

---

# **Armadito Antivirus Documentation**

***Release 1.0***

**Teclib**

**Nov 03, 2017**



---

## Contents

---

<b>1</b>	<b>Introduction</b>	<b>3</b>
<b>2</b>	<b>Compilation</b>	<b>5</b>
2.1	Compilation on Linux . . . . .	5
2.2	Compilation on Windows . . . . .	10
<b>3</b>	<b>Installation</b>	<b>17</b>
3.1	Installation on Linux . . . . .	17
3.2	Installation on Windows . . . . .	18
<b>4</b>	<b>Configuration</b>	<b>19</b>
4.1	Configuration on Linux . . . . .	19
4.2	Configuration on Windows . . . . .	21
<b>5</b>	<b>Contribute</b>	<b>23</b>
<b>6</b>	<b>Licensing</b>	<b>25</b>
<b>7</b>	<b>FAQ</b>	<b>27</b>
<b>8</b>	<b>Screenshots</b>	<b>29</b>
8.1	Status board . . . . .	29
8.2	Scan . . . . .	30
8.3	Journal . . . . .	31





Armadito Antivirus is an open-source antivirus that protects your computers and servers from malware and viruses. It includes classical signature-based malware detection and provides innovative heuristic detection modules for binaries (MS-Windows and GNU/Linux) and for PDF documents.



# CHAPTER 1

---

## Introduction

---

**Armadito Antivirus** is an open-source antivirus that protects your computers and servers from malware. It includes classical signature-based malware detection and provides innovative heuristic detection modules for binaries (MS-Windows and GNU/Linux) and for PDF documents.

This project is designed in a way which allows anyone to improve anti-malware techniques' state of the art. For example, security experts are able to concentrate on anti-malware techniques only by developing their own modules in C language. This plugin system aims to encourage people to test and develop experimental techniques freely.

An intuitive and user-friendly interface gives access to all Armadito's features: on-demand scanning, real-time protection, quarantine zone, threat detection journal, etc. This interface has been developed using AngularJs/HTML5/CSS3 technology. Consequently, this graphical user interface aims to be multi-platform (Windows, Linux, Mac OS X).



# CHAPTER 2

---

## Compilation

---

### 2.1 Compilation on Linux

On linux, Armadito AV's sources are compiled using automake and autoconf to generate Makefiles. You can compile each part separately by ourself.

Sources are publicly available on [github.com](https://github.com), in separate git repositories :

- Core : <https://github.com/armadito/armadito-av>
- WebUI : <https://github.com/armadito/armadito-web-ui>
- SystrayUI : <https://github.com/armadito/armadito-systray-ui>
- Module Clamav : <https://github.com/armadito/armadito-mod-clamav>
- Module PDF : <https://github.com/armadito/armadito-mod-pdf>
- Module H1 : <https://github.com/armadito/armadito-mod-h1>
- Module Yara : <https://github.com/armadito/armadito-mod-yara>

#### 2.1.1 Armadito core

**Armadito core** corresponds to libarmadito library. Symbols exported from this library allows all modules libraries to use the same APIs.

Sources are publicly available on [github.com](https://github.com), you can get it with the following command :

```
$ git clone https://github.com/armadito/armadito-av.git -b DEV
```

#### Prerequisites

In order to build libarmadito, you need the following tools:

- automake/autoconf
- GNU make
- C compiler
- glib, libmagic, libxml2, libmicrohttpd, libcurl libraries and headers

To install the needed headers:

- Ubuntu:

```
apt-get install automake autoconf libtool libglib2.0-dev libmagic-dev libxml2-dev  
libjson-c-dev libmicrohttpd-dev libcurl4-openssl-dev
```

- Fedora:

```
dnf install automake autoconf libtool glib2-devel file-devel libxml2-devel json-c-  
devel libmicrohttpd-devel libcurl-devel
```

## Configuration

Once git repo cloned, you need to initialize the build using automake, autoconf and tools. A shell script **autogen.sh** is provided to ease this step:

```
$ ./autogen.sh  
+ aclocal --force  
+ libtoolize --force --automake --copy  
+ autoheader --force  
+ automake --foreign --add-missing --force-missing --copy  
+ autoconf --force
```

This will generate the **Makefile.in** files and the **configure** script.

