Public Record Office Victoria
Advice to Victorian Agencies
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Advice 11

Advice on
VERS Metadata Scheme
PROS 99/007 (Version 2) Specification 2

State Government Victoria
Department for Victorian Communities

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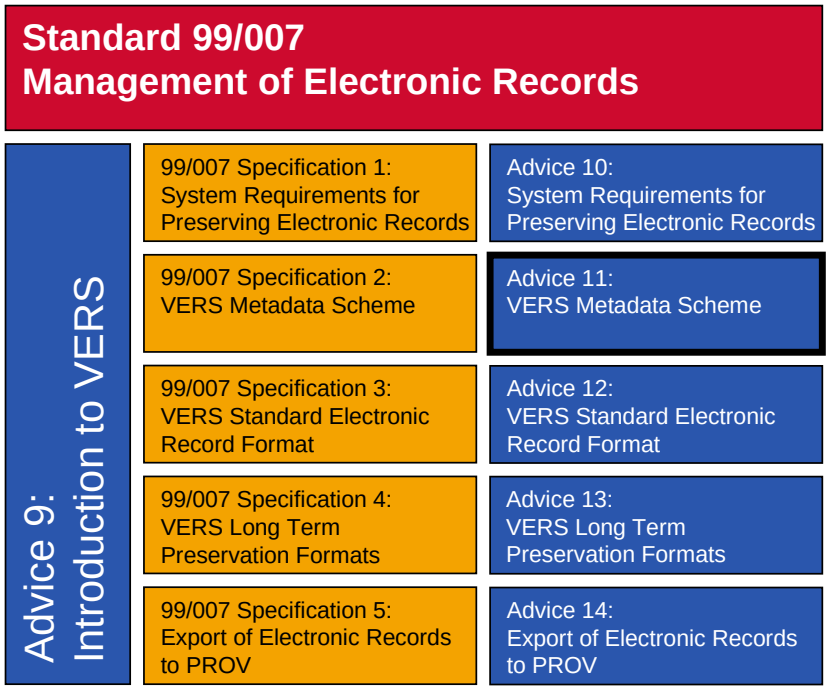
The Victorian Electronic Records Strategy (VERS)

This document is a guide to *PROS 99/007 Specification 2: VERS Metadata Scheme*. The relationship between the VERS Standard, the Specifications that support this Standard, and the Introduction and Advices that explain VERS is shown below.



These documents have the following purposes:

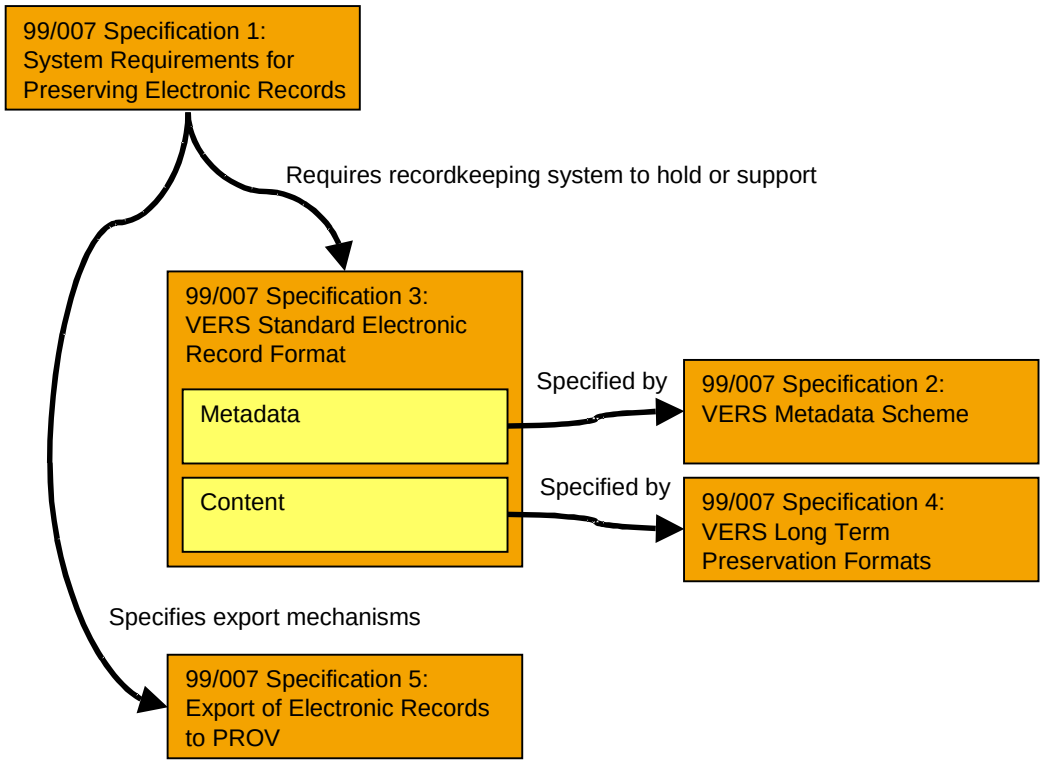
- *Management of Electronic Records*. This document is the Standard itself and is primarily concerned with conformance. The technical requirements of the Standard are contained in five Specifications.
- *Introduction to VERS.* This document provides background information on the goals and the VERS approach to preservation. Nothing in this document imposes any requirements on agencies.
- *Specifications.* These five documents provide the technical requirements that support the Standard. Agencies *must* conform to the mandatory requirements of the specifications, *must* conform to the conditional requirements of the specifications if the appropriate conditions are satisfied, and *may* conform to the optional requirements. Some optional requirements are strongly recommended and these are noted as such.

  The five Specifications are:
  - *Specification 1: System Requirements for Preserving Electronic Records.* This document specifies the overall functions that a recordkeeping system must perform to preserve electronic records for a substantial period.
  - *Specification 2: VERS Metadata Scheme.* This document specifies the metadata that a recordkeeping system must hold to conform to VERS.
  - *Specification 3: VERS Standard Electronic Record Format*. This document contains the technical definition of the VERS Encapsulated Object (VEO) format; the mandatory long-term format for records.

- *Specification 4: VERS Long Term Preservation Formats.* This document lists the data formats that PROV accepts as suitable for representing documents for a significant period.
- *Specification 5: Export of Electronic Records to PROV.* This document lists the approved media and mechanisms by which PROV will accept an export of electronic records.

- *Advices.* These six documents provide background information, explanatory material, and examples in support of the Standard and associated Specifications. None of the information in the Advices imposes any requirement on agencies.

Relationship between Specifications. A second view of the relationship between the five Specifications is shown in the following diagram:



Specification 1 (System Requirements for Preserving Electronic Records) details the overall requirements on a recordkeeping system for preserving electronic records over a significant period. Amongst other requirements, the recordkeeping system must be capable of exporting the records in a standardised format.

The overall features of this standardised format are defined in *Specification 3 (VERS Standard Electronic Record Format)*, but some details are defined in two other Specifications. *Specification 2 (VERS Metadata Scheme)* defines the meaning and allowed values of the metadata that appears in a record. *Specification 4 (VERS Long Term Preservation Formats)* defines the formats in which the record content must be expressed.

Specification 5 (Export of Electronic Records to PROV) defines the mechanisms by which records are exported to PROV.

Relation to Version 1 of this Standard. This version of the VERS Standard completely replaces Version 1 of the Standard. Version 2 is identical in its base requirements, but makes those requirements clearer and more explicit. It also contains a number of conditional and optional extensions to Version 1.

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1 Introduction

Information in this guide is purely informative. Nothing in this guide imposes any requirements on a VERS compliant implementation; requirements are only imposed by the associated Specifications.

The purpose of this guide is to explain how to use the metadata defined in *PROS 99/007 Specification 2: VERS Metadata Scheme*.

This Advice concentrates on the metadata that is associated with a File VEO (folder) or Record VEO (record), including the metadata associated with Documents and Encodings. Structural metadata that is associated with VEOs in general (M1 to M9), Signature Blocks (M134 to M141 and M149 to M151), Lock Signature Blocks (M152) and Modified VEOs (M156 to M159) are described in Advice 12 on *PROS 99/007 Specification 3: VERS Standard Electronic Record Format*.

2 Record VEOs

A Record VEO is the most common VEO. Each Record VEO contains one electronic record. In VERS, an electronic record consists of one or more Documents, each of which consists of one or more Encodings.

A Document is an independent portion of record. An example of this would be the record of a meeting (Figure 1) which consists of two documents: the minutes and a presentation given at the meeting.

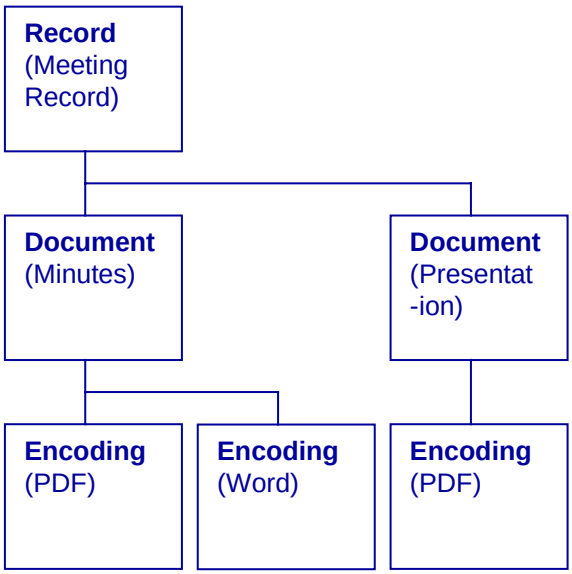


Figure 1. Example of a record that contains multiple Documents and Encodings.

An Encoding is a physical representation of a Document. In the diagram above, the minutes are represented twice: once as a PDF file and once as a Word file. The presentation, however, is only represented by one Encoding (in PDF).

A record is represented by a Record (M10) element. The main structure of a Record (M10) element is shown in Figure 2.

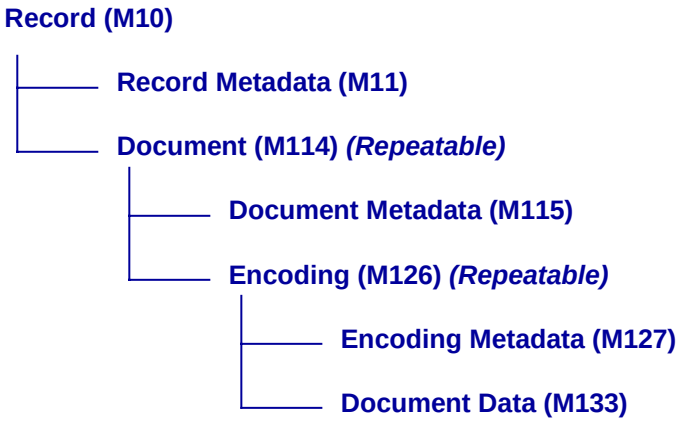


Figure 2. Main structural elements of a Record VEO.

The elements contained within a Record element are:

- *Record Metadata.* The Record Metadata (M11) element describes the record as a whole. Primarily, this encompasses what the record is, how it relates to other records, and its history.
- *Document.* The Document (M114) element contains a single Document within a record and may be repeated. A Document contains:
  - *Document Metadata.* This element (M115) contains metadata that describes the Document, that is, information that distinguishes this Document from other Documents and from the record as a whole.
  - *Encoding.* This element (M126) contains a representation of the Document, for example a PDF file or a Word file. A Document may have multiple Encodings. An Encoding contains:
    - *Encoding Metadata.* This element (M127) describes the file format.
    - *Document Data.* This element (M133) contains the actual physical representation of the Document.

3 Record Metadata

The information held in the record metadata elements describes the record as a whole. Figure 3 shows the 23 top-level record metadata elements (most of these elements are subdivided into subelements). The top-level elements can be divided into the following three groups:

- *Descriptive Metadata.* The information in these elements describes the record and its relation with other records. The descriptive metadata includes:
  - Agent (M12)
  - Rights Management (M24)
  - Title (M32)
  - Subject (M37)

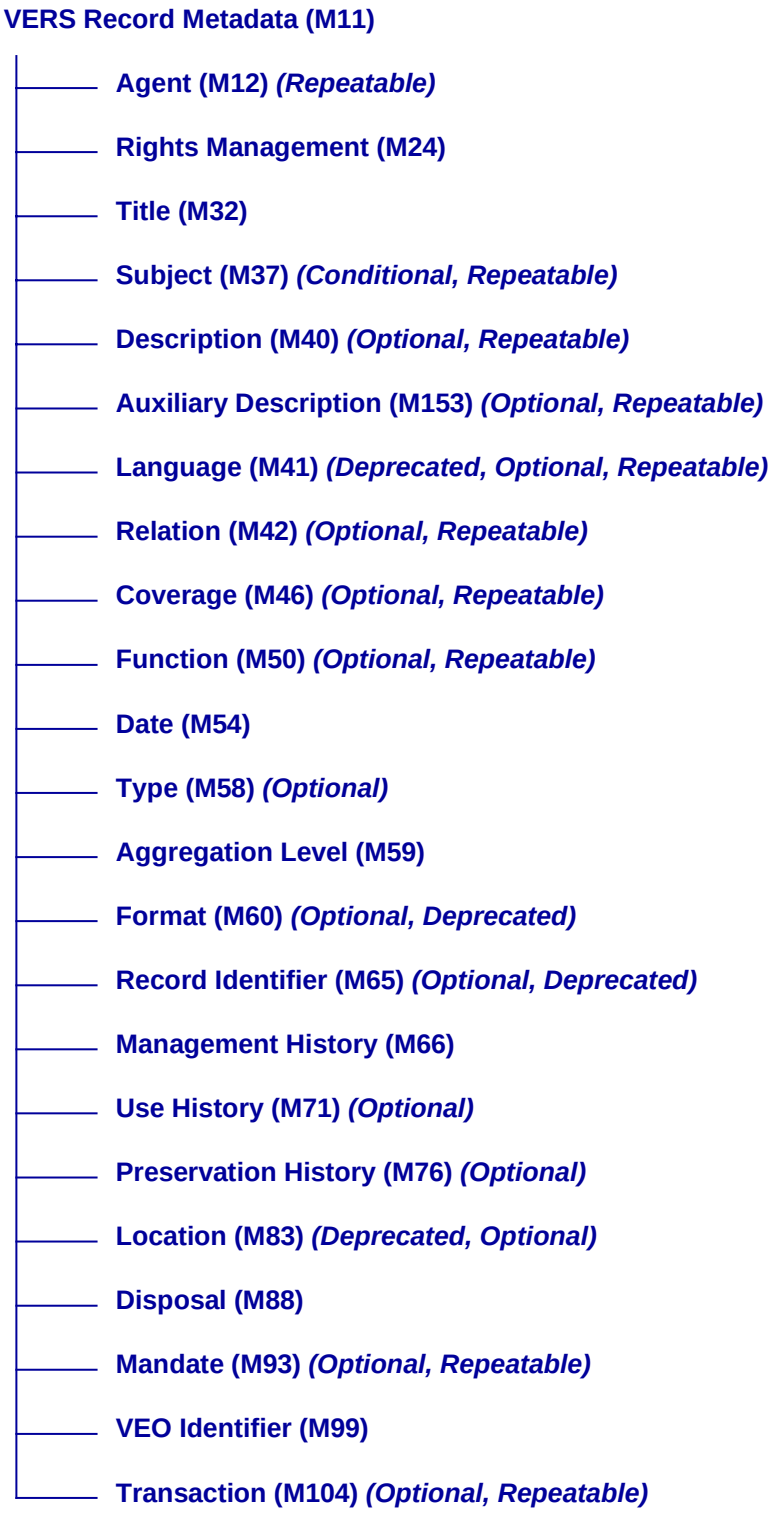


Figure 3. Main groups of metadata in a VERS Record Metadata element.

