

**Mandriva Linux 2006**  
**DrakXTools User Manual**



<http://www.mandriva.com>

## **Mandriva Linux 2006: DrakXTools User Manual**

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por NeoDoc (<http://www.neodoc.biz>) Camille Bégnis, Christian Roy, Fabian Mandelbaum, Roberto Rosselli del Turco, Marco De Vitis, Alice Lafox, John Rye, Wolfgang Bornath, Funda Wang, Patricia Pichardo Bégnis, Debora Rejnharc Mandelbaum, Mickael Scherer, Jean-Michel Dault, Lunas Moon, Céline Harrand, Fred Lepied, Pascal Rigaux, Thierry Vignaud, Giuseppe Ghibò, Stew Benedict, Francine Suzon, Indrek Madedog Triipus, Nicolas Berdugo, Thorsten Kamp, Fabrice Facorat, Xiao Ming, Snature, Guylhem Aznar, Pavel Maryanov, Annie Tétrault, Aurelio Marinho Jargas, Felipe Arruda, Marcia Gawlak Hoshi, Bob Rye, Jean-Luc Borie, e Roberto Patriarca

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## **Sobre a Elaboração deste Manual**

Este manual é escrito e mantido pela NeoDoc (<http://www.neodoc.biz>). Traduções são realizadas pela NeoDoc, Mandriva e outros tradutores.

Este documento foi escrito em DocBook XML. O conjunto de arquivos envolvido foi gerenciado com o uso do Sistema de Criação de Conteúdo Colaborativo Borges (<http://sourceforge.net/projects/borges-dms>). Os arquivos-fonte XML foram processados pelo `xsltproc`, e `jadetex` (para a versão eletrônica) utilizando uma versão customizada das folhas de estilo de Norman Walsh. As imagens de captura de tela foram realizadas com o `xwd` ou `GIMP` e convertidas com o `convert` (do pacote `ImageMagick`). Todos estes programas são software livre e estão todos disponíveis na sua distribuição Mandriva Linux.

# Índice

<b>Prefácio .....</b>	<b>1</b>
1. Sobre o Mandriva Linux .....	1
1.1. Entrando em Contato com a Comunidade Mandriva Linux .....	1
1.2. Junte-se ao Clube! .....	1
1.3. Assinando o Mandriva Online .....	2
1.4. Comprando Produtos Mandriva .....	2
1.5. Contribuindo com o Mandriva Linux .....	2
2. MCC's Components .....	2
3. Nota do Editor .....	4
4. Convenções utilizadas neste livro .....	5
4.1. Convenções Tipográficas .....	5
4.2. Convenções Gerais .....	6
5. Managing Configuration Profiles .....	7
5.1. Profile Handling .....	7
5.2. Choosing a Profile at Boot Time .....	7
6. The Drakbug Reporting Tool .....	8
<b>1. Gerenciamento de Pacotes através do Rpmdrake .....</b>	<b>11</b>
1.1. Instalando Programas .....	11
1.1.1. Selecionando Pacotes para Instalação .....	12
1.1.2. Procurando Pacotes .....	14
1.2. Removendo Programas .....	14
1.3. Atualizador do Mandriva Linux .....	15
1.4. O Gerenciador de Mídias de Programas .....	15
<b>2. Controlling a Remote Machine .....</b>	<b>21</b>
2.1. Concepts .....	21
2.2. Installation and Setup .....	21
2.2.1. Controlled Computer Setup .....	21
2.2.2. Controlling Computer Setup .....	22
2.3. Connecting to a Windows® Terminal Server .....	24
2.4. Remote Control in Action .....	24
2.5. More Documentation .....	25
<b>3. "Hardware" Section .....</b>	<b>27</b>
3.1. Configuring your Hardware .....	27
3.1.1. Hardware Detection and Configuration .....	27
3.1.2. Problems/Troubleshooting .....	28
3.2. Controlling the Graphical Configuration .....	28
3.2.1. Changing the Monitor .....	29
3.2.2. Changing Resolution .....	30
3.2.3. Controlling All Video Parameters .....	31
3.3. Setting up a TV Card with DrakxTV .....	32
3.4. Changing your Keyboard Layout .....	34
3.5. Changing your Mouse .....	34
3.6. Configuring Printers with PrinterDrake .....	35
3.6.1. Initial Configuration .....	35
3.6.2. The Printer Management Interface .....	37
3.6.3. Print Server General Configuration .....	38
3.6.4. The Printer Configuration Wizard .....	40
3.6.5. Reconfiguring an Existing Printer .....	43
3.6.6. Expert Mode .....	44
3.7. Installing and Using Scanners .....	45
3.7.1. Configuring your Scanner .....	46
3.7.2. Using Image Acquisition Software .....	48
3.7.3. Advanced Configuration .....	49
3.7.4. Other Scanner Interface Software .....	51
3.8. Setting up your UPS .....	51
<b>4. "Network &amp; Internet" Section .....</b>	<b>55</b>
4.1. Network and Internet Connection Management .....	55

4.1.1. Set Up a New Network Interface .....	55
4.1.2. Internet Settings .....	59
4.1.3. Reconfigure Interfaces .....	60
4.1.4. Monitoring Connections .....	60
4.1.5. Removing a Connection .....	61
4.1.6. Proxy Settings .....	61
4.1.7. Wireless Connection Management .....	61
4.2. Internet Connection Sharing .....	61
4.2.1. The Gateway Connection Wizard .....	62
4.2.2. Configuring the Clients .....	63
<b>5. "System" Section .....</b>	<b>65</b>
5.1. Customizing your Menus with MenuDrake .....	65
5.1.1. Adding a New Menu Entry .....	66
5.1.2. Advanced Features .....	68
5.2. Configuring Start-Up Services .....	69
5.3. Managing Available Fonts on your System with DrakFont .....	70
5.4. Setting your Machine's Date and Time .....	71
5.5. Monitoring System Activity and Status .....	72
5.5.1. Browsing System Logs .....	72
5.5.2. Setting up Mail Alerts .....	73
5.6. Access to the Console .....	75
5.7. Managing Users and Groups .....	75
5.7.1. The Interface .....	75
5.7.2. Adding a New User .....	76
5.8. Backing Up and Restoring your Files .....	78
5.8.1. A Practical Example Using the Wizard .....	78
5.8.2. Restoring Backups .....	82
5.8.3. Automating Periodic Backups .....	82
5.8.4. Advanced Drakbackup Configuration .....	83
<b>6. Pontos de Montagem e Diretórios Remotos .....</b>	<b>85</b>
6.1. Managing your Hard Drive Partitions with DiskDrake .....	85
6.1.1. The Interface .....	85
6.1.2. DiskDrake's action buttons .....	86
6.1.3. Resizing an Old Partition and Creating a New One .....	86
6.2. Managing Removable Devices .....	88
6.3. Importing Remote SMB Directories .....	89
6.4. Importing Remote NFS Directories .....	91
6.5. Allowing Users to Share Folders .....	91
6.6. Setting up WebDAV Mount Points .....	92
<b>7. "Security" Section .....</b>	<b>95</b>
7.1. Securing your Machine through DrakSec .....	95
7.1.1. Setting your Security Level .....	95
7.1.2. Customizing a Security Level .....	96
7.2. Controlling File Permissions with DrakPerm .....	97
7.3. Protegendo sua Conexão Internet com o DrakFirewall .....	98
<b>8. "Boot" Section .....</b>	<b>101</b>
8.1. Configuring the Login Mode .....	101
8.2. Changing your Bootup Configuration .....	101
8.2.1. Configuring the Bootloader .....	102
8.2.2. Managing Boot Entries .....	102
8.3. Customizing your Boot Theme .....	103
<b>Índice Remissivo .....</b>	<b>105</b>

**Lista de Tabelas**

1. Overview of Graphical Tools .....3



# Prefácio

## 1. Sobre o Mandriva Linux

O Mandriva Linux é uma distribuição GNU/Linux produzida pela Mandriva S.A., que surgiu na internet em 1998 com o objetivo primário de fornecer um GNU/Linux amigável. Os dois pilares da Mandriva são trabalho de código aberto e colaborativo.



Em 7 de abril de 2005 a Mandrakesoft mudou o seu nome para Mandriva para refletir a fusão com a empresa Conectiva, com sede no Brasil. Seu produto principal, o Mandrakelinux, tornou-se o Mandriva Linux.

### 1.1. Entrando em Contato com a Comunidade Mandriva Linux

Existem vários locais na internet onde você pode buscar por informações sobre o Mandriva Linux. Se você deseja saber mais sobre a empresa Mandriva, acesse o nosso web site (<http://www.mandriva.com/>). Você também pode verificar o web site da distribuição Mandriva Linux (<http://www.mandrivalinux.com/>) e seus derivados.

A Mandriva Expert (<http://www.mandrivaexpert.com/>) é a plataforma de suporte da Mandriva. Ela oferece uma nova experiência baseada na confiança e no prazer de recompensar os outros por suas contribuições.

Nós também convidamos você a participar de várias listas de discussão (<http://www.mandriva.com/community/resources/newsgroups>) onde a comunidade Mandriva Linux demonstra a sua vivacidade e sabedoria.

Lembre-se também de conectar à nossa página de segurança (<http://www.mandriva.com/security>). Esta página reúne todo o material relacionado a segurança sobre as distribuições Mandriva Linux. Você irá encontrar avisos de erros e falhas de segurança, assim como procedimentos para a atualização do kernel, uma lista de discussão e o Mandriva Online (<https://online.mandriva.com/>). Esta página é essencial para qualquer administrador de servidores ou usuário preocupado com segurança.

### 1.2. Junte-se ao Clube!

A Mandriva oferece uma grande variedade de vantagens através do Mandriva Club (<http://club.mandriva.com>):

- download de software comercial normalmente disponível apenas em pacotes no varejo, como drivers para equipamentos especiais, aplicações comerciais, freeware e versões de demonstração;
- vote e sugira novos softwares através do nosso sistema de votação;
- acesse mais de 50,000 pacotes RPM para todas as distribuições Mandriva Linux
- ganhe descontos para produtos e serviços na Mandriva Store (<http://store.mandriva.com>);
- tenha acesso a uma lista de mirrors exclusiva para membros do clube;
- leia artigos e participe de fóruns em diversos idiomas.
- acesse a Base de Conhecimento (<http://club.mandriva.com/xwiki/bin/view/KB/>) da Mandriva, um web site do tipo wiki que hospeda documentação sobre diversos assuntos, como administração, conectividade, resolução de problemas e mais;
- converse com os desenvolvedores da Mandriva Linux no Club Chat (<https://www.mandrivaclub.com/user.php?op=clubchat>);
- aumente os seus conhecimentos sobre GNU/Linux através das lições de treinamento à distância da Mandriva (<http://etraining.mandriva.com/>).

Participando da Mandriva através do Mandriva Club você estará contribuindo diretamente para o aperfeiçoamento da distribuição Mandriva Linux e nos ajudando a oferecer o melhor desktop GNU/Linux para os nossos usuários.



Uma nova versão do Mandriva Club está a caminho. Você pode vê-la através da nova URL (<http://club-beta.mandriva.com/>). Uma nova Base de Conhecimento (<http://club-beta.mandriva.com/xwiki/bin/view/KB/>) também está sendo repensada.

### 1.3. Assinando o Mandriva Online

A Mandriva oferece uma maneira muito conveniente de manter o seu sistema automaticamente atualizado, mantendo bugs afastados e corrigindo falhas de segurança. Visite o web site Mandriva Online (<https://online.mandriva.com/>) para aprender mais sobre este serviço.

### 1.4. Comprando Produtos Mandriva

Os usuários do Mandriva Linux podem comprar produtos on-line através da Mandriva Store (<http://store.mandriva.com/>). Você não irá apenas encontrar software Mandriva Linux, sistemas operacionais e CDs “live” (como o Move), mas também ofertas especiais para assinantes, suporte, softwares e licenças de terceiros, documentação, livros relacionados a GNU/Linux e outros produtos da Mandriva.

### 1.5. Contribuindo com o Mandriva Linux

As habilidades de muitas pessoas talentosas que utilizam o Mandriva Linux podem ser muito importantes no desenvolvimento do sistema Mandriva Linux:

- **Empacotamento.** Um sistema GNU/Linux é feito principalmente de programas recolhidos da internet. Eles têm que ser empacotados para poderem funcionar juntos.
- **Programação.** Existem vários, vários projetos diretamente apoiados pela Mandriva: encontre o que mais lhe agrada e ofereça a sua ajuda para o(s) desenvolvedor(es) principais.
- **Internacionalização.** Você pode nos ajudar a traduzir páginas web, programas e documentação.

Consulte a página dos projetos de desenvolvimento (<http://qa.mandriva.com/>) para saber como você pode contribuir para a evolução da Mandriva Linux.

## 2. MCC's Components

The Mandriva Linux Control Center (MCC) enables the system administrator to configure the hardware and the services used by all users in a friendly way.



Access the Mandriva Linux Control Center through the main menu (System+Configuration→Configure Your Computer).



Some of the Mandriva Linux Control Center components are also available from the command line in text mode by running `drakconf`.





Figura 1. The Control Center's Main Window

Here are some of the available menu entries:

- **Options→Display Logs.** When activated this option displays a Tools Logs window. It shows all system modifications made by the configuration tools launched from within the Mandriva Linux Control Center.
- **Options→Expert mode.** Gives you access to some of the more advanced tools, which are marked in the table below.
- **Profiles.** This menu gives you access to the configuration profiles features. We cover this topic in Seção 5.
- **Help→Help.** Opens the help browser which displays documentation about the active configuration tool.
- **Help→Report Bug.** Allows you to report a bug to the development team. See Seção 6.

The tools are sorted into categories. The following table lists them all and refers to the corresponding sections of this manual.

Software Management	Capítulo 1
	Configuration Uploader: allows you to upload your configuration to the Mandriva Online facility in order to benefit from available software updates. Available only in Mandriva Linux Control Center's expert mode.
Hardware	Seção 3.1
	Seção 3.2
	Seção 3.3
	Seção 3.4
	Seção 3.5
	Seção 3.6
	Seção 3.7
	Seção 3.8
Network & Internet	Seção 4.1
	DrakProxy: enables you to configure a proxy to access the Internet.
	Seção 4.2
System	Seção 5.1

	Display manager chooser: allows you to choose the X11 display manager for users who graphically log onto the machine. Basically, all display managers offer the same features, it's just a question of taste.
	Seção 5.2
	Seção 5.3
	Seção 5.4
	Seção 5.5
	Console: simply opens a terminal to directly enter commands with the administrator account (root).
	Seção 5.7
	Seção 5.8
	DrakAuth enables you to select the authentication mode to be used to authenticate users on your system. Available only in Mandriva Linux Control Center's expert mode.
Mount Points	Seção 6.1
	Seção 6.2
	Seção 6.4
	Seção 6.3
	Seção 6.6. This is an experimental utility to mount remote WebDAV directories.
	Seção 6.5
Security	Seção 7.1. Available only in Mandriva Linux Control Center's expert mode.
	Seção 7.2. Available only in Mandriva Linux Control Center's expert mode.
	Seção 7.3
Boot	Seção 8.1
	Seção 8.2
	Seção 8.3

**Tabela 1. Overview of Graphical Tools**



Additionally, the Online Administration category only appears if the rfbdrake package is installed. This tool allows you to take control of a remote host (Linux/UNIX®, Windows®).

Some more categories appear if the drakwizard package is installed. The documentation for those wizards is available on disk as well as in the *Guia do Servidor*. Those wizards enable you to do basic configuration of common LAN services such as web, FTP, mail and database servers.

### 3. Nota do Editor

Na filosofia do código aberto, contribuidores são muito bem-vindos! Atualizar a documentação do Mandriva Linux é uma tarefa e tanto. Você pode ajudar de várias formas. Na verdade, a equipe de documentação está procurando constantemente por voluntários talentosos para nos ajudar com as seguintes tarefas:

- elaboração ou atualização;
- tradução;
- edição;

- programação XML/XSLT.

Se você tem bastante tempo, pode escrever ou atualizar um capítulo inteiro; se você fala outro idioma além do inglês, pode nos ajudar a traduzir os nossos manuais; se você tem idéias de como melhorar o nosso conteúdo, conte-nos; se você possui habilidade com programação e quer nos ajudar a aperfeiçar o Sistema de Criação de Conteúdo Colaborativo Borges (C3S) (<http://sourceforge.net/projects/borges-dms>), junte-se a nós. E não hesite em nos contactar se você encontrar qualquer erro na documentação, pois assim podemos corrigi-los!

