



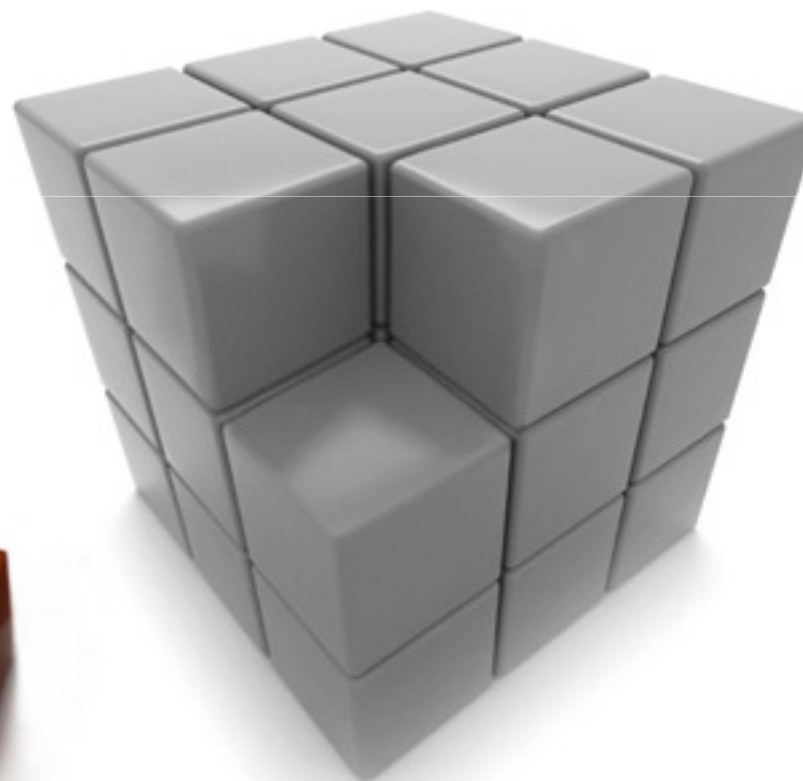
Oracle GeoRaster

Osnove, nove funkcionalnosti, upotreba

Dalibor Kušić, mag. ing.

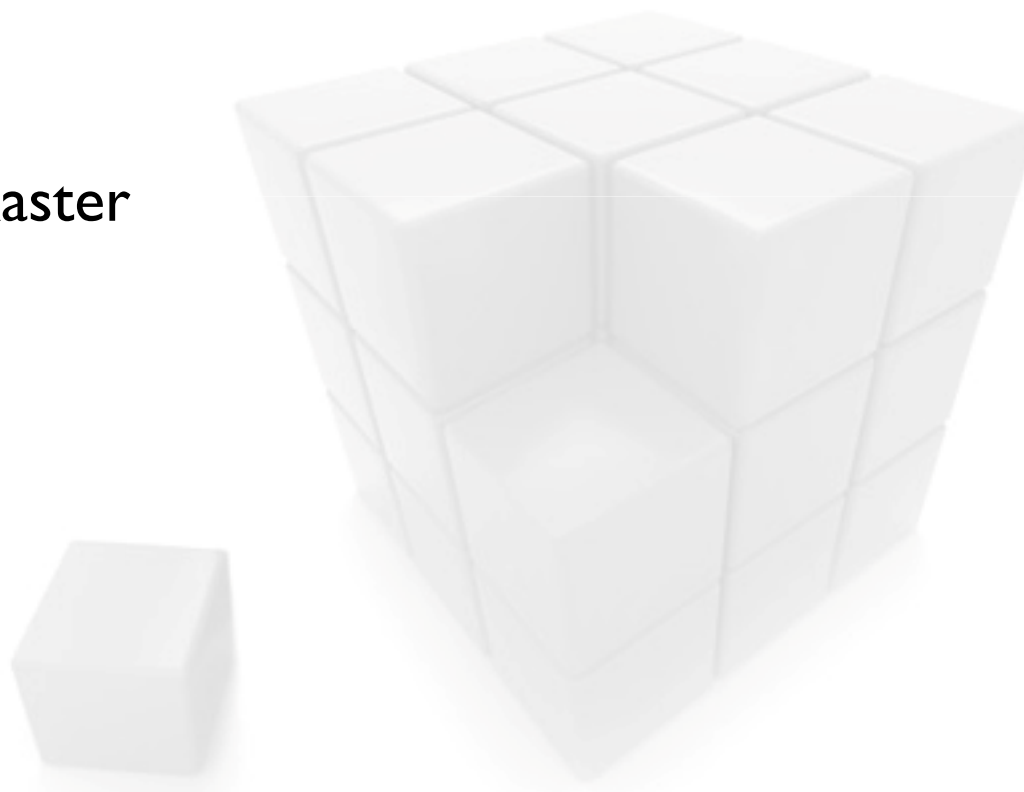
Marin Huljev, mag. ing.

listopad 2011.