  - Description (M40)
  - Auxiliary Description (M153)
  - Language (M41)
  - Relation (M42)
  - Coverage (M46)
  - Function (M50)
  - Date (M54)
  - Type (M58)
  - VEO Identifier (M99)
  - Transaction (M104).
- *Administrative History.* The information in these elements documents the history of this record since it was first registered into a recordkeeping system. They include:
  - Management History (M66)
  - Use History (M71)
  - Preservation History (M76).
- *Recordkeeping Metadata.* These elements contain information used to manage the record in a recordkeeping system. They include:
  - Aggregation Level (M59)
  - Disposal (M88)
  - Mandate (M93)
  - Format (M60)
  - Location (M83)
  - Record Identifier (M65).

Except for Auxiliary Description (M153), VEO Identifier (M99), and Transaction (M104), all of the top-level record metadata elements have been taken from the NAA Recordkeeping Metadata Standard. Further, most of the elements can be directly related to AGLS [AGLS] metadata elements.

3.1 Agent

Each Agent (M12) describes an actor that has been involved with the record. Typical actors are the person that sent a letter, the person that registers a record in the recordkeeping system, the person that decides to dispose of a record, and the organisation that controls the records. Agents may be individuals or organisations. A set of record metadata typically contains a number of Agent (M12) elements, one for each individual or organisation that has been involved in the record (see Figure 4).

Agent is equivalent to three distinct AGLS elements: Creator, Publisher and Contributor. The equivalent VERS Agent Types are: Document Author/Record Creator, Publisher, and Transactor/Action Officer (respectively).

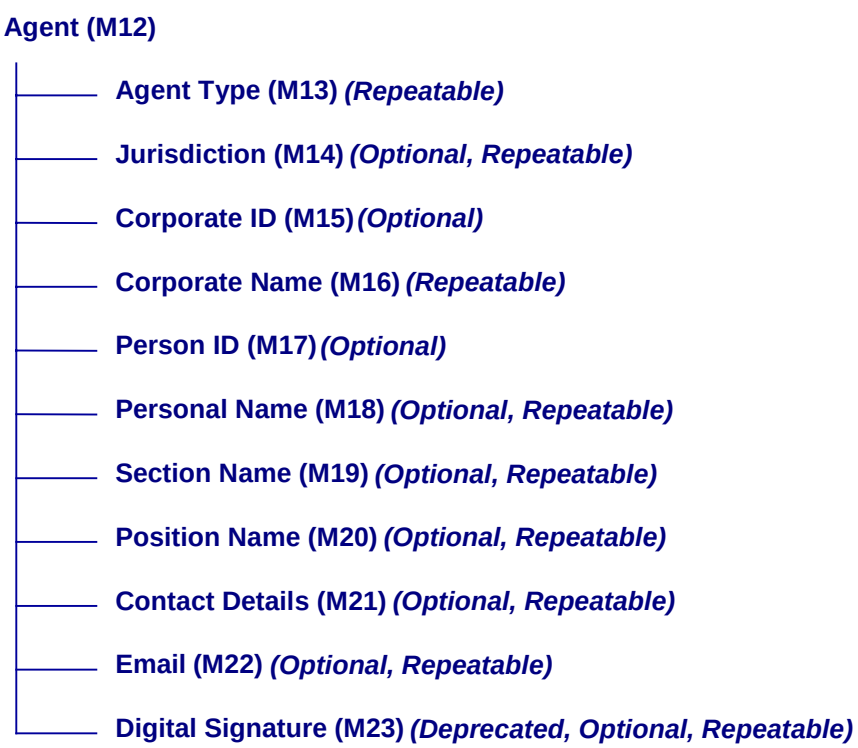
The VERS Standard and the NAA Recordkeeping Standard use Agent for subtly different purposes.

In VERS, agents are primarily used to document actors involved in the activity that was the subject of the record. For example, the people or organisations that wrote a letter or that received copies of the letter. Documenting these agents is intended to assist future users in finding the records.

In the NAA Recordkeeping Standard, agents appear to be primarily intended to document the actors inside an organisation who were responsible for managing the record. These agents include the person registering the record, the records manager, and the system administrator. The NAA Recordkeeping Standard envisages that actions documented in the

Management History (M66), Use History (M71), and Preservation History (M76) elements would refer to these agents.

Figure 4. Subelements of the Record Metadata element.



This difference in the way VERS and NAA use the Agent (M12) element accounts for a number of subtle differences in emphasis in the description of the subelements within Agent.

An Agent (M12) element can contain up to 11 subelements. The information in these elements describes the agent.

- *Agent Type (M13).* This subelement distinguishes between the various roles an individual or organisation played in respect to this record. This element must be present. It may be repeated within an Agent (M12) if the person or organisation has several roles.

  There are 19 predefined agent types and an agency may define extensions to the list. The predefined types reflect the focus of the VERS and NAA standards. The agent types defined by the NAA focus on roles related to records management, while the VERS extensions focus on roles related to the action the record documents. The VERS extensions are all indicated in the description of Agent Type (M13) *in PROS 99/007 Specification 2: VERS Metadata Scheme*.
- *Jurisdiction (M14)*. This subelement identifies the jurisdiction in which the agent operates and would be of most use when referring to a local, state, or commonwealth government agency. This element is optional.
- *Corporate ID (M15)*. This subelement contains the identifier of an organisation. It may be used to identify the agent (when the agent is an organisation) or the organisation the agent belongs to (when the agent is a person). Typical identifiers are the Australian Business Number and PROV's 'Victorian Agency' number. Note that this element may not be repeated.

The definition of this element has been changed slightly from that used by NAA. In the NAA standard, this element is always used to identify the agency that creates the record. This definition has been broadened in VERS as many of the agents involved in a record may not belong to the agency that created the record.

- *Corporate Name (M16).* This subelement contains the name of an organisation. It may be used to identify the agent (when the agent is an organisation) or the organisation the agent belongs to (when the agent is a person). Note that this element is mandatory; if an agent does not belong to an organisation we recommend that you use the text 'Not Known'. The element is repeatable, which allows alternative variations of the name to be used (e.g. 'PROV' and 'Public Record Office Victoria').

  Note that, like Corporate Id (M15), the definition of this element has been changed slightly from that used by NAA. In the NAA standard, this element is always used to identify the name of the agency that creates the record. This definition has been broadened in VERS as many of the agents involved in a record may not belong to the agency that created the record.

- *Person Id (M17).* This subelement contains the identifier of a person, for example, a payroll identifier. It should only be present if the agent is a person.

- *Personal Name (M18).* This subelement contains the name of the agent. Clearly, it should only be present if the agent is a person.

- *Section Name (M19).* This subelement contains the name of the business unit (section, department) within the organisation. If the agent is a person, this subelement would indicate where the person worked. Section Name is repeatable, so it is possible to include all of the sections in the corporate hierarchy but, note that it is not possible to relate the separate section names together so it is not possible to indicate the actual hierarchy. We recommend that the section names be listed with the largest (broadest, highest) organisation unit first.

- *Position Name (M20).* This subelement contains the position (or role) the agent occupied.

- *Contact Details (M21).* This subelement contains information on how to contact the agent. Example of such information include: postal addresses, telephone numbers, or street addresses. Note that an email address should not be placed in this subelement, as there is a specific subelement for this information. This information would normally have only a fleeting validity and so its value in an archival environment is mainly restricted to providing further evidence as to the identity of the agent.

- *Email (M22).* This subelement contains the email address that should be used to contact the agent. Again, this information would normally have only a fleeting validity and so its value in an archival environment is mainly restricted to providing further evidence as to the identity of the agent.

- *Digital Signature (M23).* This subelement contains a digital signature applied by the agent to provide proof as to the authenticity and integrity of the record. This element is deprecated in VERS, as the same function is performed by the Signature Block (M134) element. This subelement could be used if the record has been digitally signed outside the VERS system, but agencies should note that a significant amount of information must be available to validate a digital signature.

An example of the XML representation of a minimal agent element follows:

```
<naa:Agent>
 <naa:AgentType>Record Creator</naa:AgentType>
 <naa:CorporateName>Public Record Office Victoria</naa:CorporateName>
</naa:Agent>
```

A more typical example of an organisational agent is:

```
<naa:Agent>
 <naa:AgentType>Record Creator</naa:AgentType>
 <naa:CorporateId>VA 683</naa:CorporateId>
 <naa:CorporateName>Public Record Office Victoria</naa:CorporateName>
 <naa:SectionName>VERS Centre of Excellence</naa:SectionName>
</naa:Agent>
```

A more extensive example of an organisational agent is:

```
<naa:Agent>
 <naa:AgentType>Record Creator</naa:AgentType>
 <naa:Jurisdiction>VIC</naa:Jurisdiction>
 <naa:CorporateId>VA 683</naa:CorporateId>
 <naa:CorporateName>Public Record Office Victoria</naa:CorporateName>
 <naa:SectionName>VERS Centre of Excellence</naa:SectionName>
 <naa:ContactDetails>
PO Box 2100, Nth Melbourne, VIC 3051, Australia
 </naa:ContactDetails>
 <naa:Email>vers@dpc.vic.gov.au</naa:Email>
</naa:Agent>
```

A minimal personal agent element is:

```
<naa:Agent>
 <naa:AgentType>Registrar</naa:AgentType>
 <naa:CorporateName>Public Record Office Victoria</naa:CorporateName>
 <naa:PersonalName>John Smith</naa:PersonalName>
</naa:Agent>
```

A more extensive example of a personal agent is:

```
<naa:Agent>
 <naa:AgentType>Registrar</naa:AgentType>
 <naa:Jurisdiction>Victoria</naa:Jurisdiction>
 <naa:CorporateId>VA 654</naa:CorporateId>
 <naa:CorporateName>Public Record Office Victoria</naa:CorporateName>
 <naa:PersonalName>John Smith</naa:PersonalName>
 <naa:SectionName>VERS Centre of Excellence</naa:SectionName>
 <naa:PositionName>Technical Research Manager</naa:PositionName>
 <naa:ContactDetails>
PO Box 2100 North Melbourne Victoria 3051 Australia
 </naa:ContactDetails>
 <naa:Email>John.Smith@dpc.prov.vic.gov.au</naa:Email>
</naa:Agent>
```

3.2 Rights Management

The Rights Management (M24) element contains information about what categories of users may access the record and under what conditions. It is equivalent to the AGLS Rights element.

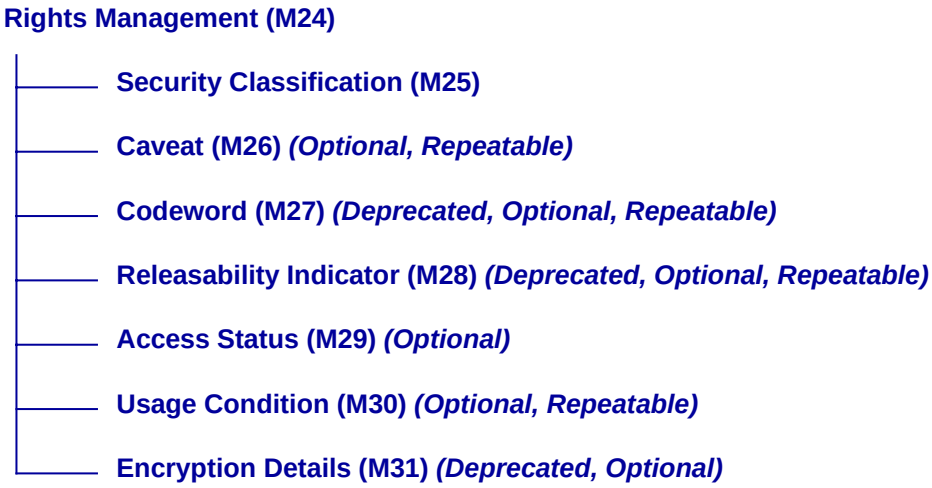


Figure 5. Subelements of the Rights Management element.

The Rights Management element can contain up to seven distinct types of subelements.

- *Security Classification (M25).* This subelement indicates any broad security requirements; for example that the record is 'in confidence'. This is the only subelement that is mandatory.
- *Caveat (M26).* A caveat is a warning that a record requires special handling and that only certain groups of people may have access to it; for example, 'Medical-in-Confidence'.
- *Codeword (M27).* A codeword is a form of caveat, but the codeword has no relationship with the activity. This allows people to use the codeword without revealing the nature of the record. An example of the use of codewords is the use of arbitrary names to refer to military actions rather than using placenames. Leakage of the codeword will not provide the enemy with a hint as to the action. Codewords are only relevant to the security model used in the Commonwealth and should only be used in that jurisdiction.
- *Releasibilty Indicator (M28).* This is an abbreviation used to clearly indicate to whom the record may be released, for example 'AUSTEO'. This subelement is only relevant in the security model used in the Commonwealth and should only be used in that jurisdiction.
- *Access Status (M29).* Information about whether the record can be released, or partially released, to the public.
- *Usage Conditions (M30)* is intended to describe the conditions under which the record can be used; the most typical example is a copyright statement (e.g. 'Copyright State of Victoria 2002').
- *Encryption Details (M31).* This element is intended to contain information to allow decryption of an encrypted record; including signature algorithm details and decryption

key. Encryption should never be used to secure records, and so VERS deprecates the use of this subelement.

An example of the XML representation of minimal rights management follows:

```
<naa:RightsManagement>
 <naa:SecurityClassification>Unclassified</naa:SecurityClassification>
 <naa:UsageCondition>
Copyright State of Victoria 2003
 </naa:UsageCondition>
</naa:RightsManagement>
```

A longer rights management example is:

```
<naa:RightsManagement>
 <naa:SecurityClassification>In-Confidence</naa:SecurityClassification>
 <naa:Caveat>Cabinet-in-Confidence</naa:Caveat>
 <naa:AccessStatus>Not for Release</naa:AccessStatus>
 <naa:UsageCondition>
Copyright State of Victoria 2003
 </naa:UsageCondition>
</naa:RightsManagement>
```

3.3 Title

The Title (M32) element contains the title of the record. The element may also contain a set of alternate titles. The Title (M32) element is equivalent to the AGLS Title element.

Titles can range from free text to formal names taken from a naming scheme. When a formal naming scheme is used to title records, the scheme is documented in two subelements of Title.

