

To: RDA Steering Committee
From: Deborah Fritz, Chair, RSC Aggregates Working Group
Subject: Discussion paper: RDA and WGA treatment of aggregates

Abstract

This paper analyses the treatment of aggregates in the models found in the FRBR Working Group on Aggregates (WGA) report and FRBROO, suggests an amended model, and identifies issues still needing resolution before recommendations can be made for developing RDA to improve its accommodation of aggregates.

Justification

The following task was assigned by the RSC to the RSC Aggregates Working Group (AWG) for completion in 2016:

1. Investigate the issues for developing RDA instructions and elements for aggregate resources, building on 6JSC/AggregatesWG/1, and prepare a proposal/discussion paper by Aug. 1, 2016.
 - 1.1 Review RDA compliance with the models presented in the main part and appendix of the Final Report of the [FRBR] Working Group on Aggregates.
 - 1.2 Investigate the utility of FRBROO sub-classes of Work, Expression, and Manifestation for the description of aggregates in RDA.
 - 1.3 Test the two examples in 6JSC/AggregatesWG/1 in liaison with EURIG.
 - 1.4 Investigate issues raised in 6JSC/EURIG/Discussion/2 and 6JSC/EURIG/Discussion/3.

The task involves issues that have been repeatedly raised as RDA-L threads and have been presented in other discussion papers submitted to the RSC, e.g.:

- 6JSC/BL/Discussion/1 (Conventional Collective Titles)—2015
- 6JSC/EURIG/Discussion/2 (Illustrative content and other augmentations)—2013
- 6JSC/EURIG/Discussion/3 (Compilations of Works)—2013
- RSC/ALA-CCC/Discussion/1 (Accompanying material in RDA)—2016.

Scope

This paper:

- Is an analysis of the models presented in the Final Report of the [FRBR] Working Group on Aggregates and relevant FRBROO entities and their relationship properties
- Covers published manifestations that are monographs (including completed multipart monographs). It does not cover continuing resources or unpublished manifestations
- Is based on the Final Report of the Working Group on Aggregates¹, FRBROO version 2.4², RDA Toolkit April 2016 release, RDA Registry 2.5.0³, and 6JSC/AggregatesWG/1: RDA and FRBROO treatment of aggregates⁴

¹ <http://www.ifla.org/files/assets/cataloguing/frbrwg/AggregatesFinalReport.pdf>

² http://www.ifla.org/files/assets/cataloguing/FRBROO/frbroo_v_2.4.pdf

³ <http://www.rdaregistry.info/>

- Is also based on 6JSC/BL/Discussion/1⁵; 6JSC/EURIG/Discussion/2⁶; 6JSC/EURIG/Discussion/3⁷; RSC/ALA-CCC/Discussion/1⁸; 6JSC/AggregatesWG/1⁹.

The following sections are included in this paper:

- Terminology
- Methodology
- Analysis of modeling of aggregates
- The AWG version of modeling of aggregates
- Issues under discussion
- Examples applying the AWG modeling of aggregates
- Impact on users
- Impact on cataloguers
- Impact on legacy data
- Impact on RDA
- Summary of questions for the RSC.

Terminology

See Appendix A for definitions of certain terms, including FRBRoo terms.

In this document, “WGA” refers to the IFLA FRBR Working Group on Aggregates and “AWG” refers to the RSC Aggregates Working Group.

Methodology

Thirteen examples of aggregation works were analyzed using the proposed AWG model for aggregates, which is a version of the two models presented in the [FRBR] Final Report of the Working Group on Aggregates, with enhancements added by including relevant FRBRoo entities.

RDA Toolkit labels are used for relationships between entities shown in the figures provided in this paper. Proposed additional RDA relationships are shown in UPPERCASE with dotted lines. Grey text, boxes, and lines in figures indicate options not chosen.

