Altair FlowTracer™

Mission-Critical Dependency Manager

Altair PBS Works

Altair FlowTracer™ is an advanced platform for developing and executing flows. FlowTracer's tracing technique analyzes flows and identifies the dependencies and inherent parallelism built into today's complex flows, optimizing use of compute resources.

Product Highlights

Designers
- Greater productivity through visualization and control
- Dependency awareness for faster turnaround time

Infrastructure
- Greater resource utilization through parallel execution
- Small memory footprint and built-in scheduler for greater scalability

Management
- Reduced flow complexity for higher-quality results
- Flow standardization and better collaboration

Learn more:
pbsworks.com

FlowTracer is an advanced platform for developing and executing design flows. FlowTracer quickly analyzes flows, unraveling dependencies and identifying the inherent parallelism built into today's complex designs. It can run design flows across multiple servers, providing a scalable solution capable of handling thousands of jobs and optimizing use of compute resources. FlowTracer's powerful user interface provides designers with unique flow visualization and troubleshooting capabilities for greater productivity.

Greater Productivity

FlowTracer is a complete system that can be used to create, manage, and execute design flows. It captures and updates the design flow by interacting with the tools while they are executing the commands contained in the flow. This unique technique to manage the dependencies between files and tools is called runtime tracing.

A color-coded graphical user interface gives designers accurate insight into their design flows. A powerful grid view report presents the results of millions of running jobs and highlights failing jobs as red pixels, which can be quickly identified, debugged, and resolved.

FlowTracer's powerful Flow Description Language (FDL) allows users to describe design flows in a simple and readable format, removing complexities associated with traditional scripts or makefiles. FlowTracer's user interface provides designers with increased visibility, navigation, and control – and a unique, color-coded live view. Designers can "cone up" to identify what their job depends on,
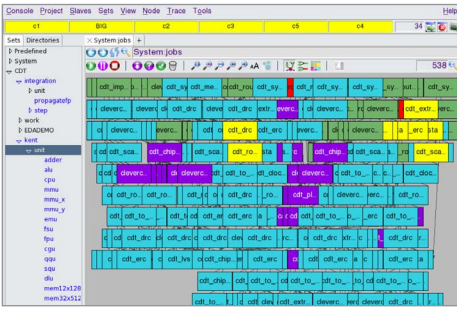
Track running flow and display failures
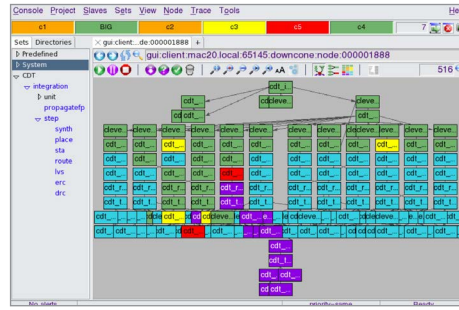
Show the impact of failures on final results
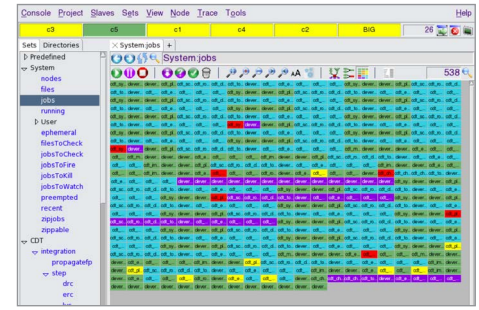
Scale to around 10,000 jobs in grid view

or "cone down" to see what other jobs are dependent on theirs.

FlowTracer's dependency awareness only allows jobs to be executed when all prior dependency requirements are met, enabling designers to quickly identify the root cause of failing jobs, take corrective action, and continue running the jobs from the point of failure. The ability to stop and restart jobs in mid-flow allows designers to make course corrections without having to restart their jobs.

Design Acceleration

FlowTracer is designed to support design flows of any size ranging from IP or design library characterization to design verification or physical design. With a small memory footprint and built-in scheduler, it runs multiple processes across multiple servers, providing a scalable solution capable of handling millions of jobs in memory and thousands running simultaneously.

Additionally, FlowTracer uncovers the built-in parallelism used in today's complex design flows for greater resource efficiency.

With user-friendly views (grids, nodes, flow charts, dependencies) and high-level abstraction, complex design flows can be easily deployed and shared across organizations for design flow standardization and increased collaboration.