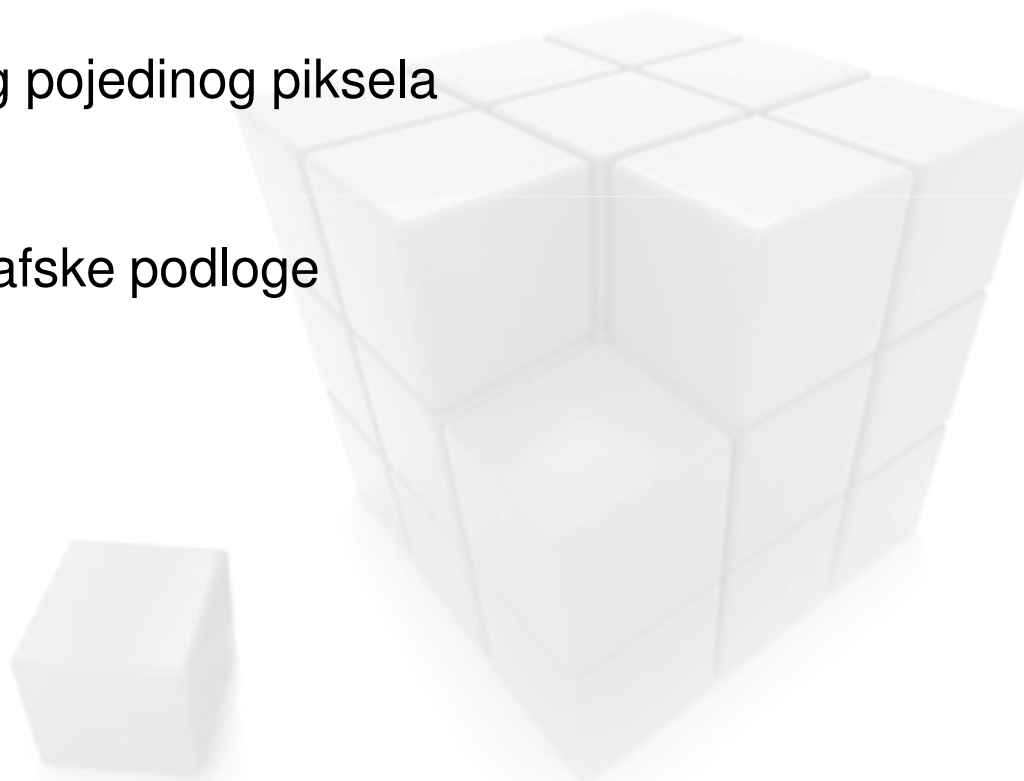
Pregled

- ❑ Uvod
- ❑ Struktura i karakteristike
- ❑ Učitavanje podataka
- ❑ Nove funkcionalnosti
- ❑ GIS poslužitelji i GeoRaster



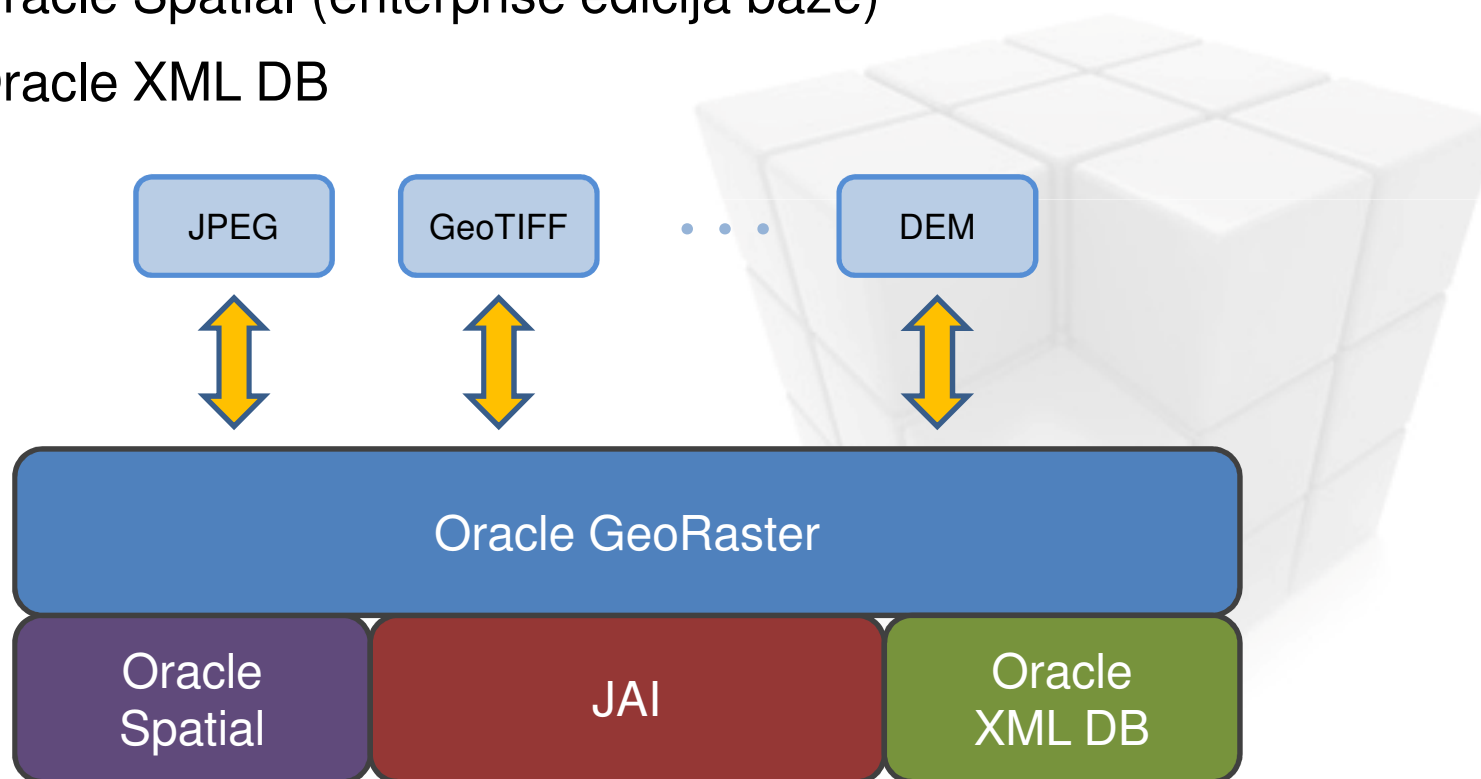
Uvod

- ❑ Oracle Spatial
 - Vektori – opisani vertexima
- ❑ Oracle GeoRaster
 - Rasteri – opis svakog pojedinog piksela
- ❑ Zašto?
 - Digitalizirane kartografske podloge
 - Ortofoto
 - Remote sensing
 - ...