⁴ <http://www.rda-jsc.org/sites/all/files/6JSC-AggregatesWG-1.pdf>

⁵ <http://www.rda-rsc.org/6JSC/BL/Discussion/1>

⁶ <http://rda-rsc.org/6JSC/EURIG/Discussion/2>

⁷ <http://rda-rsc.org/6JSC/EURIG/Discussion/3>

⁸ <http://www.rda-rsc.org/RSC/ALA-CCC/Discussion/1>

⁹ <http://www.rda-rsc.org/6JSC/AggregatesWG/1>

AWG analysis of modeling of aggregates

The WGA Report model

The main part of the Final Report of the Working Group on Aggregates (WGA), focuses on Group 1 aggregates. It defines an aggregate as “a manifestation embodying multiple distinct expressions”. It goes on to model an aggregate as an “aggregate manifestation which embodies n individual expressions” and “an aggregating expression of the aggregating work”. It specifically states that “An aggregating work ... does not contain the aggregated works themselves.”

In this model the individual expressions and the aggregating expression are all embodied in the aggregate manifestation, and there is no relationship specified between the individual expressions and the aggregating expression.

In the “Proposed FRBR Amendment” section, 3.4 Components, the report reminds us that ‘Whole-Parts’ do fit in the structure of their proposed model, which, they say: “also permits Group1 entities to have components or parts.”

The WGA Report Appendix B model

Appendix B of the Report defines an aggregate entity as “the ‘whole’ in a ‘whole/part’ relationship with two or more components (parts)”. It goes on to say that “when you are considering an aggregate entity, you have 1) a whole (aggregate), 2) its parts (components), and 3) the whole/part relationship between them”. It focuses on the whole-part relationships between each of the WEMI entities.

The appendix acknowledges the approach of describing an aggregate manifestation that embodies multiple expressions, but also emphasizes that “if an institution wishes to ignore individual components and treat a resource as an integral unit, then the FRBR model needs to accommodate that point of view, as well.”

The FRBRoo model

FRBRoo defines an *Aggregation Work* as a work ““whose essence is the selection and/or arrangement of expressions of one or more other works. This does not make the contents of the aggregated expressions part of this work, but only part of the resulting expression. *F17 Aggregation Work* may include additional original parts.” (p. 53)

According to FRBRoo the “selection and/or arrangement of expressions” is an intellectual process: “A Work may include the concept of aggregating expressions of other works into a new expression. For instance, an anthology of poems is regarded as a work in its own right that makes use of expressions of the individual poems that have been selected and ordered as part of an intellectual process.”

In a situation involving an aggregation, FRBRoo says that an expression of the Aggregation Work includes the expressions that have been selected and arranged for the Aggregation Work. FRBRoo relates a distinct expression of a Work to the resulting expression of the *Aggregation Work* using *P165 (incorporates / is incorporated in)*. “This property makes it possible to recognize the autonomous status of the ... [contents of the aggregated expression], which were created in a distinct context, and can be incorporated in many distinct self-contained expressions, and to highlight the difference between structural and accidental whole-part relationships between conceptual entities.” (p. 200)

In a situation involving a whole-part work, FRBRoo recognizes that an expression of a whole work contains the expressions of its part works. FRBRoo relates an expression that is part of another expression using *R5 (has component / is component of)*: “This property associates an *F2 Expression X* with a structural component *Y* that conveys in itself the complete concept of a work that is member of (R10) the overall work realized by *X*. It does not cover the relationship that exists between pre-existing expressions that are re-used in a new, larger expression and that new, larger expression. Such a relationship is modeled by P165 incorporates.” (p. 74)

The AWG version of modeling of aggregates

The AWG agrees with the main part of the WGA Report that:

- The definition of an aggregate is a “manifestation which embodies *n* individual expressions” and “an aggregating expression of the aggregating work”.
- An aggregating work might not be “considered sufficiently significant to warrant bibliographic identification or description”.

The AWG agrees with Appendix B of the WGA Report that some or all of the individual expressions and works might not be considered significant enough to warrant bibliographic identification or description, in which case it would be reasonable to “ignore the individual components in the bibliographic description”.

The AWG agrees with FRBRoo that:

- When dealing with aggregations, the primary focus is on expressions.
- When describing both the multiple distinct expressions of one or more works and the aggregation expression in which they are included, it is useful to relate the distinct expressions to the aggregating expression using an *incorporates / is incorporated in* relationship; this option will be particularly useful when the same aggregation is embodied in different manifestations.

