



SENTINEL 1

Development of customized services for mapping and analysing of water bodies

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AGENDA

- GeoCodis company
- Cooperation between Space SI and GeoCodis
- Customized services
- Web Portal (VodaKje.Si)
- Other projects

GEOCODIS

- Micro sized private company specialized in development and maintenance of geo-oriented software solutions
- Company starts April 2014
- More than 10 years of experiences
- Project locations: Slovenia, Austria, Serbia, Uganda
- Vision:
 - To become stabile and trusted geoinformation company, active in Slovenian and International markets
 - Quickly react to market needs and changes
 - Quickly adopt to new technologies and challenges

COOPERATION BETWEEN SPACE SI AND GEOCODIS

SPACE.SI

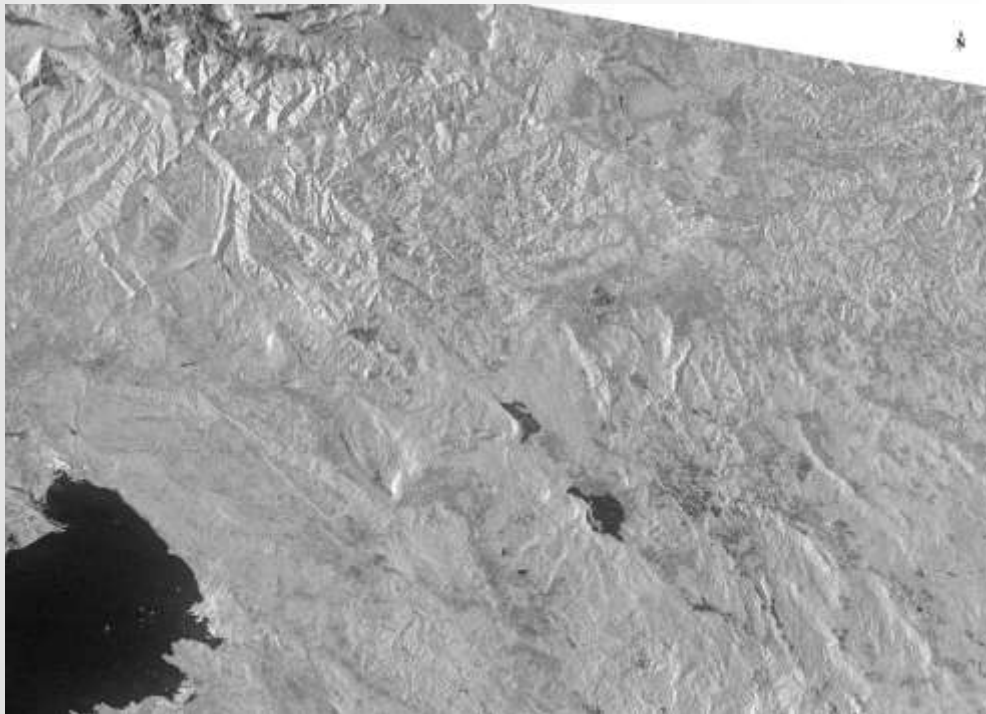
- Automatic download from Sentinel Data Hub
- Geometric corrections
- Water detection and filtering
- Raster FTP upload

GEOCODIS

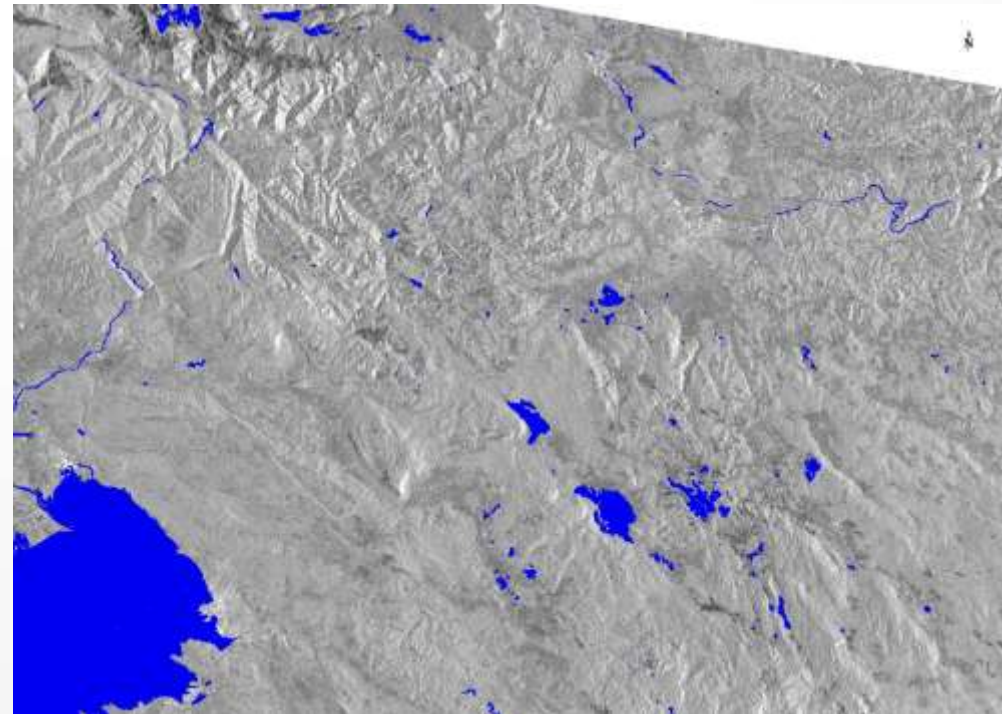
- FTP download
- Raster and vector processing
- Database modelling
- Rest API-s
- Web applications

