Contribution ID: **41**   Type: **Oral Presentation**

MOVIDA 2.0: A digital tool for documentation and analysis of artworks scientific data

The European Research Infrastructure for Heritage Science[1], E-RIHS is a distributed research infrastructure, organised in national networks and coordinated by national hubs that is preparing to be launched as a standalone research infrastructure consortium in 2021. E-RIHS will provide state-of-the-art tools and services to support cross-disciplinary research communities of users through four access platforms. Two pillars of E-RIHS are DIGILAB and the MOLAB access.

MOLAB offers access to advanced mobile analytical instrumentation for diagnostics of heritage objects while DIGILAB[2] is designed to be the privileged gateway to European scientific knowledge in heritage. DIGILAB will enable the heritage science research community to access information of analyses, conservation and restoration by providing searchable registries containing metadata that describes individual datasets. Moreover, it fosters re-use by making a series of services available for the discovery and access of relevant information.

In this framework, Movida 2.0 intends to be a bridge between DIGILAB and MOLAB access, providing a service for the data management and analysis of complex multi-technique diagnostic projects. The software is developed in Java and the data stored in a SQLite DBMS that has been designed to comply with the semantic graph built in the DIGILAB registry. Movida 2.0 datasets are thus directly importable to the registry making results of the MOLAB investigations re-usable by all the community.

The software has been completely redisigned from its former version, MOVIDA 1.0 that was mainly devoted to puntcual spectral data.[3,4] This new version has been developed exploiting exisiting java gis libraries to manage more complex data as that comming from multi and hyper spectral techniques.

Movida 2.0 has been tailored to the needs of all the MOLAB providers of IPERION-CH[5], gathering the state-of-the-art instrumentation in heritage science. All the information generated in a MOLAB campaign (raw and elaborated data, annotations, metadata) can be managed within the same application and the information can be easily consulted, compared and analyzed. The software is self-comprehensive and user-friendly and can be used by all the people involved heritage science and preservation.

Movida 2.0, not only allows for the digital preservation of all the information and knowledge acquired in an analytic campaign, but can also be used as an analytical tool to inquiry and make cross-examination of the data. Moreover, as an integrating part of a digital infrasturcture as DIGILAB, it will encourage and facilitate knowledge sharing and collaboration between researchers and conservators.

References:

[1] http://www.e-rihs.eu/

[2] L. Pezzati and A. Felicetti ERCIM NEWS 111 October 2017, p. 26

[3] A. Amat et al,. J Cult Herit. 2013; 14, 23-30

[4] F. Rosi et al. Heritage Science, 2016, 4, doi:10.1186/s40494-016-0089-y

[5] http://www.iperionch.eu/molab/

Summary

Movida 2.0 is a java-based software for the data management and analysis of complex multi-technique diagnostic projects.
The software will be integrated in the DIGILAB platform as a service for the MOLAB investigations within E-RIHS, facilitating knowledge sharing and collaboration between researchers and conservators.

Primary author: Dr AMAT, Anna (Istituto di Scienze e Tecnologie Molecolari del CNR (CNR-ISTM); SMAArt c/o Dipartimento di Chimica di Perugia)

Co-authors: Prof. BRUNETTI, Brunetto G. (Istituto di Scienze e Tecnologie Molecolari del CNR (CNR-ISTM)); Dr MILIANI, Costanza (Istituto di Scienze e Tecnologie Molecolari del CNR (CNR-ISTM)); Prof. NICCOLUCCI, Franco (PIN, Prato,Italy); Dr PEZZATI, Luca (Istituto Nazionale di Ottica INO CNR, Italy)

Presenter: Dr AMAT, Anna (Istituto di Scienze e Tecnologie Molecolari del CNR (CNR-ISTM); SMAArt c/o Dipartimento di Chimica di Perugia)

Track Classification: Towards a Digital Approach to Cultural Heritage Conservation, Documentation and Communication From Cyberinfrastructures to Science Clouds