The AWG agrees with its own paper “6JSC/AggregatesWG/1” that it is possible to:

- Ignore the publication content of a published resource (see **Appendix C: Example #1**).
- Short-cut describing some or all of the individual expressions/works by relating their creators to the aggregating expression; note that the AWG is now recommending relating to the expression of the Aggregation Work, instead of the Publication Expression (e.g., see the *illustrator* relationship in Appendix C: Example #4).

The AWG prefers to use the FRBRoo term “Aggregation Work” rather than the WGA term “Aggregating Work”.

Based on its analysis of the variously proposed models, the AWG suggests the following model:

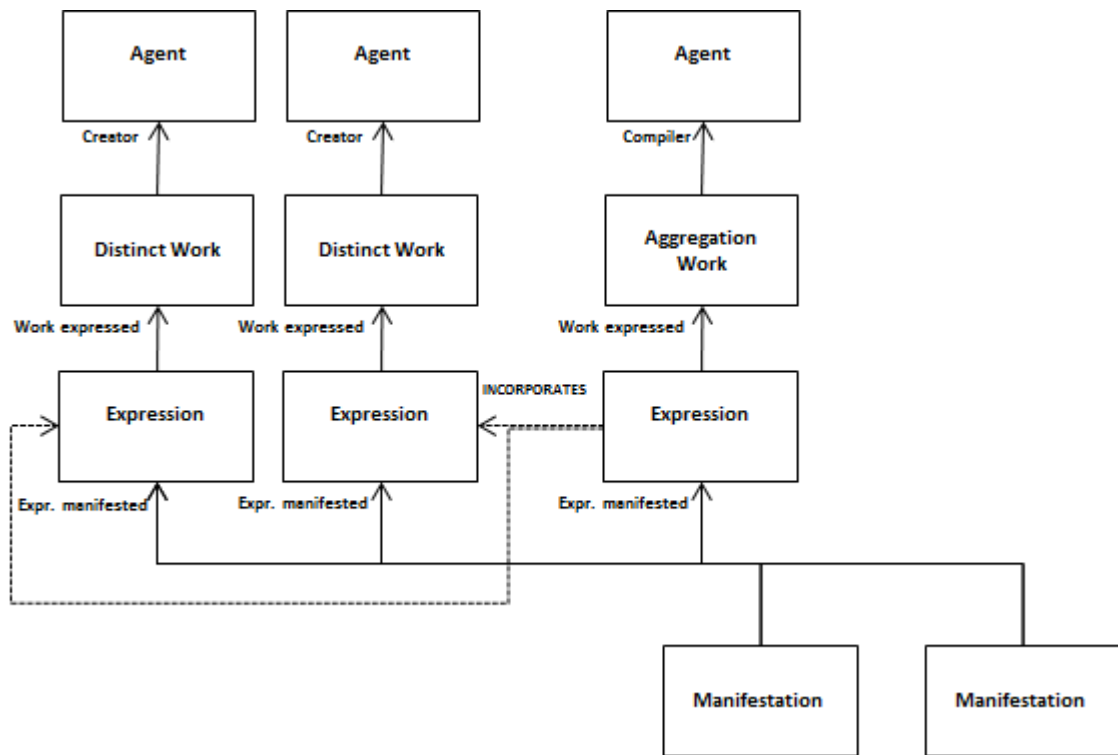


Figure 1: The full AWG model for aggregates

- An Aggregation Work is a Work that is realized by a compilation of distinct expressions of one or more works. It is important to note that the Aggregation Work is created by the Agent(s) who selected and arranged the distinct expressions that are compiled in the expression of the Aggregation Work.
- A distinct Work is a Work whose expression is compiled in the Expression of an Aggregation Work; a distinct Work can be:
 - A single Work
 - A whole-part Work
 - Another Aggregation Work (FRBRoo subclass F17).
- An Expression of an Aggregation Work incorporates Expressions of distinct Works
- A Manifestation of an Aggregation Work embodies both an Expression of an Aggregation Work and the Expressions of one or more distinct Works; the aggregating Manifestation can be related to the embodied Expressions differently by different cataloguers:
 - Only to the Expression of the Aggregation Work; or
 - directly to the Expression(s) of each distinct Work that are included in the Expression of the Aggregation Work; or
 - to the Expression of the Aggregation Work and from there to the Expression(s) of each distinct Work that are included in the Expression of the Aggregation Work, using an *incorporates* relationship.