**configure** script takes the following useful options:

- prefix=PREFIX** install architecture-independent files in PREFIX [default is /usr/local]
- enable-debug** enable debugging [default is yes]

The **PREFIX** directory will be used by **make install**. Its use is mandatory, unless building a package and installing in system directories, since building the scanning modules and the graphical user interface will need a libarmadito properly installed.

Building in a separate directory is highly recommended, unless you really want to clobber the source tree with objects, libraries, binaries and other stuff.

```
$ mkdir /home/joebar/build/libarmadito
```

Typical invocation of the configure script is:

```
$ /home/joebar/armadito-av/libarmadito/configure --prefix=/home/joebar/install --  
enable-debug
```

## Building

Once configured, build is easy:

```
$ make
```

## Installing

After build, installation is done by:

```
$ make install
```

This will install libraries, tools, header files... in the subdirectories of the **PREFIX** directory defined at configure time.

### 2.1.2 Armadito modules

Building is quite the same for each Armadito Antivirus' analysis modules. Build/Install all modules is not mandatory. Everyone has the choice of which modules to use within Armadito Antivirus.

**Warning:** Be sure you have built **Armadito core** library before trying to build any of these modules.

## Prerequisites

In order to compile Armadito ClamAV module, you need the following tools:

- automake/autoconf
- GNU make
- C compiler
- libarmadito (core)

Some modules have more external dependencies :

**armadito-mod-clamav :**

- libclamav library and headers. Ubuntu : libclamav-dev

**armadito-mod-yara :**

- libyara library and headers. Ubuntu : libyara-dev

**armadito-mod-h1 :**

- pas de dépendances supplémentaires

**armadito-mod-pdf :**

- pas de dépendances supplémentaires

## Clone

```
git clone -b DEV https://github.com/armadito/armadito-mod-clamav.git
git clone -b DEV https://github.com/armadito/armadito-mod-yara.git
git clone -b DEV https://github.com/armadito/armadito-mod-h1.git
git clone -b DEV https://github.com/armadito/armadito-mod-pdf.git
```

### Configuration

To initialize the build using automake, autoconf and tools, a shell script **autogen.sh** is provided to ease this step :

```
$ ./autogen.sh
+ aclocal --force
+ libtoolize --force --automake --copy
+ automake --foreign --add-missing --force-missing --copy
+ autoconf --force
```

This will generate the **Makefile.in** files and the **configure** script.

**configure** script takes the following useful options:

- prefix=PREFIX** install architecture-independent files in PREFIX [/usr/local]
- enable-debug** enable debugging [default is yes]

The **PREFIX** directory will be used by **make install**. Its use is mandatory, unless building a package and installing in system directories.

libarmadito use the **pkg-config** utility to specify compiling options relative to libarmadito. Since the **libarmadito.pc** specification file for **pkg-config** is not located in standard directory (usual **/usr/lib/pkgconfig**), invoking the configure script must use the **PKG\_CONFIG\_PATH** environment variable.

Building in a separate directory is highly recommended, unless you really want to clobber the source tree with objects, libraries, binaries and other stuff.

```
$ mkdir /home/joebar/build/modules/clamav
```

Typical invocation of the configure script is:

```
$ REPO_GIT/configure --prefix=/home/joebar/install --enable-debug PKG_CONFIG_PATH=/
 ↪/home/joebar/install/lib/pkgconfig
```

Note that the path specified in the value of **PKG\_CONFIG\_PATH** must be coherent with the **PREFIX** used in libarmadito installation (see **Armadito core** linux build section).

### Building

Once configured, build is easy:

```
$ make
```

### Installing

After build, installation is done by:

```
$ make install
```

This will install libraries, tools, header files... in the subdirectories of the **PREFIX** directory defined at configure time.

### 2.1.3 Armadito WebUI

Armadito WebUI relies on recent web technologies to provide a multi-platform graphical user interface for Armadito antivirus.

