

Key Benefits

Designers

- High-performance hardware emulation specific scheduler for faster throughput
- End-to-end solution includes compilation, synthesis, simulation, and emulation

Infrastructure

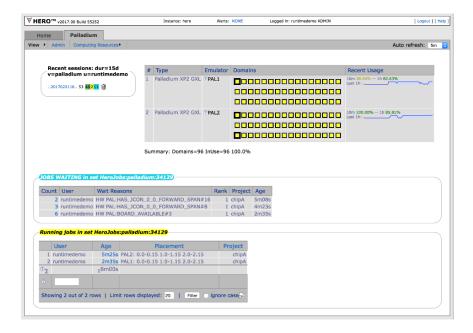
- Metrics for greater visibility into emulator resource utilization
- Maximize utilization of expensive hardware assets
- Customizable alerts and notifications

Management

- Vendor agnostic for greater flexibility
- Comprehensive policy management features including FairShare and Preemption

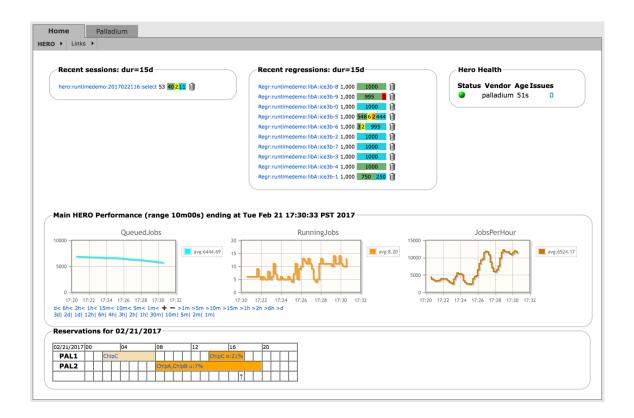
Altair Hero™

Altair's Hardware Emulation Resource Optimizer (Hero) is a high-performance solution designed specifically for hardware emulation design verification environments. Runtime's vendor agnostic solution, Hero, is capable of managing job scheduling requirements of the Cadence® Palladium®, Mentor Graphics® Veloce® and Synopsys® ZeBu® product families. Hero is an end-to-end solution addressing design compilation, synthesis, simulation, and emulation. Hero's emulation specific metrics provide greater visibility into the efficiency and utilization of a hardware emulation resources.



Hardware Emulation Solution

Designed specifically for System-on-Chip (SoC) emulation environments, Hero is capable of managing complex hardware emulation workloads. Developed as an end-to-end solution, Hero addresses all aspects of a hardware emulation environment from design compilation, synthesis, simulation, and emulation, providing a comprehensive solution for complex SoC design verification environments.



Hero is equipped with a comprehensive set of policy management features including FairShare and Preemption. Working in conjunction with the hardware emulation platforms, Hero is capable of suspending lower priority jobs and resuming them when higher priority jobs have completed. These capabilities provide organizations with essential tools to control their policies in order to optimize workload environments while maximizing the use of their hardware emulation assets and business priorities.

Hero also introduces the concept of soft reservations to allow users/organizations to reserve blocks of time on hardware emulation platforms. Soft reservation allows other users to use the emulation platforms until the person/organization that reserved the system arrives, upon which running jobs can be suspended or killed depending on organizational policies.

Organizations can also customize their policies to determine whether to release the block of time if the reserving organization is a no-show.

Greater Visibility Through Metrics

Hero provides unique visualization capabilities to facilitate easy identification of emulation resources' usage at any given time. In addition, Hero's graphical user interface allows for failure identification capabilities that provide "at a glance" views of completed, failed, and queued jobs. This enables system administrators to easily identify any given job status, and drill-down to the root cause of a failing job by bringing up relevant log files.

Hero's rich set of hardware emulation specific metrics (e.g. usage by project, day, week, and month) provides system administrators and management with full visibility into the utilization of emulation platforms. This allows them to adjust their organizational priorities to maximize the use of their expensive hardware assets.