Attribute definitions for individual data
Introduction

These schema definitions are intended to facilitate information exchange among European, and possibly international, academic and research institutions.

In its current version, the SCHAC schemas are not oriented to any particular technology. They define a set of attributes to describe individuals in the academic and research institutions. Appropriate profiles, at least for LDAP and XML, will be defined in other documents.

These definitions assume that other attributes describing individuals are already available and properly coded, according to the following standards:

• The eduPerson schema v. 200312, as defined at http://www.educause.edu/eduperson/
• The person schema, as defined by X.521 (2001)
• The organizationalPerson schema, as defined by X.521 (2001)
• The inetOrgPerson schema, as defined by RFC 2798

Attribute meta-information and notation

For all attributes, the following metadata is defined:

<table>
<thead>
<tr>
<th>Name</th>
<th>A label used to identify and distinguish one attribute from another</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>A short description of the attribute</td>
</tr>
<tr>
<td>Format</td>
<td>The syntax for the representation of the attribute's values</td>
</tr>
</tbody>
</table>
| # of values| • Single Only one value is permitted for describing a given individual
            | • Multi An indefinite number of values can be used               |
| References | Additional information used to clarify some properties of attributes like format, description or # of values |
| Examples   | Example of values used within the attribute                       |
## Attributes defined by SCHAC

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<thead>
<tr>
<th>Name</th>
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</thead>
</table>
| schacMotherTongue     | Is the language a person learns first. Correspondingly, the person is called a native speaker of the language. Usually a child learns the basics of their first language from their family. | - ISO 639: 2-letter codes if the code is defined for our language  
- ISO 639: 3-letter codes if the 2-letter code is not defined  
- If ISO 639: 3-letter codes is not defined for our language we need to use a code defined in another classification.                                                                 | Single     | ISO 639 - Language Codes  
RFC 2798 - Definition of the inetOrgPerson LDAP Object Class  
RFC 3066 - Tags for the Identification of Languages                                                                 | schacMotherTongue = fr                                                                   |
| schacGender           | The state of being male or female. The gender attribute specifies the legal gender of the subject it is associated with.  
"Either of the two groups that people, animals and plants are divided into according to their function of producing young" (Oxford Advanced Learner's Dictionary) | The letter "M" (or "m") represents "male" and the letter "F" (or "f") represents "female"                                                                 | Single     | RFC 2985 - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.6, B.3.10  
ISO 5218 - Information interchange -- Representation of human sexes.  
The standard ISO 5218 defines the representation of the human sexes by a numeric digital code. It was created by the Data Management and Interchange Technical Committee and proposed in November 1976 | schacGender = F                                                                      |
<table>
<thead>
<tr>
<th>Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>schacDateOfBirth</td>
<td>The date of birth for the subject it is associated with</td>
<td>Numeric value YYYYMMDD, using 4 digits for year, 2 digits for month and 2 digits for day as described in RFC 3339 'Date and Time on the Internet: Timestamps' as reference using the 'full-date' format from paragraph 5.6 but without the dashes.</td>
<td>Single</td>
<td>RFC 2985 - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.4, B.3.8</td>
<td>schacDateOfBirth = 19660412</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RFC 3339 - Date and Time on the Internet: Timestamps. 'Date and Time on the Internet: Timestamps' as reference using the 'full-date' format from paragraph 5.6 but without the dashes</td>
<td></td>
<td>ISO 8601 - Data elements and interchange formats - Information interchange - Representation of dates and times</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RFC 2985 - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.5, B.3.9</td>
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</tr>
<tr>
<td>schacPlaceOfBirth</td>
<td>The schacPlaceOfBirth attribute specifies the place of birth for the subject it is associated with.</td>
<td>Free string</td>
<td>Single</td>
<td>RFC 2985 - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.4, B.3.8</td>
<td>schacPlaceOfBirth = Algeciras, Spain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ISO 8601 - Data elements and interchange formats - Information interchange - Representation of dates and times</td>
<td></td>
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<tr>
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<td></td>
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</tr>
<tr>
<td>schacCountryOfCitizenship</td>
<td>The schacCountryOfCitizenship attribute specifies the (claimed) countries of citizenship for the subject it is associated with.</td>
<td>Two-letter country acronym in accordance with ISO 3166</td>
<td>Multi</td>
<td>RFC 2985 - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.7, B.3.11</td>
<td>schacCountryOfCitizenship = es</td>
</tr>
<tr>
<td></td>
<td></td>
<td>RFC 3166 - Codes for the representation of names of countries and their subdivisions</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### schacCountryOfResidence

**Description:** The `schacCountryOfResidence` attribute specifies the (claimed) country of residence for the subject is associated with.

