New Web Services for NDSF Data/Metadata

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IEDA Data Facility

Lamont-Doherty Earth Observatory
EarthCube Integrative Activity

• Interdisciplinary Earth Data Alliance as a Model for Integrating EarthCube Technology Resources and Engaging the Broad Community
  – Funded: Summer 2015
  – Partner Workshop: Fall 2015

• NDSF Components
  – Broaden access to data & metadata
  – Facilitate data flow to distributed data repositories
Project Goals

• Standardize vehicle metadata
  – Ensure needs of stakeholders are met
• Improve access to NDSF data and metadata
• Enable cross-vehicle searches
  – Dive metadata
  – Virtual Van & Frame-Grabber
• Inform NDSF metadata practices
Web Services

• Queryable Service to return data/metadata
• Standards-compliant (incl. GeoWS)
• Several output formats (ASCII, SHP, GeoJSON, XML)
• Enable Broad access
  – Programmatic Access
  – Simple User Access
  – Web Service-Driven User Interfaces (UIs)
Web Service Documentation

NDSF Framegrab Web Service

Getting Started

See Description tab for more information about service.

Tools

GET services/framegrabs.php

Implementation Notes
All the filters are AND-ed together. In other words, only framegrabs matching all the filters are returned.

Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>minlon</td>
<td></td>
</tr>
<tr>
<td>maxlon</td>
<td></td>
</tr>
<tr>
<td>minlat</td>
<td></td>
</tr>
<tr>
<td>maxlat</td>
<td></td>
</tr>
<tr>
<td>starttime</td>
<td></td>
</tr>
<tr>
<td>endtime</td>
<td></td>
</tr>
<tr>
<td>cruise_id</td>
<td></td>
</tr>
<tr>
<td>vehicle_name</td>
<td></td>
</tr>
<tr>
<td>dive_name</td>
<td></td>
</tr>
<tr>
<td>feature_name</td>
<td></td>
</tr>
<tr>
<td>event_text</td>
<td></td>
</tr>
<tr>
<td>format</td>
<td>xml (default)</td>
</tr>
<tr>
<td>download</td>
<td>0 (default)</td>
</tr>
</tbody>
</table>

Error Status Codes

<table>
<thead>
<tr>
<th>HTTP Status Code</th>
<th>Reason</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>Data returned</td>
<td></td>
</tr>
<tr>
<td>400</td>
<td>Invalid parameter values</td>
<td></td>
</tr>
</tbody>
</table>

Try it out!

NDSF Dive Metadata Web Service

Description

The NDSF Dive Metadata Service provides access to information about dives by various NDSF vehicles, including Jason II, Alvin, ABE, and leda. Metadata can be returned in CSV, GML, GeoJSON, or Shapefile formats. This is a GeoWS compliant service.

Usage

Image Request Base URL

http://service.ieddadata.org/nds/divo_metadata?

Examples


http://service.ieddadata.org/nds/divo_metadata?vehicle=Jason2&format=geojson

Query Parameters

<table>
<thead>
<tr>
<th>name</th>
<th>example</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>minlon</td>
<td>-10.0</td>
<td>The easternmost longitude.</td>
</tr>
<tr>
<td>maxlon</td>
<td>10.0</td>
<td>The westernmost longitude.</td>
</tr>
<tr>
<td>minlat</td>
<td>-10.0</td>
<td>The southernmost latitude.</td>
</tr>
<tr>
<td>maxlat</td>
<td>10.0</td>
<td>The northernmost latitude.</td>
</tr>
<tr>
<td>startime</td>
<td>1980-10-29</td>
<td>Include dives only after this time.</td>
</tr>
<tr>
<td>endtime</td>
<td>2015-11-15</td>
<td>Include dives only before this time.</td>
</tr>
<tr>
<td>cruise_id</td>
<td>AT11-06</td>
<td>Include dives only from this cruise.</td>
</tr>
<tr>
<td>vehicle</td>
<td>Alvin</td>
<td>Include dives by this vehicle only.</td>
</tr>
<tr>
<td>dive_id</td>
<td>J2-003</td>
<td>Retrieve the metadata for a specific dive with the given ID.</td>
</tr>
<tr>
<td>feature</td>
<td>transect</td>
<td>Search for dives exploring a feature containing the given string.</td>
</tr>
<tr>
<td>format</td>
<td>geojson</td>
<td>Return results in this format. Valid formats are csv, xml, geojson, and shapezip.</td>
</tr>
<tr>
<td>download</td>
<td>false</td>
<td>Download data instead of displaying in the browser.</td>
</tr>
</tbody>
</table>
### JASON II Dive J2-317

#### Time (UTC)
2007/11/03 11:53:21

#### Event Text
TARGET OBS51 TXT MORE VIEWS OF PKG (SCI1)

#### Event Type
TGT

#### DAQ Type
EVT

#### Position
149.7740546°W 15.7214517°N (JAS2)

#### Local XY
990.26m (X), 529.46m (Y)

#### Roll
0.6°

#### Pitch
-6.4°

#### Heading
206.76°

#### Vehicle Depth
5210.08m

#### Altitude
2.81m

#### Local Origin

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Read about the NDSF Framegrab Web Service
ALVIN Dive 4075
Pito Deep SEPR - Started dive n 4100M and transected Up Slope samplings Dyke and general scarp rock.
Come see our Poster!

Wednesday morning: IN31D-1779

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