Digital Radio
The Powerful Tool for USB Transmitter
Written by Stefano Grassi

Version 1.0.4

Description

Digital Radio is a powerful tool for the management of the USB Trasmitter 6 Channels with a new User Interface and functions, it can perfectly replace the original t6config application.
It is compatible with the following models (V1 and V2 versions):

- HobbyKing HK-T6A
- FlySky FS-CT6A
- Turborix TBXT6
- Exceed RC
- Storm ST-06TX
- CopterX CX-CT6A
- Jamara FCX 6

It runs on Microsoft Windows and Linux (tested on Ubuntu Desktop 10.10). <u>The executable file is the same</u>. By downloading the *Thesaurus* file you can switch between different languages for the User Interface.

System Requirements

Microsoft Windows
Digital Radio needs the Microsoft .NET 2.0 Framework (or newer) to run. If you have Microsoft Vista or above you already have this component, on Microsoft Windows 2000 or XP the framework could be already installed, it depends on the status of your updates.

If you run DigitalRadio.exe and obtains the following error:

The application failed to initialize properly (0x0000135). Click OK to terminate the application.

you need to download the .NET Framework 2.0 or newer from the Microsoft web site.

Digital Radio works with the same USB to Serial cable used with the original t6config software and the same driver.

You need to know the serial port mapped on you system, for example COM6. You need to check the right COM port in the Device Manager.

Digital Radio can be used as a virtual joystick using the vJoy library.

Linux
Digital Radio needs the Mono library[1] (an open source implementation of Microsoft's .Net Framework) and the download of the Visual Basic 2005 runtime libraries for Mono.
The Ubuntu Desktop distribution has already Mono installed and you have only to download the Visual Basic 2005 runtime libraries, for other distributions you have to check the software repository of reference.

Demo version

In the demo version the following features have been removed:
- Open Selection
- Export Settings
- Export Excel/Calc
- Calibration
- Print Settings
- Backup/Restore settings

Setup

There isn't a real setup for Digital Radio, as it can be executed where you want.

Microsoft Windows

1. Save the files DigitalRadio.exe and License.lic (if you are running the registered version) in a folder. If you want you can create a shortcut in the Start Menu or Desktop
2. Plug the cable, turn on your radio and run the software.

If the registered version of DigitalRadio.exe doesn't find the license the software will show a window asking the Email Address used to pay and register the software with PayPal. In this step you must have an Internet connection working. After a positive check the License.lic file will be created.

At the first execution you need to connect to the serial port, using the Connect button/menu item.

In the next executions, if you plug the cable before the use with the radio turned on, the software will autoconnect and you will see your settings (if the serial port is always the same and if you have enabled the Settings Autoretrieving option).

If you select a wrong port you have to disconnect using the Disconnect button/menu item and then connect again.

Linux (Ubuntu Desktop)

Similar steps of the Microsoft Windows setup, with the following differences:
1. You need to enable the support of the Prolific cable in the kernel, by adding the following line into the loader.conf file[2] uplcom_load="YES"
2. You need to download the Visual Basic 2005 runtime libraries for Mono from the Mono repository for Ubuntu http://badgerports.org. Read that page for the steps to add a new Software Repository (for other distributions check the software repository of reference and/or the manual of your Linux system).
3. You need to run the Digital Radio software from the command line using this syntax: mono DigitalRadio.exe

Usage

Digital Radio can work in 2 different way: Automatic and Manual Update Mode.

In the Automatic Mode every change is sent immediately to the radio, with the Manual Mode you can do more modifications and then send them to the radio. Every trasmission is requested back and checked, to ensure the integrity of the data in the radio.

Channel Description
You can edit your channels description with the Channel Description button, the texts will be associated and saved with your settings.

Import
With the Import function you can load previous t6config files: when you open a t6config file the software switch to Manual Mode and you have to send manually the settings to the radio.

Export
With the export function you can save the current settings in the t6config file format: in this way the t6config format is a way to exchange settings between the applications or different users.

Open Settings
Save Settings
You can save the current settings or load a previous ones even if the radio is turned off or disconnected. In the Open/Save dialog box, at the bottom position, there is the link with the real position of the Settings file. This location depends on you operative system (Windows 2000, XP, Vista or Seven).
If the radio isn't present the Update Mode box is disabled.

Excel/Calc Export
With this function you can save all the database settings in a csv (Comma Separated Values) text file, that you can open using Microsoft Excel or OpenOffice Calc. The separator character can be chosen between Comma, Semicolon and Tab in the User Preferences dialog box.

Calibration
Using this procedure you can to recalibrate the A-D encoders for the joysticks, the trims and the knobs. Be careful with this function, because you change the internal parameters of the radio. So after a calibration even if you didn't change your settings you may have a difference in the servo movements.

During the calibration you have to move the sticks and the trims at their extreme position, in this way:
1. Sticks at the extreme left and down position, trims on the left or down position
2. Sticks at the extreme right and up position, trims on the right or up position
3. Move the knobs at their extreme position
4. Press Stop Calibration

During the calibration procedure no data are received from the radio, the power led on the radio and the Sync light on the software flash. All the user interface, except the Stop Calibration button, is disable.

Backup Database

With this function you can save the current database in a different folder for backup.

Restore Database

With this function you can restore a previously saved copy of the database. The current database will be overwritten.

User Preferences

You can change the following features:
- channel bars color
- enable/disable the Settings Autoretrieving at startup option
- the Excel/Calc export separator character
- the display of the internal channel value on the bar

The user preferences are saved when the application is closed and after a successful connection with the radio.

Cable Disconnection

You have to close the application before disconnecting the USB cable.

Keyboard shortcut

F2	Save Settings
F3	Open Settings
F4	Get Settings
F5	Send Settings

Make me Portable

This function copies into the selected folder all the files needed to run the software as a Portable Application, for example on a USB stick.

Enable Joystick

If you have installed the vJoy library[3] this icon is shown on the toolbar. By clicking this button Digital Radio starts to *feed* the virtual joystick with the channel data receiving from the radio, so it can be used as a joystick. This feature is available only for Microsoft Windows.

Multilingual User Interface support

If you copy the Thesaurus[4] file into the same folder of the .exe file this icon is shown on the toolbar. By clicking this button you can choose the language for the User Interface of the software. The number of supported languages will increase after the initial release.

---

[1] http://www.mono-project.com
[2] http://manpages.ubuntu.com/manpages/karmic/man4/uplcom.4freebsd.html
[3] http://vjoystick.sourceforge.net
[4] http://www.sgr.info/usbradio/utils.htm

Last update: 30 September 2014