Para qualquer informação sobre o projeto de documentação do Mandriva Linux, por favor entre em contato com o administrador da documentação (<mailto:documentation@mandriva.com>) ou visite a página do Projeto de Documentação do Mandriva Linux (<http://qa.mandriva.com/twiki/bin/view/Main/DocumentationTask/>).



Note que desde junho de 2004 a documentação do Mandriva Linux e o desenvolvimento do Borges é feito pela empresa NeoDoc (<http://www.neodoc.biz>).

## 4. Convenções utilizadas neste livro

### 4.1. Convenções Tipográficas

Para realmente diferenciar as palavras especiais do fluxo do texto, a equipe de documentação utiliza diferentes interpretações. A tabela a seguir demonstra um exemplo de cada palavra especial ou grupo de palavras com a sua interpretação atual e o que cada uma significa.

Exemplo Formatado	Significado
<i>inode</i>	Utilizado para enfatizar um termo técnico.
<code>ls -lta</code>	Utilizado para comandos e seus argumentos. (veja Seção 4.2.1).
<code>um_arquivo</code>	Utilizado para nomes de arquivo. Também pode ser encontrado em nome de pacotes RPM.
<code>ls(1)</code>	Referência para uma man page. Para ler a página, simplesmente digite <code>man 1 ls</code> , na linha de comando.
<code>\$ ls *.pid</code>	Formatação usada para representações textuais do que pode estar sendo exibido na sua tela, incluindo interações com o computador, listagem de programas, e outros.
<code>localhost</code>	Informações literais que não se encaixam em nenhuma das categorias definidas anteriormente. Por exemplo, uma palavra-chave retirada de um arquivo de configuração.
<code>OpenOffice.org</code>	Define nomes de aplicação. Dependendo do contexto, o nome da aplicação e o do comando podem ser o mesmo, mas formatados de maneira diferente. Por exemplo, a maior parte dos comandos estão escritos com letras minúsculas, enquanto nomes de aplicações normalmente começam com letra maiúscula.
<u>A</u> quivos	Indica entrada de menus ou rótulos da interface gráfica. A letra sublinhada, quando presente, informa um atalho, que pode ser acessado pressionando a tecla <b>Alt</b> mais a letra em questão.
<i>Le petit chaperon rouge</i>	Identifica palavras em outros idiomas.
<b>Aviso!</b>	Reservado para avisos especiais, para dar ênfase à importância das palavras. Leia em voz alta.



Este ícone destaca uma nota. Geralmente, é uma remarca no contexto atual, dando informação adicional.



Representa uma dica. Ele pode ser um conselho geral de como executar uma ação específica, ou uma bela funcionalidade que poderá tornar a sua vida mais fácil, como teclas de atalho, por exemplo.



Tenha bastante cuidado ao ver este ícone. Ele sempre significa que uma informação bastante importante sobre um tópico específico que precisa ser abordado.

## 4.2. Convenções Gerais

### 4.2.1. Sinopse dos Comandos

O exemplo abaixo demonstra os símbolos que você encontrará quando o autor descreve os argumentos de um comando:

```
comando <argumento não literal> [--opção={arg1,arg2,arg3}] [argumento opcional ...]
```

Essas convenções são padronizadas e você poderá encontrá-las em outros lugares, como as páginas do manual.

Os símbolos “<” (menor que) e “>” (maior que) denotam um argumento **mandatório** a não ser copiado verbatim, mas a ser substituído de acordo com as suas necessidades. Por exemplo, <nome\_do\_arquivo> referir ao nome de um arquivo. Se o nome é `foo.txt` você deve digitar `foo.txt`, e não `<foo.txt>` ou `<nome_do_arquivo>`.

Os colchetes (“[ ]”) denotam argumentos opcionais, que podem ou não ser incluídos no comando.

As reticências (“...”) significam um número arbitrário de argumentos que podem ser incluídos.

As chaves (“{ }”) contém os argumentos autorizados neste lugar específico. Um deles deverá ser colocado aqui.

### 4.2.2. Anotações Especiais

De tempo em tempo você será direcionado a pressionar, por exemplo, as teclas **Ctrl-R**, o que significa que você deve pressionar e manter pressionada a tecla **Ctrl** e então pressionar a tecla **R** em seguida. O mesmo caso se aplica para as teclas **Alt** e **Shift**.



Nós utilizamos letras maiúsculas para representar as teclas, mas isto não significa que você tem que digitá-las em maiúscula também. Entretanto, pode haver programas em que **R** não significa o mesmo que **r**. Você será informado quando estiver trabalhando com estes programas.

Em relação aos menus, acessar o item Arquivo→Recarregar configuração do usuário (**Ctrl-R**) significa: clique no texto Arquivo exibido no menu (normalmente localizado na diagonal superior esquerda da janela). Então, quando o menu desdobrar, clique no item Recarregar configuração do usuário. Além disto, você é informado que pode utilizar a combinação de teclas **Ctrl-R** para obter o mesmo resultado.

### 4.2.3. Usuários Genéricos do Sistema

Sempre que possível nós utilizamos dois usuários genéricos em nossos exemplos:

Queen Pingusa	queen	Este é o nosso usuário padrão, utilizado na maior parte dos exemplos neste livro.
Peter Pingus	peter	Este usuário pode ser criado mais tarde pelo administrador do sistema e, às vezes, é utilizado para variar durante o texto.

## 5. Managing Configuration Profiles

A profile is a specific set of configuration settings suited for a computer in a given environment. Profiles allow you to store configuration parameters specific to certain environments and to switch between them, according to the context.

By default Mandriva Linux Control Center profiles enable you to configure network setups for different locations. This is especially useful for laptops which need a different configuration for home, at the office, the coffee shop, etc. It also allows you to activate different services from one profile to another (see Seção 5.2).

### 5.1. Profile Handling

New profiles you wish to create are based on the active one. All modifications are automatically recorded in the active profile. A single menu (Profiles) lets you manage them.

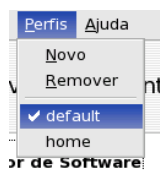


Figura 2. The Control Center's Profile Menu

#### New

Creates a new profile based on the active one's settings. A dialog pops up asking for the name of the new profile. Don't forget to switch to that profile after creating it.

#### Delete

Shows a list of profiles you can remove. The active profile won't be shown because it can't be removed while being used.

#### default

The entries which follow correspond to all available profiles, the active one being checked. Click on a profile name to switch the host configuration to that profile.

Let's take an example. You come back home with your brand new laptop which your system administrator configured so you can connect to your corporate network. You now want to configure the network to access the Internet from home with a dialup connection.

1. Create a new profile called "Home".
2. Switch to it.
3. Reconfigure your network so that the modem, instead of the network card, is used to access the Internet (see Seção 4.1).
4. Connect to the Internet.
5. When back at the office, switch back to the "default" profile.

### 5.2. Choosing a Profile at Boot Time

It's more convenient to specify a profile at boot time than to activate it once the system is booted. drakboot (Seção 8.2) allows you to associate a specific profile to each menu entry of the bootloader.

Nome	linux
Imagem	/boot/vmlinuz
Raiz	/dev/hda1
Acrescentar	acpi=ht resume=/dev/hda5 splash=silent
<input checked="" type="checkbox"/> Padrão	
Modo de Vídeo	800x600 16bpp
Initrd	/boot/initrd.img
Perfil de Rede	default
<div> <div>Cancelar</div> <div>Básico</div> <div>Ok</div> </div>	

**Figura 3. Associating a Profile to a Boot Entry**

Create or modify a boot entry in drakboot. In the Advanced options, access the Network profile pull-down menu and select the profile you want to associate to it.

## 6. The Drakbug Reporting Tool

If you encounter unexpected behavior in Mandriva Linux-specific tools, Drakbug allows you to report it to the development team.



To be able to report bugs using Drakbug, you need a working Internet connection as well as a Drakbug account (<http://qa.mandriva.com/createaccount.cgi>).

To run Drakbug, go to the Help→Report Bug menu entry of the faulty tool, or run it from Mandriva Linux Control Center's own menu. Drakbug can also be triggered automatically by a crashed Mandriva Linux tool.



**Figura 4. Reporting a Bug**

In order to correctly report a bug, it is important to identify the package it is related to. To make this task easier, enter the application name in the Application Name (or Full Path) field and click on the Find Package button.

Click on the Report button. Your web browser will then open. If you are not logged in to the Mandriva Bugzilla web site (<http://qa.mandriva.com/>) you will be asked to log in (or create an account if you do not have one). Once you are logged on the site, complete the bug report as completely and accurately as possible and click on Commit





## Capítulo 1. Gerenciamento de Pacotes através do Rpm Drake

Mandriva Linux usa o sistema de pacotes RPM e oferece ferramentas convenientes para simplificar a instalação destes pacotes através da resolução automática de dependências. O conjunto de programas urpmi é baseado na linha de comando e discutido rapidamente no *Manual de Referência*; aqui iremos nos concentrar no Rpm Drake: a ferramenta gráfica de instalação de programas do Mandriva Linux.

Rpm Drake é constituído por diversas ferramentas que podem ser acessadas através de Sistema+Configuração+Pacotes no menu principal ou então através do ícone Gerenciador de software no Mandriva Linux Control Center (veja Figura 1-1).



Figura 1-1. Gerenciador de Software no Centro de Controle Mandriva

Recomendamos que você acesse o Rpm Drake através do Mandriva Linux Control Center.

### 1.1. Instalando Programas



Ao iniciar esta ferramenta, será necessário aguardar alguns momentos enquanto Rpm Drake analisa a base de dados de pacotes. Após esta análise, a interface Instalação de Pacotes de Software será apresentada.



**Figura 1-2. A interface de Instalação de Pacotes de Software**

A janela está dividida em quatro partes: a parte superior apresenta algumas possibilidades de manipulação da lista de pacotes que podem ser instalados. Esta lista está no meio, à esquerda. Ao seu lado, à direita, temos uma área onde pode ser vista uma descrição do pacote atualmente selecionado. Na parte inferior da janela existem dois botões e informações sobre quanto espaço em disco será necessário para instalar os pacotes selecionados, bem como quanto espaço livre existe atualmente.



Além disto, uma barra de estado na parte inferior da janela exibe mensagens sobre as ações atualmente em progresso ou uma notificação sobre quando alguma tarefa foi terminada.

### 1.1.1. Selecionando Pacotes para Instalação

Vamos analisar a figura Figura 1-2 em mais detalhes. Um pacote chamado “frozen-bubble-1.0.0-7mdk” está selecionado na visão em árvore e, na área que descreve o pacote, temos exibidas as informações de espaço em disco necessário, um pequeno resumo (Frozen Bubble, jogo tipo arcade) e uma descrição mais detalhada (cheio de recursos, pingüim colorido, animado e bonitinho...).



Se sua mídia de instalação estiver configurada para utilizar a lista completa de pacotes (ou seja, não o formato parcial *synthesis*, mas sim o formato completo *hdlist*, que é o padrão da instalação do sistema Mandriva Linux), informações adicionais sobre o pacote podem ser obtidas através da opção Informação máxima na área de acesso. Além disto, uma lista dos arquivos fornecidos pelo pacote e seu registro de alterações também podem ser vistos.

A barra de estado informa o espaço em disco necessário para instalar os pacotes selecionados bem como quanto espaço livre ainda existe no momento. Note que, devido às dependências, o espaço em disco necessário pode ser maior que o espaço necessário para apenas o pacote selecionado.



O Rpm emitirá um alerta caso não haja espaço em disco suficiente para executar a instalação pedida. Você pode, no entanto, continuar mesmo assim (você pode, por exemplo, remover arquivos que não são mais necessários, como programas baixados da Internet no passado e que não são mais usados, de forma que a instalação possa continuar).

Agora a instalação pode ser iniciada, bastando para isto clicar no botão Instalar. Uma nova janela aparecerá com uma barra de progresso mostrando o andamento da instalação. Para sair sem executar nada, basta clicar no botão Cancelar.

Durante a seleção dos pacotes, pode acontecer que seja selecionado um pacote que requer dependências adicionais para funcionar corretamente (como bibliotecas novas ou outra ferramenta). Neste caso, Rpm mostrará uma janela onde as dependências adicionais poderão ser aceitas ou não. Para rejeitar as dependências, clique no botão Cancelar (Figura 1-3).



**Figura 1-3. Rpm — janela de alerta de dependência**

Outro cenário possível: você deseja instalar um pacote que requer dependências e vários outros pacotes são capazes de prover as dependências necessárias. A lista de pacotes alternativos será então exibida (Figura 1-4). Você pode analisar a informação adicional apresentada clicando no botão Informação... de forma a poder escolher a melhor alternativa.



**Figura 1-4. Rpm — alternativas de pacotes**

Vamos agora analisar em mais detalhes as funções de pesquisa e ordenação disponíveis para facilitar seu trabalho de administração do sistema.

### 1.1.2. Procurando Pacotes

Algumas vezes você pode conhecer uma ferramenta que viu em algum lugar ou sobre a qual ouviu falar na casa de um amigo e agora fica imaginando como encontrar e instalar este programa.

É bastante fácil: apenas digite o nome (ou parte dele) na área de texto ao lado do botão Procurar. Agora escolha, a partir da lista, onde você gostaria de realizar esta pesquisa (no nome do pacote, na sua descrição ou na lista de arquivos pertencentes ao pacote). Após clicar no botão Procurar, uma nova lista aparecerá (Resultados da busca), mostrando o que o Rpmdrake encontrou.

Vamos analisar as opções de ordenação:

#### Recomendação do Mandriva Linux

Esta opção de ordenação mostra a lista de pacotes nos quatro grupos que foram vistos durante a instalação do Mandriva Linux. Esta é a opção de ordenação mais simples e fácil pois ela se concentra em apenas uma parte específica dos pacotes disponíveis: aqueles que são considerados os mais úteis da distribuição.

#### Todos os pacotes, alfabeticamente

Ao invés de uma visão em árvore, esta opção mostra uma lista simples de todos os pacotes disponíveis que podem ser instalados no seu sistema.

#### Todos os pacotes, por grupo

Aqui os pacotes são exibidos agrupados de acordo com sua função (por exemplo: Jogos, Sistema, Vídeo, etc.).

#### Todos os pacotes, por tamanho

Nesta opção, a lista de pacotes está ordenada por tamanho (o maior pacote no topo e o menor no fim da lista).

#### Todos os pacotes, por estado de seleção

Ao escolher esta ordenação, será apresentada uma lista simples onde os pacotes selecionados são apresentados primeiro e os outros logo abaixo. Para tornar isto mais fácil, estas duas partes da lista estão ordenadas alfabeticamente. Esta opção de ordenação é particularmente útil para ser usada momentos antes de executar a instalação desejada, pois facilita a visão dos pacotes que serão instalados.

#### Todos os pacotes, por repositório de mídia

Mais uma vez os pacotes estarão ordenados alfabeticamente, mas desta vez eles são exibidos sob o nome do repositório de mídia que os contém.

#### Todos os pacotes, por disponibilidade de atualização

Neste modo, dois grupos de pacotes podem surgir: um contém a lista de pacotes que podem ser acrescentados ao seu sistema, e o outro contém a lista de pacotes que podem ser atualizados (ou seja, uma versão antiga está atualmente instalada e existe uma nova disponível).

## 1.2. Removendo Programas



Como esta interface funciona de forma semelhante a “Instalando Programas”, não iremos repetir suas funções básicas. A única diferença para a interface de instalação de programas é que você irá lidar com pacotes que já estão instalados e escolher quais serão removidos em vez de que pacotes serão instalados.

### 1.3. Atualizador do Mandriva Linux



Mais uma vez: se você já trabalhou com a interface de instalação de programas do Rpmdrake, então irá se sentir confortável com a interface do Atualizador do Mandriva Linux. Mas vamos analisar alguns aspectos deste aplicativo mesmo assim.

Assim que esta ferramenta for iniciada, ela pedirá para que seja escolhido um repositório Internet que deverá ser analisado à procura de atualizações. Você deve escolher o que estiver mais próximo da sua região geográfica.