When applying this proposed model, the AWG suggests that any of the following options can be used to describe an aggregate:

- A. a comprehensive description of the Aggregation Work and Expression, and the aggregating Manifestation(s).

This type of description could be most useful for anthologies of poems or other compilations that include too many distinct works to allow us to mention them separately. Editors and other contributors can be related to the expression of the Aggregation Work. Creators of the content that is included in that expression can also be related to that expression (see “Issues under discussion: Adding Creator of Content relationships” below).

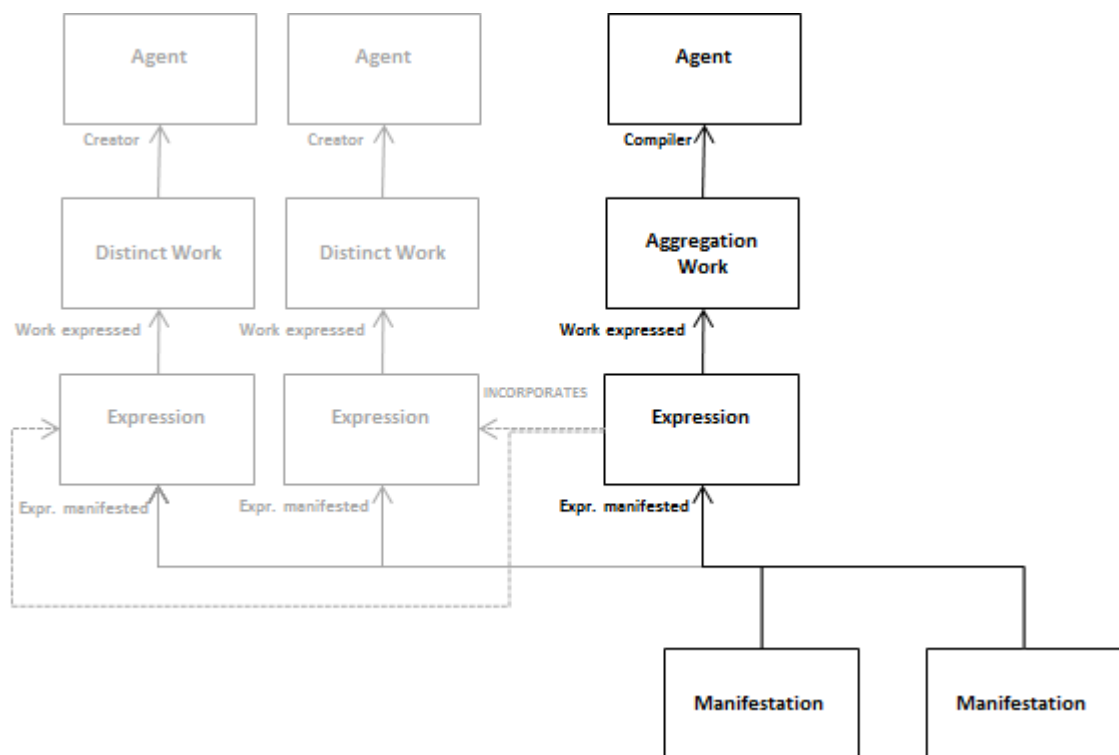


Figure 2: A comprehensive description of the Aggregation Work and Expression, and two aggregating Manifestations of the same Expression

- B. an analytical description of one or more of the distinct Works and Expressions, and the aggregating Manifestation(s):

This type of description could be most useful for compilations of only a few works, especially when the compilation does not include any supplementary content (e.g., an introduction or preface) or when the cataloguer feels that such content is not important to describe.

