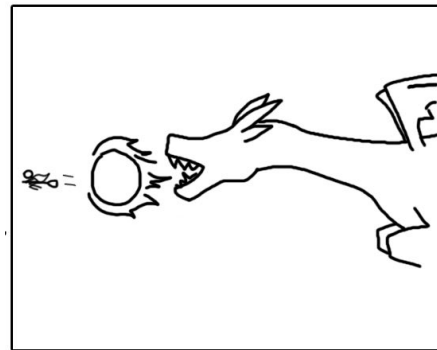


# CentOS Stream: fatti e leggende



Andrea Perotti

Fabio Alessandro “Fale” Locati

# Andrea Perotti

- Linux user since 2002
- FOSS contributor for various projects
- Distro/DE of choice? Guess it ;-)
- Geek with passion for enterprise hardware and non x86 architectures
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# Fabio Alessandro “Fale” Locati

- Linux user since 2001
- Fedora/EPEL contributor since 2013 (ambassador, packager, sponsor)
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# What is a Distribution

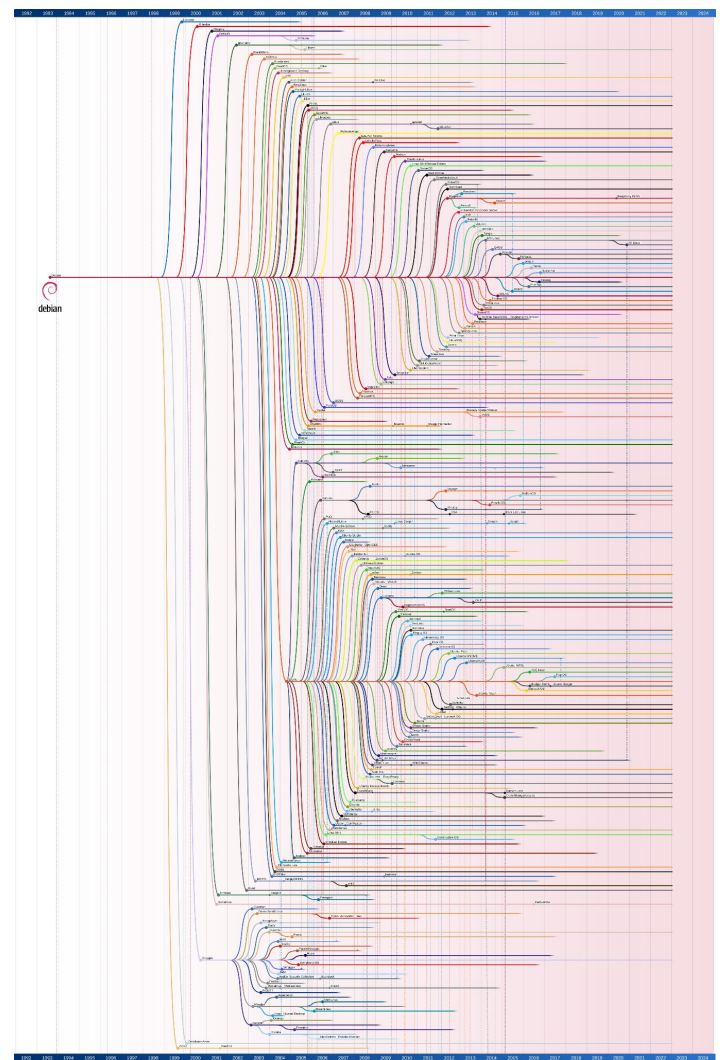
A Linux distribution (often abbreviated as distro) is an **operating system made from a software collection** that includes the Linux kernel, and often a package management system.

Linux users usually obtain their operating system by downloading one of the Linux distributions, which are available for a wide variety of systems ranging among:

