

# SUSE® Linux Enterprise Desktop 12 and the Workstation Extension: What's New ?

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# Agenda

- Design Criteria
- Desktop Environment in SUSE Linux Enterprise 12
- GNOME Shell
- Desktop Features and Applications

# Design Criteria

# SUSE Linux Enterprise Desktop



Interoperability



Ease of Use



Security



Ease of Management



Lower Costs

# SUSE Linux Enterprise Desktop 12

- Focus on technical workstation
  - Developers and System administrators
- One tool for the job
- Main desktop applications will be shipped:
  - Mail client, Office Suite, Graphical Editors, ...
- SUSE Linux Enterprise Workstation Extension
  - Extend SUSE Linux Enterprise Server with packages only available on SUSE Linux Enterprise Desktop. (x86-64 only)



# Desktop in SUSE Linux Enterprise 12

As Part of the Common Code Base

SUSE Linux Enterprise 12

# Desktop Environment

- SUSE Linux Enterprise 12 contains one primary desktop environment
- Additional light-weight environment for special use-cases:
  - Integrated Systems
- Desktop environment is shared between the server and desktop products

# Desktop Environment

- GNOME 3 is the main desktop environment
  - SLE Classic mode by default
  - GNOME 3 Classic Mode and GNOME 3 Shell Mode also available
- SUSE Linux Enterprise 12 ships also lightweight IceWM
  - Targeted at Integrated Systems
- QT fully supported:
  - QT5 supported for entire SLE12 lifecycle
  - QT4 supported, will be removed in future service pack



# Why GNOME 3

- GNOME 3 has a large contributor base
- Covers most use-cases
- SUSE Linux Enterprise Classic mode delivers traditional desktop usage patterns
- Shell-mode allows usage on newer devices with different usage patterns

GNOME Shell

# GNOME Shell (1/3)

3 modes (selectable from GDM):

- SLE classic mode: only one bottom panel, similar to SUSE Linux Enterprise 11
- GNOME classic mode: 2 panels (1 top, 1 bottom panel, similar to upstream GNOME 2)
- GNOME (ie Shell): new user experience

