

Zintegrowany System Przetwarzania Danych Oceanograficznych
Oceanographic Data Center of IO PAN

Integrated Ocean Data and Information Management System
Oceanographic Data Center of IO PAN

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IMDIS 2013, Lucca September 23rd

Oceanographic data at IO PAN



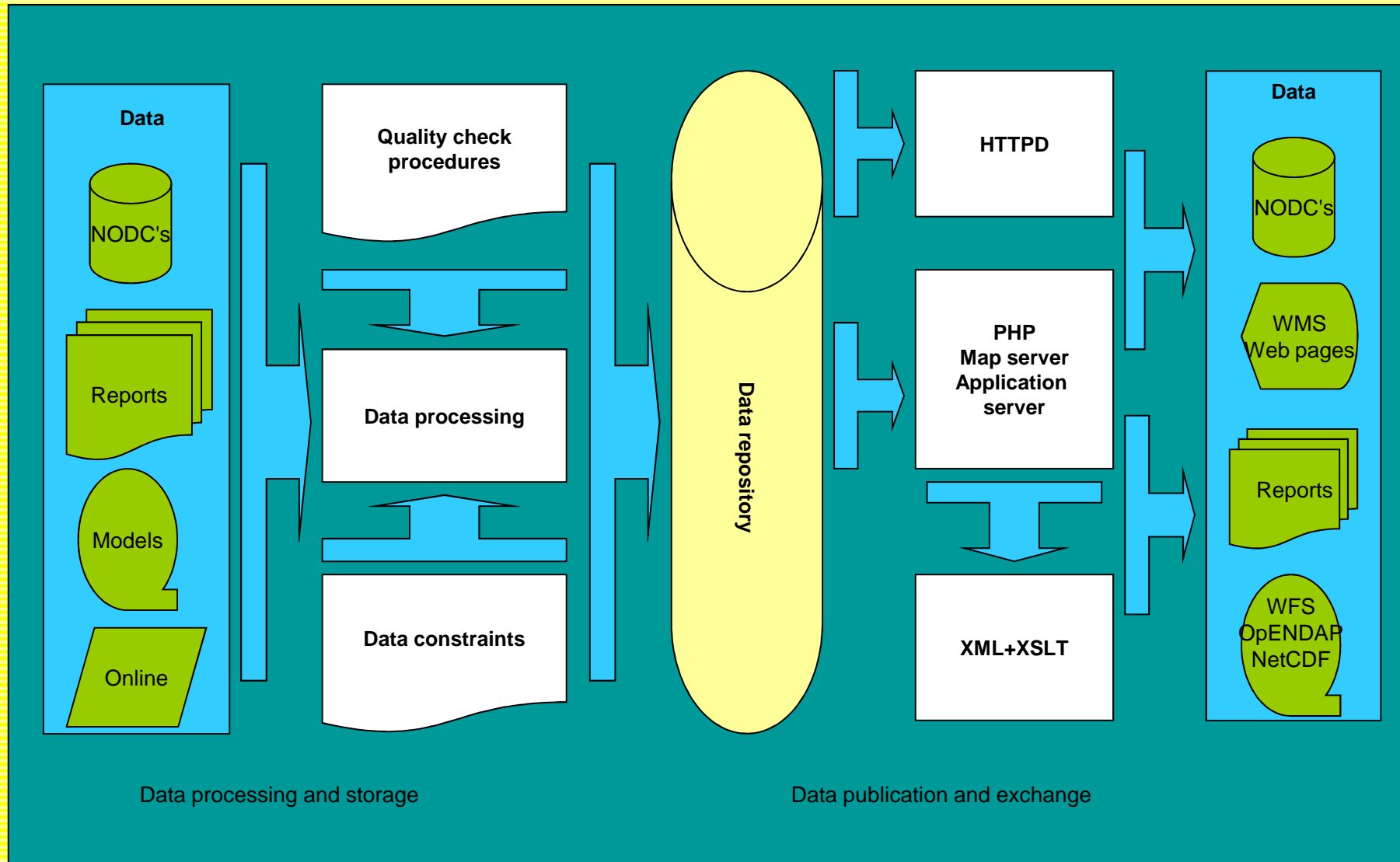
Extensive archives of information

Institute of Oceanology (IO PAN) maintains data gathered during research activities performed for more than 50 years. These data, originating from different sources are being processed according to common practice elaborated through generations of oceanographers, however there appears to be a very strong demand for standardization of procedures, especially while facing problems regarding cooperation in data exchange



Foto: Jerzy Dąbrowski

Oceanographic data at IO PAN



Project goals

- to build ocean data repository with data management and processing system ensuring data availability, increasing data accessibility providing catalogue services and reducing risk of data degradation and data loss
- to deploy management system for research and development projects and works performed by Institute according to standards and identified processes
- to deploy management system for resources used and people engaged in research and administrative processes optimizing human work, accessibility and utilization of the resources;
- to develop eLearning platform and data visualisation services providing tools for teachers and trainers at different levels of education



Project goals

- to deliver platform for data and information delivery services;
- to build organizational and technological infrastructure (ensuring development, management and coordination of national and international projects from the marine research domain);
- to provide data, information and metainformation for marine research institutes and coastal, environment and marine management organizations, industrial R&D organizations active in shelf, coastal land and river estuaries areas, involved in exploitation of marine environment, national and international scientific institutions, administration and authorities at local, regional and national level
- to increase possibility of hosting data and services at high quality level