COOPERATION BETWEEN SPACE SI AND GEOCODIS

SPACE.SI



SPACE.SI



COOPERATION BETWEEN SPACE SI AND GEOCODIS

- FTP download service (60 minutes, configuration settings)
- Raster vectorization
- Data base management
- Raster optimization
- Flash Flood and other polygons overlay
- Flood Statistics

CUSTOMIZED SERVICES

- API-s
 - Data quality reporting
 - Image detailed data
 - Sentinel 1 observation plan
 - Get Water bodies area/time
 - Aggregation results area/time

Geocodis - ARSO web API		
ApiNapake Show/Hide List Operations Expand Operations		
GeomNapake Show/Hide List Operations Expand Operations		
GET	/api/napake	Vsi tipi napak.
GET	/api/ocene	Vsi že oddane ocene stojiv oz. voda.
POST	/api/ocene	Ustvari oceno sloja ali geometrije.
DELETE	/api/ocene/{idOcene}	Izbriši oceno sloja ali geometrije.
Pokritost Show/Hide List Operations Expand Operations		
Povodja Show/Hide List Operations Expand Operations		
Snemanja Show/Hide List Operations Expand Operations		
GET	/api/snemanja/arhiv	Arhiv snemanj za pridobivanje ID-ja, datuma snemanja in datuma obdelave za vsa snemanja.
GET	/api/snemanja/urnik	Urnik snemanj za pridobivanje datumah načrtovanih snemanj.
GET	/api/snemanja	Vsa snemanja v Geoson Nature collection-u. POZOR! Zelo zahtevna operacija, ker snemanja obsegajo veliko število koordinat.
GET	/api/snemanja/poligoni	Za vsako snemanje dobimo najmanjši pravokoten poligon, ki ga snemanje obsega.
GET	/api/snemanja/{idSnemanja}	Geoson za posamezno obočje snemanja.
GET	/api/snemanja/{idSnemanja}/vode	Vse vode na določenem snemanju v obliki Geoson feature collection
GET	/api/snemanja/{idSnemanja}/shp	Vse vode na določenem snemanju v SHP datoteki
Vode Show/Hide List Operations Expand Operations		
GET	/api/vode/{idVode}	Geoson vrednost vodne površine z določenim ID-jem.
GET	/api/vode/{idVode}/lastnosti	Lastnosti vodne površine z določenim ID-jem.
GET	/api/vode/{datumZacetka}/{steviloDni}	Geoson vrednost kumulacije (unje) geom vrednosti vseh voda v danem obdobju. POZOR! Operacija lahko traja cca. 10 s.

CUSTOMIZED SERVICES

- Integration into Web Portal
- VodaKje.Si (Where is water?)

The screenshot displays the GeoCod web portal interface. The top navigation bar includes the GeoCod logo, a user profile icon labeled 'SPACES', and a language selector set to 'Slovensko'. The main interface is divided into several sections:

- Data Search:** A sidebar on the left contains search filters. It includes a 'Map source' dropdown set to 'MapboxStreetsBasic', 'Map zoom' controls (100% and 100%), a 'Report geometry errors' button, and a 'Controls' section with 'Start date' and 'End date' input fields, a 'Select by coordinate' dropdown, and a 'Zoom to date extent' button.
- Map:** A central map view showing a topographic map of a region with a blue line indicating a water feature. The map is labeled 'Zeleniški jezero'.
- Data Table:** A table at the bottom left lists search results with columns for 'Id', 'Name', 'Created', 'Processed', and 'Is Obsolete'. The table contains several rows of data.
- Info Panel:** A panel on the bottom right provides additional information, including 'Zoom: 13', 'Central coordinate: 49,738 14,362', 'Available images: 17', and 'Active filters: extent'.

