it can be inferred that:

STB is not a MACOM.

STB is not a SUBMACOM.

STB is not a directorate.

STB is not a division.

STB is a field office.

Hence, any of the instructions that refer to MACOMs, SUBMACOMs, directorates or divisions do not apply to STB. Any instructions that refer to other offices, field offices, or branches of CSTD may apply to STB.

5. A Grammar for Records Disposition Instructions

Writing disposition instructions for a record series is using a subset of the English language to instruct office personnel how to dispose of records. It is analogous to using a programming language to instruct a computer how to do something. Programming languages are defined using grammar rules. These grammar rules delimit what it is possible to say and do. They also facilitate the translation of programming instructions into a form that a computer can execute. This work investigates how to automate the process of generating specific and definite disposition instructions for files and

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how to provide automated support for the disposition of these files. In this section, a grammar to exactly characterize those expressions that are disposition instructions will be described.

Patterns of disposition instructions were identified from an analysis of the MARKS instructions. The MARKS instructions closely follow the style of the instructions in the GRS and the description of how to write instructions in NARA's Records Management Handbook *Disposition of Federal Records*. These patterns will be described using the following notation.

Italicized terms, e.g., *instructions*, indicate a grammatical category.

French braces { } indicate that one of the items in the braces must be chosen.

Square brackets [ ] indicate that the items in the brackets are optional, that is, appear zero or one time.

A superscripted plus sign on a term, e.g., $term^+$, indicates that the term appears one or more times.

A superscripted plus sign on square brackets, $[\ ]^+$, indicates that the items in brackets appear zero, one or more times.

A *disposition instruction* is one of the following.

$$
\left\{
\begin{array}{l}
\textit{instructions\_for\_temporary\_records} \\
\textit{instructions\_for\_permanent\_records} \\
\textit{instructions\_for\_working\_files} \\
\text{Retain in CFA until disposition instructions are published in this regulation}
\end{array}
\right\}
$$

5.1 Instructions for Temporary Records

This group of instructions includes the generic *time*, *event* and *time-event* instructions described in section 4. It also includes the combinations of these basic instructions described in section 4.1. The following schema indicates the forms in which disposition instructions for temporary records can be expressed.

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$$
\begin{Bmatrix} \text{Destroy} \\ \text{Blank} \end{Bmatrix}
\left\{
\begin{array}{l}
\left[\text{after } \textit{period} \right] , \text{ or }
\left\{
\begin{array}{l}
\left\{ \begin{array}{l} \text{after} \\ \text{when} \\ \text{upon} \\ \text{on} \\ \text{at} \end{array} \right\} \textit{events} \\
\textit{period} \text{ after } \textit{events}
\end{array}
\right\}
\left[, \text{ whichever is } \left\{ \begin{array}{l} \text{earlier} \\ \text{earliest} \\ \text{later} \\ \text{latest} \end{array} \right\} \right] \\[2em]

\left\{
\begin{array}{l}
\left\{ \begin{array}{l} \text{after} \\ \text{when} \\ \text{upon} \\ \text{on} \\ \text{at} \end{array} \right\} \textit{events} \\
\textit{period} \text{ after } \textit{events}
\end{array}
\right\}
, \text{ or }
\left\{
\begin{array}{l}
\text{after } \textit{period} \\
\left\{ \begin{array}{l} \text{after} \\ \text{when} \\ \text{upon} \\ \text{on} \\ \text{at} \end{array} \right\} \textit{events} \\
\textit{period} \text{ after } \textit{events}
\end{array}
\right\}
\left[, \text{ whichever is } \left\{ \begin{array}{l} \text{earlier} \\ \text{earliest} \\ \text{later} \\ \text{latest} \end{array} \right\} \right]
\end{array}
\right\}
$$

MARKS uses the term *Blank* to indicate erasure or deletion of records on electronic media. NARA uses the term *Delete* to indicate the same.

The following patterns for a *period* were discovered in MARKS.

$$
\left\{
\begin{array}{l}
\textit{numeral} \text{ year[s] } [\text{and } \begin{Bmatrix} 3 \\ 6 \end{Bmatrix} \text{ months]} \\[1em]
\begin{Bmatrix} 1 \\ 3 \\ 6 \end{Bmatrix} \text{ month[s]} \\[1em]
\begin{Bmatrix} 30 \\ 60 \\ 90 \end{Bmatrix} \text{ days}
\end{array}
\right\}
$$

Numerals are Arabic numerals, that is, 1, 2, 3, etc., not the words one, two, three, etc.

Events are one or more *phrases,* each describing an event.

$$
\textit{phrase} \left[\left\{ \begin{array}{l} , \\ \text{or} \\ \text{and} \\ , \text{ or} \\ , \text{ and} \end{array} \right\} \textit{phrase} \right]^{*}
$$

Phrases describing events can be limited to two types, adjectival phrases and noun phrases. The primary adjectives in adjectival phrases can be

limited to adjectives derived from verbs. The primary nouns used in noun phrases can be limited to nouns derived from verbs. For instance consider the two disposition instructions:

Destroy when superseded or obsolete

Destroy on supersession or obsolescence

The terms *superseded* and *obsolete* are adjectives derived from verbs. *Supersession* and *obsolescence* are nouns derived from verbs. Additional work is needed to specify, in greater detail, the exact patterns that are adequate for describing events.

There are also exceptions to the generic instructions for temporary records that are expressed using cutoff, retire and transfer instructions. The current focus is on those patterns in which the specific instructions follow the generic instructions. The patterns in which the specific instructions precede the *destroy* or *permanent* instructions can be defined later.

$$
\begin{Bmatrix} \text{Destroy} \\ \text{Blank} \end{Bmatrix} \begin{Bmatrix} \text{after } \textit{period} \\ \textit{period} \text{ after } \textit{events} \end{Bmatrix} \begin{Bmatrix} \text{Cutoff at end of } \begin{Bmatrix} \text{CY} \\ \text{FY} \\ \text{month} \\ \text{year} \end{Bmatrix} \\ \textit{retire} \\ \text{Do not retire} \\ \textit{transfer}^{+} \end{Bmatrix}
$$

Example:

Destroy after 56 years. Do not retire. (FN 37-101-1p)

Retire and *transfer* instructions are defined in sections 5.3.2 and 5.3.3, respectively.

