

Workshop on SANS 1883, SA Address Standard
Current status and comments received

*Held in conjunction with the
GISSA Gauteng and National AGMs
SA National Museum of Military History, Johannesburg
5 March 2008*

Welcome, Marcelle Hattingh

Towards an International address standard - Serena Coetzee
Feedback about GSDI-10 conference, ISO/TC 211 workshop, etc

Overview of SANS 1883 - Antony Cooper

Presentation of comments on SANS 1883 received to date - Serena Coetzee

Discussion, Marcelle Hattingh

Closure, Marcelle Hattingh

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Overview of SANS 1883

Antony Cooper (CSIR) &
Serena Coetzee (University of Pretoria)

*Sponsored by the Global Spatial Data Infrastructure's
(GSDI) Small Grants Program*

SANS1883 - Address Standard

Part 1:
Data format of addresses

Part 2:
Guidelines for addresses in databases, data transfer, exchange and interoperability

Part 3:
Guidelines for address allocation and updates

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SANS1883-1: Data format...

Scope


- **Data elements** of addresses
- **Address types** that can be constructed from the data elements
- **Terms & definitions** related to addresses
- Applicable to the **whole of South Africa**
 - not restricted to formal/informal or urban/rural
- Applies to the **geo-referenced location** of an address
- For address types **assigned officially by municipalities**
- **And** for addresses **commonly in use**

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SANS1883-1: Data format...

Address definition

An address unambiguously specifies a point of service delivery.



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SANS1883-1: Data format...

1. Address Data Elements

- Address components that are used to construct an address
- AddressNumber, StreetName, StreetType, Locality...

2. Address Types

- Street Address, Building Address, Intersection Address, SAPO Box Address...

3. Address Attributes

- For any type of addresses
- AddressID, PointOfObservation, LifeCycleStage, OfficialStatus...

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SANS1 883-1: Data format...

CompleteAddressNumber =
 [AddressNumberPrefix, [AddressNumberSeparator]]
 AddressNumber
 [AddressNumberSeparator, [AddressNumberSuffix]]

Definition:
 The street number including prefix and suffix as it appears in the street address type.

Other Names:
 Full street number

Data Type: Text

Example:
A 20 Jorissen Street
33C Judges Avenue
D58 Hawk Street

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SANS1 883-1: Data format...

PlaceName = RegisteredName | UsedName

Definition:
 Name for the area on a level immediately above the complete street name as registered at the surveyor general

Other Names:
 township, township zone, allotment, allotment area, proclaimed town, town

Values:
 Minor region names from the surveyor general, augmented with extensions. Example: The surveyor general name would only list "GARSFONTEIN", but this list should include all the extensions such as "GARSFONTEIN EXT 4", "GARSFONTEIN EXT 10", etc.

Data Type: Text

Example:
 443 Kiepersol Road **Lynnwood** Pretoria City of Tshwane
 74 Observatory Road **Pretorius Park Ext 8**
 7 Stanley Road **Cape Town** Western Province

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SANS1 883-1: Data format...

StreetAddress = StreetAddressPart, Locality

StreetAddressPart =
 [CompleteAddressNumber | StreetNumberRange], CompleteStreetName

Locality = PlaceName, [TownName], [MunicipalityName],
 [Province], [SAPOPostcode], [Country] | [CountryCode]

PlaceName = RegisteredName | UsedName

CompleteStreetName
 = StreetName
 | [[StreetNameModifier], StreetNameDirectional], StreetName,
 StreetNameType
 | [StreetNameModifier], StreetName, StreetNameType,
 [StreetNameDirectional]
 | [StreetNameDirectional], StreetName, StreetNameType,
 StreetNameModifier
 | StreetNameType, StreetName, [[StreetNameDirectional],
 StreetNameModifier]

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SANS1 883-1: Data format...

Dr Lategan Road Groenkloof

StreetAddress = StreetName, StreetType,
 RegisteredName

1736 Konko Lane Woodhill

StreetAddress = CompleteStreetNumber, StreetName,
 StreetType, UsedName

70 Park Street West Hatfield City of Tshwane Gauteng

StreetAddress = CompleteStreetNumber, StreetName,
 StreetType, StreetNameDirectional,
 RegisteredName, Municipality, Province

18-20 Settlers Avenue Rhodes

StreetAddress = StreetNumberRange, StreetName,
 StreetType, RegisteredName, Country

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SANS1 883-1: Data format...

