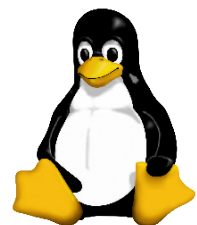
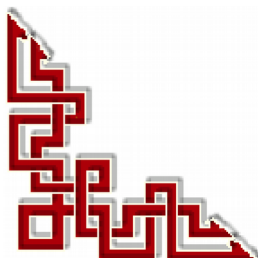


RF-232

Micronator

Kali Linux & KDE



© RF-232, Montréal 2014,
6447, avenue Jalobert, Montréal. Québec H1M 1L1

Tous droits réservés RF-232

Licence *GNU Free Documentation License*

Permission vous est donnée de copier, distribuer et/ou modifier ce document selon les termes de la Licence *GNU Free Documentation License*, version 1.3 publiée par la *Free Software Foundation*; sans section inaltérable, sans texte de première page de couverture et sans texte de dernière page de couverture. Une copie de cette licence est incluse dans la section appelée *GNU Free Documentation License* de ce document. *GFDL page:17*.

AVIS DE NON-RESPONSABILITÉ

Ce document est uniquement destiné à informer. Les informations, ainsi que les contenus et fonctionnalités de ce document sont fournis sans engagement et peuvent être modifiés à tout moment. *RF-232* n'offre aucune garantie quant à l'actualité, la conformité, l'exhaustivité, la qualité et la durabilité des informations, contenus et fonctionnalités de ce document. L'accès et l'utilisation de ce document se font sous la seule responsabilité du lecteur ou de l'utilisateur.

RF-232 ne peut être tenu pour responsable de dommages de quelque nature que ce soit, y compris des dommages directs ou indirects, ainsi que des dommages consécutifs résultant de l'accès ou de l'utilisation de ce document ou de son contenu.

Chaque internaute doit prendre toutes les mesures appropriées (*mettre à jour régulièrement son logiciel antivirus, ne pas ouvrir des documents suspects de source douteuse ou non connue*) de façon à protéger le contenu de son ordinateur de la contamination d'éventuels virus circulant sur la Toile.

Avertissement

Bien que nous utilisions ici un vocabulaire issu des techniques informatiques, nous ne prétendons nullement à la précision technique de tous nos propos dans ce domaine.

Sommaire

I-	Introduction.....	4
	1. Description générale.....	4
	1.1. Note au lecteur.....	4
	1.2. Conventions.....	4
II-	KDE.....	5
	1. Introduction.....	5
	2. Installation.....	5
	3. Partage de bureau.....	7
	3.1. Introduction.....	7
	3.2. Installation de KRFB.....	7
	3.3. Configuration.....	7
	4. Menu classique de KDE.....	8
	5. Synaptic.....	8
	5.1. Installation.....	8
	6. KDE en français.....	9
	7. Le centre d'aide de KDE.....	11
	7.1. Vérification.....	12
	8. Compte usager.....	12
	8.1. Création d'un usager.....	13
	Crédits.....	15
	GNU Free Documentation License.....	17

I- Introduction

1. Description générale

Ce document présente la marche à suivre pour installer **Kali Linux** sous **VirtualBox**.

Référence: http://fr.wikipedia.org/wiki/Kali_Linux

Kali Linux est une distribution **Linux** sortie le 13 mars 2013, basée sur **Debian**. La distribution a pris la succession de **Backtrack**. L'objectif de **Kali Linux** est de fournir une distribution regroupant l'ensemble des outils nécessaires aux tests de sécurité d'un système d'information.

Kali Linux est disponible sous forme de live **DVD**. Il est également possible de l'installer sur un disque dur, sur une clé **USB**, ou encore de mettre en place un démarrage **PXE**. Il est également possible de construire son propre **DVD** en utilisant les scripts **Debian live-build**. Cette distribution est utilisée par des auditeurs en sécurité des systèmes d'information comme **Lexsi** ou **ACESI**. **Jean-Bernard YATA**, expert en sécurité, la recommande auprès de ses clients dans le cadre de l'audit automatisé de premier niveau, permettant d'évaluer la sécurité intrinsèque d'un environnement.

1.1. Note au lecteur

* Les captures d'écrans ne sont que des références.

** Les informations écrites ont préséance sur celles retrouvées dans les captures d'écrans. Veiller à se référer aux différents tableaux lorsque ceux-ci sont présents.

1.2. Conventions

Toutes les commandes à entrer à la console sont en **gras**. Les affichages à surveiller sont en **rouge** ou en **bleu**.

```
# ping 192.168.1.149
192.168.1.149 is alive
#
```

Les liens de référence internet sont en [bleu](#) et ceux intra document en [bleu](#).



Manipulation, truc ou ruse pour se tirer d'embarras.



Une recommandation ou astuce.



Une note.



Une étape, note ou procédure à surveiller.



Paragraphe non complété ou non vérifié.

II- KDE

1. Introduction

Référence: <http://fr.wikipedia.org/wiki/KDE>

KDE est un projet de logiciel libre historiquement centré autour d'un environnement de bureau pour systèmes UNIX. Ce projet a évolué et il se compose maintenant d'un ensemble de technologies:

- **KDE Framework**, des bibliothèques et des **API** qui fournissent une couche d'abstraction logicielle multi-plate-forme,
- **Plasma**, un environnement de bureau,
- **KDE Applications**, un ensemble complet d'applications.

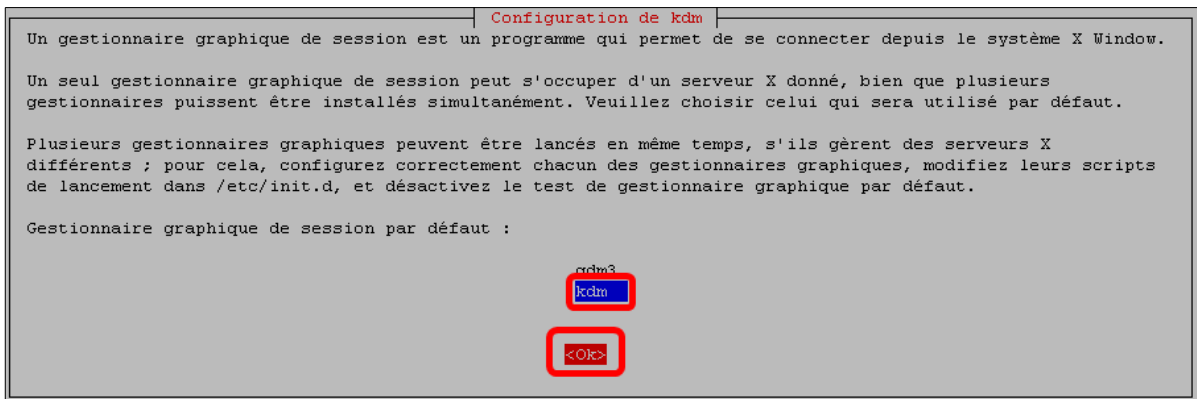
Ces technologies sont utilisées principalement avec les systèmes d'exploitation **Linux** et **BSD**. Le projet est également disponible avec un support variable mais croissant sous **Mac OS X** et quelques autres **UNIX** (**Solaris** notamment) ainsi que sous **Windows**.

