



Red Hat Enterprise Linux 9

Customizing the GNOME desktop environment

Customizing the GNOME desktop environment on Red Hat Enterprise Linux 9

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Abstract

This document describes how to customize GNOME, which is the only desktop environment available in RHEL 9. It covers the instructions for users and system administrators for configuring GNOME to meet various use cases.

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MAKING OPEN SOURCE MORE INCLUSIVE

Red Hat is committed to replacing problematic language in our code, documentation, and web properties. We are beginning with these four terms: master, slave, blacklist, and whitelist. Because of the enormity of this endeavor, these changes will be implemented gradually over several upcoming releases. For more details, see [our CTO Chris Wright's message](#).

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4. Enter your suggestion for improvement in the **Description** field. Include links to the relevant parts of the documentation.
5. Click **Submit Bug**.

CHAPTER 1. ENABLING DESKTOP ICONS

You can enable the desktop icons functionality and move files to the desktop.

1.1. DESKTOP ICONS IN RHEL 9

Desktop icons are provided by the **Desktop icons** GNOME Shell extension, which is available from the **gnome-shell-extension-desktop-icons** package.

Desktop icons in GNOME Classic

The GNOME Classic environment includes the **gnome-shell-extension-desktop-icons** package by default. Desktop icons are always on, and you cannot turn them off.

Desktop icons in GNOME Standard

In GNOME Standard, desktop icons are disabled by default.

To enable desktop icons in the GNOME Standard environment, you must install the **gnome-shell-extension-desktop-icons** package.

1.2. ENABLING DESKTOP ICONS IN GNOME STANDARD

This procedure enables the desktop icons functionality in the GNOME Standard environment.

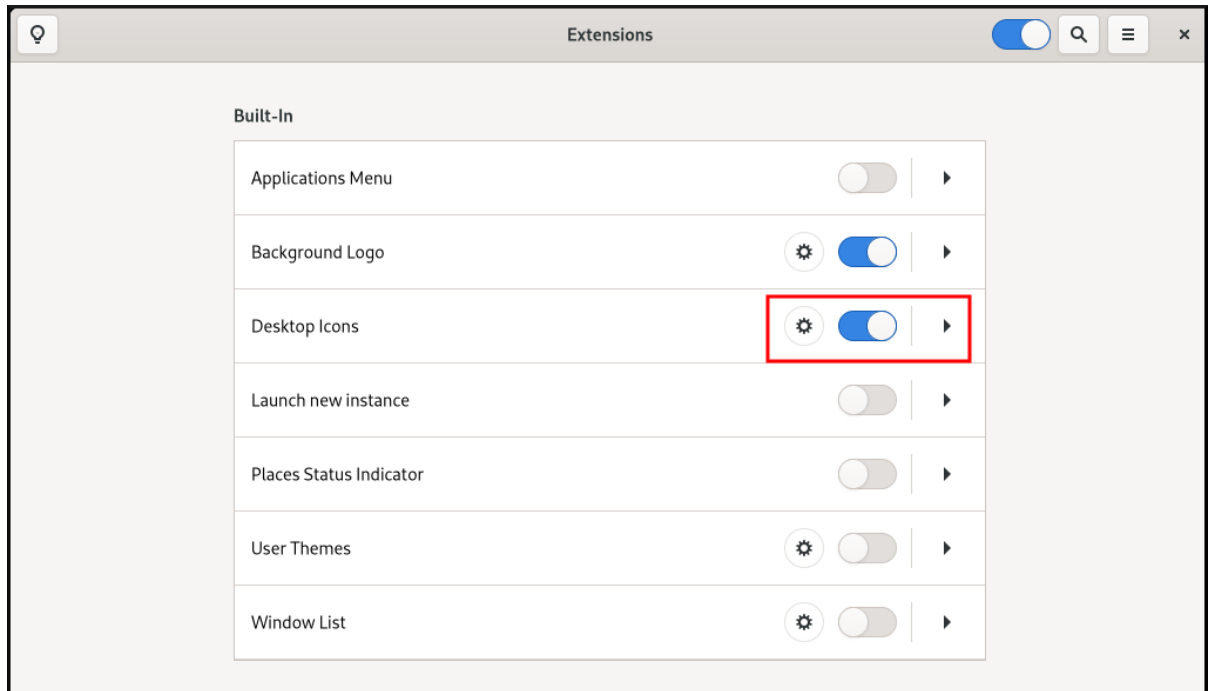
Prerequisites

- The **Extensions** application is installed on the system:

```
# dnf install gnome-shell-extension-desktop-icons
```