Uma pequena diferença em relação à interface do programa de instalação de pacotes é a possibilidade de se escolher que tipo de atualização se deseja instalar. Você pode selecionar:

#### Atualizações de segurança

Estas atualizações resolvem problemas de segurança e devem ser instaladas o quanto antes.

#### Atualizações para correção de erros

Estas atualizações corrigem problemas diversos nas aplicações.

#### Atualizações normais

São atualizações que trazem alguma pequena melhoria ou nova característica.

A outra diferença é uma nova seção de texto (chamada "motivo da atualização") existente dentro da área de descrição do pacote. Ela oferece informações sobre o motivo desta atualização ter sido tornada disponível. Isto pode ajudar na decisão de atualizar o pacote ou não. Se você tiver uma conexão Internet lenta, ou tiver que pagar por MB durante o download, por exemplo, pode ser importante conhecer o motivo da atualização.

Se você ainda não estiver familiarizado com esta interface, por favor consulte Seção 1.1 para saber mais.

### 1.4. O Gerenciador de Mídias de Programas



Esta parte do Rpmdrake é dedicada para a configuração dos repositórios de pacotes. Como pode ser visto em Figura 1-5, existem algumas mídias já configuradas: "Main", "Contrib", etc. Com esta ferramenta, você pode adicionar outras mídias de programas: um CD de uma revista contendo RPMs, um repositório web, etc.



**Figura 1-5. O “Gerenciador de Mídias de Software”**

As caixas de seleção nas colunas à esquerda permitem que você marque os repositórios:

#### Habilitar?

Desmarque esta opção para temporariamente desabilitar a mídia correspondente. Os pacotes contidos nesta mídia não estarão disponíveis para instalação até que ela seja habilitada novamente.

#### Atualizações?

Esta caixa de seleção deverá estar marcada para mídias de atualizações, ou seja, mídias que contenham atualizações de pacotes que já estão em alguma outra mídia, mas com versão mais antiga. Desta forma apenas mídias marcadas desta forma são analisadas durante uma atualização.

Botões diversos que permitem executar alguma ação na mídia selecionada.

#### Remover

Permite que uma mídia que não está mais em uso seja removida. Basta selecionar a mídia a ser removida e clicar neste botão.

#### Editar

Aqui você pode modificar a URL ou o diretório relativo do arquivo `synthesis/hdlist` (se você não estiver entendendo este assunto é recomendado que saia da janela através do botão Cancelar em vez de Salvar alterações).

Caso você precise utilizar um proxy para acessar alguma mídia, ele pode ser configurado através do botão Proxy.... Note que você também pode definir uma variável global de proxy para todas as mídias remotas através do botão Proxy... da interface principal.

Esta opção também permite que se mude o formato do repositório de `hdlist` para `synthesis`, que é bem menor mas contém menos informações sobre os pacotes. Arquivos `synthesis` somente possuem informações sobre o nome dos pacotes, suas dependências e um pequeno resumo. Não será possível, por exemplo, realizar pesquisas sobre os arquivos contidos em pacotes não instalados e a descrição completa também não estará disponível.

Adicionar...

Use este botão para adicionar ao seu sistema todas as fontes de pacotes publicamente disponíveis em repositórios da Internet. Isto é útil, por exemplo, caso você tenha uma conexão rápida ou somente possui o primeiro CD de instalação disponível. Escolha um servidor geograficamente perto da sua localização.



**Figura 1-6. Rpm Drake — acrescentando uma nova fonte**

Após escolher um servidor e clicar no botão Ok, informações sobre os pacotes disponíveis nesta fonte serão baixadas e todos os pacotes estarão disponíveis para instalação e atualização.

Adicionar personalizado...

Este botão abre uma janela de diálogo onde uma nova mídia de instalação de pacotes de software pode ser acrescentada.



**Figura 1-7. Rpm Drake — acrescentando mídias**



#### Atualizar...

Ao clicar neste botão, uma lista das mídias já definidas será apresentada. Você pode escolher aquelas cuja lista de pacotes você deseja atualizar. Isto é útil para mídias remotas que receberam novos pacotes na sua base. Depois de fazer esta seleção basta clicar em Atualizar para iniciar o processo.

#### Gerenciar chaves...

É muito importante que quaisquer pacotes que forem instalados sejam autenticados. Cada pacote pode ser assinado digitalmente com uma “chave”, e você pode permitir ou proibir certas chaves de forma individual por mídia. Em Figura 1-8, você pode ver que a chave da Mandriva Linux está autorizada para a mídia “CD de Instalação”. Clique em Adicionar chave... para autorizar uma outra chave para a mídia selecionada (atenção: faça isto com cuidado, como em todas as questões de segurança). Para remover uma chave associada com uma mídia, clique em Remover chave.



**Figura 1-8. Rpmdrake — gerenciando chaves**

#### Proxy...

Se você estiver atrás de um firewall e precisar ter acesso a mídias remotas (para atualizações, por exemplo), você pode fazê-lo se tiver um servidor proxy que permite o acesso à Internet (pelo menos à região onde houver um servidor de atualizações). Normalmente é suficiente preencher o campo Servidor proxy para ter isto funcionando (Figura 1-9). Se você precisar de uma combinação de usuário / senha, isto também pode ser especificado aqui. As alterações podem ser confirmadas através do botão OK.





**Figura 1-9. Rpm Drake — configurando um proxy**

#### Paralelo...

Se você estiver administrando uma grande rede de computadores, pode querer instalar os pacotes em todos eles em paralelo; este botão abre uma janela de diálogo que permite a configuração do modo “paralelo”. Como este modo é relativamente complicado e somente é útil para um grupo limitado de pessoas, esta curta introdução não irá fornecer mais detalhes.

#### Opções globais...

Este botão permite que se escolha o programa utilizado para baixar os pacotes e se a fonte deve ser verificada com uma chave ou não. Estas opções afetam todas as fontes configuradas.



#### Setas para cima e para baixo

Estes botões permitem que a ordem de utilização das fontes seja alterada.

#### Para usuários avançados

O Rpmrake processa o arquivo de configuração do urpmi (/etc/urpmi/urpmi.cfg) do início até o fim para obter a lista de repositórios e pacotes contidos em cada um.

Caso um repositório posterior contenha pacotes que também existem em um repositório anterior (isto é, mais próximo do topo do arquivo), apenas aparecerão os pacotes do repositório posterior. Se o repositório posterior tiver **todos** os pacotes de algum repositório anterior, este repositório anterior nem será exibido.

Desta forma, se seu arquivo urpmi.cfg tiver por exemplo cinco repositórios definidos, é possível que Rpmrake exiba apenas o último se ele tiver todos os pacotes já contidos nos quatro repositórios anteriores. Alterar a ordem de definição das mídias no arquivo urpmi.cfg pode causar uma exibição de mídias mostradas pelo programa Rpmrake bem diferente mesmo estando os mesmos pacotes disponíveis.

De qualquer forma, os pacotes não deixarão de estar disponíveis, é apenas a lista de repositórios que será diferente.



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## Capítulo 2. Controlling a Remote Machine

Being able to remotely control another machine offers many possibilities, from remote technical assistance to teaching how an application works. In this chapter we describe the configuration and usage of Rfbdrake, a tool to easily set up a virtual network computing environment under Mandriva Linux.

### 2.1. Concepts

Here are a few concepts:

#### Virtual Network Computing (VNC)

An environment which allows you to interact with a remote computer “as if you were sitting in front of that computer”. The computers don’t have to be of the same type, nor do they have to be running the same OS: they only need a working TCP/IP network connection.

#### Controlled Computer

This is the computer to be controlled without the need, or the possibility, to be actually sitting at its console. It is remote from your location. Also called the “server”.

#### Controlling Computer

This is the computer in front of which you’re sitting, from where you interact with the controlled (remote) computer. Also called the “viewer”.

### 2.2. Installation and Setup



Make sure the `rfbdrake` package is installed and then access Rfbdrake through the Mandriva Linux Control Center: an Online Administration section is accessible from which you can start the Remote Control of another machine (Linux/Unix, Windows) utility<sup>1</sup>.

#### 2.2.1. Controlled Computer Setup

In this section, we assume you can access Rfbdrake. If this is not the case (typically remote administration tasks), then you need to:

1. Make sure the `tightvnc-server` package is installed on the remote machine.
2. Connect to the remote machine using `ssh`.
3. If it’s not already running, start the VNC server by executing `vncserver` in a console. If this is the first time `vncserver` is run on the system with that user account, then you have to enter the password clients will have to use to connect and confirm it. The system informs you which display number clients have to use. Run `vncserver -kill :DISPLAY_NUMBER` when you no longer need the VNC server.

Then connect as a client to control the remote machine (see Seção 2.2.2).


For the machine that will act as the controlled (server) computer, select the Allow control of my machine (linux server) option. Fill the Set Password field. This is mandatory or Rfbdrake will complain. Please bear in mind that this password is not related to the user’s local/remote account password in any way.

---

1. You can also launch Rfbdrake by choosing Internet+Remote access→Virtual Network Connection in the main menu.



**Figura 2-1. Server Options**

 Once you click on the Launch server this icon indicates that the computer is ready to accept incoming VNC connections. Closing it will stop the VNC server. Right-click on it to access a pop-up menu with some options.



If the system to be controlled is behind a firewall, then you have to make sure that port `tcp/5900+N` is opened in the firewall, where `N` is the VNC server display number.

### 2.2.2. Controlling Computer Setup

On the machine which will act as the controller (viewer) computer, select the Want to take control (linux client) option. Fill the Remote server Address pull-down list with the IP address or hostname of the computer to be controlled. Fill the Display Number field with the remote computer's display number, or leave it empty to use the default (display number : 0).



**Figura 2-2. Viewer Options**

To access the VNC server, enter its related password in the Enter Password field. Put a mark in the FullScreen check-box to have the remote computer's desktop use all of the controller computer's screen. Otherwise the remote desktop will be displayed in a window. Once you are satisfied with your settings, click on the Connection button to access the remote computer.

### 2.3. Connecting to a Windows® Terminal Server



Figura 2-3. Windows Terminal Services Options

Select the Windows Terminal Services option to connect to Terminal Services on a Windows® machine. Fill the Windows Hostname pull-down list with the hostname of the Windows® machine or its IP address. Select a desktop size in the Screen Size pull-down list and a language for the keyboard in the Keyboard Language pull-down list. Click on the Connection button once you're satisfied with your settings.

### 2.4. Remote Control in Action

Once you connect to the remote computer you see its desktop and you are able to perform **any** action as if you were sitting in front of it.



**Figura 2-4. Controlling a Remote Computer**



The mouse cursor becomes a round point and the remote computer's arrow-cursor will "follow" it. This can prove useful to keep track of where the cursor is at any given time.

The limiting factor of the response time of the remote computer is the speed of the link to it. For LAN connections (typically 100 Mbps), you will feel that you're really in front of the remote computer. For Internet connections (typically between 56 Kbps and 1-2 Mbps), don't expect "instantaneous" response from the controlled computer.

Once you've finished using the remote computer, you can disconnect from it by closing the VNC viewer window. If you're using the full-screen mode, press the **F8** key and select the Quit viewer option from the menu which pops up.

## 2.5. More Documentation

This short introduction to VNC has hopefully shown you some of the possibilities of remotely controlling computers. The options are endless, please refer to the TightVNC Documentation (<http://www.tightvnc.com/docs.html>) and to the VNC Documentation (<http://www.realvnc.com/documentation.html>) web sites.





## Capítulo 3. “Hardware” Section

### 3.1. Configuring your Hardware

#### 3.1.1. Hardware Detection and Configuration



The HardDrake project has been developed to simplify hardware detection and configuration under GNU/Linux by providing a user-friendly interface.

##### 3.1.1.1. What Is HardDrake?

HardDrake is a service for hardware detection, run at system boot time, and also a full GUI-based tool which ties together many of the tools already included in a GNU/Linux distribution. It automates and simplifies the process of installing new hardware. For the most part, HardDrake will be able to detect most devices.

On one hand, HardDrake is used to display information, and on the other, it can launch configuration tools. With its easy-to-use interface, you can browse all the hardware your system contains.

HardDrake uses the “ldetect” engine, so if your new hardware is not detected, you may try to upgrade the ldetect library itself and its hardware database, located in the ldetect-1st package.

##### 3.1.1.2. Usage

To launch HardDrake, you can start it through:

- the Mandriva Linux Control Center: click on the Hardware category, and then on the Hardware icon.
- a terminal: type `harddrake2` as `root`. You can also pass parameters to HardDrake through the command line (type `harddrake2 -h` to get a list of possible parameters).
- the desktop: go to the main menu. The HardDrake entry is in the System+Configuration+Hardware→HardDrake sub-menu.

After all devices have been detected, the main HardDrake window will appear (see Figura 3-1).

On the left, you can see the device tree showing you all of the hardware categories.



Figura 3-1. Selected Device

By selecting a device, you will see additional information about it in the right frame. To better understand the meaning of the information presented, you can consult the help page accessible by choosing Help→Fields description from the menu.

Depending on the device selected, two other buttons may appear:

- **Configure module.** This pops up a window with all the module device parameters listed. **For experts only!**
- **Run config tool.** Launches the Mandriva Linux configuration tool (available through the Mandriva Linux Control Center) associated with that device.

A special category called *Unknown/Others* might also show up, containing all the currently unknown hardware in your system, as well as known hardware that does not fit into the existing categories (such as thermal sensors, random number generators, etc.).

You can also toggle the entries in the Options menu to enable automatic detection of some hardware which wouldn't have been detected otherwise. You need to restart HardDrake for those changes to have effect.

If you have a Mandriva Online account and want to help us improve hardware support under Mandriva Linux, or want to see your hardware better supported in the future, you can choose File→Upload the hardware list from the menu and fill the form with your account data, then click on the Ok button: your hardware list will be uploaded. You need a working Internet connection.

### 3.1.2. Problems/Troubleshooting

If you think you have found a bug related to HardDrake, report it using the Mandriva Linux bug reporting tool (see Seção 6).

HardDrake does not probe for ISA PnP devices. If you have an ISA PnP sound card, run `sndconfig` or `alsaconf` from the command line. You may need to install the `sndconfig` package or the `alsa-utils` package.

## 3.2. Controlling the Graphical Configuration

This set of tools allows you to configure your graphical display. With it you will be able to change your video card, your resolution and your monitor. It can be useful if you happen to change one of your graphical components after the initial installation.



If you cannot boot into graphical mode and you end up in a console (command-line interface), log in as `root` and launch `XFdrake`. You will get a tool similar to the one described in Seção 3.2.3, but in text mode.

The graphical configuration tools are accessible through different icons in the Mandriva Linux Control Center Hardware section.

### 3.2.1. Changing the Monitor



Figura 3-2. Choosing a New Monitor



This tool allows you to change the monitor type currently in use. When you click on it a window pops up, listing many monitor models (see Figura 3-2). If your monitor was automatically detected it will be listed as Plug'n Play along with its model.

If your monitor wasn't automatically detected, you can choose it from the list. If you don't find your monitor or a compatible one, choose one with parameters corresponding to your own monitor from the Generic entry, at the bottom.

### 3.2.2. Changing Resolution



**Figura 3-3. Changing the Resolution of your Screen**



This tool enables you to change the current screen resolution (800x600, 1024x768, etc.) and the color depth. Simply choose the one you wish to use. The monitor in the window displays what the desktop will look like with the chosen configuration (see Figura 3-3). If it looks good, click on OK.

The changes will be activated after you quit and restart your graphical environment.

By default, the available resolution list only shows resolutions supported by your video card and monitor combination. There is a special entry named Other which adds more possible resolutions along with their ratio. Bear in mind that most monitors are designed with a 4 : 3 horizontal vs. vertical ratio.

### 3.2.3. Controlling All Video Parameters



**Figura 3-4. XFdrake Main Window**

If you happen to change your video card after installing your system, or want to have full control over the graphic configuration, run as `root`, `XFdrake` from a console. The tool shown in Figura 3-4 will be shown.

Let's look at the interface. The first three buttons allow you to change certain aspects of the graphical configuration:

#### Graphic Card

The button displays the name of the graphic card currently configured. If you wish to change it, just click on it. Depending on your card, different servers may be available, with or without 3D acceleration. You may need to try different ones until you get the best result.

In case you cannot find the graphic card you have, but you know which driver supports it, select it from the Xorg entry at the bottom.