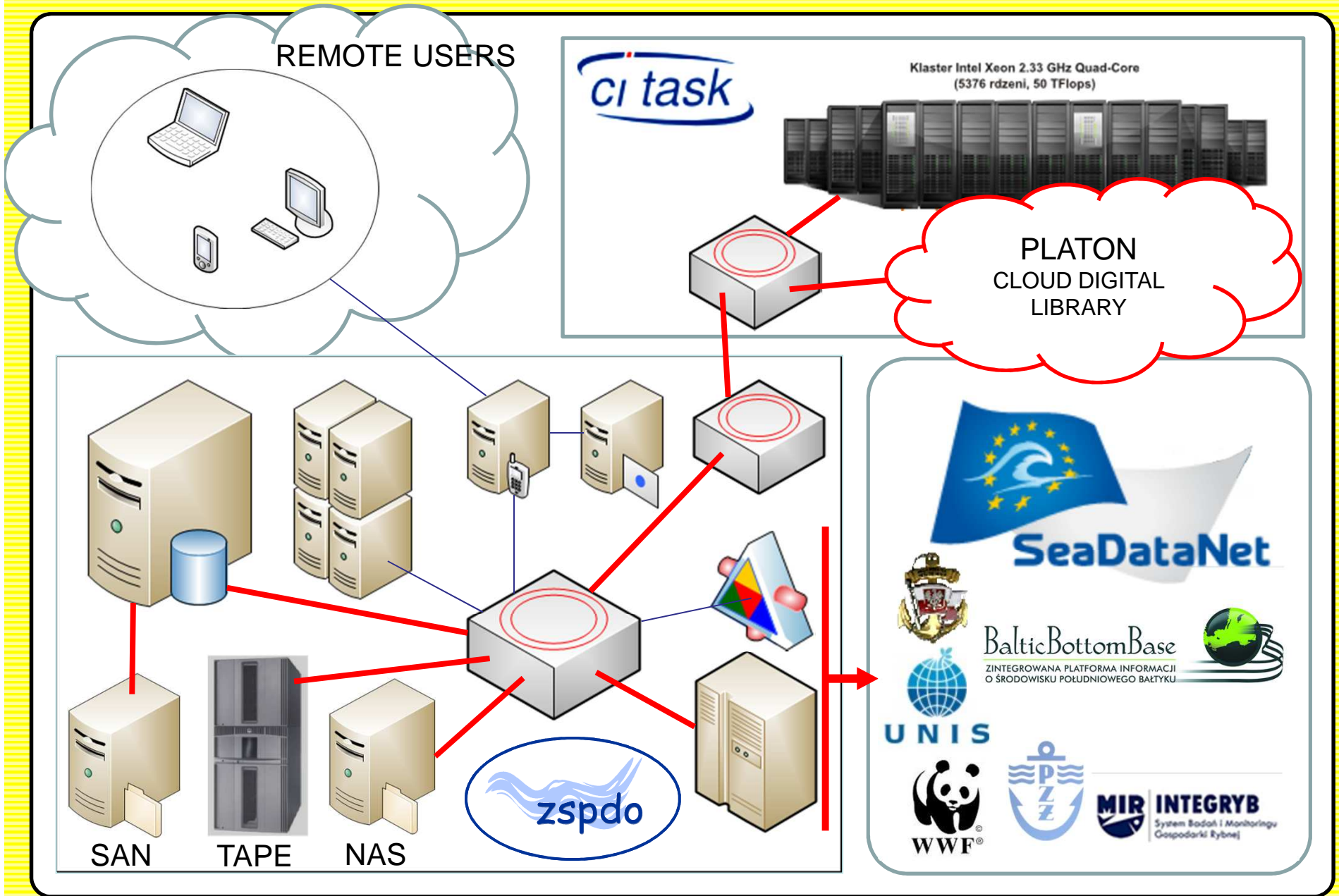
Project goals

facilitating oceanographic data management processes considering their complexity, their heterogenous nature and demand of interoperability preserved for external systems.

