To: Joint Steering Committee for Revision of AACR

From: Tom Delsey, RDA Editor

Subject: RDA Database Implementation Scenarios

Attached are updated versions of the RDA database implementation scenarios discussed at the October 2006 meeting. The scenarios depicted are intended simply to illustrate some of the potential implementations of RDA data in various database structures.

No constituency responses to this document are required.
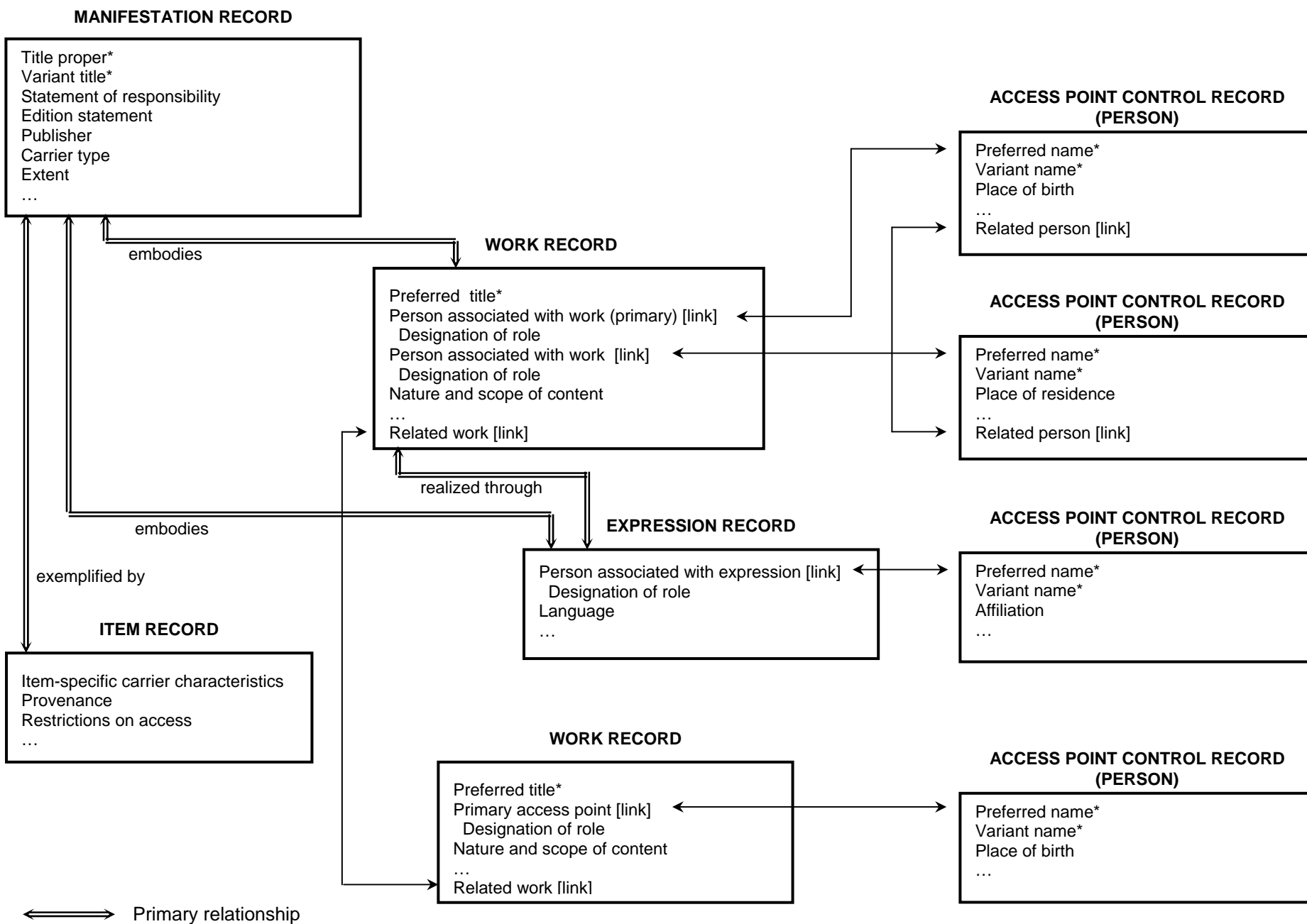
RDA Implementation Scenarios

The attached diagrams illustrate three potential implementation scenarios for RDA data.