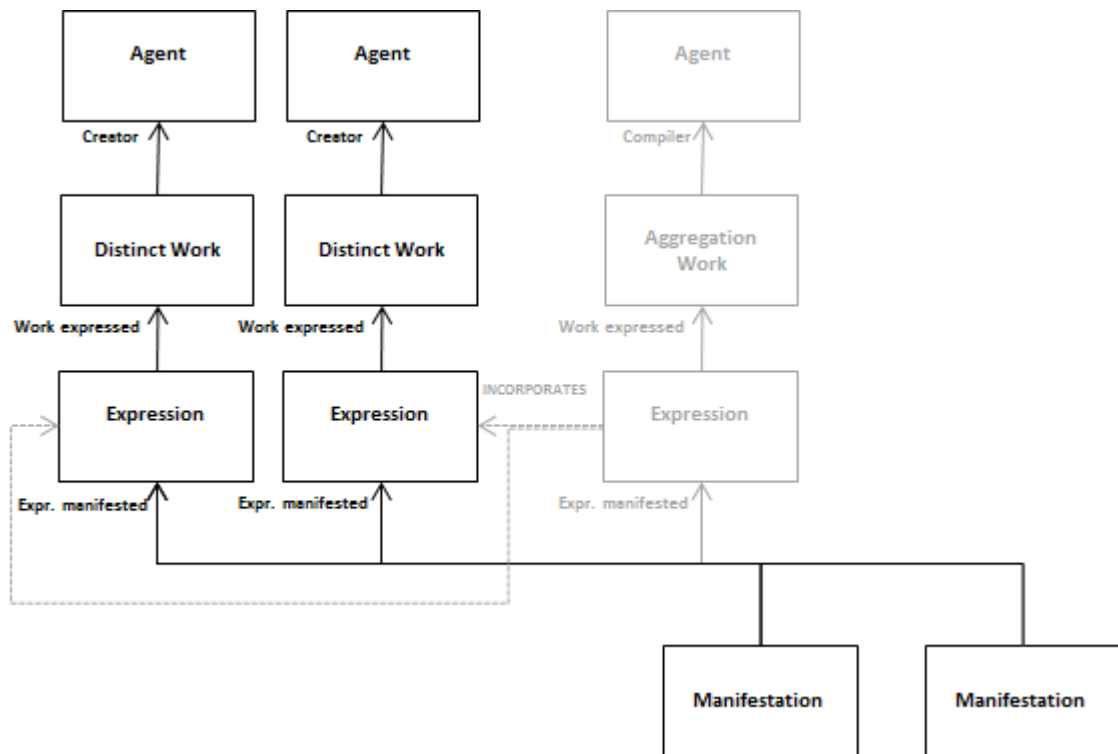


Figure 3: An analytical description of one of the distinct Works and Expressions, and two aggregating Manifestations

- C. A hierarchical description of the Aggregation Work and Expression and the aggregating Manifestation(s), and one or more of the distinct Works and Expressions, incorporated in the aggregating Expression.

This type of description could be most useful when a compilation includes distinct content that the cataloguer feels it is important to describe, and has supplementary content (e.g., an introduction) or other types of contributions (e.g., editing) that seems important to describe.