#### Monitor

Enables you to change the monitor with the tool described in Seção 3.2.1.

#### Resolution

Enables you to change the pixel resolution and the color depth with the tool described in Seção 3.2.2.

Then, there are more buttons:

- **Test.** Click on this button to verify that your modifications actually work. It is highly recommended you do test it, because if it does not work, it will be harder later to recover a working graphical environment. If the test fails simply wait until it ends. If you are not satisfied with the suggested settings, choose No during the test, and you will be returned to XFdrake's main menu.



Depending on your video card, video testing may not be available. You will be warned of such a situation. If it happens that the settings are incorrect and your display does not work, refer to the *Resolvendo Problemas* section of the *Guia do Usuário* manual to use XFdrake's text version.

- **Options.** You can choose to start the graphical server when your system boots. Answer No if you prefer to have a text login. Selecting Yes will launch the graphical login manager at boot time.
- **Quit.** If you modified your graphical display in some way, the current configuration will be displayed and XFdrake will ask you whether you want to keep your changes or not. This is your last chance to go back to the old configuration. If all seems OK, click on Yes. If you wish to restore the previous parameters, click on No.

The changes will be activated after you confirm them and restart your graphical environment.

### 3.3. Setting up a TV Card with DrakxTV



This tool will configure your TV tuner card in order for you to watch television on your computer display.

First of all you should make sure your card is supported by Mandriva Linux by consulting the Hardware Compatibility page (<http://www.mandriva.com/hardware>) or the BTTV driver home page (<http://linux.bytesex.org/v4l2/bttv.html/>).



Modern TV viewing programs have their own configuration and channel-scanning interface embedded. You only need to run DrakxTV if you plan to use xawtv with old TV cards based on the btxxx or saa71xx chips.



Make sure your card is correctly connected to your antenna or cable, so that channel scanning runs properly.



**Figura 3-5. Choosing the TV Card Model**

When you first launch the tool, and if a TV card is detected, the main configuration dialog (Figura 3-5) will appear. Leave the default Auto-detect entries and press OK. If you notice afterward that your card was not properly configured, you can run DrakxTV again and select the proper card.



**Figura 3-6. Choosing the TV Norm and Country**

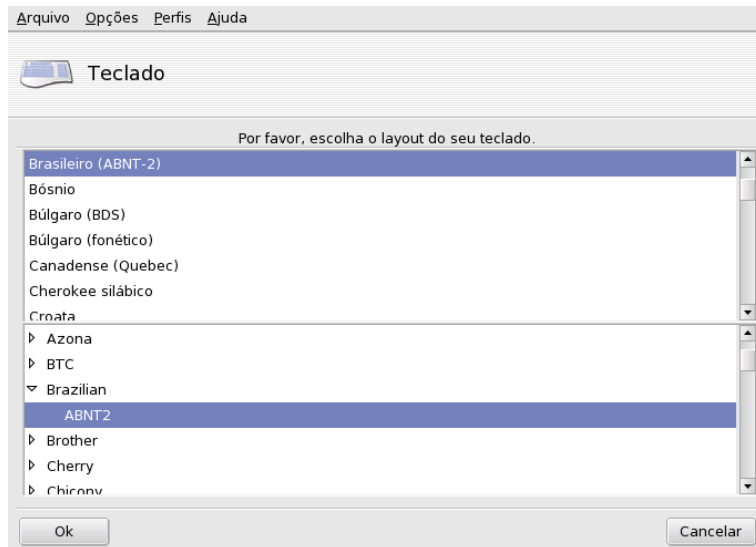
You simply need to inform DrakxTV about the norm used for the television signal you receive, and the country you're in. You also have to select the user who is going to use xawtv so that his configuration file is created.

After you press OK, DrakxTV will begin automatic channel scanning. Once this is done, your TV setup will be complete and you will be able to watch television on your computer using xawtv. Other applications allowing to you watch TV under Mandriva Linux are kdetv, tvtime and zapping.

## 3.4. Changing your Keyboard Layout



This tool allows you to define another keyboard layout. This is commonly done when the keyboard you want to use is different from the one chosen at installation time.



**Figura 3-7. Choosing a Different Keyboard Layout**

Select your keyboard’s language and then its model from the lists shown in Figura 3-7. If you own a multimedia keyboard and are lucky enough to have it listed in the manufacturer list, chances are most multimedia keys on it will be supported. Otherwise, choose your keyboard type under the Generic branch. Changes are effective immediately after clicking OK.



If you choose a keyboard layout based on a non-Latin alphabet, the next dialog will ask you to choose the key binding that will switch the keyboard configuration between the Latin and non-Latin layouts.

## 3.5. Changing your Mouse



This tool enables you to set up a different mouse, which is useful if the mouse you are currently using is not the same as the one you chose at installation time.



Synaptics Touchpad function is automatically configured to work with almost every touch pad found on notebook computers. The same goes for Wacom® tablets.





**Figura 3-8. Choosing a Different Mouse**

Mice are sorted into a tree according to their connection type and model (see Figura 3-8). Highlight the mouse of your choice and click OK. Changes take effect immediately after the mouse test is done.



The Any PS/2 & USB mice option works with virtually all modern mice.

## 3.6. Configuring Printers with PrinterDrake



This tool allows you to:

- configure a newly installed printer on your machine;
- configure your machine to act as a server for a printer which has just been connected to your local network;
- set up your machine to access network printers served by other servers (GNU/Linux as well as Windows® ones).



If you just installed a printer that wasn't available when you installed Mandriva Linux, make sure it is correctly connected and powered on before launching the configuration tool.

### 3.6.1. Initial Configuration

When you first launch the PrinterDrake tool, it may be in one of these states:

### 3.6.1.1. There is no printer directly connected to the computer.



**Figura 3-9. Activate Printing**

The tool did not detect any local printers. However you can print on network printers, or manually install printers which weren't detected by clicking on Yes.



**Figura 3-10. Activating Network Printers**

- Select the Local CUPS printing system option if you wish to configure your machine to act as a print server for either a local printer which was not detected, or a network printer connected to your local network.  
Any required software will be installed and then the main configuration interface (see Figura 3-11) appears. Click on Add Printer to install the network printer.
- Select the Remote server option if you wish to be able to print on printers served by another CUPS printing server on the network. Your applications will immediately have access to all public printers served by that server. You only need to provide the hostname or IP address of that server in the field below (ask your system administrator).

When this is done, the main configuration interface (see Figura 3-11) appears. The Configured on other machines tab will be filled with the available network printers.

### 3.6.1.2. New Printer Detected

The following window appears when PrinterDrake detects a new printer.

Simply confirm the automatic installation of the new printer. The main configuration interface (see Figura 3-11) is then displayed. Make sure to check that the printer parameters fit your needs (see Seção 3.6.5).

### 3.6.1.3. Printer Configured at System Installation Time

The main configuration interface (see Figura 3-11) is shown. Make sure to check that the printer parameters fit your needs (see Seção 3.6.5).

## 3.6.2. The Printer Management Interface

Use the printer configuration tool’s first tab for locally connected printers (Configured on this machine), and the other tab for printers available on your local network (Configured on other machines).



If your local printer was automatically added you should now verify its configuration. Select it in the list, click on Edit and check the Printer options.



**Figura 3-11. Managing Printers**

The following buttons give you access to all available maintenance tasks:

- Add Printer: launches the printer configuration wizard described in Seção 3.6.4.
- Set as default: sets the selected printer as the default printer when no specific printer is chosen at print time. A cross appears in the Def. column of that printer.
- Edit: opens the printer configuration dialog described in Seção 3.6.5.
- Delete: removes the selected printer from the available printer pool.

- Refresh: updates the list of printers with possible new or removed printers, especially true for networked printers.
- Configure CUPS: by default, your system is totally open. PrinterDrake uses all of the network’s available printers and shares all of its local printers with the local network. Click on this button if you don’t want to access network printers, or if you want to restrict the access to your local printers. This dialog also lets you configure access to servers outside the local network.



The Options→Expert mode menu adds extra features to the tool.  
See Seção 3.6.6.

### 3.6.3. Print Server General Configuration

The Configure CUPS button allows you to control the behavior of printers connected to your machine and to your network.



**Figura 3-12. CUPS Printer Server Configuration**

This dialog enables you to switch between the client and server printing modes through the Remote CUPS server and no local CUPS daemon button.

### 3.6.3.1. Client Mode



**Figura 3-13. Client Mode Configuration**

Select the On option to connect to another printer server. You then just need to specify the name or IP address of that server in the field below.

If you choose this mode, your printing configuration is now finished. Accept the options by clicking the OK buttons, and you will be able to check the list of available printers in the Configured on other machines tab of the main interface (see Figura 3-11).

### 3.6.3.2. Server Mode

If you want your machine to access locally connected printers (through parallel or USB ports), or network printers not already configured on another server, you need to select the Off option. Click OK, and you will then be able to fine tune your printer server (see Figura 3-12).

A number of options are available to further secure and enhance your print server features:

The printers on this machine are available to other computers

Allows other computers to print on printers configured locally. Remember to restrict access by clicking on Printer sharing on hosts/networks (see below).

Automatically find available printers on remote machines

Tells your print server to automatically make available all printers found on other servers on the local network, as if they were locally connected to your print server. This way your system’s users are able to print on any printer the print server “sees”. If the remote printers you intend to use are served by a server not on your local network, you can still tell the print server to use them with the Additional CUPS servers button (see below).

Printer sharing on hosts/networks

Allows you to specify from which networks the local printers are made available.

#### Additional CUPS servers

Allows you to specify one or more CUPS servers to which you can connect and access printers. Specify the IP address and port of the CUPS server in the dialog.

#### Japanese text printing mode

Replaces the original text filter for one more suited to Japanese texts, but with less features. Use it if you have to print Japanese text-only files.

### 3.6.4. The Printer Configuration Wizard

Click on Add printer and the configuration wizard comes up.

#### 3.6.4.1. Detecting a Printer

This tool enables the auto-detection of locally connected printers, network printers, and finally printers served by SMB (Windows®) servers. First choose which type of printer you want to add (Local printer, Network printer, Printer on remote lpd server, etc.).



**Figura 3-14. Printer Type**

Select the printer you want to add from the list. If the detected printer isn't the correct one check the Manual configuration box and proceed with the printer model step (see Figura 3-16). If autodetection fails, remove the check mark from all check boxes, click on Next and follow the instructions below.

If you own a multi-function device like those of HP or Sony, an information window pops up and gives you information about your scanner and scanner software (Seção 3.7.1.1). Additional packages are also installed.

PrinterDrake displays your printer's model name. Choose Select model manually if it's incorrect. Select the printer you have or a compatible one (see Figura 3-15) if yours is not specifically listed.



**Figura 3-15. Choosing the Printer Model**

If you want to install the driver supplied by your printer manufacturer, click on the Install a manufacturer-supplied PPD file button and select the medium containing the PPD file and browse to it. Accept subsequent dialogs to use your chosen PPD file.



**Figura 3-16. Choosing a Name for your Printer**

Provide a name for your printer. The printer name must contain only letters, numbers and the underscore

(“\_”) character. It’s better to limit its length to 12 characters maximum so that Windows® clients don’t have problems when accessing it through Samba.



If you have one or more configured printers, you are asked whether the printer you are configuring is to be the default printer. If you say No, the previous default printer will be retained.

Finally we strongly recommend that you print a test page in order to make sure everything works as expected.

#### 3.6.4.2. Printing Options

Once the configuration is done, the options associated with the chosen printer are shown (see Figura 3-17). It’s important you choose the proper settings (such as paper size, media source, etc.) currently installed on the printer. If the settings you choose are incorrect, printing may fail.



**Figura 3-17. Configuring the Printer’s Options**



For settings referring to printout quality, bear in mind that higher quality levels may make the printing operation slower and may consume more ink.

#### 3.6.4.3. Printer Test

A few test pages are available (see Figura 3-18). We recommend you print at least one test page so you can immediately correct the parameters if something goes wrong. The printer should begin to print almost immediately.





**Figura 3-18. Testing the Printer**

#### **3.6.4.4. It's Done**

If you're not satisfied with your test page, answer the appropriate question with No and you will be led to the printer configuration menu (see Figura 3-19) where you can correct the settings. See Seção 3.6.5.

Your printer will now appear in the list of available printers in the main window (see Figura 3-11).

#### **3.6.5. Reconfiguring an Existing Printer**

Double-clicking on a printer's name in the list, or clicking on the Edit button, displays a menu where you can choose actions to take on the selected printer (Figura 3-19). Each option gives access to a particular step of the wizard we described above (see Seção 3.6.4). One difference is that the current settings are predefined in all fields, and you may update them where required.



**Figura 3-19. Modifying an Existing Printer**

There are a few additional options:

1. **Disable Printer.** Use this option to remove that printer from the printers available to the system's users. You might need to temporarily disable a printer under maintenance so that users don't try to use it in the meantime. When a printer is disabled, that option changes to **Enable printer**.
2. **Learn how to use this printer.** Displays information on how to use a particular printer model. In the case of a multi-function device from HP, information about scanning and photo memory card access is also displayed.
3. **Remove printer.** Deletes that printer's configuration from the system.

Select an action in the dialog and then click on the **Do it!** button to perform it.

### 3.6.6. Expert Mode

The expert mode has three additional features:

- **Choose a Different Driver to the Default One for a Printer.** Different drivers are available for the same printer. In expert mode, a third level appears in the printer model selection list (see Figura 3-15). It allows you to change each printer's driver.
- **Install Many Kinds of Remote Printers.** This feature enables you to print on remote printers using the LPD protocol, printers on Windows® servers which require authorization, or other arbitrary printer types.



If PrinterDrake is in expert mode, it doesn't automatically configure new local printers on start-up. Use the **Add printer** button to configure the printer. However you can choose to **Configure Auto Administration** from the **Options** menu to override that behavior.

If you start the new printer wizard in expert mode, there is an additional step at the beginning.



**Figura 3-20. Configuring a Remote Printer**

Different connection types are available:

- Local printer. A printer directly connected to a parallel or USB port on your computer. In most cases, the printer model will be auto-detected.
- Printer on remote lpd server. A printer already served by another machine on a lpd server.
- Network printer (TCP/socket). A printer directly connected to your local network. The network can be scanned and printer models automatically detected provided the Printer auto-detection box is checked.
- Printer on SMB/Windows 95/98/NT server. Relevant for printers already connected to a computer running an OS which serves printers with the SMB protocol, including Samba printers (the necessary Samba components will be automatically installed in this case). The network can be scanned provided the Printer auto-detection box is checked.
- Enter a printer device URI. This option allows you to directly enter the printer’s Universal Resource Identifier (URI) on your network. It can be used for any of the above remote connections, and more. This is useful when your system administrator provides you directly with the printer’s URI.

Click on the Modify timeout for network printer auto-detection button to change the default timeout (4000 milliseconds, or 4 seconds) for detection of networked printers. Please bear in mind that the bigger the timeout, the better the chances of detecting remote printers. However the auto-detection process will also take more time.

### 3.7. Installing and Using Scanners

This section explains how to install a scanner through ScannerDrake, and how to use it with SANE and XSane (scanner interface software). We also present a list of other scanner interface software you could use with GNU/Linux.



Please note that not all scanners are supported under GNU/Linux. Before buying new hardware, remember to check out Mandriva’s Hardware Database (<http://www.mandriva.com/hardware>) and the SANE home page (<http://www.sane-project.org/>) for compatibility issues.

### 3.7.1. Configuring your Scanner

#### 3.7.1.1. ScannerDrake



The ScannerDrake wizard helps you install your scanner. Make sure your scanner is powered on and launch ScannerDrake by clicking on the Scanners entry of the Mandriva Linux Control Center's Hardware section.

The program tries to detect your scanner's manufacturer and model. If it finds one information about it is displayed in the upper part of the wizard's main window. Other options are also available (Figura 3-21):



**Figura 3-21. Installing your Scanner**

Click on Search for new scanners to autodetect a new scanner you just plugged in. Click on Add a scanner manually if the automatic detection fails and look for the specific model you own by browsing through the list of available models.



**Figura 3-22. The Tree-list of All Known Scanner Models**

After choosing the appropriate model, you can leave the default Auto-detect available ports option and click on OK. If you have a parallel port scanner, selecting `/dev/parport0` in the pull-down list should be the right choice.

