

## Exploring the Gnome 3 desktop

# New Generation

The new Gnome desktop offers a simpler work environment – once you become accustomed to the new navigation tools. *By Shashwat Pant*

**W**ith nine years of exhaustive development and fixes for Gnome 2.x, developers have finally unveiled a new release. The brand new Gnome 3 includes several new features and a completely rewritten toolkit. A new Gnome Shell offers a more unobstructed desktop experience. The Gnome developers

have placed the emphasis on eliminating hassle and clutter.

Until recently, the Gnome desktop environment was very much a mixed-bag experience – not enough frills for beginners and not enough professional applications for advanced users accustomed to the likes of KDE. Gnome developers tended to focus on providing a stable desktop experience at the expense of a major environment overhaul. But with Gnome 3, the Gnome project takes a major leap forward. The ravishing new desktop environment is out to provide you with a next-generation experience.

founded in 2000 to frame the guidelines and oversee the project.

The Gnome 2 focused on the usability side of the desktop environment, providing users with a lucid interface and a plethora of basic applications. Nifty tools like Cheese, Brasero, and Empathy increased usability. Gnome 3 offers a revitalized desktop experience and provides a glitch-free interface that thrives on the latest technologies.

## New Era

Gnome 3 (code-named ToPaZ for “Three Point Zero”) marks the beginning of a completely new desktop experience (Figure 1). The developers took a long time to develop and test the new release. In fact, almost all components were ready a year ago, but the Foundation delayed the release to double-check and improve the new desktop [2]. In this article, I’ll take a closer look at the new features (see “My Gnome” box).

The biggest change in the new Gnome environment is the introduction of a brand new shell. The new Gnome Shell now offers a more practical approach. The Shell, which was built with the Clutter drawing toolkit, offers a decent work experience and provides good support for hardware acceleration.

Gnome 3 introduces the new Mutter window manager, which replaces the old Metacity manager. Mutter lets you manage windows and provides soothing effects. Unfortunately, with Metacity gone, all the Metacity-based widgets and window enhancements like Emerald are deprecated as well.

## SHASHWAT PANT

Shashwat Pant is a FOSS enthusiast and a hardware freak. He likes to tweak his hardware for optimum performance. He is an IT Engineering student studying in India.

## Gnome Evolution

In 1997, the GNU Project [1] of the Free Software Foundation released the Gnome project to provide a true FOSS ecosystem for desktop applications. The accompanying Harmony project, which provided APIs compatible with the (then) non-GPL Qt, came to a halt when Qt was released under an open source license.

Gtk+ was chosen as the base toolkit for Gnome development.

The Gnome Foundation was



Figure 1: The Gnome 3 desktop in action.

Under the hood, a brand new Gtk+ 3 toolkit supports application development, and several APIs have received updates. Gnome 3 provides tighter hardware integration and is tailor made to work with new age devices such as tablets and netbooks.

The intelligent hardware detector will configure the environment to work with attached devices and will list appropriate options. For example, when used with a trackpad-equipped laptop, Gnome will automatically configure the hardware and show trackpad instead of mouse settings. Of course, these changes will only take effect when coupled with the proper drivers, so a lot will depend on the distro vendor.

## First Impressions

The first thing you'll notice about the new Gnome is its simplicity. Gnome 3 takes a completely new approach that might require an adjustment for many users. The developers rolled the tools for basic things like task management and workspace management into a single entity dubbed *The Dashboard/Activities*.

As you can see in Figure 2, the standard desktop is still reminiscent of Gnome 2. The panel is on top with the

Activities pane on the very left. In the middle section of the panel is the Clock. Gnome has included additional features with the Clock. For instance, the clock widget will show the Calendar and the Appointments when clicked. The top right of the panel displays the Notification menu, which is analogous to the notification panel offered with Ubuntu.

If you click the Activities pane, or just mouse over it, you will notice a classic swirl effect. (A nice touch reminiscent of the Plasma Manager Icon in KDE desktop.) When you click the pane, you will be greeted with a Compiz Exposé/Window Picker effect, which displays all active windows across the screen – as shown in Figure 2.

Once you have the active windows segregated, you can apply various actions. For instance, you can close any active window by clicking the small X

icon. You can even zoom in and out simply by using your scroll wheel over any of the active windows. Very nifty indeed.

The Activities pane serves as a one-stop shop for the Gnome environment. It acts as a window navigator, incorporating a workspace switcher, dock, and application manager. Also unique about the Activities pane is the introduction to a brand new Dock-like panel, which doesn't show up on the desktop and will only be visible when you have the Activities pane open. The Dock lists all the actively and the most widely used applications, offering a handy shortcut for starting and switching apps.

Next on the Activities pane is the Application browser. You can switch between the application browser and an active window by simply clicking on the *Windows* or *Applications* button on the top left below the panel. On opening the application manager/browser, you will notice large icons dominating the center position of the desktop. Unfortunately, applications are not separated or organized; however, a small category selector is provided on the right when you open the Application Manager.