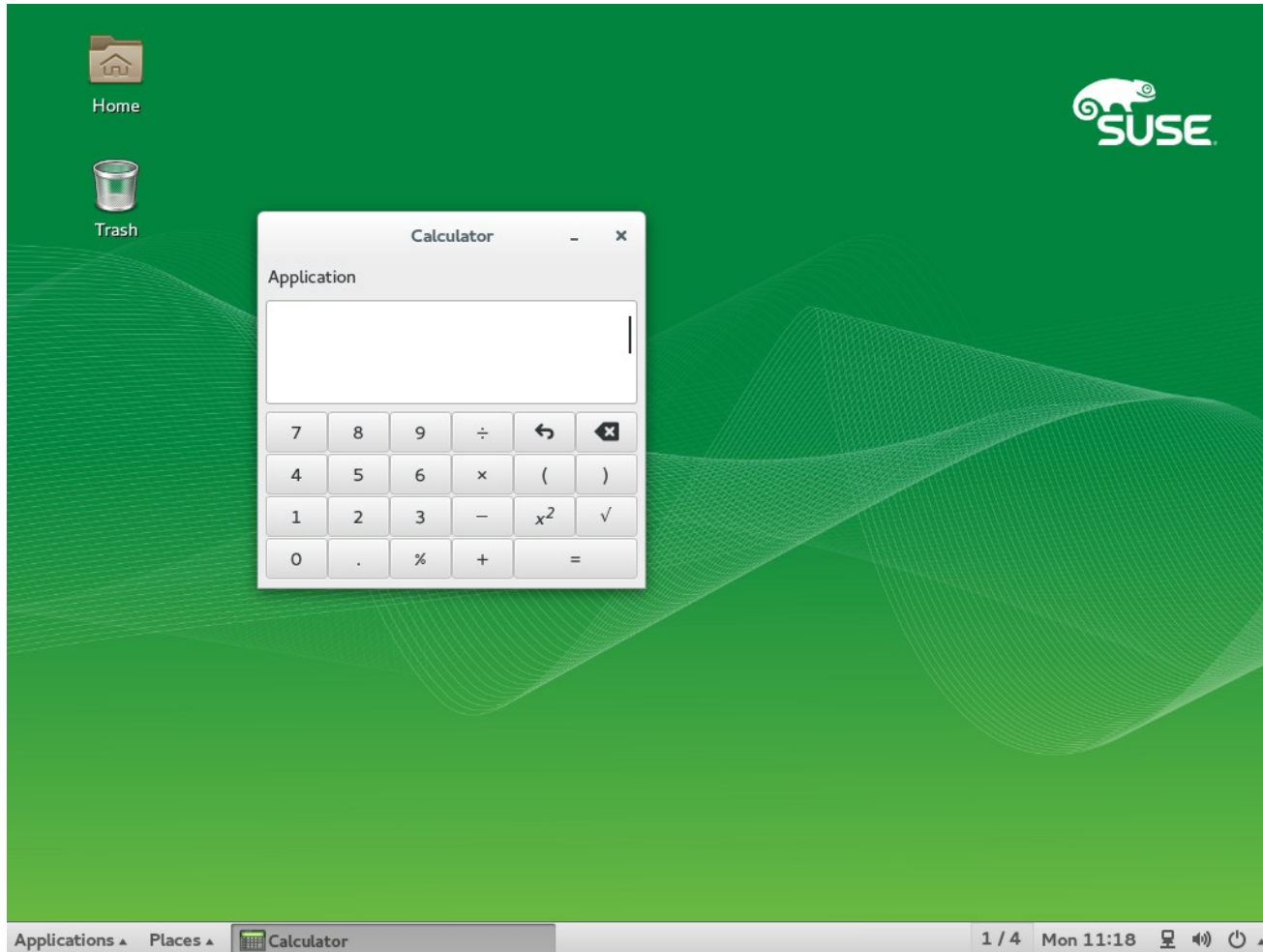
Notification area: Window-M or push mouse off the bottom of the screen  
update notifications from packagekit. Reply inline to Empathy chats

Activities overview: (hotcorner or Windows key): currently running applications and launchers, show all applications , workspaces, search