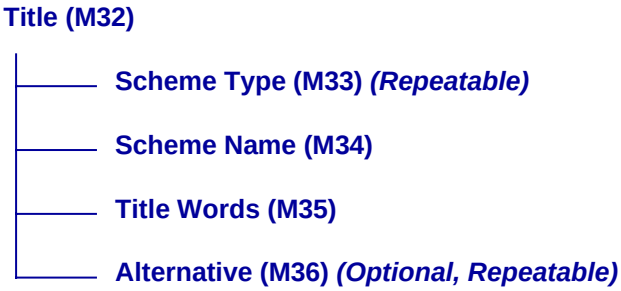


Figure 6. Subelements of the Title element.

The subelements of Title are:

- *SchemeType (M33).* This subelement indicates how the title is chosen. The options are:
  - 'Free Text'. The title is free text.
  - 'Functional'. A functional-based formal naming scheme has been used.
  - 'Subject-based'. A subject-based formal naming scheme has been used.

  Note that this subelement is repeatable; multiple instances of Scheme Type can appear if the naming scheme has both functional- and subject-based elements.
- *Scheme Name (M34).* This subelement gives the name of the naming scheme. If a formal well-known naming scheme is used, Scheme Name should contain the name of the thesaurus used to name records. Otherwise, the following values are defined:
  - 'None'. This value must be used if the Scheme Type (M33) is 'Free Text'.

  - ‘Agency Functional Thesaurus’. This value must be used if the naming scheme is an unnamed functional scheme internal to the agency.
  - ‘Agency Subject Thesaurus’. This value must be used if the naming scheme is an unnamed subject-based scheme internal to the agency.
- *Title Words (M35).* This contains the actual title.
- *Alternative (M36).* This subelement contains an alternative title and is equivalent to the ‘alternative’ refinement of the AGLS title element. This element is repeatable and so a record may have a number of alternative titles. Note that alternative titles do not have a Scheme Type and Scheme Name.

An example of the XML representation of a minimal free text title follows:

```
<naa:Title>
 <naa:SchemeType>Free text</naa:SchemeType>
 <naa:SchemeName>None</naa:SchemeName>
 <naa:TitleWords>
Integrity of Government Information, The VERS Experience
 </naa:TitleWords>
</naa:Title>
```

A minimal functional-based title follows:

```
<naa:Title>
 <naa:SchemeType>Functional</naa:SchemeType>
 <naa:SchemeName>Agency Functional Thesaurus</naa:SchemeName>
 <naa:TitleWords>
Finance – Budget – 2002/3
 </naa:TitleWords>
</naa:Title>
```

A minimal subject-based title follows:

```
<naa:Title>
 <naa:SchemeType>Subject-based</naa:SchemeType>
 <naa:SchemeName>Agency Subject Thesaurus</naa:SchemeName>
 <naa:TitleWords>
Mental health – Bi-polar disorder – Incidence in Melbourne 2002
 </naa:TitleWords>
</naa:Title>
```

3.4 Subject

Records can be classified in many ways, but two common methods are by subject or by function. There are metadata elements to represent both methods of classification: Subject (M37) contains the subject classification, and Function (M50) contains the functional classification. Normally, only one of these two elements would be used.

The Subject (M37) element is equivalent to the AGLS Subject element.

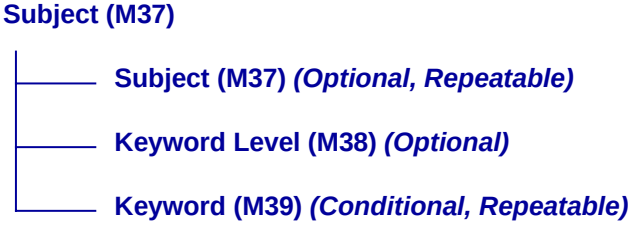


Figure 7. Subelements of the Subject element.

The subelements have the following meanings:

- *Subject (M37).* This allows a hierarchy of subjects to be built up.
- *Keyword Level (M38).* The level of the keyword.
- *Keyword (M39).* The keywords at this level. At least one keyword must be present in each Subject (M37) element. Note that Keyword (M39) is classed as conditional, as Subject (M37) is optional.

There are two ways of representing Subjects:

- A simple list of subject headings. In this case, the Subject element has only a list of Keyword (M39) subelements. For example:

```
<vers:Subject>
 <vers:Keyword>Engineering</vers:Keyword>
 <vers:Keyword>Pumphouse</vers:Keyword>
 <vers:Keyword>Architectural</vers:Keyword>
</vers:Subject>
```

- A hierarchical structure of subject headings. In this case, the Subject element has subordinate Subject elements. The Keyword Level (M38) subelement is optional; when used it indicates the level of the keyword in the hierarchy, as in the following example:

```
<vers:Subject>
 <vers:Subject>
  <vers:KeywordLevel>2</vers:KeywordLevel>
  <vers:Keyword>Architectural</vers:Keyword>
 </vers:Subject>
 <vers:KeywordLevel>1</vers:KeywordLevel>
 <vers:Keyword>Engineering</vers:Keyword>
</vers:Subject>
```

  Note that the lower level keywords (e.g. level 2) appear before the enclosing levels (e.g. level 1).

3.5 Description and Auxiliary Description

The Description (M40) and Auxiliary Description (M153) elements contain a textual description of the record. Typically, the description is used to search for records and for determining whether the record is the one sought. The two elements are equivalent to the AGLS Description element.

The two description elements are key elements in a general recordkeeping system. Many organisations have special-purpose recordkeeping systems to manage specific types of records. An example would be a plan management system that manages a collection of plans. Such specific types of records frequently have specific descriptive metadata, for example, the metadata associated with a plan would include a scale and datum. Such specific metadata elements are endless in scope and it is generally not worth defining matching elements for each of them in a *general* recordkeeping metadata set. This is because very few records would use these matching elements, making them less useful to search and difficult to display in a meaningful way. When transferring a record from a special purpose recordkeeping system to VERS, the information in these specific descriptive metadata elements is entered into the Description (M40) element. This makes the information in the specific descriptive metadata elements available for searching and the user can view the information to determine if the record contains what they want.

The Auxiliary Description element (M153) has been added in Version 2 to facilitate searching for and displaying descriptive information about a record. In describing a record there are often specific descriptive elements that are extremely obscure; for example system-specific identifiers. It is often desired to include these descriptive element in the VERS metadata, and

be able to search them, but not to automatically present them to the user when the record is retrieved. Such descriptive metadata elements should be put in the Auxiliary Description element.

The Description (M40) element, on the other hand, should be reserved for descriptive information that should always be shown to a user.

An example of a Description is:

```
<naa:Description>
Sheet: 1 of 5
Plan Status: As Constructed
Plan Type: Civil
Authors Reference: 3691 E/MD
Melway Reference: 207 H 4, 5 &amp;amp; 6
Asset Owned by: City of Banyule
</naa:Description>
```

3.6 Language

The Language (M41) element describes the language of the record. This element is equivalent to the AGLS Language element.

The Language (M41) element is deprecated. This is because a record may consist of multiple documents, each of which may be in a different language. For this reason the use of the Document Language (M120) subelement is preferred.

The Language (M41) element must contain values that conform to ISO 639. A list of the two and three-letter codes from this standard can be found in http://www.loc.gov/standards/iso639-2/langhome.html (visited 17 January 2003). The two letter code should be used in preference to the three-letter code.

An example of a Language element, describing a document in English, is:

```
<naa:Language>en</naa:Language>
```

3.7 Relation

A Relation (M42) element documents a relationship between this record and another record. Typical relationships are ‘Supersedes’ and ‘Refers to’. The element is equivalent to the AGLS Relation element.

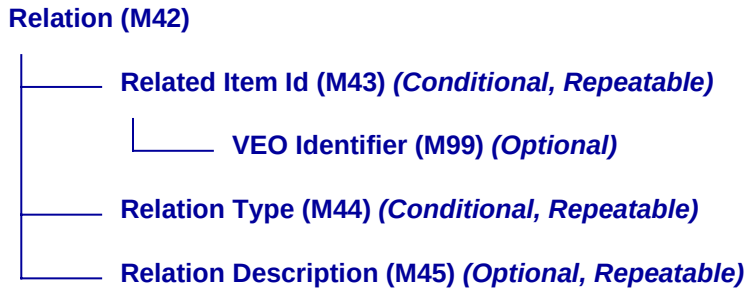


Figure 8. Subelements of the Relation element.

The subelements have the following function:

- *Related Item Id (M43).* This subelement identifies the related record(s). One instance of this subelement must appear in every Relation (M42); the subelement is marked as conditional because a Relation (M42) is optional.

  There are two ways of specifying the identity of the related record.

  The preferred method is to include the VEO Identifier (M99) of the related record inside the Related Item Id (M43). This allows a relation to refer to records in another agency or in another series. An example of this approach is:

  ```
  <naa:RelatedItemId>
   <vers:VEOIdentifier>
    <vers:FileIdentifier><vers:Text>99-89</vers:Text></vers:FileIdentifier>
    <vers:VERSRecordIdentifier>
     <vers:Text>100</vers:Text>
    </vers:VERSRecordIdentifier>
   </vers:VEOIdentifier>
  </naa:RelatedItemId>
  ```

  (Note that this example does not include Agency or Series Identifiers.)

  An alternative is to include the value of the VERS Record Identifier (M103) subelement from the related record as text in the Related Item Id subelement. The record referenced in the previous example would be represented in the following way using this approach:

  ```
  <naa:RelatedItemId>100</vers:VERSRecordIdentifier>
  ```

  Note that when using this approach it is not possible to reference a record in a different series or agency.

  The second alternative is included because the first version of the Standard was not sufficiently precise about the value contained in a Related Item Id (M43) subelement.

- *Relation Type (M44).* This subelement indicates the type of relationship between the records. One instance of this subelement must appear in each Relation (M42) element (Relation Type (M44) is marked as conditional because Relation (M42) itself is optional). The NAA Standard allows multiple Relation Type subelements to appear in a Relation (M42); it is strongly recommended that each Relation (M42) only contains *one* Relation Type (M44).

- *Relation Description (M45).* This subelement describes the relationship. One instance of this subelement must appear in each Relation (M42) element (Relation Description (M45) is marked as conditional because Relation (M42) itself is optional). The NAA Standard allows multiple Relation Description subelements to appear in a Relation (M42); it is strongly recommended that each Relation (M42) only contains *one* Relation Description (M45).

An example of the XML representation of a relation follows:

```
<naa:Relation>
 <naa:RelatedItemId>
  <vers:VEOIdentifier>
   <vers:FileIdentifier>
    <vers:Text>99-89</vers:Text>
   </vers:FileIdentifier>
   <vers:VERSRecordIdentifier>
    <vers:Text>100</vers:Text>
   </vers:VERSRecordIdentifier>
  </vers:VEOIdentifier>
 </naa:RelatedItemId>
 <naa:RelationType>Replaces</naa:RelationType>
 <naa:RelationDescription>
Replaced with new version
 </naa:RelationDescription>
</naa:Relation>
```

(Note that this example does not include Agency or Series Identifiers.)

3.8 Coverage

The Coverage (M46) element describes the time or space the record covers. For example, a record may cover to the year 1970, or it might cover the greater Melbourne metropolitan area. This element is equivalent to the AGLS Coverage element.

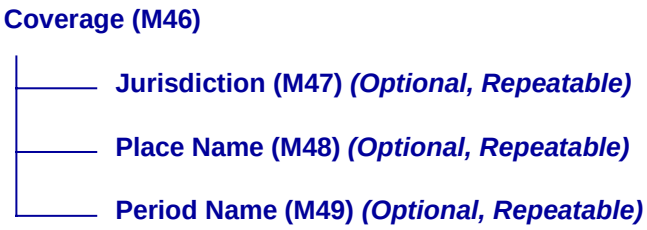


Figure 9. Subelements of the Coverage element.

The subelements have the following functions:

- *Jurisdiction (M47).* This subelement describes the jurisdiction covered by the record (Commonwealth, State, or local government administration).
- *Place Name (M48).* This subelement is the name of a place or area (e.g. a town, or region).
- *Period Name (M49).* This subelement is a time period. The contents of this element might be the name of a period (e.g. ‘Federation’ or ‘World War I’), or it might be a date range (e.g. ‘1960/1970’). Section 14 of PROS 99/007 Specification 2 gives the required format of a date range.

An example of the XML representation of a jurisdiction coverage is:

```
<naa:Coverage>
 <naa:Jurisdiction>City of Banyule</naa:Jurisdiction>
</naa:Coverage>
```

An example of a place name coverage is:

```
<naa:Coverage>
 <naa:PlaceName>Seaspray</naa:PlaceName>
</naa:Coverage>
```

An example of a period name coverage (using the name of a period) is:

```
<naa:Coverage>
 <naa:PeriodName>Edwardian</naa:PeriodName>
</naa:Coverage>
```

An example of a period name coverage (using a date range) is:

```
<naa:Coverage>
 <naa:PeriodName>1964-04-15/2003-05-01</naa:PeriodName>
</naa:Coverage>
```

3.9 Function

Records can be classified in many ways, but two common methods are by subject and function. There are metadata elements to represent both methods of classification: Subject (M37) contains the subject classification, and Function (M50) contains the functional classification. Normally, only one of the two would be used. Function (M50) describes the function covered by the record. The Function (M50) element is equivalent to the AGLS Function element.

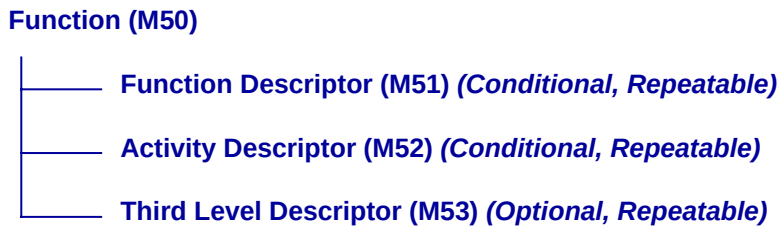


Figure 10. Subelements of the Function element.

There are three levels of descriptor:

- *Function Descriptor (M51).* Indicates the specific government business function covered by this record (e.g. ‘Publication’). Each Function (M50) element must contain a Function Descriptor (M51) subelement (the element is marked conditional as Function (M51) is optional).
- *Activity Descriptor (M52).* Indicates the particular business activity documented by this record (e.g. ‘Drafting’ within ‘Publication’). Each Function (M50) element must contain an Activity Descriptor (M51) subelement (the element is marked conditional as Function (M51) is optional).
- *Third Level Descriptor (M53).* Indicates the actions or topics documented by the record (e.g. ‘Annual Report’ within ‘Drafting’ within ‘Publication’).

Note that these descriptors form a hierarchy. Although each descriptor can be repeated, this is not recommended as there is no way of indicating the hierarchy. If multiple functions need to be assigned to a record, the Function (M50) element should be repeated.

An example of the XML representation of a function is:

```
<naa:Function>
 <naa:FunctionDescriptor>Publication</naa:FunctionDescriptor>
 <naa:ActivityDescriptor>Drafting</naa:ActivityDescriptor>
 <naa:ThirdLevelDescriptor>Annual Report</naa:ThirdLevelDescriptor>
</naa:Function>
```

3.10 Date

A Date (M54) element contains three dates of relevance to the record: Date/Time Transacted (M56); Date/Time Created (M55); and Date/Time Registered (M57). Experience has shown that the purpose of these three elements is not clear.