In the first scenario, RDA data are stored in a relational or object-oriented database structure that mirrors the FRBR and FRAD conceptual models. Descriptive data elements are stored in records that parallel the primary entities in the FRBR model: work records, expression records, manifestation records, and item records. Data elements used for access point control are stored in records that are centred on the primary entities in the FRAD model: persons, families, corporate bodies, etc. Data elements indexed as access points (both controlled and uncontrolled) are marked with an asterisk. Relationships between the primary FRBR entities are reflected through links from one record to another. For example, the link from the manifestation record to the work record reflects the primary relationship between the manifestation and the work that it embodies. Similarly, a relationship between one work and another (e.g., a derivative relationship) is reflected in a link from one work record to another. Relationships between the primary FRBR entities and a person, family, corporate body, etc., are reflected through links from work records, etc., to access point control records for persons, etc. The relationship between one person and another, etc., is reflected in a link from one access point control record to another.
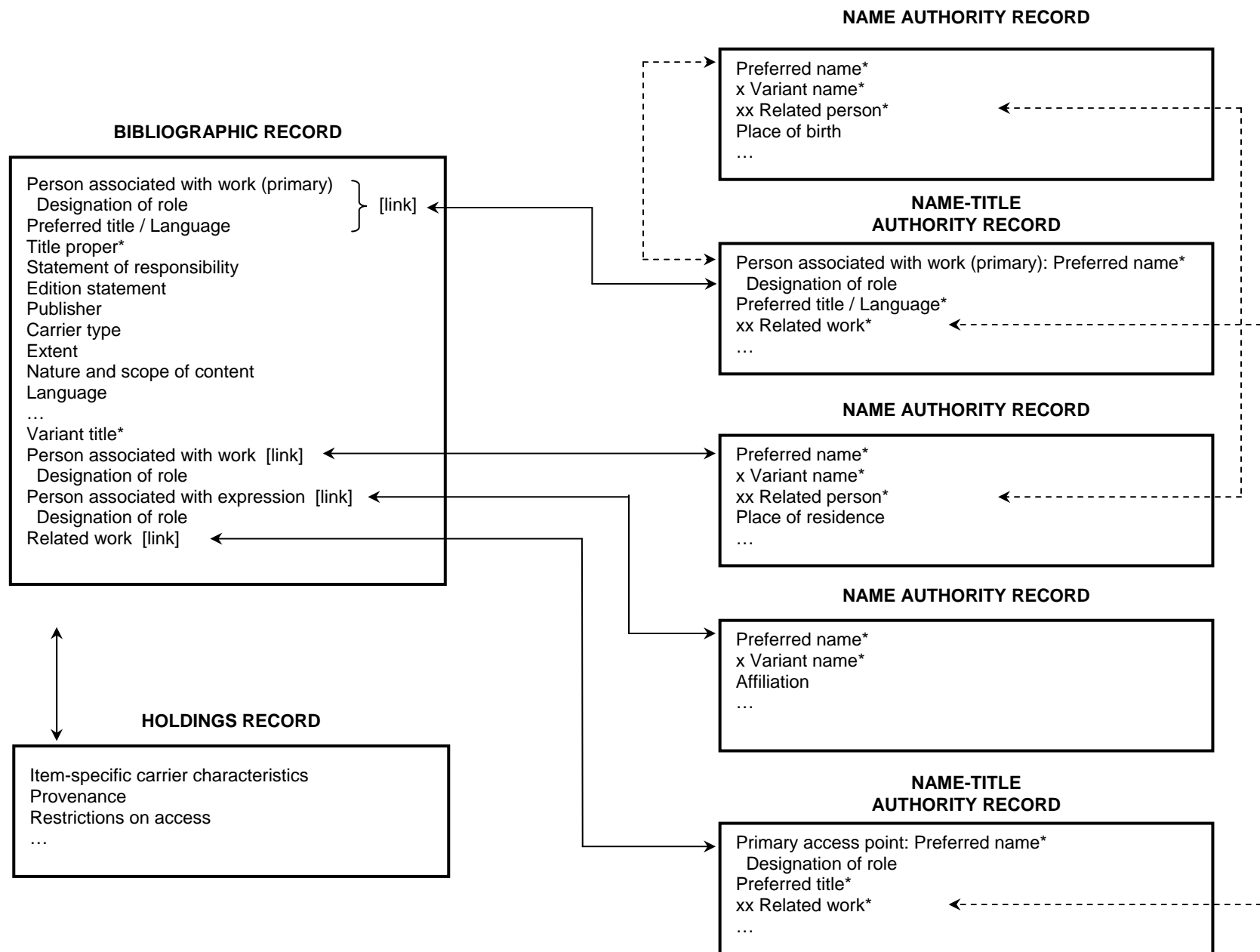
In the second and third scenarios, RDA data is stored in database structures conventionally used in library applications. In those structures, data is stored in bibliographic records and in authority records, and in some implementations in holdings records as well (as shown in scenario 2). Descriptive data elements are stored in bibliographic records. In implementations where bibliographic files and authority files are linked (scenario 2), the bibliographic record also contains links to authority records for persons, families, corporate bodies, etc., associated with the work, etc., embodied in the resource described. In implementations where bibliographic files and authority files are not linked (scenario 3), access points using the preferred name or title for the person, etc., are stored in the bibliographic record along with the descriptive data. In both types of implementation, variant names and other data used for access point control are stored in authority records.

