Overview

MPI is widely used as a parallel programming model. However, the programming cost of MPI is high. **XcalableMP** is a directive-based language extension which allows users to easily develop parallel programs for distributed memory systems and to tune the performance by having minimal and simple notations.

The specification has been designed by XcalableMP Specification Working Group which consists of members from academia and research labs to industries in Japan.

Language Features

- **XcalableMP** supports typical parallelization based on the data parallel paradigm and work mapping under “global-view” programming model.

- The important design principle of **XcalableMP** is “performance-awareness”. All actions of communication and synchronization are taken by directives, different from automatic parallelizing compilers.

- **XcalableMP** also includes CAF-like PGAS (Partitioned Global Address Space) feature as “local-view” programming.

- **XcalableMP** APIs are defined on C and Fortran 95 as a base language.

You can download XcalableMP from [http://www.xcalablemp.org](http://www.xcalablemp.org)