Procedure

1. Open the **Extensions** application.
2. Enable the **Desktop Icons** extension.



1.3. CREATING A DESKTOP ICON FOR A FILE

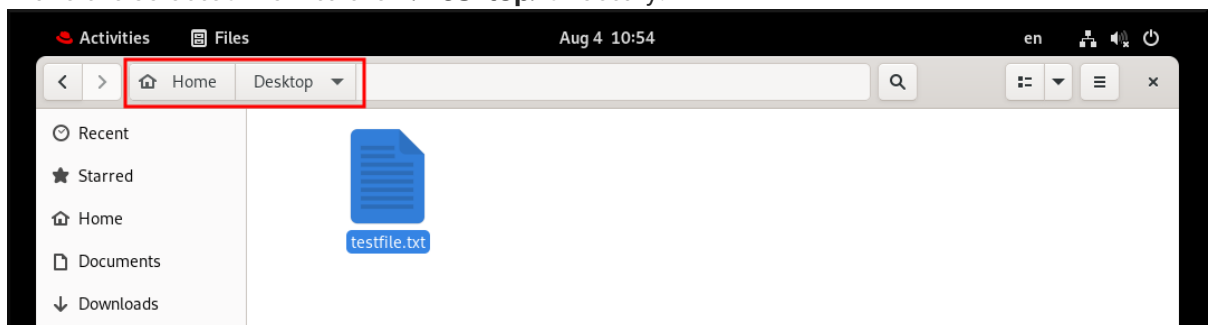
This procedure creates a desktop icon for an existing file.

Prerequisites

- The **Desktop icons** extension is enabled.

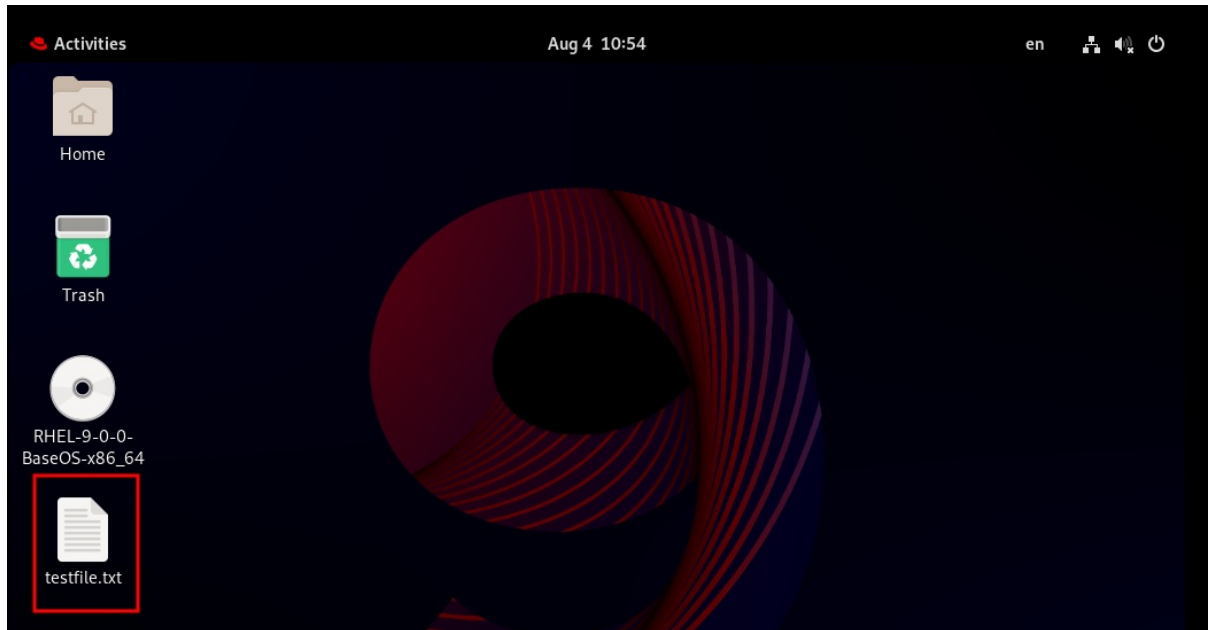
Procedure

- Move the selected file into the **~/Desktop/** directory.



Verification steps

- Check that the icon for the file appears on the desktop.