2. Installation

Ouvrir un terminal et lancer la commande ci-dessous.

```
root@kali-linux-101:~# apt-get install kde-plasma-desktop -y
...
```

Au cours de l'installation il sera demandé de choisir un seul gestionnaire graphique, choisir alors **kdm** à l'aide du tabulateur puis **Entrée**.



L'installation se poursuit.

```
...
Paramétrage de plasma-scriptengines (4:4.8.4-6) ...
Paramétrage de virtuoso-minimal (6.1.4+dfsg1-7) ...
Paramétrage de ntrack-module-libnl-0 (016-1.1) ...
root@kali-linux-101:~#
```

Après l'installation, il est préférable de lancer un réamorçage de **Kali Linux**.

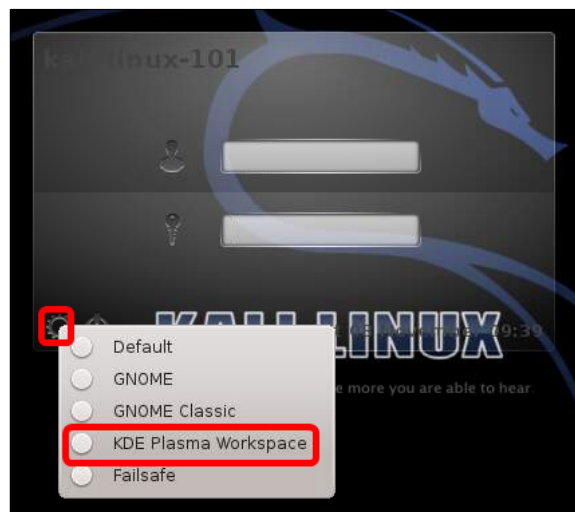
```
root@kali-linux-101:~# reboot

The system is going down for reboot NOW!01 (pts/1) (Sat Nov  8 09:18:12 2014)
root@kali-linux-101:~#
```

Après le réamorçage de **Kali Linux**, cliquer l'icône dans le coins inférieur gauche pour afficher les choix des gestionnaires graphiques.

Cliquer **KDE Plasma Workspace**.

Entrer le nom de l'utilisateur désiré et son mot de passe puis **Entrée**.



Le bureau **KDE** s'affiche. Il ne reste plus qu'à le configurer à sa guise.



3. Partage de bureau

3.1. Introduction

Pour pouvoir partager le bureau de **KDE**, avec **Real VNC Viewer®**, il faut installer le paquet **KRFB**. **KRFB** permet de partager votre bureau avec un autre utilisateur.

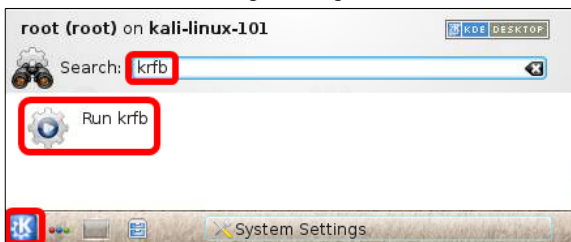
3.2. Installation de KRFB

Pour installer **KRFB**, ouvrir un terminal et lancer la commande ci-dessous.

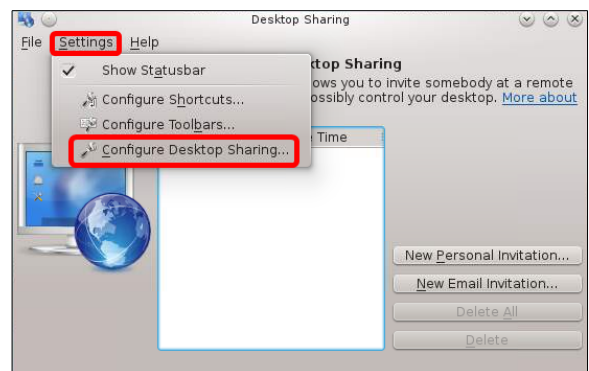
```
root@kali-linux-101:~# apt-get install krfb -y
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances
Lecture des informations d'état... Fait
Paquets suggérés :
  khelpcenter4 krdc
Les NOUVEAUX paquets suivants seront installés :
  krfb
0 mis à jour, 1 nouvellement installés, 0 à enlever et 4 non mis à jour.
Il est nécessaire de prendre 446 ko dans les archives.
Après cette opération, 956 ko d'espace disque supplémentaires seront utilisés.
Réception de : 1 http://http.kali.org/kali/ kali/main krfb amd64 4:4.8.4-1+b1 [446 kB]
446 ko réceptionnés en 1s (319 ko/s)
Sélection du paquet krfb précédemment désélectionné.
(Lecture de la base de données... 338427 fichiers et répertoires déjà installés.)
Dépaquetage de krfb (à partir de ../krfb_4%3a4.8.4-1+b1_amd64.deb) ...
Traitement des actions différées (« triggers ») pour « desktop-file-utils »...
Traitement des actions différées (« triggers ») pour « gnome-menus »...
Paramétrage de krfb (4:4.8.4-1+b1) ...
root@kali-linux-101:~#
```

3.3. Configuration

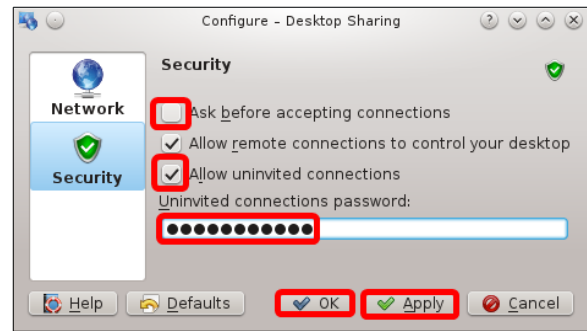
Pour configurer **KRFB**, cliquer le bouton **Laun-**
cher, rechercher **krfb** puis cliquer l'icône **Run krfb**.