Uvod

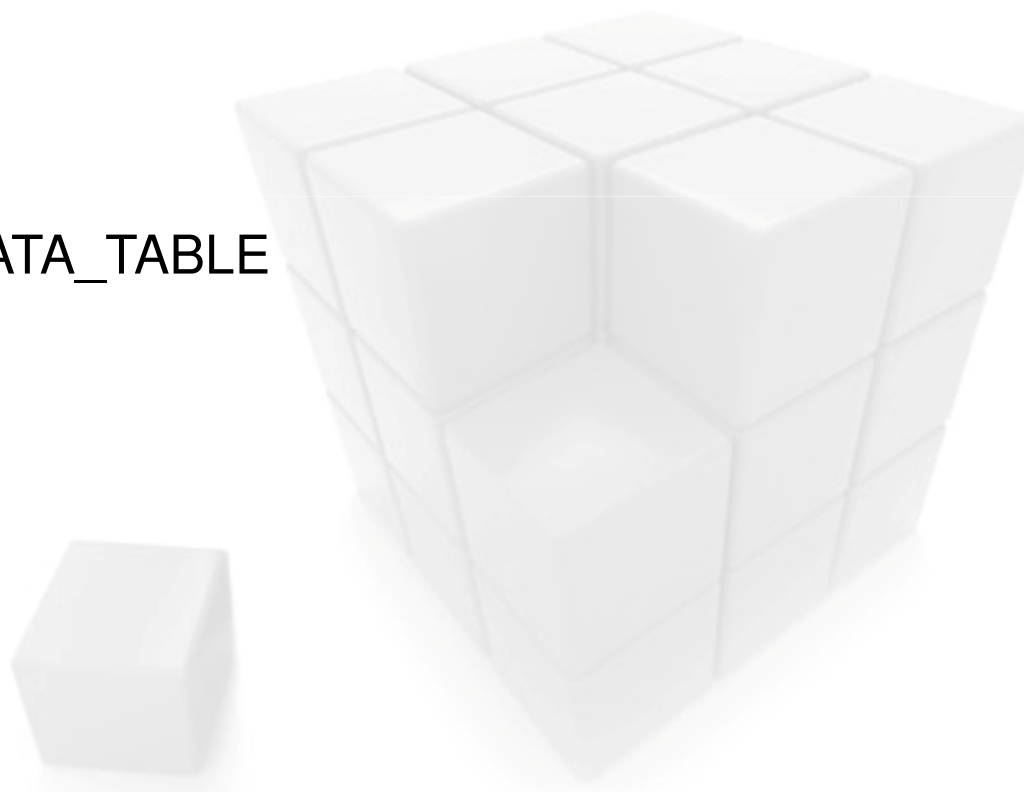
- ❑ Dodatak verziji 10g
- ❑ Preduvjeti
 - Oracle Spatial (enterprise edicija baze)
 - Oracle XML DB



