

Common Vocabularies Developments

BODC VOCABULARY MANAGEMENT GROUP



**National
Oceanography Centre**
NATURAL ENVIRONMENT RESEARCH COUNCIL

noc.ac.uk

NERC SCIENCE OF THE
ENVIRONMENT

Content Developments

P01 developments

4160 concepts added in the past year

6000 CAS numbers have been added since June 2015

A 'clean' chemical semantic model has been implemented to provide the 'one-armed bandit' back office for chemical substances

- Includes a 'substance' wheel mapped to ChEBI and CAS (S27 vocabulary)
- Population is a work in progress
- 'Bandit' tool still needs to be developed



Technical Developments

Enhanced service resilience

- There has been a worrying increase in down time due to security (patch application) and other issues in the NOC Liverpool server room
- The proposed solution is multi-node serving through a load-balancing service
- JASMIN (RAL) and NOC Southampton have been identified as suitable sites for mirror nodes
- BUT
 - Vocabulary server is back-ended by Oracle
 - Multiple-user (CPU power-based) licences required
 - VERY expensive, especially for a large VM farm like JASMIN



Technical Developments

Enhanced service resilience alternative strategy

- Replicated SPARQL endpoints
 - Overnight cron deconstructs Oracle database into triples
 - Triples stored in a Fuseki database
 - Database replicated across nodes using RSYNC
- Oracle database used for maintenance
- Server APIs and search client run off the SPARQL endpoints



Technical Developments

[NVS Search Client](#) (Internet Explorer prior to IE10 not supported)

- Developed in addition to the Maris client because
 - Requirement for control over search behaviour to reduce number of hits
 - Requirement to manage exclusion of deprecated concepts
 - Requirement for tools running off the SPARQL endpoint rather than the Oracle database
 - Requirement for a client to access vocabularies in NVS other than those deemed to be of interest to SeaDataNet

Companion NVS V2 editor under development



National
Oceanography Centre
NATURAL ENVIRONMENT RESEARCH COUNCIL

noc.ac.uk

NERC SCIENCE OF THE
ENVIRONMENT

Personnel Changes

Vocabulary content management in BODC is now the responsibility of the Vocabulary Management Group (VMG)

- Chaired by Rob Thomas and Gwen Moncoiffe
- Six additional members with experience covering a range of science disciplines

Vocabulary technical management is now the responsibility of Alexandra Kokkinaki

Any vocabulary content issues such as mappings and updates should be addressed to enquiries@bodc.ac.uk

E-mail monitored by BODC request team and forwarded to the VMG

Technical queries may be directed to alexk@bodc.ac.uk

Personnel Changes

I am on leave for all of October and draw my pension on November 1

I will be retained by BODC as a technical consultant

Back-room role advising the VMG and other BODC projects working 7.5 hours per week

The rest of my time will be invested in grandchildren (3 in February), travel and wildlife photography



Personnel Changes

So.....

Au Revoir

Many thanks to colleagues in SeaDataNet and preceding projects for many good times and memories during the past 35 years



National
Oceanography Centre
NATURAL ENVIRONMENT RESEARCH COUNCIL

noc.ac.uk

NERC SCIENCE OF THE
ENVIRONMENT