Welcome to the 3DNUS Readme.pdf File.

This file is READ ONLY! This file was Updated as of "Monday, April 04, 2016"

This file Contains the Following.

# Index:

- 1. Basics
- 2. Overview
- 3. Tutorial(s)
- 4. Extension Manager
- 5. Citra Emu
- 6. The DevKit
- 7. NANDify
- 8. Troubleshooting
- 9. Credits

# **Basics:**

3DNUS is a NUS Downloader that allows (you) to download 3DS Titles (Software) & Firmware's.

3DNUS is also Completely Free, and is also Non-Profit, meaning we Do NOT make any Money off of this Project! Do keep in mind, that we may Stop the Project at ANY point in time. Anyone may take FULL responsibility over the Project, and must give us & Ground Full Credit. Although, we aren't planning on stopping the Project any time soon.

3DNUS does support Firmware's 2.x.x to 10.x.x (Or Latest). Do keep in mind, that some titles have been removed from Nintendo's update servers, most likely since they were old, and took up space on their servers.

3DNUS does use the NUS Servers (Nintendo Update Service).

# Overview:





3DNUS has a Simple, and Slim Design (2.6 on Left, 2.4.2 On Right). You can enter the Title or Firmware you wish to Download & Pack, and the Region/Version. You also have the Option to change the Title list, whether that's for New3DS or Old3DS.

Below, you can see the Log console. Each log is Timestamped, and you can see whenever title is downloaded & packed. Towards the bottom, you can see the Version, and Build/Codename.

At the very top, you can see the File/Edit/Help options. Where you can launch the Extension Manager, and view help forums, and change the Settings.

The Syntax for downloading Firmware's/Titles is simple! In the first textbox type the Title ID, and in the Second type the Region/Version Number.

Here's an example: "4.1.0-23" – "USA or U", without quotes.

Supported Firmware's are as Follows:

- 2.x.x
- 3.x.x
- 4.x.x
- 5.x.x
- 6.x.x
- 7.x.x
- 8.x.x
- 9.x.x
- 10.x.x

Supported Titles are unknown, but you cannot Download Titles from the eShop servers.

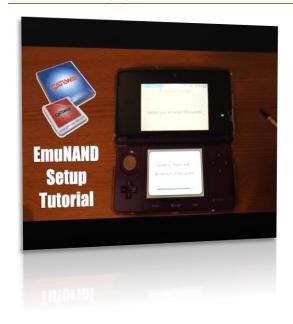
Only Titles such as (Examples):

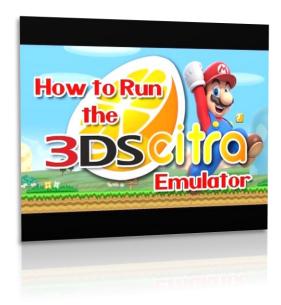
- eShop App
- Nintendo 3DS Camera
- Nintendo 3DS Sound
- AR Games
- Nintendo Zone Viewer
- Web-Browser
- Friend-list
- Game Notes
- Mii-Verse
- Notifications
- Settings
- Game-Card Loader
- Face Raiders
- Activity log
- Mii Maker
- Download Play
- Health & Safety Information
- Mii Plaza
- Theme Manager
- Amiibo Settings
- Badges Manager

The 3DS' Web-Browser is also based off of an Older version of the Firefox Engine. Although, it only Supports HML 3.1/4.0/4.1 and a Basic Version of CSS & PHP.

The Web-Browser sometimes may/may not download, if this is the Case, you can search for the Packed ".cia" on the Web (Internet).

# Tutorial(S):





Setup 3DS Emu NAND via Gateway (Mr. Mario2011)

3DS | Citra Emu Tutorial (Simply Austin)

- Requires a Gateway 3DS Cart
- Requires a SD Card 4GB+
- Requires a Nintendo 3DS/3DS XL/2DS/n3DS

# **Extension Manager:**





The Extension manager is rather easy to use, you can install Extensions, and launch extensions.

Currently (As of the writing/update of this Readme) the extension manager is Slot based. In the (hopefully) distant future, the Extension manager will NOT be Slot based, rather it'll be Completely Folder based.

To compile (Make) extensions, you can use any Means that you wish to use to create Applications. You can use these for example: "Visual Studio 2008-2015", you can even make your Extensions in GitHub, but that's for more advanced programmers.