The Activities pane even provides a search option, which is very handy for searching applications and files. The search features additionally allow you to complete your search online via Google or Wikipedia (Figure 3).

The most powerful and probably the best feature of Gnome 3 is the workspace switcher. You can access workspaces in the Activities pane by navigating your mouse to the very right (Figure 4). By default there is one workspace.

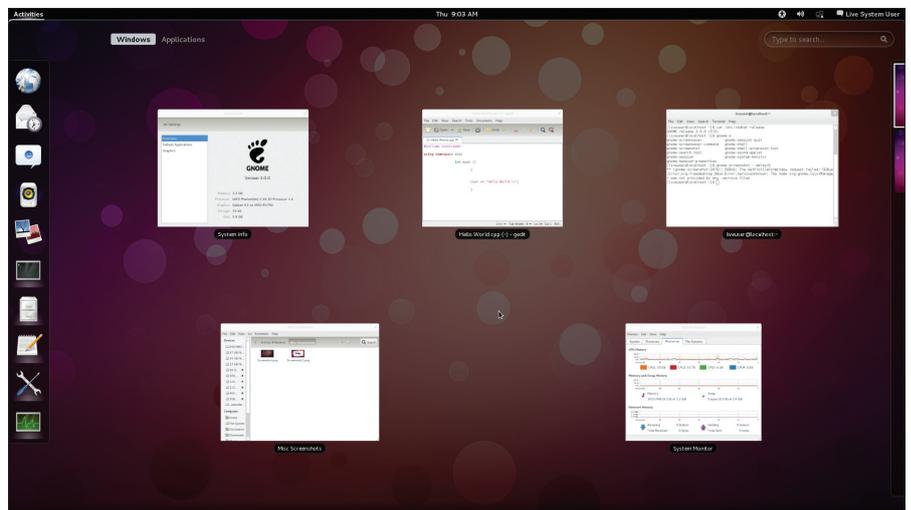


Figure 2: Gnome Activities dashboard with the Exposé effect.

## MY GNOME

This review is based on the first revision of the Gnome DE (i.e., Gnome 3.0.0).

I used the DE with the Fedora Gnome (Live) ISO and Fedora 15 beta. My hardware comprised an AMD Phenom II X4 running at 3GHz with a Radeon 4770 VGA adapter.



Figure 3: The Search Wizard in Gnome 3.

The beauty of the Gnome 3 workspace switcher is that you do not have to set a definite number of workspaces. It automatically adds another workspace depending on the active windows in the current workspace. As soon as you open a window, the new workspace manager automatically spawns a workspace; similarly, it removes a workspace if no active windows are in the adjacent workspace.

### New Panel and Theme

The Gnome panel has been completely redesigned to aid the new Dashboard (Figure 5). The panel now only shows one window list: It only shows the taskbar listing of the actively selected application. Thankfully, it doesn't shift the toolbar to the panel as does Ubuntu Global Menu with its Mac-like menubar. The idea is to unclutter the panel with obnoxious entries, but at times, it becomes really infuriating to have to switch back and forth to the Activities pane or to use the Alt + Tab combination.

The Gnome design team has done a decent job dressing up the new Gnome. The theme does the job well and has inherited many traits of the Nautilus Elementary project. With the new theme, a new dark gray gradient is implemented around the Actions Menu of the window, which looks very elegant and professional.

Gnome 3 also changed the method used to make a selection. The checkbox is gone, and, unfortunately, iPhone-style slide buttons are offered instead. The new button style looks good, but it is kind of confusing to use, especially for

non-Apple users. The new theme could use some better area management; the Application header takes a lot of space, thus reducing the usable workspace.

### Pits and Holes

Even under heavy testing and a stable release portfolio, Gnome 3 has many potholes that need patching. One problem is the Activities Dashboard. A user has no idea how many windows are open and in which workspace they are working. Of course, you can figure it out by clicking on the Activities pane again and again, but a stable and practical solution should be implemented.

Another problem is the loss of the minimize and maximize buttons. Although removing the maximize button makes sense, because it is possible to maximize by double-clicking on the window header, the removal of the minimize but-

ton hampers productivity. An easy solution is to keep shifting windows to other workspaces, but that can get confusing, too.

The biggest problem with Gnome 3 could be the usual problem of working with hardware drivers in the Linux ecosystem. The new desktop thrives on composite effects, which can be dependent on the hardware. The best hope is that distro vendors will address these issues properly. To cope with the uncertainty, the Gnome team has added a fail-back mode that resets to the old Gnome look. Given that Gnome 3 is still relatively new and untested, a failsafe mode that looks like Gnome 2 does not seem better than staying with Gnome 2 in the first place.

### Conclusions

The biggest question on everyone's mind is: How usable and productive is Gnome 3? The ultimate answer to that question is still uncertain. The astounding development and new look have opened new horizons for end users, but it is still unclear whether Gnome has the flexibility and stability necessary for professional use.