Sometimes the phrase "in CFA" is used with a destroy instruction. This indicates that the file is not transferred to an RHA or retired to a records center.

$$
\text{Destroy in CFA} \begin{Bmatrix} \text{after } \textit{period} \\ \textit{period} \text{ after } \textit{events} \end{Bmatrix} [\text{Cutoff at end of } \begin{Bmatrix} \text{CY} \\ \text{FY} \\ \text{month} \\ \text{year} \end{Bmatrix}]
$$

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5.2 Instructions for Permanent Records

The next group of instructions is for permanent records. They are of the form

$$\text{Permanent. } [\text{PIF} \begin{Bmatrix} \text{when} \\ \text{on} \\ \text{at} \end{Bmatrix} \textit{events.}] \ [\textit{cutoff}] \ [\textit{retire}] \ [\textit{transfer}]$$

In addition to the basic generic instructions for permanent records, this schema indicates that exceptions to the generic instructions can be expressed with cutoff, retire and transfer instructions. Examples of permanent instructions found in MARKS follow.

Permanent. Cut off after 5 years and retire after 5 more years
(FN 1110-2-1150b)

Permanent, retire to FRC after 10 years, transfer to NARA after 20 years.
(FN 500-1-1b)

Permanent. PIF on completion of next comparable inspection and cutoff at the end of that year, or cut off after 5 years, whichever is sooner (FN 20-1g)

Permanent. PIF on completion of study, cutoff at the end of that year, and retire to FRC when 10 years old, transfer to NARA when 20 years old
(FN 1110-2-1403b)

Permanent. PIF on completion of project. Transfer to HQ INSCOM 1 year after completion of project.(FN 381-3g)

The most common form of this instruction in MARKS is

Permanent. PIF after event and cut off at the end of the year.

The phrase "and cut off at the end of the year" is redundant. The default assumption for the generic *permanent* instruction is that files with that disposition will be "cut off at the end of the year." Suppose that the default period that an office uses to manage its records is the calendar year (CY). If Army records management officers want to require a particular category of records with permanent disposition be cut off at the end of the fiscal year (FY), they can add the instruction "Cut off at end of FY" as a statement after the PIF instruction.

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5.3 Specific Instructions

Specific instructions override the default meanings of the generic instructions for temporary or permanent record series. Specific instructions indicate when to cutoff, and where and when to transfer or retire records.

5.3.1 Cutoff

The following schema indicates the patterns for the *cutoff* instruction that were found in MARKS.

$$
\text{Cut off}
\begin{Bmatrix}
\text{at end of}
\begin{Bmatrix}
\begin{Bmatrix} \text{CY} \\ \text{FY} \\ \text{month} \\ \text{year} \end{Bmatrix}
\end{Bmatrix} \\
\text{after } \textit{period}
\end{Bmatrix}
[\text{, or }
\begin{Bmatrix} \text{after} \\ \text{on} \\ \text{when} \end{Bmatrix}
\textit{events,} \text{ whichever is }
\begin{Bmatrix} \text{earlier} \\ \text{earliest} \end{Bmatrix}]
$$

5.3.2 Transfer

Records are transferred to an RHA, to NARA or to other locations. The following patterns of the transfer instruction were found in MARKS.

$$
\text{Transfer [with } \textit{phrase}] \text{ to } \textit{phrase}
\begin{Bmatrix}
\text{after } \textit{period} \\
\begin{Bmatrix} \text{after} \\ \text{when} \\ \text{on} \end{Bmatrix} \textit{event}
\end{Bmatrix}
$$

Example:
Permanent. Transfer the original still photography negative, one print, and completed caption to the Army Audiovisual Center, when no longer needed by the office of origin.(FN 1110-2-1150a)

One should not reference the category of records to be transferred in the instruction itself. The subcategory should be explicitly described outside the transfer instruction (see section 4.2 and *list of subcategories* in section 5.5).

Note that the terms *send, forward*, and *return* occur in the MARKS disposition instructions. *Forward* or *return* imply *sending* which implies transferring from one place to another. It is assumed that each of these terms can be replaced by the term *transfer*.

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5.3.3 Retire

Records are retired to Federal Records Centers (FRCs). The following patterns for retire instructions were found in MARKS.

$$
\text{Retire}
\begin{Bmatrix}
\text{to} \begin{Bmatrix} \text{FRC} \\ \text{WNRC} \\ \text{NPRC} \begin{Bmatrix} \text{(CIV)} \\ \text{(MIL)} \end{Bmatrix} \end{Bmatrix} \\
[\text{to} \begin{Bmatrix} \text{FRC} \\ \text{WNRC} \\ \text{NPRC} \begin{Bmatrix} \text{(CIV)} \\ \text{(MIL)} \end{Bmatrix} \end{Bmatrix}]\ \text{after}\ \textit{period}
\end{Bmatrix}
$$

Example:

Destroy 20 years after full production of prototype takes place. Retire after 5 years in current files area. (FN 37-101-1p)

5.4 Instructions for Working Files

The transfer instruction can occur alone. When used alone it implies a working file. The patterns of disposition *instructions for working files* are:

$$
\begin{Bmatrix}
\textit{transfer} \\
\text{Transfer} \begin{Bmatrix} \text{with}\ \textit{phrase} \begin{Bmatrix} \text{upon} \\ \text{after} \\ \text{on} \end{Bmatrix} \textit{events} \\ \text{to}\ \textit{phrase period}\ \text{after}\ \textit{events} \end{Bmatrix} \\
\text{Place in}\ \textit{file\_name}\ (\textit{file\_number}) \begin{Bmatrix} \text{upon} \\ \text{after} \\ \text{on} \end{Bmatrix} \textit{events}
\end{Bmatrix}^{+}
$$

Note that the superscripted plus sign on the French braces { } indicates that there can be a sequence of one or more transfer and place instructions.

Examples:

After notice of death, or return to U.S. Government control, files of PW's, CIs and detainees employed by the U.S. Government will be sent to the custodian of the person's official personnel folder (FN 600-8-1f)

This instruction can be rephrased as:

Transfer to the custodian of a person's official personnel folder after death or return to U.S. Government control.

Consider the following example.

Transfer to parent element 1 year after date of final report, unless a report of disciplinary action is required, in which case, transfer to parent element 1 year after date of report of disciplinary action. (FN 195-2b)

This instruction can be rephrased as:

a. Final reports not requiring report of disciplinary action: Transfer to parent element 1 year after submission of final report,

b. Final reports requiring report of disciplinary action: Transfer to parent element 1 year after report of disciplinary action.

5.5 The Structure of the Disposition Paragraph

A grammar defining the most common patterns for disposition instructions used in MARKS has been described. The style of disposition instructions has been distinguished from the format of the disposition paragraph. Based on the discussion in sections 4.2 and 4.3, the structure of the disposition paragraph will now be defined.