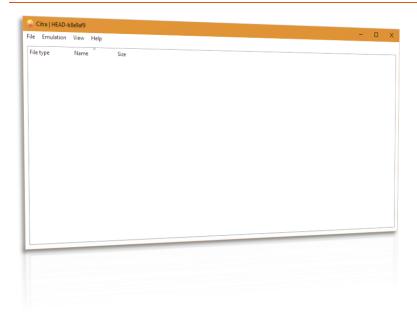
The Preloaded Extensions are as Follows: "Citra Emu, the DevKit, and NANDify".

For now, you can install up to 12 Extensions. Although, there are still some Small bugs, but they shouldn't hinder you from using the Extension Manager fully.

Currently (As of the writing/update of this Readme) some of the Settings do NOT Function at all, or very little. This will be changed in further updates/releases.

Go back to Index

# Citra Emu:



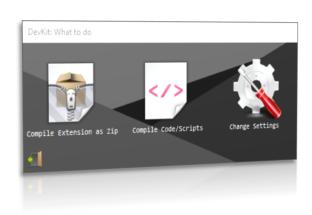
Citra Emu allows you to Run 3DS Roms and Executable's on your PC. Although, in order to do this, you WILL need a Graphics Card/Integrated GPU with OpenGL 3.0/3.1 Support, and Support for DirectX 10+.

Currently, Citra does NOT have a Specific Version/Build number, so we'll update it ever week. Since they're Nightly Builds.

# Supported File Types:

- 3DS
- 3DSX
- CCI
- CXI
- ELF
- AXF

# The DevKit:

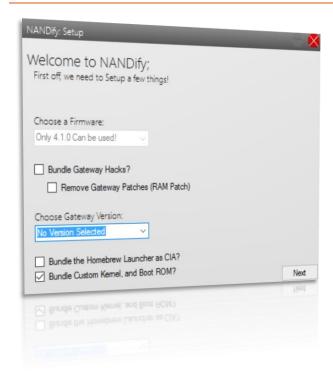




The DevKit allows you to create Scripts, and create Information Files. You can also Compile Extensions into a ZIP file.

For Example: "ext\_desc.ini" & "ext\_desc\_long.ini".

# NANDify:



NANDify allows you to Manage Emu NANDS, and Create new Emu NANDS & Export them to an SD Card. You can also manage Emu NANDS for Citra (Not as of Now).

You can also Bundle Gateway, and other Kernel Hacks Straight into the Emu NAND file!

# Troubleshooting:



As of now, the Troubleshooting section is Empty or is not Complete!



## Q: 3DNUS Return's an Error Stating that the FW/Title isn't Available;

This is usually caused by the FW/Title not being Compatible w/3DNUS.

Try another FW Version or Title.

## Q: 3DNUS Freeze's when Downloading, or Will Not Respond.

Be patient, when downloading 3DNUS Will disable itself to ensure that nothing go's wrong. When it Freeze's, you may need to just wait or Force Close the Application.

## Q: 3DNUS Return's an Error Stating that an Exception Has Occurred;

Preventing the App from Continuing.

This is a common Problem, try clicking Continue and see if it works, if not, try again with another FW/Title.

## Q: 3DNUS Suddenly Crash's for No Reason!

Well there must be a Reason, but try Installing the Latest .NET 4.5 Framework & Power Pack 3.1 or 3.2.

# Q: 3DNUS Will Not Open or Crash's Immediately!

Repeat the Step's as of the One Above.

Note: 3DNUS is Compiled for x64 (x64 bit) Versions of Windows (Or Wine/Linux).

As of now there is no x32 (x32 bit) Version of 3DNUS.

It should be Obvious that you can't run x64 Apps on a x32 Version of Windows (Or Wine/Linux).

### Q: 3DNUS Return's the Error Stating that it can NOT Connect to the NUS Servers!

Try again later, Nintendo's Server's may be under some Load (Or heavy Load).

If it still doesn't work, make sure that 3DNUS is Permitted to Connect through your Proxy or DNS/Firewall (etc.);

NOTE: Make sure that your Router isn't blocking the NUS (Nintendo Update Service) server's as well!

### Q: The Updater Fails to load, or Won't do anything!

Try installing the Latest .NET FW and Power pack REDIST (Power packs 10.0).

If the Problem persists, contact me via PM or @Email.

Also, make sure you have an Internet Connection!

## Q: The Compatibility Checker fails on: Windows Version.

The Version of Windows you may be using, is Incompatible w/3DNUS!

