

# **ONIX for Books**

## **Product Information Message**

Application Note: Related products and other product links

Recipients of ONIX metadata consistently comment that data providers don't deliver the range of product links that recipients need. For many downstream users of ONIX metadata, product links – related products – are a key element of their customer service: “I'm sorry, that's no longer available, but *this* is the replacement edition.” Linking a product to others that offer the same content in an alternative format gives the customer choices – print, digital or audio – and confidence they are getting the best available product for their needs.

So – ONIX senders – do you deliver as wide a range of product links as you should?

### 1. How are related products specified in ONIX?

Unsurprisingly, through the <RelatedProduct> composite that forms a major part of Block 5 in ONIX 3.0 <sup>1</sup>:

```
<RelatedProduct>
  <ProductRelationCode>03</ProductRelationCode> <!-- replaces -->
  <ProductIdentifier>
    <ProductIDType>15</ProductIDType>
    <IDValue>9782849026335</IDValue>
  </ProductIdentifier>
</RelatedProduct>
```

This means that the product that is the subject of the Product record as a whole replaces the product identified within <RelatedProduct> – code 03 defines the nature of the relationship between the two products.

You can see that the relationship is ‘one way’. A *replaces* B. Conversely, B *is replaced by* A, and ‘is replaced by’ is a different relationship – in fact it uses code 05. That means that in the full ONIX record for the *other* product, product B, there should be a <RelatedProduct> composite that uses code 05 and contains the ISBN <sup>2</sup> for product A:

```
<RelatedProduct>
  <ProductRelationCode>05</ProductRelationCode> <!-- is replaced by -->
  <ProductIdentifier>
    <ProductIDType>15</ProductIDType>
    <IDValue>9782849027660</IDValue>
  </ProductIdentifier>
</RelatedProduct>
```

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<sup>1</sup> This composite is greatly simplified from ONIX 2.1, to avoid problems discussed under Q.5

<sup>2</sup> The ISBN is used as the product identifier here (ID type 15) for clarity, but it is best practice to include a GTIN-13 as well, and any other product identifiers can also be included.

The relationships between books often come in pairs like this. This pair, *replaces* and *is replaced by*, are most often used to link together old and new editions. Code 03 is used in the ONIX record for the new edition, and <RelatedProduct> includes the ISBN of the older edition. Conversely, code 05 is retrospectively added to metadata of the older edition, and <RelatedProduct> contains the ISBN of the new edition.

## 2. So if we publish a 37th edition, do all 36 previous editions need to have updates to their metadata?

Luckily, no. Of the earlier editions, only the 36<sup>th</sup> needs to be updated upon publication of the 37<sup>th</sup> edition. The 35<sup>th</sup> *already* says it's replaced by the 36<sup>th</sup>, so you just need to update the 36<sup>th</sup> to say it's replaced by the 37<sup>th</sup>. You *don't* need to alter the record for the 35<sup>th</sup> to say it's now replaced by the 37<sup>th</sup>. Stick with *direct* replacement, and data recipients can follow a 'chain' from any old edition to the latest.

Of course, the record for the 37<sup>th</sup> will state it replaces the 36<sup>th</sup> right from the outset, and in principle, the chain can be followed right back to the original edition.

## 3. What other relationships might there be?

There's quite a large set, all outlined in ONIX Codelist 51 (see <https://ns.editeur.org/onix/en/51>). In addition to *replaces* and *is replaced by*, here are the most common.

**Alternative format** (code 06) – used to link together different formats (hardback, paperback, different e-book file format, audio formats) that all share the same content. In technical terms, we call these 'alternative manifestations of the same work'. Each is linked to all the others, and this relationship is *not* directional. If A is an alternative to B, then B is an alternative to A. This means that if a particular book is available in hardback, trade paperback, paperback, perhaps two different formats of e-book, and as a physical audiobook on CD (unabridged) then each of the six ONIX Product records will contain at least five repeats of the <RelatedProduct> composite. If later, a digital audio version of the work is published, it becomes a seventh alternative, and in an ideal world the six other Product records should all be updated with an extra repeat of <RelatedProduct>. (You'd be forgiven if you only updated those older products that remain commercially available.)

