The GNOME™ Conference
GUADEC

GTK Radio on GNOME 46

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Section 1

GTK Radio on GNOME 46

GTK Radio
National Public Radio broadcasts for GNOME 384

GTK Radio is available with Hawaii Public Radio (NPR) and 62 British Broadcasting Corporation (BBC) live audio broadcasts for GNOME 46. The latest GTK Radio 384.0 release during GUADEC 2024 (between July 19-24, 2024) features 200 international radio stations and 110 city map markers around the world, including National Public Radio, 62 BBC radio stations broadcasting live from United Kingdom, 4 SomaFM radio stations broadcasting live from San Francisco as well as KXSC from Los Angeles, California.

GTK Radio for GNOME 46
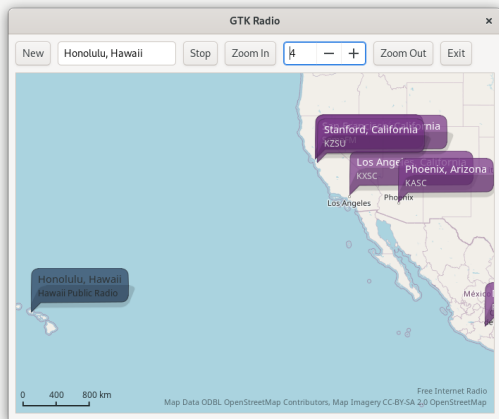## National Public Radio (NPR) broadcasts on GNOME 46

GTK Radio for GNOME 46 is available with National Public Radio (NPR) live audio broadcasts.

GTK Radio is the successor to GNOME Radio built for GNOME 46 with Cairo, Clutter, Champlain, Maps, GStreamer, and GTK.

GTK Radio for GNOME 46 is a Free Software program that allows you to easily locate Free Internet Radio stations by broadcasters on the Internet with the help of map and text search.
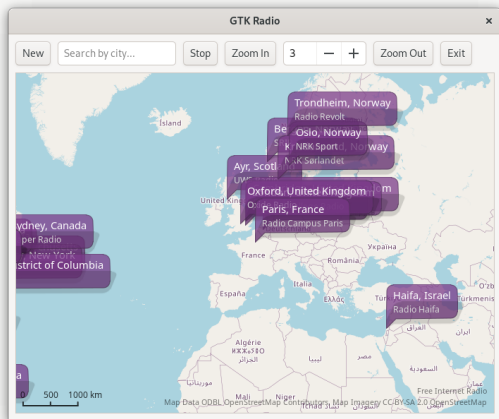
GTK Radio for GNOME 46
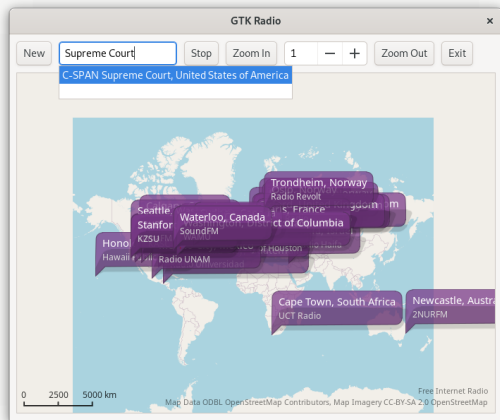## National Radio (NPR) broadcasts on GNOME 46

GTK Radio for GNOME 46
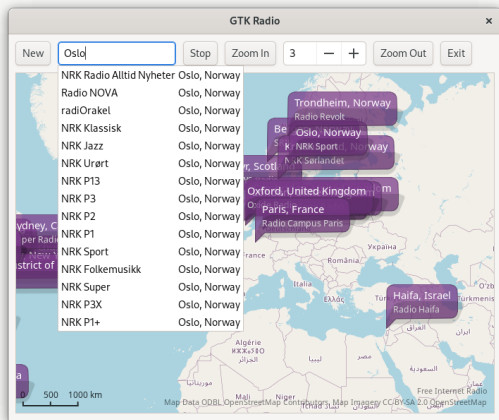## European Union (BBC World Service) broadcasts on GNOME 46

GTK Radio for GNOME 46
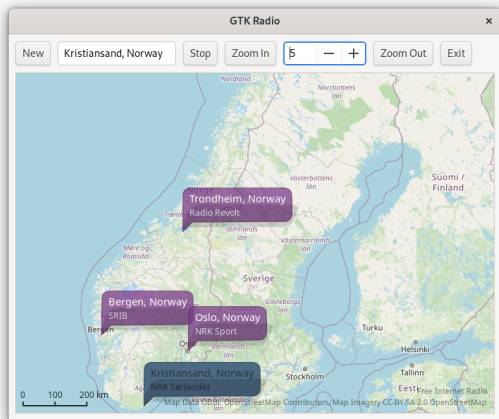## Supreme Court, Washington, DC (CSPAN) broadcasts on GNOME 46

GTK Radio for GNOME 46
Oslo (NRK) broadcasts on GNOME 46

GTK Radio for GNOME 46
Kristiansand (NRK Sørlandet) broadcasts on GNOME 46

Packaging

Fedora Core 40 software installation packages of GTK Radio for GNOME 46 for the computer hardware architecture x86_64 and Source are now available for download and installation with the package management and network installation system tools rpm and dhf.