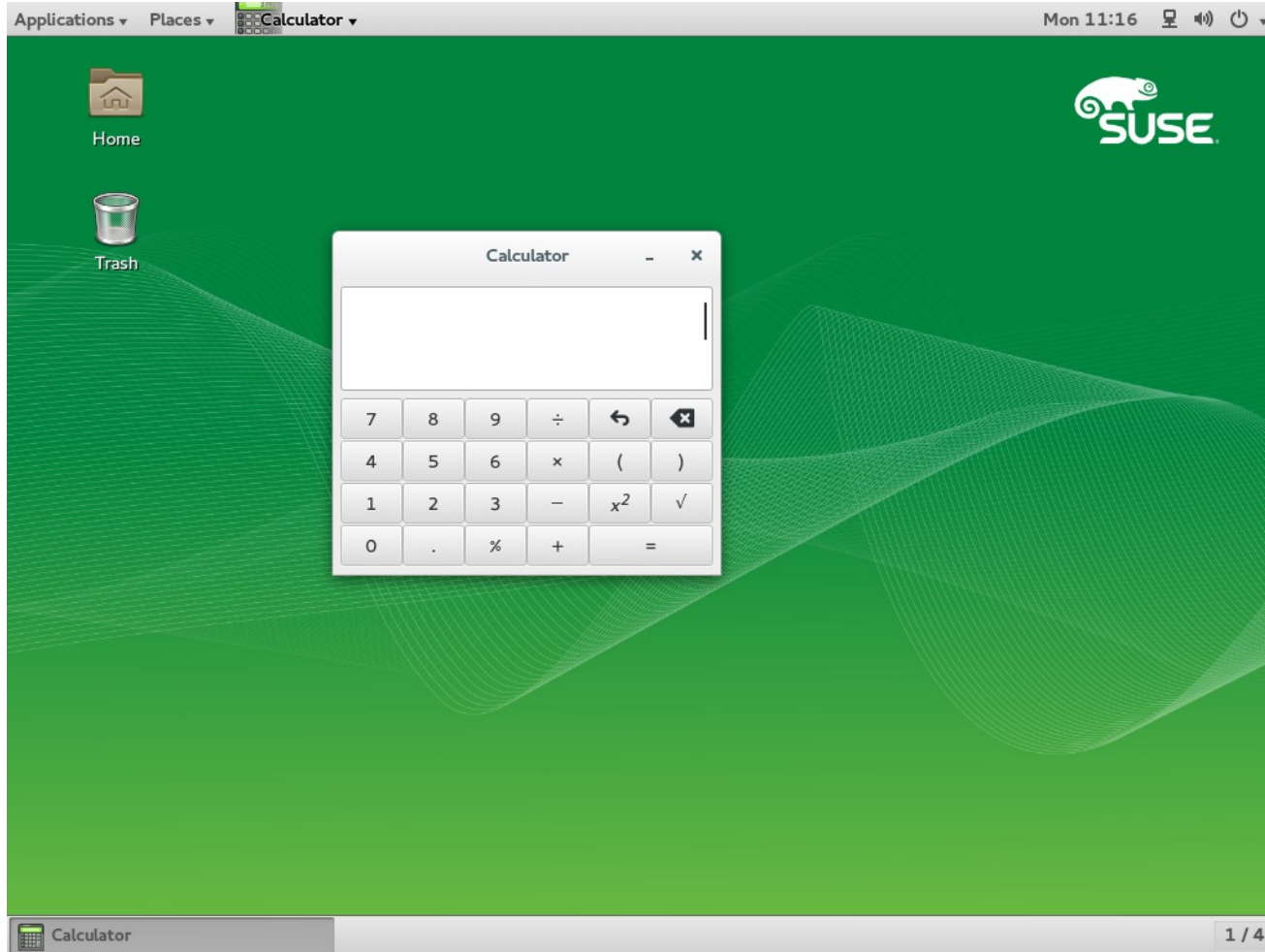
System status menu/area: easily switch between networks / vpn / sound volume.  
*Use Alt to uncover some settings (Shutdown => Suspend)*



