

ARML vs. KARML

Competing ideas?

ARML

- ❑ KML very rich and extensive Tag set
- ❑ Most tags not needed/suited for AR
- ❑ Based on subset of KML

More: <http://openarml.org>

Simple ARML

```
<?xml version="1.0" encoding="UTF-8"?>
<kml xmlns="http://www.opengis.net/kml/2.2">
  <Document>
    <ar:provider id="mountain-tours.com">
      <ar:name>Mountain Tours I Love</ar:name>
      <ar:description>
        My preferred mountain tours in the alps. Summer and Winter.
      </ar:description>
    </ar:provider>

    <Placemark id="123">
      <ar:provider>mountain-tours.com</ar:provider>
      <name>Gaisberg</name>
      <description>
        Gaisberg is a mountain to the east of Salzburg, Austria
      </description>
      <Point>
        <coordinates>47.81,13.11,1158</coordinates>
      </Point>
      <wikitude:info>
        <wikitude:phone>+4312345678</wikitude:phone>
      </wikitude:info>
    </Placemark>
  </Document>
</kml>
```

Structure

□ Provider

```
<ar:provider id="mountain-tours.com">  
...  
</ar:provider>
```



□ Pois

```
<Placemark id="123">  
  <ar:provider>mountain-tours.com</ar:provider>  
  ...  
</Placemark>
```



Namespaces

- Available in all AR Browsers

 - ar

 - provider

 - name

 - description

- Browser specific features, eg.:

 - wiktitude

 - providerUrl, tags, logo, icon

 - info (thumbnail, phone, url, email, attachment)

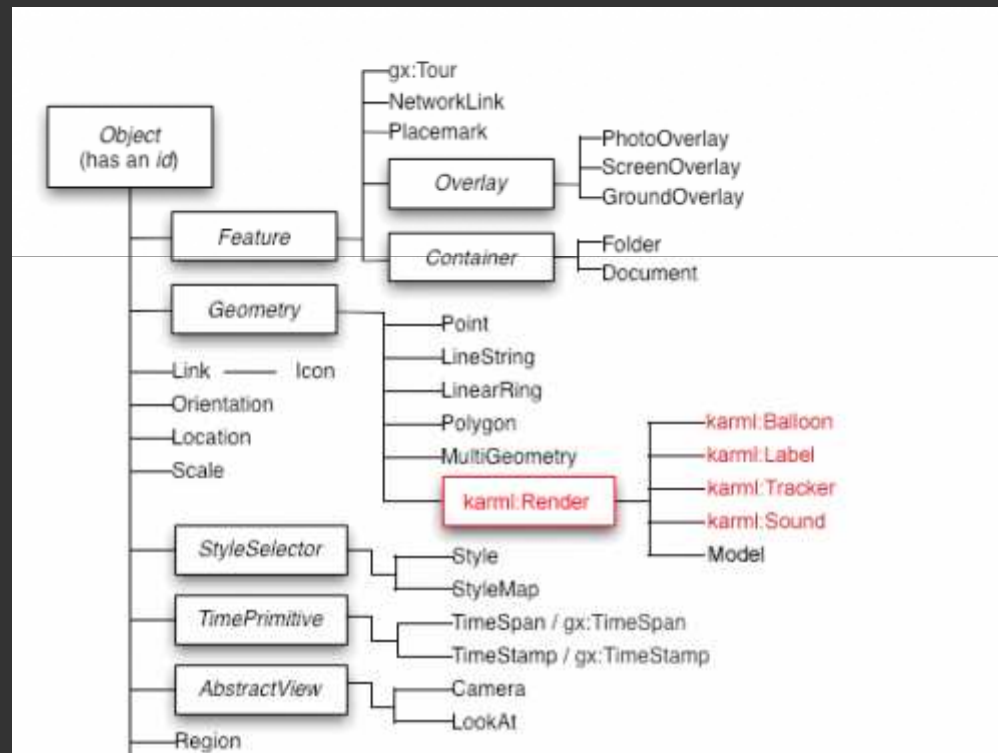


KARML

- ❑ Author and display AR experiences
- ❑ Full KML + more control over visualization

More: <https://research.cc.gatech.edu/polaris/content/karml-reference>

KARML Extensions



Source: <https://research.cc.gatech.edu/polaris/content/karml-reference>

Billboard - Example

```
<Placemark>
  <name>MyPlacemark</name>
  <description>
    My example placemark relative to user
  </description>

  <Balloon>
    <locationMode units="meters" targetHref="#user">
      relative
    </locationMode>

    <location>
      <latitude>2.0</latitude>
      <longitude>0.0</longitude>
      <altitude>0.0</altitude>
    </location>

    <orientationMode>billboard</orientationMode>
  </Balloon>
</Placemark>
```


ARML vs KARML

- Approach
 - Data (ARML)
 - Visualization (KARML)
- KML
 - Subset (ARML)
 - Full (KARML)

Why Content Providers?

- ❑ Universal, more providers in one file
- ❑ Connect content to its provider
- ❑ Content easily identifiable
- ❑ Display provider brands in a consistent way
- ❑ Premium content
- ❑ Information on the provider → trust and control

Conclusion

- ❑ Both approaches relevant
- ❑ KML integral part in both
- ❑ Combine ideas
- ❑ Decision:
 - KML subset or extend full KML
 - Tags in ar namespace