Sources are publicly available on [github.com](https://github.com/armadito/armadito-web-ui.git), you can get it with the following command :

```
$ git clone https://github.com/armadito/armadito-web-ui.git -b DEV
```

## Prerequisites

To run Armadito graphical user interface, you need:

- bower

## Installing node and bower

Installations are done as root.

Installing bower (must be done as root too):

```
$ npm install -g bower
```

## Installing modules in source tree

After cloning the repository, the source tree of the user interface must be configured :

```
$ cd /home/joebar/armadito-web-ui
$ bower install
```

## Configuration

Once git repo cloned, you need to initialize the build using automake, autoconf and tools. A shell script **autogen.sh** is provided to ease this step:

```
$ ./autogen.sh
+ aclocal --force
+ automake --foreign --add-missing --force-missing --copy
+ autoconf --force
```

This will generate the **Makefile.in** files and the **configure** script.

**configure** script takes the following useful options:

**--prefix=PREFIX** install architecture-independent files in PREFIX [default is /usr/local]

The **PREFIX** directory will be used by **make install**. Its use is mandatory, unless building a package and installing in system directories, since building the scanning modules and the graphical user interface will need a libarmadito properly installed.

Typical invocation of the configure script is:

```
$ /home/joebar/armadito-web-ui/configure --prefix=/home/joebar/install
```

## **Building**

Once configured, build is easy:

```
$ make
```

## **Installing**

After build, installation is done by:

```
$ make install
```

This will install libraries, tools, header files... in the subdirectories of the **PREFIX** directory defined at configure time.

## **Running the interface**

First, the Armadito daemon must be launched.

Open your web browser and go to the following URL :

<http://localhost:8888/app/index.html>

## **Debugging the interface**

Once the interface is launched:

- right-click in the window to display debug menu and select “Inspect” or tap F12
- in the inspector window, select the “console” tab

## **Build with grunt**

Install grunt :

```
npm install -g grunt-cli
```

Run *grunt* for building and *grunt serve* for preview.

You can use “–force” if you want to build with warnings.

## **2.2 Compilation on Windows**

**Danger:** Graphical user interface is under redesign and new version is not yet ported to Windows. That will be fixed as soon as possible.

On Windows, you can compile Armadito AV sources with Visual Studio. This has been tested with Visual Studio 2013. You might have to apply some modifications regarding to which Visual Studio’s version you use.

Tested on : Windows 7 64 bit with Service Pack 1.

Armadito solution for Visual Studio is divided in the following subprojects :

- **Driver**
  - ArmaditoGuard (driver sources)
  - ArmaditoGuard Package (driver package)
- **Libarmadito**
  - libarmadito (armadito core library)
- **Modules**
  - clamav\_a60 (clamav module)
  - moduleH1 (heuristic module)
  - modulePDF (PDF module)
- **Service**
  - ArmaditoSvc (analysis service)
- **Setup**
  - ArmaditoGuard-setup (driver installation)
  - Armadito-db-setup (setup project for module databases)
  - Armadito-setup (setup project for armadito)

## 2.2.1 Armadito core

Armadito core corresponds to libarmadito library. Symbols exported from this library allows all modules to use same API. On Windows, after build, a library called **libarmadito.dll** will be generated. For more simplicity, dependencies have been regrouped into a single zip archive automatically generated.

### Prerequisites

- Microsoft Visual Studio 2013 (Community edition or more)
- Armadito windows dependencies archive (deps-x.zip)

Uncompress **deps-x.zip** in armadito-av sources root directory. You should have then these exact dependencies paths :

```
SOMEWHERE\armadito-av\deps\glib\...
SOMEWHERE\armadito-av\deps\json-c\...
```

### Build

Open the armadito-av VS solution at location :

```
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\Armadito-AV.sln
```

Select project you intend to build in Solution's Explorer :

- **Core** : Lib-armadito\libarmadito
- **Module clamav** : modules\clamav\_a60
- **Module PDF** : modules\modulePDF
- **Module H1** : modules\moduleH1

Then, launch the build (Run).

