

OMII-UK Commissioned Software Programme

Call for proposals in Data and Information Management

Background

OMII-UK was formed in January 2006 as a partnership between the previous OMII activity at the University of Southampton, and software activities within the myGrid project at the University of Manchester and the OGSA-DAI project at the University of Edinburgh, with funders including EPSRC and the JISC. It has a budget of around £2.5M provided by EPSRC for commissioning the improvement, hardening and integration of software to support its various user communities. We are now seeking proposals for work in the area of Data and Information Management.

One of OMII-UK's roles is to commission software components (through its 'Commissioned Software Programme') from the community to meet community needs. We are not able to fund general research activity, nor are we likely to fund the development of new prototypes. We are interested in funding the improvement, hardening and extension of advanced research prototypes that have already demonstrated uptake within the research community so as to accelerate their adoption by a wider user base; as such we may be only willing to fund certain work items from a proposal. We generally expect the work that we fund to be open-source and to be accessible to other developers within the community, both during and after our funding, although it may integrate with commercial / closed-source software if necessary.

Previous calls have focused on portlet development and integration, bringing desktop access to grids, and grid programming interfaces. We have also funded responsive mode work on security, collaboration tools and accounting.

Submissions

Proposals MUST follow the structure described on the OMII-UK website and in the associated documents (<http://www.omii.ac.uk/projects/funding.jsp>). We strongly encourage you to provide a letter of intent describing the proposed work and how it would be used by groups and projects within the research community. This will allow us to provide early feedback on the proposed work and ensure that any subsequent proposal targets areas that are of interest to us. These proposals will be reviewed internally by OMII-UK for technical feasibility and user engagement. Typically, projects will be 6 - 12 months in length and involve up to 24 person months of effort. Funding will be made under EPSRC terms and conditions, i.e. 80% of total project cost under fEC. The closing date for this call is 14/8/09 with funding decisions being made by mid September and projects starting from October 2009. All projects must be completed by the end of November 2010. Informal enquiries and letters of intent about the work may be made to the Director (Neil Chue Hong) director@omii.ac.uk. Completed proposals should be sent to Mrs Gill Schofield (gs2@ecs.soton.ac.uk). Applications may be made by non-UK based development groups but substantial engagement and benefit to the UK research community will have to be shown. It is expected that all applicants will be experienced in producing high-quality software using open-source development methodologies.

Data and Information Management

This call addresses the need for software to meet the changing needs of the research community in its ability to deal with data and information. Some of the drivers for this include: increased access to machine-readable public data sets; use of in-silico experimentation; emergence of storage clouds; lack of integration between different data storage mechanisms and data analysis frameworks and tools; and additional requirements for data curation, integrity and provenance. Proposals should show how they would address specific requirements for data and information management from research communities which are active in the UK by improving, integrating or adapting existing software. Proposals which seek to adapt existing tools with wide adoption in a particular community for use in another community are encouraged. In particular, focused proposals which meet a *specific and established requirement of a particular community* are encouraged. Consideration of the longer-term sustainability of the software should also be addressed in the proposal.

Areas of work that could be addressed in this call might include:

- the integration of existing data analysis and visualisation tools with commonly deployed grid, cloud and other distributed storage frameworks;
- tools for managing and curating information across distributed storage sites;
- the use of workflow environments to support novel data analysis methods and automated metadata creation;
- the customisation of existing data translation, normalisation and integration frameworks for use by specific communities;
- information extraction and data mining; correlation of results from multiple sources;
- metadata, annotation and commentary tools;
- data indexing and discovery;
- securing private and confidential data within the research workflow;
- tools for checking the integrity of result data and recording provenance in particular scenarios.

Work proposed is not required to use existing OMII-UK supported software but all work must follow OMII-UK guidelines on software development and detail how it will be deployed, evaluated and sustained. OMII-UK is happy to provide guidance on these aspects of potential proposals. We expect most proposals will follow an open source, open development model.

Up to £500,000 will be available from this call. The deadline for submission of proposals is 14/8/09.

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Nineteen proposals were received totalling £2,485,010 requested (at 80% FEC) from 10 separate lead institutions (all UK based).

Reviewers considered 13 proposals fundable (£1,681,692), and 6 unfundable (of these 3 were considered out of the scope of the call, and 2 were borderline); the overall quality of the proposals received was very high.

The OMII-UK Management Committee considered the top 6 ranked proposals (totalling £737,014) and committed to fund:

dataMinx

STFC / Intersect / VeRSI / University of Sydney, £131,332, 19.2 PM

Build on existing software which enables the transfer of large quantities of data in a scalable manner between different types of storage resources (GridFTP, SRB, iRODS, SRM, SFTP, FTP, WebDAV, HTTP(S), local file) to address new requirements from UK and Australia, and make tool and libraries more generally available either as remote worker nodes which can be invoked via asynchronous messaging, or deployed locally for enabling client applications.

DiGS/SRM

Uni. of Edinburgh / Swansea Uni. / Uni. of Southampton / U. of Liverpool, £101,301, 15.6 PM

Develop the existing DiGS data grid software to support the SRM interface to allow the UKQCD community to leverage community storage facilities, and transfer this functionality to other DiGS user communities.

Enhancing CIAS

Tyndall Centre for Climate Change Research / University of East Anglia, £120,938, 18 PM

Improve the utility and flexibility of the CIAS multidisciplinary integrated assessment model for global climate policy to meet the needs of current users and add interfaces which will allow a new set of users (adaptation policy makers). These include a user-friendly portal containing a search and query interface and netCDF visualisation tools, and an improved model output storage and retrieval mechanism.

OSCAR-ChEBI

University of Cambridge / European Bioinformatics Institute, £88,484, 13.2 PM

Develop the OSCAR chemical text-mining software to meet the needs of the ChEBI team at EBI and transfer these improvements to others at EBI and NIH.

In addition, we are considering a feasibility study based on the GeoTOD proposal from STFC.