The *disposition paragraph* is a disposition instruction as previously defined, a description of an office (or organizational level) followed by a disposition instruction, a list of subcategories, or a list of offices.

$$
\left\{
\begin{array}{l}
[\textit{office:}] \quad \textit{disposition\_instructions} \\
\textit{list\_of\_subcategories} \\
\textit{list\_of\_offices}
\end{array}
\right\}
$$

A *list of subcategories* is defined as follows:

$$
\text{a. } \textit{subcategory} : \left\{
\begin{array}{l}
[\textit{office:}] \quad \textit{disposition\_instructions} \\
\textit{list\_of\_offices}
\end{array}
\right\}
$$

$$
\text{b. } \textit{subcategory} : \left\{
\begin{array}{l}
[\textit{office:}] \quad \textit{disposition\_instructions} \\
\textit{list\_of\_offices}
\end{array}
\right\}
$$

.

.

.

A *subcategory* is a phrase describing a category of records included in a filing category. A *subcategory* is not an *event*. The following is an example of a list of subcategories.

a. Accountable mail receipts: Destroy after 2 years.

b. Other documents: Destroy after 3 months.

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An alternative is to indicate subcategories in the description paragraph of a filing-disposition category. The indices a, b, c, . . . could then be used to relate subcategories in the description paragraph to offices/disposition instructions in the disposition paragraph.

A *list of offices* is of the form:

   (1) *office*: *disposition_instructions*
   (2) *office*: *disposition_instructions*

         .

         .

         .

An *office* is one of the following patterns:

$$\left\{ \begin{array}{l} \text{Office[s] } \textit{phrase} \\ \textit{organization\_code} \\ \textit{organization\_level} \\ \text{Other offices} \end{array} \right\}$$

An example of the first alternative is

   Offices responsible for coordination of DA and congressional liaison activities (FN 1-20d)

Organization codes are abbreviations, brevity codes and acronyms for organizational elements, for instance

   DCSINT
   OCE
   OSA
   USMA

Organizational levels are abbreviations, brevity codes, acronyms or other terms indicating organizational level, for instance

   HQDA
   MACOMS
   SUBMACOMS
   FOA
   field offices

In summary, if disposition instructions are written in the forms prescribed by a grammar similar to that presented in this section, constraints will be imposed that encourage an increased level of rigor in writing the disposition instructions. Without these constraints, the writers of these instructions often avail themselves of the power of the English language and express instructions in many different ways.

It will be shown that writing disposition instructions in conformance with such a grammar enables automatic generation of specific disposition instructions. The result is a reduction in the human effort needed to conform with the MARKS records schedule and increased control over the disposition of Army records.

It is concluded that the permissible patterns for disposition instructions should be defined by a grammar similar to that presented in this section. When the disposition instructions of MARKS are at variance with the grammar they should be rephrased to conform to the grammar.

6. Style Checking of Disposition Instructions

If a grammar, such as the one described in the previous section, is adequate to describe all disposition instructions, then generic instructions can be automatically translated to specific instructions. Automated interpretation of generic instructions is facilitated by using two UNIX facilities—lex and yacc. *Lex* is a lexical (word) analyzer [10, chap. 11]. *Yacc* (yet another compiler compiler) is a syntactic analyzer and translator [10, chap. 12]. The grammar defined in section 5 was described with lex and yacc and was used to construct a style checker for MARKS disposition instructions. In this section the kinds of comments that the style checker can provide to indicate deviations from the patterns defined by the grammar are shown. These deviations should be rephrased.

<<* 1. REPHRASE USING A PROPER FORM FOR DISPOSITION INSTRUCTIONS *>>

This is the most serious of all disposition language style errors. The expression of the instruction does not come close to fitting the normal patterns of the disposition language. The instruction should be restated using one of the patterns for *disposition instructions*.

Example: (FN 20-1a)

The inspecting agency may destroy 1 year after the next comparable inspection or 1 year after the approved recommendations have been implemented. Other agencies destroy when no longer needed for current operations.

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This instruction should be rephrased using a *list of offices*

(1) Office of inspecting agency: Destroy 1 year after the next comparable inspection, or 1 year after the approved recommendations have been implemented.

(2) Other offices: Destroy when no longer needed for current operations.

Example: (FN: 600-8-1f)

After notice of death, or return to U.S. Government control, files of PWs, CIs, and detainees employed by the U.S. Government will be sent to the custodian of the person's official personnel folder.

Rephrase as:

Transfer to custodian of the person's official personnel folder after notice of death, or return to U.S. Government control.

<<* 2. EXCEPTION TO INSTRUCTION. REPHRASE AS A SUBCATEGORY *>>

When terms such as *except, however, if, unless,* and *in which case* occur in a disposition instruction, it often indicates an exception to the disposition instruction. The disposition instruction should be restated as a list of subcategories.

Example: (FN: 210-130A)

Destroy after 1 year, except destroy DA Forms 3799 and related control documents 3 months after individual terminates use of the service.

Rephrase as:

a. DA Forms 3799 and related control documents: Destroy 3 months after individual terminates use of service.

b. Other information: Destroy after 1 year.

Example: (FN 600-8-1k)

Destroy 2 years after disposition of effects. However, when connected with casualties from armed conflict, destroy 2 years after cessation of the conflict, or destroy 2 years after disposition of effects, whichever is later.

Rephrase as:

a. Cases related to with casualties from armed conflicts: Destroy 2 years after cessation of the conflict, or disposition of effects, whichever is later.

b. Other cases: Destroy 2 years after disposition of effects.

Example: (FN 215-3h)

Destroy 1 year after selection for the position is made unless a complaint or grievance is pending, in which case destroy 30 days after final appellate decision is made.

Rephrase as:

a. Applications with pending complaints or grievance: Destroy 30 days after final appellate decision is made.

b. Other applications: Destroy 1 year after selection for the position is made.

```
<<* 3. USE whichever is later (latest) *>>
```

Disposition instructions may be followed by the phrase "whichever is earlier (earliest, later, latest)." MARKS and GRS instructions use other expressions to express the same meanings, for example

whichever is sooner
whichever occurs first
whichever is first
whichever comes first
whichever is longer
but not later than
whichever is applicable
whichever applies
as applicable

Each of these should be rephrased as "whichever is earlier (or earliest, later, latest)"

Sometimes the category of information to be destroyed, transferred, or retired is mentioned in the disposition instruction rather than in a header phrase. For consistency the instruction should be rephrased to identify the subcategory in a header phrase.

Example: FN 11-30a.

Destroy copies of plans on supersession or obsolescence, and destroy other information after 2 years.

This instruction should be rephrased as:

a. copies of plans: Destroy on supersession or obsolescence
b. other information: Destroy after 2 years.

<<* 5. REPHRASE using Transfer or Retire *>>

Retain, keep, and hold instructions should be rephrased using transfer or retire instructions.