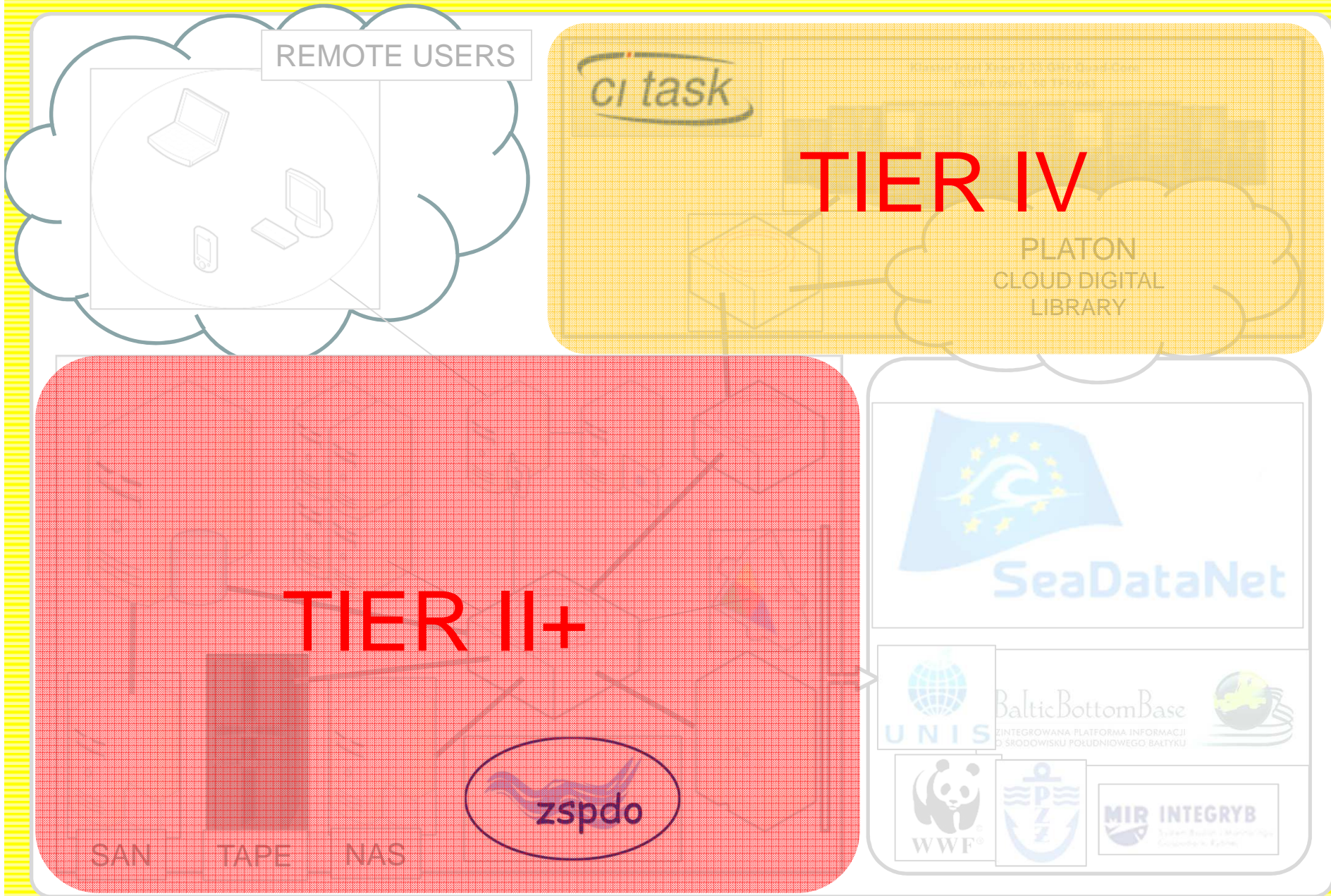
General principle

ZSPDO enables users to define their own formats of raw data and mapping from native formats to vocabulary parameter and metadata definitions, and store them in the data mart for further processing

Data Center Infrastructure



Data Center Infrastructure : TIA 942 standard



Data Center Infrastructure : ZSPDO Portal



Identify as : wichor Logout

English

ZINTEGROWANY SYSTEM
PRZETWARZANIA
DANYCH
OCEANOGRAFICZNYCH

VIEW DATA DATA REGISTRATION PROBLEMS AND ISSUES ADMINISTRATION PANEL PROJECTS USER PANEL

Menu

- [Dodaj konwerter danych](#)
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Project co-financed by the European Union through the European Regional Development Fund

Data Center Infrastructure : Data browsing



The screenshot displays the ZSPDO website interface. At the top, there is a header with the ZSPDO logo and the text "ZINTEGROWANY SYSTEM PRZETWARZANIA DANYCH OCEANOGRAFICZNYCH". To the right of the header, there are user login options: "Identify as : wichor" and "Logout", along with a language dropdown menu set to "English".

Below the header is a navigation bar with the following menu items: "VIEW DATA", "DATA REGISTRATION", "PROBLEMS AND ISSUES", "ADMINISTRATION PANEL", "PROJECTS", and "USER PANEL".

On the left side, there is a search sidebar with the following options:

- Search for oceanographic data
- SeaBass ▶
- SeaDataNet ▶
- Search documents
- netCDF visualization
- Projects
- Media archive
- Raports - charts

Below the search sidebar, there are several links in Polish:

- [Archiwizacja danych](#)
- [Przywrócenie danych archiwalnych](#)
- [Monitorowanie infrastruktury](#)
- [Rejestrowanie typów danych](#)
- [Dodawanie kolumn w tabeli danych ETL](#)
- [Rejestrowanie plików KTR](#)
- [Wymuszenie indeksowania plików](#)

The main content area features a large image of the Earth with the ZSPDO logo overlaid. At the bottom of the page, there is a copyright notice: "Copyright © 2011 ZSPDO."

Development of ODC: Data browsing





ZINTEGROWANY SYSTEM PRZETWARZANIA DANYCH OCEANOGRAFICZNYCH

Identify as: wichor Logout

ver. 1.0.11_82839_PROD

VIEW DATA DATA REGISTRATION PROBLEMS AND ISSUES ADMINISTRATION PANEL PROJECTS USER PANEL

Parametry wyszukiwania

Lat: 0.0 Lon: 0.0
Lat: 0.0 Lon: 0.0

Projekty:
Zintegrowany System Przetwarzania
Czynniki kontrolujące bioróżnorodność
GAME - Dojrzewanie ekosystemu I
Badania bioróżnorodności Oceanu
Eksperymentalne badania dotyczą

Data pobrania:
Od: 23,09,2013
Do: 23,09,2013

Głębokość:
Od: 50 [m]
Do: 50 [m]

Typ wyszukiwania:
 Wszystkie Próbkki Pomiarzy BHMW

Opcje wyszukiwania

Mapa



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Development of ODC: Data sets collection



ZINTEGROWANY SYSTEM
PRZETWARZANIA
DANYCH
OCEANOGRAFICZNYCH

Identify as: wichor Logout

ver: 1.0.11_92839_PROD

VIEW DATA
DATA REGISTRATION
PROBLEMS AND ISSUES
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USER PANEL

Parametry wyszukiwania

Lat: Lon:
 Lat: Lon:

Projekty:
 Zintegrowany System Przetwarzania
 Czynniki kontrolujące bioróżnorodność
 GAME - Dojrzwianie ekosystemu i
 Badania bioróżnorodności Oceanu
 Eksperymentalne badania dotyczą

Data pobrania:
 Od:
 Do:

Głębokość:
 Od: [m]
 Do: [m]

Typ wyszukiwania:
 Wszystkie Próbkę Pomiary BHMW

Opcje wyszukiwania

Mapa

Nie zdefiniowano jednego lub więcej parametrów wyszukiwania, następujące parametry zostaną pominięte:
 * Projekt
 * Głębokość

| | | | |
|---|----------|--------|-----------------------|
| AREX_1993_Confluence_Zone-F4_CN.V | AREX1993 | 528.5 | 1993-07-04 10:53:12.0 |
| AREX_1993_Confluence_Zone-F5_CN.V | AREX1993 | 386 | 1993-07-04 08:13:29.0 |
| AREX_1993_Confluence_Zone-F6_CN.V | AREX1993 | 361 | 1993-07-04 05:13:51.0 |
| AREX_1993_Confluence_Zone-G2_CN.V | AREX1993 | 1452.5 | 1993-07-04 20:54:33.0 |
| AREX_1993_Confluence_Zone-G3_CN.V | AREX1993 | 1052 | 1993-07-05 01:24:06.0 |
| AREX_1993_Confluence_Zone-G4_CN.V | AREX1993 | 502.5 | 1993-07-05 05:41:59.0 |
| AREX_1993_Confluence_Zone-G5_CN.V | AREX1993 | 405 | 1993-07-05 12:05:01.0 |
| AREX_1993_Confluence_Zone-G6_CN.V | AREX1993 | 420 | 1993-07-05 18:19:53.0 |
| AREX_1993_Confluence_Zone-H2_CN.V | AREX1993 | 1555.5 | 1993-07-06 10:56:16.0 |
| AREX_1993_Confluence_Zone-H3_CN.V | AREX1993 | 1201.5 | 1993-07-06 08:27:07.0 |
| AREX_1993_Confluence_Zone-H4_CN.V | AREX1993 | 653.5 | 1993-07-06 05:26:14.0 |
| AREX_1993_Confluence_Zone-H5_CN.V | AREX1993 | 455.5 | 1993-07-06 03:03:28.0 |
| AREX_1993_Confluence_Zone-H6_CN.V | AREX1993 | 402.5 | 1993-07-06 00:53:12.0 |
| AREX_1993_Confluence_Zone-I2_CN.V | AREX1993 | 1901 | 1993-07-06 15:37:09.0 |
| AREX_1993_Confluence_Zone-I3_CN.V | AREX1993 | 1653.5 | 1993-07-06 21:05:52.0 |
| AREX_1993_Confluence_Zone-I4_CN.V | AREX1993 | 1493 | 1993-07-07 01:16:39.0 |

