

# KDE Display Manager (KDM)

CentOS Documentation SIG

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## Abstract

This article describes the KDM Visual Style for CentOS Distribution. KDE Display Manager (KDM) is the second choice defined as CentOS Display Manager. If users leave their computers on all the time and don't share their system, they won't see this as often as users who share a desktop system with other users on the system or laptop users who reboot and login more frequently.

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## 1 Workplace

- SVN:trunk/Identity/Themes/\$THEME/Distro/BootUp/KDM/
- SVN:trunk/Translations/Identity/Themes/Distro/BootUp/KDM/
- SVN:trunk/Scripts/Identity/Themes/Distro/BootUp/KDM/

## 2 Theme

---

<b>Target:</b>	/usr/share/apps/kdm/themes/Modern/background.png
<b>Package:</b>	<b>Unknown!</b>
<b>Description:</b>	PNG image data, 1024 x 768, 8-bit/color RGBA, non-interlaced
<b>Target:</b>	/usr/share/apps/kdm/themes/Modern/centos-release.png
<b>Package:</b>	<b>Unknown!</b>
<b>Description:</b>	PNG image data, 181 x 48, 8-bit/color RGBA, non-interlaced
<b>Target:</b>	/usr/share/apps/kdm/themes/Modern/centos-symbol.png
<b>Package:</b>	<b>Unknown!</b>
<b>Description:</b>	PNG image data, 48 x 48, 8-bit/color RGBA, non-interlaced
<b>Target:</b>	/usr/share/apps/kdm/themes/Modern/GdmGreeterTheme.desktop
<b>Package:</b>	<b>Unknown!</b>
<b>Description:</b>	UTF-8 Unicode English text
<b>Target:</b>	/usr/share/apps/kdm/themes/Modern/icon-language.png
<b>Package:</b>	<b>Unknown!</b>
<b>Description:</b>	PNG image data, 32 x 32, 8-bit/color RGBA, non-interlaced
<b>Target:</b>	/usr/share/apps/kdm/themes/Modern/icon-reboot.png
<b>Package:</b>	<b>Unknown!</b>
<b>Description:</b>	PNG image data, 32 x 32, 8-bit/color RGBA, non-interlaced
<b>Target:</b>	/usr/share/apps/kdm/themes/Modern/icon-session.png
<b>Package:</b>	<b>Unknown!</b>
<b>Description:</b>	PNG image data, 32 x 32, 8-bit/color RGBA, non-interlaced

**Target:** /usr/share/apps/kdm/themes/Modern/icon-shutdown.png  
**Package:** **Unknown!**  
**Description:** PNG image data, 32 x 32, 8-bit/color RGBA, non-interlaced

**Target:** /usr/share/apps/kdm/themes/Modern/Modern.xml  
**Package:** **Unknown!**  
**Description:** XML 1.0 document text

**Target:** /usr/share/apps/kdm/themes/Modern/screenshot.png  
**Package:** **Unknown!**  
**Description:** PNG image data, 200 x 150, 8-bit/color RGBA, non-interlaced

---

### 3 Design

The centos-release.png and screenshot.png images are rendered for each major release of CentOS. This task is done using the script render.sh available in the workplace. This script creates the appropriate PNG images under img/\$VERSION/ directory.

The background.png image is taken from Backgrounds section. This task is done using the script build.sh available in the workplace. This script collects all information needed, groups it and stores it under tgz/\$VERSION/\$RESOLUTION/ with the form \$THEME.tar.gz.

Whith the build.sh script you can create KDM themes for specific CentOS major releases, and inside each major release for specific screen resolutions.

KDM theme uses the same standard that GDM theme does. More information about GDM theming is available in the *GNOME Display Manager Reference Manual*. This guide is available online and inside your system's help. As shortcut to get that help, you can run the following command:

- gnome-help file:///usr/share/gnome/help/gdm/C/gdm.xml#thememannual

### 4 Configuration

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**Target:** /usr/share/config/kdm/backgroundrc  
**Package:** kdebase  
**Description:** ASCII text

**Target:** /usr/share/config/kdm/kdmrc  
**Package:** kdebase  
**Description:** ASCII text, with very long lines

---

**Theme** : In the file *kdmrc*, **Theme** defines which is the KDM theme used by default.

```
Theme=/usr/share/apps/kdm/themes/Modern/
```

**UseTheme** : In the file *kdmrc*, **UseTheme** defines the precedence of background. If true KDM theme background image takes precedence against KDM background.

```
UseTheme=true
```

**Wallpaper** : In the file *backgroundrc*, **Wallpaper** defines the default configuration for KDM background.

```
Wallpaper=/usr/share/backgrounds/images/default.png
```

The background image used on KDM is one file, and the background image used on KDM theme is another file. Even they are independent files, the monolithic visual structure requires the same visual information in these images.

More information about KDE login screen, KDM and its configuration can be found in KDE help. As shortcut to get that help, you can run the following commands:

- khelpcenter help:/kdm/login.html
- khelpcenter help:/kdm/configuring-kdm.html
- khelpcenter help:/kdm/kdm-files.html

## 5 Rendering

## 6 Testing

## 7 Issues

**Transition from Greeter to Desktop** : If KDE desktop background and KDM background are the same (and they should because the monolithic visual structure) the transition from login screen to desktop is “smooth” because the background image is always visible on the screen.

**Differences between KDM and GDM themes** : KDM and GDM themes<sup>1</sup> are basically the same except for the following differences:

1. KDM theme requires the “user-entry” and “pw-entry” stocks. This forces the using of two boxes, one for username and one for password. This boxes are visibly appart one from another. In GDM we use just one box (the “user-pw-entry” stock), both for username and password.

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<sup>1</sup>It refers to the *.xml* files and its related files.

2. In KDM theme, messages were centered on the screen to fit the KDM two-boxes design. In GDM they are centered to the “user-pw-entry” stock width.
3. In KDM theme, the “language” stock shows nothing. It creates an empty space in the screen. The language block was commented to save space on the screen. In GDM language button is present and when clicked a box pops up with a list of languages to choose.
4. Both KDM and GDM themes use the same font definition in the *.xml* file, but in presentation they look quite different. For example the KDM clock’s *Sans 10 Bold* theme definition does not take effect. Probably font definition in *kdmrc* file takes precedence against theme’s one.

**Different resolutions** : Designing of KDM theme needs to be expandable through different screen resolutions. By default, KDM theme uses a background image of 2048x1536 pixels. When screen resolution changes the predefined behaviour is to scale this image to fit the current display resolution. If the screen resolution is higher, or differs in ratio (for example when it is a wide screens) the design of KDM theme could lose quality or look different from the original one.

As a workaround, if KDM theme looks narrow or deformed to you, use the *build.sh* script to create the KDM theme in your specific screen resolution.

**KDM theme installation** : To install a KDM theme you need to copy its files from the workplace to its location in the filesystem. If you want to make that KDM theme your default one, then you also need to update the KDM configuration files to match your theme location. Both of these actions require you to have *root* privileges.

**Default Display Manager** : By default KDM is the second display manager choice<sup>2</sup>. To use KDM as first choice, run the following command (as *root*) and reboot:

```
echo "DISPLAYMANAGER=KDE" > /etc/sysconfig/desktop
```

**Package content** : CentOS Default KDM Theme seems to be inside the package *redhat-artwork*. In contrast with GDM which has some files in *redhat-logos* and others in *redhat-artwork*. Could we standardize this ? All files in just one package (*redhat-artwork*) or files divided in two packages (*redhat-artwork*, and *redhat-logos*).

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<sup>2</sup>See the file */etc/X11/prefdm*.

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