



The MISTRALS programme data portal

Laurence Fleury (1), Guillaume Brissebrat (1), Nizar Belmahfoud (1), Jean-Luc Boichard (1), Laetitia Brosolo (2), Sophie Cloché (3), Jacques Descloîtres (4), H  l  ne Ferr   (1), Loredana Focsa (4), Laurent Labatut (5), Laurence Mastrorillo (1), Arnaud Mi  re (1), Lo  c Petit de la Vill  on (6), Karim Ramage (3), and Catherine Schmechtig (7)

(1) SEDOO, OMP, Toulouse, France (mistrals-contact@sedoo.fr), (2) DT INSU, CNRS, Brest, France, (3) ESPRI, IPSL, Palaiseau, France, (4) ICARE Data and Services Centre, Lille, France, (5) URA GAME M  t  o-France / CNRS, Toulouse, France, (6) Ifremer / SISMER - CORIOLIS, Brest, France, (7) Observatoire Oc  anologique de Villefranche sur Mer, France

Mediterranean Integrated STudies at Regional And Local Scales (MISTRALS) is a decennial programme for systematic observations and research dedicated to the understanding of the Mediterranean Basin environmental process and its evolution under the planet global change. It is composed of eight multidisciplinary projects that cover all the components of the Earth system (atmosphere, ocean, continental surfaces, lithosphere...) and their interactions, many disciplines (physics, chemistry, marine biogeochemistry, biology, geology, sociology...) and different time scales. For example Hydrological cycle in the Mediterranean eXperiment (HyMeX) aims at improving the predictability of rainfall extreme events, and assessing the social and economic vulnerability to extreme events and adaptation capacity, and Paleo Mediterranean Experiment (PaleoMeX) is dedicated to the study of the interactions between climate, societies and civilizations of the Mediterranean world during the last 10000 years. Many long term monitoring research networks are associated with MISTRALS, like Mediterranean Ocean Observing System on Environment (MOOSE), Centre d'Observation R  gional pour la Surveillance du Climat et de l'environnement Atmosph  rique et oc  anographique en M  diterran  e occidentale (CORSIKA) and the environmental observations from Mediterranean Eurocentre for Underwater Sciences and Technologies (MEUST-SE).

Therefore, the data generated or used by the different MISTRALS projects are very heterogeneous. They include in situ observations, satellite products, model outputs, qualitative field surveys... Some datasets are automatically produced by operational networks, and others come from research instruments and analysis procedures. They correspond to different time scales (historical time series, observatories, campaigns...) and are managed by different data centres. They originate from many scientific communities, with varied data sharing cultures, specific expectations, and using different file formats and data processing tools.

The MISTRALS data portal - <http://mistrals.sedoo.fr/> - has been designed and developed as a unified tool to share scientific data in spite of many sources of heterogeneity, and to foster collaboration between research communities. The metadata (data description) are standardized and comply with international standards (ISO 19115-19139; INSPIRE European Directive; Global Change Master Directory Thesaurus). A search tool allows to browse the catalogue by keyword or by multicriteria selection (location, period, physical property...) and to access data. Data sets managed by different data centres (ICARE, IPSL, SEDOO, CORIOLIS) are available through interoperability protocols (OPeNDAP, xml requests...) or archive synchronisation.

At present the MISTRALS data portal allows to access more than 400 datasets and counts more than 500 registered users. The number of available datasets is increasing daily, due to the provision of campaign datasets (2012, 2013) by several projects. Every in situ data set is available in the native format, but the favorite data sets have been homogenized (property names, units, quality flags...) and inserted in a relational database, in order to enable more accurate data selection, and download of different datasets in a shared format.

Every scientist is invited to make use of the different MISTRALS tools and data. Do not hesitate to browse the catalogue and fill the online registration form. Feel free to contact mistrals-contact@sedoo.fr for any question.