CHAPTER 2. LAUNCHING AN APPLICATION AUTOMATICALLY ON LOGIN

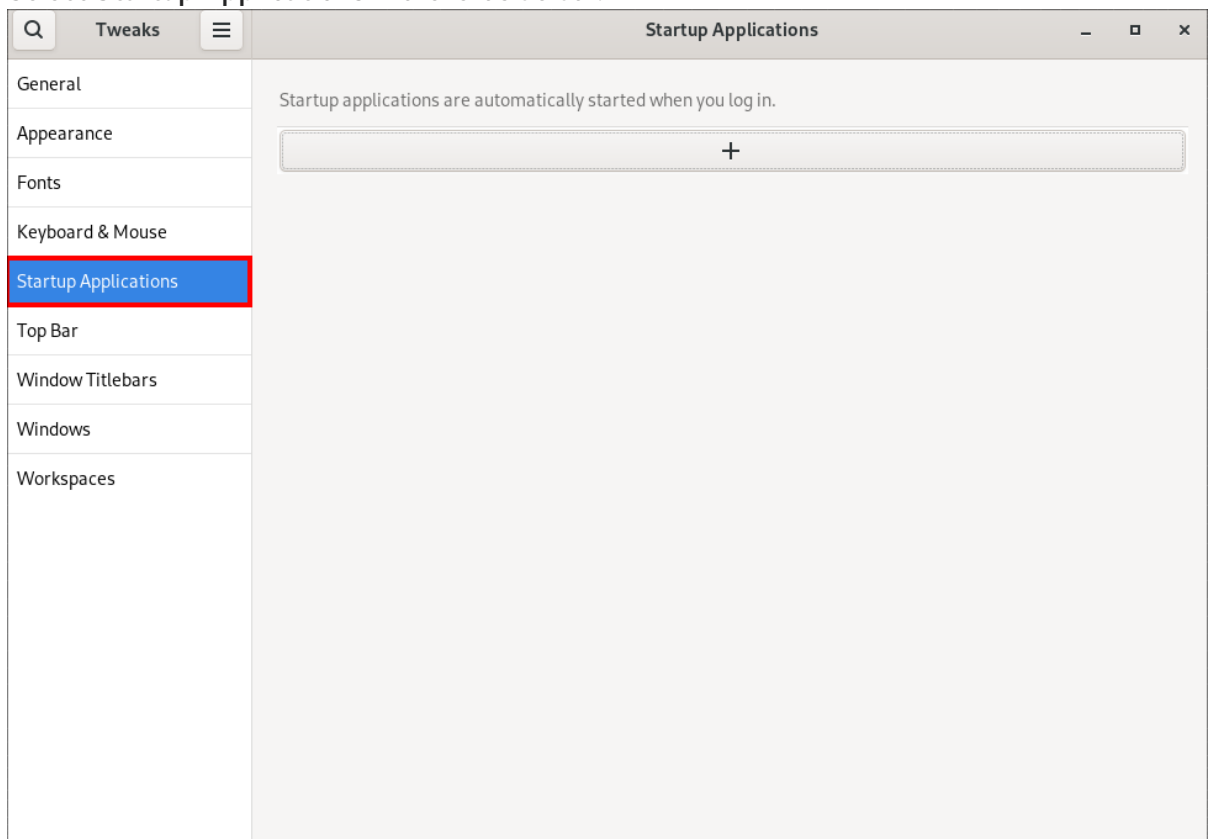
You can set applications to launch automatically on login using the **Tweaks** tool. **Tweaks** is a tool to customize the GNOME Shell environment for a particular user.