Example: (FN 680-31a)

Cut off annually hold 1 year in CFA, retire to WNRC with next regular shipment. Destroy 25 years after cutoff.

Rephrase as:

Destroy after 25 years. Retire to WNRC with next regular shipment after 1 year.

Example: (FN 40-5f)

Destroy after 75 years. Retain 5 years in CFA.

Rephrase as:

Destroy after 75 years. Retire after 5 years.

```
┌─────────────────────────────────────────────────────────────────┐
│                  <<* 6. Send: USE Transfer *>>                    │
└─────────────────────────────────────────────────────────────────┘
```

The terms *send, forward, return* and *give* in a records management context, all have the same meaning as *transfer. Forward* or *return* imply *sending*, which implies transferring from one place to another.

```
┌─────────────────────────────────────────────────────────────────┐
│                  <<* 7. USE ABBREVIATION *>>                      │
└─────────────────────────────────────────────────────────────────┘
```

This message occurs when terms are used that have a standard abbreviation or brevity code, for example:

Headquarters - HQ
Place in an inactive file - PIF
current files area - CFA
fiscal year - FY
calendar year - CY

```
┌─────────────────────────────────────────────────────────────────┐
│   <<* 8. when no longer needed: REPLACE WITH MORE EXPLICIT INSTRUCTION *>>  │
└─────────────────────────────────────────────────────────────────┘
```

NARA's handbook *Disposition of Federal Records* [2, p. IV-6] states that

temporary records should not normally be scheduled for destruction "when no longer needed." Since the application of this retention period would vary from person to person, the agency would in effect lose management control of such records, and the agency may inadvertently destroy records that are still needed.

However, when the GRS disposition authorizes destruction, or deletion, "when no longer needed" for the records, the agency should apply a more specific disposition instruction, such as "Destroy when 1 year old" or "Delete after 2 update cycles," which will meet its particular program needs. [2, p. V-10]

```
┌─────────────────────────────────────────────────────────────────┐
│               <<* 9. from: USE after, when or upon *>>            │
└─────────────────────────────────────────────────────────────────┘
```

Instead of using the adverbs *after, when* or *upon* to define an event, terms such as *from, if* or *provided* are used. These should be replaced by the adverbs.

"Destroy 3 years from date of issue" can be rephrased "Destroy 3 years after date of issue."

"Destroy after 3 years if consolidation or summary is not made" can be rephrased "Destroy 3 years after consolidation or summary is not made."

Example: (FN 340-21a)

Destroy after 10 years provided legal proceedings are completed.

Rephrase as:

Destroy after 10 years, or when legal proceedings are complete, whichever is later.

```
<<* 10. yearly: USE at end of year *>>
```

For example, replace "Cut off yearly" with "Cut off at end of year."
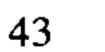
```
<<* 11. REPHRASE USING Cut off *>>
```

The *time-event* instruction "Destroy 5 years after close of fiscal year" has the same meaning as the *time* instruction "Destroy after 5 years. Cut off at the end of the FY." The first instruction should be rephrased as the latter.

The instruction "Destroy 3 years after close of FY in which final payment is made" has the same meaning as "Destroy 3 years after final payment is made. Cut off at end of FY." The first should be rephrased as the latter.

```
<<* 12. REPHRASE AS Destroy after X years *>>
```

The instruction "Destroy when 5 years old" has the same meaning as "Destroy after 5 years." MARKS seldom uses the former, though it is common in the GRS.

```
<< * 13. REPHRASE AS Destroy X years after event(1) or event(2) *>>
```

The instruction "Destroy X years after $event_1$, or Y years after $event_2$", when X=Y, has the same meaning as "Destroy X years after $event_1$ or $event_2$." The first should be rephrased as the second.

```
<<* 99. near term EXPECTING items *>>
```

This message means that one of the *items* is expected after the indicated *term*. One should refer to the grammar for the disposition instructions or disposition paragraph to determine the context of the *term* in which one of the *items* is expected.

7. Translating Generic to Specific Instructions

Automated aid is needed to translate generic to specific disposition instructions. Rules similar to those in Table 7-1 of the MARKS regulation have been developed. These rules are shown in Figure 3. The specific instructions are referred to as parameterized instruction because they consist of functions with *parameters* or *variables*. The parameters include: month, year, period, EVENT, X, Y, Z, and FRC. The functions used in the parameterized instructions are defined in Appendix A.

Rules 1 through 7 and 16 have the same meaning as those shown in Table 7-1 of the MARKS regulation. MARKS does not show the specific instructions derived from combinations of *time*, *event* and *time-event* instructions. Rules 8 through 15 and 17 have a meaning based on our analysis of the combinations of *time*, *event* and *time-event* instructions in section 4.1. Note that the generic instructions in Rules 12 and 14 have the same meaning. The rules for offices with a records holding area (RHA) are not shown. Those can be added later.

Figure 3. Rules for Interpreting Generic Disposition Instructions

Figure 3. Rules for Interpreting Generic Disposition Instructions	
Generic Instruction	**Parameterized Instructions**
1. Destroy after 30 days	COFF end_of(month, year) Dest months_after(1, month, year).
2. Destroy after 3 months	COFF end_of(qtr(month), year) Dest months_after(3, qtr(month), year)
3. Destroy after 6 months	COFF end_of(half(month), year) Dest months_after(6, half(month), year)
4. Destroy after X years	*If X ≤ 4* COFF end_of(period, year) Dest years_after(X, period, year) *If X ≥ 5* COFF end_of(period, year) Ret FRC years_after(2,period,year) Dest years_after(X, period, year)
5. Destroy after X years and Y months	*If X ≤ 4* COFF end_of(period,year) Dest years_months_after(X,Y,period,year) *If X ≥ 5* COFF end_of(period,year) Ret FRC years_after(2, period, year) Dest years_months_after(X,Y,period,year)
6. Destroy after EVENTS	Dest after EVENTS.
7. Destroy X years after EVENTS	ACTIVE PIF after EVENTS *If X≤4* INACTIVE COFF end_of(period, year) Dest years_after(X, period, year) *If X≥5* INACTIVE COFF end_of(period,year) Ret FRC years_after(2,period, year) Dest years_after(X,period,year)
8. Destroy after X years, or after EVENTS [, whichever is Y]	COFF end_of(period,year) Dest years_after(X,period,year), or after EVENTS [,whichever is Y]