Id	Name	Created	Processed	Is Obsolete
771	2014046	04.06.2014 (36:32)	27.06.2014 (34:32)	None
782	2014045	05.06.2014 (37:42)	06.06.2014 (14:23)	None
784	2014045	05.06.2014 (37:24)	06.06.2014 (14:11)	None
787	2014043	03.06.2014 (31:18)	06.06.2014 (17:22)	None
788	2014041	01.06.2014 (46:41)	06.06.2014 (14:11)	None
789	2014038	30.05.2014 (48:58)	06.06.2014 (15:23)	None

WEB PORTAL

The screenshot displays a web portal interface for a geographic information system. The main area is a map of a region with a red grid overlay. The interface includes several control panels:

- Data layers:** Map (OpenStreetMap), Water cover (ON/OFF), Report geometry errors (Report).
- Controls:** Start date, End date (Apply/Reset), Select by coordinate (ON/OFF), Zoom to data extent (ZOOM).
- Search by geographical name:** Search input field and Search button.
- Table:** A table with columns: Id, Name, Created, Processed, and Is Obsolete. It lists several records with their respective dates and status.
- Info:** Zoom: 8, Central coordinate: 46.134 13.43E, Available images: 184, Active filters: extent.

Id	Name	Created	Processed	Is Obsolete
717	20140418	18.04.2016 [07:02]	18.04.2016 [15:00]	false
718	20140418	18.04.2016 [07:01]	18.04.2016 [14:04]	false
716	20140416	16.04.2016 [07:18]	16.04.2016 [16:37]	false
715	20140414	14.04.2016 [18:41]	16.04.2016 [08:11]	false
714	20140411	11.04.2016 [07:10]	11.04.2016 [15:29]	false
712	20140407	07.04.2016 [18:49]	08.04.2016 [06:18]	false
713	20140407	07.04.2016 [18:50]	08.04.2016 [07:25]	false

WEB PORTAL

The screenshot displays the GeoCod web portal interface. At the top, the logo 'GeoCod' and 'SPACE BI' are visible. The main area is a map showing a geographical region with blue markers. To the left of the map is a sidebar with several sections: 'Data layers' with 'Map (OpenStreetMap)', 'Water cover' (ON/OFF), and 'Report geometry errors'; 'Controls' with 'Start date', 'End date', 'Select by coordinate', and 'Zoom to data extent'; and 'Search by geographical name'. Below the map is a table with columns: Id, Name, Created, Processed, and Is Obsolete. To the right of the table is an 'Info' panel with 'Zoom: 30', 'Central coordinate: 46.63N 16.25E', 'Available images: 417', and 'Active filters: extent'. The GeoCod logo is at the bottom right.

Id	Name	Created	Processed	Is Obsolete
767	20160603	03.06.2016 [07:18]	06.06.2016 [17:35]	false
768	20160601	01.06.2016 [18:41]	06.06.2016 [16:13]	false
769	20160530	30.05.2016 [18:58]	06.06.2016 [15:29]	false
764	20160529	29.05.2016 [07:09]	30.05.2016 [19:21]	false
770	20160529	29.05.2016 [07:10]	06.06.2016 [13:23]	false
762	20160525	25.05.2016 [18:49]	26.05.2016 [06:40]	false

WEB PORTAL

The screenshot displays the GeoCod web portal interface. At the top, the logo "GeoCod" and "SPACE-SI" are visible, along with user information "Administrative metjaz". The interface is divided into several sections:

- Data layers:** Includes a "Map source" dropdown set to "Satellite (MapQuest)", a "Water cover" toggle set to "ON", and a "Report geometry errors" button labeled "Report".
- Controls:** Features input fields for "Start date" and "End date" with "Apply" and "Reset" buttons, a "Select by coordinate" toggle set to "ON", and a "Zoom to data extent" button labeled "ZOOM".
- Search by geographical name:** A search input field with a "Search" button.
- Map:** A satellite map showing a geographical area with a green rectangular selection box highlighting a specific region.
- Data Table:** A table with columns: Id, Name, Created, Processed, and Is Obsolete. The table contains several rows of data, with the row for Id 768 highlighted.
- Info Panel:** Located on the right, it displays "Zoom: 7", "Central coordinate: -45.8084 16.05E", "Available images: 417", and "Active filters: extent".

Id	Name	Created	Processed	Is Obsolete
767	20160603	03.06.2016 [07:18]	06.06.2016 [17:35]	false
768	20160601	01.06.2016 [18:41]	06.06.2016 [14:33]	false
769	20160530	30.05.2016 [18:58]	06.06.2016 [18:29]	false
764	20160529	29.05.2016 [07:09]	30.05.2016 [19:21]	false
770	20160529	29.05.2016 [07:10]	06.06.2016 [13:23]	false
762	20160925	25.05.2016 [18:49]	26.05.2016 [06:40]	false

OTHER PROJECTS

- UPMIS
- RWIS – MDSS
- SIMOBIL, QoS



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- UPMIS
- RWIS – MDSS
- SIMOBIL, QoS



