Fedora 43 announcement, news and known issues

WORK IN PROGRESS, many entries are still from Fedora 41

Once a year, we upgrade all the desktop systems to the latest version of Fedora, our Linux desktop operating system.

General information

- Fedora 43 release notes
- Common Known Issues and workarounds

Local links:

- Linux desktop environments
- Fedora compatibility settings
- Fedora tips

New in F43, or in our Fedora setup:

- Our desktop environments will by default keep using X11 as their basis, but a couple of Wayland-based desktops are now also available. We have NOT fully tested if all relevant scientific software and remote access tools will work on these desktops, so consider them “experimental” (for instance, Wayland doesn't have support yet fro VNC and RDP).
- Gnome 49 (see below for details)
  - Various Gnome shell extensions that you can load for yourself from https://extensions.gnome.org/.
    Make sure to update any installed extensions to make them compatible with the new version.
- Cloud integration: you can link your Google Drive, NextCloud/SurfDrive and some other cloud storage services in the file manager.
  Various online calendars can be integrated in the desktop calendar utility.
- **Python is now by default 3.14**. Python 2.7 is no longer available, except through

environment modules (and those are considered unsupported: when packages break, they're gone and we are not in a position to get them working again).
    - Command `python` will now invoke python 3.14 so **check your own scripts**.
        - python 3.12 (and up) has some important changes, especially in its build infrastructure. Perhaps not all external packages are ready for the migration away from the old setup.py methods.
    - We also have the interpreters of python 3.10, 3.11 and 3.12 installed, for compatibility and in case you need them for your own projects or virtualenvs. These are the bare interpreters, we do not provide a complete stack of modules for these older versions.
        - python 3.8 has been dropped from this list
    - To move your personally installed modules from python 3.13 (Fedora 41) to python 3.14:
        - Setup `pip` for the old python version: `python3.13 -m ensurepip –user`
        - Make list of installed packages with versions: `python3.13 -m pip freeze > installed.txt`
        - Install the same packages into the current python: `python3 -m pip install –user -r installed.txt`
    - Some 3rd party build and install scripts still don't seem to understand that 3.14 > 3.9, so if something complains our python is too old, the program just doesn't compute.
- GCC (C, C++, Fortran) is at version 15.2 now. Some older versions are available through environment modules.
- CLANG /LLVM compilers are now at version 21. If necessary, compatibility packages of older versions can be added.
- LibreOffice has been upgraded to version 25 with lots of improvements and new features. See Release notes
- Removed software:
    - Several compatibility libraries were dropped. These were libraries to run programs built with very old versions of the GNU compilers (gcc 3.3, 3.4 and 4.1), and for the readline 5.x library. If you still have binaries from > 10 years ago, recompiling might be advisable.
    - Also, all compatibility with 32-bit executables was dropped some time ago. Not surprising, since the last 32-bit machines were bought by our institute in 2006. Known fatalities: `acroread`, `supermongo`
        - Please use a native Linux pdf viewer, such as `atril` or `evince` as a replacement for `acroread`.
        - A workaround for (ancient) `supermongo` exists but is not installed by default. If you use this software, please contact us and we can make the workaround available on your desktop, or look for alternatives.
    - `Blender` is no longer installed (it has become too big for the system disk). If you need this software, please contact us.

Known issues in Fedora 43

- VNC issues: Desktop environments that require hardware accelleration (3D desktop effects) are often too heavy to be used inside a virtual desktop (VNC, X2GO). See VNC desktop issues for details and workarounds.
    - An alternative to VNC and X2GO is XPRA, a tool that can forward a single window or an entire desktop to a remote display.
    - The Gnome desktop has dropped support for X11; it should be possible to run Gnome (on Wayland) and start individual X11-based applications, but this may have some additional overhead in performance and memory use.
- Gnome doesn't display *notification area* aka *system tray* icons any more by default. The fix is,

to enable the `appindicator` extension: open `gnome-extentions-app` (`Applications - Extensions` in the menu) to do that. After that, the icons such as status icons of dropbox, zoom etc, will be in your top panel.
- The `clipit` clipboard app that is a default part of Gnome, Cinnamon and MATE desktops, sometimes hangs, which blocks all cut, copy and paste actions. Exit the app by right-clicking on the icon (which looks like a clipboard), and choose the quit action. If this happens a lot to you, you might want to disable the app in your startup applications preferences. The app is only needed to maintain a clipboard history; without it, a single cut/copy and paste is still possible.
- Workarounds are in place for some software that was built with older versions of CFITSIO and/or older GFortran (StarLink). When using these programs from within other programs, this workaround may be bypassed (eg, StarLink's perl and python modules). If you run into that issue, let us know so we can provide you with the necessary workaround. Eventually these issues are expected to be solved when new versions of these software packages are released or recompiled using current libraries.
- Some theme libraries from earlier releases are no longer present. If you get errors when starting graphical applications such as:

```
Gtk-Message: Failed to load module "colorreload-gtk-module"
```

then go to the settings controlling your desktop look & feel and select another theme instead of the one that uses theme libraries that are no longer present.

Some general observations and tips

- Gnome. Gnome (>= 3) uses a completely different desktop design, which makes the desktop look and behave a bit like a Tablet PC. Some people may like it, but if you don't, “Mate” is available as an alternative, to give you the experience of good old Gnome 2, or “Cinnamon”, for a more desktop-like version of the new Gnome, or try “Gnome Classic”.
  More on Gnome
- Gnome applications: in every new release, more Gnome applications are rewritten in the style of the Gnome 3 desktop. This means: a separate application menu, displayed Mac-style in the top bar on the Gnome desktop, or under the application icon in other desktops, the most important actions displayed as buttons, and everything else in a menu at the top right in the application window.
  See desktop applications for a table listing alternatives, in case you cannot get used to the new look.
    - The Gnome desktop has dropped support for X11; it should be possible to run Gnome (on Wayland) and start individual X11-based applications, but this may have some additional overhead in performance and memory use.
- Cinnamon desktop tweaks: While Cinnamon is based on (and compatible with) Gnome, there are separate tools for its customization, eg, if you want to modify the programs that start in each session, use cinnamon-session-properties for that (also available from the settings overview).
  More on Cinnamon or see the list of available desktop applications
- Programs that start with each session: A lot of programs are started by default in each desktop session. many of them are unnecessary; some of them are annoying or can cause problems. users can disable everything they don't need.
  More on session tweaking