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Figure 3. Rules for Interpreting Generic Disposition Instructions	
Generic Instruction	**Parameterized Instructions**
9. Destroy after X years, or Y years after EVENTS [,whichever is Z]	COFF end_of(period, year) Dest years_after(X,period,year), or Dest years_after(Y,period, year) if EVENTS occurred during year
10. Destroy after EVENTS$_1$, or after EVENTS$_2$ [, whichever is Y]	Dest after EVENTS$_1$, or after EVENTS$_2$ [, whichever is Y]
11. Destroy after EVENTS, or after X years [, whichever is Y]	Dest after EVENTS, or years_after(X,period,year) [, whichever is Y]
12. Destroy after EVENTS$_1$, or X years after EVENTS$_2$ [,whichever is Y]	ACTIVE Dest after EVENTS$_1$, or PIF after EVENTS$_2$ [, whichever is Y] *If X ≤ 4* INACTIVE COFF end_of(period,year) Dest years_after(X,period,year)
13. Destroy X years after EVENTS, or after Y years [, whichever is Z]	ACTIVE PIF after EVENTS, or Dest years_after(Y,period,year) [, whichever is Z] *If X ≤ 4* INACTIVE COFF end_of(period, year) Dest years_after(X,period,year)
14. Destroy X years after EVENTS$_1$, or after EVENTS$_2$ [, whichever is Y]	ACTIVE PIF after EVENTS$_1$, or Dest after EVENTS$_2$ [, whichever is Y] *If X ≤ 4* INACTIVE COFF end_of(period, year) Dest years_after(X,period,year)

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Figure 3. Rules for Interpreting Generic Disposition Instructions	
Generic Instruction	**Parameterized Instructions**
15. Destroy X years after EVENTS$_1$, or Y years after EVENTS$_2$ [, whichever is Z]	ACTIVE PIF after EVENTS$_1$, or PIF after EVENTS$_2$ [,whichever is Z] *If EVENTS$_1$ occurs* INACTIVE COFF end_of(period,year) Dest years_after(Y,period,year) *If EVENTS$_2$ occurs* INACTIVE COFF end_of(period, year) Dest years_after(Y,period,year)
16. Permanent	COFF end_of(period, year) Ret FRC years_after(2,period,year) PERM
17. Permanent. PIF after EVENTS	ACTIVE PIF after EVENTS INACTIVE COFF end_of(period, year) Ret FRC years_after(2,period,year) PERM

These rules can be used once to generate parameterized disposition instructions that can be stored in a database. The database can be used to print definite instructions on labels for paper records or to associate definite instructions with electronic records.

Determining definite disposition instructions for an office's records is a matter of substitution in the parameterized instructions for a records series and calculation using the functions defined in Appendix A.

Suppose that the specific parameterized instructions generated by the procedure described in the previous section, and stored in a database associated with a particular file number, were:

COFF end_of(period,year).

Ret FRC years_after(2,period,year).

Dest years_after(X,period,year).

When one must create a file folder for current records for a file number with this disposition, a label print routine can refer to a database con-

taining parameterized instructions, substitute for variables, and calculate the definite dates. Assume the current year is 1994, the period is CY, X is 5 and FRC is the Washington National Records Center (WNRC). This routine would produce the following definite instruction.

COFF 31 Dec 94
Ret WNRC Jan 97
Dest Jan 00

Refer to Appendix B for other examples of definite instructions generated from generic instructions.

Appendix C shows the parameterized instructions corresponding to specific instructions. Appendix D shows the parameterized instructions corresponding to exceptions to generic instructions for temporary records. Appendix E shows the parameterized instructions corresponding to exceptions to generic instructions for permanent records.

8. Conclusion and Recommendations

The objective of the work described in this paper is a formal model of records disposition instructions. NARA's *Disposition of Federal Records* and the U.S. Army's comprehensive records schedule were studied. The structure, content, and patterns of expression in MARKS disposition instructions were analyzed. Among the conclusions are that:

Disposition instructions of the form *Destroy when no longer needed . . .* are problematic. A method should be sought for transforming such instructions into more explicit disposition instructions.

A better understanding of the process of creating generic disposition instructions is needed. Rules are needed for simplifying disposition instructions with alternative dispositions.

An extended file number is needed to disambiguate subcategories of disposition within a filing category.

The disposition paragraph in MARKS filing categories should be restructured to allow discrimination of subcategories from offices.

Events should appear only in disposition instructions, not in lists of header phrases in the disposition paragraph.
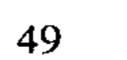
Instructions with multiple events and combinations of *time, event,* and *time-event* instructions require a *whichever* clause, if the events are not mutually exclusive.

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Disposition instructions mentioning a subcategory of records should be rephrased to express the subcategory as a header phrase.

The expressive power of English allows expression of the same disposition in many different ways. This seriously complicates the automatic interpretation of generic disposition instructions which is needed in electronic recordkeeping systems.

A grammar was created that defines the most common forms of disposition instructions in MARKS. The meanings of the types of disposition instructions permitted by the grammar were defined. The use of an automated tool for checking that disposition instructions conform to a well-defined, conventional style was described. A tool for translating generic to specific instructions, and for determining the definite, dated instructions for actual record series was also described.

The model of disposition instructions that has been developed is descriptive. If it, or a similar model, was used to prescribe the permissible forms of disposition instruction, personnel in Army offices would never again have to determine definite disposition instructions. The Army records managers responsible for MARKS would use the disposition language to *program* the recordkeeping system to determine the disposition of office records. The result would be a more systematic approach to records disposition, a reduction in the human labor and costs associated with the current disposition process, and increased control over the disposition of Army records. Since other DoD and Federal agencies use a similar style for expressing disposition instructions, there is an opportunity for them to realize similar benefits.

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Glossary

A term in parentheses following a defined term indicates the source of the definition. MARKS refers to *The Modern Army Recordkeeping System* [1]. NARA refers to the *Disposition of Federal Records* [2].

Comprehensive Records Schedule (NARA). A schedule or collection of schedules based on NARA-approved disposition authorities and issued as a directive or manual to cover all the records of an independent agency or department, or those of a bureau, service, or office within a department. Should also include instructions for nonrecord materials, whose disposition is based on agency needs. See also Records Schedule.

Current Files Area (MARKS). Areas and office space where current, day-to-day work is done and current records are created and maintained.

Cut off (MARKS). The setting aside of a logical block of records on which all action has been completed. Then the retention and disposition instructions can be applied. Blocks of records are normally cut off at the end of a fiscal year, a calendar year, or a school year. Specific records within the block that represent incomplete or continuing action are withdrawn and carried forward into the new file.

Definite disposition instructions (MARKS). Disposition instructions with definite dates for cutoff, transfer, retirement or destruction.

Description (NARA). In records management, the process of giving a written account of the contents and characteristics of a record series or system.

Disposition (MARKS). The actions taken with noncurrent records. These include transfer to a records holding area, retirement of a Federal records center, authorized donations, destruction, and accessioning into the National Archives.