Out folder could be one of these :

```
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\Debug
```

or

```
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\Release
```

If build has been successful, you should have these files :

Core :

```
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_mode]\conf\armadito.conf
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_mode]\glib-2-vs12.dll
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_mode]\gmodule-2-vs12.dll
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_mode]\gthread-2-vs12.dll
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_mode]\libarmadito.dll
```

Module clamav :

```
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_mode]\modules\clamav-a60.dll
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_mode]\libclamav.dll
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_mode]\libeay32.dll
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_mode]\ssleay32.dll
```

Module PDF :

```
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_mode]\modules\modulePDF.dll
```

Module H1 :

```
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_mode]\modules\moduleH1.dll
```

### 2.2.2 Armadito Windows Driver

Armadito Windows Driver is responsible of on-access protection of Armadito antivirus.

#### Prerequisites

- Microsoft Visual Studio 2013 (Community edition or more)
- Armadito windows dependencies archive (deps.zip)
- Windows Driver Kit 8.1

To get Windows Driver Kit 8.1 : <<https://www.microsoft.com/en-us/download/details.aspx?id=42273>>

**Warning:** Windows Driver Kit 8.1 goes **only** with MS Visual Studio 2013. You must get the WDK compatible to your Visual Studio version.

## Driver Signing

### Add your certificate to local store

- Open the Certificate Manager Tool (certmgr.msc)
- Go to **Certificates - Actual User > Personal > Certificates**
- Right-click on the folder and choose **All tasks > Import**
- Then, follow the assistant to import your certificate.

### Sign with your certificate

- Open Armadito-av solution in Visual Studio.
- Right-click on project **ArmaditoGuard** and select **Properties**.
- Go to **Configuration Properties > Driver Signing > General**.
- **Sign mode > Product Sign**.
- **Production Certificate > Select from store** and select your certificate previously added.
- Repeat the previous steps for the project **ArmaditoGuard Package**.

## Build

Open the armadito-av VS solution at location :

```
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\Armadito-AV.sln
```

Firstly, select **DriverArmaditoGuard** project in Solution Explorer and build it.

Then, select **Driver\ArmaditoGuard Package** project in Solution Explorer and build it.

Finally, select **Setup\ArmaditoGuard-setup** project in Solution Explorer and build it.

## Out

Out folder could be one of these :

```
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\Debug
```

or

```
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\Release
```

If build has been successful, you should have this file :

```
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_
↪mode]\driver\armaditoguard.cat
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_
↪mode]\driver\armaditoguard.inf
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_
↪mode]\driver\armaditoguard.sys
SOMEWHERE\armadito-av\build\windows\VS12\Armadito-AV\out\[build_
↪mode]\driver\ArmaditoGuard-setup.exe
```

### 2.2.3 Armadito gui

**Danger:** Graphical user interface is under redesign and new version is not yet ported to Windows. That will be fixed as soon as possible.

#### Installing prerequisites

The prerequisites are:

- node.js
- git (needed by bower)
- bower

#### Installing node and bower

First, download node.js from <https://nodejs.org/en/download/>, using either the .msi or the .exe installer, at your choice.

During installation, default configuration choices are OK.

Once node is installed, launch a command line.

Checking installation:

```
$ npm --version
2.15.1
```

Then install bower using:

```
$ npm install -g bower
```

#### Install git

To use bower, you must first install git.

git for windows is available here : <https://git-for-windows.github.io/>

Checking installation:

```
$ git version
2.8.1.windows.1
```

## Installing modules in source tree

Run bower from **armadito-web-ui** directory to install the needed modules:

```
$ cd SOMEWHERE/armadito-web-ui  
$ bower install  
$ npm install
```

This should output a lot of messages

## Running the interface

First, the Armadito daemon must be launched.

## Debugging the interface

Once the interface is launched:

- right-click in the window to display debug menu and select “Inspect” or tap F12
- in the inspector window, select the “console” tab

## Build with grunt

Install grunt :

```
npm install -g grunt-cli
```

Run *grunt* for building and *grunt serve* for preview.

You can use “–force” if you want to build with warnings.