Development of ODC: Data set details



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Measurement details

| | |
|--|---|
| Measurement label: | AREX 1989 Arctic Front |
| Registration date: | Wed Jul 10 13:18:52 CEST 2013 |
| Input by: | Marek Zwierz |
| Measurement type: | zasolenia i temperatury (CTD) |
| SourceOfData: | Instytut Oceanologii Polskiej Akademii Nauk w Sopotie |
| Projects related with this expedition: | Zintegrowany System Przetwarzania Danych Oceanograficznych, Adwekcja wód atlantyckich do europejskiej części Arktyki w holocenie: Paleoceanograficzny zapis zmienności Prądu Zachodniospitsbergenskiego |
| Expedition: | AREX1989 |
| Cruise: | AREX89/ArcticFront |
| Ship: | Oceania |
| Real date/time of take: | Wed Aug 09 13:29:34 CEST 1989 |
| Station: | 11014 |
| Position of take: | $\phi: 76.9845$ [°], $\lambda: 14.000833333333333$ [°] |
| Depth of sea: | [m] |
| Essential take conditions: | |
| Note: | |
| Moratorium period expires: | Wed Jul 10 00:00:00 CEST 2013 |
| Measure device: | |
| Device type: | |
| Application used to process data: | |

Development of ODC: Data set details



Attached files: probably good value

Quality flag: probably good value

Files with processed data | Raw files from devices | Calibration files from devices | Files with list of measurable parameters | Attachment of measurement

| Name | Description | Type | Registration date | Action |
|----------|-------------|--------------------------|-------------------------------|----------|
| ID14.CHV | Parsed | application/octet-stream | Wed Jul 10 13:19:24 CEST 2013 | Download |

Wykres Multi

Oceania-AREX89/ArcticFront

OXYGEN SATURATION [mg/l]

TEMPERATURE [°C]

CONDUCTIVITY [mS/cm]

SALINITY [PSU]

Chart Settings

Select X

- POTENTIAL_TEMPERATURE
- SALINITY
- DENSITY
- SPECIFIC_VOLUME_ANOMALY
- STABILITY
- BUOYANCY_FREQUENCY

As Y is PRESSURE

Export ODV | Pokaż wskazany wykres

Back

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Development of ODC: Vocabulary browsing



Identify as: wichor | Logout

ZINTEGROWANY SYSTEM PRZETWARZANIA DANYCH OCEANOGRAFICZNYCH

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Import

Importuj Słowniki

Lista słowników seadatanet

SeaDataNet Controlled Vocabularies Pokaż

| Nazwa | Pełna nazwa | Url | Definicja |
|---|---|---|---|
| NVS mappings | NERC Vocabulary Server mappings index | http://vocab.ndg.nerc.ac.uk/list/C970/401 | A catalogue of the mappings between vocabularies held in the NERC Vocabulary Server. |
| Geo-Seas skewness descriptors | Geo-Seas sediment grain-size skewness descriptors | http://vocab.ndg.nerc.ac.uk/list/GSS0/1 | Terms used to describe sediment grain-size skewness coefficients in the Geo-Seas project |
| Biological entity names | BODC parameter semantic model biological entity names | http://vocab.ndg.nerc.ac.uk/list/S250/29 | Terms used to describe biological entities (organisms or parts thereof) in the BODC Parameter Usage Vocabulary |
| MEDATLAS Parameter Usage Vocabulary | MEDATLAS Parameter Usage Vocabulary | http://vocab.ndg.nerc.ac.uk/list/P09/40 | MEDATLAS Parameter Usage Vocabulary |
| SeaDataNet data access | SeaDataNet data access mechanisms | http://vocab.ndg.nerc.ac.uk/list/L07/1/2 | Terms for mechanisms by which data objects described by SeaDataNet Central Data Index (CDI) records may be obtained before SeaDataNet is fully implemented. |
| SeaDataNet APG | SeaDataNet Agreed Parameter Groups | http://vocab.ndg.nerc.ac.uk/list/P031/21 | Terms agreed within the EU SeaDataNet community to describe coarse-grained groupings of related measurement phenomena. |
| CSR units | SeaDataNet Cruise Summary Report quantification units | http://vocab.ndg.nerc.ac.uk/list/L181/1 | Terms used as units in the quantification of what was collected or measured in a Cruise Summary Report (ROSCOP) record. |
| SeaDataNet device categories | SeaDataNet device categories | http://vocab.ndg.nerc.ac.uk/list/L05/33 | SeaDataNet device categories |
| SeaDataNet Geospatial Feature Types | SeaDataNet Geospatial Feature Types | http://vocab.ndg.nerc.ac.uk/list/L021/1 | SeaDataNet profile of ISO MD_GeometricObjectTypeCodeTerms code list. Known in SEA-SEARCH as "Library 2" or cdi_measurement_codes. |
| SeaDataNet Contact Roles | SeaDataNet Contact Roles | http://vocab.ndg.nerc.ac.uk/list/C865/4 | Terms used to define the responsibilities for a contact (person or organisation) either within the SeaDataNet project or for the datasets described by SeaDataNet metadata. |
| MD_DatatypeCode | MD_DatatypeCode | http://vocab.ndg.nerc.ac.uk/list/G120/1 | Datatype of element or entity |
| MD_DimensionNameTypeCode | MD_DimensionNameTypeCode | http://vocab.ndg.nerc.ac.uk/list/G130/1 | Name of the dimension |
| SeaVoX Platform Categories | SeaVoX Platform Categories | http://vocab.ndg.nerc.ac.uk/list/L06/9 | SeaVoX Platform Categories |
| MD_CharacterSetCode | MD_CharacterSetCode | http://vocab.ndg.nerc.ac.uk/list/G090/1 | Name of the character coding standard used in the resource |
| SeaDataNet PDV deprecates | SeaDataNet Parameter Discovery Vocabulary deprecates | http://vocab.ndg.nerc.ac.uk/list/P022/75 | Deprecated terms describing fine-grained related groups of measured phenomena designed to be used in dataset discovery interfaces. |
| SeaDataNet Disciplines | SeaDataNet Parameter Disciplines | http://vocab.ndg.nerc.ac.uk/list/P081/3 | Terms used to classify SeaDataNet Agreed Parameter Groups to provide topic/theme level terms in a hierarchical parameter discovery interface |
| IHB Sea Areas | International Hydrographic Bureau (1953) sea areas | http://vocab.ndg.nerc.ac.uk/list/C161/8 | Terms used for sea areas from International Hydrographic Bureau, Limits of Oceans and Seas (Special Publication No. 23), 3rd edition 1953. |
| POGO ships | Partnership for Observation of the Global Ocean ships of interest | http://vocab.ndg.nerc.ac.uk/list/P173/1 | Research vessels deemed to be of interest to POGO. 'Of interest' is defined as active ocean-going research vessels greater than 60m in length |