Gnome 3 still has many positives when compared with the first release of KDE 4.0, thanks to the poor roadmap and implementation by KDE during the first release. Compared with the 4.0 release of KDE, Gnome is quite stable; I didn't encounter any crashes or bugs whatsoever. The missing features aside, Gnome 3 still provides a good user experience. With backward application compatibility, you can still use old Gnome

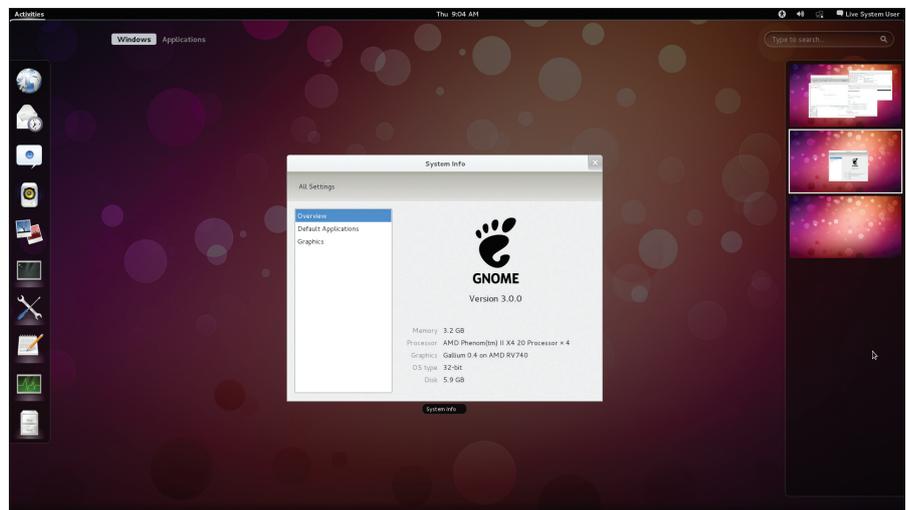


Figure 4: The workspace switcher displays workspaces on the right side of the screen.

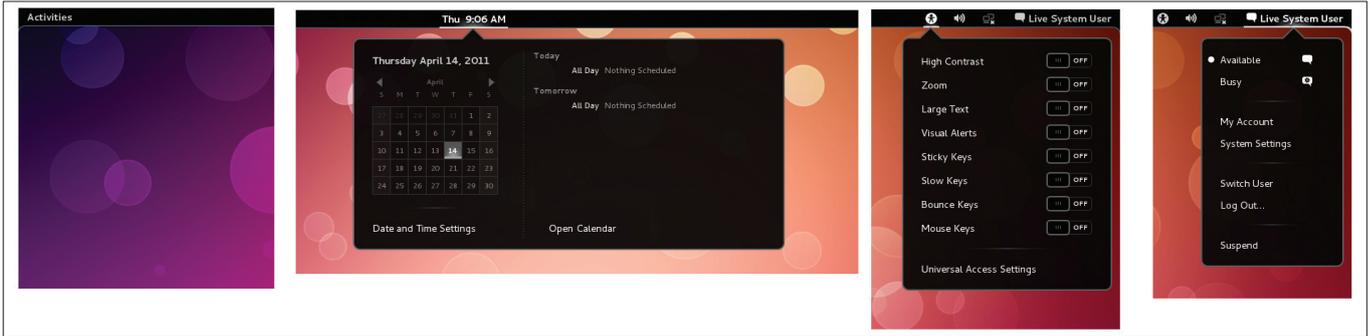


Figure 5: Gnome 3 panel breakdown, left to right: Activities pane, clock widget, accessibility widget, user manager widget.

applications, with the exception of those that thrive on the deprecated APIs and managers like Metacity.

Gnome 3 and Ubuntu Unity share the same underpinnings; however, Gnome 3 still bags the prize for being simple. Neither the Gnome or Unity Shell is sympathetic with the previous desktop metaphor, and the missing features cause some inconvenience.

Despite the favorable state of Gnome 3 compared with the KDE 4.0 release, the developers will need a couple of more releases to catch up with what is really

happening with KDE 4.6. With the Gnome 3.2 deadline finalized, I hope they will push the missing applications (font manager, widgets, more configurable desktop) to the new desktop.

Gnome 3 is indeed a step ahead. I am glad developers finally came up with a bold and radical release. They have done a commendable job with building a tablet-friendly desktop environment. Some possible improvements might be making the workspace switcher, panel, and windows management tools a little more visible.

If you are still wondering about switching to the tablet-friendly style offered by Gnome 3, I recommend you give the old desktop a little break and try out a tablet yourself. Check out the Gnome 3 release notes for more information [3]. ■■■

### INFO

- [1] Gnome: <http://www.gnome.org/>
- [2] Gnome features: <http://www.gnome.org/gnome-3>
- [3] Release notes: <http://library.gnome.org/misc/release-notes/3.0/>

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