If you're running the Program in Compatibility Mode (Windows Vista/SP1/SP2/XP/SP1/SP2/SP3),

then try Turning it off or use a New Version of Windows (Ex: Windows 7 or Windows 8/8.1)

Incompatible Windows Versions: Windows 95, 98, ME, 2000, XP, and Vista.

Compatible Windows Versions: Windows 7, 8, 8.1, and 10.

## Q: The Compatibility Checker is Stuck on Windows Version!

This Seems to be a Rare Issue, if your Using a Guest account, or an Account w/a Group Policy

being used (Schools, & Org's use this) then you may need to get Admin Access, or Try again on another Computer.

### Q: The Compatibility Checker fails on: Component Issues.

Make sure that PowerPacks10.0(In REDIST) is Installed, or Repair it.

Also, make sure that the Latest Version of .NET and its Updates Are Installed!

## Q: How does the Config Work?

The Config is loaded when the Splash-Screen is Loaded, after a Few Seconds

there is some small white text saying, "Config Loaded!" in the Bottom Left Corner.

In the Bottom Right Corner, there is the Version + Build Number.

Each Configuration is Saved as Separate Files ("Ex: adv\_dns.cfg"), this file Either contains a "0" or "1", "1" States for True while "0" States for False. If the Config File is empty, then the Default Value will be False (0).

Having separate Config Files is way easier to manage, and is also safer. For example, let's say that the Config was stored in one File (Ex: config.cfg); The Program would have to read one line at a time, plus that would be too much of a Hassle. What if you Deleted the Config File? Your entire Configuration would be reset to Defaults! Having separate Configs allow's you to Backup separate Configs, and is Generally Safer! If a Config File is Removed, the Program will still operate, but the Config File will be Re-Written to a Default Value (0 or 1). Some Config Files will have "default" or FW Versions (Ex: 7.1.0-17\_USA).

Config Files like, "adv\_dns\_p" or "adv\_dns\_s" will have values such as; "0.0.0.0" or "8.8.8.8", but aren't defaults. Note: DNS and Proxy Options will be Ready around "2.7 or 2.8". Now that's just the Basic's on how the Config works for the Settings Manager.

# Credits:

Original work by @Ground, currently Maintained by @Dr.Hacknik.

New Download Code & Parser by @MarcuzD/MarcusD

And Thanks to Voxel Studio's for the Encouragement.

### **Emu Nand Tool**

3DNUS & it's components use Either Home-made Software or Open-Source software.

© 2014-2016 @Dr.Hacknik.

® Nintendo 2016

# The Following are the Open-Source License(s):

# **GPL License:**

The Foundations of the GPL

Nobody should be restricted by the software they use. There are four freedoms that every user should have:

the freedom to use the software for any purpose,

the freedom to change the software to suit your needs,

the freedom to share the software with your friends and neighbors, and

the freedom to share the changes you make.

When a program offers users all of these freedoms, we call it free software.

Developers who write software can release it under the terms of the GNU GPL. When they do, it will be free software and stay free software, no matter who changes or distributes the program. We call this copyleft: the software is copyrighted, but instead of using those rights to restrict users like proprietary software does, we use them to ensure that every user has freedom.

We update the GPL to protect its copyleft from being undermined by legal or technological developments. The most recent version protects users from three recent threats:

Tivoization: Some companies have created various different kinds of devices that run GPLed software, and then rigged the hardware so that they can change the software that's running, but you cannot. If a device can run arbitrary software, it's a general-purpose computer, and its owner should control what it does. When a device thwarts you from doing that, we call that tivoization.

Laws prohibiting free software: Legislation like the Digital Millennium Copyright Act and the European Union Copyright Directive make it a crime to write or share software that can break DRM (Digital Restrictions Management; see below). These laws should not interfere with the rights the GPL grants you.

Discriminatory patent deals: Microsoft has recently started telling people that they will not sue free software users for patent infringement—as long as you get the software from a vendor that's paying Microsoft for the privilege. Ultimately, Microsoft is trying to collect royalties for the use of free software, which interferes with users' freedom. No company should be able to do this.

Version 3 also has a number of improvements to make the license easier for everyone to use and understand. But even with all these changes, GPLv3 isn't a radical new license; instead it's an evolution of the previous version. Though a lot of text has changed, much of it simply clarifies what GPLv2 said. With that in mind, let's review the major changes in GPLv3, and talk about how they improve the license for users and developers.

