## ONIX for Books 3.0: modification to XSD and RNG schema files

This document provides details of some improvements made as of Codelists Issue 32 to the ONIX 3.0 XSD and RNG schema files. These improvements to the schema files will not require any changes to properly-constructed ONIX files.

## ONIX 3.0 XSD and RNG schemas

Improvements have been made in the schema files used for message validations and by applications using constructor functions. The changes are all 'transparent' for properly-constructed messages and do not imply any change to the ONIX Specification itself - they merely ensure that validation checks ONIX message files a little more rigorously. The changes have been available for testing in 'strict' versions of the schema files since January 2015, and no issues have been reported.

There are no changes to the DTD.
Within the stricter XSD and RNG files, numeric data elements are mostly limited to positive numbers, so you cannot have a negative edition number or a zero pack quantity, for example.

## Integers

Positive integer (1, 2, 3...)
<BatchQuantity>
<ConferenceNumber>
<EditionNumber>
<FreeQuantity>
<LatestReprintNumber>
<MapScale>
<MessageNumber>
<MessageRepeat>
<MinimumOrderQuantity>
<NumberOfCopies>
<NumberOfItemsOfThisForm>
<NumberOfPages>
<PackQuantity>
<PositionOnList>
<SequenceNumber>
Positive integer or zero (0, 1, 2, 3...)
<CBO>
<Number>
<NumberOfIllustrations>
<OnOrder>
<OrderTime>

## Real numbers

Positive decimal (>0)
<ExtentValue>
<Measurement>
<PriceAmount>
<TaxableAmount>
Positive decimal or zero ( $\geq 0$ )
<DiscountAmount>
<Quantity>
<TaxAmount>
<ToQuantity>
Decimal
-none-
Percent decimal ( $\geq 0$ and $\leq 100$ )
<DiscountPercent>
<Percent>
<TaxRatePercent>

Integer (...-3, -2, -1, 0, 1, 2, 3...)
<OnHand>
<Rate>
The most common error that stricter validation will catch is the use of a zero price for a free-of-charge item (you should use <UnpricedltemType> instead). More generally, it will catch the use of zero on some elements when the real meaning is 'unknown' or 'not applicable' (where instead, the element should be omitted entirely).