**Includes and is part of** (codes 01 and 02) – used to link together a standalone book and an omnibus, or in any other case where the content of one product is included in its entirety within another. For example, you might have three books, each published separately but also available in an omnibus edition – four products in all. The first three Product records would each contain a single <RelatedProduct> composite using relation code 02. The fourth, the Product record for the omnibus, would contain three repeats of <RelatedProduct> all using code 01 – that is, each of the

three are part of the omnibus set, and the omnibus includes the three individual books.<sup>3</sup>

#### 4. What if I get the relationship direction the wrong way around?

It's all too easy... and sometimes the only thing you can do is to read the notes associated with each code rather carefully. Code 01 (Includes) has the following – perhaps slightly cryptic – note: “<Product> includes <RelatedProduct> (inverse of code 02)”. Read this as, “the product that is described by the Product record as a whole includes the contents of the product that is identified by the identifier in the Related product composite”.

For a few of the codes there are some logical limitations that can be used to double-check the direction of the relationships. If product A is replaced by product B, then it follows that B must have a later publication date. So while the Product records for A and B both contain a <RelatedProduct> composite, the record with the older publication date should contain <RelatedProduct> with relation code 05 and the ISBN for the newer product. Conversely, the ONIX Product record for the newer product should contain a <RelatedProduct> composite with the ISBN for the older product and relation code 03.

#### 5. Can I include the title, edition number, binding and so on – all the metadata of the related product – right there inside <RelatedProduct>

No – that's such a bad idea that ONIX 3.0 doesn't allow you to do it.

In fact, in ONIX 2.1, a <RelatedProduct> composite *could* contain some significant details about the related product. But the problem is that if that other product's details change, it's difficult to remember to update all the relevant <RelatedProduct> composites that refer to it. It's akin to the problem of updating the 35 previous editions in Q.2, and if you miss one, you have a contradiction in the metadata that can't easily be resolved. In technical terms, this is a referential integrity problem – easy to avoid within a single system, but all but impossible across a highly-distributed metadata supply chain.

*Ideally*, there should be no information *other than identifiers* about the related product within <RelatedProduct>. If as a data recipient, you need some further details of the related product, look the ISBN up and get the data from the full ONIX record for that related product. But in a nod to practicality, <ProductForm> and <ProductFormDetail> *only* can be embedded inside <RelatedProduct>, because they are the most useful details and are least likely to change (particularly after that other product has been published).

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<sup>3</sup> There's a subtle distinction between this and the use of <ProductPart> here. <RelatedProduct> is about the *content* of the three, whereas if the fourth product was a boxed set instead of an omnibus volume, you should use <ProductPart>. The boxed set physically contains a copy of each of three books, whereas the omnibus does not – it's just a single book, but it contains the content of the three individual books. In practice, you'd probably use both <ProductPart> *and* <RelatedProduct> for the boxed set, but you should not use <ProductPart> for a single volume omnibus. And if you *really* want to be thorough, you should also consider using <ContentItem> as well.

## 6. Do the related products have to be still available? I've just made my related hardback OP, so I need to remove the <RelatedProduct> composite in the ONIX Product record for the paperback that refers to the hardback?

No. The fact that a related product *exists* doesn't imply anything about whether that other product is still *available*.

In general, avoid adding details of a *forthcoming* related product until it's actually available –in part because it might be abandoned before publication – and more commercially, you might not want to prejudice sales of the original by stating a replacement is on its way. (That's not to suggest that no details of the new product should be released – best practices in most countries suggest full metadata for forthcoming books should be available at least three or four months in advance of publication (in the UK, it's 16 weeks, in the US, 26 weeks).

## 7. There are a few product links that looks quite specialised – 'Epublication based on (print product)' for example. What does that mean?

This code dates from the days prior to 2012 when many publishers had sizeable backlists that were not available digitally, and as old books were made available as e-books, it was important to know exactly *which* old version was digitized. Was the e-book converted from the paperback or converted from the hardback, from the original 1831 *Notre-Dame de Paris* or from a version in contemporary French?