Data Center Infrastructure : Help desk management





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ZINTEGROWANY SYSTEM PRZETWARZANIA DANYCH OCEANOGRAFICZNYCH

ver. 1.0.11_02839_PROD

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Zgłoszenia

| Identyfikator | Typ | Autor | Data stworzenia | Spodziewany czas zamknięcia | Priorytet | Status | Komentarzy | Działania |
|------------------|---------------|--------|------------------|-----------------------------|-----------|------------|------------|------------------------|
| SERVICE_ALERT-1 | Service Alert | SYSTEM | 2012-05-29 15:57 | 2012-05-31 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-8 | Service Alert | SYSTEM | 2012-06-05 16:13 | 2012-06-07 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-9 | Service Alert | SYSTEM | 2012-06-06 10:14 | 2012-06-08 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-10 | Service Alert | SYSTEM | 2012-06-06 10:58 | 2012-06-08 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-11 | Service Alert | SYSTEM | 2012-06-06 11:08 | 2012-06-08 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-12 | Service Alert | SYSTEM | 2012-06-06 11:21 | 2012-06-08 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-13 | Service Alert | SYSTEM | 2012-06-06 12:02 | 2012-06-08 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-14 | Service Alert | SYSTEM | 2012-06-06 12:15 | 2012-06-08 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-15 | Service Alert | SYSTEM | 2012-06-08 09:59 | 2012-06-10 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-16 | Service Alert | SYSTEM | 2012-06-08 12:24 | 2012-06-10 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-17 | Service Alert | SYSTEM | 2012-06-08 12:54 | 2012-06-10 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-18 | Service Alert | SYSTEM | 2012-07-14 16:10 | 2012-07-16 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-19 | Service Alert | SYSTEM | 2012-07-15 12:34 | 2012-07-17 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-20 | Service Alert | SYSTEM | 2012-07-15 13:28 | 2012-07-17 | Wysoki | Rozwiązane | 1 | Edytuj |
| SERVICE_ALERT-21 | Service Alert | SYSTEM | 2012-07-15 20:02 | 2012-07-17 | Wysoki | Rozwiązane | 1 | Edytuj |

Prośby o dostęp do zasobów

| Id | Login użytkownika proszącego o dostęp | Uzasadnienie | Szczegóły obiektu którego dotyczy zgłoszenie | Data zgłoszenia | Zaznacz |
|--|---------------------------------------|--------------|--|-----------------|---------|
| Zaznacz wszystkie Usuń zaznaczone Daj dostęp | | | | | |

Data Center Infrastructure : Infrastructure monitoring





ZINTEGROWANY SYSTEM
PRZETWARZANIA
DANYCH
OCEANOGRAFICZNYCH

Identify as: wichor [Logout](#)
English

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MONITOROWANIE INFRASTRUKTURY

This option allows you to preview the current state of IT devices of the system. You can also view the details of the work and the status of servers running services.

