

# Rfc3187bis: namespace registration request for ISBN

IETF 80, Prague, Czech Republic

Juha Hakala

The National Library of Finland

# General

- In the URN system, three things have a major impact on syntax and semantics of the resulting identifiers
  - URI & URN syntax specifications (3986 & 2141bis)
  - The identifier standard itself, which usually defines also the syntax and semantics of the identifier string
- In order to clarify what can and cannot be done within a given namespace, it is important to make sure that namespace registration requests are exhaustive

# ISBN: general

- International Standard Book Number, the standard identifier for monographs, has been in production since early 70s
- There is an ISBN International Centre and a large number of national centres, and well established usage guidelines
  - Every manifestation of the book should have its own ISBN (hard cover, soft cover, PDF, ePUB,...)
  - Every ISBN should be assigned once and only once

# ISBN: General (2)

- Some examples of the types of publication that qualify for ISBN are:
  - Printed books and pamphlets
  - Individual chapters or sections of a publication if these are made available separately
  - Braille publications
  - Publications that are not intended by the publisher to be updated regularly or continued indefinitely
  - Individual articles or issues of a particular continuing resource (journal)
  - Maps
  - Educational/instructional films, videos and transparencies
  - Audiobooks on cassette, or CD, or DVD (talking books)
  - Electronic publications either on physical carriers (such as machine-readable tapes, diskettes, or CD-ROMs) or on the Internet
  - Digitised copies of print monographic publications
  - Microform publications
  - Educational or instructional software
  - Mixed media publications (where the principal constituent is text-based)
- Please note that ISBN identifying a fragment of a publication will look like any other ISBN

# ISBN-10 and ISBN-13

- There are two versions of the ISBN:
  - ISBN-10            197X-2006
  - ISBN-13            2007-
- ISBN-13 was needed because ISBN-10 ran out of capacity (and wasn't compliant with EAN)
- Emergence of the revised ISBN is the main reason for the RFC3187bis, although from the resolution point of view, the old and new version are largely similar

# ISBN-13 syntax & semantics

- Every ISBN string has an embedded meaning
- ISBN-13 consists of
  - Prefix element – either 978 or 979
  - Registration group element; country, region or language area
    - 978-951 = Finland
    - 978-3 = German language area (Germany, Austria, Switzerland)
  - Registrant element (publisher)
  - Publication element
  - Check digit (MOD-10)
  - Example:
    - *ISBN 978-951-39-3144-5*
    - *URN:ISBN:978-951-39-3144-5*
- ISBN-10 lacks the prefix element, and the check digit calculation algorithms differ (MOD 10 versus MOD 11)

# Resolving URN:ISBNs

- There is no single source in which every URN in ISBN namespace could be resolved (yet)
  - Future global ISBN database for ISBN-13
- An interconnected network of resolvers is needed
- Every ISBN (whether new or old) contains a hint of where to find the resolver
  - urn:isbn:978-951... -> Finland
- Things may get a bit complicated...
  - urn:isbn:978-3 > Germany, Austria or Switzerland
- RFC 3187 gives a number of examples
- Actual production use is not wide-spread yet
  - Finland, ?

# URN:ISBN and fragments

- 1: ISBN can be used to identify a fragment of a publication (section, chapter) largely depending on whether those chapters are for sale separately
- 2: ISBN (of the book) can be used as a basis of e.g. DOI that adds a fragment identifier into the ISBN
- In either case URI syntax will not be able to recognize a fragment is being identified
  - In the case 1, fragment gets a full ISBN
  - In the case 2, there is no “#” separating the ISBN and DOI sections of the identifier (which is not ISBN anyway)
- Therefore, ISBN namespace will not support fragments

# URN:ISBN and fragments (2)

- Manifestations of books can be diverse
  - A book may consist of 1-n files; for instance, there can be one for each fragment
  - One file may contain 1-n books
  - One ISBN can even encompass several books (multivolume works such as The Lord of the Rings)
- Since the same applies to many identifier systems,
  - Fragment usage in the identifier does not imply actual fragments in the physical manifestation
  - The existence of physical fragments in the manifestation does not necessitate fragment usage in the identifier

# rfc3187bis: status and plans

- The I-D has been in the making since 2008, first as a private contribution, then as the WG result
- The text is relatively mature, but open issues in the RFC2141bis (such as fragment support) need to be settled (although the ISBN namespace will not support fragments)
- Go-ahead from the ISBN International Centre is required