Settings | Configure Desktop Sharing...

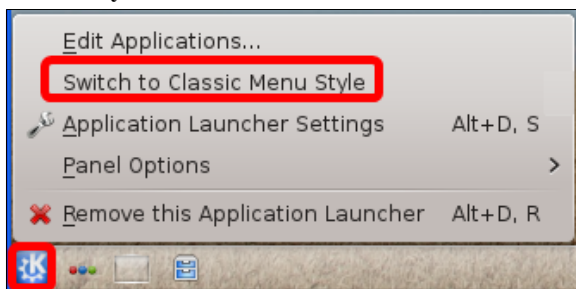


- Décocher **Ask before accepting connections**.
- Cocher **Allows uninvited connections**.
- Entrer un mot de passe sécuritaire (*complexe*).
- **Apply** | **OK** | fermer la fenêtre.

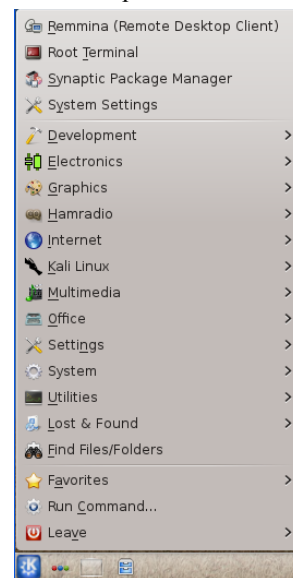


4. Menu classique de KDE

Pour utiliser le menu classique de **KDE**, cliquer le bouton **Launcher** et cliquer **Switch to Classic Menu Style**.



Et voilà le menu classique de **KDE**.



5. Synaptic

Par défaut, lorsqu'on installe **KDE** dans **Kali Linux**, il n'y a pas d'application pour la gestion des paquets. Il nous faut donc en installer un. Notre choix s'est porté sur **Synaptic**.

5.1. Installation

Ouvrir un terminal et lancer la commande ci-dessous.

```
root@kali-linux-101:~# apt-get install synaptic -y
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances
Lecture des informations d'état... Fait
Les paquets supplémentaires suivants seront installés :
  aptdaemon aptdaemon-data gir1.2-vte-2.90 librarian0 libvte-common libvte9 python-aptdaemon
  python-aptdaemon.gtk3widgets python-defer python-gnupginterface python-software-properties
  rarian-compat
  software-properties-common software-properties-gtk unattended-upgrades
...
...
...
Paramétrage de rarian-compat (0.8.1-5) ...
```

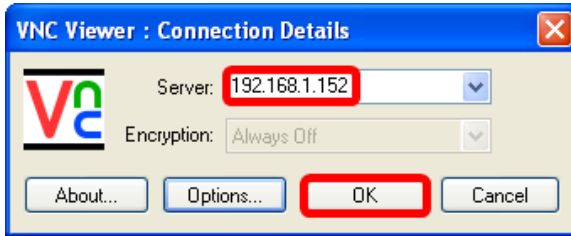
```
Traitement des actions différées (« triggers ») pour « python-support »...
Traitement des actions différées (« triggers ») pour « menu »...
root@kali-linux-101:~#
```

6. KDE en français

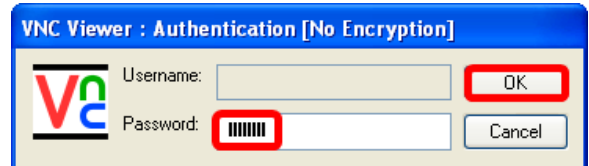
Nous pouvons maintenant mettre **KDE** en français.

Pour cette opération, on va utiliser **Real VNC Viewer**® et ainsi vérifier le **Partage de Bureau**.

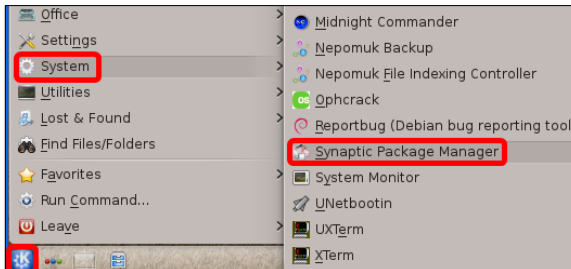
Entrer l'adresse IP de **Kali Linux** | **OK**.



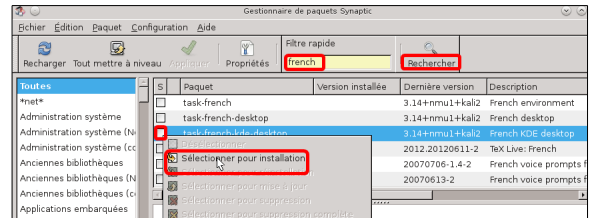
Entrer le mot de passe du **Partage de bureau** | **OK**.



Bouton **Launcher** | **Synaptic** | **Synaptic Package Manager**.

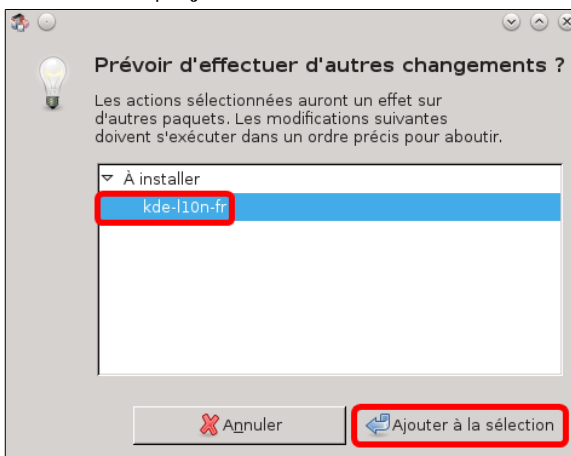


Entrer **french** | **Rechercher** | cocher et **Sélectionner pour installation**.

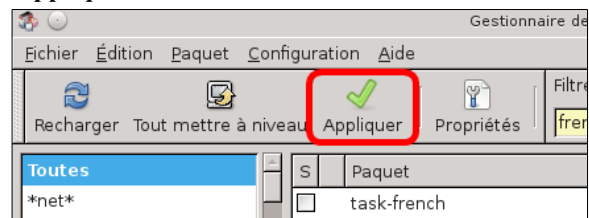


 Vu que notre station distante est en français, plusieurs écrans afficheront certains menus en français.