Disposition Authority (NARA). Legal approval empowering an agency to transfer permanent records to the National Archives or carry out the disposal of temporary records.

Disposition instructions (NARA). Directions for cutting off records and carrying out their disposition in accordance with NARA regulations.

Electronic records (NARA). Records stored in a form that only a computer can process. Also called machine-readable records for ADP [automated data processing] records.

Federal Records Center (NARA). A records center operated by NARA.

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Field Records (MARKS). Records accumulated by field operating agencies, staff support agencies, major Army commands, posts, installations, and similar organizations, as opposed to those accumulated by HQDA.

File codes (NARA). Numbers or symbols used to abbreviate lengthy file titles.

File Number (MARKS). The number assigned to records described under that file number. This number identifies information for filing, reference, and disposition authority.

Filing System (NARA). A set of policies and procedures for organizing and identifying files or documents to speed their retrieval, use, and disposition. Sometimes called recordkeeping system.

General Correspondence Files (NARA). Records arranged and filed according to their general informational, or subject, content. Mainly letters and memorandums but also forms, reports, and other material, all relating to program and administrative functions, not to specific cases. Also called central, correspondence, or subject files.

General Records Schedule (NARA). A NARA-issued schedule governing the disposition of specified records common to several or all agencies.

Generic Disposition Instruction (MARKS). A disposition giving only the generic retention period, e.g., Destroy after 2 years, permanent.

Information System (NARA). The organized collection, processing, transmission, and dissemination of information in accordance with defined procedures, where automated or manual. Also called a record system or system. Most often refers to a system containing electronic records, which involves input or source documents, records on electronic media, and output records, along with related documentation and any indexes.

Nonrecords (NARA). U.S. Government owned informational materials excluded from the legal definition of records or not meeting the requirements of that definition. Include extra copies of documents kept only for convenience of reference, stocks of publications and of processed documents, and library or museum materials intended solely for reference or exhibition.

Office (MARKS). Any place where records are created, maintained, or used.

Permanent Records (MARKS). The designation applied to records worthy of permanent retention by the United States, and accessioned into the National Archives.

Record Group (NARA). A body of organizationally related records established by an archival agency after considering the organizations administrative history and complexity and the volume of its records. NARA uses record group numbers to keep track of agency records during and after the scheduling process, including those transferred to Federal records centers and/or the National Archives.

Record series (NARA). File units or documents arranged according to a filing system or kept together because they relate to a particular subject or function, result from the same activity, document a specific kind of transaction, take a particular physical form, or have some other relationship arising out of their creation, receipt, or use, such as restrictions on access and use. Generally handled as a unit for disposition purposes.

Recordkeeping Requirements (NARA). Statements in statutes, regulations, or agency directives providing general and specific guidance on particular records to be created and maintained by an agency. Since each agency is legally obligated to create and maintain adequate and proper documentation of its organization, functions, and activities, it needs to issue recordkeeping requirements for all activities at all levels and for all media, and to distinguish records from nonrecord materials and personal papers.

Records (NARA). According to 44 U.S.C. 3301, the term "includes all books, papers, maps, photographs, machine-readable materials, or other documentary materials, regardless of physical form or characteristics, made or received by an agency of the United States Government under Federal law or in connection with the transaction of public business and preserved or appropriate for preservation by that agency or its legitimate successor as evidence of the organization, functions, policies, decisions, procedures, operations, or other activities of the Government or because of the informational value of data in them. Library and museum material made or acquired and preserved solely for reference or exhibition purposes, extra copies of documents preserved only for convenience of reference, and stocks of publication and of processed documents are not included."

Records Holding Area (MARKS). A facility established to collect and maintain cutoff records until they are either eligible for destruction or retirement to a Federal records center or other records depository.

Records Management (NARA). The planning, controlling, directing, organizing, training, promoting, and other managerial activities related to the creation, maintenance and use, and disposition of records to achieve adequate and proper documentation of Federal policies and transactions and effective and economical management of agency operations.

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Records management officer (NARA). The person assigned responsibility by the agency head for overseeing an agencywide records management program. Also called records officer or records manager.

Records schedule (NARA). A document providing mandatory instructions for what to do with records (and nonrecord materials) no longer needed for current Government business, with provision of authority for the final disposition of recurring or nonrecurring records. Also called records disposition schedule, records control schedule, records retention schedule, or schedule. Includes the SF 115, the General Records Schedules, and the agency records schedule, which when completed becomes a comprehensive records schedule that also contains agency disposition instructions for nonrecord materials. See also Comprehensive Records Schedule, Disposition Authority

Request for Disposition Authority (NARA). The form (SF 115) used by Federal agencies to obtain disposition authority from NARA for records to which the General Records Schedules are inapplicable.

Retirement (NARA). The transfer of records to agency storage facilities or a Federal records center. *See also Transfer*

Specific disposition instruction (MARKS). Instructions as to when to cutoff, transfer, retire or destroy records. (see also Generic disposition instructions.

Transfer (NARA). The act or process of moving records from one location to another, especially from office space to agency storage facilities or Federal records centers, from one Federal agency to another, or from office or storage space to the National Archives for permanent preservation.

Acronyms, Abbreviations and Brevity Codes

CFA - current files area

CFR - Code of Federal Regulations

COFF - cut off, cutoff

CY - calendar year

Dest - destroy

FN - file number

FRC - Federal Records Center

FY - fiscal year

GRS - General Records Schedule

MARKS - Modern Army Recordkeeping System

NARA - National Archives and Records Administration

NLN - no longer needed

NPRC - National Personnel Records Center

PERM - Permanent

PIF - place in an inactive file

Ret - retire

RHA - records holding area

RMO - records management officer

Trf - transfer

WNRC - Washington National Records Center

Appendix A: Functions Used in Parameterized Instructions

The modulus (mod) function divides year by 100 and returns the remainder, for instance, mod(1997,100) = 97.

