

## The ClusterWorld Benchmark Project FAQ

The ClusterWorld Benchmark Project has officially begun. You can find it on SourceForge [cwbp.sourceforge.net](http://cwbp.sourceforge.net). As an introduction to the project, the following brief AFAQ (Anticipated Frequently Asked Questions) has been prepared.

### What is the CWBP exactly?

The CWBP is an effort to collect benchmarks and applications for HPC cluster users and designers. There will be four levels of tests so the performance can be examined across a range of applications an usage patterns (micro benchmarks, whole system benchmarks, application benchmarks, and workflow benchmarks). A more detailed description can be found in the May 2004 issue of *ClusterWorld Magazine* or from this location: [www.clusterworld.com/CWCE2004/Douglas\\_Eadline\\_presentation.pdf](http://www.clusterworld.com/CWCE2004/Douglas_Eadline_presentation.pdf)

### Is this like the Top 500?

No. The Top 500 ranks the results of running a single program on a machine. The CWBP is not intended to rank clusters in this way.

### Will you have a ranking method?

Possibly, but not like you would expect. Trying to assign a single number as a general measure of cluster performance is like asking "How tall is a building?" It is certainly a possibility to rank clusters for a specific benchmark or application.

### Will the project write the benchmarks?

No. We are developing a framework in which users can easily run currently available benchmarks that

are of interest to them. The framework will also allow users to add benchmarks so others can run them as well.

### What can it do for me?

There are three main benefits to the end user. First, when designing a cluster, it may be convenient to run certain benchmarks as way to make sure you are in using the right components. Second, you can ask vendors to run the benchmarks as part of an acceptance test or RFP (Request For Proposal). And finally, once you have your cluster, it can be way to tell if changes/upgrades are actually improving performance.

### Where can I find the Framework documentation?

Keep your eye on SourceForge and the *Right Stuff* column in *ClusterWorld Magazine*.

### Will the framework/test/benchmarks be open source?

The CWBP framework will be released under the GPL. The component tests are expected to be freely available, so that results can be verified. Basically, by employing open source, benchmarks can be run in an open environment where all build parameters (compile options etc.) must be reported as part of the results. In addition, partial results for a specific benchmark will not be allowed.

### Can benchmarks be optimized?

If you optimize benchmark source code, then you must include the optimizations as part of the reporting process.

### What about closed source commercial applications/benchmarks?

These will not be included in the project. If you are interested in a specific commercial application then it is probably best to arrange testing directly with your vendor and software provider.

### Which tests are included?

We have not made that determination just yet. We expect the project to progress in two stages. First, the framework will be developed and released with a minimum of tests. Second, once the framework is found to be solid, then we will invite users to add new tests. We do not want to bite off too much in the first pass.

### When do expect to have your first release?

Our target is roughly as follows and is subject to change. We expect the basic framework documentation done by the end of July (which should be around the time you are reading this column) and the first stage of the test framework complete by SC04 in November.

### How will it work?

From a user's perspective, an rpm will be downloaded that contains all the necessary software. Once installed, a web-based interface will allow selection, building, running and reporting of results. The results are intended to be easily displayed on the web.

### How can I help?

Roll up your sleeves and sign up at SourceForge ([cwbp.sourceforge.net](http://cwbp.sourceforge.net)).

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