

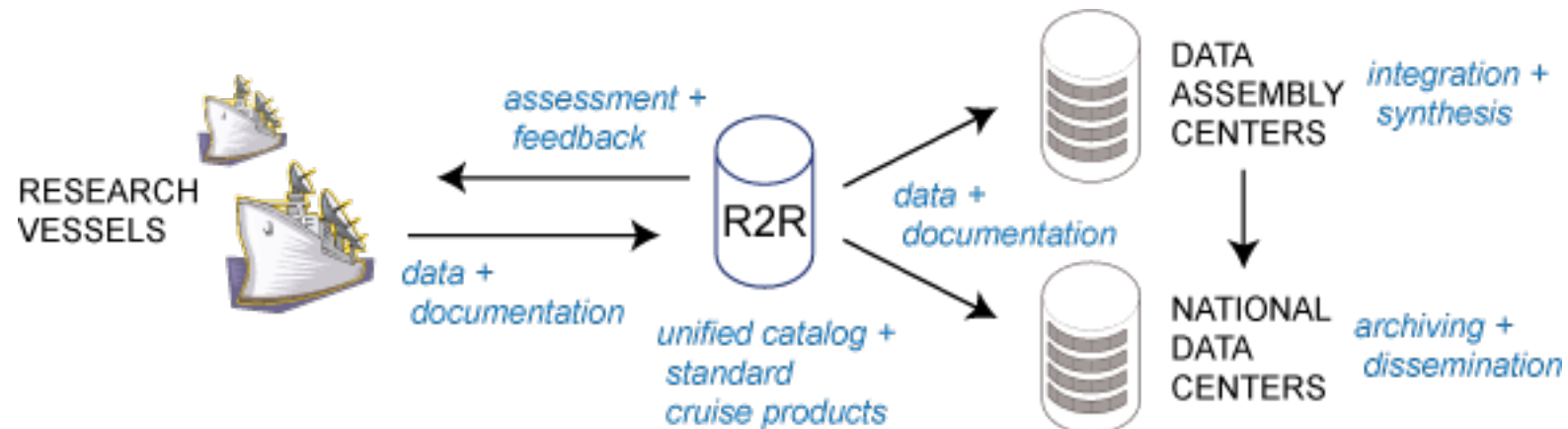
# The R2R Eventlogger Project: Controlled Vocabularies and Ontologies for Oceanographic Science and Data

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MBLWHOI Library



# Eventlogger Project

- WHOI led project
- R2R: Rolling Deck to Repository (rvdata.us)



# Eventlogger Project

- Goal: to improve data stewardship for “routine underway data” that is collected by the UNOLS fleet
- Based on ELOG software (open source)
- Records events of sampling devices (instruments):
  - Types: starts, stops, deployments, recoveries, configurations, calibrations, etc.

# Metadata, Controlled Vocabularies, Ontologies, oh my!

- This recorded information is effectively metadata. It includes:
  - Unique event ID, date/time, position (lat and long), device name\*\*, activity associated with the device, person responsible for sampling
- Information (metadata) is exported in a file which becomes a “data product” and is sent to R2R where it's archived and made available

# version 04 March 2009  
# (original posting: 22 December 2005)  
#  
# Cruise sampling event log  
# prepared by: EDDIES Project Office and OCB DMO  
#  
# project: EDDIES (Eddies Dynamics, Mixing, Export, and Species composition)  
# cruise: OC415-1 EDDIES Survey 1  
# platform: R/V OCEANUS  
# related: ops coordinated with R/V WEATHERBIRD II cruise WB0506  
# location: Sargasso Sea  
# cruise dates: 20 June 2005 to 15 July 2005  
# ports: Woods Hole, MA to St. Georges, Bermuda  
# Chief Scientist: Dennis McGillicuddy (NSF: OCE0241310)  
# Cruise track (see cruise INVENTORY list)  
#  
# 090304.clc. times and event number corrected for XBT 14 and 147;  
# correct times taken from XBT data file headers  
#

event_____	date_____	time	lon____lat____	sta	Pmax	ev_type	sampling_code_____	activity_and_comments_____
200506201415	20050620	1415	nd nd	nd	nd	nd	nd	departure
200506201445	20050620	1445	nd nd	nd	nd	nd	nd	underway Alexandrium sampling begins
200506201933	20050620	1933	-70.546 40.753	1	22	CTD_1	OC415-1_CTD_sta_01	CTD_1 test; Launch; in water
200506210000	20050621	0000	nd nd	nd	nd	nd	nd	Alexandrium sampling completed
200506210006	20050621	0006	-70.106 40.135	2	24	CTD_2	OC415-1_CTD_sta_02	CTD_2 test; Launch; in water
200506212019	20050621	2019	-68.091 37.101	3	21	CTD_3	OC415-1_CTD_sta_03	CTD_3 test; Launch; in water
200506212034	20050621	2034	-68.086 37.102	nd	nd	nd	nd	Light probe; test
200506212047	20050621	2047	-68.077 37.097	nd	nd	nd	nd	XBT Seq 2; test
200506221134	20050622	1134	-66.580 34.740	nd	nd	nd	nd	XBT Seq 4; no Seq 3; Start transect across C5
200506221232	20050622	1232	-66.572 34.573	nd	nd	nd	nd	XBT Seq 6; no Seq 5
200506221330	20050622	1330	-66.564 34.407	nd	nd	nd	nd	XBT Seq 7
200506221430	20050622	1430	-66.556 34.237	nd	nd	nd	nd	XBT Seq 8
200506221530	20050622	1530	-66.547 34.058	nd	nd	nd	nd	XBT Seq 9
200506221630	20050622	1630	-66.539 33.882	nd	nd	nd	nd	XBT Seq 10
200506221730	20050622	1730	-66.530 33.712	nd	nd	nd	nd	XBT Seq 11
200506221830	20050622	1830	-66.522 33.543	nd	nd	nd	nd	XBT Seq 12
200506221930	20050622	1930	-66.513 33.373	nd	nd	nd	nd	XBT Seq 13
200506222029	20050622	2029	-66.505 33.208	nd	nd	nd	nd	XBT 14
200506222123	20050622	2123	-66.497 33.062	nd	nd	nd	nd	XBT 15 16 17 18; bad d raps
200506222259	20050622	2259	-66.499 32.865	nd	nd	nd	nd	XBT 19

# Why?

- Because metadata are meant to be collected automatically.
- Standardization: vocabularies and ontologies
- Improves data quality
- Intuitive interface, well-documented tool, open source
- Ultimately, it facilitates the integration of discrete data sets (linked data, anyone?)

# The Library's Role

- Librarians are equipped—we have the expertise
- Have a relationship with R2R already
- We will maintain the vocabularies (a continual process), and assist in conceptual data modeling
  - Re: the “continual process”: custom instruments and the mapping of local terms...
- Promote the use of vocabularies, occupy an authoritative role (and we are in direct communication with the greater authorities)



# Status

- Current vocabularies: instruments (devices) and actions
- Just a few small steps away from submitting a few hundred terms to seadatanet
- Future vocabularies: cruise IDs, ???
- Application is currently in a testing phase, will roll out across all UNOLS vessels soon...

# Acknowledgments

A special thanks to Andy Maffei and the R2R team

Maffei, Andrew et al. 2011. Rolling Deck to Repository (R2R): A Controlled Vocabulary and Ontology Development Effort for Oceanographic Research Cruise Event Logging. EGU2011-12341. EGU Meeting, April 7, 2011. Poster.

Thank you.

Questions?

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