X *months after* period in year is defined as follows:

months_after(x, period, year) = Mar mod(year,100) if period = "Jan" and x = 1
Apr mod(year,100) if period = "Feb" and x =1
May mod(year,100) if period = "Mar" and x = 1
Jun mod(year,100) if period = "Apr" and x = 1
Jul mod(year,100) if period = "May" and x = 1
Aug mod(year,100) if period = "Jun" and x = 1
Sep mod(year,100) if period = "Jul" and x = 1
Oct mod(year,100) if period = "Aug" and x = 1
Nov mod(year,100) if period = "Sep" and x = 1
Dec mod(year,100) if period = "Oct" and x = 1
Jan mod(year+1,100) if period = "Nov" and x = 1
Feb mod(year+1,100) if period = "Dec" and x = 1
Jul mod(year,100) if period = "1st q" and x = 3
Oct mod(year,100) if period = "2nd q" and x = 3
Jan mod(year+1,100) if period = "3rd q" and x = 3
Apr mod(year+1,100) if period = "4th q" and x = 3
Jan mod(year+1,100) if period = "1st h" and x = 6
Jul mod (year+1,100) if period = "2nd h" and x = 6

X *years after* period in year is defined as follows:

years_after(x, period, year)= Jan mod(year+x+1),100) if period = "CY"
Oct mod(year+x,100) if period = "FY"
Feb mod(year+x) if period = "Jan"
Mar mod(year+x) if period = "Feb"
Apr mod(year+x) if period = "Mar"
May mod(year+x) if period = "Apr"
Jun mod(year+x) if period = "May"
Jul mod(year+x) if period = "Jun"
Aug mod(year+x) if period = "Jul"
Sep mod(year+x) if period = "Aug"
Oct mod(year+x) if period = "Sep"
Nov mod(year+x) If period = "Oct"
Dec mod(year+x) if period = "Nov"
Jan mod(year+x+1) if period = "Dec"

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X *years* and y *months after* period in year is defined as:

years_months_after(x,y,period,year) =

Apr mod(year+x+1, 100) if period = "CY" and y = 3
Jul mod(year+x+1,100) if period = "CY" and y = 6
Jan mod(year+x+1,100) if period = "FY" and y = 3
Apr mod(year+x+1,100) if period = "FY" and y = 6

The *end of period* in year is defined as:

end_of_(period, year) =

31 Dec mod(year,100) if period = "CY"
30 Sep mod(year,100) if period = "FY"
31 Jan mod(year,100) if period = "Jan"
28 Feb mod(year,100) if period = "Feb"
31 Mar mod(year,100) if period = "Mar"
30 Apr mod(year,100) if period = "Apr"
31 May mod(year,100) if period = "May"
30 Jun mod(year,100) if period = "Jun"
31 Jul mod(year,100) if period = "Jul"
31 Aug mod(year,100) if period = "Aug"
30 Sep mod(year,100) if period = "Sep"
31 Oct mod(year,100) if period = "Oct"
30 Nov mod(year,100) if period = "Nov"
31 Dec mod(year,100) if period = "Dec"
31 Mar mod(year,100) if period = "1st q"
30 Jun mod(year,100) if period = "2nd q"
30 Sep mod(year,100) if period = "3rd q"
31 Dec mod(year,100) if period = "4th q"
30 Jun mod(year,100) if period = "1st h"
31 Dec mod(year,100) if period = "2nd h"

The *quarter (qtr)* containing month is defined as:

qtr(month) =

"1st q" if month = Jan or month = Feb or month = Mar
"2nd q" if month = Apr or month = May or month = Jun
"3rd q" if month = Jul or month = Aug or month = Sep
"4th q" if month = Oct or month = Nov or month = Dec

The *half* year containing month is defined as

half(month) =

"1st h" if month = Jan or month = Feb or month = Mar
or month = Apr or month = May or month = Jun
"2nd h" if month = Jul or month = Aug or month = Sept
or month = Oct or month = Nov or month = Dec

Appendix B: Definite Instructions Corresponding to Generic Instructions

This table shows the definite disposition instructions corresponding to the generic instructions. We assume that month = Jan, year = 1994, FRC = WNRC, and period = CY.

Generic Instruction	Definite Instructions
1. Destroy after 30 days	COFF 31 Mar 94 Dest May 94
2. Destroy after 3 months	COFF 31 Mar 94 Dest Jul 94
3. Destroy after 6 months	COFF 30 Jun 94 Dest Jan 95
4a. Destroy after 4 years	COFF 31 Dec 94 Dest Jan 99
4b. Destroy after 7 years	COFF 31 Dec 94 Ret FRC Jan 97 Dest Jan 02
5a. Destroy after 4 years and 3 months	COFF 31 Dec 94 Dest Apr 99
5b Destroy after 6 years and 3 months	COFF 31 Dec 94 Ret FRC Jan 97 Dest Apr 01
6. Destroy after EVENTS	Dest after EVENTS.
7. Destroy 4 years after EVENTS	ACTIVE PIF after EVENTS *(Assuming EVENTS occurred in 1994)* INACTIVE COFF 31 Dec 94 Dest Jan 99
8. Destroy after 4 years, or after EVENTS, whichever is earlier.	COFF 31 Dec 94 DestJan 99 or Dest after Event, whichever is earlier.
9. Destroy after 4 years, or 2 years after EVENTS, whichever is earlier	COFF 31 Dec 94 Dest Jan 99, or Jan 97 if EVENTS occurred in 94
10. Destroy after EVENTS$_1$, or after EVENTS$_2$, whichever is earlier.1	Dest after EVENTS$_1$, or after EVENTS$_2$, whichever is earlier
11. Destroy after EVENTS, or after 4 years, whichever is earlier	Dest after EVENTS, or Dest Jan 99 whichever is earlier

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Generic Instruction	Definite Instructions
12. Destroy after EVENTS₁, or 4 years after EVENTS₂ whichever is earlier	ACTIVE Dest after EVENTS₁, or PIF after EVENTS₂ whichever is earlier *(If EVENTS₂ occurs in 1994 the following file is created)* INACTIVE COFF 31 Dec 94 Dest Jan 99
13. Destroy 2 years after EVENTS, or after 4 years, whichever is earlier	ACTIVE PIF after EVENTS, or Dest Jan 99 whichever is earlier *If EVENTS occurs in 1994, then the following file is created.* INACTIVE COFF 31 Dec 94 Dest Jan 97
14. Destroy 3 years after EVENTS₁, or after EVENTS₂ whichever is earlier	ACTIVE PIF after EVENTS₁, or Dest after EVENTS₂, whichever is earlier *If EVENTS occurs in 1994* INACTIVE COFF 31 Dec 94 Dest Jan 98
15. Destroy 2 years after EVENTS₁, or 4 years after EVENTS₂ whichever is earlier	ACTIVE PIF after EVENTS₁, or PIF after EVENTS₂ whichever is earlier *If EVENTS₁ occurs in 1994* INACTIVE COFF 31 Dec 94 Dest Jan 97 *If EVENTS₂ occurs in 1994* INACTIVE COFF 31 Dec 94 Dest Jan 99
16. Permanent	COFF 31 Dec 94 Ret FRC Jan 97 PERM
17. Permanent. PIF after EVENT	ACTIVE PIF after EVENT *(Assuming EVENT occurred in 1994)* INACTIVE COFF 31 Dec 94 Ret FRC Jan 97 PERM

