



Press Release

RIST, PRACE AND XSEDE CONCLUDED MEMORANDUM OF UNDERSTANDING ON INFORMATION EXCHANGE CONCERNING PROMOTION OF USE OF ADVANCED RESEARCH COMPUTING

On 4 April 2017, the Research Organization for Information Science and Technology (RIST) (President: Masahiro Seki), the Partnership for Advanced Computing in Europe (PRACE) (Managing Director: Serge Bogaerts) and the Extreme Science and Engineering Discovery Environment (XSEDE) (Principal Investigator: John Towns) concluded the memorandum of understanding (hereinafter called MOU) on information exchange concerning promotion of use of advanced research computing. The MOU between RIST, PRACE and XSEDE will strengthen and deepen their co-operation at the international level and reinforce the advanced research computing ecosystem.

RIST^{*1} is promoting shared use of the K computer^{*2} and other HPCI computer systems^{*3} in Japan, PRACE^{*4} provides a federated European supercomputing infrastructure on Tier-0 resources in Europe and XSEDE^{*5} is a socio-technical platform that integrates and coordinates advanced digital services within the national ecosystem to support contemporary science in the United States.

As it is extremely beneficial for the three parties to exchange information in the area of promotion of shared use of advanced research computing resources and services, an MOU with following elements has been agreed upon:

- (1) Exchange of information: Mutual exchange of experiences and knowledge in user selection and user support etc. is helpful for the three parties in order to execute their projects more effectively and efficiently.

- (2) Interaction amongst the staff of the parties in pursuing any identified collaboration opportunities: Due to the complex and international nature of science, engineering and analytics challenge problems that require highly advanced computing solutions, collaborative support between RIST, PRACE and XSEDE will enhance the productivity of globally distributed research teams.
- (3) Holding technical meetings: Technical meetings will be held to support cross organizational information exchange and collaboration.

On 17 May 2017, a ceremony was held at the PRACE Scientific and Industrial Conference, PRACEdays17 (May 16-18, Barcelona, Spain). The representatives of each party gave presentations in celebration of the signing of this MOU.

- *1 Research Organization for Information Science and Technology (RIST) is a non-profit public-service organization in Japan. RIST has raised many achievements in the sophistication of information science and technology in the fields of nuclear power and global environment etc., the development of technology for using large-scale computers, and the provision of code and database in the nuclear field, thereby contributing to the development in these areas. From April 2012, the Kobe Center of RIST is implementing promotion of shared use of revolutionary High Performance Computing Infrastructure (HPCI) with flagship K computer.
<http://www.hpci-office.jp/folders/english>
- *2 K computer is a supercomputer of Advanced Institute for Computational Science in RIKEN, a national research and development agency in Japan. The K computer is one of the Specific Advanced Large Research Facilities defined by “Act on the Promotion of Public Utilization of the Specific Advanced Large Research Facilities”.
- *3 HPCI (High Performance Computing Infrastructure) is an infrastructure (in total 21 Petaflops) consisting of flagship K computer and other major supercomputers installed in universities and research institutes in Japan connected by high speed back-bone networks to realize an innovative shared computing environment to meet a variety of user needs, set up by MEXT (Ministry of Education, Culture, Sports, Science and Technology). Its operation has started in September 2012.
- *4 The Partnership for Advanced Computing in Europe (PRACE) is an international non-profit association with its seat in Brussels. The PRACE Research Infrastructure provides a persistent world-class high performance computing service for scientists and researchers from academia and industry in Europe. The computer systems and their operations accessible through PRACE are provided and funded by 5 PRACE members (BSC representing Spain, CINECA representing Italy, CSCS representing Switzerland, GCS representing Germany and GENCI representing France). The Implementation Phase of PRACE receives funding from the EU’s Seventh Framework Programme (FP7/2007-2013) under grant agreement RI-312763 and from the EU’s Horizon 2020 Research and Innovation Programme (2014-2020) under grant agreements 653838 and 730913. For more information, see www.prace-ri.eu In the European Union the following HPC ecosystem is in place:
- Tier-0 EU level, to which access is provided by PRACE
 - Tier-1 national level to which access is provided via national calls and the DECI programme for international exchange
 - Tier-2 regional center/university level
- PRACE provides the highest hierarchical level of Tier-0, composed of seven sites. PRACE 2 started in March 2017 and will award substantially more core hours to larger projects than before, boosting scientific and industrial advancement in Europe. With 5 Hosting Members (France, Germany, Italy, Spain, and Switzerland) the capacity offering is planned to grow to 75 million node hours per year. .
<http://www.prace-ri.eu/>
- *5 XSEDE (the Extreme Science and Engineering Discovery Environment) is a socio-technical platform that integrates and coordinates advanced digital services within the national ecosystem to support contemporary science. This ecosystem involves a highly distributed, yet integrated and coordinated, assemblage of software, supercomputers, visualization systems, storage systems, networks, portals and gateways, collections of data, instruments and personnel with specific expertise. XSEDE fulfills the need for an advanced digital services ecosystem distributed beyond the scope of a single institution and provides a long-term platform to empower modern science and engineering research and education. As a significant contributor to this ecosystem, driven by the needs of the open research community, XSEDE substantially enhances the productivity of a growing community of scholars, researchers, and engineers. XSEDE federates with other high-end facilities and campus-based resources, serving as the foundation for a national e-science infrastructure with tremendous potential for enabling new advancements in research and education.

XSEDE lowers technological barriers to the access and use of computing resources. Using XSEDE, researchers can establish private, secure environments that have all the resources, services, and collaboration support they need to be productive. XSEDE supports 13 supercomputers and high-end visualization and data analysis resources across the United States. It also includes other specialized digital resources and services to complement these computers. These resources evolve over time.

XSEDE is a collaboration led by the University of Illinois' National Center for Supercomputing Applications (NCSA) in partnership with the Carnegie Mellon University and the University of Pittsburgh (Pittsburgh Supercomputing Center), the University of Texas at Austin (Texas Advanced Computing Center), the University of California at San Diego (San Diego Supercomputing Center), the University of Tennessee at Knoxville (National Institute for Computational Sciences), the University of Chicago, Indiana University, Purdue University, the Shodor Education Foundation, the Ohio Supercomputer Center, the Southeastern Universities Research Association, Cornell University, the National Center for Atmospheric Research (NCAR), the Georgia Institute of Technology, the Oklahoma State University, the University of Georgia, Oklahoma University, the University of Southern California, and the University of Arkansas.