RDA data can be readily mapped to any one of the implementation scenarios (or to variations on the three scenarios illustrated). In all implementations the data will support the functional objectives that RDA is designed to fulfil. The data structures used to store the data and to reflect relationships, however, will have a bearing both on the efficiency of data creation and maintenance, and on the ease and effectiveness with which users are able to access the data and navigate the database. For example, the use of records for works and expressions in the relational and object-oriented database structures ensures access not only to all works and expressions associated with a particular person, etc., but to all related works (adaptations, etc.) as well, regardless of whether the name of that person is used as the primary access point for those works or not.

Scenario 1: Relational / object-oriented database structure

MANIFESTATION RECORD

Title proper*
Variant title*
Statement of responsibility
Edition statement
Publisher
Carrier type
Extent
…

embodies

WORK RECORD

Preferred title*
Person associated with work (primary) [link]
  Designation of role
Person associated with work [link]
  Designation of role
Nature and scope of content
…
Related work [link]

realized through

**ACCESS POINT CONTROL RECORD
(PERSON)**

Preferred name*
Variant name*
Place of birth
…
Related person [link]

**ACCESS POINT CONTROL RECORD
(PERSON)**

Preferred name*
Variant name*
Place of residence
…
Related person [link]

embodies

exemplified by

ITEM RECORD

Item-specific carrier characteristics
Provenance
Restrictions on access
…

EXPRESSION RECORD

Person associated with expression [link]
  Designation of role
Language
…

**ACCESS POINT CONTROL RECORD
(PERSON)**

Preferred name*
Variant name*
Affiliation
…

WORK RECORD

Preferred title*
Primary access point [link]
  Designation of role
Nature and scope of content
…
Related work [link]

**ACCESS POINT CONTROL RECORD
(PERSON)**

Preferred name*
Variant name*
Place of birth
…

⟺ Primary relationship

Scenario 2: Linked bibliographic and authority records

NAME AUTHORITY RECORD

Preferred name*
x Variant name*
xx Related person*
Place of birth
…

BIBLIOGRAPHIC RECORD

Person associated with work (primary)
 Designation of role   } [link]
Preferred title / Language
Title proper*
Statement of responsibility
Edition statement
Publisher
Carrier type
Extent
Nature and scope of content
Language
…
Variant title*
Person associated with work [link]
 Designation of role
Person associated with expression [link]
 Designation of role
Related work [link]

**NAME-TITLE
AUTHORITY RECORD**

Person associated with work (primary): Preferred name*
 Designation of role
Preferred title / Language*
xx Related work*
…

NAME AUTHORITY RECORD

Preferred name*
x Variant name*
xx Related person*
Place of residence
…

NAME AUTHORITY RECORD

Preferred name*
x Variant name*
Affiliation
…

HOLDINGS RECORD

Item-specific carrier characteristics
Provenance
Restrictions on access
…

**NAME-TITLE
AUTHORITY RECORD**

Primary access point: Preferred name*
 Designation of role
Preferred title*
xx Related work*
…

Scenario 3: 'Flat file' database structure (no links)

NAME AUTHORITY RECORD

Preferred name*
x Variant name*
xx Related person*
Place of birth
…

BIBLIOGRAPHIC RECORD

Person associated with work (primary): Preferred name*
  Designation of role
Preferred title / Language*
Title proper*
Statement of responsibility
Edition statement
Publisher
Carrier type
Extent
Nature and scope of content
Language
…
Item-specific carrier characteristics
Provenance
Restrictions on access
…
Variant title*
Person associated with work: Preferred name*
  Designation of role
Person associated with expression: Preferred name*
  Designation of role
Related work: Primary access point/ Preferred title*

**NAME-TITLE
AUTHORITY RECORD**

Person associated with work (primary): Preferred name*
  Designation of role
Preferred title / Language*
xx Related work*
…

NAME AUTHORITY RECORD

Preferred name*
x Variant name*
xx Related person*
Place of residence
…

NAME AUTHORITY RECORD

Preferred name*
x Variant name*
Affiliation
…

**NAME-TITLE
AUTHORITY RECORD**

Primary access point: Preferred name*
  Designation of role
Preferred title*
xx Related work*
…