Prerequisites

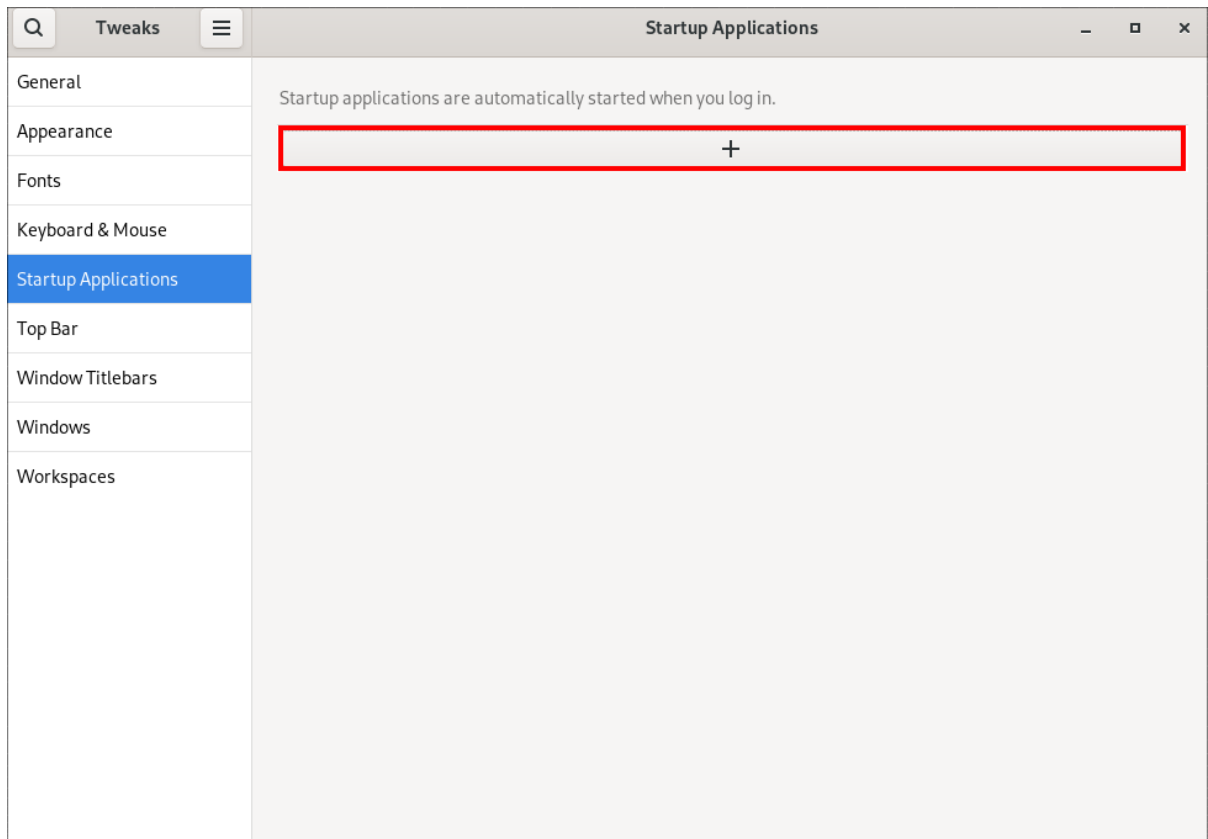
- You have installed **gnome-tweaks** on your system. For more details, see [Installing software in GNOME](#)
- You have installed the application that you want to launch at login.

Procedure

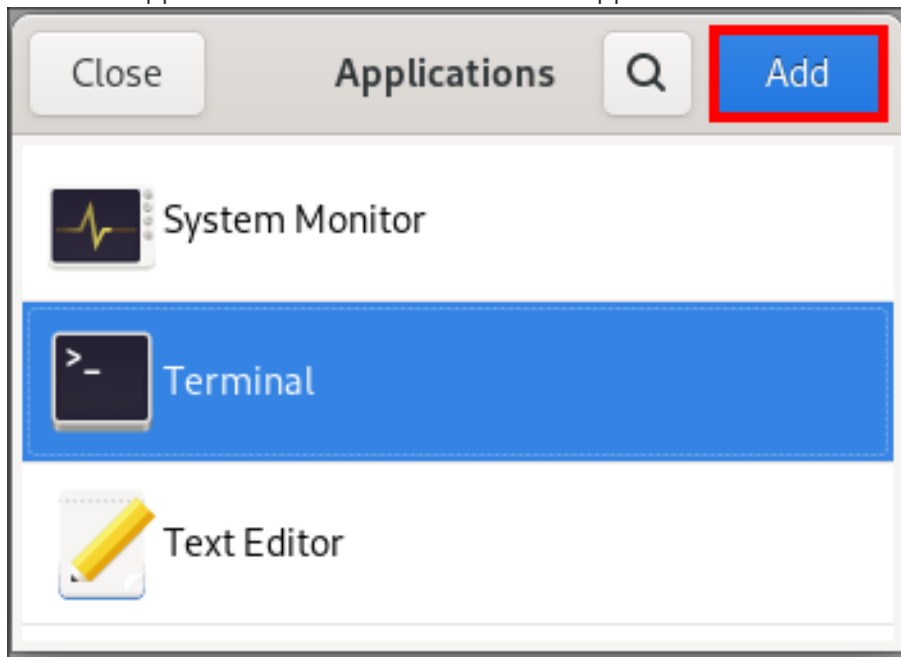
1. Open **Tweaks**. For more details see [Launching applications in GNOME](#).
2. Select **Startup Applications** in the left side bar.