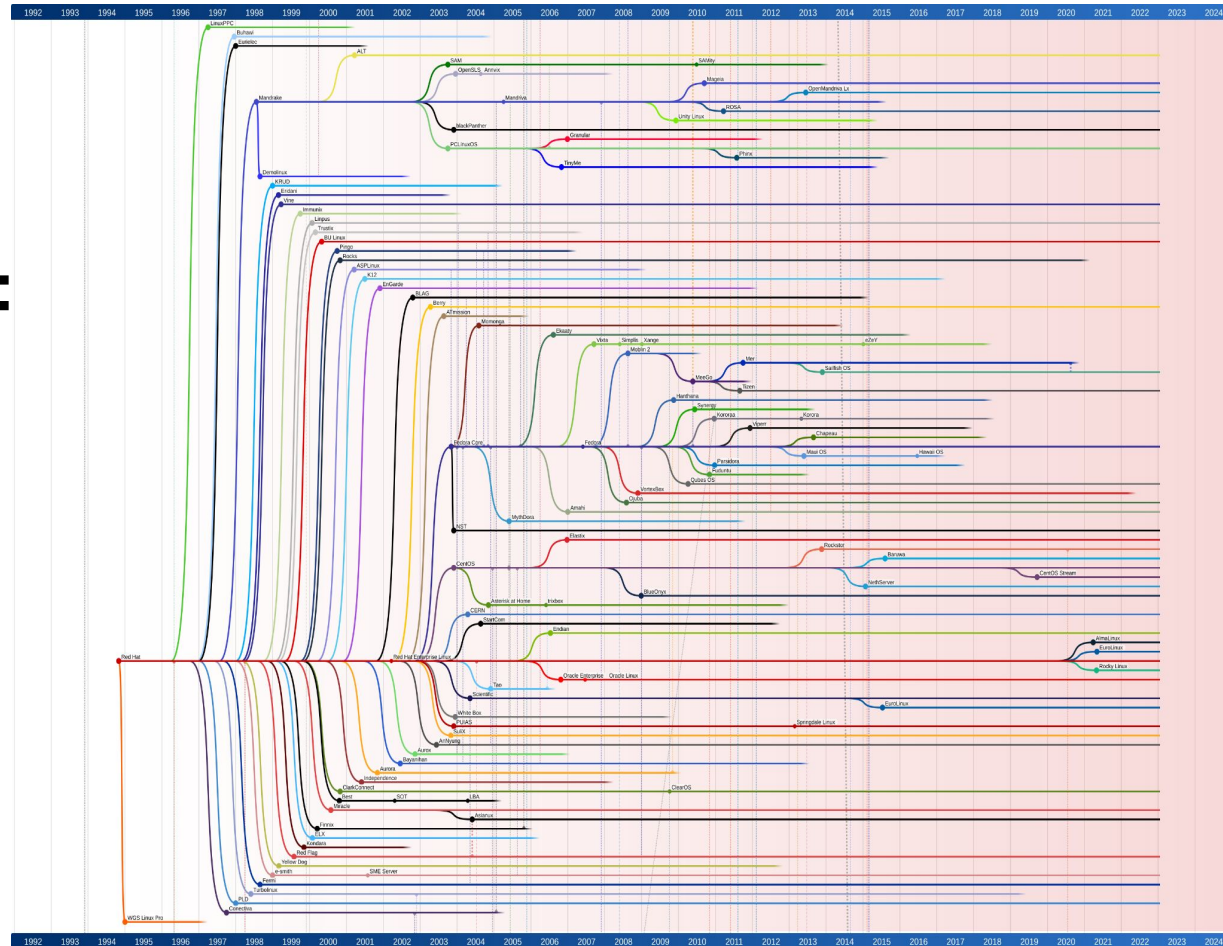
- embedded devices (for example: OpenWrt)
- personal computers (for example: Linux Mint, Ubuntu, Fedora)
- server (for example: CentOS Stream, Debian)
- powerful supercomputers (for example, Rocks Cluster Distribution).

# Genealogy of a “root distribution”: Debian

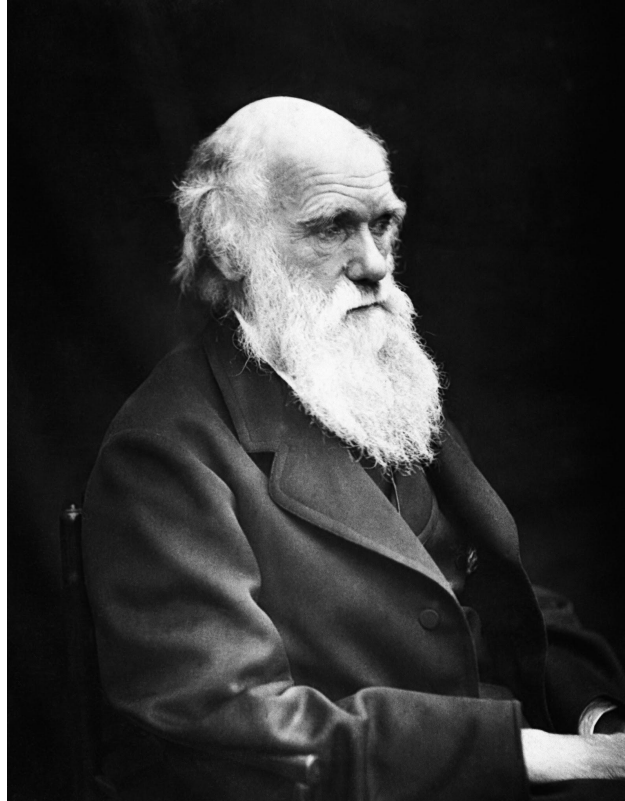
Source: <https://github.com/FabioLolix/LinuxTimeline>