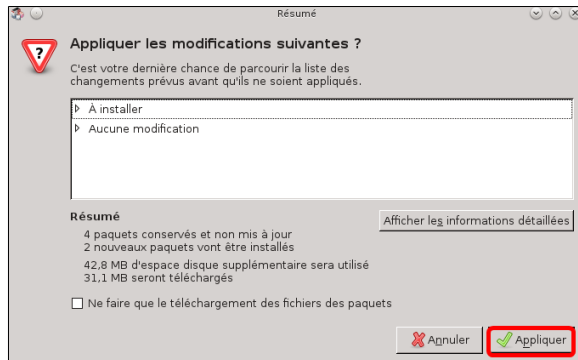
kde-l10n-fr | **Ajouter à la sélection**.



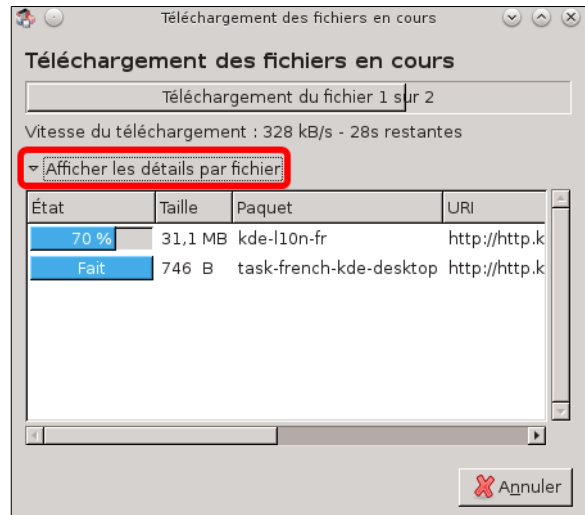
Appliquer.



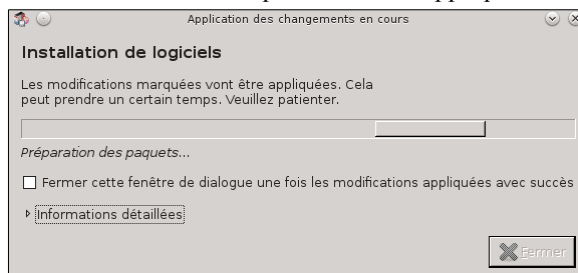
Appliquer.



Afficher les détails par fichier pour voir ce qui se passe.



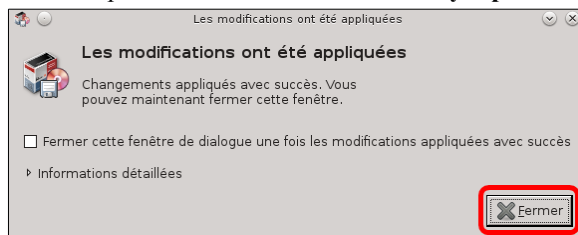
Les modifications marquées vont être appliquées.



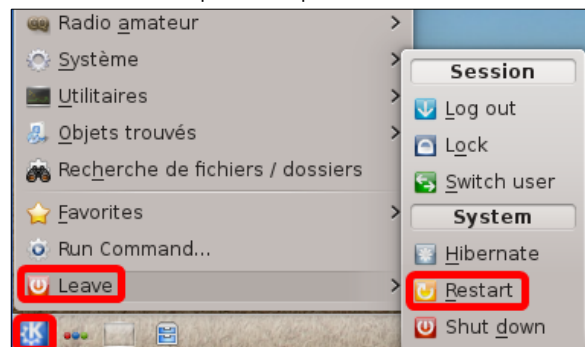
Téléchargement des fichiers.



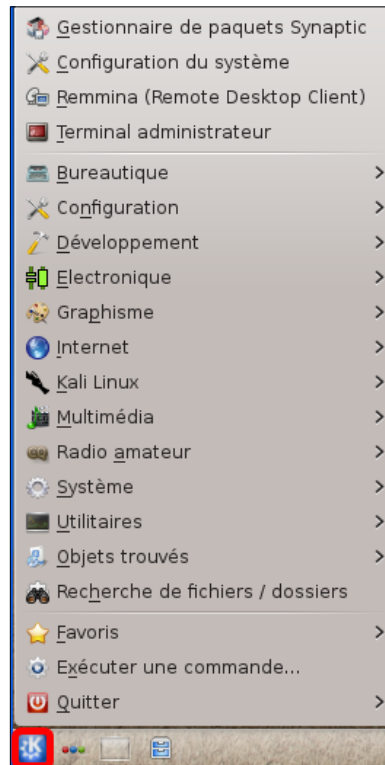
Fermer puis fermer aussi la fenêtre de Synaptic.



Bouton Launch | Leave | Restart.



KDE est maintenant en français.



7. Le centre d'aide de KDE

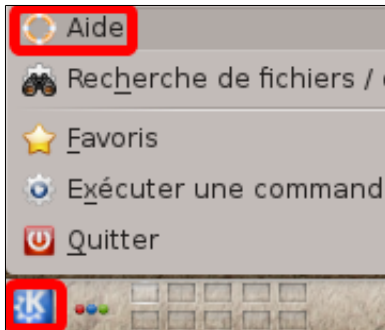
Pour installer le centre d'aide de KDE, lancer la commande ci-dessous.

```
root@kali-linux-101:~# apt-get install khelpcenter4 -y
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances
Lecture des informations d'état... Fait
Les paquets supplémentaires suivants seront installés :
  htdig lockfile-progs
Paquets suggérés :
  htdig-doc
Les NOUVEAUX paquets suivants seront installés :
  htdig khelpcenter4 lockfile-progs
0 mis à jour, 3 nouvellement installés, 0 à enlever et 4 non mis à jour.
Il est nécessaire de prendre 2 310 ko dans les archives.
Après cette opération, 7 624 ko d'espace disque supplémentaires seront utilisés.
Réception de : 1 http://http.kali.org/kali/ kali/main lockfile-progs amd64 0.1.17 [11,0 kB]
Réception de : 2 http://http.kali.org/kali/ kali/main htdig amd64 1:3.2.0b6-12 [1 973 kB]
Réception de : 3 http://http.kali.org/kali/ kali/main khelpcenter4 amd64 4:4.8.4-2 [327 kB]
2 310 ko réceptionnés en 4s (509 ko/s)
Préconfiguration des paquets...
Sélection du paquet lockfile-progs précédemment désélectionné.
(Lecture de la base de données... 340529 fichiers et répertoires déjà installés.)
Dépaquetage de lockfile-progs (à partir de ../lockfile-progs_0.1.17_amd64.deb) ...
Sélection du paquet htdig précédemment désélectionné.
Dépaquetage de htdig (à partir de ../htdig_1%3a3.2.0b6-12_amd64.deb) ...
Sélection du paquet khelpcenter4 précédemment désélectionné.
Dépaquetage de khelpcenter4 (à partir de ../khelpcenter4_4%3a4.8.4-2_amd64.deb) ...
Traitement des actions différées (« triggers ») pour « man-db »...
Traitement des actions différées (« triggers ») pour « desktop-file-utils »...
Traitement des actions différées (« triggers ») pour « gnome-menus »...
```

```
Paramétrage de lockfile-progs (0.1.17) ...
Paramétrage de htdig (1:3.2.0b6-12) ...
Creating endings database for ht://Dig search engine...done.
Paramétrage de khelpcenter4 (4:4.8.4-2) ...
root@kali-linux-101:~#
```