The Date/Time Transacted (M56) is the date and time the event documented by the record occurred. Consider a meeting as an example. The Date/Time Transacted is the time the meeting occurred.

The Date/Time Created (M55) is the date and time the record was created. The record of the meeting is the minutes, and the Date/Time Created of the meeting record is the time the minutes were prepared. This would normally be some time after the Date/Time Transacted (M56).

The Date/Time Registered (M57) is the date and time the record was registered with the recordkeeping system. The Date/Time Registered of the meeting record is the time the minutes were registered into the recordkeeping system.

The Date element is equivalent to the AGLS Date element.

Figure 11. Subelements of the Date element.

The subelements of Date are:

- *Date/Time Created (M55).* This is the date and time the record was created.
- *Date/Time Transacted (M56).* This is the date and time the event documented by the record occurred.
- *Date/Time Registered (M57).* This is the date and time the record was registered into a recordkeeping system.

All three dates are mandatory and must appear in every VERS record. Often, the only definitely known date is the Date/Time Registered (M57), which is normally recorded automatically by the recordkeeping system. The Date/Time Transacted (M56) and Date/Time Created (M55) are normally entered by the user at the time of registration and may not be known. In this case they normally default to be the same as Date/Time Registered (M57).

The recordkeeping system should not over-specify the time. If only the date of the event is known the time should not be entered (see the Date/Time Transacted in the following example).

An example of the XML representation of a Date follows:

```
<naa:Date>
 <naa:DateTimeCreated>2003-03-19T15:01:17-10:00</naa:DateTimeCreated>
 <naa:DateTimeTransacted>2003-03-15</naa:DateTimeTransacted>
 <naa:DateTimeRegistered>2003-03-20T10:26:07-10:00</naa:DateTimeRegistered>
</naa:Date>
```

3.11 Type

A Type (M58) element represents the type of record; for example, an agenda. There are ten standard values, and additional ones can be added by an agency.

The Type (M58) element is equivalent to the AGLS Type element. The list of document types in Appendix E of AGLS [AGLS] is suggested as being richer than the one in the NAA Standard [NAA].

An example of a Type element is:

```
<naa:Type>Report</naa:Type>
```

3.12 Aggregation Level

The Aggregation Level (M59) element is always set to ‘Item’ in a Record VEO and ‘File’ in a File VEO. This is an NAA element that is intended to be used to distinguish between collections of elements that describe a File (Folder) and an Item (Record). It is equivalent to the Aggregation Level qualifier of the AGLS type element.

In a Record VEO, this element always appears as:

```
<naa:AggregationLevel>Item</naa:AggregationLevel>
```

3.13 Format

The Format (M60) element is an NAA element intended to describe the physical representation of the record. The physical representation includes the type of the record (e.g. audio), the data format (e.g. WAV), the medium (e.g. CD-R), and the size of the record.

The definition of this element assumes that a record contains one physical object (e.g. a single PDF file which contains a document). In VERS, a Record may consist of multiple Documents, each of which can contain multiple Encodings. Neither a Record nor the Document consequently has a specific format in VERS. When it is necessary to represent format information PROV recommends that this information is held in an Encoding (M126) element.

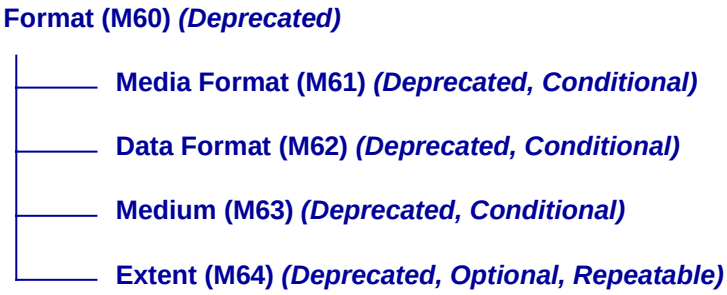


Figure 12. Subelements of the Format element.

The subelements of Format are:

- *Media Format (M61).* The broad mode of the record: text, video, audio, image, or compound. If it is necessary to represent the media format in a VERS record, it is recommended that this information be added to the Document Type (M124) element. The Media Format subelement must be present if a Format (M60) element is present.
- *Data Format (M62).* The file format that represents the contents of the record; for example AVI, Real Audio, PDF. In VERS the file format of each Encoding is represented in the File Encoding (M128), Rendering Text (M131) and Rendering Keywords (M132) elements. These elements should always be used in preference to Data Format (M62). The Data Format subelement must be present if a Format (M60) element is present.
- *Medium (M63).* The physical object on which the record is recorded; for example, a CD or a tape. A VEO is a computer file; it is intended to be independent of the piece of media on which it resides at any point in time. Many storage systems will automatically relocate stored objects from one piece of media to another to optimise access. For these reasons, it is not recommended that this element be used in VERS. The Medium subelement must be present if a Format (M60) element is present.
- *Extent (M64).* The physical size of the record. The unit (e.g. gigabyte) is not specified in the NAA Standard and so the value must include it. In VERS the size of the record is the size of the VEO and can be directly determined from the file system. For this reason, it is not recommended that this element be used in VERS.

An example of the XML representation of a Format follows:

```
<naa:Format>
 <naa:MediaFormat>Video</naa:MediaFormat>
 <naa:DataFormat>MPEG</naa:DataFormat>
 <naa:Medium>DVD</naa:Medium>
 <naa:Extent>1.4 GB</naa:Extent>
</naa:Format>
```

3.14 Record Identifier

A Record Identifier (M65) element identifies the record. In VERS we have replaced this element with VEO Identifier (M99), which should be used instead. If this element is present, the Record Identifier (M65) element should contain a copy of the VEO Identifier (M99) element.

An example of a Record Identifier element follows:

```
<naa:RecordIdentifier>
 <vers:VEOIdentifier>
  <vers:AgencyIdentifier>
   <vers:Text>VA 654</vers:Text>
  </vers:AgencyIdentifier>
  <vers:SeriesIdentifier>
   <vers:Text>1123</vers:Text>
  </vers:SeriesIdentifier>
  <vers:FileIdentifier>
   <vers:Text>99-89</vers:Text>
  </vers:FileIdentifier>
  <vers:VERSRecordIdentifier>
   <vers:Text>100</vers:Text>
  </vers:VERSRecordIdentifier>
 </vers:VEOIdentifier>
</naa:RecordIdentifier>
```

3.15 Management History

The Management History (M66) element describes the events that occurred during the life of the record since it was first registered into a recordkeeping system. These events include, for example, transfer of custody, alteration to metadata or content, and reclassification. The intent is that this element will document the administrative history of the record over time and it is essentially an audit log.

The management history will commence from the registration of the record in the first recordkeeping system and will extend over all subsequent recordkeeping systems and custodians.

A management history comprises a sequence of events which are represented by Management Event (M67) subelements. Each Management Event documents one event in the life of the record.

Each VEO must contain a Management History element, and this must contain at least one Management Event subelement.

Figure 13. Subelements of the Management History element.

The subelements of Management History are:

- *Management Event (M67).* Each Management Event subelement documents an event in the administrative history of the record. Each event comprises three pieces of information: Event Date/Time (M68), Event Type (M69), and Event Description (M70).
- *Event Date/Time (M68).* The date and time the event occurred. This should not be overspecified; for example if the date is known, but not the time, the Event Date/Time subelement should not contain the time.

- *Event Type (M69).* The type of the event. The VERS Standard allows agencies to extend the list of event types, as it proved difficult to map all of the events in recordkeeping audit logs to the values listed in the NAA standard.
- *Event Description (M70).* A textual description of the event. This might include the users that carried out the event, details of the event (e.g. exactly how a piece of metadata has been changed). The description should not just repeat the event type.

An example of a Management History element follows:

```
<naa:ManagementHistory>
 <vers:ManagementEvent>
  <naa:EventDateTime>2003-03-30T05:02:38-10:00</naa:EventDateTime>
  <naa:EventType>Created</naa:EventType>
  <naa:EventDescription>
Registered by John Smith (j.smith@dpc.vic.gov.au) from 180.205.76.43.
  </naa:EventDescription>
 </vers:ManagementEvent>
 <vers:ManagementEvent>
  <naa:EventDateTime>2003-04-15T15:22:01-10:00</naa:EventDateTime>
  <naa:EventType>Record Modified</naa:EventType>
  <naa:EventDescription>
Reclassified by John Smith (j.smith@dpc.vic.gov.au). Classification was
formerly Finance/Budgets/2002-3/Drafts
  </naa:EventDescription>
 </vers:ManagementEvent>
</naa:ManagementHistory>
```

3.16 Use History

The Use History (M71) element lists each use (retrieval) of a record. The intent is that this element will document all accesses of the record. The recordkeeping system may log both accesses to the content of a record and accesses to the metadata associated with the record. Use histories are likely to be extremely large and not all systems will retain this history.

A use history comprises a sequence of events which are represented by Use (M72) subelements. Each Use (M72) documents one access.

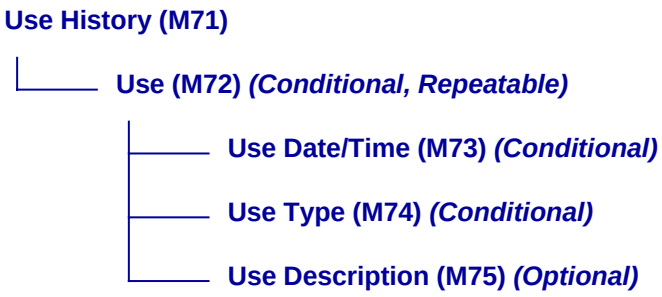


Figure 14. Subelements of the Use History element.

The subelements of Use History are:

- *Use (M72).* Each Use subelement documents an access. Each use comprises three pieces of information: Use Date/Time (M73), Use Type (M74), and Use Description (M75).
- *Use Date/Time (M73).* The date and time the access occurred. This should not be overspecified; for example if the date is known, but not the time, the Use Date/Time subelement should not contain the time.

- *Use Type (M74).* The type of use. The NAA Standard has an extensive list of use types which are duplicated in the VERS Standard, however, recordkeeping systems would normally use only ‘Metadata Accessed’ or ‘Content Accessed’. It should be noted that most electronic systems cannot distinguish between Content Accessed, Copied, Downloaded, Screen Dumped, and Viewed. In all of these cases a copy of the record is downloaded to a computer for display; what happens on that computer subsequently cannot be determined by the recordkeeping system.
- *Use Description (M75).* A textual description of the access. This would normally include the user that accessed the record and details of the access (e.g. the computer that requested the access).

An example of a Use History element follows:

```
<naa:UseHistory>
 <vers:Use>
  <naa:UseDateTime>2003-03-30T05:02:38-10:00</naa:UseDateTime>
  <naa:UseType>Content Accessed</naa:UseType>
  <naa:UseDescription>
Accessed by John Smith (j.smith@dpc.vic.gov.au) from 180.205.76.43.
  </naa:UseDescription>
 </vers:Use>
</naa:UseHistory>
```

3.17 Preservation History

The Preservation History (M76) element lists the preservation actions that have taken place on a record. The intent is that this element will document events that may affect the quality or accuracy of the record. A typical preservation event is format conversion (e.g. from Word to PDF).

A preservation history comprises a sequence of actions that are represented by Action (M77) subelements. Each Action (M77) documents one preservation action. In addition, two further subelements of Preservation History (M76) describe the next preservation action to be performed.

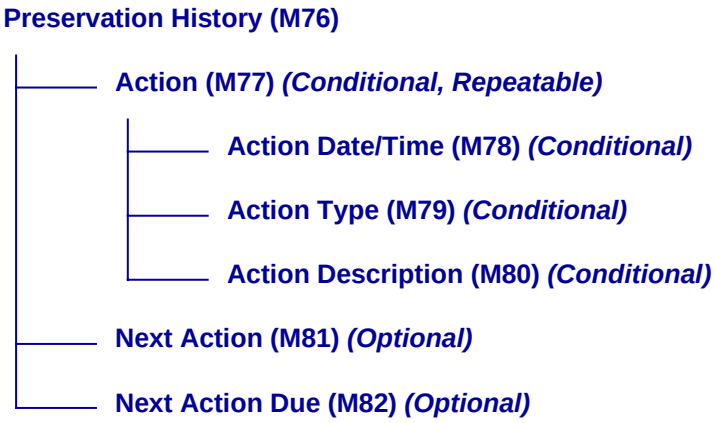


Figure 15. Subelements of the Preservation History element.

The subelements of Preservation History are:

- *Action (M77).* Each Action subelement documents a preservation action. Each use comprises three pieces of information: Action Date/Time (M78), Action Type (M79), and Action Description (M80).

- *Action Date/Time (M78).* The date and time the preservation action occurred. This should not be overspecified; for example if the date is known, but not the time, the Action Date/Time subelement should not contain the time.
- *Action Type (M79).* The type of the preservation action. Of the eight types listed in the NAA standard, few are expected to be commonly used with VERS. ‘Imaged’ and ‘Microfilmed’ are preservation actions dealing with physical records. ‘Backed Up’, ‘Medium Refreshed’ and ‘Moved Offline’ are activities that are carried out regularly and automatically in most computer systems; and are not specifically preservation activities (and would normally not be documented at all).
- *Action Description (M80).* A textual description of the preservation. This would normally include the user that performed the preservation action and details of the action (e.g. the software that perform the migration, and its settings).
- *Next Action (M81).* The next preservation action that should be performed on this record.
- *Next Action Due (M82).* When the next preservation action should occur.

An example of a Preservation History element follows:

```
<naa:PreservationHistory>
 <vers:Action>
  <naa:ActionDateTime>2003-03-30T05:02:38-10:00</naa:ActionDateTime>
  <naa:ActionType>Migrated (Software)</naa:ActionType>
  <naa:ActionDescription>
Migrated from Word file format to PDF file format using Adobe Distiller.
  </naa:ActionDescription>
 </vers:Action>
 <naa:NextAction>Check Condition</naa:NextAction>
 <naa:NextActionDue>2006</naa:NextActionDue>
</naa:PreservationHistory>
```

3.18 Location

The Location (M83) element contains the current physical location of a record. The NAA recordkeeping metadata applies to paper records as well as electronic records, and the notion of a physical location is less relevant to an electronic record than to a paper record. For this reason we do not recommend the use of these elements for electronic records in a VERS system.

Figure 16. Subelements of the Location element.

The subelements of Location are:

- *Current Location (M84).* This is the current physical location of the record.
- *Home Location Details (M85).* The name and address of a role or organisation that normally holds the record.

- *Home Storage Details (M86).* The physical location where the record is normally stored.
- *RKS ID (M87).* The identity of the recordkeeping system that normally holds the record.

An example of a Location element follows:

```
<naa:Location>
 <naa:CurrentLocation>CD11239/03</naa:CurrentLocation>
 <naa:HomeLocationDetails>PROV</naa:HomeLocationDetails>
 <naa:HomeStorageDetails>Shelf A/3/5/3</naa:HomeStorageDetails>
</naa:Location>
```

3.19 Disposal

The Disposal (M88) element describes the proposed disposal of this record.