Neutralizing Laws That Prohibit Free Software — But Not Forbidding DRM

You're probably familiar with the Digital Restrictions Management (DRM) on DVDs and other media. You're probably also familiar with the laws that make it illegal to write your own tools to bypass those restrictions, like the Digital Millennium Copyright Act and the European Union Copyright Directive. Nobody should be able to stop you from writing any code that you want, and GPLv3 protects this right for you.

It's always possible to use GPLed code to write software that implements DRM. However, if someone does that with code protected by GPLv3, section 3 says that the system will not count as an effective technological "protection" measure. This means that if you break the DRM, you'll be free to distribute your own software that does that, and you won't be threatened by the DMCA or similar laws.

As usual, the GNU GPL does not restrict what people do in software; it just stops them from restricting others.

Protecting Your Right to Tinker

Tivoization is a dangerous attempt to curtail users' freedom: the right to modify your software will become meaningless if none of your computers let you do it. GPLv3 stops tivoization by requiring the distributor to provide you with whatever information or data is necessary to install modified software on the device. This may be as simple as a set of instructions, or it may include special data such as cryptographic keys or information about how to bypass an integrity check in the hardware. It will depend on how the hardware was designed—but no matter what information you need, you must be able to get it.

This requirement is limited in scope. Distributors are still allowed to use cryptographic keys for any purpose, and they'll only be required to disclose a key if you need it to modify GPLed software on the device they gave you. The GNU Project itself uses GnuPG to prove the integrity of all the software on its FTP site, and measures like that are beneficial to users. GPLv3 does not stop people from using cryptography; we wouldn't want it to. It only stops people from taking away the rights that the license provides you—whether through patent law, technology, or any other means.

**Stronger Protection Against Patent Threats** 

In the 17 years since GPLv2 was published, the software patent landscape has changed considerably, and free software licenses have developed new strategies to address them. GPLv3 reflects these changes too. Whenever someone conveys software covered by GPLv3 that they've written or modified, they must provide every recipient with any patent licenses necessary to exercise the rights that the GPL gives them. In addition to that, if any licensee tries to use a patent suit to stop another user from exercising those rights, their license will be terminated.

What this means for users and developers is that they'll be able to work with GPLv3-covered software without worrying that a desperate contributor will try to sue them for patent infringement later. With these changes, GPLv3 affords its users more defenses against patent aggression than any other free software license.

Clarifying License Compatibility

If you found some code and wanted to incorporate it into a GPLed project, GPLv2 said that the license on the other code was not allowed to have any restrictions that were not already in GPLv2. As long as that was the case, we said the license was GPL-compatible.

However, some licenses had requirements that weren't really restrictive, because they were so easy to comply with. For example, some licenses say that they don't give you permission to use certain trademarks. That's not really an additional restriction: if that clause wasn't there, you still wouldn't have permission to use the trademark. We always said those licenses were compatible with GPLv2, too.

Now, GPLv3 explicitly gives everyone permission to use code that has requirements like this. These new terms should help clear up misunderstandings about which licenses are GPL-compatible, why that is, and what you can do with GPL-compatible code.

**New Compatible Licenses** 

In addition to clarifying the rules about licenses that are already GPL-compatible, GPLv3 is also newly compatible with a few other licenses. The Apache License 2.0 is a prime example. Lots of great free software is available under this license, with strong communities surrounding it. We hope that this change in GPLv3 will foster more cooperation and sharing within the free software community. The chart below helps illustrate some common compatibility relationships between different free software licenses:

A chart illustrating compatibility relationships between different free software licenses. For details, see the FSF's license list page.

Arrows pointing from one license to another indicate that the first license is compatible with the second. This is true even if you follow multiple arrows to get from one license to the other; so, for example, the ISC license is compatible with GPLv3. GPLv2 is compatible with GPLv3 if the program allows you to choose "any later version" of the GPL, which is the case for most software released under this license. This diagram is not comprehensive (see our licenses page for a more complete list of licenses compatible with GPLv2 and GPLv3), but plainly illustrates that GPLv3 is compatible with just about everything GPLv2 is, and then some.

The GNU Affero GPL version 3 has also been brought into the fold. The original Affero GPL was designed to ensure that all users of a web application would be able to receive its source. The GNU Affero GPL version 3 broadens this goal: it is applicable to all network-interactive software, so it will also work well for programs like game servers. The additional provision is also more flexible, so that if someone uses AGPLed source in an application without a network interface, they'll only have to provide source in the same sort of way the GPL has always required. By making these two licenses compatible, developers of network-interactive software will be able to strengthen their copyleft while still building on top of the mature body of GPLed code available to them.