3. Click the plus sign button (+).

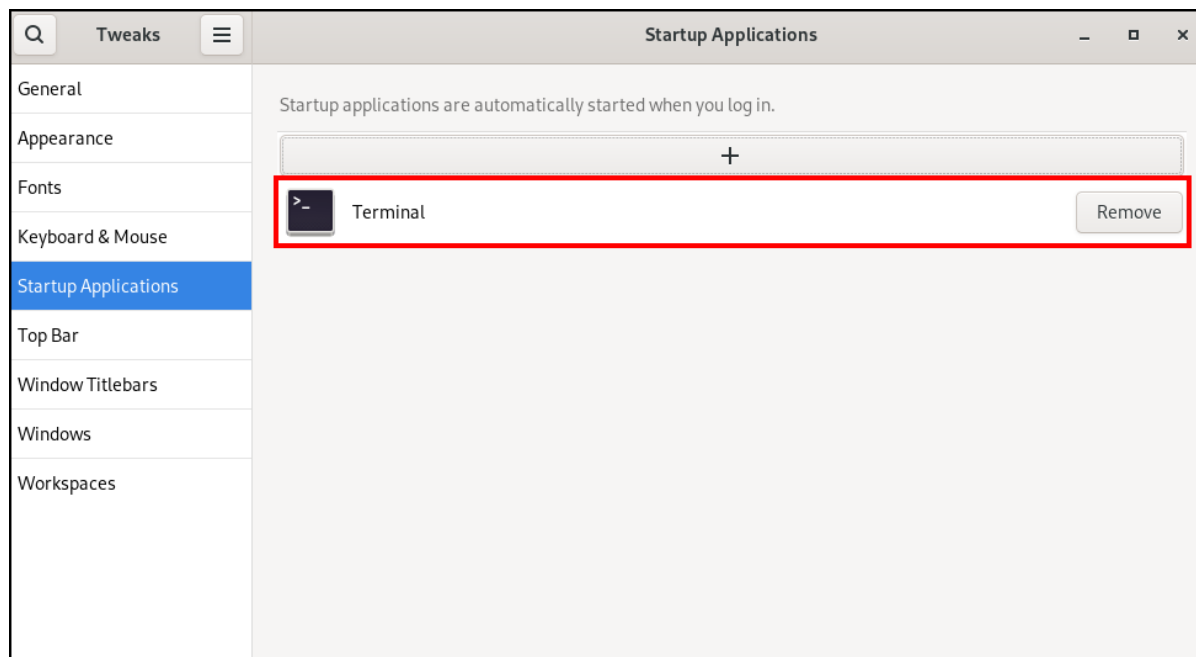


4. Select an application from the list of available applications and click **Add**.



Verification

1. Open **Tweaks**.
2. Select **Startup Applications** in the left side bar.
3. List of applications launched at start will be present in the center section.



Additional resources

- For more information on launching applications, see [Launching applications in GNOME](#)

CHAPTER 3. RESTRICTING THE SESSION TO A SINGLE APPLICATION

You can start the GNOME session in single-application mode, also known as kiosk mode. In this session, GNOME displays only a full-screen window of the application that you have selected.

3.1. SINGLE-APPLICATION MODE

Single-application mode is a modified GNOME session that reconfigures the Mutter window manager into an interactive kiosk. This session locks down certain behavior to make the standard desktop more restrictive. The user can interact only with a single application selected by the administrator.

You can set up single-application mode in a number of fields, from communication to entertainment or education, and use it as a self-serve machine, an event manager, a registration point, and so on.

The single-application mode configuration is available from the **gnome-session-kiosk-session** package.

3.2. ENABLING SINGLE-APPLICATION MODE

This procedure installs and enables single-application mode, which restricts the GNOME session to a single application.

Procedure

1. Install the **gnome-session-kiosk-session** package:

```
# dnf install gnome-session-kiosk-session
```

2. As the user that will open the single-application session, create the **/home/user/.local/bin/redhat-kiosk** file:

```
[user]$ mkdir -p ~/.local/bin
```

```
[user]$ touch ~/.local/bin/redhat-kiosk
```

3. Edit the **/home/user/.local/bin/redhat-kiosk** file and enter the executable name of the application that you want to launch in single-application mode.
For example, to launch the **Firefox** browser in single-application mode, enter the following content:

```
#!/bin/sh  
  
while true; do  
    firefox --kiosk https://example.org  
done
```

The **while true** loop ensures that the application restarts if it terminates for any reason.