---

**Note:** This project is generated with [yo angular generator] version 0.15.1.

---



# CHAPTER 3

---

## Installation

---

### 3.1 Installation on Linux

#### 3.1.1 Installation from sources

When installing Armadito AV from sources (either tarball or git clone), you must first build it. Refer to section **Compilation > Compilation on Linux** of this documentation for detailed instructions.

After proper configuration and build of the different parts (core, modules, gui), each part is simply installed by the following command:

```
$ make install
```

This will install libraries, tools, header files... in the subdirectories of the **PREFIX** directory defined at configure time.

This command must be repeated for each directory (core/, modules/\*/, gui/).

Care must be taken to configure each part with the same **prefix** so that the different components are installed at their respective locations.

#### 3.1.2 Installation from packages

##### Ubuntu distributions

Packages for Ubuntu distributions are available at:

**URL:** <<https://launchpad.net/~armadito/+archive/ubuntu/armadito-av>>

```
sudo add-apt-repository ppa:armadito/armadito-av
```

Note that this PPA is experimental and that graphical user interface is not yet packaged in a clean way.

## 3.2 Installation on Windows

### 3.2.1 Prerequisites

Packages redistribuables Visual C++ for Visual Studio 2013:

- vcredist\_x64.exe
- vcredist\_x86.exe

URL : <<https://www.microsoft.com/fr-fr/download/details.aspx?id=40784>>

### 3.2.2 Installation with MSI installer

1. Download and install prerequisites (see previous section)
2. Download armadito-av msi:
  - Armadito-db-setup-0.10.0.msi
  - Armadito-setup-0.10.0.msi
3. Install armadito-av modules' databases :  
Launch the installer Armadito-db-setup-0.10.0.msi
4. Install armadito-av (analysis service + graphical user interface)  
Launch the installer Armadito-setup-0.10.0.msi

### 3.2.3 Installation from Sources

1. Build the armadito-av sources from the Visual Studio solution project.

Follow instructions in **Compilation > Compilation on Windows** section of this documentation.

2. Copy module's databases files in repository:

```
SOMEWHERE\armadito-av\build\windows\VS\Armadito-AV\out\[build_
mode]\modules\DB
```

3. Install the driver by executing the following command in a prompt as administrator :

```
ArmaditoGuard-setup --install
```

4. Install the analysis service by executing the following command in a prompt as administrator :

```
ArmaditoSvc --installBoot (service started at system start)
```

or

```
ArmaditoSvc --install (service started on demand)
```

# CHAPTER 4

---

## Configuration

---

### 4.1 Configuration on Linux

Armadito AV's configuration on Linux is stored in two files :

- /etc/armadito/armadito.conf
- /etc/armadito/conf.d/on-access-linux.conf

---

**Note:** If you have compiled from sources, these configuration files are in your PREFIX directory.

---

**Warning:** Configuration presented in this document is used for illustration purposes only.

#### 4.1.1 On-demand scan

You are able to configure how on-demand scan works in **/etc/armadito/armadito.conf** :

```
[on-demand]
white-list-dir = "/boot"; "/dev"; "/etc"; "/proc"; "/run"; "/sys"; "/var"
mime-types="*"
modules="clamav"; "moduleH1"
max-size = 10048576
```

- **white-list-dir** : list of directories excluded from on-demand scan.
- **mime-types** : MIME types of files scanned during on-demand scan.
- **modules** : Modules used by on-demand scan.
- **max-size** : Maximum size of scanned files during on-demand scan.

### 4.1.2 On-access scan

Linux Armadito AV's on-access scan mainly relies on fanotify API. You can find further information on how it works by reading official man page : [fanotify man7](#).