| Hosts | | | | | | |
|-------|---------------------|--------|--------------|---------------------|---------------------|---|
| | Status | Status | IP Address | Last check | Last change | Status information |
| | s9.iopan.gda.pl | UP | 10.8.2.19 | 2013-09-23 14:43:31 | 2012-09-27 23:49:12 | OK - 10.8.2.19: rta 0.023ms, lost 0% |
| | s8.iopan.gda.pl | UP | 10.8.2.18 | 2013-09-23 14:43:31 | 2013-08-06 18:51:25 | OK - 10.8.2.18: rta 0.171ms, lost 0% |
| | s7.iopan.gda.pl | UP | 10.8.2.17 | 2013-09-23 14:43:31 | 2012-09-27 23:48:46 | OK - 10.8.2.17: rta 0.198ms, lost 0% |
| | s6.iopan.gda.pl | UP | 10.8.2.16 | 2013-09-23 14:43:31 | 2012-09-27 23:48:33 | OK - 10.8.2.16: rta 0.232ms, lost 0% |
| | s5.iopan.gda.pl | UP | 10.8.2.15 | 2013-09-23 14:43:31 | 2013-09-01 10:32:41 | OK - 10.8.2.15: rta 0.199ms, lost 0% |
| | s2.iopan.gda.pl | UP | 10.8.6.2 | 2013-09-23 14:43:31 | 2013-08-31 15:51:11 | OK - 10.8.6.2: rta 1.105ms, lost 0% |
| | s11.iopan.gda.pl | UP | 10.8.2.21 | 2013-09-23 14:43:21 | 2013-08-31 15:29:01 | OK - 10.8.2.21: rta 0.189ms, lost 0% |
| | s10.iopan.gda.pl | UP | 10.8.2.20 | 2013-09-23 14:43:31 | 2013-09-01 10:41:11 | OK - 10.8.2.20: rta 0.174ms, lost 0% |
| | s1.iopan.gda.pl | UP | 10.8.6.1 | 2013-09-23 14:43:31 | 2013-08-31 16:21:31 | OK - 10.8.6.1: rta 0.757ms, lost 0% |
| | IDRACs4 | UP | 10.252.0.4 | 2013-09-23 14:43:31 | 2013-08-03 12:26:49 | OK - 10.252.0.4: rta 1.054ms, lost 0% |
| | IDRACs3 | UP | 10.252.0.3 | 2013-09-23 14:43:31 | 2013-08-03 12:26:48 | OK - 10.252.0.3: rta 0.896ms, lost 0% |
| | IDRACs11 | UP | 10.252.0.7 | 2013-09-23 14:43:31 | 2013-08-03 12:26:38 | OK - 10.252.0.7: rta 1.113ms, lost 0% |
| | IDRACs12 | UP | 10.252.0.8 | 2013-09-23 14:43:31 | 2013-08-03 12:26:38 | OK - 10.252.0.8: rta 1.080ms, lost 0% |
| | DelPowerConnect2824 | UP | 10.252.0.250 | 2013-09-23 14:43:32 | 2013-06-06 16:52:47 | OK - 10.252.0.250: rta 3.011ms, lost 0% |
| | FCB1Brocade4424 | UP | 10.252.0.20 | 2013-09-23 14:43:21 | 2013-08-28 10:25:09 | OK - 10.252.0.20: rta 1.025ms, lost 0% |
| | FCB2Brocade4424 | UP | 10.252.0.21 | 2013-09-23 14:43:31 | 2013-08-28 10:24:31 | OK - 10.252.0.21: rta 1.080ms, lost 0% |
| | JuniperEX2200 | UP | 10.252.0.251 | 2013-09-23 14:43:31 | 2013-07-10 13:19:13 | OK - 10.252.0.251: rta 2.960ms, lost 0% |
| | JuniperSRX3400 | UP | 10.252.0.254 | 2013-09-23 14:43:31 | 2013-08-28 09:03:53 | OK - 10.252.0.254: rta 0.881ms, lost 0% |
| | LOTUS_1 | UP | 10.8.2.31 | 2013-09-23 14:43:31 | 2012-09-28 14:35:08 | OK - 10.8.2.31: rta 0.157ms, lost 0% |
| | LOTUS_2 | UP | 10.8.2.32 | 2013-09-23 14:43:31 | 2012-09-28 14:35:46 | OK - 10.8.2.32: rta 0.179ms, lost 0% |
| | MySql | UP | 10.8.2.64 | 2013-09-23 14:36:31 | 2012-09-27 23:47:34 | PING OK - Packet loss = 0%, RTA = 0.20 ms |
| | VideoConference | UP | 10.8.2.22 | 2013-09-23 14:43:21 | 2013-09-14 23:49:18 | OK - 10.8.2.22: rta 0.185ms, lost 0% |

Data Center Infrastructure : Data transformation



```
* Seabird SBE 49 Raw Data File:
* Number of Bytes Per Scan = 6
* System UpLoad Time = Wed Mar 07 2007 09:10:10
* Ship: Oceania
* Cruise: Stolpe Channel 2003
* Station: lrs
* Latitude: N54 50.707
* Longitude: E19 18.278
* Bottom: 110
# nquan = 7
# nvalues = 210
# units = metric
# name 0 = pr: pressure [decibar]
# name 1 = t0: temperature [degC]
# name 2 = sal00: salinity, PSS-2
# name 3 = sigma-t00: density, sigma-t
# name 4 = sva: specific volume anomaly
# name 5 = flag: 0.000e+00
# name 6 = nbin: number of scans
# span 0 = 1.000, 105.500
# span 1 = 2.4134, 8.3162
# span 2 = 7.3739, 13.4070
# span 3 = 5.8815, 10.3359
# span 4 = 1709.57, 2148.93
# span 5 = 0.000e+00, 0.000e+00
# span 6 = 13.0000, 201.0000
# interval = decibars: 0.5
# start_time = Wed Mar 07 2007 09:10:10
# derive_date = Mar 20 2007 09:10:10
# derive_in = 1RS000.CNV GUILDLINE
# strip_date = Mar 20 2007 09:10:10
# strip_in = 1RS000.CNV
# file_type = ascii
*END*
1.000 2.5273 7.375
1.500 2.5464 7.376
2.000 2.5096 7.375
2.500 2.4939 7.375
```