7.1. Vérification

Bouton **Launch** | **Aide**.



Le centre d'aide de KDE s'affiche.



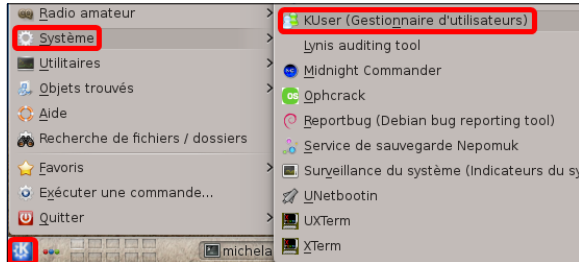
8. Compte usager

Pour la gestion des comptes des usagers dans KDE, il faut installer le paquet **kuser**.

```
root@kali-linux-101:~# apt-get install kuser -y
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances
Lecture des informations d'état... Fait
Les NOUVEAUX paquets suivants seront installés :
  kuser
0 mis à jour, 1 nouvellement installés, 0 à enlever et 4 non mis à jour.
Il est nécessaire de prendre 196 ko dans les archives.
Après cette opération, 696 ko d'espace disque supplémentaires seront utilisés.
Réception de : 1 http://http.kali.org/kali/ kali/main kuser amd64 4:4.8.4-3 [196 kB]
196 ko réceptionnés en 0s (197 ko/s)
Sélection du paquet kuser précédemment désélectionné.
(Lecture de la base de données... 340877 fichiers et répertoires déjà installés.)
Dépaquetage de kuser (à partir de ../kuser_4%3a4.8.4-3_amd64.deb) ...
Traitement des actions différées (« triggers ») pour « hicolor-icon-theme »...
Traitement des actions différées (« triggers ») pour « man-db »...
Traitement des actions différées (« triggers ») pour « desktop-file-utils »...
Traitement des actions différées (« triggers ») pour « gnome-menus »...
Paramétrage de kuser (4:4.8.4-3) ...
root@kali-linux-101:~#
```

8.1. Création d'un usager

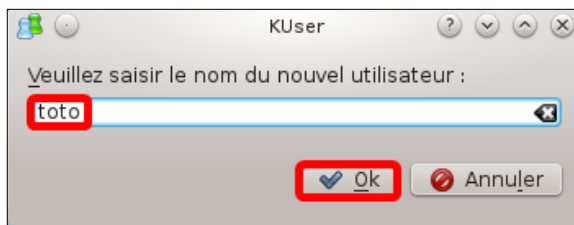
Launch | Système | Kuser (Gestionnaire d'utilisateurs).



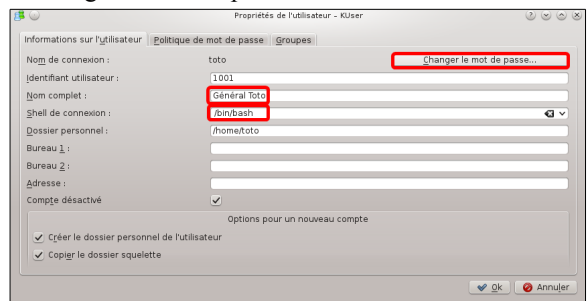
Ajouter.



Entrer le nom du nouvel usager: **toto**.



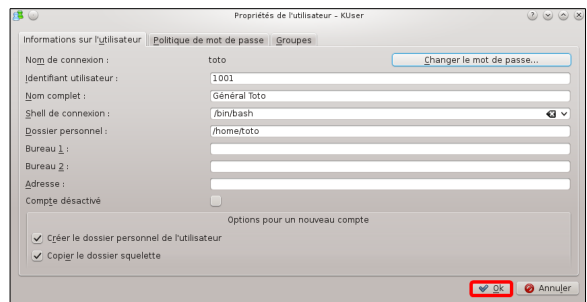
- **Nom complet:** Général Toto.
- **Shell de connexion:** /bin/bash.
- Changer le mot de passe.



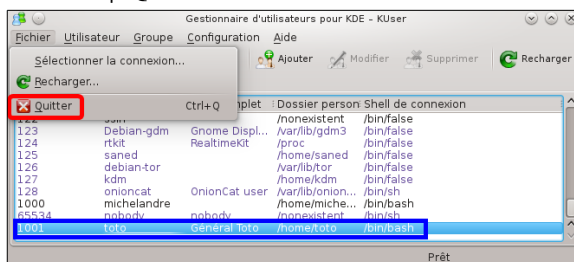
Entre un mot de passe | confirmer | Ok.



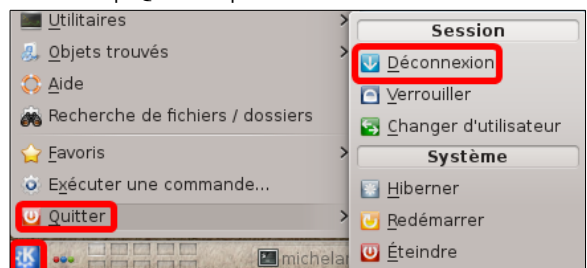
Ok.