**Format:** Two-letter country acronym in accordance with ISO 3166 country code identifier

**# of values:** Multi

**References:**
- RFC 2985 - PKCS #9: Selected Object Classes and Attribute Types Version 2.0. Sections 5.2.8, B.3.12
- ISO 3166 - Codes for the representation of names of countries and their subdivisions

**Examples**

| schacCountryOfResidence = es |

### schacHomeOrganization

**Description:** Specifies a person’s home organization using the domain name of the organization

**Format:** Domain name according to RFC 1035

**# of values:** Single

**References:**
- RFC 1035 - Domain names - implementation and specification

**Examples**

| schacHomeOrganization = terena.nl |

### schacHomeOrganizationType

**Description:** Type of a Home Organization

**Format:** `urn:SCHACPREFIX:homeOrgType:<country-code>:<string>`

- The `<country-code>` must be a valid two-letter ISO 3166 country code identifier.
- `<string>` from a nationally controlled vocabulary

**# of values:** Single

**References:**
- ISO 3166 - Codes for the representation of names of countries and their subdivisions

**Examples**

<p>| schacHomeOrganizationType = urn:SCHACPREFIX:homeOrgType:ch:vho |
| schacHomeOrganizationType = urn:SCHACPREFIX:homeOrgType:es:opi |</p>
<table>
<thead>
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<tbody>
<tr>
<td>schacSn1</td>
<td>First surname of a person (&quot;the surname&quot; in international terms). schacSn1 would contain whatever values the described person thinks they should contain. Splitting shall be done by humans. That means that, when filling a SCHAC-based description that allows the use of schacSn1 and schacSn2, the administrators must ask for 1st surname and 2nd surname (if applicable) as well as they do for givenName, surname, etc.</td>
<td>- Free string&lt;br&gt;- The following notes have been taken from the inetOrgPerson specification. If the person has a multi-part sn (whether hyphenated or not), store the multi-part name as one value and each component as separate values in this multi-valued attribute. That yields the best results for the broadest range of clients doing name searches.&lt;br&gt;- Resource has to be able to support UTF-8 encoded accented character strings</td>
<td>Multi</td>
<td>If $sn = \text{Lopez de la Moraleda y de Las Altas Alcurnias}$ and that person uses Lopez de la Moraleda as the first component of the surname we can write:&lt;br&gt;$\text{schacSn1} = \text{Lopez de la Moraleda}$</td>
</tr>
<tr>
<td>schacSn2</td>
<td>Second surname of a person (&quot;the surname&quot; in international terms). schacSn2 would contain whatever values the described person thinks they should contain. Splitting shall be done by humans. That means that, when filling a SCHAC-based description that allows the use of schacSn1 and schacSn2, the administrators must ask for 1st surname and 2nd surname (if applicable) as well as they do for givenName, surname, etc.</td>
<td>- Free string&lt;br&gt;- The following notes have been taken from the inetOrgPerson specification. If the person has a multi-part sn (whether hyphenated or not), store the multi-part name as one value and each component as separate values in this multi-valued attribute. That yields the best results for the broadest range of clients doing name searches.&lt;br&gt;- Resource has to be able to support UTF-8 encoded accented character strings</td>
<td>Multi</td>
<td>If $sn = \text{Lopez de la Moraleda y de Las Altas Alcurnias}$ and that person uses de Las Altas Alcurnias as the second component of the surname we can write:&lt;br&gt;$\text{schacSn2} = \text{de Las Altas Alcurnias}$</td>
</tr>
<tr>
<td>Name</td>
<td>Description</td>
<td>Format</td>
<td># of values</td>
<td>References</td>
</tr>
<tr>
<td>--------------</td>
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<td>------------------------------------------------------------------------</td>
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<td>---------------------------------------------------------------------------</td>
</tr>
</tbody>
</table>
| schacPersonalUniqueID | Specifies a "legally unique identifier" for the subject it is associated with. This might be DNI in Spain, FIC in Finland, NIN in Sweden,... | urn:SC-HAC-PREFIX:uniqueID:<country-code>:<idType>:<idValue>  
  - `<country-code>` must be a valid two-letter ISO 3166 country code identifier.  
  - `<idType>`: Acceptable values must be declared per each country code.  
  - `<idValue>` | Multi | ISO 3166 - Codes for the representation of names of countries and their subdivisions | schacPersonalUniqueID = urn:SC-HAC-PREFIX:uniqueID:es:NIF:31241312L  
  schacPersonalUniqueID = urn:SC-HAC-PREFIX:uniqueID:se:NIN:12345678 |
| schacUUID     | Specifies a "universally unique identifier" for an entity representing a person. | urn:uuid:<UUID>  
  - `<UUID>`. A UUID is essentially a 16-byte number and in its canonical form a UUID may look like this: 597ae2f6-16a6-1027-98f4-d28b5365dc14 | Single | draft-mealling-uuid-urn-05.txt - A UUID URN Namespace | schacPersonalUniqueID = urn:uuid:550E8400-E29B-11D4-A716-446655440000 |
| schacPersonalTitle | The Personal Title attribute type specifies a personal title for a person. Examples of personal titles are "Ms", "Dr", "Prof", "Rev", "Sr". | Free format string | Single | RFC1274 - The COSINE and Internet X.500 Schema personal title Sections 9.3.30 | schacPersonalTitle = Prof |
### schacPersonalPosition