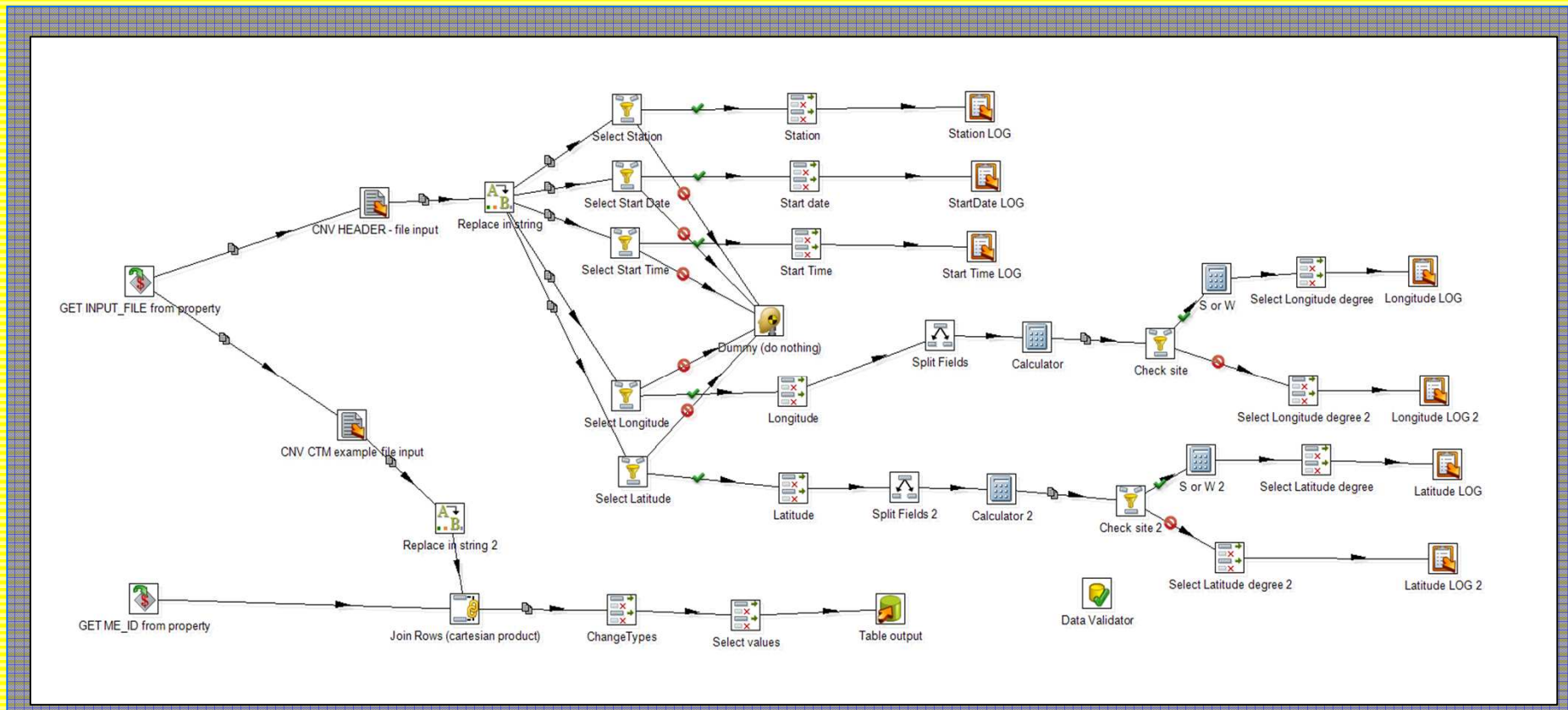
```
<?xml version="1.0"?>
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    <name>Transformation IOPAN test</name>
    <description/>
    <extended_description/>
    <trans_version/>
    <trans_type>Normal</trans_type>
    <trans_status>0</trans_status>
    <directory>/</directory>
  </info>
  <parameters>
    <parameter>
      <name>INPUT_FILE</name>
      <default_value>default</default_value>
      <description>DATA IN</description>
    </parameter>
    <parameter>
      <name>MEASUREMENTEVENT_ID_PROPERTY</name>
      <default_value>default</default_value>
      <description>Measurement_ID</description>
    </parameter>
  </parameters>
  <log/>
  <maxdate>
    <size_rowset>10000</size_rowset>
    <sleep_time_empty>50</sleep_time_empty>
    <sleep_time_full>50</sleep_time_full>
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    <feedback_shown>Y</feedback_shown>
    <feedback_size>50000</feedback_size>
    <using_thread_priorities>Y</using_thread_priorities>
    <shared_objects_file/>
    <capture_step_performance>N</capture_step_performance>
    <step_performance_capturing_delay>1000</step_performance_capturing_delay>
    <step_performance_capturing_size_limit>100</step_performance_capturing_size_limit>
    <dependencies/>
    <partitionschemas/>
    <slaveservers/>
    <clusterschemas/>
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    <created_date>2013/07/31 09:20:29.637</created_date>
    <modified_user>-</modified_user>
    <modified_date>2013/09/05 10:53:42.204</modified_date>
  </maxdate>
  <notepads/>
  <connection>
    <connection>
    <connection>
    <connection>
  </connection>
  <order>
    <hop>
      <from>GET INPUT_FILE from property</from>
      <to>CNV BODY file input</to>
      <enabled>Y</enabled>
    </hop>
    <hop>
      <from>GET INPUT_FILE from property</from>
      <to>CNV HEADER - file input</to>
      <enabled>Y</enabled>
    </hop>
    <hop>
      <from>CNV HEADER - file input</from>
      <to>Replace in string</to>
    </hop>
  </order>
</transformation>
```



Data Center Infrastructure : Pentaho Business Analytics



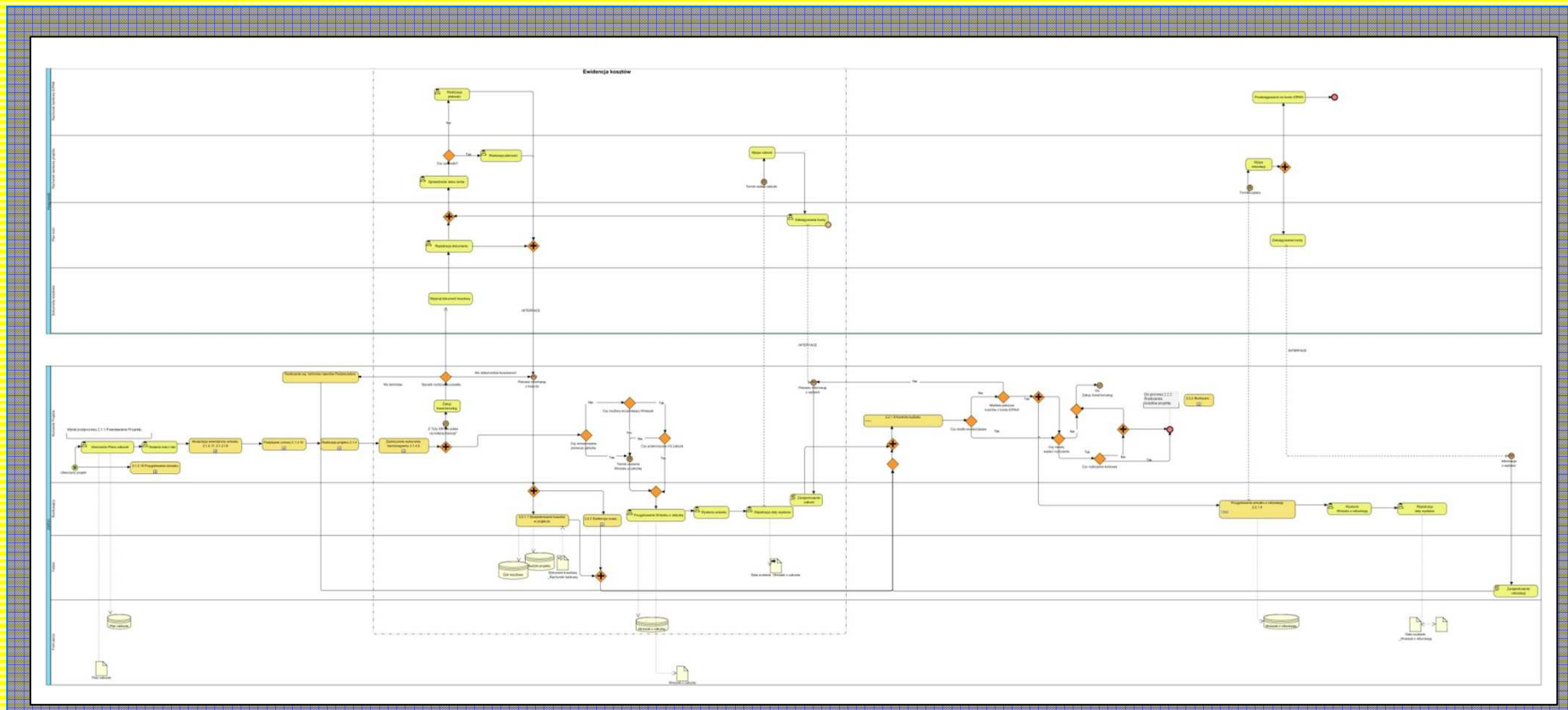
- Data access and ETL
- Data discovery and analysis (OLAP engine)
- Data mining