4. Make the file executable:

```
[user]$ chmod +x ~/.local/bin/redhat-kiosk
```

5. If you created the file or its containing directories as a different user than the single-application user, such as **root**, ensure that the file has the correct permissions:

```
# chown -R user:group ~user/.local
```

6. At the GNOME login screen, select the **Kiosk** session from the cogwheel button menu and log in as the single-application user.

CHAPTER 4. DISPLAYING THE SYSTEM SECURITY CLASSIFICATION

As an administrator of deployments where the user must be aware of the security classification of the system, you can set up a notification of the security classification. This can be either a permanent banner or a temporary notification, and it can appear on login screen, in the GNOME session, and on the lock screen.

4.1. ENABLING SYSTEM SECURITY CLASSIFICATION BANNERS

You can create a permanent classification banner to state the overall security classification level of the system. This is useful for deployments where the user must always be aware of the security classification level of the system that they are logged into.

The permanent classification banner can appear within the running session, the lock screen, and login screen, and customize its background color, its font, and its position within the screen.

This procedure creates a red banner with a white text placed on both the top and bottom of the login screen.

Procedure

1. Install the **gnome-shell-extension-classification-banner** package:

```
# dnf install gnome-shell-extension-classification-banner
```

2. Create the **99-class-banner** file at either of the following locations:

- To configure a notification at the login screen, create **/etc/dconf/db/gdm.d/99-class-banner**.
- To configure a notification in the user session, create **/etc/dconf/db/local.d/99-class-banner**.

3. Enter the following configuration in the created file:

```
[org/gnome/shell]
enabled-extensions=['classification-banner@gnome-shell-extensions.gcampax.github.com']

[org/gnome/shell/extensions/classification-banner]
background-color='rgba(200,16,46,0.75)'
message='TOP SECRET'
top-banner=true
bottom-banner=true
system-info=true
color='rgb(255,255,255)'
```

**WARNING**

This configuration overrides similar configuration files that also enable an extension, such as [Notifying of the system security classification](#).

To enable multiple extensions, specify all of them in the **enabled-extensions** list. For example:

```
enabled-extensions=['heads-up-display@gnome-shell-
extensions.gcampax.github.com', 'classification-banner@gnome-shell-
extensions.gcampax.github.com']
```

4. Update the **dconf** database:

```
# dconf update
```

5. Reboot the system.

Troubleshooting

- If the classification banners are not displayed for an existing user, log in as the user and enable the **Classification banner** extension using the **Extensions** application.

4.2. NOTIFYING OF THE SYSTEM SECURITY CLASSIFICATION

You can set up a notification that contains a predefined message in an overlay banner. This is useful for deployments where the user is required to read the security classification of the system before logging in.

Depending on your configuration, the notification can appear at the login screen, after logging in, on the lock screen, or after a longer time with no user activity. You can always dismiss the notification when it appears.

Procedure

1. Install the **gnome-shell-extension-heads-up-display** package:

```
# dnf install gnome-shell-extension-heads-up-display
```

2. Create the **99-hud-message** file at either of the following locations:
 - To configure a notification at the login screen, create **/etc/dconf/db/gdm.d/99-hud-message**.
 - To configure a notification in the user session, create **/etc/dconf/db/local.d/99-hud-message**.
3. Enter the following configuration in the created file:

```
[org/gnome/shell]
enabled-extensions=["heads-up-display@gnome-shell-extensions.gcampax.github.com"]

[org/gnome/shell/extensions/heads-up-display]
message-heading="Security classification title"
message-body="Security classification description"
# The following options control when the notification appears:
show-when-locked=true
show-when-unlocking=true
show-when-unlocked=true
```

Replace the following values with text that describes the security classification of your system:

Security classification title

A short heading that identifies the security classification.

Security classification description

A longer message that provides additional details, such as references to various guidelines.



WARNING

This configuration overrides similar configuration files that also enable an extension, such as [Enabling system security classification banners](#).

To enable multiple extensions, specify all of them in the **enabled-extensions** list. For example:

```
enabled-extensions=["heads-up-display@gnome-shell-
extensions.gcampax.github.com", 'classification-banner@gnome-shell-
extensions.gcampax.github.com']
```

4. Update the **dconf** database:

```
# dconf update
```

5. Reboot the system.

Troubleshooting

- If the notifications are not displayed for an existing user, log in as the user and enable the **Heads-up display message** extension using the **Extensions** application.