Site Address

- 25436 Soshanguve CC
- Erf 3645 Soshanguve CC
- Plot 1/45 Waterkloof AH
- Portion 938 Mooikloof
- Erf 2/402 Silver Lakes
- Farm 1/394 Rietfontein Bloemfontein RD
- Portion 938/341-JR
- House 5 Ramakokstad

Intersection Address

- Corner of Oyster Crescent and Hilken Drive, Umhlanga
- Corner of Festival and Schoeman Streets, Hatfield
- Barnes and Kloof Street, Bloemfontein



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SANS1 883-1: Data format...

Building Address

- Commission House Pretorius Street Pretoria
- Brooklyn Mall Shop 358 Brooklyn Road Brooklyn
- Unit 4A Techno Park John Vorster Road Centurion
- Block 816 Diamond House Eloff Street Braamfontein
- Election House 260 Walker Street Sunnyside
- Room C212 2nd Floor Asterhof House South Street Hatfield
- ABSA Towers North 4th Floor Marshall Street Marshalls Town
- Block 13 Flat 30 Bengal Street Laudium

Landmark Address

- Parliament Cape Town
- Room 4-66 IT Building University of Pretoria Pretoria
- Voortrekker Monument Pretoria
- Church Square Pretoria City of Tshwane
- Cape Town International Airport Cape Town

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SANS1883-1: Data format...

SA Post Office Box Address

- PO Box 2947 Hatfield 0028 ZA
- Private Bag X2438 Glenstantia 0010
- Postnet Suite 29487 Private Bag 10 Menlo Park 0102



SA Post Office Street Address

- 2038 Schoeman Street Hatfield 0083
- 477 Chopin Street Glenstantia 0181 South Africa

SA Post Office Village Address

- 012151 Ngxingxolo Mooiplaas 5228
- 010101 Feni Peddie 5640



SA Post Office Poste Restante Address

- Poste Restante Hazyview 1242

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SANS1883-1: Data format...

Farm Address

- My Geluk 5935 opposite farm dam Koffiefontein Letsemeng Local Municipality
- Grootgeluk Kimberley Road Bloemfontein

Informal Address

- First house on the right after the Vodacom booth Olievenhoutbosch

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SANS1883-1: Data format...

Address Attributes

- Address ID (mandatory)
 - The unique identification number assigned to an address by the address data provider.
- Address Data Provider (mandatory)
 - Organization that creates and maintains the address dataset.
- Address Source (mandatory)
 - Reference to the original source from where the data provider obtained the data, and where the address was created.
- Address X and Y Coordinates (mandatory)

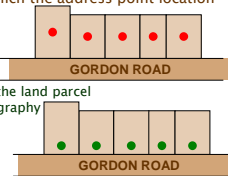
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SANS1883-1: Data format...

Address Attributes

- Point of Observation (mandatory)
 - Relative position to the physical structures and/or other electronic data according to which the address point location was captured.

- No Coordinates
- Centre of land parcel
- Street front
- GPS coordinates anywhere on the land parcel
- Coordinates from aerial photography
- Centre of intersection
- Street corner (pavement)
- Post office location
- Centre of dwelling
- GPS coordinates anywhere close to the dwelling
- Farm entrance
- GPS coordinates anywhere on the farm



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SANS1883-1: Data format...

Address Attributes

- Address Life Cycle Stage (mandatory)
 - Future:
 - address has been planned as a point of service delivery
 - address is *not yet in use*
 - Active:
 - address has been verified as a point of service delivery
 - the address is *in use*
 - Retired:
 - address was used at some stage but is not any longer
 - the address is *not used anymore*
 - Unknown Stage:
 - stage is *unknown*



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SANS1883-1: Data format...

Address Attributes

- Address Official Status (mandatory)
 - Official:
 - address as *assigned and used by the municipality* for delivery of their services (always registered name)
 - Official Alternate:
 - for historic addresses where *more than one street name appears on the general plan*
 - e.g. Church Street and Kerk Straat
 - e.g. Enkeldoorn and Enkeldoring Avenue in Montana
 - Unofficial:
 - address as *assigned and used by service delivery organizations other than a municipality*
 - e.g. SA Post Office, Eskom, Telkom, private data vendors or a customer at a financial institution.
 - Colloquial addresses (Woodhill, etc).
 - alternate or second/non-primary entrance to the property as assigned by the municipality.
 - Unknown Status:
 - official status *not known*

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SANS1883 – Address Standard

Part 1:
Data format of addresses.

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Guidelines for addresses in databases, data transfer, exchange and interoperability

Part 3:
Guidelines for address allocation and updates

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SANS1883-2 Addresses in databases...

