



planetmath.org

Math for the people, by the people.

distributed computing project

Canonical name	DistributedComputingProject
Date of creation	2013-03-22 17:20:29
Last modified on	2013-03-22 17:20:29
Owner	PrimeFan (13766)
Last modified by	PrimeFan (13766)
Numerical id	6
Author	PrimeFan (13766)
Entry type	Topic
Classification	msc 01A61
Classification	msc 01A65
Synonym	distributed computing

A *distributed computing project* is an application of computer networking in which the computing power of several different computers across a network (usually the Internet) is harnessed to tackle one monumental problem. Perhaps the most famous distributed computing project is SETI@home, which lets the Search for Extraterrestrial Intelligence use individual computers to analyze radio telescope data. The popularity of this SETI@home has inspired the use of distributed computing in mathematics, with the most famous of these being the Great Internet Mersenne Prime Search. Seventeen or Bust is another famous mathematical distributed computing project.

Most distributed computing projects involve one server supercomputer to coördinate the rest. The main server parcels out tasks to the other computers and receives results from them. For mathematical distributed computing projects, the verification of results is typically done by a computer at the project headquarters.