Configuring on-access scan can be done by modifying `/etc/armadito/conf.d/on-access-linux.conf` :

```
[on-access]
enable=1
enable-permission=1
enable-removable-media=1
mount="/home"
directory="/var/tmp"; "/tmp"
white-list-dir = "/bin"; "/boot"; "/dev"; "/etc"; "/lib"; "/lib32"; "/lib64"
mime-types = "application/x-executable"; "application/pdf"; "application/zip"
modules = "clamav"
max-size = 10048576
```

- **enable** : enable (1) or disable (0) on-access scan.
- **enable-permission** : enable (1) or disable (0) permission check.
  - If **enabled**, files detected as malicious will be blocked by Armadito AV.
  - If **disabled**, files detected as malicious will only be notified.
- **enable-removable-media** : enable (1) or disable (0) removable media monitoring.
  - If **enabled**, removable media mount points will be added on the fly to the monitoring list.
- **mount** : list of directories that will be monitored by mount points. I.e. using FAN\_MARK\_MOUNT.
- **directory** : list of directories that will be monitored by recursively marking all subdirectories.
- **white-list-dir** : list of directories excluded from on-demand scan.
- **mime-types** : MIME types of files scanned during on-demand scan.
- **modules** : Modules used by on-demand scan.
- **max-size** : Maximum size of scanned files during on-demand scan.

### 4.1.3 Virus Alerts

When a virus is detected by Armadito AV, an alert report is generated and stored in a defined location. This can be configured by modifying `/etc/armadito/armadito.conf` :

```
[alert]
alert-dir = "/var/spool/armadito"
```

- **alert-dir** : directory where scan alerts will be stored.

### 4.1.4 Quarantine

To isolate infected files, Armadito AV can put detected files in quarantine. `/etc/armadito/armadito.conf` contains configuration about quarantine :

```
[quarantine]
enable = 0
quarantine-dir = "/var/lib/armadito/quarantine"
```

- **enable** : enable (1) or disable (0) quarantine.
- **quarantine-dir** : directory where will be moved files putted in quarantine.

## 4.2 Configuration on Windows

Armadito AV's configuration on Windows can be modified in the following file :

- <install\_dir>\Armadito-av\conf\armadito.conf

---

**Note:** By default, **install\_dir** is *C:\Program Files\Teclib*.

---

### 4.2.1 On-demand scan

You are able to configure how on-demand scan works in <install\_dir>\Armadito-av\conf\armadito.conf :

```
[on-demand]
white-list-dir = "C:\\wl-dir1\\"; "C:\\wl-dir2\\"
mime-types="*"
modules="clamav"; "moduleH1"
max-size = 10048576
```

- **white-list-dir** : list of directories excluded from on-demand scan (not yet implemented).
- **mime-types** : MIME types of files scanned during on-demand scan.
- **modules** : Modules used by on-demand scan.
- **max-size** : Maximum size of scanned files during on-demand scan.

### 4.2.2 On-access scan

You are able to configure how on-access scan works in <install\_dir>\Armadito-av\conf\armadito.conf :

```
[on-access]
enable = 0
mime-types="*"
modules="clamav"
```

- **enable** : enable (1) or disable (0) on-access scan.
- **mime-types** : MIME types of files scanned during on-access scan.
- **modules** : Modules used by on-access scan.

### 4.2.3 Virus Alerts

Not yet implemented.

#### 4.2.4 Quarantine

To isolate infected files, Armadito AV can put detected files in quarantine. <install\_dir>\Armadito-av\conf\armadito.conf contains configuration about quarantine :

```
[quarantine]
enable = 0
quarantine-dir = "quarantine"
```

- **enable** : enable (1) or disable (0) quarantine.
- **quarantine-dir** : sub directory where will be moved files put in quarantine.

# CHAPTER 5

---

## Contribute

---

As Armadito is an open source antivirus project, we greatly invite developers, engineers, partners, customers or anyone eager to boost technologies to collaborate in the software evolution.

By becoming part of a Teclib's community, you share your ideas and tips, exchange your knowledge and expertise with other members in order to fasten the development of Armadito's solution.

