

PREVAS INDUSTRIAL LINUX

The Industrial Linux Solution

An off-the-shelf embedded Linux platform for Industrial use on customized board, with support for full customization and longevity maintenance. Prevas Industrial Linux is provided with the OE-lite Linux or Yocto Project integration tools for an efficient and professional embedded Linux platform and application work flow.

Prevas Industrial Linux for a customized board can be executed in three steps over time or used as is:

- **Basic** - The standardized Prevas Industrial Linux platform with no customization.
Get your custom board supported in Prevas Industrial Linux, fast time-to-market and full Linux BSP tests for a hardened embedded Linux solution (incl. performance, stability and functionality test execution).
- **Plus** - Added customizations on kernel, bootloader and rootfs.
Enhance your Prevas Industrial Linux Basic platform with additional kernel drivers, bootloader optimization and rootfs additions, with easy maintenance through the Prevas Industrial Linux release flow.
- **Custom** - Full customization and specialized release flow
Break out of the Prevas Industrial Linux release flow and handle everything specially, as a regular custom OE-lite Linux or Yocto project.

The content and values of each step is shown below.

Content and value	Basic	Plus	Custom
Prevas Industrial Linux Rootfs	●	●	●
Prevas Industrial Linux Kernel	●	●	●
Prevas Industrial Linux Bootloader	●	●	●
Prevas Industrial Linux Watchdog	●	●	●
Prevas Industrial Linux Safeupdate	●	●	●
Prevas Industrial Linux Application Deployment	●	●	●
Prevas Industrial Linux Application SDK (Linux and Windows)	●	●	●
Prevas Industrial Linux Documentation	●	●	●
Prevas Industrial Linux Test Framework and Report (Stability, functionality and performance tests)	●	●	●
Custom Prevas Industrial Linux Rootfs Enhancements		●	●
Custom Prevas Industrial Linux Kernel Enhancements		●	●
Custom Prevas Industrial Linux Bootloader Enhancements		●	●
Custom Prevas Industrial Linux Documentation Enhancements		●	●
Custom Prevas Industrial Linux Test and Test report Enhancements		●	●
Custom OE-lite Linux or Yocto Rootfs			●
Custom OE-lite Linux or Yocto Kernel			●
Custom OE-lite Linux or Yocto Bootloader			●
Custom OE-lite Linux or Yocto Watchdog			●
Custom OE-lite Linux or Yocto Safeupdate			●
Custom OE-lite Linux or Yocto Application Deployment			●
Custom OE-lite Linux or Yocto Application SDK (Linux and Win.)			●
Custom OE-lite Linux or Yocto Documentation			●
Custom OE-lite Linux or Yocto Test and test report			●

With leading expertise in embedded systems and industrial IT, Prevas contributes with innovative solutions that create growth. Prevas was founded in 1985 and is the primary supplier and development partner for leading companies in industries such as life sciences, telecommunications, automotive, defense, energy and mechanical engineering industries. We have offices in Sweden, Denmark, Norway and India. The company has more than 600 employees. Prevas has since 1998 been listed on the NASDAQ OMX Nordic Exchange in Stockholm. For more information, please go to www.prevas.dk.


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Prevas Industrial Linux Basic content

Prevas Industrial Linux Basic is delivered with the following features that can easily be enhanced in Prevas Industrial Linux Plus.

Toolchain

gcc, binutils, eglibc, libstdc++

Base libraries

glib, zlib, expat, gettext, ncurses, readline

System tools

busybox, bash, sysvinit (busybox), tinylogin (busybox), runit (busybox)

System utilities and services

gzip, zip, bzip2, util-linux, dbus, console-tools

Safe update

dbboot, dupdate

Network utilities and servers

netbase, udhcpd (busybox), udhcpd6 (busybox), udhcpd (busybox)

Development tools

make

Databases

sqlite3, berkeley-db

Debug and trace tools

gdb, gdb-server, valgrind, powertop, perf, oprofile

Device support

usbutils, libusb, pciutils

File system utilities

e2fsprogs, mtd-utils, dosfstools, attr

Kernel utilities

mdev (busybox), modutils (busybox)

Security

ssh (dropbear), sftp (openssh), openssl

Application and GUI framework

Qt

Bootloader

Barebox or U-Boot
Boot from flash (one of USB, SD/MMC, NAND, or NOR depending on HW)
Serial console
If headed:
*Splash image **

Kernel

Flash driver (one of USB, SD/MMC, NAND or NOR depending on HW)
Serial console driver
Ethernet driver
On-chip GPIO driver
On-chip RTC driver
Watchdog driver
USB host driver (MSC, USB memory stick)
If headed:
*Display driver (one of HDMI, LVDS or VGA) **
*USB host mouse or touch drive**

Safeupdate and appliance watchdog

Update via scp/sftp
Update via USB memory stick
Appliance watchdog for monitoring multiple applications/processes

Application SDK

For Linux host (x86 and x86_64) and Windows host

Test framework

For Linux host (x86 and x86_64) and Windows host
Performance test suite

* *Hardware dependent.*

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