Struktura i karakteristike

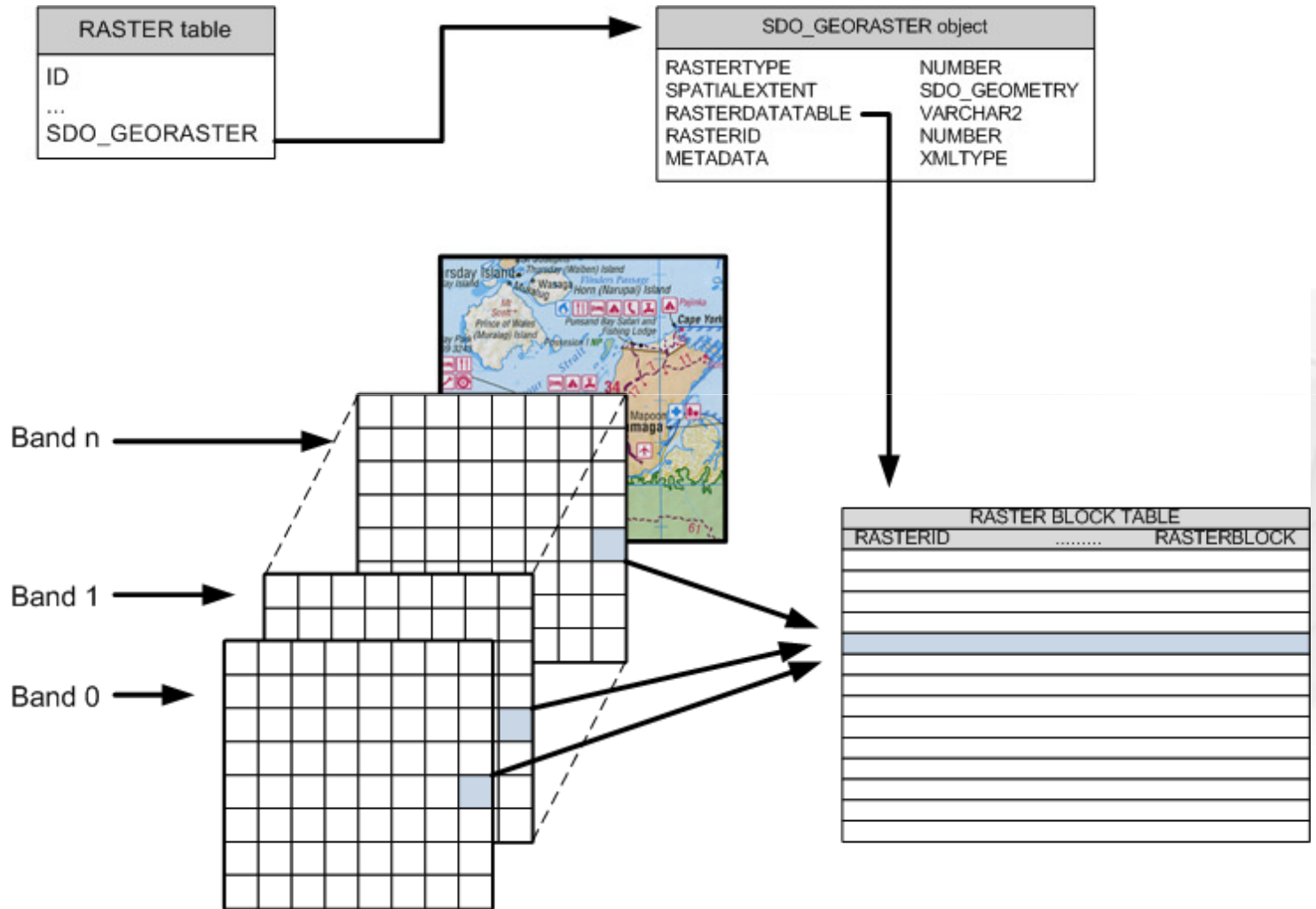
- ❑ 2 objektna tipa
 - SDO_GEORASTER
 - SDO_RASTER