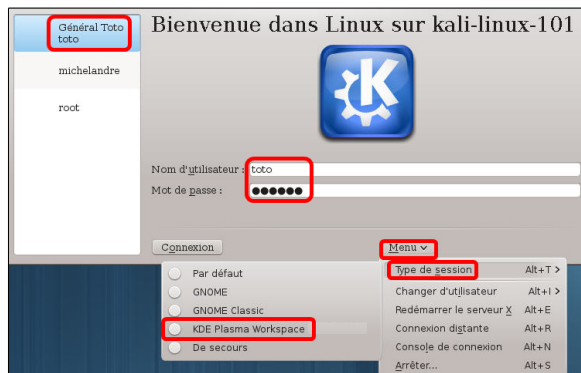
Fichier | Quitter.



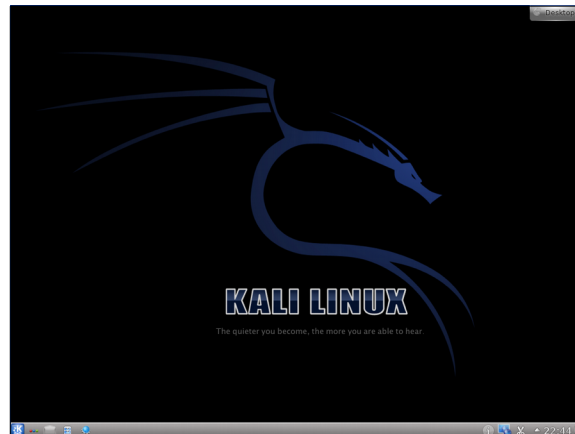
Launch | Quitter | Déconnexion.



Général Toto \ toto | *Nom d'utilisateur: toto* |
Mot de passe: mot de passe de toto | **Menu** |
Type de session | **KDE Plasma Workstation** |
Connexion.



Le Général Toto est connecté.



Victoire totale.

Crédits

© 2014 RF-232

Auteur: **Michel-André Robillard CLP**

Remerciement: **Tous les contributeurs GNU/GPL.**

Intégré par: **Michel-André Robillard CLP**

Contact: **michelandre at micronator.org**

Répertoire de ce document: E:\000_DocPourRF232_general\RF-232_Kali-Linux\RF-232_Kali-Linux_KDE_2014-11-09_11h26.odt

Historique des modifications:

<i>Version</i>	<i>Date</i>	<i>Commentaire</i>	<i>Auteur</i>
0.0.1	2014-11-9	Début.	M.-A. Robillard

Index

A			
ACESI.....	4		
adresse IP.....	9		
Afficher les détails par fichier.....	10		
Ajouter à la sélection.....	9		
Allows uninvited connections.....	8		
API.....	5		
apt-get install kuser -y.....	12		
apt-get install synaptic -y.....	8		
Ask before accepting connections.....	8		
astuce.....	4		
Avertissement.....	2		
AVIS DE NON-RESPONSABILITÉ.....	2		
B			
Backtrack.....	4		
bouton Launcher.....	7		
BSD.....	5		
C			
Commentaire.....	15		
Compte usager.....	12		
Configure Desktop Sharing.....	7		
Connexion.....	14		
Conventions.....	4		
Création d'un usager.....	13		
Crédits.....	15		
D			
Debian.....	4		
Debian live-build.....	4		
Déconnexion.....	13		
dépendances.....	8		
Description générale.....	4		
E			
étape.....	4		
F			
french.....	9		
G			
Général Toto.....	13		
J			
Jean-Bernard YATA.....	4		
K			
KDE.....	5		
KDE Applications.....	5		
KDE en français.....	9		
KDE Framework.....	5		
KDE Plasma Workspace.....	6		
KDE Plasma Workstation.....	14		
kde-l10n-fr.....	9		
kde-plasma-desktop.....	5		
kdm.....	5		
khelpcenter4.....	11		
KRFB.....	7		
kuser.....	12		
Kuser (Gestionnaire d'utilisateurs).....	13		
L			
Launcher.....	8		
Le centre d'aide de KDE.....	11		
Leave.....	10		
Lexsi.....	4		
M			
Manipulation.....	4		
Menu.....	14		
Menu classique de KDE.....	8		
Mot de passe.....	14		
N			
		Nom d'utilisateur.....	14
		non vérifié.....	4
		note.....	4
		Note au lecteur.....	4
		P	
		Partage de Bureau.....	9
		Plasma.....	5
		procédure.....	4
		PXE.....	4
		R	
		Real VNC Viewer®.....	9
		recommandation.....	4
		Restart.....	10
		S	
		Sélectionner pour installation.....	9
		Shell de connexion.....	13
		Solaris.....	5
		Switch to Classic Menu Style.....	8
		Synaptic.....	8
		Synaptic Package Manager.....	9
		T	
		toto.....	13
		Type de session.....	14
		V	
		Victoire.....	14
		/	
		/bin/bash.....	13
		©	
		© RF-232.....	2

GNU Free Documentation License

Version 1.3, 3 November 2008

Copyright (C) 2000, 2001, 2002, 2007, 2008 Free Software Foundation, Inc. <http://fsf.org/>.

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

0. PREAMBLE

The purpose of this License is to make a manual, textbook, or other functional and useful document free in the sense of freedom: to assure everyone the effective freedom to copy and redistribute it, with or without modifying it, either commercially or noncommercially. Secondly, this License preserves for the author and publisher a way to get credit for their work, while not being considered responsible for modifications made by others.

This License is a kind of copyleft, which means that derivative works of the document must themselves be free in the same sense. It complements the GNU General Public License, which is a copyleft license designed for free software.

We have designed this License in order to use it for manuals for free software, because free software needs free documentation: a free program should come with manuals providing the same freedoms that the software does. But this License is not limited to software manuals; it can be used for any textual work, regardless of subject matter or whether it is published as a printed book. We recommend this License principally for works whose purpose is instruction or reference.

1. APPLICABILITY AND DEFINITIONS

This License applies to any manual or other work, in any medium, that contains a notice placed by the copyright holder saying it can be distributed under the terms of this License. Such a notice grants a world-wide, royalty-free license, unlimited in duration, to use that work under the conditions stated herein. The Document, below, refers to any such manual or work. Any member of the public is a licensee, and is addressed as you. You accept the license if you copy, modify or distribute the work in a way requiring permission under copyright law.

A Modified Version of the Document means any work containing the Document or a portion of it, either copied verbatim, or with modifications and/or translated into another language.