More Ways for Developers to Provide Source

One of the fundamental requirements of the GPL is that when you distribute object code to users, you must also provide them with a way to get the source. GPLv2 gave you a few ways to do this, and GPLv3 keeps those intact with some clarification. It also offers you new ways to

provide source when you convey object code over a network. For instance, when you host object code on a web or FTP server, you can simply provide instructions that tell visitors how to get the source from a third-party server. Thanks to this new option, fulfilling this requirement should be easier for many small distributors who only make a few changes to large bodies of source.

The new license also makes it much easier to convey object code via BitTorrent. First, people who are merely downloading or seeding the torrent are exempt from the license's requirements for conveying the software. Then, whoever starts the torrent can provide source by simply telling other torrent users where it is available on a public network server.

These new options help keep the GPL in line with community standards for offering source, without making it harder for users to get.

Less Source to Distribute: New System Libraries Exception

Both versions of the GPL require you to provide all the source necessary to build the software, including supporting libraries, compilation scripts, and so on. They also draw the line at System Libraries: you're not required to provide the source for certain core components of the operating system, such as the C library.

GPLv3 has adjusted the definition of System Library to include software that may not come directly with the operating system, but that all users of the software can reasonably be expected to have. For example, it now also includes the standard libraries of common programming languages such as Python and Ruby.

The new definition also makes it clear that you can combine GPLed software with GPL-incompatible System Libraries, such as OpenSolaris' C library, and distribute them both together. These changes will make life easier for free software distributors who want to provide these combinations to their users.

A Global License

GPLv2 talks about "distribution" a lot—when you share the program with someone else, you're distributing it. The license never says what distribution is, because the term was borrowed from United States copyright law. We expected that judges would look there for the definition. However, we later found out that copyright laws in other countries use the same word, but give it different meanings. Because of this, a judge in such a country might analyze GPLv2 differently than a judge in the United States.

GPLv3 uses a new term, "convey," and provides a definition for that term. "Convey" has the same meaning we intended for "distribute," but now that this is explained directly in the license, it should be easy for people everywhere to understand what we meant. There are other minor changes throughout the license that will also help ensure it is applied consistently worldwide.

When the Rules Are Broken: A Smooth Path to Compliance

Under GPLv2, if you violated the license in any way, your rights were automatically and permanently lost. The only way to get them back was to petition the copyright holder. While a strong defense against violations is valuable, this policy could cause a lot of headache when someone accidentally ran afoul of the rules. Asking all the copyright holders for a formal restoration of the license could be burdensome and costly: a typical GNU/Linux distribution draws upon the work of thousands.

GPLv3 offers a reprieve for good behavior: if you violate the license, you'll get your rights back once you stop the violation, unless a copyright holder contacts you within 60 days. After you receive such a notice, you can have your rights fully restored if you're a first-time violator and correct the violation within 30 days. Otherwise, you can work out the issue on a case-by-case basis with the copyright holders who contacted you, and your rights will be restored afterward.

Compliance with the GPL has always been the top priority of the FSF Compliance Lab and other groups enforcing the license worldwide. These changes ensure that compliance remains the top priority for enforcers, and gives violators incentive to comply.

The Latest and Greatest

Some of these changes probably seem less important to you than others. That's okay. Every project is different, and needs different things from its license. But odds are that a number of these improvements will help you and your work.

And taken as a whole, all these upgrades represent something more: we made a better copyleft. It does more to protect users' freedom, but it also enables more cooperation in the free software community. But updating the license is only part of the job: in order for people to get the benefits it offers, developers need to use GPLv3 for their projects, too. By releasing your own software under the new license, everyone who deals with it—users, other developers, distributors, even lawyers—will benefit. We hope you'll use GPLv3 for your next release.

If you'd like to learn more about upgrading your project to GPLv3, the FSF Compliance Lab would be happy to assist you. On our web site, you can find basic instructions for using the license, and an FAQ addressing common concerns that people have about it. If your situation is more complicated than that, please contact us and we'll do what we can to help you with your transition. Together, we can help protect freedom for all users.

Copyright © 2007 Free Software Foundation, Inc. <a href="http://fsf.org/">http://fsf.org/</a>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The GNU General Public License is a free, copyleft license for software and other kinds of works.

The licenses for most software and other practical works are designed to take away your freedom to share and change the works. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change all versions of a program--to make sure it remains free software for all its users. We, the Free Software Foundation, use the GNU General Public License for most of our software; it applies also to any other work released this way by its authors. You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things.