You can participate to the project in different ways, such as:

- installing Armadito antivirus
- submitting bug reports
- requesting new features
- developing your own scan module



# CHAPTER 6

---

## Licensing

---

Armadito antivirus can be divided in subprojects, which are the following :

- Armadito core
- Armadito web ui
- Armadito systray ui
- Armadito windows driver
- Armadito module clamav
- Armadito module PDF
- Armadito module H1

### Armadito core

- **Description** : Core library in C language.
- **License** : [GPLv3](#)
- **Github** : [armadito-av](#)

### Armadito web ui

- **Description** : Graphical User Interface with angularJs.
- **License** : [GPLv3](#)
- **Github** : [armadito-web-ui](#)

### Armadito systray ui

- **Description** : System tray integration.
- **License** : [GPLv3](#)
- **Github** : [armadito-systray-ui](#)

### Armadito windows driver

- **Description** : On-access scan Windows implementation in C using Windows Driver Kit.

- **License** : [MS-PL](#)
- **Github** : [armadito-windows-driver](#)

#### **Armadito module clamav**

- **Description** : Scan module using clamav library.
- **License** : [GPLv3](#)
- **Github** : [armadito-mod-clamav](#)

#### **Armadito module PDF**

- **Description** : Scan module used especially for PDFs analysis.
- **License** : [GPLv3](#)
- **Github** : [armadito-mod-pdf](#)

#### **Armadito module H1**

- **Description** : Heuristic scan module focusing on ELF/PE analysis. Based on work by the DAVFI project (<http://www.davfi.fr/>)
- **License** : [GPLv3](#)
- **Github** : [armadito-mod-h1](#)

## CHAPTER 7

---

### FAQ

---

---

**Note:** Feel free to ask on [forum.armadito.org](http://forum.armadito.org) if you have any question.

---



# CHAPTER 8

## Screenshots

Some screenshots :

### 8.1 Status board

The screenshot shows the user interface of the ARMADITO ANTIVIRUS software. On the left, there is a vertical navigation bar with three items: STATUS (highlighted in green), SCAN (in dark grey), and JOURNAL (in dark grey). The main area displays a large green checkmark icon on a computer monitor icon, indicating protection status. To the right of the icon, the text "Your computer is protected" is displayed. At the top right, there are links for "Parameters", "Statistics", and a question mark icon. Below the protection status, there are three status indicators: "On-access scan : OFF", "Databases update : ERROR", and "Last update : 08-12-2016 8:36". A table below shows the status of two modules:

Module	Date	Status
CLAMAV	08-12-2016 8:36	Up-to-date
MODULEH1	01-09-2014 9:30	Up-to-date

## 8.2 Scan

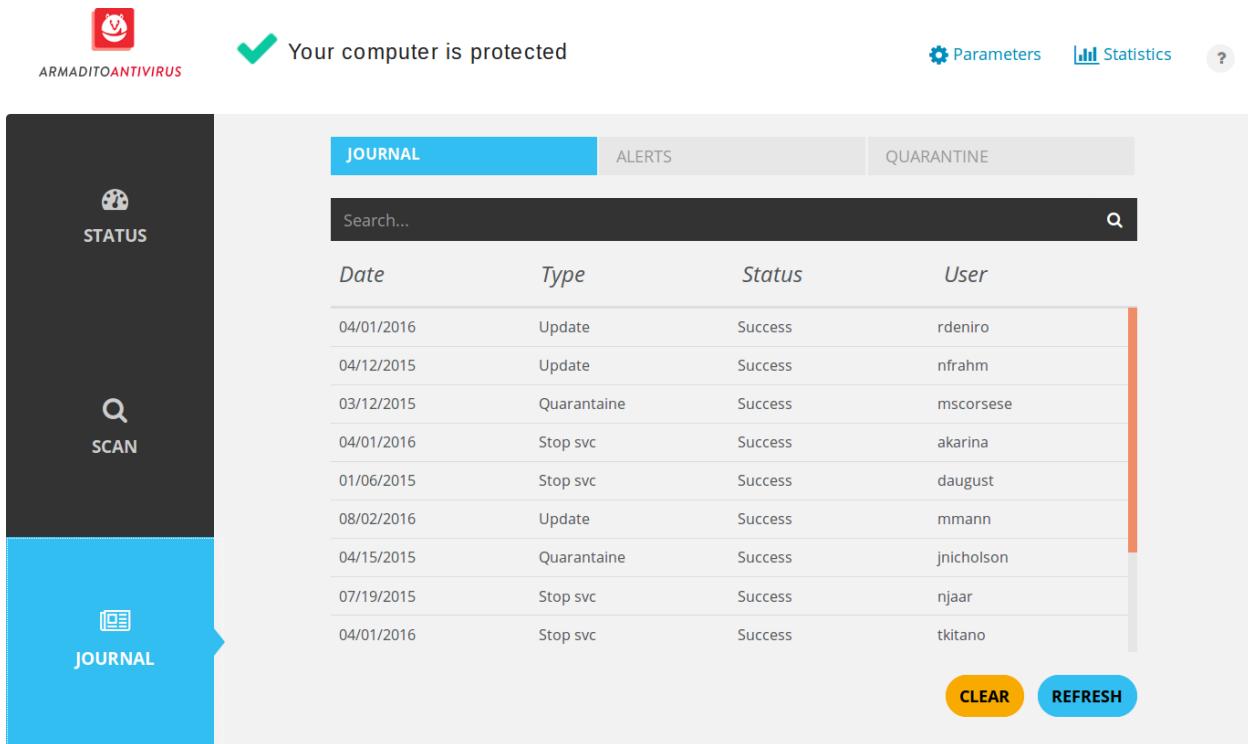
The screenshot shows the Armadito Antivirus application interface. On the left, there is a vertical sidebar with three tabs: 'STATUS' (selected), 'SCAN' (highlighted with a yellow background), and 'JOURNAL'. The main content area displays a scan summary with the following statistics:

