



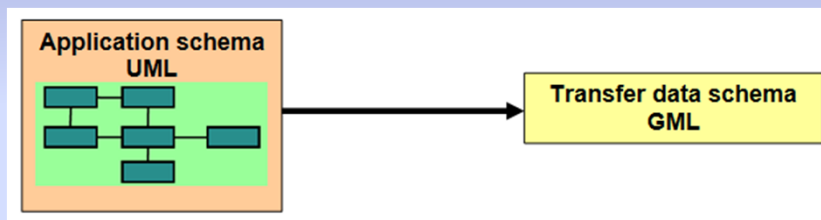
## REVIEW OF TECHNOLOGICAL PATHS OF APPLICATION SCHEMA TRANSFORMATION FROM UML TO GML

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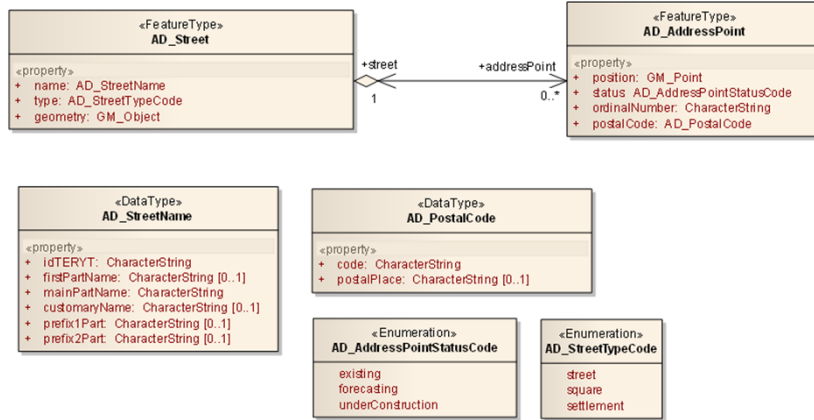
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## Implementation of UML to GML application schema



# UML application schema – case study

class Record of Places, Streets and Addresses - conceptual model



```

<?xml version="1.0" encoding="UTF-8"?>
<schema xmlns="http://www.w3.org/2001/XMLSchema" targetNamespace="http://www.opengis.net/xsl/feature" >
  <import namespace="http://www.opengis.net/gml" prefix="gml" >
    <redefine base="http://www.opengis.net/gml" prefix="gml" >
      <complexType base="gml:AbstractFeatureType" name="AD_Street" substitutionGroup="gml:AbstractFeature" >
        <sequence>
          <element name="name" type="gml:Text" ></element>
          <element name="type" type="gml:Text" ></element>
          <element name="geometry" type="gml:GeometryPropertyType" ></element>
        </sequence>
      </complexType>
    </redefine>
  </import>
  <complexType base="gml:AbstractFeatureType" name="AD_AddressPoint" substitutionGroup="gml:AbstractFeature" >
    <sequence>
      <element name="position" type="gml:PointPropertyType" ></element>
      <element name="status" type="AD_AddressPointStatusCodeType" ></element>
      <element name="ordinalNumber" type="gml:Text" ></element>
      <element name="postalCode" type="AD_PostalCodePropertyType" ></element>
    </sequence>
  </complexType>
  <complexType base="AD_StreetPropertyType" name="AD_StreetNamePropertyType" >
    <sequence>
      <element name="idTERYT" type="gml:Text" ></element>
      <element name="firstPartName" type="gml:Text" ></element>
      <element name="mainPartName" type="gml:Text" ></element>
      <element name="customaryName" type="gml:Text" ></element>
      <element name="prefix1Part" type="gml:Text" ></element>
      <element name="prefix2Part" type="gml:Text" ></element>
    </sequence>
  </complexType>
  <complexType base="AD_StreetPropertyType" name="AD_PostalCodePropertyType" >
    <sequence>
      <element name="code" type="gml:Text" ></element>
      <element name="postalPlace" type="gml:Text" ></element>
    </sequence>
  </complexType>
  <enum name="AD_AddressPointStatusCode" >
    <value value="existing" ></value>
    <value value="forecasting" ></value>
    <value value="underConstruction" ></value>
  </enum>
  <enum name="AD_StreetTypeCode" >
    <value value="street" ></value>
    <value value="square" ></value>
    <value value="settlement" ></value>
  </enum>
  <complexType name="AD_StreetTypeCodePropertyType" >
    <sequence>
      <element name="value" type="AD_StreetTypeCode" ></element>
    </sequence>
  </complexType>
  <complexType name="AD_AddressPointStatusCodePropertyType" >
    <sequence>
      <element name="value" type="AD_AddressPointStatusCode" ></element>
    </sequence>
  </complexType>
  </schema>
  
```

## Comparison of methods and tools

	Manual	<u>XMLSpy</u>	<u>ShapeChange</u>	<u>FullMoon</u>
<b>Ease to use</b>	3	4	2	1
<b>Quickness</b>	3	4	2	1
<b>Error probability</b>	1	3	4	4
<b>Overall</b>	7	11	8	6

\* rates from 4 (the best) to 1 (the worst)



Thank you for your attention

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