- ❑ 1 sistemski tablica
 - SDO_GEOR_SYSDATA_TABLE





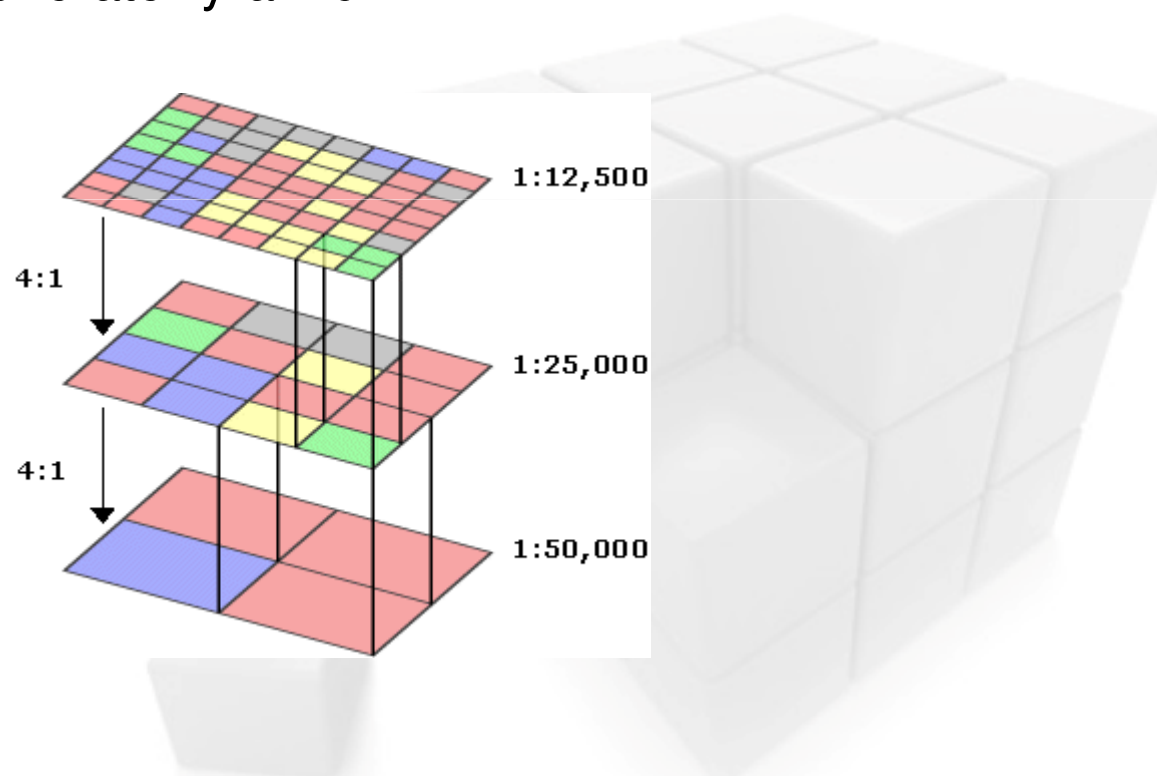
Struktura i karakteristike



Struktura i karakteristike

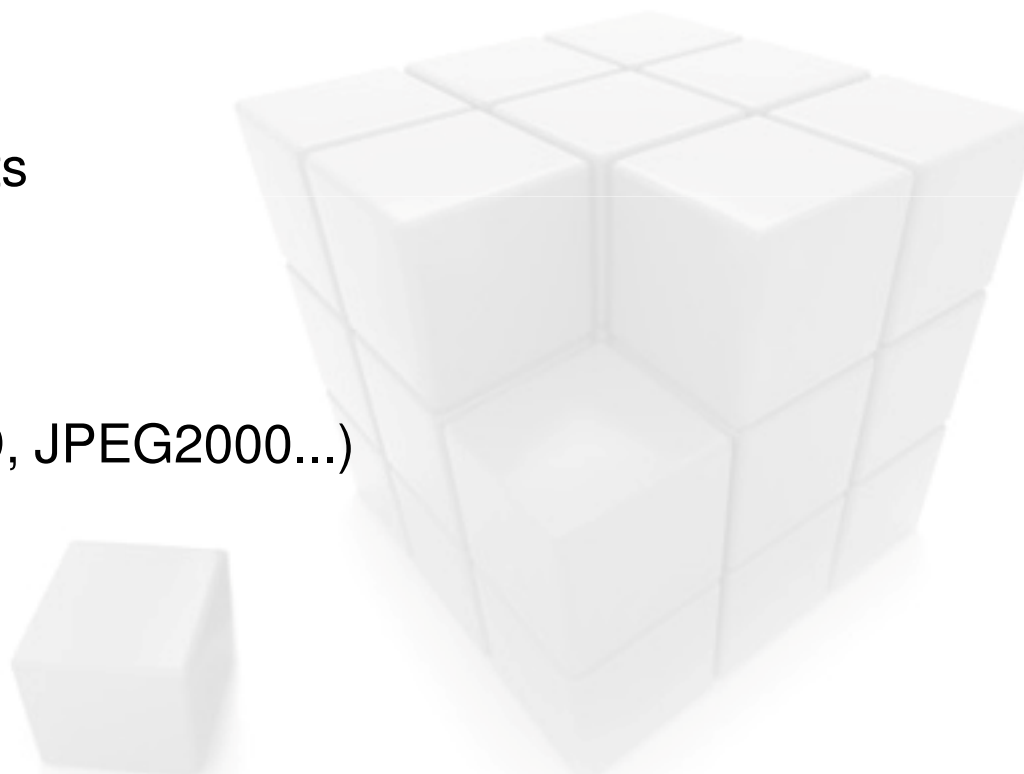
□ Piramidalna struktura

- Umanjenje razlučivosti radi bržeg dohvata
- SDO_GEOR.generatePyramid



Struktura i karakteristike

- ❑ Bitmap Mask
 - Transparencija, NODATA, itd...
- ❑ Georeferenciranje
 - Afina transformacija
 - Ground Control Points
- ❑ Kompresija
 - JPEG, DEFLATE
 - Plugin dodaci (MrSID, JPEG2000...)
- ❑ Java i PL/SQL API



Učitavanje podataka

❑ Bazna PL/SQL procedura

- `SDO_GEOR.importFrom(raster, 'blocking=TRUE compression=NONE srid=31276','GeoTIFF','FILE', '/home/karte/topo.tiff')`

❑ GeoRaster loader/viewer

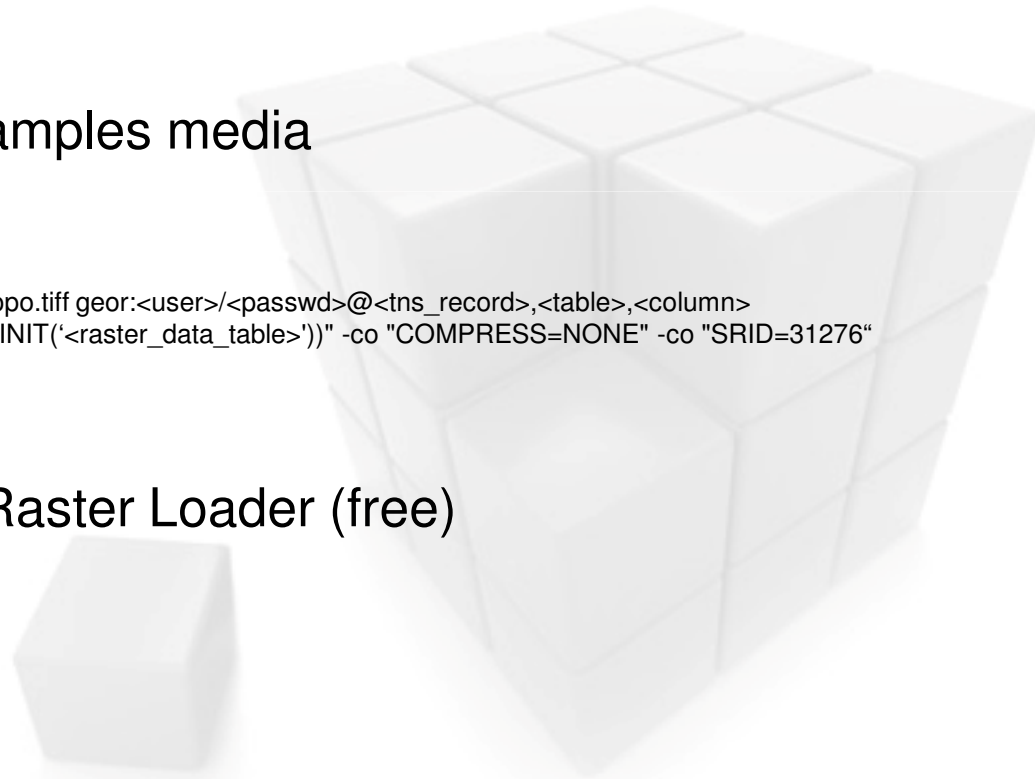
- Java alat
- Oracle Database Examples media