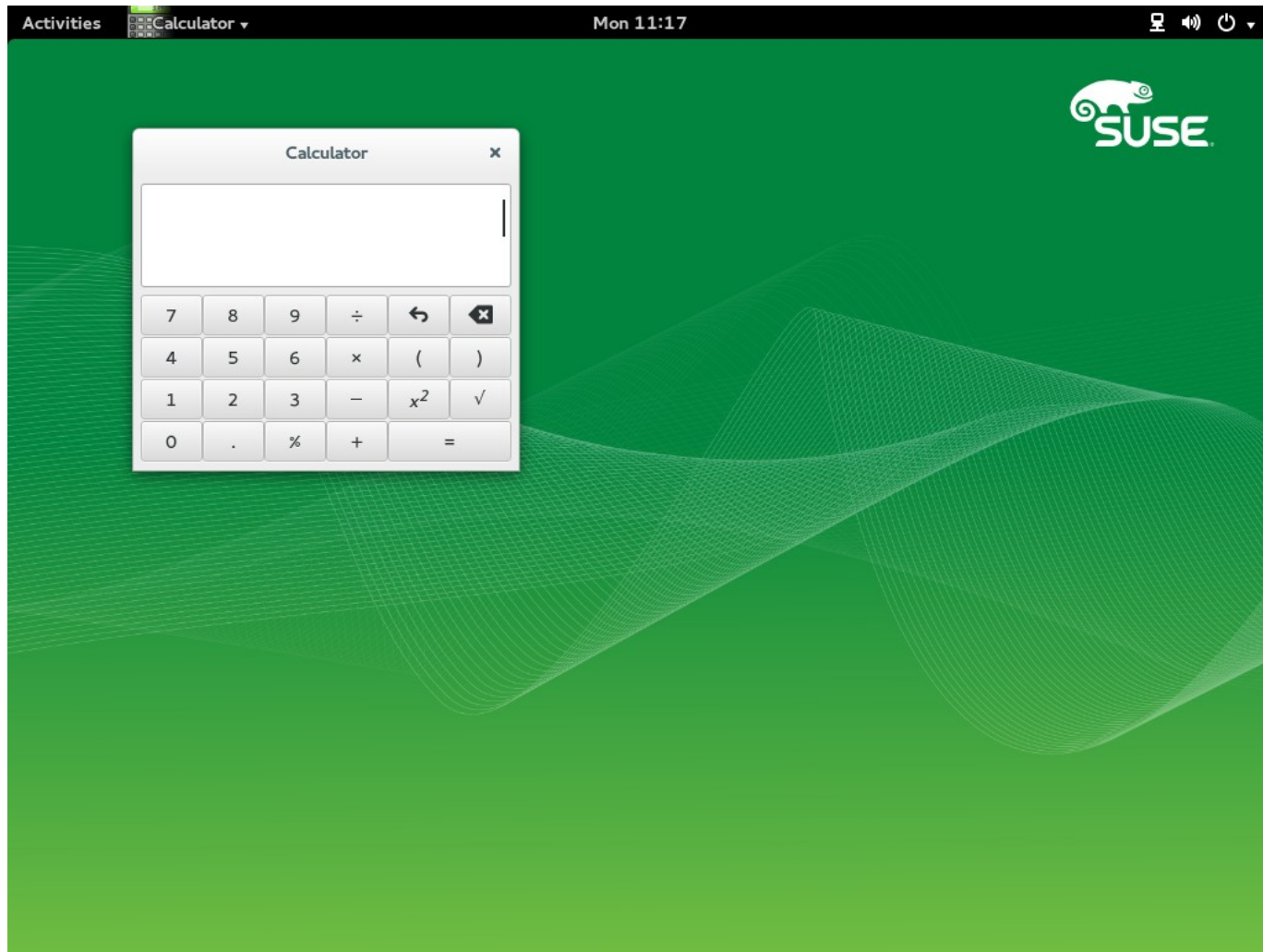
# SUSE Classic Mode



# GNOME Classic Mode



# GNOME Shell Mode



# GNOME Shell (2/3)

- gnome-shell: compositing window manager
  - Requires graphics hardware acceleration
  - llvmpipe can be leveraged for software acceleration
    - llvmpipe is available on all architectures
  - Performance has been largely improved by SUSE
    - Lower resource utilization
    - Lower performance impact of software acceleration

# GNOME Shell (3/3)

Application menu:

- often undiscovered by users
- design isn't 100% great for multi-screen
- look for the app menu - need to get used to that or you will be confused
- Therefore, it is not available on SUSE Linux Enterprise Classic

Screencast recording: Ctrl-Alt-Shift-R

GNOME Tweak Tool





# GNOME Shell Tips

## Switching between applications:

- (Classic) windows list
- (All) Alt-Tab: switch between applications (add Shift to reverse cycling)
- (Shell only), alt-[key above tab] (alt-<sup>2</sup>/alt-`) => Switch between windows of a single applications
- (All) Using Activities overview (hot corner or Windows key)
- Ctrl-Alt-Tab: Accessibility switcher

## Window handling:

- Maximize : grab window title and move it above top of the screen or Windows-Up key
- Unmaximize: Grab window title and move it downward
- Split screen: move window right side / left side of the screen or Windows-Left/Right
- Minimize: Window-H (hide)
- Move window: Window + click-hold in the window, move mouse cursor and release

## Activities overview:

- running apps show highlight
- Right click to pick one of many or launch new instance
- Ctrl-click: start new instance
- Middle click to start in a new workspace

## Workspaces:

- Can switch using Ctrl-Alt-Up/Down
- Move applications between workspace: Ctrl-Alt-Shift-Up/Down or drag and drop from Overview
- Grab applications from Overview dash to workspace : start it there



# GNOME Shell Extensions

Extensions are written in javascript:

- Integrated with the browser via plugin:  
<https://extensions.gnome.org/local/> (installed extensions) and GNOME Shell extensions repository:  
<https://extensions.gnome.org/> (allow plugins installation)
- Plugin (gnome-shell-browser-plugin package) can be uninstalled to prevent this feature

Demo:

- installing the screenshot window sizer to get good screenshots for gnome-software (press Ctrl-Alt-S) :  
<https://extensions.gnome.org/extension/736/screenshot-window-sizer/>

# Some Desktop Features

# GNOME Control Center

Available from System menu (tool icon)

Some interesting panels:

- Keyboard: setup keybindings
- display - notice support for multi-head, how to move activities overview
- Main Menu (only for Classic modes, not GNOME-Shell)
- gnome online accounts : what it does..

Network:

- Mobile Network, Wifi and VPN activation integrated in the desktop environment, thanks to NetworkManager
- Note:
  - On SUSE Linux Enterprise Server, wicked disables this desktop integration
  - To get it back, use SUSE Linux Workstation Extension and switch from wicked to NetworkManager

# Remote Access

- Vino (in GNOME Control Center / Sharing / Screen sharing): VNC desktop share, only on running session
- Vinagre: client to connect to VNC / SSH / Spice / RDP sessions
- Yast Remote administration: VNC server running at display manager level
- XDMCP: requires GLX support on client side (Xephyr) to be used with GDM / GNOME-Shell otherwise need xdm/icewm

# Keyring Integration

- Provided by gnome-keyring
- Default keyring is using account password obtained through PAM (autologin won't work)
- Provides ssh-agent and gpg-agent features : nice and secure password prompt through gnome-shell
- Seahorse: allow to edit keyring. Also help to check if "login" keyring created and unlocked.

# Configuration: Defaults

dconf system database files in `/etc/dconf/db` (GVDB format), profiles in `/etc/dconf/profiles`

Example: setting different background by default

```
/etc/dconf/profile/user: #user is "default value" if $DCONF_PROFILE not set
```

```
user-db:user
```

```
system-db:local # local is the name of a db, could be any name
```

Defaults stored in `/etc/dconf/db/local.d/`

```
/etc/dconf/db/local.d/01-background:
```

```
[org/gnome/desktop/background]
```

```
picture-uri='file:///usr/local/share/backgrounds/wallpaper.jpg'
```

```
picture-options='scaled'
```

**dconf update**: regenerates db file and notifies system dbus

<https://help.gnome.org/admin/system-admin-guide/3.10/dconf-custom-default-values.html.en>

# Configuration: Lockdown

lock down stored in `/etc/dconf/db/local.d/locks/` (if defaults were stored in a db called `local`)

Example (one key per line):

```
/etc/dconf/db/local.d/locks/00_default-wallpaper:  
# prevent changes to the background  
/org/gnome/desktop/background/picture-uri  
/org/gnome/desktop/background/picture-options
```

## **dconf update**

Notice GUI shows grayed (disabled) elements for lockdown settings

<https://help.gnome.org/admin/system-admin-guide/3.10/dconf-lockdown.html.en>





# Other Bits of Information

## Fine scrolling:

- with click-hold (shift-click) => only in GTK3 applications (not available in FF yet :(

## Bluetooth:

- bluez5, pulseaudio a2dp no HFP

## High-dpi displays:

- limited support - Chromebook Pixel / Retina like displays

## Header bars:

- combination of titlebar, toolbar and menu bar to give more space to window content, change dynamically, always have a close button

**Desktop Applications**  
Only in SUSE Linux Enterprise Desktop  
or Workstation Extension

# Productivity Applications

- Email / Calendar / Address book
  - Evolution
- Office Tools
  - Libreoffice 4.3
  - Scribus (graphical layout)
- Instant Messaging
  - Empathy (better integration with GNOME 3)
  - Pidgin still available
- Search
  - Tracker
  - GNOME Documents (powered by Tracker)

# Multimedia Applications

- Photo management
  - Shotwell
- Music
  - Rhythmbox
- Video
  - GNOME Video (aka Totem)
- Graphics
  - The GIMP
  - Inkscape (Vectorial)

Questions ?

Thank you.





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