



RAMTERA

PRODUCT DOCUMENTATION · PHYSICAL VERIFICATION (LVR)

RAMTERA-LVR-DEP

Deployment and System Requirements

Your machines, your data — from workstation to 1,024 vCPU

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LVR Deployment and System Requirements

LVR deploys as a self-contained Linux installation run entirely on your infrastructure: your machines, your storage, your schedulers. There is no cloud dependency, no outbound network requirement, and no data path to Ramtera.

Linux x86-64 supported platform	0 outbound network connections required	4 → 1,024 vCPU: workstation to cloud fleet	tunable memory via thread count
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System requirements

Item	Requirement
Operating system	64-bit Linux (x86-64); current long-term-support distributions of the major families
CPU	4 cores minimum for interactive work; verification throughput scales near-linearly with cores (WP-12)
Memory	workload dependent; peak scales with thread count × tile working set — the thread setting is the memory dial. Sizing guidance for your designs is part of evaluation onboarding
Storage	local scratch for results databases; network filesystems supported — note that shared-filesystem throughput can bound farm-scale runs before the engine does (WP-12)
Display	GUI requires a standard X11/Wayland desktop; batch mode requires none
Network	none required at runtime; air-gapped operation is fully supported

Installation and licensing

Installation is a tarball unpack — no root required, no system packages modified. Licensing is by node-locked license file generated from the host's hostname and hardware address; onboarding collects these two identifiers and returns the file, typically same business day. Enterprise deployments can run floating concurrent pools on industry-standard license-manager infrastructure so that one more vendor daemon drops into the CAD team's existing setup; per-run core scaling is governed inside the seat, so a many-core run consumes one seat, not one per core.

Farm and cloud operation

Batch mode integrates with standard schedulers; runs are ordinary processes with exit codes and log files. The reference full-chip cloud configuration used 128 instances (1,024 vCPU / 512 physical cores); results were identical to workstation runs, per the determinism guarantee.

VERSIONS — Version policy: maintenance releases on a regular cadence with hotfixes as needed; the current and previous release trains are supported in production. See the Support and Maintenance Policy document.

About Ramtera

Ramtera Inc. (Delaware, USA), with R&D at Ramtera Design Automation India Pvt Ltd (Bangalore), builds electronic design automation software for physical verification and physical implementation. LVR is Ramtera's physical verification engine (DRC, LVS, ERC, XOR, parasitic extraction); PRE is Ramtera's physical implementation environment (floorplanning, placement, clock tree synthesis, routing, timing analysis and optimization), built on industry-standard command conventions so existing flow scripts and operator skills transfer directly. The company holds granted patents and registered copyrights covering its engines.

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This document reports measurements from Ramtera's engineering environment (Ubuntu 24.04, GCC 13.3, Tcl 8.6) unless stated otherwise. Product behavior and figures are subject to change; no compatibility, certification, or endorsement by any third party is stated or implied.