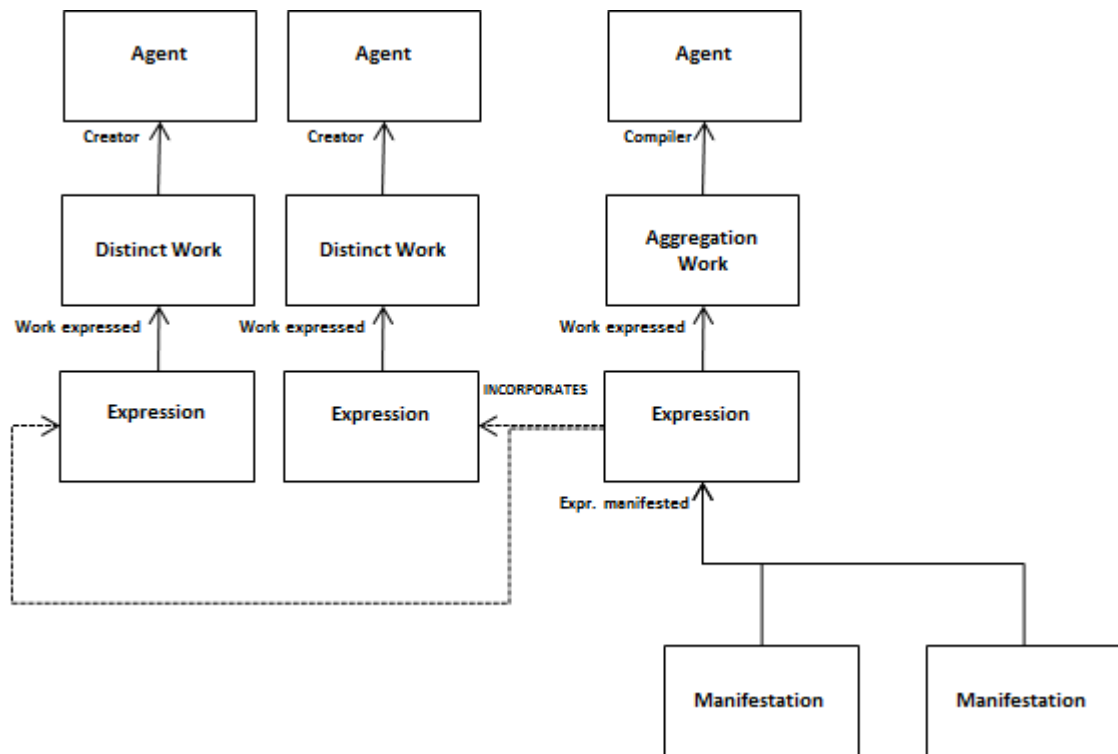


Figure 4: A comprehensive description of the Aggregation Work and Expression, and two aggregating Manifestations of the same Expression and an analytical description of two of the distinct Works and Expressions that are incorporated in the aggregating Expression

Note that the choices for types of descriptions at RDA 1.5 apply at all WEMI levels, and can be applied differently at each level, e.g.:

- analytical description of the distinct Works, Expressions and Manifestations of an aggregation
- analytical description of the distinct Works, Expressions of an aggregation and comprehensive description of its Manifestation
- comprehensive description of the Aggregation Work and its Expression and Manifestation
- hierarchical description of the Aggregation Work and its Expression and Manifestation and one or more of its distinct Works and Expressions
- other combinations as deemed necessary.

Issues under discussion

The AWG would appreciate guidance from the RSC on the following issues, so that we can know whether to proceed along these lines.

Identifying single Works vs. whole-part Works or Aggregation Works

After some debate, the AWG has decided that it is important to keep the distinction between a whole-part work and an aggregation work, rather than simplifying everything by calling everything that is not a single work an aggregation work. One reason for this decision was because when a cataloguer is describing:

- A work that is a whole-part work, then they only need to describe the whole-part work, without needing to describe all of its parts, because a whole is always the sum of its parts (or its anticipated parts, for a series).
- A work that is an aggregation work, then they must specify which expression of the aggregation work they are describing, because different expressions of the aggregation work can include different contents, as long as the concept of the aggregation work has not changed.

1. **Does the RSC agree:** that it is important to retain the distinction between a whole-part work and an aggregation work?

If this distinction is to be retained, the AWG has determined that it is extremely important to make it simple for a cataloguer to decide when a manifestation is embodying a single work, a whole work and its parts, or an aggregation work.

The AWG is confident about distinguishing between single work vs a whole-part or aggregation work:

- If a manifestation contains only one distinct expression, then only one single Work is present
- If a manifestation embodies multiple distinct expressions, then either an Aggregation Work or a whole-part Work and [n] distinct Works are present. Those distinct Works might be any one of these types of works:
 - an Aggregation Work
 - a whole-part Work
 - a single Work

The AWG is still investigating how to distinguish a whole-part work vs. an aggregation work. This is what we have, so far:

- A whole Work is always the sum of its parts, so every expression of the whole must always contain the same parts as other expressions of the whole; if this is true, relate the whole to the parts using the RDA 'container of (work)' relationship.
- A whole Expression is always the sum of its parts, so every manifestation of the expression must always contain the same parts as other expressions; if particular manifestation(s) of a particular expression are split into parts, relate the whole to the parts using the RDA 'container of (expression) relationship.
- A whole manifestation is always the sum of its parts, but this applies only to the particular manifestation; if a particular manifestation is split into parts, relate the whole to the parts using the RDA 'container of (manifestation) relationship.