**Description**
The Personal Position attribute type specifies a personal position inside an institution.

**Format**
- `urn:SCACPREFIX:position:<NSS>`
- `<NSS>` is a Namespace Specific String as defined in RFC 2141

**# of values**
Multi

**References**
- RFC 2141 - URN Syntax
- RFC 2256 - A Summary of the X.500(96) User Schema for use with LDAPv3.
  - Section: 5.13 title
  - This attribute contains the title, such as "Vice President", of a person in their organizational context. The "personalTitle" attribute would be used for a person's title independent of their job function.

**Examples**
```
schacPersonalPosition = urn:SCACPREFIX:position:umk.pl:programmer
```

### schacUserPrivateAttribute

**Description**
Used to model privacy requirements, as expressed by the user and/or the organizational policies. The values are intended to be attribute type names and applies to the attribute and any subtypes of it for a given entity.

In what respects to data exchange, it applies to the expression of privacy requirements.

This attribute can also have specific operational semantics (one has already been applied to LDAP servers: see references below), that will be defined in a separate document.

**Format**
An attribute type identifier.
Operational semantics may imply specific values as wildcards.

**# of values**
Multi

**References**

**Examples**
```
schacUserPrivateAttribute = mail
schacUserPrivateAttribute = telephoneNumber
```

### schacUserPresenceID

**Description**
To store a set of values related to network presence protocols

**Format**
- `urn:SCACPREFIX:presence:<NSS>`
- `<NSS>` is a Namespace Specific String as defined in RFC 2141

**# of values**
Multi

**References**
- RFC 2141 - URN Syntax

**Examples**
```
schacUserPresenceID = urn:SCACPREFIX:presence:xmpp:pepe@im.univx.es
schacUserPresenceID = urn:SCACPREFIX:presence:sip:pepe@myweb.com
schacUserPresenceID = urn:SCACPREFIX:presence:sip:Jose.perez@univx.es
schacUserPresenceID = urn:SCACPREFIX:presence:h323:pepe@myweb.fi:808;pars
```
### schacUserStatus

**Description**
Used to store a set of status of a person as user of services

**Format**

- um:SCHACPREFIX:status:<NSS>
- `<NSS>` is a Namespace Specific String as defined in RFC 2141

**# of values**
Multi

**References**
- RFC 2141 - URN Syntax

**Examples**

- To store different user activity states at UMA:
  
  ```
  schacUserStatus = um:SCHACPREFIX:status:uma.es:affiliation:expired
  schacUserStatus = um:SCHACPREFIX:status:uma.es:sendMail:expired
  schacUserStatus = um:SCHACPREFIX:status:uma.es:getMail:active
  ```

### Alphabetical Index of attributes

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