In a typical recordkeeping system, disposal is associated with the folder on which the record is filed. Consequently, all records on the same file have the same disposal policy – in particular this means that records are not removed from folders (i.e. either the folder is held and is complete, or the folder has been disposed of).

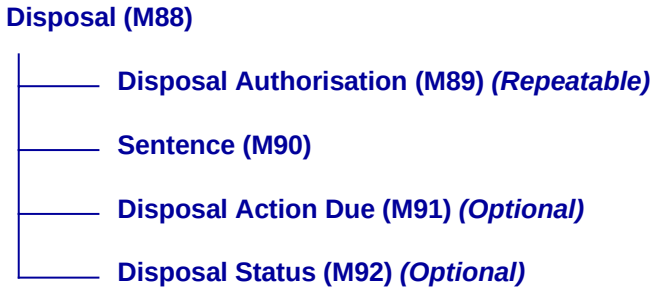


Figure 17. Subelements of the Disposal element.

The subelements of Disposal are:

- *Disposal Authorization (M89).* This subelement is a reference to the authority under which the disposal can be carried out. In Victoria this would normally be a reference to a records authority. If there is no authority to dispose of records (i.e. they have not been appraised) this element must contain the value ‘No Disposal Coverage’.
- *Sentence (M90).* This subelement describes what is to ultimately happen to the record. Permanent records should have the value ‘Permanent’ or ‘Transfer to PROV after n years’. If the records have not been appraised (i.e. there is no disposal authority), this subelement must have the value ‘No Disposal Coverage’.
- *Disposal Action Due (M91).* This subelement indicates when the sentence is due to be carried out. If the disposal date is not known, or is not applicable (e.g. for permanent records), this subelement must have the value ‘null’.
- *Disposal Status (M92).* This subelement summarises the eventual fate of the record: Permanent, Temporary, or Unknown. It effectively duplicates information in Sentence.

A minimal example of a Disposal element follows:

```
<naa:Disposal>
 <naa:DisposalAuthorisation>No Disposal Coverage</naa:DisposalAuthorisation>
 <naa:Sentence>No Disposal Coverage</naa:Sentence>
</naa:Disposal>
```

An longer example of a Disposal element follows:

```
<naa:Disposal>
 <naa:DisposalAuthorisation>
PROS 03/9999 Function Description Ref. no. 1.2.3
 </naa:DisposalAuthorisation>
 <naa:Sentence>Transfer to PROV after 7 years</naa:Sentence>
 <naa:DisposalActionDue>20101504</naa:DisposalActionDue>
 <naa:DisposalStatus>Permanent</naa:DisposalStatus>
</naa:Disposal>
```

Note that the Disposal Action Due element does not contain a time, only a date.

3.20 Mandate

The Mandate (M93) element describes why a particular policy applies to this record. The main types of policies dealt with in this element are: why the record is collected; how long the record should be kept; and who may access the record. Like disposal, mandate is normally associated with the folder or series. The elements within mandate are references to the source of the mandate. This element is equivalent to the AGLS Mandate element.

Figure 18. Subelements of the Mandate element.

The subelements of Mandate are:

- *Mandate Type (M94).* This subelement refers to the broad source of the policy: for example, it is required by law, it is best practice, or it is an internal business requirement.
- *Refers To (M95).* This subelement indicates the type of policy being dealt with. The types of policies are:
  - ‘Creation’. The policy requiring that this record be created.
  - ‘Retention’. The policy requiring retention until (or disposal after a) particular time.
  - ‘Access/Usage’. The policy requiring access or usage rights or restrictions.
  - ‘Accessibility’ and ‘Record Quality’. The policies requiring particular preservation functionality.
- *Mandate Name (M96).* This subelement contains the name of the mandate.
- *Mandate Reference (M97).* This subelement contains a reference used to identify the mandate (e.g. section number or URL).
- *Requirement (M98).* This subelement contains a quote, precis, or reference to the relevant mandate or a description.

A minimal example of a Mandate element follows:

```
<naa:Mandate>
 <naa:MandateType>Formal Directive</naa:MandateType>
 <naa:RefersTo>Retention</naa:RefersTo>
 <naa:MandateName>
PROS 00/01 Water Authorities' Records, General Disposal Schedule
</naa:MandateName>
 <naa:Requirement>
Plans of works are permanent records
</naa:Requirement>
</naa:Mandate>
```

3.21 VEO Identifier

The VEO Identifier (M99) uniquely identifies the record within an archival jurisdiction. This element has been added in the VERS Standard and should be used instead of the Record Identifier (M65) element. The contents of the VEO Identifier (M99) identify the agency, series, files, and record. The combination of agency, series, and record will uniquely identify the record within an archival jurisdiction and ensures that records from different agencies will have unique identifiers.

A unique identifier is necessary, as an archive will receive records from many agencies and from many recordkeeping systems within the agency. Note that a record identifier is normally only unique within a recordkeeping system which, in turn, is only unique within an agency.

The VEO Identifier (M99) element is equivalent to the AGLS Identifier element.

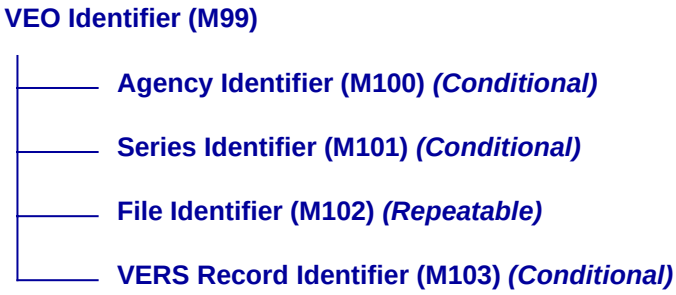


Figure 19. Subelements of the VEO Identifier element.

The subelements of VEO Identifier are:

- *Agency Identifier (M100).* This uniquely identifies the agency that owns the VEO. For Victorian agencies this is allocated by PROV (it is also known as the ‘VA’ number). It is not an abbreviation of the agency’s name.
- *Series Identifier (M101).* This uniquely identifies the series within the agency. Normally, a series identifies a recordkeeping system within the agency. The unique identifiers used to label records (see VERS Record Identifier (M103)) must be unique within a series.
- *File Identifier (M102).* These elements uniquely identify the folder(s) (file(s)) on which the record is filed. The expectation is that a File Identifier (M102) will be unique within a series. File Identifier (M102) can be repeated; this allows records to be associated with more than one folder in a series.
- *VERS Record Identifier (M103).* This element uniquely identifies the record within the series (recordkeeping system).

It should be noted that the values of all four elements are encapsulated within <vers:Text> tags. That is, for example,

```
<vers:VERSRecordIdentifier>
 <vers:Text>11234</vers:Text>
</vers:VERSRecordIdentifier>
```

not

```
<vers:VERSRecordIdentifier>11234</vers:VERSRecordIdentifier>
```

The <vers:Text> tag is used within a VEO where it is expected that one day it may be necessary to break the information in a subelement into finer subelements. In this case, the contents of a VERS Record Identifier (M103) might one day be broken up into a year and an annual single number:

```
<vers:VERSRecordIdentifier>
 <vers:Text>2003/1223</vers:Text>
 <vers:Year>2003</vers:Year>
 <vers:Number>1223</vers:Number>
</vers:VERSRecordIdentifier>
```

The use of the <vers:Text> subelement indicates that the value of this element is a textual representation of the information in the other elements.

An example of a minimal VEO Identifier follows:

```
<vers:VEOIdentifier>
 <vers:FileIdentifier>
  <vers:Text>99/876</vers:Text>
 </vers:FileIdentifier>
 <vers:VERSRecordIdentifier>
  <vers:Text>11234</vers:Text>
 </vers:VERSRecordIdentifier>
</vers:VEOIdentifier>
```

An example of a full VEO Identifier including an agency and a series identifier follows:

```
<vers:VEOIdentifier>
 <vers:AgencyIdentifier>
  <vers:Text>VA 654</vers:Text>
 </vers:AgencyIdentifier>
 <vers:SeriesIdentifier>
  <vers:Text>1123</vers:Text>
 </vers:SeriesIdentifier>
 <vers:FileIdentifier>
  <vers:Text>99-89</vers:Text>
 </vers:FileIdentifier>
 <vers:VERSRecordIdentifier>
  <vers:Text>100</vers:Text>
 </vers:VERSRecordIdentifier>
</vers:VEOIdentifier>
```

An example of a VEO Identifier with multiple folders follows:

```
<vers:VEOIdentifier>
 <vers:AgencyIdentifier>
  <vers:Text>VA 654</vers:Text>
 </vers:AgencyIdentifier>
 <vers:SeriesIdentifier>
  <vers:Text>1123</vers:Text>
 </vers:SeriesIdentifier>
 <vers:FileIdentifier>
  <vers:Text>99-89</vers:Text>
 </vers:FileIdentifier>
 <vers:FileIdentifier>
  <vers:Text>03-78</vers:Text>
 </vers:FileIdentifier>
 <vers:VERSRecordIdentifier>
  <vers:Text>100</vers:Text>
 </vers:VERSRecordIdentifier>
</vers:VEOIdentifier>
```

3.22 Transaction

The final group of metadata, Transaction (M104), describes the transaction that generated this record.

This element is not from the NAA standard, but instead is derived from the metadata specifications produced as part of the Functional Requirements for Evidence in Recordkeeping project (also known as the Pittsburgh project) [PITTS].

The information in this element documents the transaction that the record documents. Transactions are the units of business process within an organisation. Transactions are an interaction between two parties. In practice, few organisations have sufficiently well defined business processes to properly use transactions, but this may change with increasing use of workflow systems (which are formalised business processes).

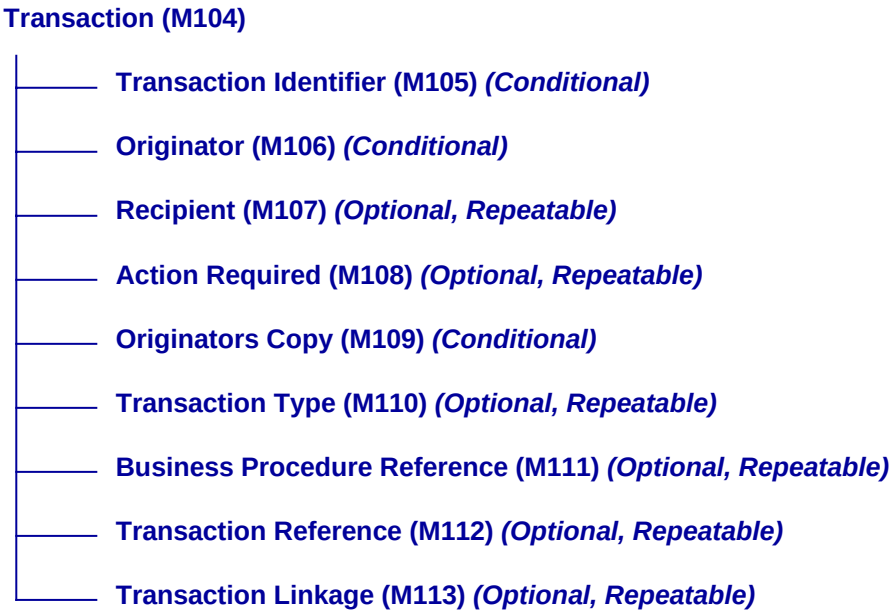


Figure 20. Subelements of the Transaction element.

The subelements of Transaction are:

- *Transaction Identifier (M105).* This subelement uniquely identifies a transaction within an agency.
- *Originator (M106).* This subelement identifies the party that originated or initiated the transaction.
- *Recipient (M107).* This subelement identifies the parties that were the target(s) of a transaction.
- *Action Required (M108).* This subelement indicates the action required of the recipient (note that a weakness of the current VEO is that there may be many recipients each of whom may have a different action required of them).
- *Originators Copy (M109).* This subelement indicates whether the originator or recipient generated this record. In other words, was this record created from the information the originator sent when they initiated the transaction, or from the information received by the recipient?
- *Transaction Type (M110).* This subelement indicates the broad type of this transaction.
- *Business Procedure Reference (M111).* This subelement identifies the business procedure that generated the transaction.
- *Transaction Reference (M112).* This subelement contains the internal identifier of this transaction within the business procedure application.
- *Transaction Linkage (M113).* This subelement links all the records that are part of the same transaction.

It should be noted that the values of all subelements except Originators Copy (M109) are encapsulated within <vers:Text> tags. That is, for example,

```
<vers:TransactionIdentifier>
 <vers:Text>11234</vers:Text>
</vers:TransactionIdentifier>
```

not

```
<vers:TransactionIdentifier>
 11234
</vers:TransactionIdentifier>
```

The <vers:Text> tag is used within a VEO where it is expected that one day it may be necessary to break the information in a subelement into finer subelements. In this case, the contents of a Transaction Identifier (M105) might one day be broken up into a year and an annual single number:

```
<vers:TransactionIdentifier>
 <vers:Text>2003/1223</vers:Text>
 <vers:Year>2003</vers:Year>
 <vers:Number>1223</vers:Number>
</vers:TransactionIdentifier>
```

The use of the <vers:Text> subelement indicates that the value of this element is a textual representation of the information in the other elements.

An example of a minimal Transaction follows:

```
<vers:Transaction>
 <vers:TransactionIdentifier>
  <vers:Text>2003/654</vers:Text>
 </vers:TransactionIdentifier>
 <vers:Originator>
  <vers:Text>Andrew.Green@dpc.vic.gov.au</vers:Text>
 </vers:Originator>
 <vers:OriginatorsCopy>true</vers:OriginatorsCopy>
</vers:Transaction>
```

An example of a Transaction with all subelements follows:

```
<vers:Transaction>
 <vers:TransactionIdentifier>
  <vers:Text>2003/654</vers:Text>
 </vers:TransactionIdentifier>
 <vers:Originator>
  <vers:Text>Andrew.Green@dpc.vic.gov.au</vers:Text>
 </vers:Originator>
 <vers:Recipient>
  <vers:Text>Rachel.Quenault@dpc.vic.gov.au</vers:Text>
 </vers:Recipient>
 <vers:ActionRequired>
  <vers:Text>Approve</vers:Text>
 </vers:ActionRequired>
 <vers:OriginatorsCopy>true</vers:OriginatorsCopy>
 <vers:TransactionType>
  <vers:Text>ApprovalRequest</vers:Text>
 </vers:TransactionType>
 <vers:BusinessProcedureReference>
  <vers:Text>PROV-99</vers:Text>
 </vers:BusinessProcedureReference>
 <vers:TransactionReference>
  <vers:Text>200305211012</vers:Text>
 </vers:TransactionReference>
 <vers:TransactionLinkage>
  <vers:Text>66578</vers:Text>
 </vers:TransactionLinkage>
</vers:Transaction>
```

4 Documents and Encodings

4.1 Document Metadata

Document Metadata (M115) describes a document within the record. Each document in a record has a separate set of document metadata.