Your scanner should now be installed and you should be ready to use the programs which come with SANE, XSane or other acquisition software.



Note that HP multi-function devices, such as the OfficeJet and PSC printers, must be configured through PrinterDrake. Please refer to Seção 3.6. The scanning part of non-HP multi-function devices can be set up with ScannerDrake as a stand-alone scanner.

To test that everything works correctly, launch `xscanimage`<sup>1</sup> from a terminal and try to acquire a picture from your scanner. You may first acquire a preview of the scanned image by clicking on the Preview window button, as shown in Figura 3-23.



**Figura 3-23. Acquiring Images with `xscanimage`**

Note that `xscanimage` can also be launched directly from GIMP by choosing File+Acquire+`xscanimage`→Device dialog.

ScannerDrake allows for scanner sharing between users connected via a LAN. Installation is very easy: just click on Scanner sharing and either select The scanners on this machine are available to other computers or Use scanners on remote computers depending on what you want to do. With these buttons you can define which machines are allowed to use your scanners and which remote scanners you want to use.

---

1. The `sane-frontends` package must be installed.



**Figura 3-24. Sharing Scanners within a LAN**



In order to share your scanner on your LAN, the `sane` package needs to be installed. If it isn't, ScannerDrake will ask you if you want to install it. You also need to set up scanner sharing on the machines from which you want to access the scanner. Check the Use scanners on remote computers box, and then click on Add host. Fill in the information in the Name/IP address of host field for each of the machines which scanners.

## **3.7.2. Using Image Acquisition Software**

### **3.7.2.1. XSane**

While `xscanimage` is more than enough for your basic scanning needs, more experienced and/or graphic-oriented users will want to use a more sophisticated program. XSane<sup>2</sup> offers more options and a more informative display during the image acquisition process.

You can launch XSane through the Multimedia+Graphics→XSane menu item. Several windows pop up on your screen.

---

2. The `xsane` package must be installed.



**Figura 3-25. XSane Multiple Windows**



If the `xsane-gimp` package is installed, a GIMP plugin will be at your disposal. It allows you to import your images directly into GIMP for image retouching tasks. Choose `File+Acquire →XSane:` device dialog to launch XSane. You can now scan your image and have it sent directly to GIMP.

### 3.7.3. Advanced Configuration

#### 3.7.3.1. Fine-Tuning the Resolution

Most modern scanners boast high resolutions, such as 1200, 1600 or 2400 DPI (Dots Per Inch). But it would be a mistake to perform all of your scanning at the maximum available resolution. You will notice very little — if any — quality difference between a 300 and a 600 DPI image scan, but the file size will grow exponentially, up to many MBs of disk space for a single image file.

The resolution value should be chosen according to the device on which the image is to be reproduced. For images to be viewed on computer monitors, e.g. for web sites, the resolution should be close to typical monitor resolution values, between 70 and 100 DPI. Higher values will result not only in bigger images, but the dimensions will also increase, so that an image scanned at 160 DPI instead of 80 will be about twice as large<sup>3</sup>.

If you intend to print your images, a resolution of 300 DPI should be enough for most home printers. Increase this value if you have a very high quality printer.

Higher values should be chosen only for specific uses, such as enlarged images on very high quality printers, or quality scans of black and white originals. You will have to experiment a little until you're satisfied with the results.

#### 3.7.3.2. OCR Software

By installing the `kdegraphics-kooka` and `ocrad` packages, you'll be able to use Kooka, a simple graphical front-end to SANE which is also able to perform OCR tasks. To launch it, choose `Multimedia+Graphics→Kooka` from the main menu.

First choose the scanning device and then Kooka's main window appears.

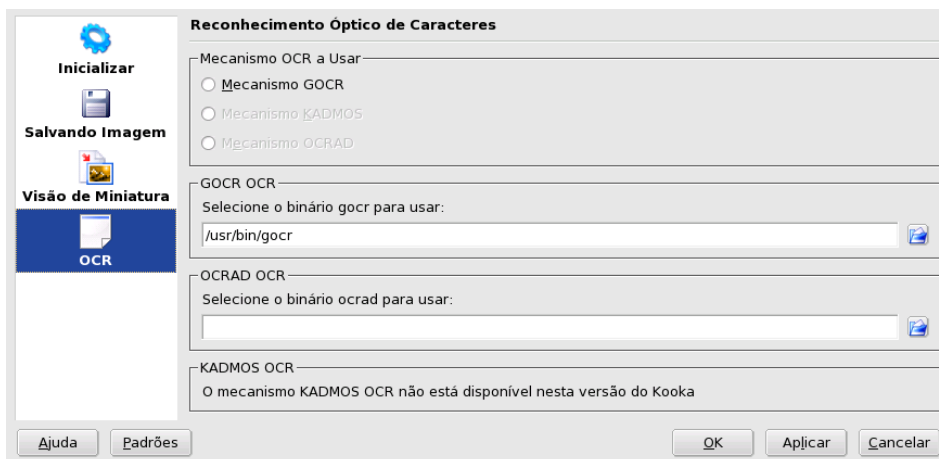
3. However scanning at a higher resolution and then reducing the resulting image size using graphic manipulation software such as GIMP is one method often used to obtain better results than directly scanning at the desired final resolution.




**Figura 3-26. Kooka’s Main Window**

Place the image you want to scan onto your scanner and click on Preview Scan at the bottom left of Kooka’s window. For better results, you should choose the Grayscale Scan mode. Then adjust the resolution (200 DPI should be enough), select the part of the image to be scanned and click on Final Scan.

To benefit from Kooka’s OCR features, you must configure it. Access the Settings→Configure Kooka menu, click on OCR, and select the OCR engine you want to use.



**Figura 3-27. Kooka’s Configuration Window**

 Once this is done you can click on this icon (Image→OCR Image) and click on Start OCR. The resulting text will appear along with a spell-correction window.



Kooka is still in beta phase. Although it’s possible to make it work properly you will need to adjust its parameters until you obtain a decent rendering. For more information on Kooka please read its handbook (Help→Kooka Handbook).



### 3.7.4. Other Scanner Interface Software

Here is a list of other scanner interface software which is known to work under GNU/Linux.

- Users of the FLTK (“Fast Light Tool Kit”) graphic user interface could try FLScan (<http://freshmeat.net/projects/flscan/>), a FLTK front-end for SANE.
- For EPSON scanners, you could download Image Scan! for Linux ([http://www.avasys.jp/english/linux\\_e/index.html](http://www.avasys.jp/english/linux_e/index.html)), a scanner utility provided free of charge to GNU/Linux users by EPSON KOWA Corporation.
- While multi-functional HP devices are configured using PrinterDrake, owners of these devices should have a look at the HP Linux Inkjet Project (<http://hpinkjet.sourceforge.net/>). The developers involved in the project aim at providing GNU/Linux support for most Hewlett-Packard OfficeJet, PSC, LaserJet, and PhotoSmart printer multi-function peripherals (MFPs).

## 3.8. Setting up your UPS



The role of a UPS (Uninterruptable Power System) is to provide you with electrical power whatever happens. A UPS enables you to continue working for a certain amount of time due to its battery (up to 10 minutes usually depending on the model) even if there’s a power outage in your area. Its main function, however, is to allow you to save your data and to cleanly close your machine, minimizing and even avoiding data corruption and loss.

Open the Mandriva Linux Control Center in the hardware section and click on Set up a UPS for power monitoring to launch DrakUPS.



The `nut-server` (“nut” stands for Network UPS Tool) package needs to be installed.

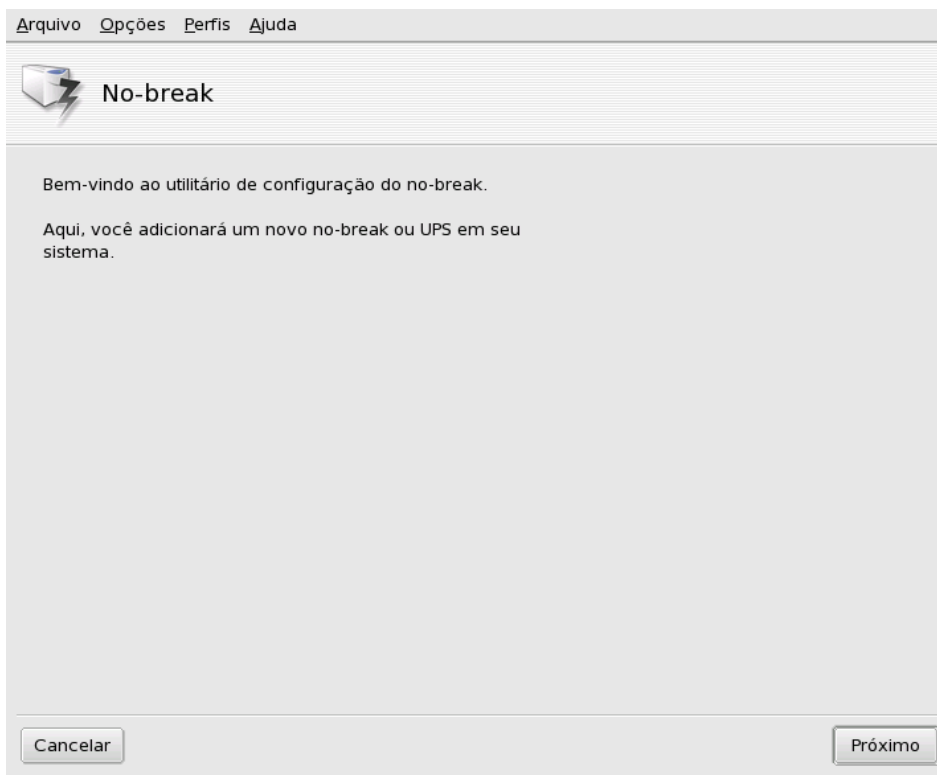
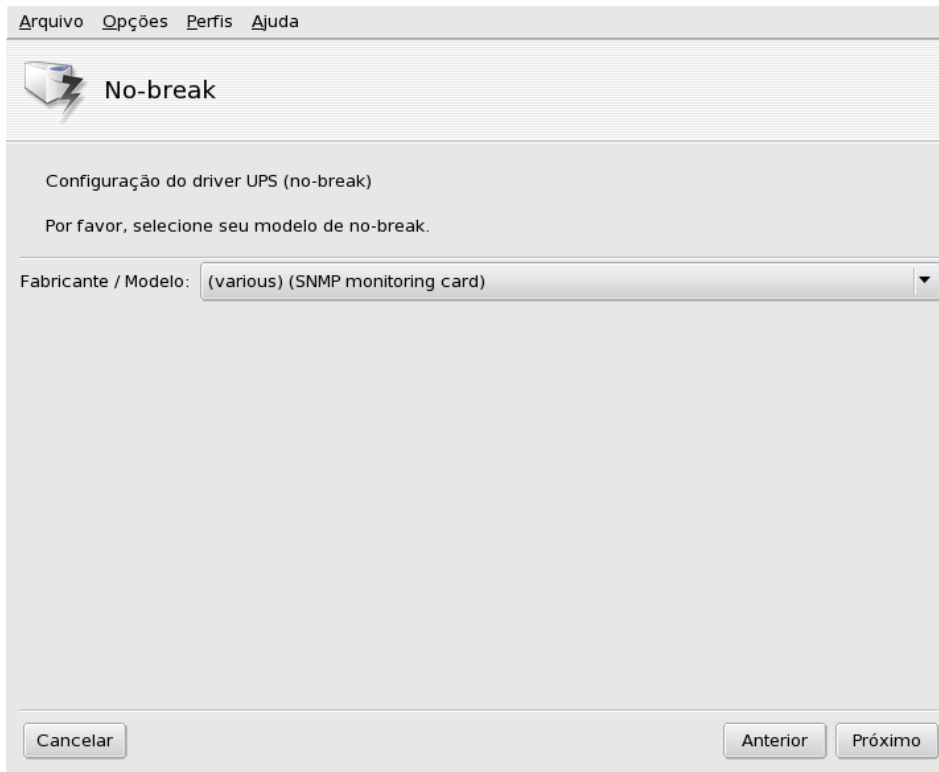


Figura 3-28. DrakUPS Setup

Next let DrakUPS autodetect your UPS. If all goes well you should get a congratulation message. If not try to do it manually.

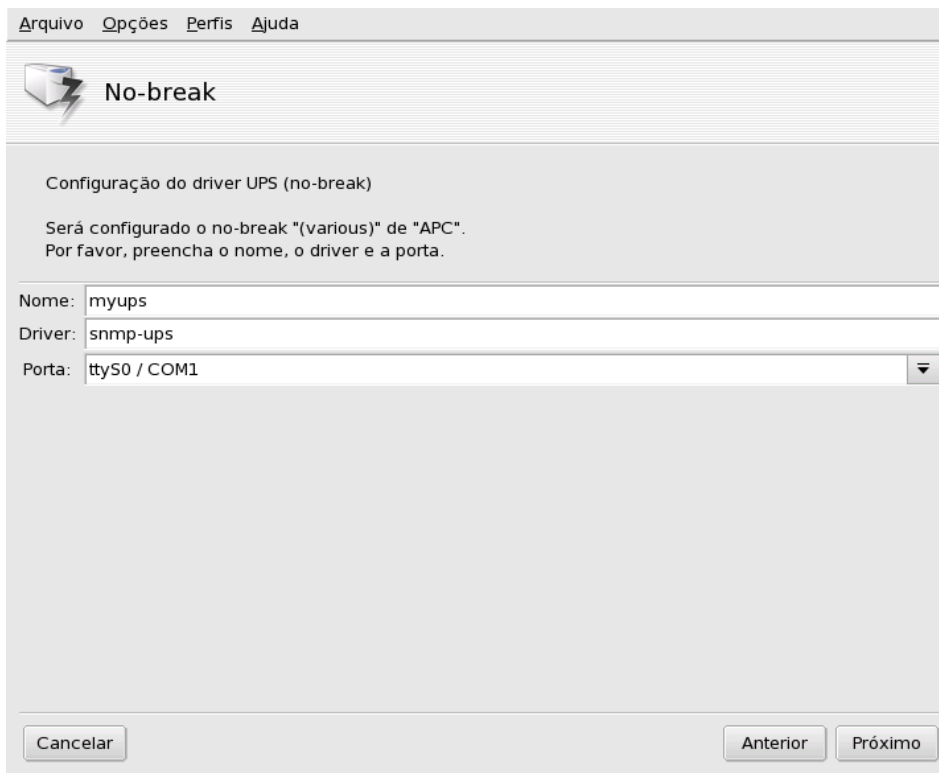
Select your UPS in the list of manufacturers and models.




**Figura 3-29. Selecting the Manufacturer and Model**

Then assign a Name, Driver, and Port<sup>4</sup>.

<sup>4</sup> The Name and Driver fields should automatically be filled. Of course, you can change its name but we recommend you keep the driver name.



Arquivo Opções Perfis Ajuda

 No-break

Configuração do driver UPS (no-break)

Será configurado o no-break "(various)" de "APC".  
Por favor, preencha o nome, o driver e a porta.

Nome: myups

Driver: snmp-ups

Porta: ttyS0 / COM1

Cancelar Anterior Próximo

**Figura 3-30. Name, Device and Port Names**

If all went well your UPS should now be configured and ready to help avoid bad power outage surprises.



## Capítulo 4. “Network & Internet” Section

### 4.1. Network and Internet Connection Management



Before connecting to the Internet, you are encouraged to set up a firewall on your machine so as to avoid bad surprises such as intrusions on your system. You can set up a very simple, yet effective, firewall using DrakFirewall. Please refer to Seção 7.3 for more information.

The drakconnect set of tools allows you to easily configure your network access, whether it be to the *Internet* or to a local network. Open Mandriva Linux Control Center and select the Network & Internet section to access drakconnect tools. A view of the main interface is shown in Figura 4-1. The Internet connection sharing tool is described in Seção 4.2.



Figura 4-1. DrakConnect Tools

#### 4.1.1. Set Up a New Network Interface



drakconnect supports different types of Internet and network connections. The first step consists in choosing which type of connection you wish to configure. Always make sure you have all the information provided by your ISP or network administrator at hand.

##### 4.1.1.1. LAN Connection

Select the LAN connection type and continue to the next step. Your NICs are detected automatically; if you have more than one, you have to select the one you wish to configure. You can also load a driver for your NIC manually.