A Secondary Section is a named appendix or a front-matter section of the Document that deals exclusively with the relationship of the publishers or authors of the Document to the Document's overall subject (or to related matters) and contains nothing that could fall directly within that overall subject. (Thus, if the Document is in part a textbook of mathematics, a Secondary Section may not explain any mathematics.) The relationship could be a matter of historical connection with the subject or with related matters, or of legal, commercial, philosophical, ethical or political position regarding them.

The Invariant Sections are certain Secondary Sections whose titles are designated, as being those of Invariant Sections, in the notice that says that the Document is released under this License. If a section does not fit the above definition of Secondary then it is not allowed to be designated as Invariant. The Document may contain zero Invariant Sections. If the Document does not identify any Invariant Sections then there are none.

The Cover Texts are certain short passages of text that are listed, as Front-Cover Texts or Back-Cover Texts, in the notice that says that the Document is released under this License. A Front-Cover Text may be at most 5 words, and a Back-Cover Text may be at most 25 words.

A Transparent copy of the Document means a machine-readable copy, represented in a format whose specification is available to the general public, that is suitable for revising the document straightforwardly with generic text editors or (for images composed of pixels) generic paint programs or (for drawings) some widely available drawing editor, and that is suitable for input to text formatters or for automatic translation to a variety of formats suitable for input to text formatters. A copy made in an otherwise Transparent file format whose markup, or absence of markup, has been arranged to thwart or discourage subsequent modification by readers is not Transparent. An image format is not Transparent if used for any substantial amount of text. A copy that is not Transparent is called Opaque.

Examples of suitable formats for Transparent copies include plain ASCII without markup, Texinfo input format, LaTeX input format, SGML or XML using a publicly available DTD, and standard-conforming simple HTML, PostScript or PDF designed for human modification. Examples of transparent image formats include PNG, XCF and JPG. Opaque formats include proprietary formats that can be read and edited only by proprietary word processors, SGML or XML for which the DTD and/or processing tools are not generally available, and the machine-generated HTML, PostScript or PDF produced by some word processors for output purposes only.

The Title Page means, for a printed book, the title page itself, plus such following pages as are needed to hold, legibly, the material this License requires to appear in the title page. For works in formats which do not have any title page as such, Title Page means the text near the most prominent appearance of the work's title, preceding the beginning of the body of the text. The publisher means any person or entity that distributes copies of the Document to the public.

A section Entitled XYZ means a named subunit of the Document whose title is precisely XYZ or contains XYZ in parentheses following text that translates XYZ in another language. (Here XYZ stands for a specific section name mentioned below, such as Acknowledgements, Dedications, Endorsements, or History.) To Preserve the Title of such a section when you modify the Document means that it remains a section Entitled XYZ according to this definition.

The Document may include Warranty Disclaimers next to the notice which states that this License applies to the Document. These Warranty Disclaimers are considered to be included by reference in this

License, but only as regards disclaiming warranties: any other implication that these Warranty Disclaimers may have is void and has no effect on the meaning of this License.

2. VERBATIM COPYING

You may copy and distribute the Document in any medium, either commercially or noncommercially, provided that this License, the copyright notices, and the license notice saying this License applies to the Document are reproduced in all copies, and that you add no other conditions whatsoever to those of this License. You may not use technical measures to obstruct or control the reading or further copying of the copies you make or distribute. However, you may accept compensation in exchange for copies. If you distribute a large enough number of copies you must also follow the conditions in section 3.

You may also lend copies, under the same conditions stated above, and you may publicly display copies.

3. COPYING IN QUANTITY

If you publish printed copies (or copies in media that commonly have printed covers) of the Document, numbering more than 100, and the Document's license notice requires Cover Texts, you must enclose the copies in covers that carry, clearly and legibly, all these Cover Texts: Front-Cover Texts on the front cover, and Back-Cover Texts on the back cover. Both covers must also clearly and legibly identify you as the publisher of these copies. The front cover must present the full title with all words of the title equally prominent and visible. You may add other material on the covers in addition. Copying with changes limited to the covers, as long as they preserve the title of the Document and satisfy these conditions, can be treated as verbatim copying in other respects.

If the required texts for either cover are too voluminous to fit legibly, you should put the first ones listed (as many as fit reasonably) on the actual cover, and continue the rest onto adjacent pages.

If you publish or distribute Opaque copies of the Document numbering more than 100, you must either include a machine-readable Transparent copy along with each Opaque copy, or state in or with each Opaque copy a computer-network location from which the general network-using public has access to download using public-standard network protocols a complete Transparent copy of the Document, free of added material. If you use the latter option, you must take reasonably prudent steps, when you begin distribution of Opaque copies in quantity, to ensure that this Transparent copy will remain thus accessible at the stated location until at least one year after the last time you distribute an Opaque copy (directly or through your agents or retailers) of that edition to the public.

If it is requested, but not required, that you contact the authors of the Document well before redistributing any large number of copies, to give them a chance to provide you with an updated version of the Document.

4. MODIFICATIONS

You may copy and distribute a Modified Version of the Document under the conditions of sections 2 and 3 above, provided that you release the Modified Version under precisely this License, with the Modified Version filling the role of the Document, thus licensing distribution and modification of the Modified Version to whoever possesses a copy of it. In addition, you must do these things in the Modified Version:

- A. Use in the Title Page (and on the covers, if any) a title distinct from that of the Document, and from those of previous versions (which should, if there were any, be listed in the History section of the Document). You may use the same title as a previous version if the original publisher of that version gives permission.
- B. List on the Title Page, as authors, one or more persons or entities responsible for authorship of the modifications in the Modified Version, together with at least five of the principal authors of the Document (all of its principal authors, if it has fewer than five), unless they release you from this requirement.
- C. State on the Title page the name of the publisher of the Modified Version, as the publisher.
- D. Preserve all the copyright notices of the Document.
- E. Add an appropriate copyright notice for your modifications adjacent to the other copyright notices.
- F. Include, immediately after the copyright notices, a license notice giving the public permission to use the Modified Version under the terms of this License, in the form shown in the Addendum below.
- G. Preserve in that license notice the full lists of Invariant Sections and required Cover Texts given in the Document's license notice.
- H. Include an unaltered copy of this License.
- I. Preserve the section Entitled History, Preserve its Title, and add to it an item stating at least the title, year, new authors, and publisher of the Modified Version as given on the Title Page. If there is no section Entitled History in the Document, create one stating the title, year, authors, and publisher of the Document as given on its Title Page, then add an item describing the Modified Version as stated in the previous sentence.
- J. Preserve the network location, if any, given in the Document for public access to a Transparent copy of the Document, and likewise the network locations given in the Document for previous versions it was based on. These may be placed in the History section. You may omit a network location for a work that was published at least four years before the Document itself, or if the original publisher of the version it refers to gives permission.
- K. For any section Entitled Acknowledgements or Dedications, Preserve the Title of the section, and preserve in the section all the substance and tone of each of the contributor acknowledgements and/or dedications given therein.
- L. Preserve all the Invariant Sections of the Document, unaltered in their text and in their titles. Section numbers or the equivalent are not considered part of the section titles.
- M. Delete any section Entitled Endorsements. Such a section may not be included in the Modified Version.
- N. Do not retile any existing section to be Entitled Endorsements or to conflict in title with any Invariant Section.
- O. Preserve any Warranty Disclaimers.