# Red Hat Linux

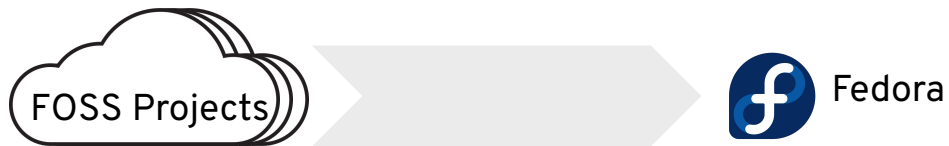


# Evolution



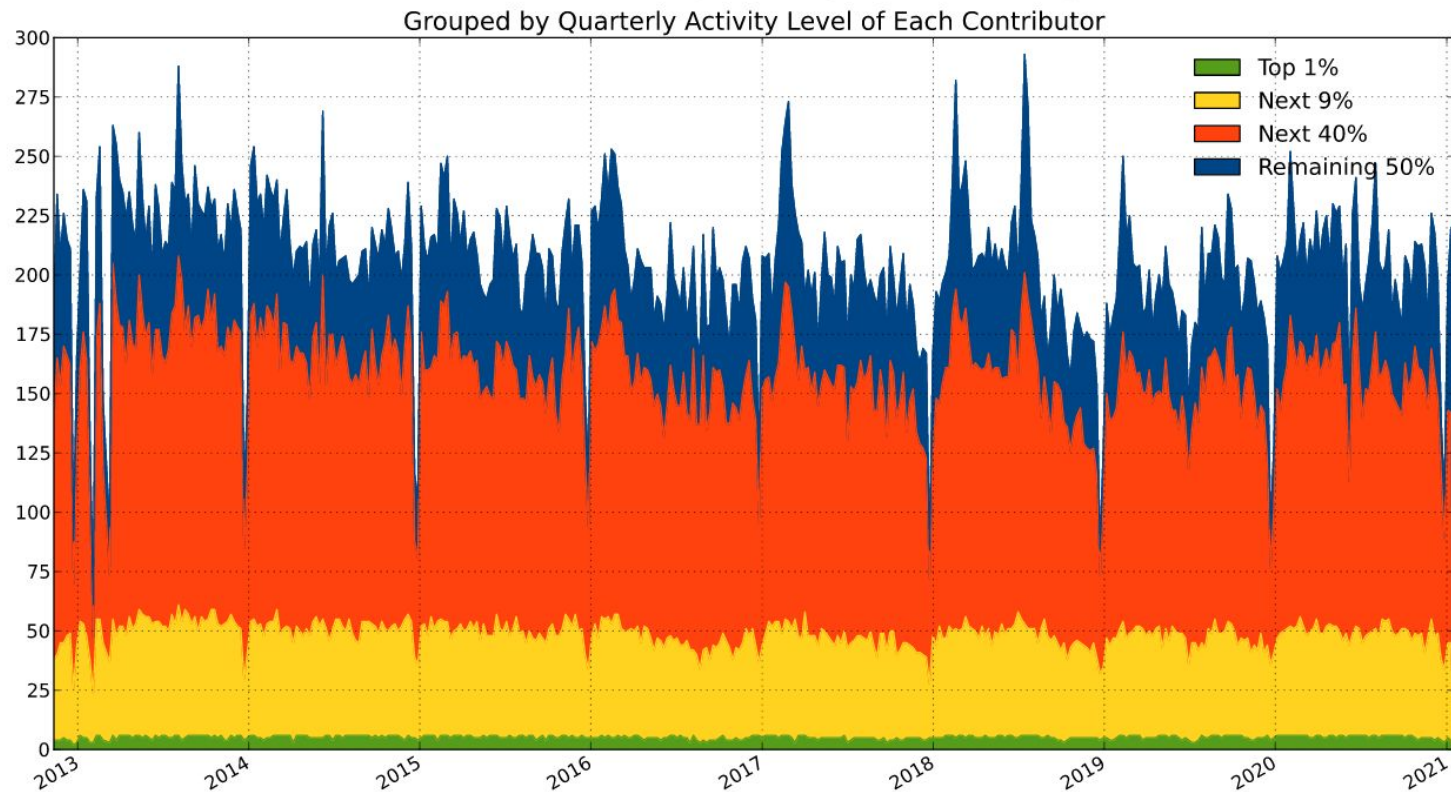
# A distro in numbers

- Fedora 39 Packages: 70,824 (~20,000 src packages)