On-demand scan	CUSTOM
Scanned	124
Malicious	110
Suspects	0

A progress bar indicates the scan is at 100%. Below the summary, a table lists the detected threats and their corresponding files:

Threats	Files
Pdf.Dropper.Agent-1507060	/home/vhamon/PDF_931FE142211DB71D4A101D41175C2292.pdf
Pdf.Dropper.Agent-1506680	/home/vhamon/PDF_683A3CE69FF7D521EF24B37DED206E64.pdf
Pdf.Dropper.Agent-1507058	/home/vhamon/PDF_851D895614645756999BD9F6E002C127.pdf
Pdf.Exploit.Agent-35955	/home/vhamon/PDF_25C8BFA4E24CC20CC56ECA4E3EB57673.tar
Pdf.Dropper.Agent-1506743	/home/vhamon/PDF_954F611F7A6D77050394D3C03FD05F77.pdf
Pdf.Dropper.Agent-1507026	/home/vhamon/PDF_975D4C98A7FF531C26AB255447127EBB.pdf
Pdf.Dropper.Agent-1506697	/home/vhamon/PDF_C0522399C51F160B5913983CE96AF47.pdf

## 8.3 Journal



The screenshot shows the Armadito Antivirus software interface. At the top, there's a status bar with the logo 'ARMADITOANTIVIRUS' and a message 'Your computer is protected'. To the right are links for 'Parameters', 'Statistics', and a question mark icon.

The main area has a sidebar on the left with icons for 'STATUS', 'SCAN', and 'JOURNAL'. The 'JOURNAL' icon is highlighted with a blue arrow pointing to it.

The central part of the interface has three tabs: 'JOURNAL' (which is selected), 'ALERTS', and 'QUARANTINE'. Below the tabs is a search bar with the placeholder 'Search...'. A magnifying glass icon is to the right of the search bar.

The main content area is a table with the following columns: Date, Type, Status, and User. The table lists several entries:

Date	Type	Status	User
04/01/2016	Update	Success	rdeniro
04/12/2015	Update	Success	nfrahm
03/12/2015	Quarantine	Success	mscorse
04/01/2016	Stop svc	Success	akarina
01/06/2015	Stop svc	Success	daugust
08/02/2016	Update	Success	mmann
04/15/2015	Quarantine	Success	jnicholson
07/19/2015	Stop svc	Success	njaar
04/01/2016	Stop svc	Success	tkitano

At the bottom right of the table area are two buttons: 'CLEAR' (yellow) and 'REFRESH' (blue).

**Forum** [forum.armadito.org](http://forum.armadito.org)

**IRC** #armadito at irc.freenode.net