

SANGOMA: Stochastic Assimilation for the Next Generation Ocean Model Applications

EU FP7 SPACE-2011-1 project 283580

Deliverable 6.2: Web pages V2 report

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Chapter 1

Content

Note: As in the previous report on our web pages we are not going to include all possible screenshots of the whole Web site of Sangoma <http://www.data-assimilation.net/> but indicate only the overall structure and content emphasising changes with respect to V1. It should also be noted that the Web design was based on the target users which are mostly scientists. Therefore the design was kept functional and clearly structured. The web page content is shared also via SVN so that each partner can easily contribute to the contents which are then updated on the web server.


Stochastic Assimilation for the Next Generation Ocean Model Applications

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Tools

In SANGOMA a set of tools for data assimilation will be developed and implemented. For the software developments, see the [project pages at Sourceforge](#). See also the [links](#) to external resources.

Download
 sangoma-1.0-rc.tar.gz

This collection is the official release. Only if you need to exploit the latest developments, a direct download from the SVN development version should be done:

Access to the development version

The code is available in a [subversion](#) repository. If you are unfamiliar with subversion you can consult the book [Version Control with Subversion](#), the [sourceforge subversion documentation](#) or one of the many tutorials found online (for example [Version Tracking With Subversion For Beginners](#)).

Read-only access

You can get the latest version of the sangoma tools by using the following command:

```
svn checkout svn://svn.code.sf.net/p/sangoma/code/tools/trunk sangoma-tools
```

There is no need to be registered for read-only access of the repository. There is also a [web-interface](#) available.

Read and write access

Please contact Alexander Barth (a.barth at ulg.ac.be) or Jean-Marie Beckers (jm.beckers at ulg.ac.be) with you sourceforge username (you can [register here](#)) and with a small description of the changes that you plan to make. After you have been added as a developer, you can get the development version by using the following command:


```
svn checkout --username=your_sourceforge_username svn+ssh://your_sourceforge_username@svn.code.sf.net/
```

You need to replace `your_sourceforge_username` in the previous command.

Educational web applications

- [Test various assimilation schemes \(Nudging, Optimal Interpolation, Kalman Filter, 4DVar\) with simple models.](#)
- [Optimally reconstruct a field with variational interpolaton \(DIVA\).](#)

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1.1 Overview

Contains the summary of the project and a collection of more detailed slides.

1.2 Partners

Maintains the list of scientists involved in the project.

1.3 Science

It highlights in scientific outcomes of the projects. For the moment it includes the report on state of the art and highlights from the research on new DA techniques and benchmarking.

1.4 Tools

As the tools are developed using sourceforge, we provide the link to the relevant page as well as a link to external resources of interest for data assimilation. Here we highlight V1 of the software for the reporting period and explain to novices how to use versioning with SVN. It also contains educational web applications illustrating DA concepts (this part might get upgraded to an own section 'Training').

1.5 Benchmarks

Provides access to benchmarks definition and codes. It is highlighted how the medium benchmark can be implemented by a novice (both in model use and DA toolbox use) within three month.

1.6 Documents

Includes all deliverables (also updated versions of living documents), list of publications of SANGOMA (collecting automatically information from the OpenAire repository which harvests publications which mention SANGOMA as financing project) and newsletters.

1.7 Events

Shows information on project meetings or workshops (including copies of the presentations), including the second progress meeting.

1.8 Jobs

Used to announce job opportunities at the partners' locations and is actively exploited.

1.9 Links

Maintains a list of links to data bases, data assimilation tools, netCDF relevant tools, DA projects, Verification groups and reference books on DA.

1.10 Intranet

Gives access (with password protection) to confidential deliverables, internal documents, templates etc.

1.11 Contact/Feedback

This new sections allows feedback from users (either on the web pages themself, our tool design or definition of priorities.



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Jobs for Oceanographers

- [Open positions](#)

Jobs at SANGOMA partner locations

GHER-ULg

Postdoctoral position available at the GeoHydrodynamics and Environment Research group (University of Liege, Belgium) Numerical ocean models have contributed significantly to improve our understanding of the dynamics of the ocean. However such models are only approximations, and observations are needed to reduce the uncertainty of these models. Data assimilation allows to combine model results and observations in a statistically optimal way. The GHER participates in European and Belgian projects aiming to apply data assimilation techniques to complex coupled models and assimilation of new data types (such as surface currents measurements). The GHER develops also advanced data analysis approaches for satellite and in situ data. In the frame of these projects, a postdoctoral position is opened. The tentative start date of the contract will be the 1st May 2014. The position requires a degree in civil engineering, physics, applied mathematics or related field. The applicant is expected to have some experience with ocean models (such as ROMS), statistics or data processing. She/he should also have experience in programming (using languages such as Fortran, Matlab/Octave, C/C++ or Python). Good English skills (oral and written) are also required. The salary of this full time position will depend on the qualifications of the candidate. The contract will cover a period of one year. The contract might be extended depending on progress and the availability of new funding. Interested persons are invited to submit an application dossier consisting of a motivation letter, a curriculum vitae with full contact information, copies of diplomas and their PhD thesis to our secretary C. Peelen (oceanphys@ulg.ac.be). The review of applications is open and will continue until the position is filled.





CNRS-LEGOS

Two-year post-doctoral position in coastal ocean modelling and data assimilation at LEGOS (Toulouse, France) A 2-year post-doctoral position in physical oceanography is open at the Laboratoire d'Etudes en Geophysique et Oceanographie Spatiales (LEGOS, Toulouse. The candidate will join the regional/coastal ocean modeling and data assimilation team, in a coastal project in the Bay of Biscay (North-East Atlantic). The objective of the project is to setup and test a method for dynamical downscaling with assimilation of local data. The approach will use and extend an existing Ensemble Kalman Filter data assimilation code developed at LEGOS (SEQUOIA, De Mey). We will use the ocean circulation 'S' model developed by P. Marsaleix (Laboratoire d'Aerologie, Toulouse). The candidate will set-up the configuration, adapt the interface between SEQUOIA and the ocean model, work on the ensembles generation and perform the assimilation runs. The candidate is expected to analyze the results with the team, provide physical interpretation and communicate about his/her work (conference, paper). The candidate will work in close collaboration with Drs Nadia Ayoub and Pierre De Mey. We are searching for a PhD holder in oceanography/atmospheric sciences with a solid experience in numerical modeling. An experience and interest in data assimilation would be desirable. The net salary will vary between 1850 Euros and 2000 Euros per month, depending on qualification and experience. The position is open from March 2014 on. Applications including CV and recommendation letters should be sent by email to N. Ayoub: nadia.ayoub@legos.obs-mip.fr.

Older announcements, possibly still open

[Old pages](#)

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Chapter 2

Plans

- The pages will be maintained with documents deliverables etc uploaded whenever available, in particular the living documents will reflect the actual state of the document (The deliverables on the EU ECAS site cannot be updated and are those of the first version).
- A section *Training* will be added to the topmost level of SANGOMA pages to collect exercices, educational toolboxes, training workshop information and bundled examples.