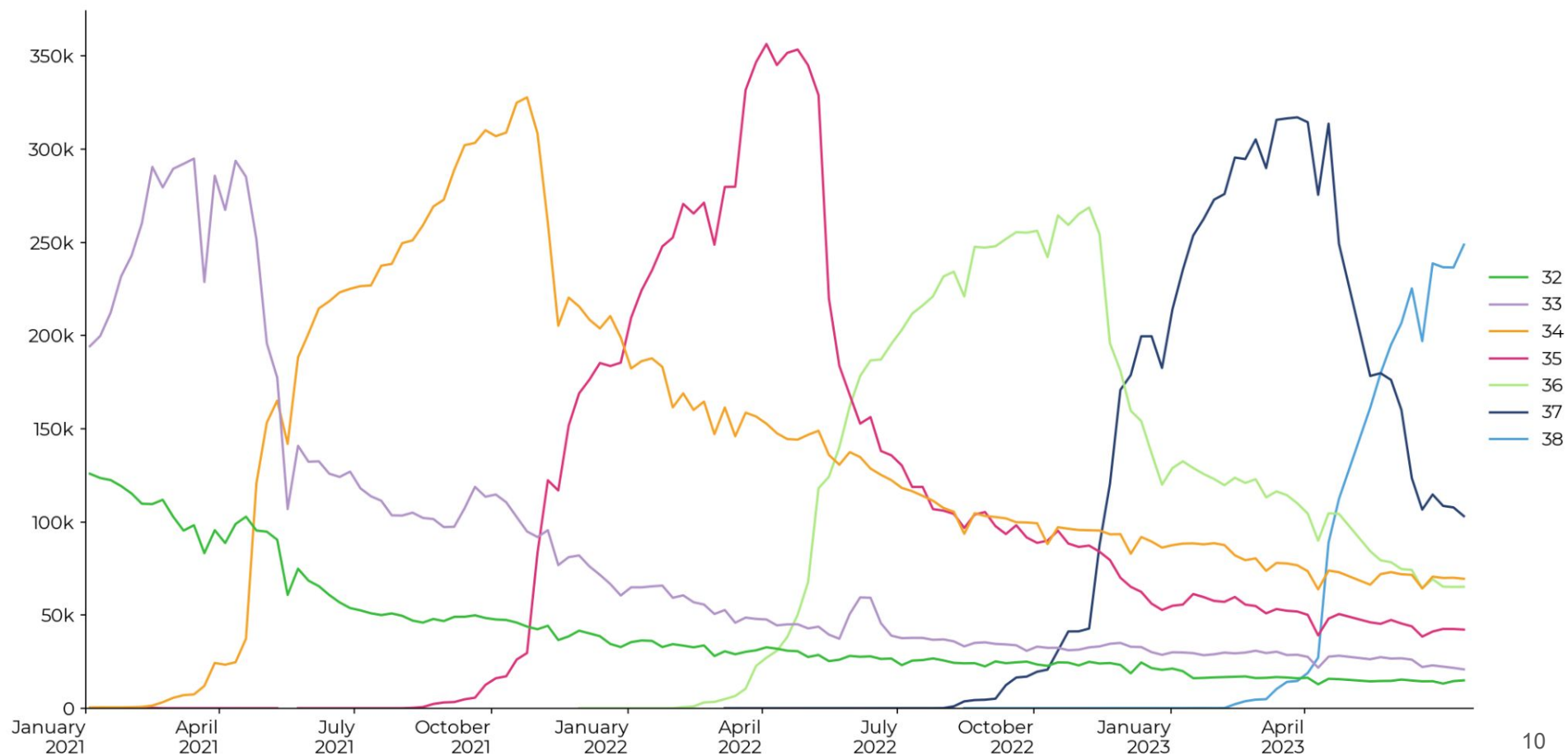


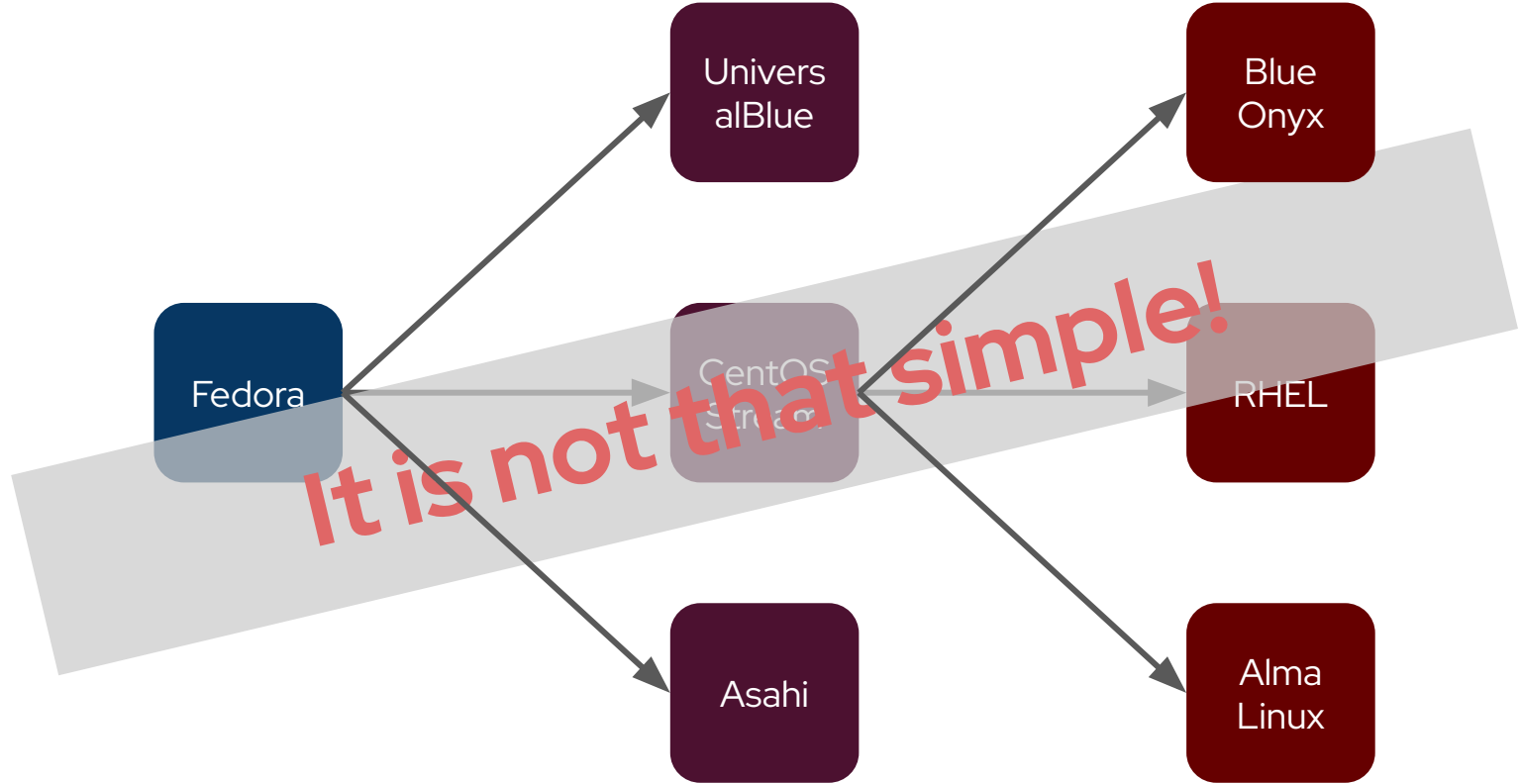


# Number of Contributors Making Changes to Packages Each Week



# Fedora Linux systems: release weekly checkins

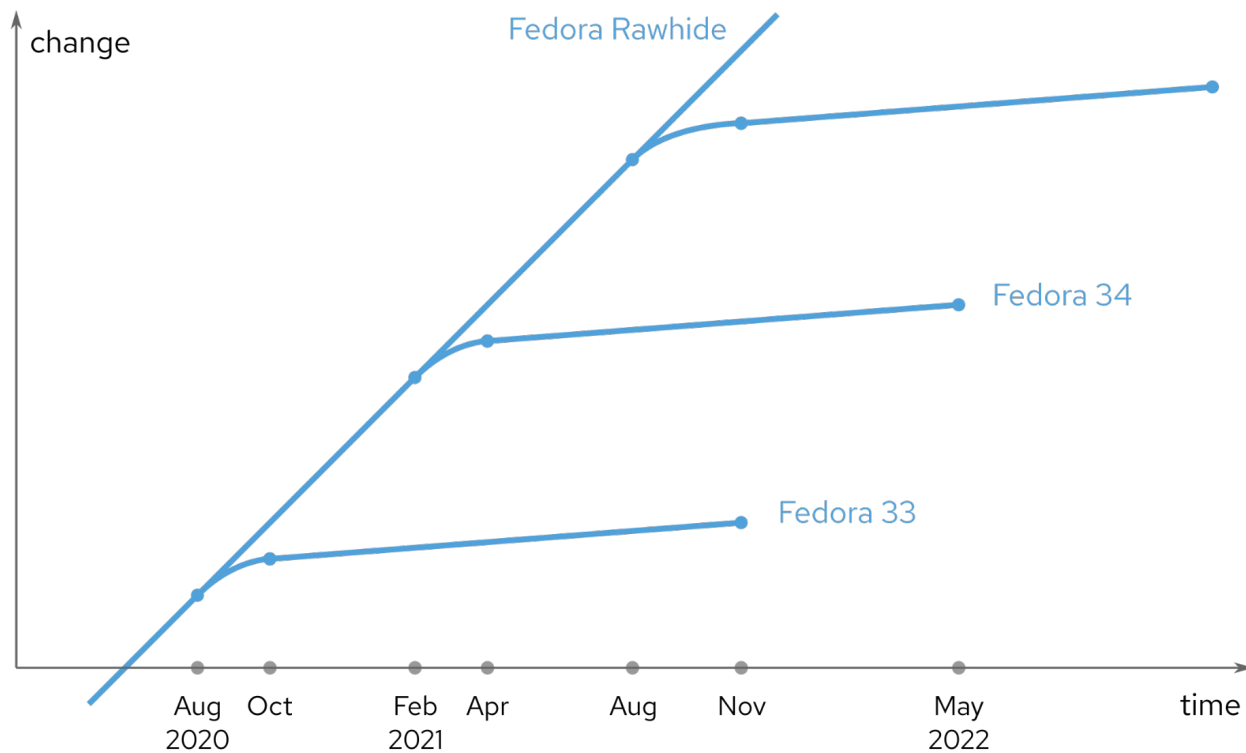




Linux distribution is not a box,  
it is a line

channel, flow,.. stream

# Or several lines



# What is Fedora Rawhide

It is the current development version of Fedora Linux

Rawhide has the following Goals:

- To integrate the newest softwares versions into Fedora.
- To allow advanced users access to the newest usable packages in a rolling manner.
- To allow incremental changes to packages that are either too minor or major to go to stable Fedora releases.
- To identify and fix issues before they reach a stable release.
- To allow a place where certain low-level packages, (e.g.: glibc and gcc), can gain real-world testing of pre-release versions.

# What is Fedora ELN

ELN is a new buildroot and compose process for Fedora that takes Fedora Rawhide dist-git sources and emulate a CentOS Stream / Enterprise Linux compose.