❑ GDAL

- `gdal_translate -of georaster /home/karte/topo.tiff geor:<user>/<passwd>@<tns_record>,<table>,<column>
-co "INSERT=VALUES(1,SDO_GEOR.INIT('<raster_data_table>'))" -co "COMPRESS=NONE" -co "SRID=31276"`

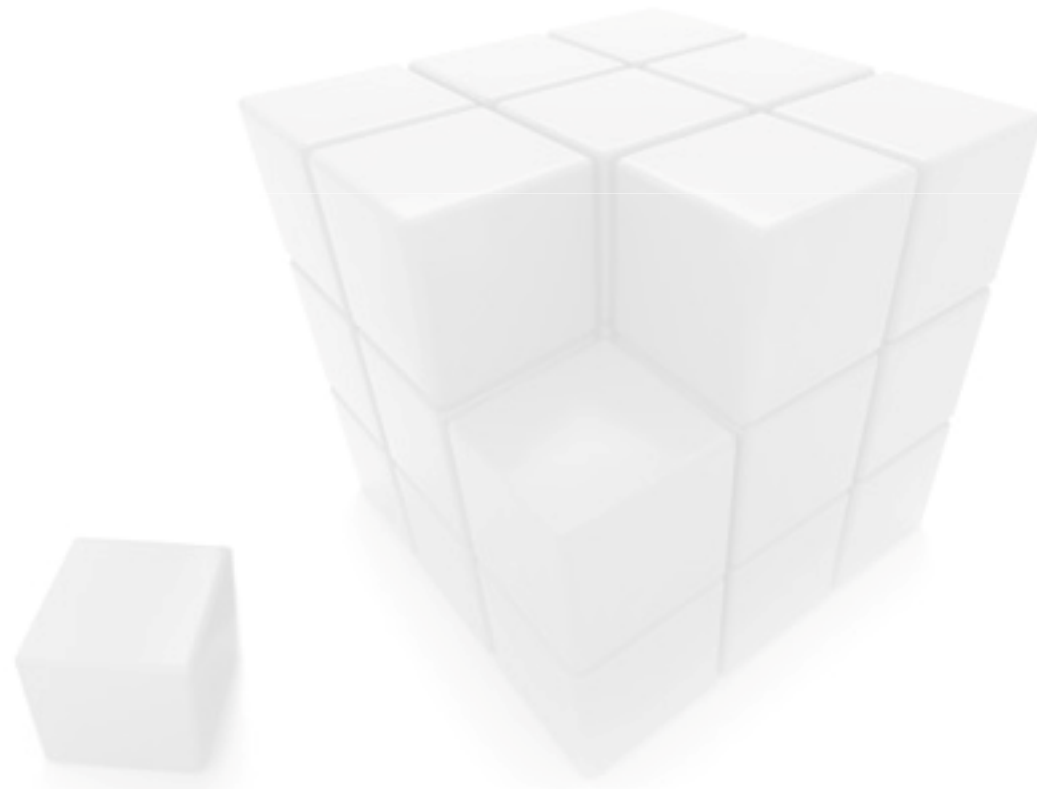
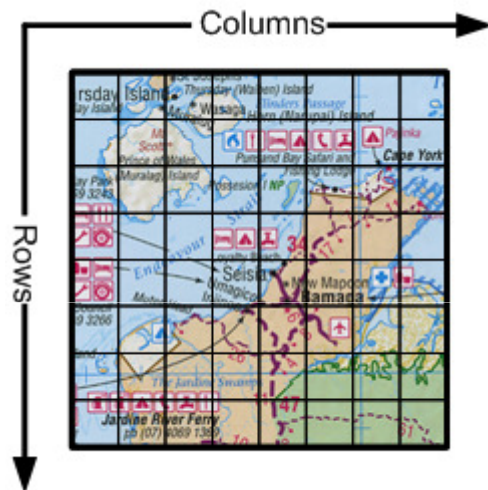
❑ Ostali

- PCI Geomatics GeoRaster Loader (free)
- ...



