

Yocto Project Alkemist Integration

Frequently Asked Questions

- ❖ **What protections does Alkemist provide for my Yocto environment?**
 - Alkemist removes the ability for attackers to reliably exploit memory-based vulnerabilities. Through introduction of moving target defense, code is passively protected against attack. See our latest blog post to learn more: <https://runsafesecurity.com/blog/5-minute-memory-threat-immunization-for-yocto-build-environments/>
- ❖ **What Yocto Project branches are supported?**
 - Alkemist currently supports sumo, thud, warrior, and zeus. Contact us to request additional branches.
- ❖ **What processor architectures are supported?**
 - Alkemist currently supports x86, x86_64, and 32-bit and 64-bit ARM. Additional processor support is planned. Contact us to request additional branches.
- ❖ **Do you support Wind River Linux? OpenEmbedded? Other embedded Linux applications?**
 - Yes. We currently support Wind River Linux 9 and 10 for x86_64 architectures, with x86 and ARM support releasing soon. As OpenEmbedded is the build system for Yocto, Alkemist LFR supports it as well. For other embedded Linux offerings, see our deployment instructions on our self-service portal to find information for Debian or RPM packages: <https://alkemist.runsafesecurity.com/deploy>
- ❖ **How do I test my build with Alkemist?**
 - Run your new protected Yocto image through the exact same unit and system tests that you have in place for your current product or system. Validate that LFR has been included in your distribution by verifying that *liblfr.so* is included in your image.
- ❖ **What if there are particular packages I did not want to apply Alkemist LFR to?**
 - To transform and protect only a portion of your final Yocto image, follow these instructions: in the meta-lfr layer, you can specify a bbappend file for the package with `LFR_DISABLE = "1"`.
- ❖ **Will my device run slower when I utilize Alkemist? Do I need to modify my hardware?**
 - No. Customers consistently report approximately 0% change in runtime and no change of hardware (RAM, processor, storage) is needed. Alkemist LFR enables this protection at such a low overhead because there are no agents or costly introspection into program execution.
- ❖ **What do I need to install and what is the process? Can I try it for free?**
 - Visit our [Self-Service Portal](https://alkemist.runsafesecurity.com/deploy) for a 30-day trial including step by step instructions and information on downloads: <https://alkemist.runsafesecurity.com/deploy>. For disconnected environments, please contact sales@runsafesecurity.com for information and options on a customized trial offering.
- ❖ **I have a customized Yocto build process. Will Alkemist LFR still work for my environment?**
 - Yes. The tool has been designed and tested with flexibility in mind as it relates to environment setup. Our trial offering is based off standardized models, but contact support@runsafesecurity.com for additional inquiries on custom integration capabilities.
- ❖ **How do I get a license for use in production or resale of Alkemist LFR for my Yocto images?**
 - Please contact sales@runsafesecurity.com to convert your trial license into a production license and to discuss subscription pricing options.