Then, you have to specify if the network parameters will be automatically set up (Automatic IP (BOOTP/DHCP)) or not (Manual configuration): fill the next steps with the parameters which your ISP or network administrator gave you. An example of the manual configuration of IP parameters is shown in Figura 4-2.



Figura 4-2. Setting Primary Static LAN Connection Parameters



Check the Network Hotplugging box to have your network brought up and down automatically when you connect and disconnect the network cable. This is specially handy for laptop users.

Following with the static IP example, you have to specify the rest of the parameters, namely the hostname, DNS server IP address(es) and the IP address of the machine giving you access to the Internet, known as the gateway (see Figura 4-3).

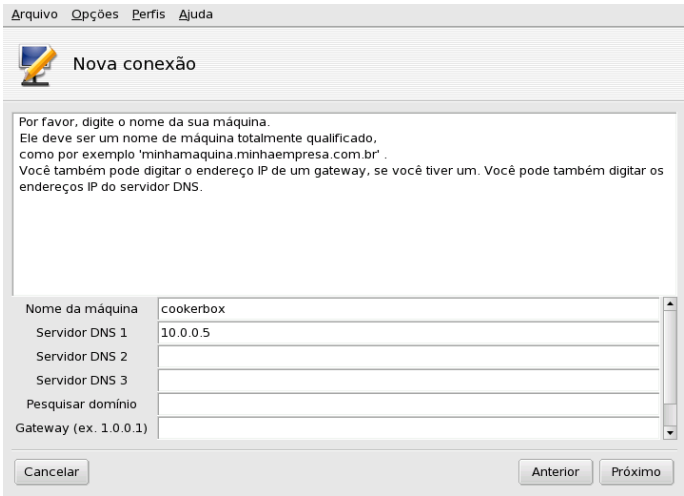


Figura 4-3. Setting the DNS and Gateway IP Addresses

If you configure the network with DHCP you can optionally provide the machine’s hostname. Then you can supply the Zeroconf hostname: this is the name which will be assigned to the machine when no network configuration has been found.

After the configuration is done, you can bring the network connection up or down as described in Seção 4.1.4. Please bear in mind that LAN connection types are set up to always be started at boot time.



An applet appears in the desktop’s panel indicating that the connection is up  
or down  
. Right click on it to access a menu that will also let you control the connection’s state as well as other parameters.

#### 4.1.1.2. Wireless Connection

This entry allows to configure WiFi PCMCIA or PCI devices.

1. Choose the card you wish to configure. If your card is not listed, choose the Use a Windows driver entry. The next step then asks you to select the driver from the manufacturer’s card drivers CD.
2. Network configuration is then similar to the LAN connection type (see Seção 4.1.1.1).
3. Finally some wireless specific parameters are asked, make sure to set them correctly according to your wireless access point configuration.

#### 4.1.1.3. ADSL Connection

You will be asked which device your ADSL modem is connected to, select it and click Next.

You will then see a list of countries/ISPs. If yours is listed select it: most of the following parameters will be automatically set. If your ISP is not listed, select the Unlisted - edit manually option, click on Next and fill the parameters with the settings provided by your ISP.

You have to specify the connection type. The following options are available:

- DSL over CAPI. CAPI means Common ISDN Applications Programming Interface. This communication API was mainly used for ISDN but is now also used for ADSL.
- Dynamic Host Configuration Protocol (DHCP). This is the usual cable-modem connection type used by ISPs for ADSL. The rest of the configuration is the same as the one explained in Seção 4.1.1.1 (automatic configuration option).
- Manual TCP/IP Configuration. This is rarely needed, but it is provided for flexibility. The rest of the configuration is the same as the one explained in Seção 4.1.1.1 (manual configuration option).
- PPP over ATM (PPPoA). A protocol which encapsulates PPP frames in an ATM adaption layer (AAL5). A common ADSL connection type, used mainly with USB ADSL modems.
- PPP over Ethernet (PPPoE). A protocol which encapsulates PPP frames in Ethernet frames. The most widely used ADSL connection type. If unsure about yours, try this one first.
- Point-to-Point Tunneling Protocol (PPTP). It is Microsoft’s variation of PPP, used by some ADSL providers. It is not considered a very secure protocol, and it’s not a RFC standard.

**Figura 4-4. Setting the ADSL Connection Parameters**

All the PPP types need at least a user name and a password. Here you can also specify the DNS servers, if needed (see Figura 4-4). The required packages will be installed.



Click on the Advanced button to be able to specify the VPI (Virtual Path ID) and VCI (Virtual Circuit ID) numbers if needed.

You are then asked whether or not to bring the connection up at boot. Since ADSL connections are of the “always up” type, you can safely select Yes. Finally you can test the connection: we strongly recommend you to do so, to make sure all parameters are accurate.

#### 4.1.1.4. Cable Connection

Some cable ISPs need you to authenticate. If this is your case, select the Use BPALogin option. If you are unsure or don’t know, it is safe to select the None option.

Your NICs will be detected automatically. If you have more than one, you will have to select the one you wish to configure. You can also manually load a driver for your NIC.

The rest of the configuration is very similar to the one described in Seção 4.1.1.1. Make sure you have all needed parameters provided by your ISP handy.

#### 4.1.1.5. ISDN Connection

Simply make sure to select the right parameters in all steps, concerning your area and provider.

The last step proposes to handle the connection status through the net applet, this can prove useful if you only need the Internet connection from time to time.

#### 4.1.1.6. Modem Connection

A list of detected modems is shown. If no modem was detected then only the Manual choice option is shown, click on Next and choose the communications port the modem is connected to. The required packages will be installed.

You will then see a list of countries/ISPs. If yours is listed select it and continue to the next step: some parameters (connection name, phone number to dial, and authentication scheme) will be automatically set. Verify them, add the missing ones and accept them. If yours is not listed, select the Unlisted - edit manually option, click on Next and fill the parameters with the settings provided by your ISP (see Figura 4-5).

**Figura 4-5. Entering Dial-up Connection Parameters**

All parameters should be obvious, except for the authentication type. The value in the Authentication pull-down depends on what your ISP supports: Script-based (an old type of authentication method based on “expect” and “send” types of chat between your system and your ISP); Terminal based (a terminal window will pop up when the connection is made and you will have to login interactively); PAP, CHAP, or PAP/CHAP



(authentication information exchange protocols, CHAP is preferred because it is more secure, PAP/CHAP will automatically choose the supported one).

Then come the IP, DNS and gateway settings. Nowadays, most ISPs provide them automatically when a connection is made, so selecting the Automatic option on them is usually a safe bet. You will then be asked whether you wish to allow users to start the connection. The safest choice is No. Otherwise any user will be able to take the link down, therefore disconnecting every other user.

During the next step you will be asked whether to start the connection at boot time or not: it is probably safer and cheaper to choose No. Finally you will be asked to test the connection: we recommend you to do so to make sure all parameters are accurate. You can now control your Internet connection using the net applet. You can also use the kppp remote access connection dialer (package kppp) through the main menu: Internet+Remote Access→KPPP

#### 4.1.1.7. DVB Connection

This connection type is used for satellite connections.

1. Choose the connection card you wish to configure, and then the adapter settings.
2. Network configuration is then similar to the LAN connection type (see Seção 4.1.1.1).

#### 4.1.2. Internet Settings

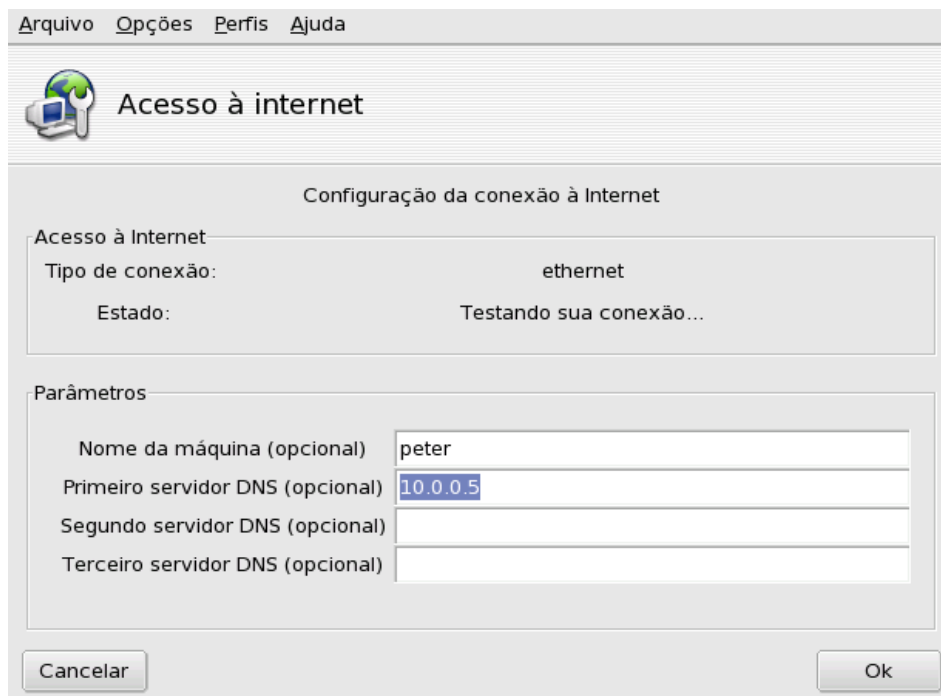


Figura 4-6. Configuring the Internet Access



This tool allows you to specify Internet access parameters if they need to be modified after your initial configuration. Please bear in mind that these parameters are system-wide and apply to all interfaces.

4.1.3. Reconfigure Interfaces

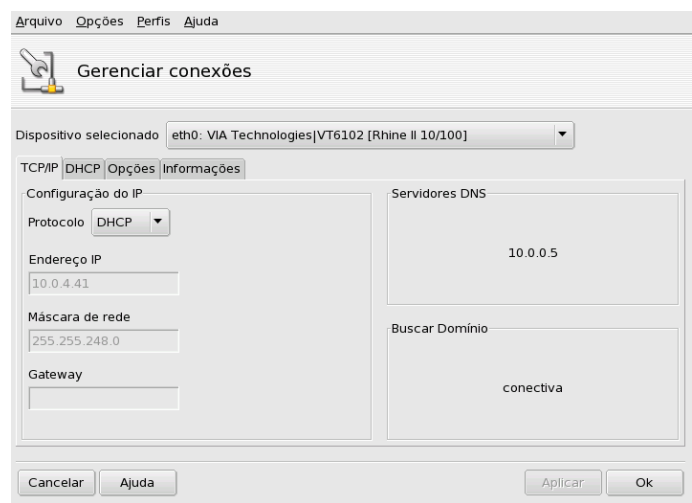


Figura 4-7. Manage Network Connections



This tool permits you to modify network interface-specific parameters, after you have set them up through the new interface wizard (see Seção 4.1.1). Use the drop-down list at the top to select the interface you want to configure. The tabs allow you to change parameters and options according to the network interface type selected.



This interface can be brought up by simple users through the net applet just to monitor traffic.

4.1.4. Monitoring Connections

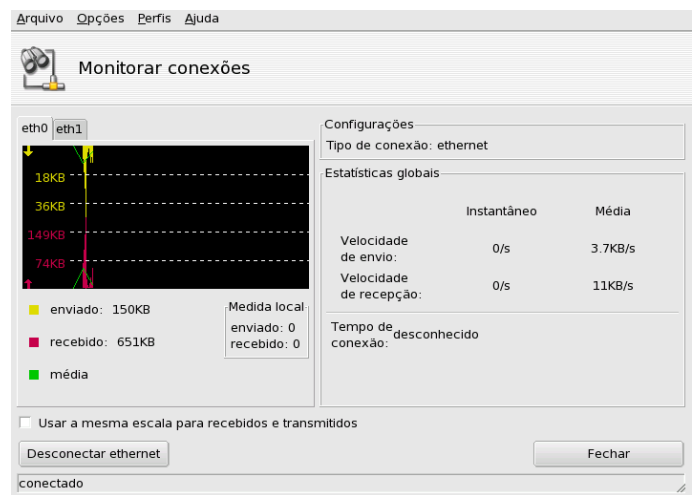


Figura 4-8. Real-Time Network Connection Monitoring



This tool shows the network interfaces activity. You can specify some options for the traffic graphic and statistics: update interval, scale, etc (see Figura 4-8). It can also be used to control the status of the network connection, bringing it up or down using the button at the lower left.

#### 4.1.5. Removing a Connection



This tool simply enables you to remove a network interface. Select the interface to be removed in the Net Device pull-down list.



You will not be asked for confirmation. Once an interface is selected for removal, pressing the Next button deletes it immediately.

#### 4.1.6. Proxy Settings



This tool allows you to define the hostnames or IP addresses of proxies for the FTP and HTTP protocols your computer will use. Fill the fields with the required values and click OK.

A proxy is a server which retrieves information from the Internet on your behalf, keeping a local copy of the web pages which are most frequently requested. They are referred to as "caching proxies", and optimize bandwidth usage. In some organizations, you cannot access the Internet directly. You must pass through a proxy which authenticates you before allowing you to connect to the Internet. This is usually combined with a firewall which only guarantees the proxy direct access to the Internet. They are referred to as "authentication proxies". In corporate or business environments, proxies perform both caching and authentication functions for performance and security reasons.

#### 4.1.7. Wireless Connection Management



This tool shows the wireless networks currently available allowing you to switch between them.

### 4.2. Internet Connection Sharing



This tool configures your system so that it acts as a gateway to the Internet for other machines connected to it via a LAN. This is very useful at home for example, if you wish all computers to access the Internet through the same Internet link.



**Figura 4-9. A Simple Gateway Configuration**

The overall procedure is the following:

1. Configure your Internet access (Seção 4.1). In order for your machine to act as a gateway, you will need an already configured and working connection to the Internet, plus a network connection to your LAN. This implies at least two interfaces, for example, a modem and an Ethernet card.
2. Setup the gateway (Seção 4.2.1)
3. Configure the other local machines as clients (Seção 4.2.2)



This wizard will also configure a firewall to block most connections from the Internet. You are encouraged to check that the firewall configuration (Seção 7.3) suits you after completing the wizard.

After you complete this wizard, all computers on the LAN will be able to access the Internet. Their configuration will be automated due to the DHCP server which will be installed on your gateway, and the web access will be optimized due to the use of the Squid transparent proxy cache.

#### **4.2.1. The Gateway Connection Wizard**

These are the steps that compose that wizard:

1. Choosing the Internet Interface  
You first need to specify the name of the interface connected to the Internet. Make sure you select the correct one: use the examples in the on-line help as a guide.
2. Choosing The LAN Network Adapter  
If you have more than one Ethernet interface, and depending on what you chose as your Internet interface, the wizard might ask you to select the one connected to your LAN. Make sure you select the correct one. Note that all traffic to and from this network passing through the gateway will be masqueraded, that is: it will appear to come from the gateway instead of from the LAN.
3. Local Area Network Settings



**Figura 4-10. Configuring The LAN**

At this point, if it is the 1<sup>st</sup> time the system has been configured as a gateway, the wizard proposes default parameters for the new local network to be managed. Check those values are not already in use in your network, and go on to next step.

Otherwise, the wizard will first offer to reconfigure the LAN interface so that it will be compatible with the gateway services. It is recommended that you leave the default options and click on Next. Then, all the software needed will be installed.

#### 4. DNS Configuration

If you plan on having a local name server on your machine, you can check the box. Otherwise you can choose to use the name server of your provider. If you don't know what is a name server, leaving the box checked is safe.

#### 5. DHCP Server Configuration

Installing a DHCP server on your machine will allow all client machines to have their network configuration automatically done. Otherwise you will have to configure each of the clients by hands: IP address, network, gateway, DNS.

#### 6. Proxy Caching Server (SQUID)

A caching server records the Internet pages requested by local browsers. Then if the same page is asked again by someone else, it'll be able to serve it without needing to retrieve it again from the Internet, thus saving bandwidth, and improving response time. This is most useful for many clients.

The application used to perform this task is Squid (<http://www.squid-cache.org/>).

When the wizard is completed, required packages are installed and configured.

### 4.2.2. Configuring the Clients

Configuration of the clients mainly depends on whether you chose to install a **DHCP** server on your gateway or not. By configuring the clients on the local network to use DHCP, they will automatically use the Mandriva Linux machine as a gateway to the Internet. This works for Windows®, GNU/Linux and any other OS which supports DHCP.

