# Automatic Distributed Computation Tool for Ultra-Rapid UT1 measurement.

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Development of e-VLBI technology by using high speed network and computer software technology enabled data transfer from distant observation station to correlation center in real-time. Dedicated hardware correlator systems, which were used for processing of huge amount of VLBI data, have been replaced by software correlator works on a general purpose computers. Data reduction in correlation processing of the the raw VLBI data requires computation resources. For quick data reduction by using software correlation system on PC clusters, efficient distributed computation techniques are necessary.

We have developed a distributed computation tool by Perl script for data reduction of K5/VSSP correlation software. Ultra-rapid UT1 measurement by VLBI observation has enabled by using this tool. This tool is mainly composed of correlation agent, job manager, and status monitoring agent. These agents communicates each other by using TCP/IP and performs a list of requested correlation jobs on PC clusters. Linkage between each agents are designed to be as less as possible, so that some troubles happens at some agents will not affect to the whole processing jobs. By extension of the function, this tool can be used as a general purpose job control software to run independent programs on a distributed computation environment.