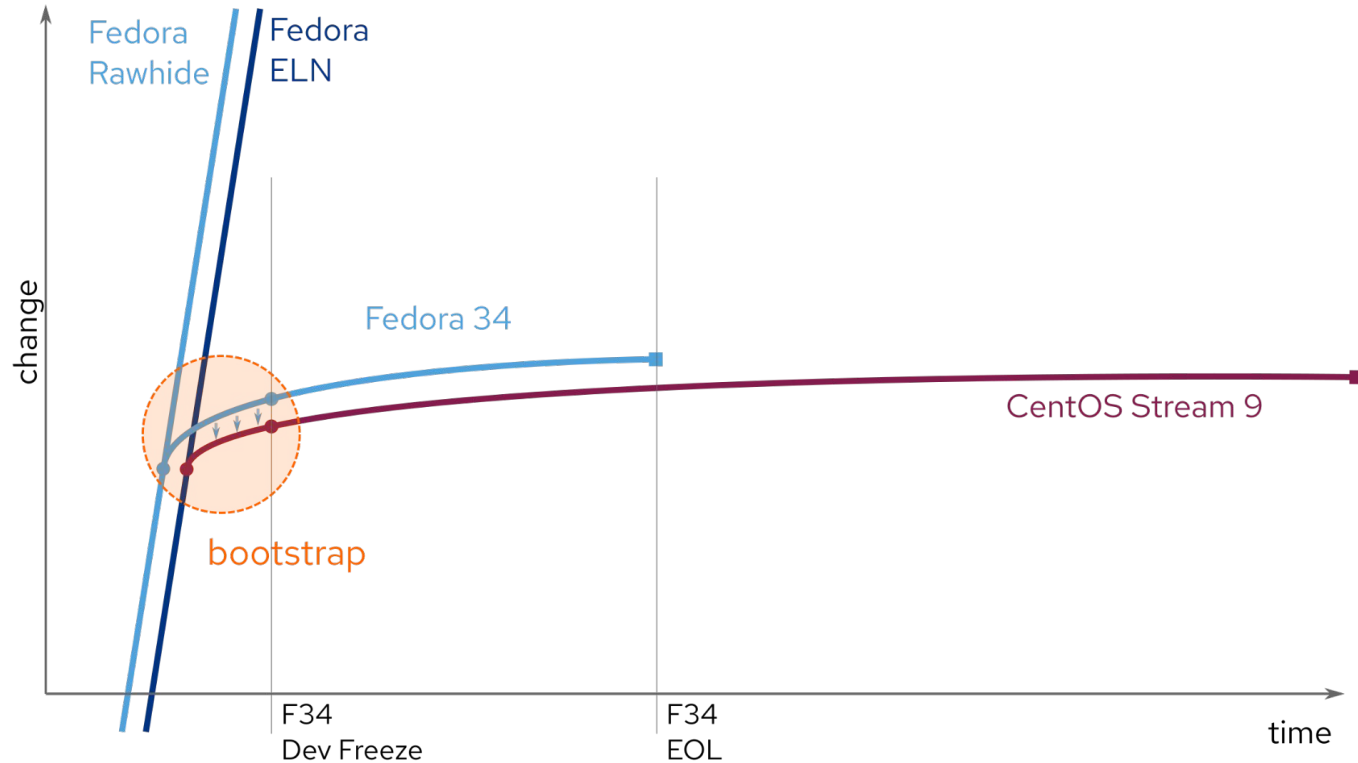
Feedback from this build, compose and integration testing will be provided to Fedora packagers so that they can see the potential impact of their changes on CentOS Stream/Enterprise Linux development.

Also known as: EL Niño, Enterprise Linux Next

<https://docs.fedoraproject.org/en-US/elN/>



# Bootstrap from Fedora (ELN)





# **Does CentOS Stream replace Fedora?**

No.

CentOS Stream development starts where Fedora development **stops**

# **Is CentOS Stream a Fedora LTS?**

No.

During bootstrap many changes applied to build flags, rpm macro and content, which makes CentOS Stream separate distribution.

# Is CentOS Stream rolling like Gentoo?

No.

As soon as CentOS Stream is stabilized, it follows the [RHEL ABI compatibility](#) of the corresponding major version of RHEL.

# Is CentOS Stream like Debian Testing?

No.

The closest concept in Debian is probably

[Debian Stable Proposed Updates](#)

Though Debian doesn't have a similar package-level verification process for it.

**What is CentOS Stream like then?**

# What CentOS Stream is

- It is a Linux distribution that aims to be stable
- It's a rolling distribution
- Uses [Fedora ELN](#) as a starting point
- Consumes updates from Fedora branch until [Fedora Dev Freeze](#)
- Small [curated subset](#) of packages  
(~2.500 in CentOS Stream vs ~20.000 in Fedora)
- Trimmed dependency trees
- Build flags and options according to business requirements
- Several mass rebuilds during the bootstrap phase
- Synchronously bootstraps RHEL

## **What is CentOS Stream like then?**

CentOS Stream is like CentOS, stable and continuous

**Q & A**



# Thanks!

...and thanks to [Aleksandra Fedorova](#) for supporting us.