

vManager™

VPA for Process and Verification Closure Management




vManager Benefits

- ✓ Drives the complete verification process from an executable plan
- ✓ Shortens overall simulation debug time
- ✓ Manages and deploys thousands of simulations
- ✓ Improves simulation runs and directs resources to achieve total coverage
- ✓ Defines milestones and measures progress towards closure

As design, system size and complexity continues to grow, the task of achieving functional verification closure gets exponentially more difficult. Verisity's vManager is an automated management system that guides the verification process and analyzes verification data to achieve verification closure and optimal resource utilization and predictability.

In complex system verification, engineers are faced with the immense challenge of managing upwards of ten million gates, thousands of simulations, millions of functional combinations, hundreds of failures, as well as large, geographically dispersed project teams. Verisity's vManager is the industry's first solution that automates the management of complex verification projects and guides verification from planning and goal setting, to closure.

vManager is a key component of Verisity's Verification Process Automation (VPA) solutions, which automate and simplify the complete verification process from the block, to the chip/system and project levels. vManager works at the project level, where all the activities are managed from specification to closure.

Verification Process Automation (VPA) Systems	
	PROJECT LEVEL Process and Verification Closure Management
	HIGH PERFORMANCE CHIP AND SYSTEM LEVEL Acceleration and System-level Emulation
	BLOCK AND CHIP LEVEL Multi-level, Reusable VPA with Simulation

vManager oversees a complete Verification Process Automation solution offering 10x automation power plus process encapsulation.

vManager

vManager automates the deployment of simulation runs, analyzes failures and coverage data and controls the steps towards closure. vManager automates the tasks that require intensive human interaction, custom tool development or tasks that were simply impossible to achieve.

With Verisity's vManager, verification teams get predictable verification closure of highly

distributed, multi-level verification projects and optimal resource utilization. vManager enables project teams to deploy a metric-driven process based on Coverage-Driven Verification (CDV). vManager starts from an executable specification of functional requirements, a verification plan and coverage goals. It then filters and analyzes the data, annotates and correlates the results against verification runs and displays various views of

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progress towards closure. In addition, vManager provides features important to geographically dispersed teams for organizing block- and system-level simulation suites, managing volumes of data and decisions using advanced analyses engines and reporting mechanisms.

Value for Entire Team

vManager delivers value for all members of the verification team, including the project manager, verification leads and verification engineers. At the highest level, vManager provides predictability and optimization of resources by capturing an executable specification and providing a clear view of verification status through total coverage measurement. vManager enables verification leads to communicate effectively with management on the progress of verification, as well as identify issues and assign engineers to address the most important tasks. Finally, vManager enables engineers to make informed decisions on how to best approach each verification task, simulation failure or coverage improvement.

Executable Verification Plan or vPlan

vManager drives the verification process from the verification plan by capturing the verification objectives from the specification and reporting the progress.

Simulation Management

vManager takes these incredibly complex tasks that once required intensive human interaction and automates them. Engineers' can now spend much less effort tracking and reporting on coverage status and increase the amount of simulations they can run daily.

Failure Analysis

vManager reduces the overall effort and shortens simulation failure debug time. It separates design failures from simulation failures, sorting and grouping these failures for easy selection and action. It identifies the least costly simulation to exhibit the failure and the optimal case for repeated debugging.

Total Coverage Analysis

vManager provides analysis features that help users im-

prove their simulation runs to achieve total coverage. Total coverage incorporates all coverage metrics commercially available, including functional, HDL code and assertion coverage. vManager leverages Specman Elite's Coverage and Assertion Interface (CAI) to import external coverage metrics and assertions. By bringing all of this data together, vManager makes it possible for teams to easily view coverage metrics from a number of vantage points, pinpoint the holes and re-direct verification to cover those holes.

Essential for Verification Process Automation

vManager is a critical element of Verisity's Verification Process Automation (VPA) strategy, which simplifies the complex process of verification. Verisity is focused on a total VPA solution that addresses customer needs at both the engineering and project levels. Verisity's vManager offers a project-level solution that increases predictability of verification closure and optimizes utilization of resources.