The information in Document Metadata (M115) is not intended to replicate the information in the record metadata so, for example, the document title should not replicate the information in the record title. Instead, the information in the Document Metadata (M115) is intended to distinguish this document from other documents within the same record or provide specific information about the document.

Figure 21. Subelements of the Document Metadata element.

The subelements of Document Metadata are:

- *Document Agent (M116).* This subelement is equivalent to the Agent (M12) element; it identifies the people or organisations associated with the Document. It is equivalent to the AGLS Agent element. This subelement is mandatory; if only one document agent is present it should be the document author.
- *Document Rights Management (M154).* This subelement is equivalent to the Rights Management (M24) element; it contains any rights management statement specific to the Document. It is equivalent to the AGLS Rights Management element.

- *Document Title (M117).* This subelement is equivalent to the Title (M32) element; it contains the title of the Document. It is equivalent to the AGLS Title element. This subelement is mandatory, and the title should be chosen to distinguish the Document from the other Documents in the record.
- *Document Subject (M118).* This subelement is equivalent to the Subject (M37) element; it contains the subject of the Document. It is equivalent to the AGLS Subject element.
- *Document Description (M119).* This subelement is equivalent to the Description (M40) and Auxiliary Description (M153) elements; it contains a description of the Document. It is equivalent to the AGLS Description element.
- *Document Language (M120).* This subelement is equivalent to the Language (M41) element; it indicates the language the Document is written in. It is equivalent to the AGLS Language element.
- *Document Relation (M121).* This subelement is equivalent to the Relation (M42) element; it documents relations to other Documents. It is equivalent to the AGLS Relation element.
- *Document Coverage (M122).* This subelement is equivalent to the Coverage (M46) element; it describes the temporal or geographic extent of the Document. It is equivalent to the AGLS Coverage element.
- *Document Function (M155).* This subelement is equivalent to the Function (M50) element; it contains the function that the Document supports. It is equivalent to the AGLS Function element.
- *Document Date (M123).* This subelement is equivalent to the Date (M54) element; it contains the date and time the Document was created. It is equivalent to the AGLS Date element. This subelement is mandatory.
- *Document Type (M124).* This subelement is equivalent to the Type (M58) element; it contains the type of the Document. It is equivalent to the AGLS Type element.
- *Document Source (M125).* This subelement is different to the other subelements of Document Metadata (M115) as it has no equivalent at the record level. The Document Source (M125) subelement describes the system that produced the Document. Typically, this would be software application. An example Document Source value might be: ‘This document was produced using Word 97 Version 8.0.0.3514 by Microsoft Corporation’. The contents of a Document Source (M125) subelement could be complex. The Document Source subelement for an image, for example, could describe the camera that was used to capture the image, the camera settings, and any image processing that was carried out on the resulting image.

It should be noted that the values of all subelements of Document Metadata (M115) are encapsulated within <vers:Text> tags. That is, for example,

```
<vers:DocumentAgent>
 <vers:Text>Author: Lucy Sinclair</vers:Text>
</vers:DocumentAgent>
```

not

```
<vers:DocumentAgent>
 Author: Lucy Sinclair
</vers:DocumentAgent>
```

The <vers:Text> tag is used within a VEO where it is expected that one day it may be necessary to break the information in a subelement into finer subelements. In this case, the

contents of a Document Agent might one day be broken up into the agent type and the name of the agent:

```
<vers:DocumentAgent>
 <vers:Text>Author: Lucy Sinclair</vers:Text>
 <vers:AgentType>Author</vers:AgentType>
 <vers:PersonalName>Lucy Sinclair</vers:PersonalName>
</vers:DocumentAgent>
```

The use of the <vers:Text> subelement indicates that the value of this element is a textual representation of the information in the other elements.

An example of a minimal set of Document Metadata follows:

```
<vers:DocumentMetadata>
 <vers:DocumentAgent>
  <vers:Text>Author: Lucy Sinclair</vers:Text>
 </vers:DocumentAgent>
 <vers:DocumentTitle>
  <vers:Text>Report</vers:Text>
 </vers:DocumentTitle>
 <vers:DocumentDate>
  <vers:Text>2003-03-20T23:24:06-10:00</vers:Text>
 </vers:DocumentDate>
 <vers:DocumentSource>
  <vers:Text>Microsoft Word 97 (Version 8.0.0.3514)</vers:Text>
 </vers:DocumentSource>
</vers:DocumentMetadata>
```

An example of a fuller set of Document Metadata follows:

```
<vers:DocumentMetadata>
 <vers:DocumentAgent>
  <vers:Text>Author: Lucy Sinclair</vers:Text>
 </vers:DocumentAgent>
 <vers:DocumentRightsManagement>
  <vers:Text>Copyright 2003, Public Record Office Victoria</vers:Text>
 </vers:DocumentRightsManagement>
 <vers:DocumentTitle>
  <vers:Text>Report of Inquiry</vers:Text>
 </vers:DocumentTitle>
 <vers:DocumentSubject>
  <vers:Text>Information Management/Design</vers:Text>
 </vers:DocumentSubject>
 <vers:DocumentDescription>
  <vers:Text>
This report describes an implementation of the VERS standard,
ISBN 9 8898 8877 7
</vers:Text>
 </vers:DocumentDescription>
 <vers:DocumentLanguage>
  <vers:Text>en</vers:Text>
 </vers:DocumentLanguage>
 <vers:DocumentDate>
  <vers:Text>2003-03-20T23:24:06-10:00</vers:Text>
 </vers:DocumentDate>
 <vers:DocumentSource>
  <vers:Text>Microsoft Word 97 (Version 8.0.0.3514)</vers:Text>
 </vers:DocumentSource>
</vers:DocumentMetadata>
```

4.2 Encoding Metadata

An Encoding is a physical representation of a Document; it is equivalent to a file on a computer. A Document may have several Encodings; for example a report may be represented as a Word file, a PDF file, and as an RTF file. Many types of Documents have many ways of being represented. For example, a colour picture could be saved in (at least)

the following formats: Photoshop PSD, Amiga IFF, BMP, Photoshop EPS, FlashPix, JPEG, PCX, Photoshop PDF, PICT, Pixar, PNG, Raw, Scitex, Targa, and TIFF (not all of these would be suitable long-term preservation formats).

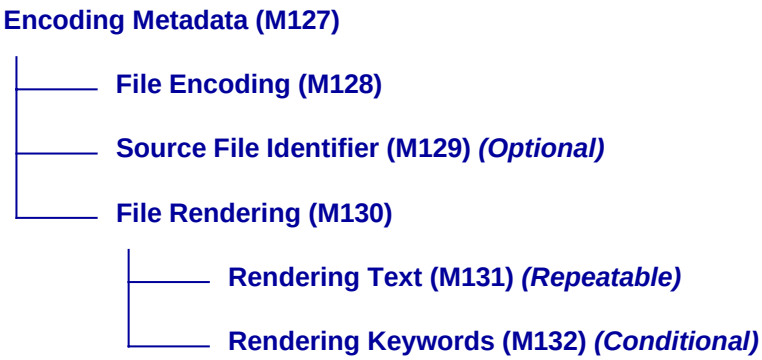


Figure 22. Subelements of the Encoding Metadata element.

The subelements of Encoding are:

- *File Encoding (M128).* This subelement contains a textual description of the process of generating the data in the Encoding. Typically, this would be a description of the file format used to represent the image and any subsequent encoding of the format (e.g. conversion to Base64). This subelement complements the Document Source (M125) subelement. The contents of Document Source (M125) describe how the document was created up to the point where it was saved. The File Encoding (M128) continues this description by describing the format in which the document was saved.

  Standard values for this subelement for the specified long-term preservation formats are given in PROS 99/007 Specification 4: VERS Long Term Preservation Formats.
- *Source File Identifier (M129).* This subelement contains the name of the computer file that contained the document data when the record was created. The last element of this name (i.e. the filename without any file extension or folder path which might be present) can be used to name the contents of the document data when it is extracted.
- *File Rendering (M130).* This subelement is used to describe how to render (display) the encoding. It has two subelements: Rendering Text (M131) is intended to be used by people, and Rendering Keywords (M132) by software.
- *Rendering Text (M131).* This subelement is the inverse of File Encoding (M128). It contains a textual description of the process that must be used to extract the information in the Encoding and display (render) it. In practice, this normally just reverses the steps described in the File Encoding element, so it is often sufficient to include in the Rendering Text element an instruction to read the contents of the File Encoding element.
- *Rendering Keywords (M132).* This subelement is a machine-processible equivalent of the Rendering Text element. It contains instructions that can be used by a program when extracting and displaying the Encoding. This allows the Encoding to be automatically extracted and displayed.

  The contents of the Rendering Keywords subelement are a list of file types. The extracting program uses each file type to identify a suitable program to open a file of that type and to turn it into a file of the following type. The specification allows files to be described using the standard three-letter extensions used in Word systems (e.g. ‘pdf’ for PDF files), or MIME types.

  For example the value ‘b64 pdf’ instructs the extracting program that the encoding is represented in the VEO as a ‘b64’ (Base64) file. The program identifies an application

that can open (decode) ‘b64’ files. The resulting file is a ‘pdf’ (PDF) file, and a second application is identified to open files of this type.

The ability to use the contents of the Rendering Keyword subelement is obviously dependent on retaining the link between a file format and the application able to process it. This link is not expected to survive for long periods, but while it does survive the functionality is useful.

Over the longer term, the contents of this subelement can be used to identify all of the Documents in a particular Encoding. This can be used, for example, in identifying Encodings that need to be migrated.

An example of a minimal set of Encoding Metadata follows:

```
<vers:EncodingMetadata>
 <vers:FileEncoding>
  <vers:Text>
The content of the DocumentData element is a PDF file. The file conforms to
‘PDF Reference’, third edition, Adobe Portable Document Format, Version 1.4,
Adobe Systems Incorporated, Addison Wesley, 2001, ISBN 0-201-75839-3
(http://partners.adobe.com/asn/developer/acrosdk/docs/filefmtspecs/PDFReferenc
e.pdf
visited 7 January 2003) as modified in the ‘Errata for PDF Reference, third
edition’ (http://partners.adobe.com/asn/developer/acrosdk/docs/PDF14errata.txt
visited 7 January 2003). It may contain digital signatures defined by PDF
Public-key Digital Signature and Encryption Specification, Version 3.2, Jim
Pravetz, 12 September 2001, Adobe Systems Incorporated
(http://partners.adobe.com/asn/developer/pdfs/tn/ppk_pdfspec.pdf visited
28 March 2003) and the appearance of the digital signature in a PDF document
is defined in Digital Signature Appearances for Public-Key Interoperability,
Adobe Systems Incorporated, September 2001
(http://partners.adobe.com/asn/developer/pdfs/tn/PPKAppearances.pdf visited
28 March 2003). The file has been encoded using Base64 which is defined in
IETF RFC 2045 “Multipurpose Internet Mail Extensions (MIME) Part One:
Format of Internet Message Bodies”, Section 6.8
“Base64 Content-Transfer-Encoding”.
  </vers:Text>
 </vers:FileEncoding>
 <vers:SourceFileIdentifier>
P:\Presentations\PublicAccountsCtee\VERSIntegrity.pdf
 </vers:SourceFileIdentifier>
 <vers:FileRendering>
  <vers:RenderingText>
   <vers:Text>See the vers:FileEncoding element</vers:Text>
  </vers:RenderingText>
  <vers:RenderingKeywords>
   .b64; .pdf
  </vers:RenderingKeywords>
 </vers:FileRendering>
</vers:EncodingMetadata>
```

5 File VEOs

File VEOs represent recordkeeping folders (files)[1]. Records are filed on folders; or, to put it another way, a folder contains all the records on a particular topic.

Although conceptually a folder contains records, in VERS a File VEO does not physically contain the associated Record VEOs. A File VEO contains metadata describing the folder. Record VEOs are implicitly associated with File VEOs through the File Identifier (M102) subelement. In each Record VEO, the File Identifier (M102) subelement identifies the folder

[1] In VERS, we now prefer to use the term ‘folder’ instead of ‘file’ to avoid confusion with files on a computer. The File VEO was named before we developed this distinction.

(or folders) on which the record is filed. The recordkeeping system must relate each of these identifiers to the File VEO that holds the record.

5.1 File

A File VEO contains a single File (M142) element which describes the folder.

Figure 23. The main elements of a File element.

A File VEO only contains metadata. There are two main collections of metadata:

- File Metadata (M143). The information within this element is almost identical to that contained in a Record Metadata (M11) element, except that the information relates to a folder, not a record. This element is described in detail in the following section.
- File Disposal (M145). This optional element contains information associated with the disposal of the folder. It is only present if the folder has been disposed of.

An example of the top-level of a File (M142) is:

```
<vers:File>
 <vers:FileMetadata>
  […]
 </vers:FileMetadata>
 <vers:FileDisposal>
  […]
 </vers:FileDisposal>
</vers:File>
```

5.2 File Metadata

The contents of the File Metadata (M143) element describe the folder, its history, and its relationship with other folders.

The information in a File Metadata (M143) element is almost identical to the contents of a Record Metadata (M11) element. The only additional element is Date/Time Closed (M144), an additional optional element within Date (M54). The only element that can be present in a Record Metadata (M11) element and not in a File Metadata (M143) element is Transaction (M104).

The information held in the file metadata elements describes the folder as a whole. Figure 24 shows the 22 top-level record metadata elements (most of these elements are subdivided). The top-level elements can be divided into the following concepts:

- *Descriptive Metadata.* The information in these elements describes the folder and its relation with other folders. The descriptive metadata includes:
  - Agent (M12)
  - Rights Management (M24)
  - Title (M32)

  - Subject (M37)
  - Description (M40)
  - Auxiliary Description (M153)
  - Language (M41)
  - Relation (M42)
  - VEO Identifier (M99)
  - Coverage (M46)
  - Function (M50)
  - Date (M54)
  - Type (M58)
- *Administrative History.* The information in these elements documents the history of this folder since it was first registered into a recordkeeping system. They include:
  - Management History (M66)
  - Use History (M71)
  - Preservation History (M76).
- *Recordkeeping Metadata.* These elements contain information used to manage the folder in a recordkeeping system. They include:
  - Aggregation Level (M59)
  - Disposal (M88)
  - Mandate (M93)
  - Format (M60)
  - Location (M83)
  - Record Identifier (M65).

Except for Auxiliary Description (M153), VEO Identifier (M99), and Transaction (M104), all of the top-level file metadata elements have been taken from the NAA Recordkeeping Metadata Standard. Further, most of the elements can be directly related to AGLS [AGLS] metadata elements.