Nove funkcionalnosti

- GCP georeferenciranje





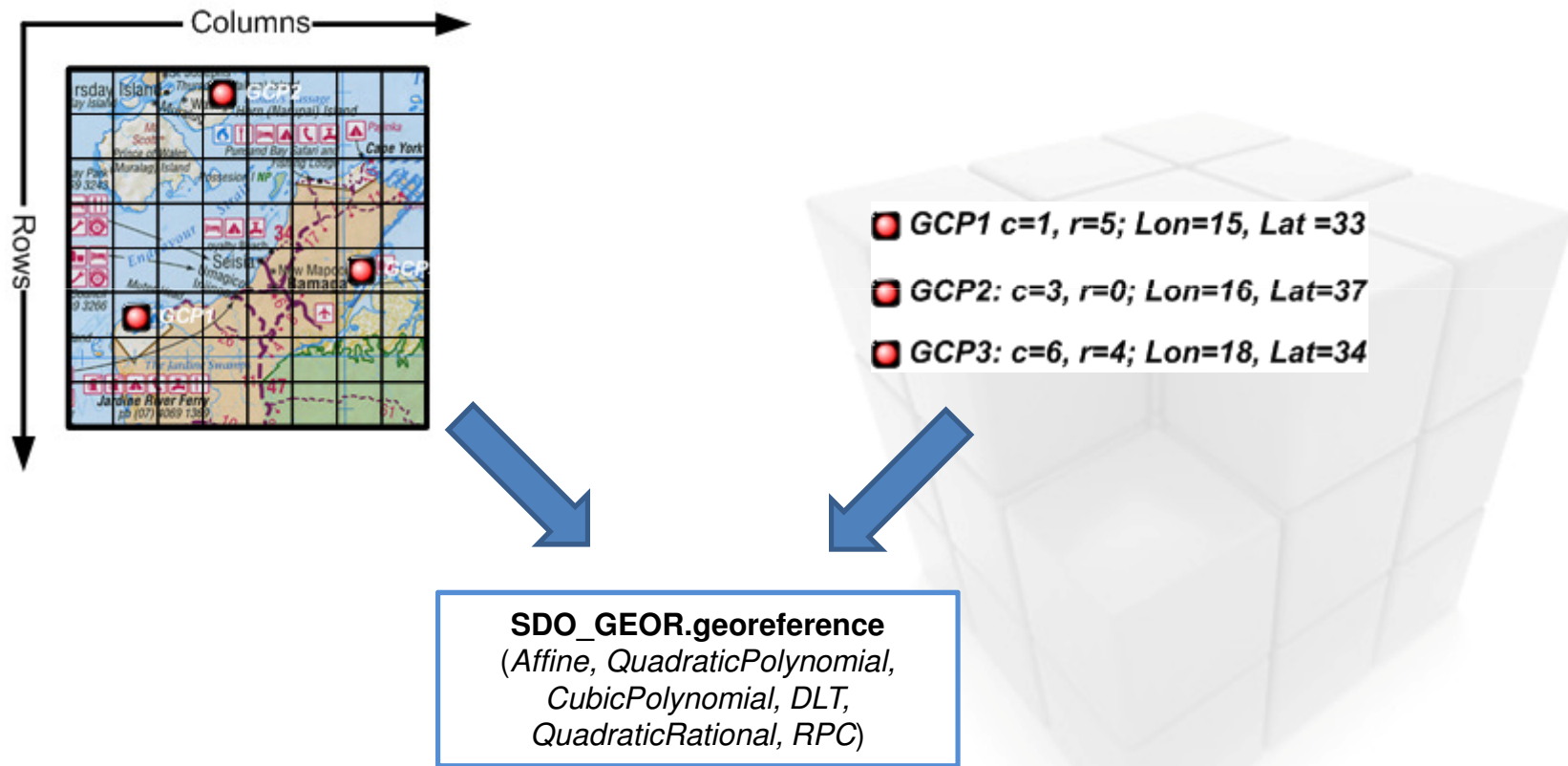
Nove funkcionalnosti

□ GCP georeferenciranje



Nove funkcionalnosti

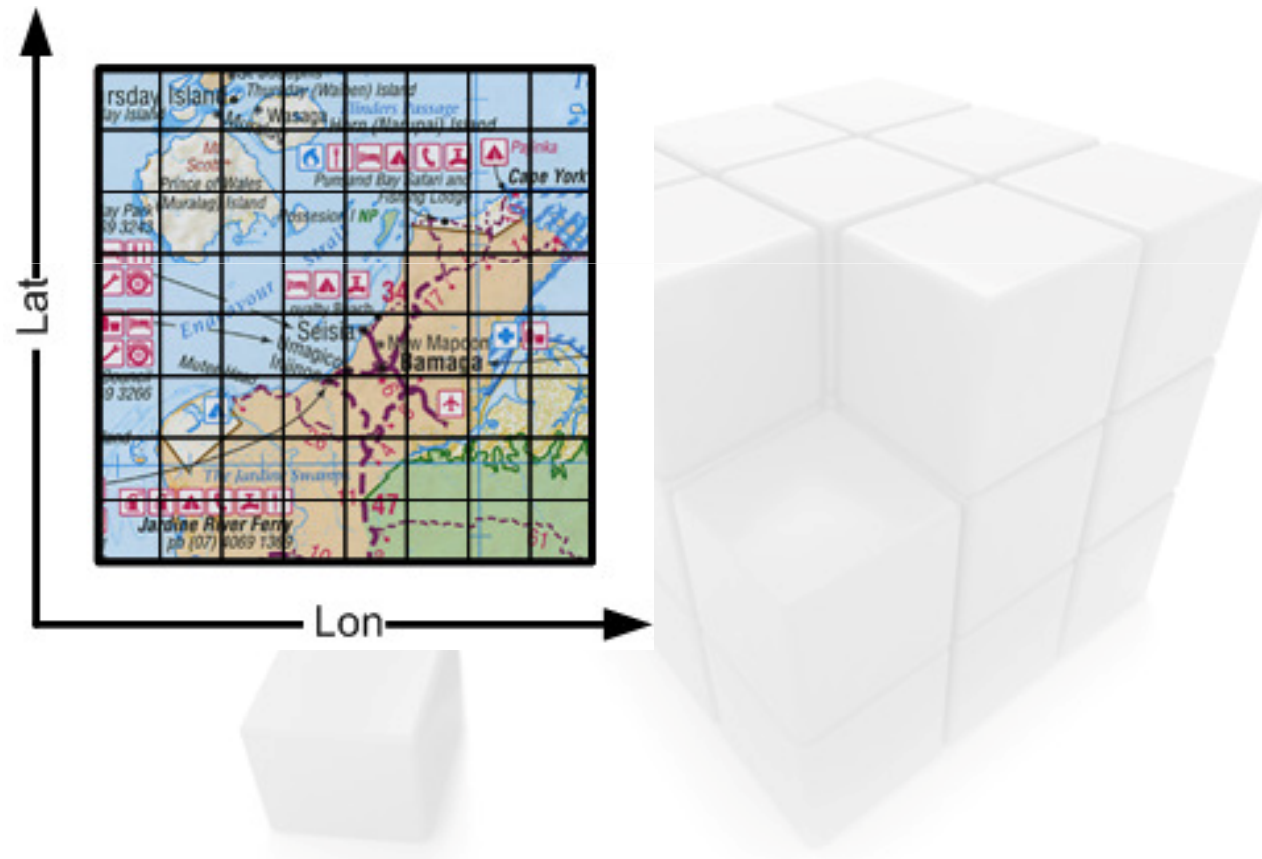
- GCP georeferenciranje





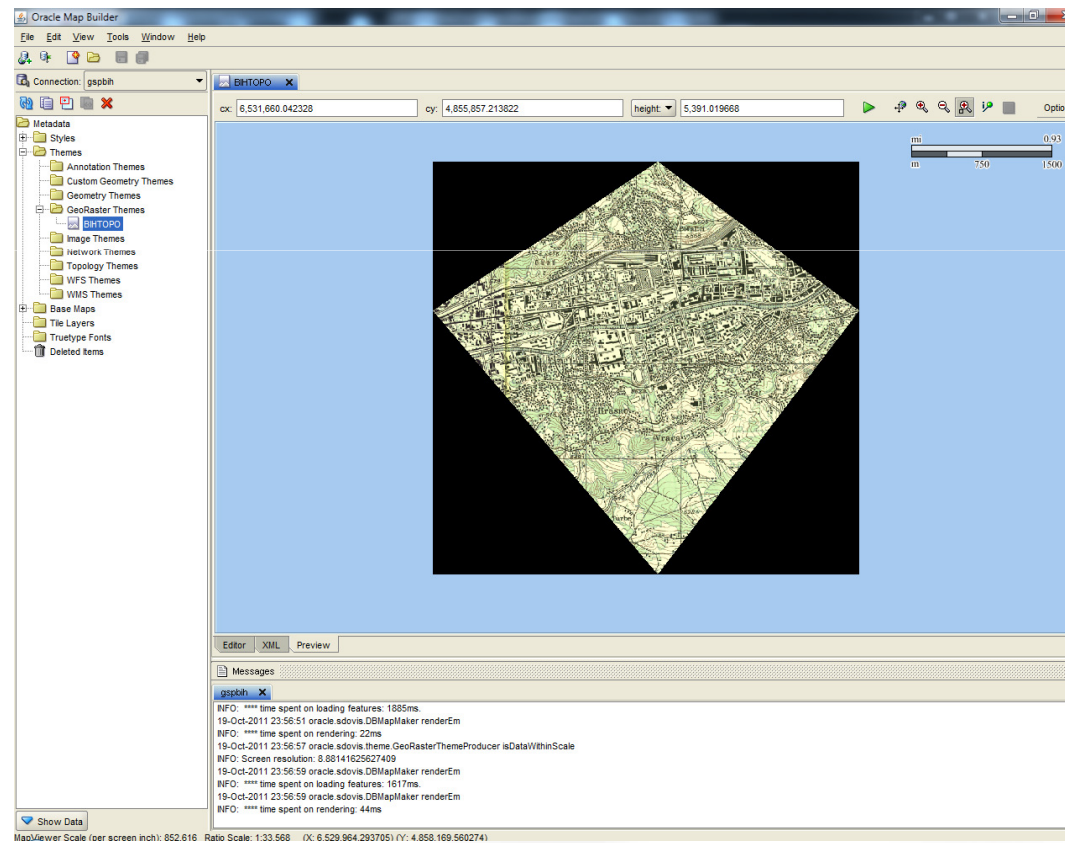
Nove funkcionalnosti

- ❑ GCP georeferenciranje



Nove funkcionalnosti

- ❑ Reprojekcije rastera
- ❑ Polygon-Based clipping



GIS poslužitelji i GeoRaster

□ Oracle Mapviewer

▪ Georaster Themes

▪ Preduvjeti:

- Georeferencirana slika
- Generiran spatiaextent atribut SDO_GEORASTER tipa
- Kreiran prostorni index prema spatiaextent atributu

▪ Alternativa: Image Theme



GIS poslužitelji i GeoRaster

□ Geoserver

- ImageMosaic JDBC plugin
- XML konfiguracija

```

<?xml version="1.0" encoding="UTF-8" standalone="no" ?>
<config version="1.0">
  <coverageName name="<IDENTIFIKATOR>" />
  <coordsys name="EPSG:31276" />
  <scaleop interpolation="1" />
  <spatialExtension name="georaster" />
  <mapping>
    <masterTable name="<TABLICA>" >
      <geoRasterAttribute name="<ATRIBUT_RASTER>" />
      <coverageNameAttribute name="<ATRIBUT_IDENTIFIKATOR>" />
    </masterTable>
  </mapping>
  <connect>
    <dstype value="DBCP" />
    <username value="<USER>" />
    <password value="<PASSWORD>" />
    <jdbcUrl value="jdbc:oracle:thin:@<SERVER>:<PORT>:<SID>" />
    <driverClassName value="oracle.jdbc.OracleDriver" />
    <maxActive value="10" />
    <maxIdle value="0" />
  </connect>
</config>

```


in2

Pitanja?

IN2 d.o.o.
Marohničeva 1/1
10000 Zagreb, HR
tel: +385 1 6386 800
www.in2.hr