- A new expression of an Aggregation Work can contain different contents than other expressions of the work.
2. **Does the RSC agree:** that it would be useful to provide simple direct wording to enable a cataloguer to differentiate between a whole-part work vs. an aggregation work? The AWG thinks it might be useful if such wording could start with:
- If a manifestation embodies multiple distinct expressions, and:
 - ..., then the manifestation embodies an Aggregation Work and Distinct Works
 - ..., then the manifestation embodies a whole-part Work and its parts.

Adding an *Incorporated in / Incorporates* relationship to RDA

This relationship is based on the FRBROO relationship: P165 (*incorporates / is incorporated in*). It can be used to relate one or more distinct expressions of one or more works to the expression of the Aggregation Work in which they are included. Some possible terms are:

- Incorporated in / Incorporates (as per FRBROO P165)
- Aggregated in / Aggregation of
- Included in / Includes
- Compiled in / compilation of

Some of the AWG prefer #1, some prefer #2.

Further investigation is needed, in order to determine where this relationship would fit in the hierarchy of Expression relationships at RDA J.3.

To see how this relationship is applied, see **Appendix C: Example #4-Option 1**.

3. **Does the RSC agree:** that an “incorporated in / Incorporates” relationship is useful for describing aggregates and a relationship element for it should be added, at some later date, to RDA?
4. **Can the RSC offer guidance on:**
- an appropriate label for this relationship element?
 - where this relationship element would fit in the hierarchy of Expression relationships at RDA J.3?

Adding *Creator of Content* relationships

This relationship is needed because an Aggregation Work is created by the Agent(s) who selected and arranged the distinct expressions that are incorporated in the expression of the Aggregation Work; an Aggregation Work is not created by the Agent(s) who created the works that are included in the Aggregation Work. This applies even when every distinct work that is included in the Aggregation Work is created by a single Agent.

Currently, however, RDA 6.27.1.2 (One Person, Family, or Corporate Body) and 6.27.1.3 (Collaborations) have been applied in such a way that a creator of all of the distinct works in a compilation is given as the creator of the compilation (e.g., “John Paul II, Pope, 1920–2005. Speeches”)

It is certainly logical to expect that a search by the name of the creator of all of the works in a collection of works will find that collection.

If one or more of the distinct Works and Expressions in a compilation are described separately, then the Works will be linked to their Creator and the expressions of the Works will be linked to (incorporated in) the expression of the Aggregation Work. This means that a search on the Creator will, eventually, get to the Aggregation Work.

But if a distinct Work and Expression is not described separately, or if you want a search on the Creator of one or more distinct Works in a compilation to get directly to the expression of the Aggregated Work, then it should be possible to add a short-cut relationship to the expression of the Aggregated Work. This kind of short-cut is similar to the one described in 6JSC/AggregatesWG/1.

To see how this relationship is applied, see **Appendix C: Example #4-Option 2 and Example #5**.

Further investigation is needed in order to determine:

- What needs to be added to or amended in the existing categories of RDA relationships between an Agent and a Work or Expression:
 - Creator (when the creator is responsible for a single work or whole-part work)
 - Creator of Content (*when the creator is responsible for a distinct work and the expression of that work is incorporated in an expression of an Aggregated Work*)—Proposed
 - Other One Person, Family, or Corporate Body Associated with a Work (when the agent is associated with a single work or whole-part work)
 - Other One Person, Family, or Corporate Body Associated with Content of a Work (*when the agent is associated a distinct work and the expression of that work is incorporated in an expression of an Aggregated Work*)—Proposed
 - Contributor (when the agent contributes to an expression of a work, without creating a distinct expression).
 - What sub-properties need to be added to *Creator of Content*, e.g., *Author of Content*, *Artist of Content*, *Cartographer of Content*, and *Other One Person, Family, or Corporate Body Associated with Content of a Work*, e.g., *Commissioning Body of Content*.
 - What sub-properties of *Contributor* need to be moved to *Creator of Content* and possibly renamed, e.g., *writer of added commentary* moved and renamed *author of commentary*.
 - What sub-properties of *Contributor* should be left where they are, because they are not contributing distinct expressions that are included in the expression of the Aggregation Work, e.g., *editor*, *abridger*, *editor*.
5. **Does the RSC agree:** that a “Creator of Content / Creator of Content of” relationship is useful for adding short-cut access to an expression of an Aggregated Work when it does not seem necessary to describe distinct works and expressions separately, and that a relationship element for it should be added, at some later date, to RDA?

