



POWERWULF CLUSTERS: WEATHER MODELING

Weather forecasting, modeling, and research are advancing rapidly with the advent of high performance computing. Research groups at several government and research agencies are moving traditional models to scalable systems. These models are then used to test the validity of the current understanding of the physics of weather and to develop more detailed, high resolution, robust models. When the models are considered trustworthy, they are used for operational forecasting by the National Weather Service and to drive air quality assessments for environmental analysts.

PSSC Labs has installed and ran weather modeling application including MM5 & WRF. Many research organizations select PowerWulf Clusters because of this unique technical expertise. The USDA's Rocky Mountain Center currently use PowerWulf clusters in combination with MM5 to forecast potential fire hazards across the western United States. The high resolution forecast images provide comprehensive weather support to wild land fire operations, prescribed burns, and air resource management. According to Dr. Karl Zeller, USDA Rocky Mountain Research Center, "I can not say enough positive about PSSC Labs. Their PowerWulf Clusters work and they provide support/help years after the warranties expire. I'm getting ready to buy another cluster system from them - my 6th!"

UNLIMITED LIFETIME SUPPORT

All PowerWulf Clusters include unlimited lifetime support at NO additional cost.



POWERWULF CLUSTERS: WEATHER MODELING CONTINUED



POWERWULF CLUSTERS ARE KNOWN TO BE COMPATIBLE WITH THE FOLLOWING INDUSTRY APPLICATIONS.



All PowerWulf Clusters include PSSC Labs industry recognized CBeST cluster management toolkit. CBeST (Complete Beowulf Software Toolkit) is the premier software package preinstalled to ease all aspects of cluster administration including operation, monitoring, maintenance and upgrades. All CBeST components must undergo PSSC Labs thorough testing and approval procedures before any equipment is shipped. CBeST includes unlimited lifetime support at NO additional cost. CBeST is the Intellectual Property of PSSC Labs and is available on PSSC Labs PowerWulf Clusters. Below are the components included with CBeST.



OPERATING SYSTEM



MESSAGE PASSING



FORTAN & C COMPILER





POWERWULF CLUSTERS: WEATHER MODELING CONTINUED



RECOVERY UTILITY



For more information please visit the [CPR Information Page](#)

BATCH SCHEDULER



HARDWARE & TEMPERATURE MONITORING UTILITY



NODE IMAGING & UPDATING UTILITY

SystemImager.

POWER CYCLING SCRIPTS

REMOTE POWER ON

REMOTE REBOOT

REMOTE POWER OFF



POWERWULF CLUSTERS: WEATHER MODELING CONTINUED



PSSC LABS DIFFERENCE

COMMITMENT TO YOUR SATISFACTION

PSSC Labs is an acronym that stands for Professional Service, Super Computers. Our mission is to bring a superior level of service and support to a commodity based industry. PSSC Labs offers an alternative to the traditional computer company by focusing on problem solving not just shipping low cost systems.

EXPERIENCE

PSSC Labs proudly wears the distinction of one of the oldest companies in the high performance computing arena. With almost 20 years in business and over 600 PowerWulf Cluster delivered, PSSC Labs has the experience to quickly and efficiently solve any issues that may arise.

EXPERTISE

PSSC Labs continues to evolve as the computing industry becomes more technically advanced and complex. PSSC Labs Cluster Technicians are constantly looking for new and innovative technologies in order to provide the best price / performance solution for each application.

TRUELY TURN KEY SOLUTION

Our CBeST software package is a combination of open source software and custom scripts elegantly combined to offer the most complete Beowulf software toolkit available. CBeST is a testament to our level of experience in the HPC industry. For more information about CBeST, please visit our CBeST section.

FINANCIAL SECURITY

PSSC Labs is 100% owned and operated by it's employees. Our company philosophy is to first support our clients and then worry about growth. Our current financial position can allow us to support all of our clients for up to three years even if we did not receive another order.

FACILITY

With over 27 tons of air conditioning and seventy 20 AMP power circuits, PSSC Labs' integration facility can accommodate the largest PowerWulf clusters. This facility is extremely important because it allows PSSC Labs to conduct all hardware assembly, burn in testing and software integration in house. There is absolutely NO out sourcing of any work.

LIFETIME SUPPORT

In order to meet our end user's ever changing needs, PSSC Labs focuses on maintaining the highest level of support. We offer unlimited phone and email support for the lifetime of all our products. There are no expensive annual contracts of any kind for PSSC Labs software support.