Fedora Core 40 x86_64 RPM installation

☸ sudo dnf install http://www.aamotengineering.com/~ole/fedora/RPMS/x86_64/gtk-radio-384.0-1.fc40.x86_64.rpm

Fedora Core 40 Source RPM Installation

- sudo dnf install gnome-common
- sudo dnf install intltool libtool gtk-doc geoclue2-devel yelp-tools
- sudo dnf install gstreamer1-plugins-bad-free-devel geocode-glib-devel
- sudo dnf install libchamplain-devel libchamplain-gtk libchamplain geoclue2
- sudo rpm -Uvh http://www.aamotengineering.com/~ole/fedora/SRPMS/gtk-radio-384.0-1.fc40.src.rpm
- sudo rpmbuild -ba /root/rpmbuild/SPECS/gtk-radio.spec
- sudo rpm -Uvh /root/rpmbuild/RPMS/*/gtk-radio-384.0*.rpm

Section 2

Compiling from Source

Compiling GTK Radio on GNOME 46
gtk-radio 384.0

```
git clone https://gitlab.stud.idi.ntnu.no/olekaam/radio.git
cd radio
./autogen.sh
./configure
sudo make install
gnome-radio
```

The new application org.gnome.Radio is available with live audio broadcasts for GNOME 46.

org.gnome.Radio is developed on the GNOME 46 desktop platform with GNOME Maps, GeoClue, libchamplain and geocode-lib and it requires at least GTK and GStreamer 1.0 for audio playback.

The latest org.gnome.Radio release during GUADEC 2022 (between July 20-25, 2022) features BBC World Service from London, United Kingdom and is available from https://www.aamotengineering.com/~ole/radio/
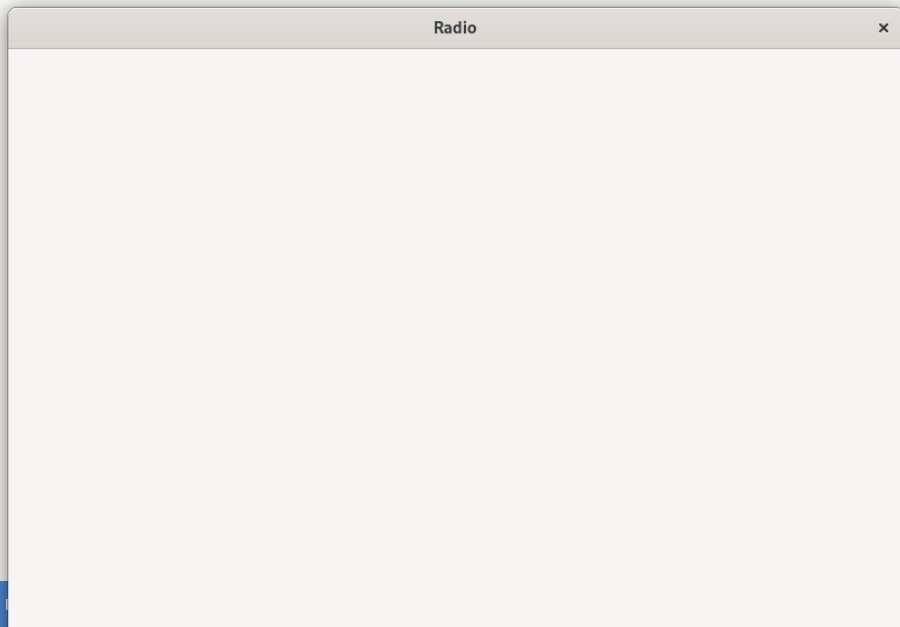
GTK Radio 46 - org.gnome.Radio
org.gnome.Radio.c

```c
#include <gst/player/player.h>
#include <gtk/gtk.h>
static void activate(GtkApplication * app, gpointer user_data) {
  GtkWidget *window; GstPlayer *player;
  window = gtk_application_window_new(app);
  gtk_window_set_application (GTK_WINDOW(window),
                              GTK_APPLICATION(app));
  gtk_window_set_title(GTK_WINDOW(window), "Radio");
  gtk_window_set_default_size(GTK_WINDOW(window), 800, 600);
  gtk_widget_show(window);
  player = gst_player_new (NULL,
    gst_player_g_main_context_signal_dispatcher_new(NULL));
  gst_player_set_uri (GST_PLAYER (player),
    "http://stream.live.vc.bbcmedia.co.uk/bbc_world_service");
  gst_player_play (GST_PLAYER (player));
}
int main(int argc, char **argv) {
  GtkApplication *app;
  int status;
  gst_init(&argc, &argv);
  gst_init(NULL, NULL);
  app = gtk_application_new("org.gnome.Radio",
                            G_APPLICATION_FLAGS_NONE);
                            g_signal_connect(app, "activate",
                            G_CALLBACK(activate), NULL);
  status = g_application_run(G_APPLICATION(app), argc, argv);
  g_object_unref(app);
  return status;
}
```

org.gnome.Radio for GNOME 46

BBC World News (BBC) broadcasts on GNOME 46

Compiling org.gnome.Radio in GNOME Builder
org.gnome.Radio is available with meson build system

GNOME Builder is a Graphical Development Tool released by Christian Hergert who presented it at GUADEC 2015.

See https://wiki.gnome.org/Apps/Builder for details on how to install it. After you have installed GNOME Builder, you can clone the GTK Radio for GNOME 46 repository on Gitlab and built it.

- git clone https://gitlab.stud.idi.ntnu.no/olekaam/radio.git
- cd radio
- meson build .
- cd build/
- sudo ninja install
- org.gnome.Radio

Three options for running the new application gtk-radio from GNOME Shell and GNOME Terminal:

1. Click on Activities and select the GTK Radio icon.
2. Search for "gtk-radio" in the search box.
3. Type "`gtk-radio`" and hit Enter in GNOME Terminal if you are unable to find the Radio icon in GNOME 46 and GNOME Shell.

Questions?
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- https://gitlab.gnome.org/oleaa/gtk-radio.git
- https://wiki.gnome.org/Apps/Radio
- https://www.aamotengineering.com/~ole/radio/