Land Monitoring Workflow

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***Abstract*—The Land Monitoring RO refers to the monitoring of urban, built-up and natural environments to identify certain features and anomalies or changes over areas of interest.**

I. Introduction

This document provides a paper-style view of the Research Object (RO) "*Land Monitoring Workflow*"[1] , which is a *snapshot* generated from the live RO "*Land Monitoring Workflow*"[2]. The ROs have been created, managed and preserved via ROHub platform [1]. Please refer to [2] for a general introduction to the RO concept, to [3] for a detailed description of the RO model, and to [4] for more information about ROHub platform.

The RO is of type *"Basic", which represents a general aggregation of related resources.* [3].

An overview of this RO is depicted in Figure 1. In summary, the hypothesis of this work is described in *Land_Monitoring_Workflow_hypothesis.docx*[4]; Additionally, this RO has been enriched automatically with the following annotations:

- concepts (most frequently mentioned in the RO): *Reason, Products, Level, Segment, MISSION, Date, Sentinel, results*
- domains (fields of knowledge in which the main concepts are commonly used): *military*
- frequent expressions (most frequently mentioned noun phrases): *image archive, small sample size, image processing algorithm, SAR-based technique, change detection, Synthetic aperture radar*
- named entities (most frequently mentioned):
  - Places: *French Guiana*

II. Resources

The resources encapsulated by the RO are summarized in table I

Acknowledgment

The Research Object was uploaded to ROHub by *http://emanuele79.livejournal.com/*. ROHub portal development was supported by EVER-EST EU project (HORIZON 2020 grant 674907).

[1] *http://sandbox.rohub.org/rodl/ROs/LandMonitoringWorkflow-snapshot-1/*
[2] *http://sandbox.rohub.org/rodl/ROs/LandMonitoringWorkflow/*
[3] See RO types definitions at http://w3id.org/ro/earth-science#
[4] http://sandbox.rohub.org/rodl/ROs/LandMonitoringWorkflow-snapshot-1/Land_Monitoring_Workflow_hypothesis.docx

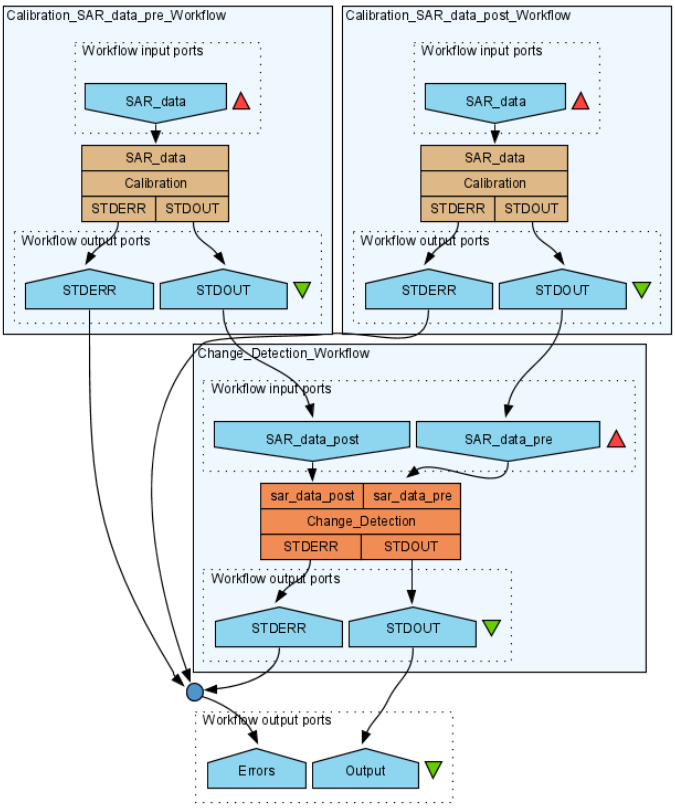


Fig. 1. Research Object Sketch

TABLE I
Research Object Resources

name	size	type
Sentinel-1_User_Handbook.pdf	3.0 MB	Document
Land_Monitoring_Workflow_conclusions.docx	11.2 KB	Conclusions
CalibrationWorkflow.t2flow	6.5 KB	Workflow
LandMonitoringWorkflow.t2flow	25.1 KB	Workflow
ChangeDetectionWorkflowChain.png	52.9 KB	Sketch
Land_Monitoring_Workflow_hypothesis.docx	11.8 KB	Hypothesis
ChangeDetectionWorflow.t2flow	7.0 KB	Workflow

References

[1] The Research Object Management Platform - ROHub http://www.rohub.org/.
[2] K. Belhajjame, O. Corcho, D. Garijo, J. Zhao, P. Missier, D. Newman, R. Palma, S. Bechhofer, E. García Cuesta, J. M. Gómez-Pérez, S. Soiland-Reyes, L. Verdes-Montenegro, D. De Roure, and C. Goble "Workflow-Centric Research Objects: First Class Citizens in Scholarly Discourse", Proceedings of Workshop on the Semantic Publishing, SePublica Crete, Greece 28 May 2012.

[3] Belhajjame K., Zhao J., Garijo D., Gamble M., Hettne K., Palma R., Mina E., Corcho O., Gómez-Pérez J. M., Bechhofer S., Klyne G., Goble C. “Using a suite of ontologies for preserving workflow-centric research objects”, Journal of Web Semantics: Science, Services and Agents on the World Wide Web Available online 11 February 2015 ISSN 1570-8268.

[4] Palma R., Corcho O., Gómez-Pérez J. M., Mazurek, C. “ROHub - A Digital Library of Research Objects Supporting Scientists Towards Reproducible Science”. In Semantic Publishing Challenge of Proc. Extended Semantic Web Conference (ESWC) Crete, Greece 25-29 May 2014