These days, this is less important – but the same relationship is used to track where any page numbers in the e-book come from. Reflowable e-books (for example most conventional EPUBs) don't have fixed pagination. But particularly in educational contexts, it can be vital to add page number markers into a reflowable e-book, to match the physical pagination of the paperback or hardback. So the E-publication based on (print product) relationship (code 13) serves to indicate which of potentially several different print versions the page number markers came from. Code 13 appears in the Product record for the e-book with the ISBN of the physical book. Its opposite, Electronic version available as (code 23) appears in the product record for the physical book with the ISBN of the e-book.

Are there other specialized product relations? Yes – you can link a normal copy with a signed copy, provided the signed edition has a distinct identifier). For e-books, you can link a standard and an enhanced edition. For education, you can link teachers and student's editions. For print on demand, if the POD version has a different ISBN, you can link it to the conventional litho-printed version (of course, you might well choose *not* give the POD version a new ISBN).

## 8. Hmm... so if I have a paperback and an e-book, there are *two* relationships – code 06 *and* one of code 13 or code 23. Which one do I use?

Both. Within <RelatedProduct>, <ProductRelationCode> is repeatable, so if there are two or more different sorts of relationship between the two books, you can use something like this:

```
<RelatedProduct>
  <ProductRelationCode>06</ProductRelationCode>
  <ProductRelationCode>13</ProductRelationCode>
```

```

<ProductIdentifier>
  <ProductIDType>15</ProductIDType>
  <IDValue>9780007439119</IDValue>
</ProductIdentifier>
<ProductForm>BC</ProductForm>
</RelatedProduct>

```

The above should appear in the Product record for the e-book (978-0-00-732437-8), and it refers to the directly equivalent print book. The print is an alternative format, *and it's also* the print product that directly matches the e-book. (In fact, there are no page number markers in this particular e-book, so relation code 13 is somewhat redundant – code 06 on its own would be sufficient). In the Product record for 978-0-00-743911-9, <RelatedProduct> includes relation codes 06 and 23 and the ISBN of the e-book, 978-0-00-732437-8.

### 9. Are there any other ways of creating similar links?

Yes. One is to use <RelatedWork>, but this presupposes you have a good ‘work identifier’.

What’s a work identifier? Something – most likely an internal proprietary ID – that is shared by all products with the same content. So hardback, paperback, e-book and unabridged audio will all have different ISBNs, but would *share* a work ID. So the Product records for hardback, paperback, e-book and audio would all contain:

```

<RelatedWork>
  <WorkRelationCode>01</WorkRelationCode>
  <WorkIdentifier>
    <WorkIDType>01</WorkIDType> <!-- proprietary UUID -->
    <IDValue>39ed84cf-da63-48dd-a15e-2bd11f6999e9</IDValue>
  </WorkIdentifier>
</RelatedWork>

```

It’s most useful if different editions – where the content is revised – have different work IDs. The same applies if the work is abridged or translated: the modified versions have a different work ID. But you can think of it like a family tree – the revised, abridged or translated work is *derived from* the original language version, so it has a work ID of its own and a ‘parent’ work ID as well:

```

<RelatedWork>
  <WorkRelationCode>01</WorkRelationCode>
  <WorkIdentifier>
    <WorkIDType>01</WorkIDType> <!-- proprietary UUID -->
    <IDValue>3c5c2a6a-c649-40ca-be40-b94088a390fb</IDValue>
  </WorkIdentifier>
</RelatedWork>
<RelatedWork>
  <WorkRelationCode>02</WorkRelationCode> <!-- derived from -->
  <WorkIdentifier>
    <WorkIDType>01</WorkIDType> <!-- proprietary UUID -->
    <IDValue>39ed84cf-da63-48dd-a15e-2bd11f6999e9</IDValue>
  </WorkIdentifier>
</RelatedWork>

```

These work IDs can be used by data recipients to form products into groups, just as they can with <RelatedProduct> links. But it's good practice to always provide Related product links – even if you have work IDs as well – because the type of links available are more varied.

### **A final caveat**

It's tempting for recipients to link products together, grouping by title and author. If the title is the same and the first author's family name is the same, then you can be reasonably confident they're the same work. Why even bother with <RelatedProduct>?

Well, you miss a lot of links that way, most obviously when books change their title, and very occasionally you can make erroneous links too. Explicit Related product links provided in the metadata can be a source of different *types* of link that can make the customer experience a little richer.

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