



Life and Death on fedora **Silverblue**

Matthias Clasen, devconf.us 2018

Highlights

- Silverblue **is** Fedora
- The name is ... just a name
- Containers are great, we want to make them easy

Silverblue *is* Fedora

- Continuation of Fedora Atomic Workstation
- Exists since Fedora 25
- Built from Fedora rpms
- Delivered via an OSTree repository
- Applications via Flatpak

What about the name?

Workstation sounds a bit old-fashioned



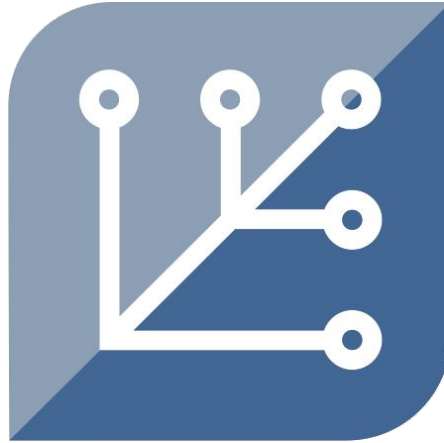
Sun SPARCstation 10 with CRT monitor, from the early 1990s

What about the name?

Atomic sounds ...dangerous



New name, New logo, New website, New channels



Web: www.teamsilverblue.org

Twitter: @teamsilverblue

Discourse: discussion.fedoraproject.org

What happens to Project Atomic?

- Umbrella project
- Atomic Host, Atomic Workstation, podman, buildah, skopeo, ...
- Atomic Host becomes Fedora CoreOS
- Atomic Workstation becomes Silverblue
- Other projects move to a new place for container tools



fedora
Silverblue

First impressions

```
$ dnf install gtk3-devel  
bash: dnf: command not found
```

```
$ mount | grep /usr  
/dev/mapper/fedora on /usr type ext4 (ro,relatime,seclabel)
```

```
$ rpm -q kernel  
kernel-4.18.0-0.rc1.git4.1.fc29.x86_64
```

Learning to walk

```
$ rpm-ostree status
State: idle; auto updates enabled (check; timer inactive)
Deployments:
• ostree://onerepo:fedora/rawhide/x86_64/workstation
  Version: Rawhide.20180623.n.0 (2018-06-23
09:14:16)
  Commit: 942d0fa0d62ed7f260b6e9a833c02a7f5d9bcdd...
...
```

```
$ rpm-ostree upgrade
1 metadata, 0 content objects fetched; 569 B transferred in 1
seconds
No upgrade available.
```

What's the advantage ?

- Image-based
- Atomic updates
- Easy rollbacks
- Efficient downloads

Learning to walk

```
$ rpm-ostree install gdb
```

```
$ systemctl reboot
```

Can still install rpms → **package layering**

Learning to walk

```
$ buildah from fedora  
$ buildah run fedora-working-container bash
```

```
$ dnf install /usr/bin/gtk3-demo
```

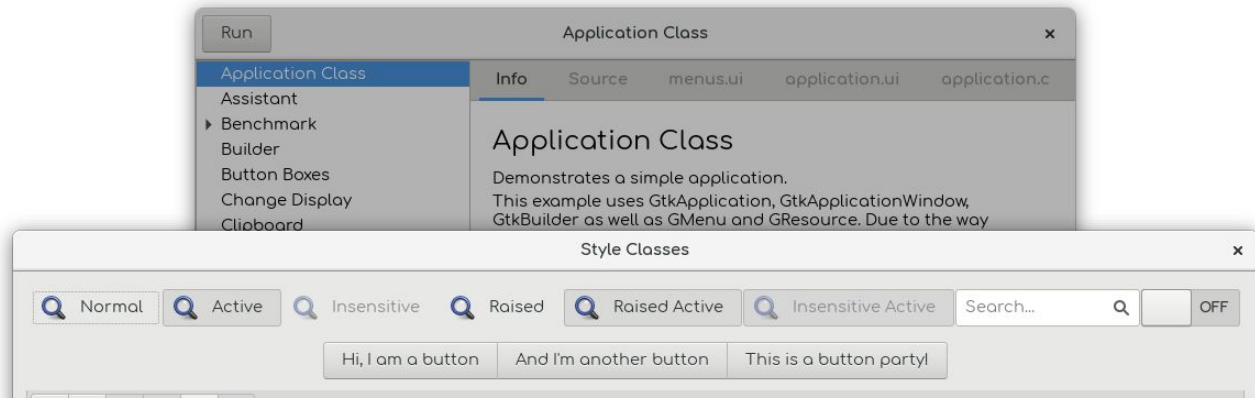
```
$ gtk3-demo  
(gtk3-demo:23022): Gtk-WARNING **: cannot open display:
```

Taking flight

A ready-made ‘toolbox’ container:

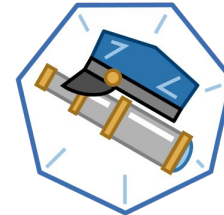
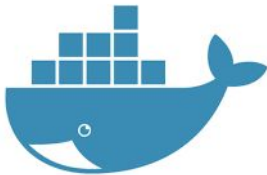
```
$ ./toolbox
```

```
$ gtk3-demo --run theming_style_classes
```



Supporting developers

- Container tools: docker / podman / buildah / skopeo
- Mini-openshift / oc / flatpak-builder
- Tools for ‘pet’ containers, a toolbox (soon)
- Terminal support for containers (eventually)



Other alternatives

- flatpak-builder
- GNOME Builder



```
$ flatpak install flathub org.gnome.Builder
```


Flatpak for applications

- Isolated from the OS
- Updated independently and safely
- Flathub for content: www.flatpak.org
- Soon: Flatpaks built from rpms in Fedora

Not all roses

Rawhide is still rawhide:

- broken composes
- failing boots

Booting the previous image is easy → **fearless updates**

Not all roses

```
gnome-shell[2934]: Failed to create backend: Failed to
initialize renderer: Missing extension for GBM renderer:
EGL_KHR_platform_gbm
```

Asked to provide the output of eglinfo, I booted into runlevel 3 and:

```
$ rpm-ostree install egl-utils
```

```
$ systemctl reboot
```

Not all roses

Now, at the boot prompt, I was faced with the choice between

- the broken image
- the broken image + egl-utils



Recovery

```
$ ostree log fedora/rawhide/x86_64/workstation  
commit fa09fd6d2551a501bcd3670c84123a22e4c704ac30d9cb421fa76...  
...  
<< History beyond this commit not fetched >>
```

```
# ostree pull --depth=5 onerepo fedora/rawhide/x86_64/workstation
```

```
# ostree admin deploy 76723f34b8591434fd9ec0
```

When can you try it out ?

- February 2018: Fedora Atomic Workstation SIG founded
- Spring 2018: Fedora 28 includes a preview of Silverblue
- Fall 2018: Fedora 29, first Silverblue release
- Spring 2019: Fedora 30, Silverblue ready for prime time (?)

References

Silverblue website: www.teamsilverblue.org

Silverblue docs: docs.teamsilverblue.org

Forum: discussion.fedoraproject.org

Flathub: www.flathub.org

mclasen@redhat.com, mclasen on irc



fedora
Silverblue