The need for and the benefits of an international address standard

Presented by
Serena Coetzee serena.coetzee@up.ac.za
Project lead: ISO 19160-1, Addressing
Centre for Geoinformation Science, University of Pretoria, South Africa

ISO/TC 211 Standards in Action Workshop
29 May 2013, Paradise Hotel, Busan, Korea
Overview

• Addresses
• Why an international address standard?
• A look into the future...
Traditional purpose: mostly delivery
Today: many other possibilities

Common reference

Electronic forms

Census

Bank account

Emergency response

Finding friends
Busan, Korea
Brooklyn, Pretoria, South Africa
Australian rural address
Tokyo, Japan
Addresses in informal settlements

Opposite the butcher shop, Tsamaya Street, Mamelodi, Pretoria, South Africa
Existing address standards

**International**
- UPU
- OASIS
- IETF

**Regional**
- Europe
- Australia
- Korea
- INSPIRE

**National**
- United States
- United Kingdom
- France
- etc.

ISO: International Organization for Standardization
Why an international address standard?

• Principles
  – Respect unique socio-cultural addressing systems
    • Enhance understanding of addresses
      – By providing a common terminology to communicate about addresses
  – Do NOT prescribe a universal addressing system
    • Facilitate interoperability between addressing systems
      – By providing tools to describe addressing systems
    • Support addressing internationally
      – By providing best practices on how to assign addresses
        » e.g. have a system, make provision for additional numbers, ...
  • Streamline global postal services
    – By providing rules for specifying address rendering on mail items
Why an international address standard?

• Enhance understanding of different addresses
  – Common terminology
    • address, address reference system, address class, addressable object, address alias, ...
  – Development of international addressing tools
    • e.g. for geocoding, ...
Why an international address standard?

• Facilitate interoperability between addressing systems
  – Address data interoperability
    • e.g. address data exchange and integration
  – Writing of (new) address standard
    • e.g. in developing countries who do not yet have a standard
Why an international address standard?

International address standard (ISO 19160)

- Existing standard A
  - Address number
  - [American flag]

- Existing standard B
  - Locator
  - [European Union flag]

- Existing standard C
  - Street number
  - [British flag]
Why an international address standard?

• Streamline global postal services
  – Specification of address rendering rules for mail items
    • Automated processing of mail items
    • More efficient delivery of mail items
Why an international address standard?

• Support addressing internationally
  – Guidance on how to assign addresses
    • Reduce address backlog in developing countries
    • Integrate non-addressed people into modern society
    • Plan and maintain service delivery
    • Economic enablement (credit applications)
  – Evaluate address assignment
    • e.g. to improve efficiency, ...
  – Development of international addressing tools
    • e.g. support and automate address assignment, ...
ISO 19160-3
Quality management

ISO 19160-4
Rendering for mail items (UPU)

ISO 19160-5
Rendering on maps (stage zero project)

ISO 19160-1, Addressing - Conceptual model (ZA)

- Existing standard conceptual model, e.g. INSPIRE, UPU S42
- Encoding, UPU S53, INSPIRE GML

- New standard conceptual model, e.g. Botswana
- Encoding, e.g. Botswana XML schema

**based on**

**uses terminology**
ISO 19160-1, Addressing – Conceptual model

• Common terminology
  – address
    • structured information that uniquely references an object for purposes of identification and location
  – address component
    • constituent part of the address
  – address class
    • addresses combined from the same list of address components according to the same address reference system
  – address reference system
    • system that defines how address components are combined to form an address
  – addressable object
    • object that may be referenced by an address
  – address alias
    • one of a set of addresses referencing the same addressable object
  – ...

International Organization for Standardization
ISO 19160-1, Addressing – Conceptual model
ISO 19160-1: Profiles
✘ Same text boxes for all countries
✘ No address verification
With an international standard...

- Select an address class from a dropdown
- Depending on the address class, different text boxes appear
- Address verification before delivery is sent
Conclusion

• Addresses
  – Used for multiple purposes
  – Differ from one country to another
  – Many address standards exist

• Why an international address standard?
  – Enhance understanding of different addresses
  – Facilitate interoperability between addressing systems
  – Streamline global postal services
  – Support addressing internationally

• Future
  – An address for everyone
  – Addresses are ‘understood’ by websites, mobile devices, ...