To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS

# **GNU License:**

0. Definitions.

"This License" refers to version 3 of the GNU General Public License.

"Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

"The Program" refers to any copyrightable work licensed under this License. Each licensee is addressed as "you". "Licensees" and "recipients" may be individuals or organizations.

To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work.

A "covered work" means either the unmodified Program or a work based on the Program.

To "propagate" a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

An interactive user interface displays "Appropriate Legal Notices" to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

#### 1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

#### 2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary.

3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

### 4. Conveying Verbatim Copies.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

### 5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

- a) The work must carry prominent notices stating that you modified it, and giving a relevant date.
- b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".
- c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.

d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

#### 6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

- a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.
- b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
- c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
- d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.
- e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, "normally used" refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

"Installation Information" for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

#### 7. Additional Terms.

"Additional permissions" are terms that supplement the terms of this License by making exceptions from one or more of its conditions.

Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this License with terms:

- a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or
- b) Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or
- c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or
- d) Limiting the use for publicity purposes of names of licensors or authors of the material; or
- e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or
- f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

All other non-permissive additional terms are considered "further restrictions" within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way.

#### 8. Termination.

You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10.

### 9. Acceptance Not Required for Having Copies.

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so.

### 10. Automatic Licensing of Downstream Recipients.

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to run, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License.

An "entity transaction" is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party's predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a

cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it.

#### 11. Patents.

A "contributor" is a copyright holder who authorizes use under this License of the Program or a work on which the Program is based. The work thus licensed is called the contributor's "contributor version".

A contributor's "essential patent claims" are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, "control" includes the right to grant patent sublicenses in a manner consistent with the requirements of this License.

Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.

In the following three paragraphs, a "patent license" is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To "grant" such a patent license to a party means to make such an agreement or commitment not to enforce a patent against the party.

If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. "Knowingly relying" means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.

A patent license is "discriminatory" if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

### 12. No Surrender of Others' Freedom.

If conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

### 13. Use with the GNU Affero General Public License.

Notwithstanding any other provision of this License, you have permission to link or combine any covered work with a work licensed under version 3 of the GNU Affero General Public License into a single combined work, and to convey the resulting work. The terms of this License will continue to apply to the part which is the covered work, but the special requirements of the GNU Affero General Public License, section 13, concerning interaction through a network will apply to the combination as such.

#### 14. Revised Versions of this License.

The Free Software Foundation may publish revised and/or new versions of the GNU General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies that a certain numbered version of the GNU General Public License "or any later version" applies to it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of the GNU General Public License, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide which future versions of the GNU General Public License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program.

Later license versions may give you additional or different permissions. However, no additional obligations are imposed on any author or copyright holder as a result of your choosing to follow a later version.

### 15. Disclaimer of Warranty.

THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

### 16. Limitation of Liability.

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

### 17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

**END OF TERMS AND CONDITIONS** 

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively state the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found.

<one line to give the program's name and a brief idea of what it does.>

Copyright (C) < year > < name of author >

This program is free software: you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation, either version 3 of the License, or (at your option) any later version.

This program is distributed in the hope that it will be useful,

but WITHOUT ANY WARRANTY; without even the implied warranty of

MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the

GNU General Public License for more details.

You should have received a copy of the GNU General Public License

along with this program. If not, see <a href="http://www.gnu.org/licenses/">http://www.gnu.org/licenses/</a>>.

Also add information on how to contact you by electronic and paper mail.

If the program does terminal interaction, make it output a short notice like this when it starts in an interactive mode:

This program comes with ABSOLUTELY NO WARRANTY; for details type 'show w'.

This is free software, and you are welcome to redistribute it

under certain conditions; type 'show c' for details.

The hypothetical commands `show w' and `show c' should show the appropriate parts of the General Public License. Of course, your program's commands might be different; for a GUI interface, you would use an "about box".

You should also get your employer (if you work as a programmer) or school, if any, to sign a "copyright disclaimer" for the program, if necessary. For more information on this, and how to apply and follow the GNU GPL, see <a href="http://www.gnu.org/licenses/">http://www.gnu.org/licenses/</a>>.

The GNU General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the GNU Lesser General Public License instead of this License. But first, please read <a href="http://www.gnu.org/philosophy/why-not-lgpl.html">http://www.gnu.org/philosophy/why-not-lgpl.html</a>.

Go back to Index