These elements are described in section 3, but when applying them to folders, the following specific descriptions apply:

- *Agent Type (M13).* It is recommended that only ‘Registrar’ (the person that created the folder), ‘Publisher’, ‘Authority’ and ‘Records Manager’ be used as types of agents that perform actions on folders.
- *Date (M54).* This has an optional Date/Time Closed (M144) subelement. This subelement will be described in the following section.
- *Date/Time Transacted (M56).* The value of this subelement should be the same as the value used for Date/Time Created (M55).
- *Aggregation Level (M59).* This subelement must be set to ‘File’.
- *VEO Identifier (M99).* Only one File Identifier (M102) subelement can be present, and no VERS Record Identifier (M103) subelement can be present

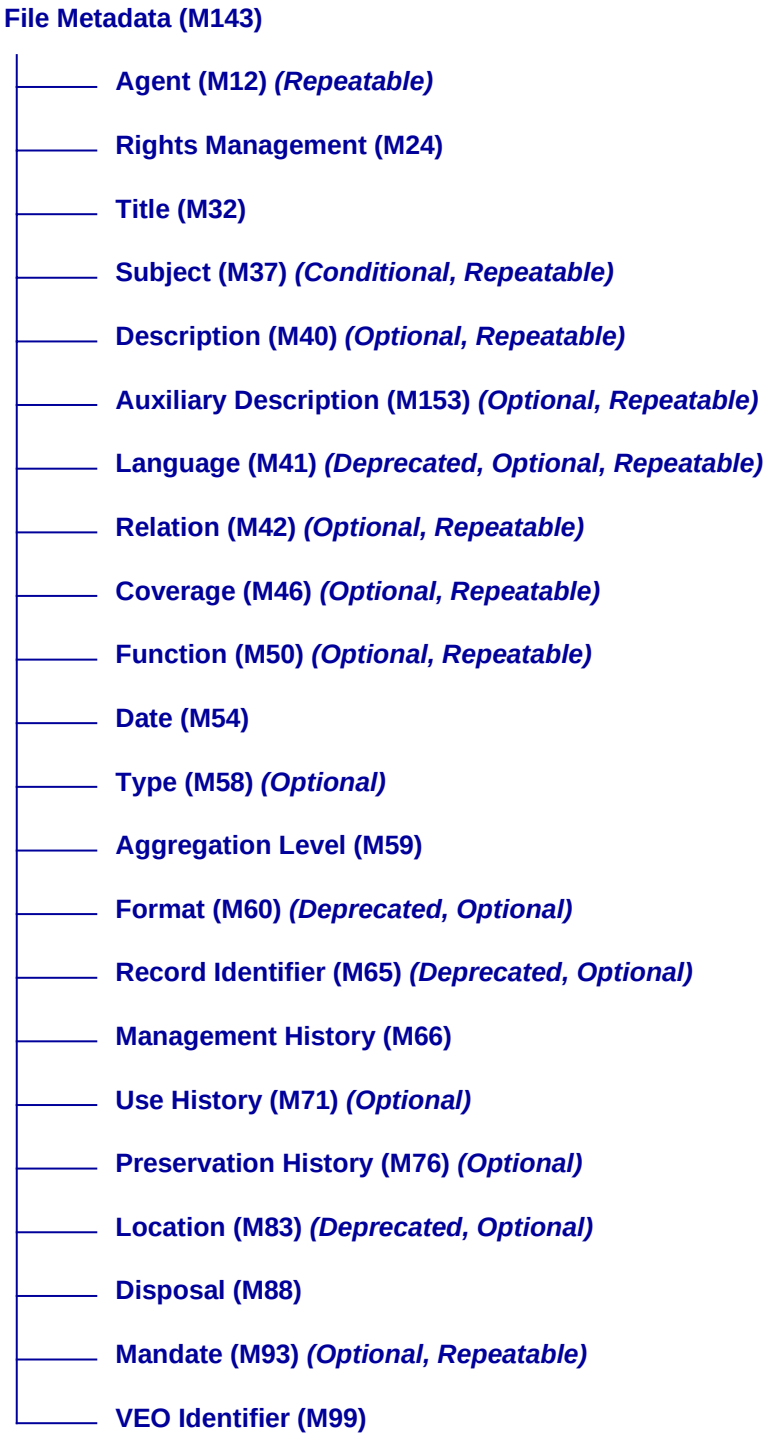


Figure 24. Main groups of metadata in a VERS File Metadata element.

5.3 Date

In a File (M143) element an additional date has been added to the Date (M54) element. This is Date/Time Closed (M144), which is only present if the folder is closed (i.e. no further records may be added to the folder).

Figure 25. Subelements of the Date element within a File Metadata (M143) element.

The subelements of Date (M54) within a File are identical to a Date element within a record (see section 3.10), with the following additional subelement:

- *Date/Time Closed (M144).* This is the date and time the folder was closed. No further records can be added to a closed folder.

The recordkeeping system should not over-specify the time; if only the date of the event is known the time should not be entered.

An example of the XML representation of a Date follows:

```
<vers:Date>
 <naa:DateTimeCreated>2003-03-19T15:01:17-10:00</naa:DateTimeCreated>
 <naa:DateTimeTransacted>2003-03-19T15:01:17-10:00</naa:DateTimeTransacted>
 <naa:DateTimeRegistered>2003-03-20T10:26:07-10:00</naa:DateTimeRegistered>
 <vers:DateTimeClosed>2003-05-30T14:39:00-10:00</vers:DateTimeClosed>
</vers:Date>
```

Note that within a File VEO, the Date element is defined within the vers namespace (i.e. ‘vers:Date’, not the naa namespace (i.e. ‘naa:Date’), which is used when the Date element is included in the record metadata.

5.4 File Disposal

There is also an additional collection of metadata associated with the disposal of a folder (and the records it contains). This element is only present when the records within a folder have been disposed of (destroyed or transferred), but the system retains the folder information to document that the records once existed.

Figure 26. Subelements of the File Disposal element.

The subelements of the File Disposal element are:

- *Disposal Schedule (M146).* This subelement contains a reference to the Retention and Disposal Authority that authorised the disposal of the records within this folder.
- *Disposal Date (M147).* This subelement contains the date and time the records in this folder were disposed of.
- *Authorizing Officer (M148).* This subelement identifies the person who authorised the disposal of the records.

An example of a File Disposal element follows:

```
<vers:FileDisposal>
 <vers:DisposalSchedule>
PROS 00/01 Water Authorities' Records, General Disposal Schedule
</vers:DisposalSchedule>
 <vers:DisposalDate>2003-03-19T15:01:17-10:00</vers:DisposalDate>
 <vers:AuthorizingOfficer>James McKinnon</vers:AuthorizingOfficer>
</vers:FileDisposal>
```

6 VEO Metadata

For a description of the use of the metadata associated with the outermost layers of a VEO (M1 to M9), see section 3.1 of Advice 12 on *PROS 99/007 Specification 3, VERS Standard Electronic Record Format*.

7 Signature Metadata

For a description of the use of the metadata associated with the Signature Block (M134) and Lock Signature Block (M152), see section 5.3 of Advice 12 on *PROS 99/007 Specification 3, VERS Standard Electronic Record Format*.

8 Modified VEO Metadata

For a description of the use of the metadata associated with the Signature Block (M134) and Lock Signature Block (M152), see section 3.5.2 of Advice 12 on *PROS 99/007 Specification 3, VERS Standard Electronic Record Format*.

9 Minimal VEOs

This section outlines the contents of a minimal VEO; that is, one with just the mandatory and necessary conditional metadata. Agencies are encouraged to use other metadata to assist in describing and managing the record over time.

9.1 Minimal Record VEO

Figure 27 shows the outer layers of a minimal Record VEO. The following general comments about the elements apply:

- *VEO Format Description (M2).* The contents of this element should be identical for all VEOs and the standard value for this element can be found in the description of this element in *PROS 99/007 Specification 2: VERS Metadata Scheme.*
- *Version (M3).* The contents of this element will be '2.0'.
- *Signature Format Description (M135).* The standard values for this element can be found in the description of this element in *PROS 99/007 Specification 2: VERS Metadata Scheme.* The value to be used will depend on the digital signature algorithms used to sign the VEO.
- *Signature (M138).* The value of this element is the result of calculating the digital signature encoded in Base64.
- *Certificate (M140).* The value of this element is a DER encoded certificate encoded in Base64.
- *Signature Algorithm Identifier (M150).* The standard values for this element can be found in the description of this element in *PROS 99/007 Specification 2: VERS Metadata Scheme.* The value to be used will depend on the digital signature algorithms used to sign the VEO.
- *Object Type (M6).* The value of this element will be 'Record'.
- *Object Type Description (M7).* The value of this element will be 'This object contains a record; that is, a collection of related information that must be preserved for a period.'
- *Object Creation Date (M8).* The value of this element will be the date and time the VEO was created. The date and time will be formatted according to the specification in section 14 of *PROS 99/007 Specification 2: VERS Metadata Scheme.*

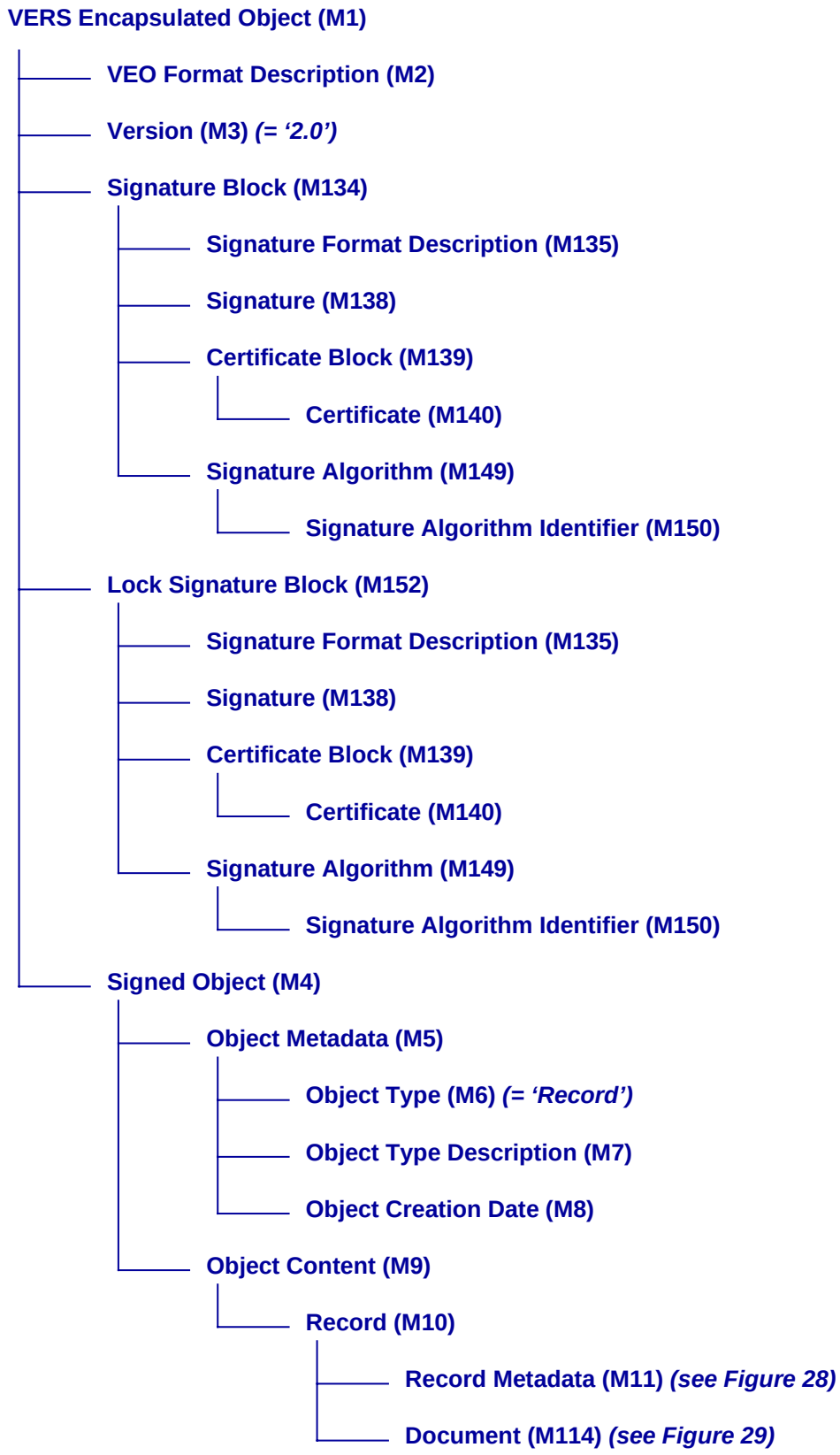


Figure 27. The mandatory metadata associated with a Record VEO.

Figure 28 shows the minimal metadata in the record metadata of a Record VEO. The following general comments about the elements apply:

- *Agent Type (M13).* If a Record VEO only contains one Agent, it would typically identify the organisation that owns the record. In this case, Agent Type would have the value 'Record Creator'.
- *Corporate Name (M16).* If the Agent Type (M13) is 'Record Creator', the Corporate Name will be set to the name of the organisation that owns the record.
- *Security Classification (M25).* The standard values for this element can be found in the description of this element in *PROS 99/007 Specification 2: VERS Metadata Scheme.* The value to be used will depend on the security classification of the record.
- *Scheme Type (M33).* The standard values for this element can be found in the description of this element in *PROS 99/007 Specification 2: VERS Metadata Scheme.* The value to be used will depend on how the record title has been assigned. If there is no naming scheme the value will be 'Free Text'.
- *Scheme Name (M34).* The standard values for this element can be found in the description of this element in *PROS 99/007 Specification 2: VERS Metadata Scheme.* The value to be used will depend on how the record title has been assigned. If there is no naming scheme the value will be 'None'.
- *Title Words (M35).* This is the title of the record.
- *Date/Time Created (M55).* The value of this element will be the date and time the record was created. If this date and time is not known, the value should be identical to Date/Time Registered (M57). The date and time will be formatted according to the specification in section 14 of *PROS 99/007 Specification 2: VERS Metadata Scheme.*
- *Date/Time Transacted (M56).* The value of this element will be the date and time the event the record documents occurs. If this date and time is not known, the value should be identical to Date/Time Registered (M55). The date and time will be formatted according to the specification in section 14 of *PROS 99/007 Specification 2: VERS Metadata Scheme.*
- *Date/Time Registered (M57).* The value of this element will be the date and time the record was first registered into a recordkeeping system. The date and time will be formatted according to the specification in section 14 of *PROS 99/007 Specification 2: VERS Metadata Scheme.*
- *Aggregation Level (M59).* The value of this element will be 'Item'.
- *Event Date/Time (M68).* Every record VEO must have at least one Management Event (M67) in the Management History (M66). The value of this element will be the date and time the event occurred. The date and time will be formatted according to the specification in section 14 of *PROS 99/007 Specification 2: VERS Metadata Scheme.*
- *Event Type (M69).* The type of event. If only one event is recorded, this would normally be the creation of the VEO and have the value 'VEO Created'.
- *Event Description (M70).* A longer description of the event. If the Event Type (M69) is 'VEO Created' this would describe why the VEO was created.
- *Disposal Authorisation (M89).* The value of this element would normally be a reference to the Retention and Disposal Authority that governs disposal of the record.
- *Sentence (M90).* For permanent records being exported to PROV, the value of this element would be 'Permanent'.