Scope

- How **address records** shall be **stored in databases**
- How **address data shall be transferred or exchanged**
 - For example geocoding, data cleaning and/or address verification
- **XML-compatible entity relationship diagram** for a database schema that stores addresses complying with SANS 1883-1
- Normative Annexes
 - how addresses complying with Part 1 shall be exchanged in various **encoding formats (CSV, XML, etc.)**
- **Does not provide the design for a database that will store an official national address register**
 - accommodates all types of address as used in South Africa

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SANS1883-3 Address allocation...

- Some municipalities already have regulations for address allocation
- Noted that addresses have to comply with the regulations of the local municipality and the SA Geographic Names Council
- SANS1883-3 assists where the local municipality does not have regulations
- SANS1883-3 is compiled from the current regulations of the metropolitan municipalities

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SANS1883-3 Address allocation...

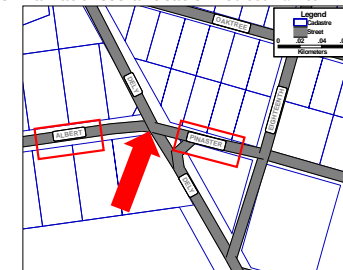
Scope

- Guidelines for the *allocation and maintenance of addresses* for all address types
 - rules, orientation, advice, recommendations
 - relating use of SANS 1883-1
- Objective
 - address *data exchange and interoperability*
 - not how data is managed and maintained on a day-to-day basis
- The process of allocating and updating erf numbers falls under the Chief Surveyor General

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SANS1883-3 Address allocation...

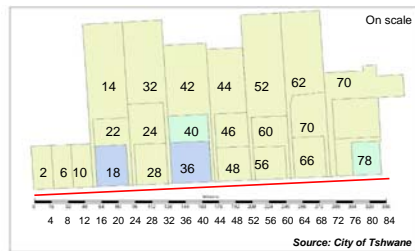
1. 'Formal' address allocation: Street Names



Source: AfrIGIS Data
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SANS1 883-3 Address allocation...

1. 'Formal' address allocation: Street Numbering



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SANS1 883-3 Address allocation...

2. 'Informal' address allocation

- SA Post Office guidelines for rural addresses
 - Example: address 010201
 - 01 -village code/village name
 - 02 -Zone/section/tribal boundary
 - 01 -House number/delivery point

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SANS1 883-3 Address allocation...

3. Spatial Considerations

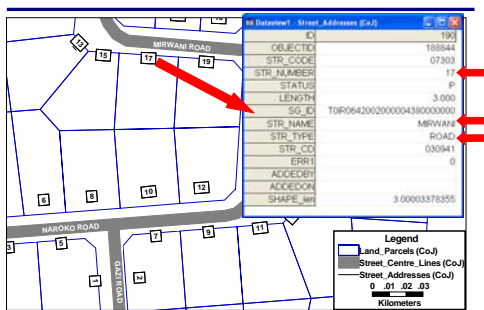
- Address location: as per point of observation
- Feature type: point, line or polygon (exchange single coordinate)
- Link to street centreline



- Link to place name: spatially

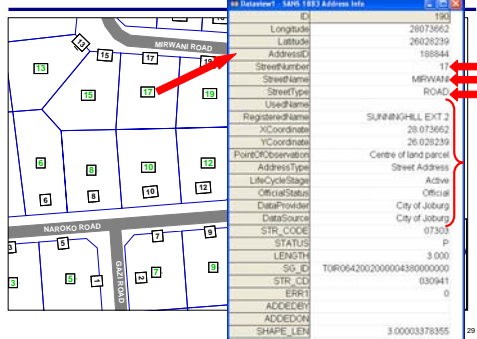
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Data Sample - City of Joburg



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Data Sample - City of Joburg (SANS 1883)



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SANS1 883 - Address Standard

Reflection

- Registered name
- vs.
- used/colloquial name
- vs.
- post office name

e.g. Constantia Park vs. Glenstantia
e.g. Pretorius Park Ext. 6 vs. Woodhill

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SANS1883 – Address Standard

Reflection

maintaining/accommodating existing address

vs.

allocating new addresses

e.g. direction of street numbering...

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SANS1883 – Address Standard

Reflection

Writing a standard is about being... prescriptive

or

accommodating all kinds of addresses for interoperability?

e.g. list of street types approved by the SAGN:

Unknown, Avenue, Boulevard, By-pass, Close, Crescent, Drive, Expressway, Freeway, Lane, Nature trail, Road, Street

List of street types in SANS 1883:

Alley, Arcade, Bend, Circle, Corner, Court, Cove, Cul-de-sac, End, Gate, Grove, Link, Loop, Mall, Mews, Parade, Pass, Passage, Path, Place, Point, Quay, Rise, Row, Square, Steps, Terrace, Turn, Way ...

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Workshop on SANS 1883, South African Address Standard Overview of SANS 1883

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