Data Center Infrastructure: Process management



- Processes are defined using BPMN v.2
- Visual Paradigm/Dysant Framework
- Workflow definition by graphical GUI



Lech Kotwicki

Ekosystemy brzegowe



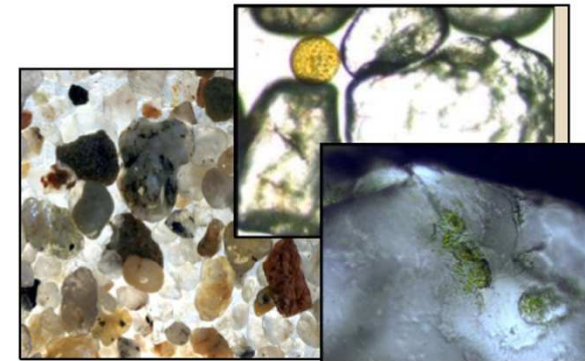
INNOWACYJNA GOSPODARKA

Mieszkańcy naszych rzek

Dolina Wisły to jeden z najcenniejszych ekosystemów europejskich, kluczowy obszar dla niezliczonej liczby gatunków zwierząt- od małych bezkręgowców, po ptaki i ssaki. Te ostatnie są na tyle duże, że bez problemu możemy obserwować je na codzień. Ale co z tymi mniejszymi, które nie tylko z premedytacją ukrywają się przed okiem bystrego obserwatora, ale także mogą być na tyle małe, że nawet nie zdajemy sobie sprawy z ich obecności?

Spróbujmy więc przyjrzeć się im bliżej....

Osad rzeczny to najczęściej mieszanina piasków i mułów. Poszczególne ziarna osadu różnią się kształtem i średnicą, co sprawia, że pomiędzy nimi tworzą się wolne przestrzenie. Te tzw. przestrzenie interstycjalne umożliwiają nie tylko swobodny przepływ wody przez osad, ale także stanowią środowisko życia dla niezliczonej ilości organizmów.



Fot. 1. Kwarcowy piasek wiślany – widoczne przestrzenie pomiędzy ziarnami piasku, żyjące tam okrężki oraz mikroorganizmy porastające zagłębienia w pojedynczym ziarnie.

Najmniejsze z nich to **MIKROORGANIZMY**, umowna nazwa wielu różnych bakterii, roślin i zwierząt, których rozmiary nie przekraczają 0.05 mm. Najliczniej

INNOWACYJNA GOSPODARKA

Data Center Infrastructure: eLearning platform: authoring tools



ZSPDO_Ekosystemy_Brzegowe - CourseLab - [M1 *]

File Edit View Insert Format Tools Module Window Help

100% View Module

Course

- Course 'ZSPDO - E
- M1

Object Librar

Agents

Balloons

- Simple
- Standard
- Convex
- Gradient
- Idea


Design

- External
- Form
- Lists
- Media
- Navigation
- Popup
- Questions
- Simulations
- Tests
- Textboxes
- Title

INNOWACYJNA GOSPODARKA
NARODOWA STRATEGIA SPÓJNOŚCI

zspdo zintegrowany system przetwarzania danych oceanograficznych

UNIA EUROPEJSKA
EUROPEJSKI FUNDUSZ ROZWOJU REGIONALNEGO



Ekosystemy brzegowe

Start Module

Title IMG_7 22,190 511 x 459



- teleconferencing facility
- telepresence
- groupworking
- remote desktop
- multimedia presentations
- session recording
- eAccess

ensures cross-functioning integration with helpdesk, groupware, eAccess and eLearning modules

Conclusions: Benefits for the community



- ensurance of security of agregated information resoruces
- improvement of data exchange with international organisations
- automatisation of metainforamation discovery and publication
- normalization of data and information exchange procedures deploying widely used standards (eg. those developed within SeaDataNet)
- improvement of research project management with developed tools for budget and resources administration
- monitoring of the administration processes and quality management within projects
- improve efficiency of research works providing fast and easy access to data repository

Conclusions



- Growing computation power and storage equipment capabilities give opportunity of increasing data volume archived, processed and analysed in data centers. This trend is well known as „big data paradigm” in financial and business applications.
- Exploding data volume also leads to demand of new services eg. multidimensional analysis and data visualisation, integrated in unique platform. ZSPDO have been developed to face these identified challenges and raise operational performance of data processing.
- Growing potential of data management systems and oceanographic data centers enforces dissemination of knowledge and rises effort of users training
- Interoperability of data centers is key factor of development



THANK YOU!