If you have no DHCP server, you will have to configure each of your machines manually, according to the network settings configured during the connection sharing wizard.

For DHCP, on a Mandriva Linux client system, make sure you selected DHCP in the Protocol pull-down list when configuring the network as shown in Figura 4-11.

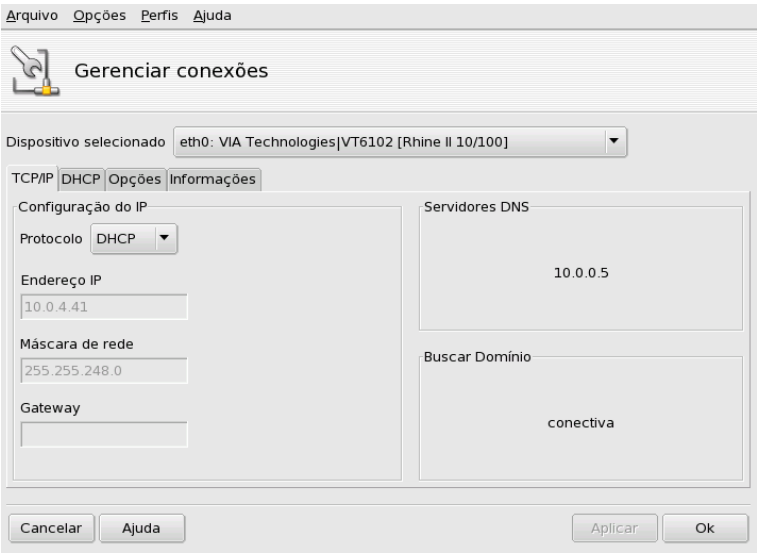


Figura 4-11. Configuring a Client to Use DHCP

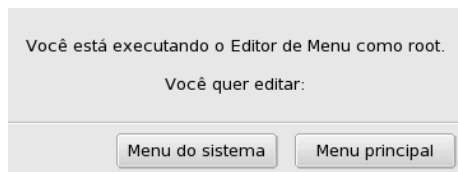
## Capítulo 5. “System” Section

### 5.1. Customizing your Menus with MenuDrake



In order to help you manage the main menu of your preferred graphical interface, Mandriva Linux provides you with a menu editor which ensures menus from all desktop environments (such as KDE or GNOME) are coherent.

This tool allows system administrators to control the menus for all users (the system menu) but can also be utilized by users to personalize their own menus. You can launch MenuDrake from the Mandriva Linux Control Center or from the System+Configuration+Other→MenuDrake menu entry.



**Figura 5-1. Launching MenuDrake in System or User Mode**

If started by `root`, MenuDrake can be used in two different modes: either changing menus for all users, or customizing the menus for user `root`. You will be able to switch from within the application thereafter, but for now, click on:

- System menu to make changes to menus available for all system users;
- Root menu to customize the menus for the `root` user only.

When you launch MenuDrake, it first scans your current menu structure and displays it. The main window (see Figura 5-2) is divided in two parts: the menu itself on the left, and a form relative to the highlighted menu item on the right.



**Figura 5-2. MenuDrake’s Main Window**

You can click on the tree’s [+] signs to view the content of the related sub-menus, and on [-] to hide them.



In your tree you may see entries which do not appear in your actual menu. These are empty directories which are not displayed but can be used for future applications which you may wish to install.

### 5.1.1. Adding a New Menu Entry

This should seldom happen as all Mandriva Linux graphical applications should provide a menu entry. However if you want to add a menu entry for a package you compiled yourself, or for a console mode program, use this function. Let’s suppose you want to run the `top` command in a terminal window to view running processes and the utilization of system resources through a menu entry in the System→Monitoring menu.

Select the System→Monitoring entry, and click on the tool bar’s Add application button. A dialog will appear asking you for the title of the menu entry and the command associated with it.





**Figura 5-3. Adding a New Menu Entry**

Edit the title (you could insert “Table Of Processes”) to be shown in the menu. Then you need to provide the action the system should execute in the Command field: **top**. Click on OK and the entry will be added to the menu tree.

You can also choose an icon for your entry from the list which appears once you click the icon button itself. The new entry is shown in Figura 5-4. Do not forget to check the Open in a terminal box to have the program run in a terminal window.



**Figura 5-4. A New Menu Entry with MenuDrake**



While modifying your menus, you might make a big mess out of them... Remember that you can reload the menus as you last saved them by pressing the **Ctrl-R** keys (or accessing the File→Reload user config sub-menu). You can also revert to the default menus by accessing the File→Reload system menu sub-menu.

Finally to activate your modifications, click on the Save button and that’s it. Congratulations! You can now test your new settings by accessing the main menu.



Depending on the graphical interface you are using, the changes to your menu may not be shown immediately. In some cases, you may need to log out and back in again for the changes to take effect.

## 5.1.2. Advanced Features

### 5.1.2.1. Different Menu Styles

Depending on the experience the users working with your machine have, you may want to provide them with different menu styles. Mandriva Linux provides a few template menus which you can eventually customize. They are available through the main window’s Menu Style button.



Figura 5-5. Choosing a Menu Style

Choose one of the available options:

- **Use system administrator settings.** If you started MenuDrake as a simple user, you can choose to set your personal menu style to use the menus prepared by the system’s administrator.
- **All applications.** This is the traditional menu shipped with Mandriva Linux and it contains nearly all the available applications, sorted into functional categories.
- **What to do?** Specifically designed by our ergonomics team, this menu provides a fast access to most common applications sorted by usage, such as Play a game, Use the Internet, etc.
- **Original menu.** These are the plain menus as provided by the KDE or GNOME desktops. This menu probably lacks some applications.

When you have chosen a menu style, click on OK. You will then be able to see the corresponding menu structure in the main window, and you can then customize it.

5.1.2.2. About the Environment Menu

The entry we have just added to the menu is now available in the active graphical manager menu. It is also possible to make modifications to all graphical manager menus by choosing Environment→All environments. All entries which only apply to the active graphical environment appear in blue in the tree structure on the left.

5.1.2.3. Moving and Removing Entries

MenuDrake entries support the drag-and-drop feature. Similarly, you may have noticed that whenever you remove an application from the menu, it appears in the “attic”, that is the Available applications list on the bottom right corner. If you ever wish to add them again, you simply have to drag them to the desired place in the menu tree.

5.2. Configuring Start-Up Services



At boot time, the system starts a number of services (programs running in background to perform a variety of tasks). This tool gives the administrator control over those services. See the *Os Arquivos de Inicialização: init sysv* chapter of the *Manual de Referência* for more information.

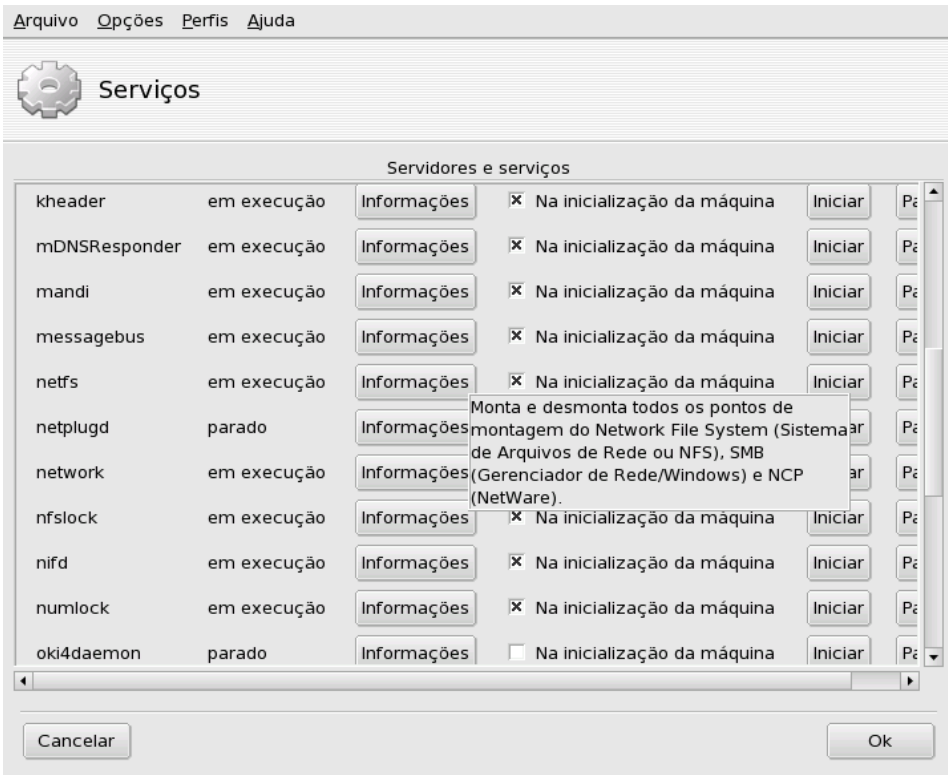


Figura 5-6. Choosing the Services Available at Boot Time

For each service, this is the list of items found in each column:

- Service name;
- Current Status: either running or stopped;
- Info: click on this button to get a little explanation about that service;

- On Boot: check this box if you wish this service to be automatically brought up at boot time<sup>1</sup>. Alternatively, if xinetd is installed and the service is a xinetd service, the label Start when requested will be displayed. Checking the box will then mean to activate that service in xinetd. You will also have to make sure that the xinetd service itself is activated.
- Start: immediately starts the service, or restarts it (stop+start) if it is already running;
- Stop: immediately stops the service.

For both the Start and Stop buttons, a tool tip will show you the status of the operation.

### 5.3. Managing Available Fonts on your System with DrakFont



This tool enables you to review the different font families, styles, and sizes available on your system. It also allows the system administrator to install new fonts.

The main window (see Figura 5-7) shows a visual appearance of the currently selected font combination.

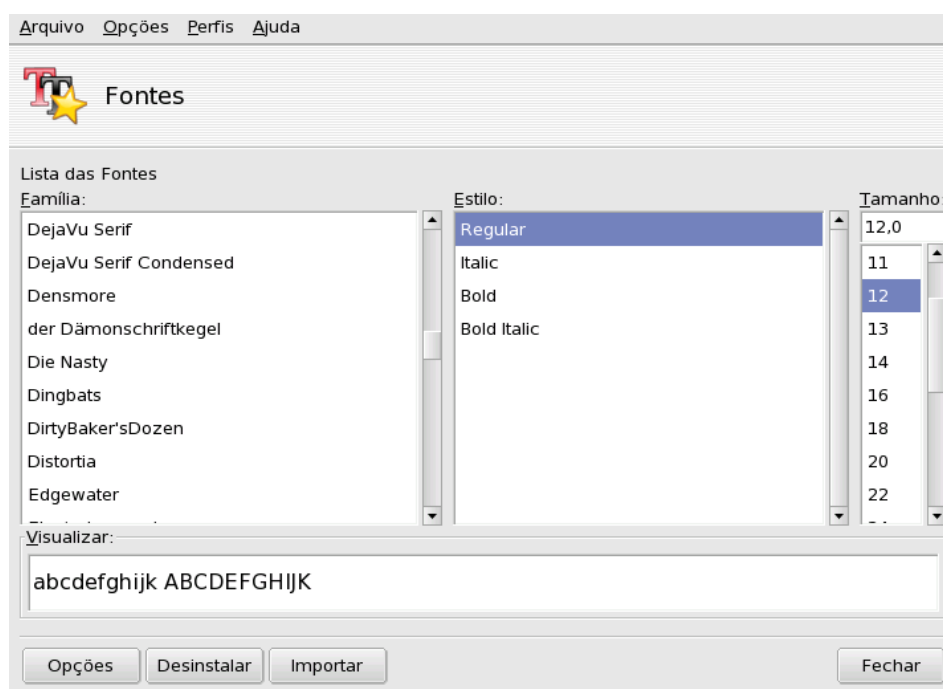


Figura 5-7. DrakFont's Main Window

drakfont is made up of a number of windows which are accessible through the buttons located at the bottom-left corner.

#### Options

Allows you to specify which applications and devices (such as printers) will support the fonts. Select the ones you want support for and click on the OK button.

#### Uninstall

Allows you to remove installed fonts, in order to save space for example. Use this with great care, it could have side effects on your applications. You should notably not remove fonts you did not install yourself.

1. Generally in *runlevels* 3 and 5.

## Import

Allows you to manually add fonts found outside the Mandriva Linux distribution, on a local Windows® installation or from the Internet, for example. Supported font types are `ttf`, `pfa`, `pfb`, `pcf`, `pfm`, `gsf`. Clicking on the Add button will open a standard dialog allowing you to specify the font file to import. Once you've specified all the fonts you want to import, click on the Install fonts button.



To select more than one font, double-click on the first font you wish to select and it will be added to the Import Fonts window. Then double-click the other fonts you wish to install and the same action will occur. When you are done click on the Close button and then on the Install fonts button. Once the installation operation is done, make sure the new fonts appear in the Family list.

## 5.4. Setting your Machine's Date and Time



This little tool enables you to set your system's correct internal date and time.



**Figura 5-8. Changing Date and Time**

You can set the date on the left and the time on the right:

- To change the year, click on the little arrows on each side of the year; same procedure to change the month. This updates the month view where you can click on the current day in order to highlight it.
- We recommended that you check the time-zone settings for your geographical location. Click on the Change Time Zone button and select the correct place in the tree view.

Once you've chosen the time zone, a dialog will appear asking you whether your hardware clock is set to GMT. Answer Yes if only GNU/Linux is installed on your machine, No otherwise.

- To change the time, you can either move the hour, minute and second hands of the analog clock, or change the numbers below it.

- If you have a permanent Internet connection and want your system to synchronize its internal clock with time servers on the Internet, put a check mark in the Enable Network Time Protocol option and select a server in the Server pull-down list, preferably one near you. If you know the name or the IP address of a local server you can also enter it manually in that field.



The NTP (Network Time Protocol) package needs to be installed. If it isn't, a dialog will pop up and ask you whether you wish to install it.



If you select the `pool.ntp.org` server, NTP will automatically choose a server near to the time zone you selected.

When you're finished, click on OK to apply your settings or Cancel to close the tool, which will discard your changes. If you want to return to your previous settings, click on Reset.

## 5.5. Monitoring System Activity and Status



This tool allows you to look for specific entries in various log files, therefore making easier the search for particular incidents or security threats.

Additionally a nifty wizard allows you to set up mail alerts to be warned whenever the load is too high on your machine, or when a service is shut down.

### 5.5.1. Browsing System Logs

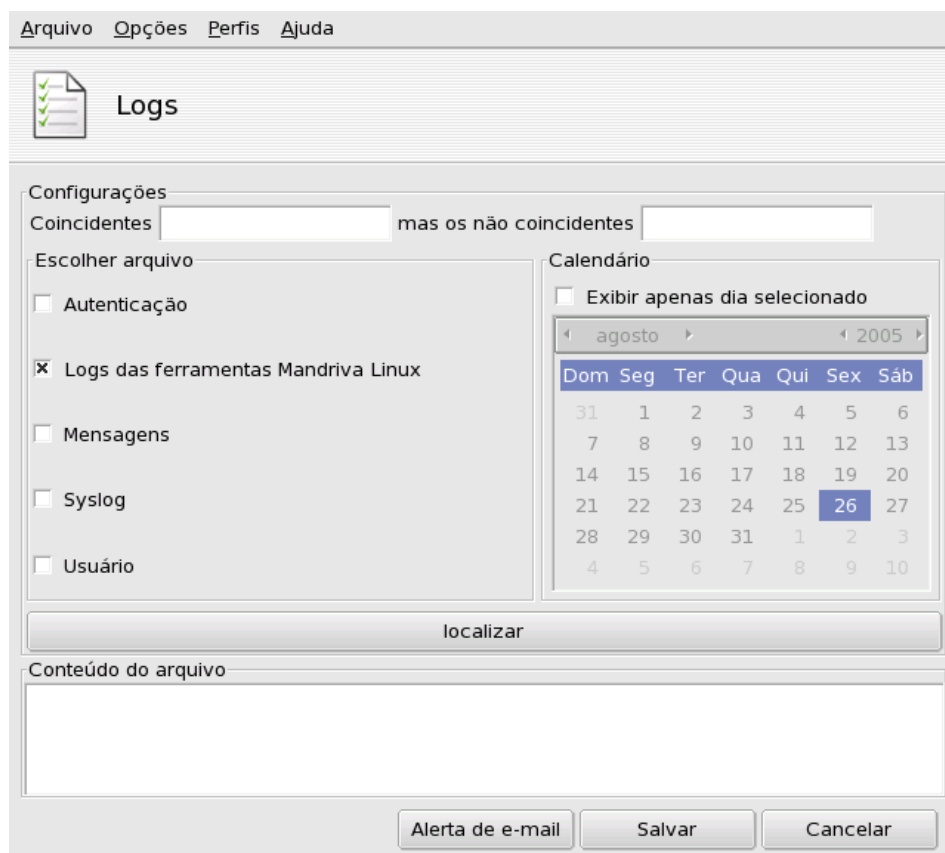


Figura 5-9. Browsing and Searching through System Logs

These are the steps to follow in order to browse or look for a specific event into the system logs:

1. You must choose which specific words to match by filling the Matching (log files contain the words) field and/or the but not matching (log files which don't contain the words) field. At least one of the two fields must be filled.
2. Then in the Choose file area select the file you want to perform the search on. Simply check the corresponding box.