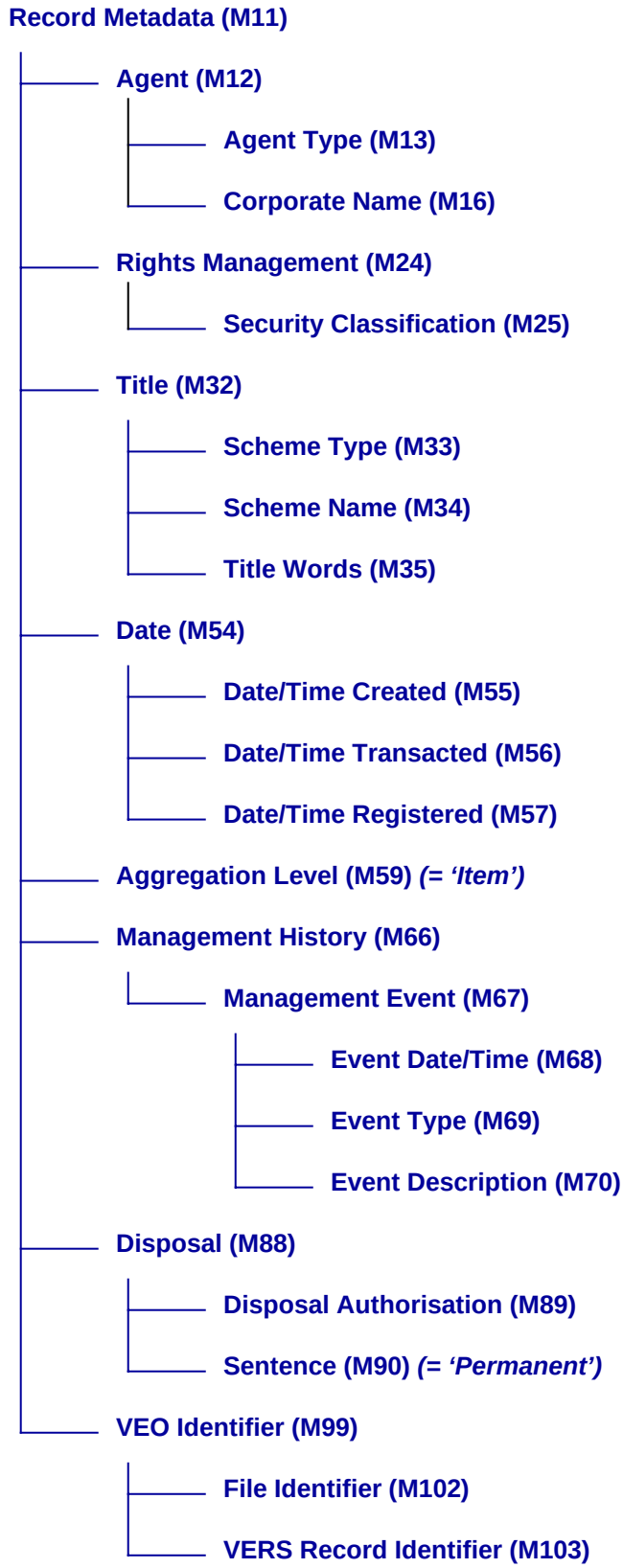


Figure 28. The mandatory metadata associated with the record metadata of a Record VEO.

- File Identifier (M102). This is the unique identifier(s) of the folder(s) on which the record is filed.
- VERS Record Identifier (M103). This is the unique identifier of this record.

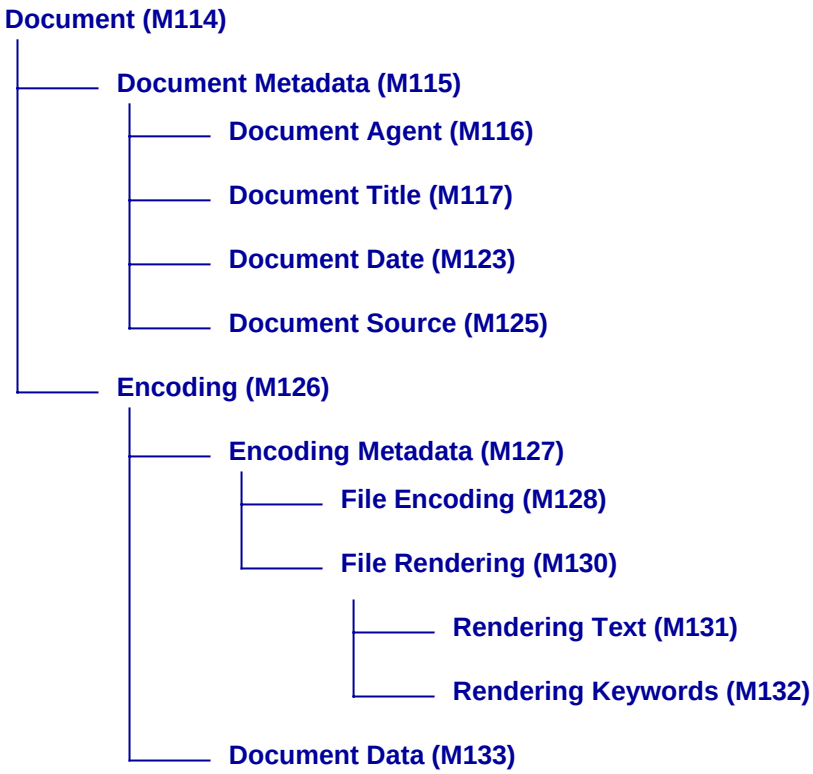


Figure 29. The mandatory metadata associated with a Document and an Encoding within a Record VEO.

Figure 29 shows the minimal metadata in a Document and an Encoding of a Record VEO. The following general comments about the elements apply:

- *Document Agent (M116).* All Documents must have at least one agent, typically identifying the creator of the Document. Note that the value of this element must be enclosed within a <vers:Text> element (see section 4.1).
- *Document Title (M117).* All Documents must have a title; this should distinguish this Document from other Documents in the record. Note that the value of this element must be enclosed within a <vers:Text> element (see section 4.1).
- *Document Date (M123).* This is the date of the creation of the Document. Note that the value of this element must be enclosed within a <vers:Text> element (see section 4.1).
- *Document Source (M125).* This element describes the system or application that generated the Document. Note that the value of this element must be enclosed within a <vers:Text> element (see section 4.1).
- *File Encoding (M128).* This element describes the physical representation of the Encoding (e.g. a PDF file). Standard values for this element are given in *PROS 99/007 Specification 4: VERS Long Term Preservation Formats.*
- *Rendering Text (M131).* The value of this element is normally ‘See the contents of the vers:FileEncoding element’.

- *Rendering Keywords (M132).* The value of this element describes the process of extracting the content. Note that this is marked as 'conditional' in PROS 99/007 Specification 2: VERS Metadata Scheme, but it must be present in all version 2 VEOs.
- *Document Data (M133).* This element contains the actual content of the encoding.

9.2 Minimal File VEO

Figure 30 shows the outer layers of a minimal File VEO and Figure 31 shows the minimal file metadata of a Folder VEO. The general comments for Record VEOs apply to these two figures.

9.3 Minimal Modified VEO

All of the metadata elements at the top-levels of a Modified VEO are mandatory.

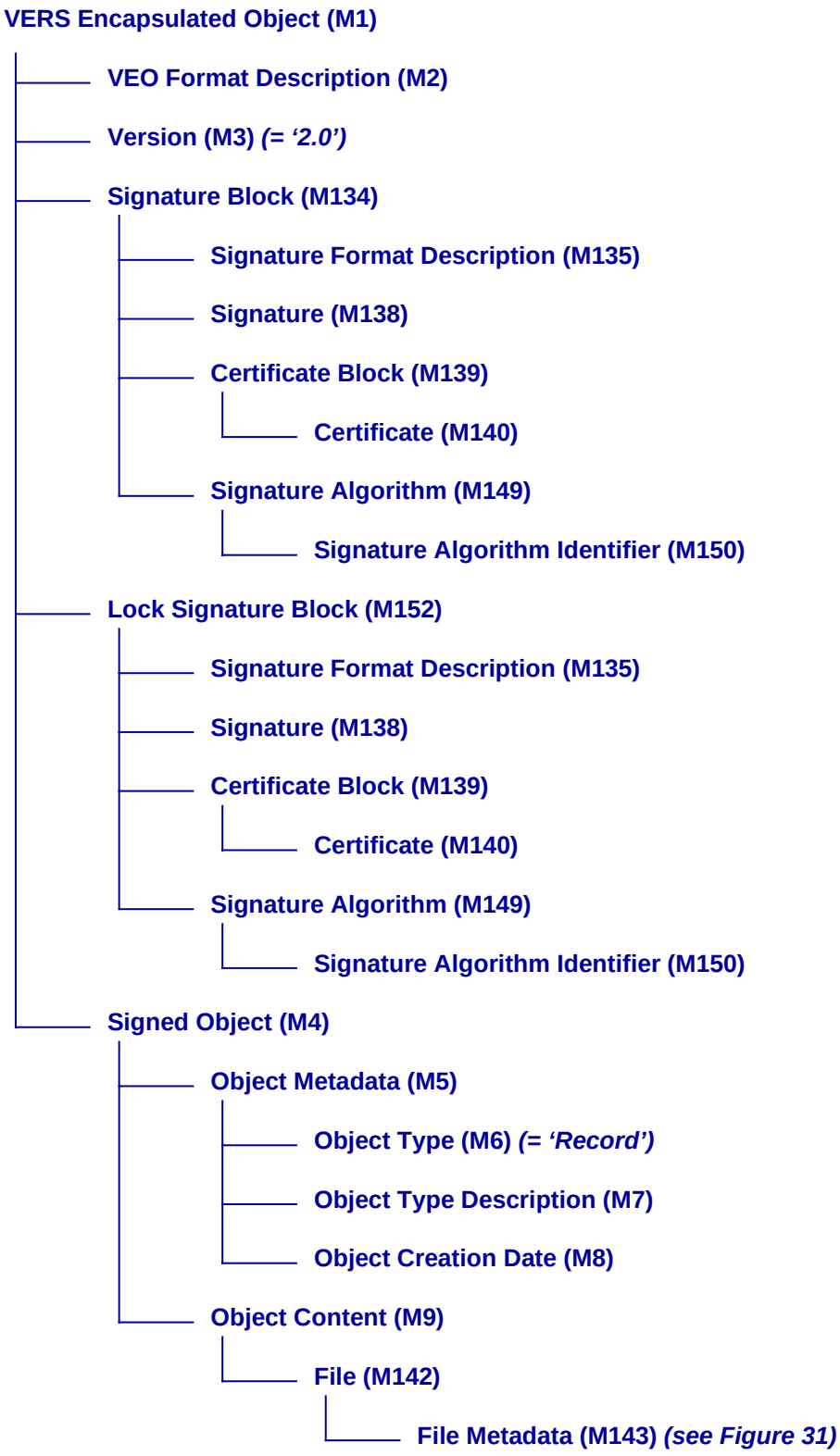


Figure 30. The mandatory metadata associated with a File VEO.

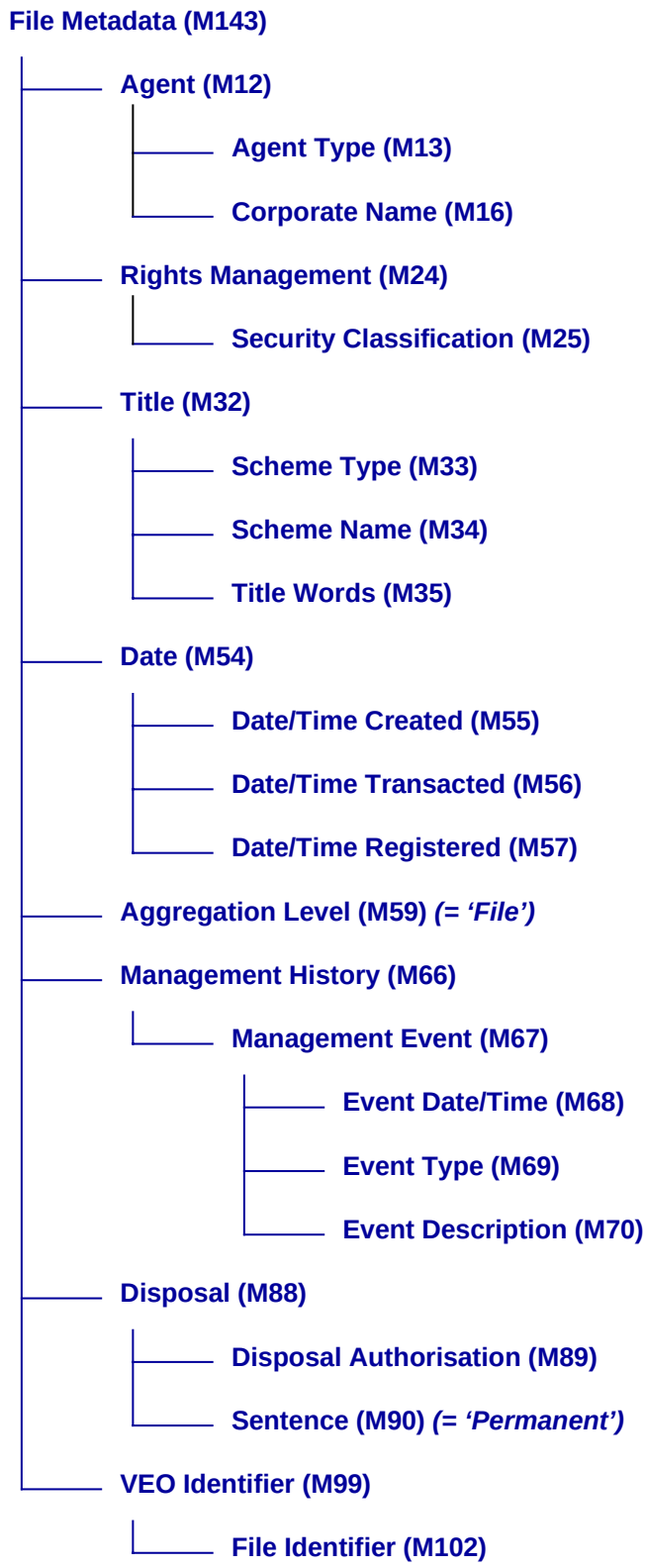


Figure 31. The mandatory metadata associated with the file metadata of a Folder VEO.

10 References

[AGLS] AGLS Metadata Element Set, Part 2: Usage Guide, Version 1.3, National Archives of Australia, 2002, ISBN 0642 34491 4. (http://www.naa.gov.au/recordkeeping/gov_online/agls/metadata_element_set.html visited 29 May 2003)

[NAA] Recordkeeping Metadata Standard for Commonwealth Agencies, Version 1.0, National Archives of Australia, May 1999, ISBN 0 642 34407 8. (http://www.naa.gov.au/recordkeeping/control/rkms/summary.htm visited 29 May 2003)

[PITTS] Functional Requirements for Evidence in Recordkeeping, University of Pittsburgh, School of Information Sciences. Note that the original Web site documenting the results of this project was accidentally destroyed, but a copy can be found on the Internet Archive http://web.archive.org/web/20000818163633/www.sis.pitt.edu/~nhprc/ visited 15 May 2003.