Appendix C: Rules for Interpreting Specific Disposition Instructions

Specific Instruction	Parameterized Instructions

1. Cut off at end of X	*if X = "month", then*
	COFF end_of(month,year)
	if X = "year", then
	COFF end_of(period,year)
	if X = "FY", then
	COFF end_of(FY,year)
	if X = "CY", then
	COFF end_of(CY,year)

2. Cut off after X years	COFF end_of(period, year+X)
3. Cut off after EVENTS	COFF after EVENTS
4. Cut off after X years, or after EVENT	COFF end_of(period,year+X) or after EVENT
5. Transfer [with X] [to Y] after Z years	Trf [with X] [to Y] years_after(Z,period,year)
6. Transfer [with X] [to Y] after EVENT	Trf [with X] [to Y] after EVENT
7. Transfer [with X] [to Y] Z years after EVENT	Trf [with X] [to Y] years_after(Z,period,year) after EVENT
8. Transfer [with X] [to Y] immediately	Trf [with X] [to Y] immediately
9. Transfer [with X] [to Y] after Z years, or when EVENT	Trf [with X] [to Y] years_after(X, period, year) or when EVENT
10. Retire to X	Ret X
11. Retire [to X] after Y years	Ret [X] years_after(Y,period,Year)
12. Retire [to X] after EVENT	Ret [X] after EVENT
13. Retire [to X] Y years after EVENT	Ret [X] years_after(Y,period,year) after EVENT

Appendix D: Rules for Exceptions to Generic Instructions for Temporary Records

Generic/Specific Instructions	Parameterized Instructions
1. Destroy after X years. Cut off at end of Y.	*If X≤4* COFF end_of(Y,year) Dest years_after(X,Y,year) *If X≥5* COFF end_of(Y,year) Ret FRC years_after(2,Y,year) Dest years_after(X,Y,year)
2. Destroy in CFA after X years.	*For X≥1* COFF end_of(period,year) Dest years_after(X,period,year)
3. Destroy in CFA after X years. Cut off at end of Y.	*For X≥1* COFF end_of(Y,year) Dest years_after(X,Y,year)
4. Destroy X years after EVENTS. Cut off at end of Y.	ACTIVE PIF after EVENTS *If X≤ 4* INACTIVE COFF end_of(Y,year) Dest years_after(X,Y,year) *If X≥5* INACTIVE COFF end_of(Y,year) Ret FRC years_after(2,Y,year) Dest years_after(X,Y,year)
5. Destroy in CFA X years after EVENTS.	*For X≥1* ACTIVE PIF after EVENTS INACTIVE COFF end_of(period,year) Dest years_after(X,period,year)

6. Destroy in CFA X years
    after EVENTS
    Cut off at end of Y.
	For X≥1
	ACTIVE
	PIF after EVENTS
	
	INACTIVE
	COFF end_of(Y,year)
	Dest years_after(X,Y,year)

7. Destroy after X years. Retire after Y years.	*For X≥1* COFF end_of(period,year) Ret FRC years_after(Y,period,year) Dest years_after(X,period,year)

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Generic/Specific Instructions	Parameterized Instructions

8. Destroy after X years.
   Retire after Y years or on EVENT,
   whichever is Z.
	For X≥1
	COFF end_of(period,year)
	Ret FRC years_after(Y,period,year)
	   or on EVENT, whichever is Z
	Dest years_after(X,period,year)

9. Destroy after X years. Do not retire.	*For X≥1* COFF end_of(period,year) Dest years_after(X,period,year)
10. Destroy after X years. Retire to Z after Y years.	*For X≥1* COFF end_of(period,year) Ret Z years_after(Y,period,year) Dest years_after(X,period,year)
11. Destroy after X years. Retire to Z.	*If X≥5* COFF end_of(period,year) Ret Z years_after(2,period,year) Dest years_after(X,period,year)
12. Destroy X years after EVENTS Retire to Z.	*If X≥5* ACTIVE PIF after EVENTS INACTIVE COFF end_of(period,year) Ret Z years_after(2,period,year) Dest years_after(X,period,year)
13. Destroy X years after EVENTS Retire after Y years	ACTIVE PIF after EVENTS *If Y≥5* INACTIVE COFF end_of(period,year) Ret FRC years_after(Y,period, year) Dest years_after(X,period,year)
14. Destroy after X years. Transfer to Z after Y years.	COFF end_of(period,year) Trf Z years_after(Y,period,year) Dest years_after(X,period,year)
15. Destroy after EVENTS₁. Transfer to Y on EVENTS₂.	Dest after EVENTS₁ Trf Y on EVENTS₂
16. Destroy X years after EVENTS₁. Transfer to Y on EVENTS₂.	ACTIVE PIF on EVENTS₁ INACTIVE COFF end_of(period,year) Trf to Y on EVENTS₂ Dest years_after(X,period,year)

Appendix E: Rules for Exceptions to Generic Instructions for Permanent Records

Specific Instructions	Parameterized Instructions
1. Permanent. Cut off at end of Z.	COFF end_of(Z,year) Ret FRC years_after(2,Z,year) PERM
2. Permanent. Cut off at end of Z or on EVENTS, whichever is earlier.	COFF end_of(Z, year) or on EVENTS, whichever is earlier Ret FRC years_after(2,Z,year) PERM
3. Permanent. Cut off after X years.	COFF years_after(X,period,year) Ret FRC years_after(2,period,year+X) PERM
4. Permanent. Cut off after X years or on EVENTS, whichever is earlier	COFF years_after(X,period,year) or on EVENTS, whichever is earlier. COFF end_of(period,year) Ret FRC years_after(2,period,year) PERM
5. Permanent. Retire to Z.	COFF end_of(period,year) Ret Z years_after(2,period,year) PERM
6. Permanent. Retire [to Z] after Y years.	COFF end_of(period,year) Ret [Z] years_after(Y,period,year) PERM
7. Permanent. Transfer to Z after Y years.	COFF end_of(period,year) Trf Z years_after(Y,period,year) PERM
8. Permanent. Transfer to Z after EVENTS.	COFF end_of(period,year) Trf Z after events PERM
9. Permanent. Transfer to Z immediately.	COFF end_of(period,year) Trf Z immediately PERM
10. Permanent. PIF on EVENTS. Retire to Z after Y years.	ACTIVE PIF on EVENTS INACTIVE COFF end_of(period,year) Ret Z year_after(Y,period,year) PERM
11. Permanent. PIF on EVENTS. Transfer to Z after Y years.	ACTIVE PIF on EVENTS INACTIVE COFF end_of(period,year) Trf Z years_after(Y,period,year) PERM