If the Modified Version includes new front-matter sections or appendices that qualify as Secondary Sections and contain no material copied from the Document, you may at your option designate some or all of these sections as invariant. To do this, add their titles to the list of Invariant Sections in the Modified Version's license notice. These titles must be distinct from any other section titles.

You may add a section Entitled Endorsements, provided it contains nothing but endorsements of your Modified Version by various parties—for example, statements of peer review or that the text has been approved by an organization as the authoritative definition of a standard.

You may add a passage of up to five words as a Front-Cover Text, and a passage of up to 25 words as a Back-Cover Text, to the end of the list of Cover Texts in the Modified Version. Only one passage of Front-Cover Text and one of Back-Cover Text may be added by (or through arrangements made by) any one entity. If the Document already includes a cover text for the same cover, previously added by you or by arrangement made by the same entity you are acting on behalf of, you may not add another; but you may replace the old one, on explicit permission from the previous publisher that added the old one.

The author(s) and publisher(s) of the Document do not by this License give permission to use their names for publicity for or to assert or imply endorsement of any Modified Version.

5. COMBINING DOCUMENTS

You may combine the Document with other documents released under this License, under the terms defined in section 4 above for modified versions, provided that you include in the combination all of the Invariant Sections of all of the original documents, unmodified, and list them all as Invariant Sections of your combined work in its license notice, and that you preserve all their Warranty Disclaimers.

The combined work need only contain one copy of this License, and multiple identical Invariant Sections may be replaced with a single copy. If there are multiple Invariant Sections with the same name but different contents, make the title of each such section unique by adding at the end of it, in parentheses, the name of the original author or publisher of that section if known, or else a unique number. Make the same adjustment to the section titles in the list of Invariant Sections in the license notice of the combined work.

In the combination, you must combine any sections Entitled History in the various original documents, forming one section Entitled History; likewise combine any sections Entitled Acknowledgements, and any sections Entitled Dedications. You must delete all sections Entitled Endorsements.

6. COLLECTIONS OF DOCUMENTS

You may make a collection consisting of the Document and other documents released under this License, and replace the individual copies of this License in the various documents with a single copy that is included in the collection, provided that you follow the rules of this License for verbatim copying of each of the documents in all other respects.

You may extract a single document from such a collection, and distribute it individually under this License, provided you insert a copy of this License into the extracted document, and follow this License in all other respects regarding verbatim copying of that document.

7. AGGREGATION WITH INDEPENDENT WORKS

A compilation of the Document or its derivatives with other separate and independent documents or works, in or on a volume of a storage or distribution medium, is called an aggregate if the copyright resulting from the compilation is not used to limit the legal rights of the compilation's users beyond what the individual works permit. When the Document is included in an aggregate, this License does not apply to the other works in the aggregate which are not themselves derivative works of the Document.

If the Cover Text requirement of section 3 is applicable to these copies of the Document, then if the Document is less than one half of the entire aggregate, the Document's Cover Texts may be placed on covers that bracket the Document within the aggregate, or the electronic equivalent of covers if the Document is in electronic form. Otherwise they must appear on printed covers that bracket the whole aggregate.

8. TRANSLATION

Translation is considered a kind of modification, so you may distribute translations of the Document under the terms of section 4. Replacing Invariant Sections with translations requires special permission from their copyright holders, but you may include translations of some or all Invariant Sections in addition to the original versions of these Invariant Sections. You may include a translation of this License, and all the license notices in the Document, and any Warranty Disclaimers, provided that you also include the original English version of this License and the original versions of those notices and disclaimers. In case of a disagreement between the translation and the original version of this License or a notice or disclaimer, the original version will prevail.

If a section in the Document is Entitled Acknowledgements, Dedications, or History, the requirement (section 4) to Preserve its Title (section 1) will typically require changing the actual title.

9. TERMINATION

You may not copy, modify, sublicense, or distribute the Document except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, or distribute it is void, and will automatically terminate your rights under this License.

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 un-

der this License. If your rights have been terminated and not permanently reinstated, receipt of a copy of some or all of the same material does not give you any rights to use it.

10. FUTURE REVISIONS OF THIS LICENSE

The Free Software Foundation may publish new, revised versions of the GNU Free Documentation 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. See <http://www.gnu.org/copyleft/>.

Each version of the License is given a distinguishing version number. If the Document specifies that a particular numbered version of this License or any later version applies to it, you have the option of following the terms and conditions either of that specified version or of any later version that has been published (not as a draft) by the Free Software Foundation. If the Document does not specify a version number of this License, you may choose any version ever published (not as a draft) by the Free Software Foundation. If the Document specifies that a proxy can decide which future versions of this License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Document.

11. RELICENSING

"Massive Multiauthor Collaboration Site" (or "MMC Site") means any World Wide Web server that publishes copyrightable works and also provides prominent facilities for anybody to edit those works. A public wiki that anybody can edit is an example of such a server. A "Massive Multiauthor Collaboration" (or "MMC") contained in the site means any set of copyrightable works thus published on the MMC site.

"CC-BY-SA" means the Creative Commons Attribution-Share Alike 3.0 license published by Creative Commons Corporation, a not-for-profit corporation with a principal place of business in San Francisco, California, as well as future copyleft versions of that license published by that same organization.

"Incorporate" means to publish or republish a Document, in whole or in part, as part of another Document.

An MMC is "eligible for relicensing" if it is licensed under this License, and if all works that were first published under this License somewhere other than this MMC, and subsequently incorporated in whole or in part into the MMC, (1) had no cover texts or invariant sections, and (2) were thus incorporated prior to November 1, 2008. The operator of an MMC Site may republish an MMC contained in the site under CC-BY-SA on the same site at any time before August 1, 2009, provided the MMC is eligible for relicensing.