Developing RDA instructions for aggregations

The AWG has identified general and specific instructions that might need to be amended or even deprecated. This list can be found in Appendix C.

Some of the instructions are for these groups of issues:

- Conventional Collective Titles (6JSC/BL/Discussion/1)
- Augmentations (6JSC/EURIG/Discussion/2)
- Compilations (6JSC/EURIG/Discussion/3)
- Accompanying materials (RSC/ALA-CCC/Discussion/1)
- Collaborations involving different types of content

The AWG will investigate changes to these instructions once we have applied our proposed model to additional examples of the above issues and others, e.g., performance works, recording works, etc.

Developing instructions for changes affecting the identification of an Aggregated Work

The AWG suggests that, as described in RDA 6.27.1.5, if the nature (concept) of an Aggregation Work:

- has not changed, then the cataloguer should treat the addition, deletion, or revision of an included expression as a new aggregation Expression and not a new Aggregation Work
- has changed, then the cataloguer should treat the Aggregation Work as a new Aggregation Work.

The AWG will investigate whether an additional instruction should be added to RDA 6.1.3 to specifically cover Works issued as Aggregation Work.

6. Does the RSC agree:

- that the addition, deletion, or revision of an included expression in an aggregation Expression requires a new aggregation Expression, but not a new Aggregation Work, unless the entire concept of the Aggregation work has changed?
- that an instruction should be added to RDA somewhere to say this?

Examples applying the AWG modeling of aggregates

See Appendix C for examples of applying the AWG modeling of aggregates.

The examples are presented in the order given so as to build our case for our model.

The AWG hopes to have additional examples ready before the RSC meeting in November.

Impact on Users

Users will be able to:

- easily distinguish between the actual works of an Agent and when those works are included in a compilation, and are not new works created by the Agent
- find a compilation when searching under the name of a contributor of the content of the compilation, even if the content itself has not been described separately.

Impact on Cataloguers

Cataloguers will have to learn:

- how to distinguish between single works and whole-part or aggregation works
- not to call an augmentation of a primary work a new expression of that primary work—once 6.27.1.6 and any related instructions for music, etc., are amended
- not to relate a creator of the entire content of a compilation as the creator of the compilation—once 6.27.1.2 and 6.27.1.3 and any related instructions for music, etc., are amended.

Other equally important learning opportunities will, undoubtedly, be identified, as the AWG applies the model to additional examples.

Impact on legacy data

Further investigation is needed to determine the impact of this modeling of aggregates on legacy data and the conversion of that data to linked entity data.

Impact on RDA

The implementation of the AWG model or any of the source models described in this paper, will require rethinking about a number of sections in RDA. See Appendix C for a list of instructions that will probably require either minor or major changes.

Summary of questions for the RSC

- 1. Does the RSC agree:** that it is important to retain the distinction between a whole-part work and an aggregation work?
- 2. Does the RSC agree:** that it would be useful to provide simple direct wording to enable a cataloguer to differentiate between a whole-part work vs. an aggregation work? The AWG thinks it might be useful if such wording could start with:
 - If a manifestation embodies multiple distinct expressions, and:
 - ..., then the manifestation embodies an Aggregation Work and Distinct Works
 - ..., then the manifestation embodies a whole-part Work and its parts.
- 3. Does the RSC agree:** that an “incorporated in / Incorporates” relationship is useful for describing aggregates and a relationship element for it should be added, at some later date, to RDA?
- 4. Can the RSC offer guidance on:**
 - an appropriate label for this relationship element?
 - where this relationship element would fit in the hierarchy of Expression relationships at RDA J.3?
- 5. Does the RSC agree:** that a “Creator of Content / Creator of Content of” relationship is useful for adding short-cut access to an expression of an Aggregated Work when it does not seem necessary to describe distinct works and expressions separately, and that a relationship element for it should be added, at some later date, to RDA?
- 6. Does the RSC agree:**

- that the addition, deletion, or revision of an included expression in an aggregation Expression requires a new aggregation Expression, but not a new Aggregation Work, unless the entire concept of the Aggregation work has changed?
- that an instruction should be added to RDA somewhere to say this?