The Mandriva Linux Tools Log is filled by Mandriva Linux-specific configuration tools, like those you find in the Mandriva Linux Control Center. Each time these tools modify the system configuration they write a line in this log file.

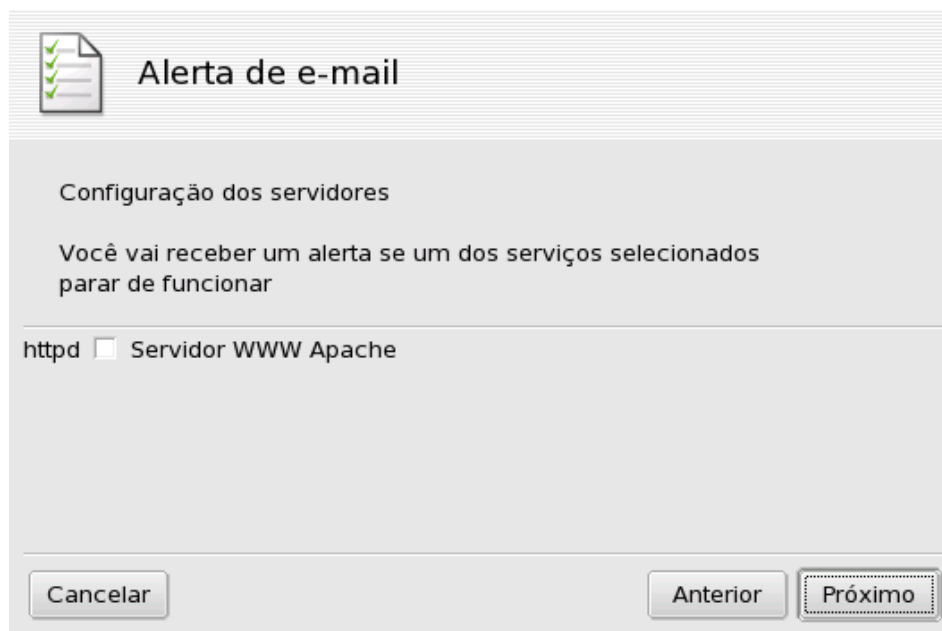
3. Optionally, you can restrict the search to a specific day. In that case, check the Show only for the selected day box and choose the desired day from the calendar.
4. When all is set up, click on the Search button. The results will appear in the Content of the file area at the bottom.

Clicking on the Save button will open a standard dialog letting you save the search results into a plain text (\*.txt) file.

### 5.5.2. Setting up Mail Alerts

In order to facilitate server monitoring, Mandriva Linux supplies a simple tool which sends automatic mail alerts whenever something goes wrong on your server.

Clicking on the Mail alert button of the LogDrake main interface (see Figura 5-9) starts the wizard. First you're asked whether you wish to configure or stop the mail alert system. Choose Configure the mail alert system entry in the pull-down list, and click Next.



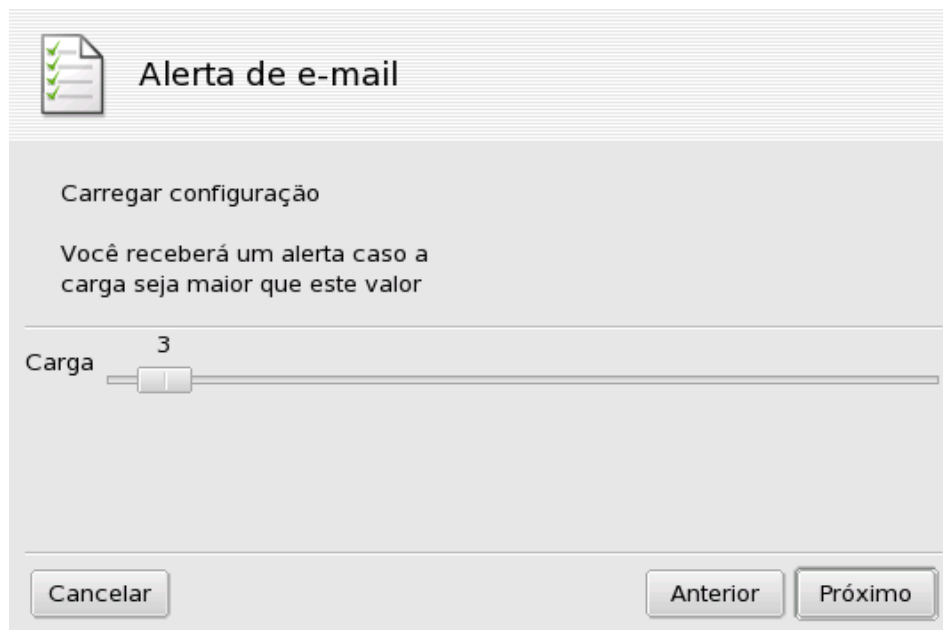
**Figura 5-10. Setting up a Mail Alert: Services**

The next step (see Figura 5-10) allows you to select the services you wish to receive alerts from in case they stop working. Simply check the service boxes which interest you, and go on to the next step.



The services listed are the ones present on your system. Here’s a list of the currently tracked ones:

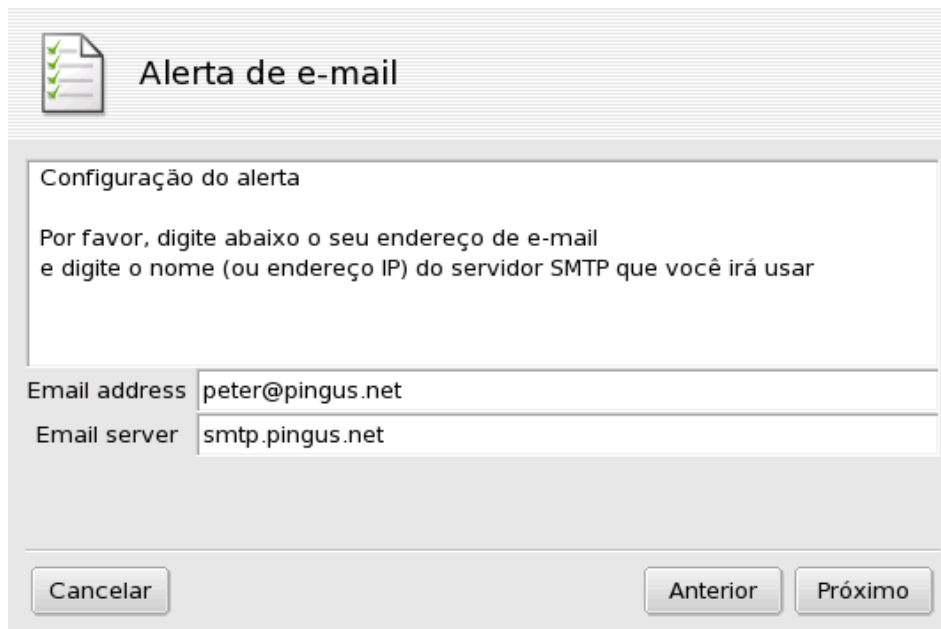
- Postfix Mail Server;
- Webmin Service;
- FTP Server;
- BIND Domain Name Resolver;
- Apache World Wide Web Server;
- SSH Server;
- Samba Server;
- Xinetd Service.



**Figura 5-11. Setting up a Mail Alert: Load**

Select the load you which you consider unacceptable by moving the Load slider (see Figura 5-11). A high system load may indicate that a process has gone out of control, or simply that there’s a very high demand on this machine. Therefore a service is suffering from it and is delayed. As a rule of thumb, the load on your computer should not exceed 3 times the number of processors you have on it.





**Figura 5-12. Setting up a Mail Alert: Recipient**

Finally you need to tell the system to whom these alerts should be sent to (see Figura 5-12). Provide an e-mail address and the mail server (local or on the Internet) to relay the alerts to.

When the wizard is finished, an hourly check is set up to check for unavailable services and the system’s load. If needed a mail alert is sent to the alerts’ recipient.

## 5.6. Access to the Console



This tool simply opens a virtual terminal console for the `root` user. You can use it to issue any command, but be careful! There are no restrictions on the actions you can take on your machine as `root`, and you could render your machine unusable.

To learn how to use the command line interface, you should read the *Introdução a Linha de Comando* chapter of the *Mandriva Linux Manual de Referência*. To exit the console, type `exit` or press **Ctrl-D**.

## 5.7. Managing Users and Groups

UserDrake allows system administrators to easily add and remove users from the system, to assign users to a group, and to manage user groups in the same manner.



In this section we will only focus on user management. Group management being similar.

### 5.7.1. The Interface

Launching UserDrake will display the main window (Figura 5-13) which lists the users currently defined on the system. You can switch from users to groups by clicking on the Groups tab next to the Users tab.



**Figura 5-13. The User List in UserDrake**

All changes have immediate effect on your local user database. If the user list is modified outside of UserDrake, you can refresh UserDrake’s window by clicking on the Refresh button.



If you make changes to an already logged in user, those changes won’t take effect until he or she logs out, and logs in again.

Available actions are:

**Add User**

Adds a new user to the system. We will detail this procedure in Seção 5.7.2.

**Add Group**

Adds a new user group to the system.

**Edit**

Allows you to change the parameters of the selected user or group. We will detail editing user parameters in Seção 5.7.2. In the case of a group you will be able to assign or remove users from that group.

**Delete**

Removes the selected user or group from the system. A confirmation dialog will be shown, and in the case of a user you will also be able to remove the user’s /home directory and mailbox.

### 5.7.2. Adding a New User

We created the non-privileged user Queen Pingusa at installation time, and now we want to create a new user called Peter Pingus. Then we want to make them both members of the `fileshare` group, so that they can share folders with other users on the network (see Seção 6.5, custom option).

Click on the Add User button, the dialog box to add a new user will pop up (see Figura 5-14). The only required field is Login although we strongly recommend that you set up a password for this new user: enter it in both

the Password and Confirm Password fields. You can also choose to add a comment in Full Name. Generally, this is the full name of the user, but you can put whatever you want.



**Figura 5-14. Adding a New User in the System**

We now have two users in our list. Select one of them with your mouse, and click on the Edit button. The dialog box shown in Figura 5-15 will pop up. It allows you to modify most available user parameters.



**Figura 5-15. Adding Users to a Group**

The dialog is made of the following tabs:

#### User Data

Allows you to modify information provided when the user was created.

#### Account Info

Enables you to provide an expiration date for that account, after which the user won't be able to connect to the system. This is useful for temporary accounts. It's also possible to temporary lock an account to prevent a user from logging in. Finally, this tab allows you to change the icon associated with the user.

#### Password Info

Allows you to provide a password expiration date, after which the user will have to change his password.

## Groups

Shows the list of available groups where you can select the groups to which any user should belong.

For our users we just need to look for the `fileshare` entry and check the box associated to it. Then click on the OK button to make the changes effective.

## 5.8. Backing Up and Restoring your Files



This tool allows you to back up data present on your computer on different media and on a remote machine over the network. Once the parameters are set, you can run the backup periodically. Then, you can forget about it until you wish to restore some files.

The backup parameters must be defined so that the tool knows what, where and when to perform the backup. We will guide you step-by-step with a back up-and-restore example using the wizard. Then we will introduce you to automation of periodic backups.

### 5.8.1. A Practical Example Using the Wizard

You can access this tool by clicking on the Backups icon in Mandriva Linux Control Center’s System section. Click on the Wizard Configuration button to start the wizard. After making your choices in each step click on Next.

#### 5.8.1.1. First Step: What to Backup

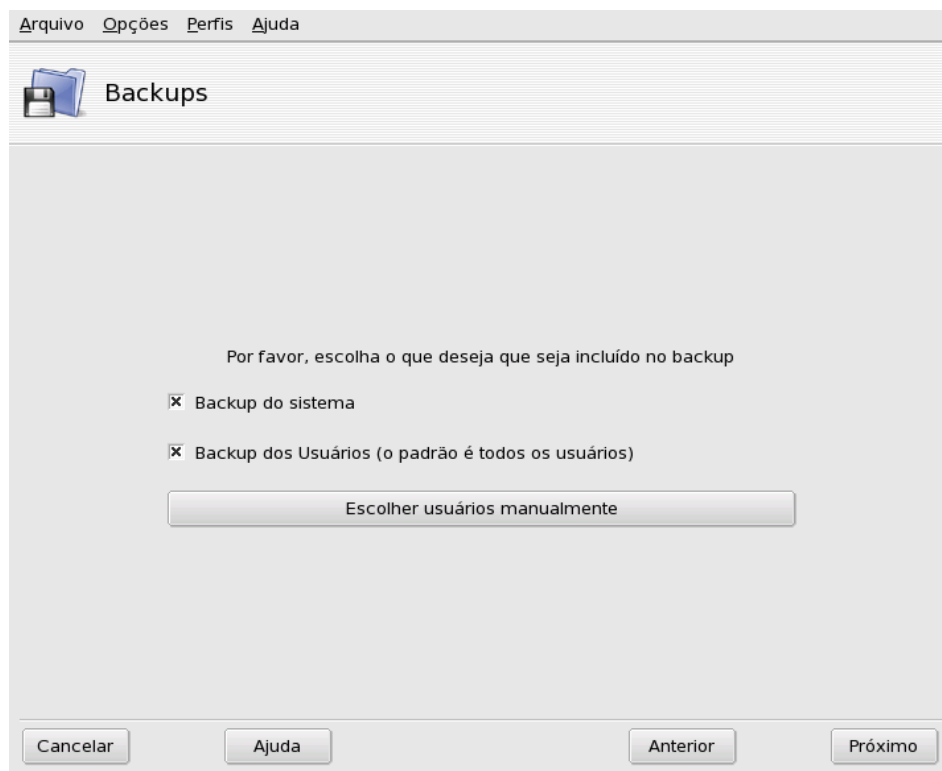


Figura 5-16. Selecting What to Backup

Select Backup System to include the `/etc` directory where all your current system configuration files lie. This allows you to “transport” your system to a different computer with little effort: only hardware-dependent configuration will have to be revised.



The “system” backup does not include applications themselves (i.e. executable files, libraries). *A priori* this makes sense because it is likely that you will have access to the system's installation media from which applications can be easily installed again on the target computer.

Select Backup Users to include all the files included in all of your users' /home directories. Clicking on the Select user manually button lets you select individual users and give you the following options:

- Do not include the browser cache. Selecting this option is recommended due to the very nature of the ever-changing browser's cache.
- Use Incremental/Differential Backups. Selecting this will preserve old backups. Choosing Use Incremental Backups will only save files which have been changed or added since the **last** backup operation. Choosing Use Differential Backups will only save files which have been changed or added since the **first** backup operation (also known as the “base” backup). This last option takes more space than the first one, but allows you to restore the system “as it was” at any given point in time for which a differential backup was made.

#### 5.8.1.2. Second Step: Where to Store the Backup



**Figura 5-17. Selecting Where to Store the Backup**

All possible backup media are listed, along with a Configure button to change media-dependent options:

##### Hard Disk Drive

The local hard disk drive is used to prepare backups for all media except NFS and direct to tape. You should not perform backups on your local hard disk anyway, you should always backup on remote or removable media. You can set the directory for storage and the limit of storage space. You can also set how many days to keep incremental or differential backups in order to save disk space.

### Across the Network

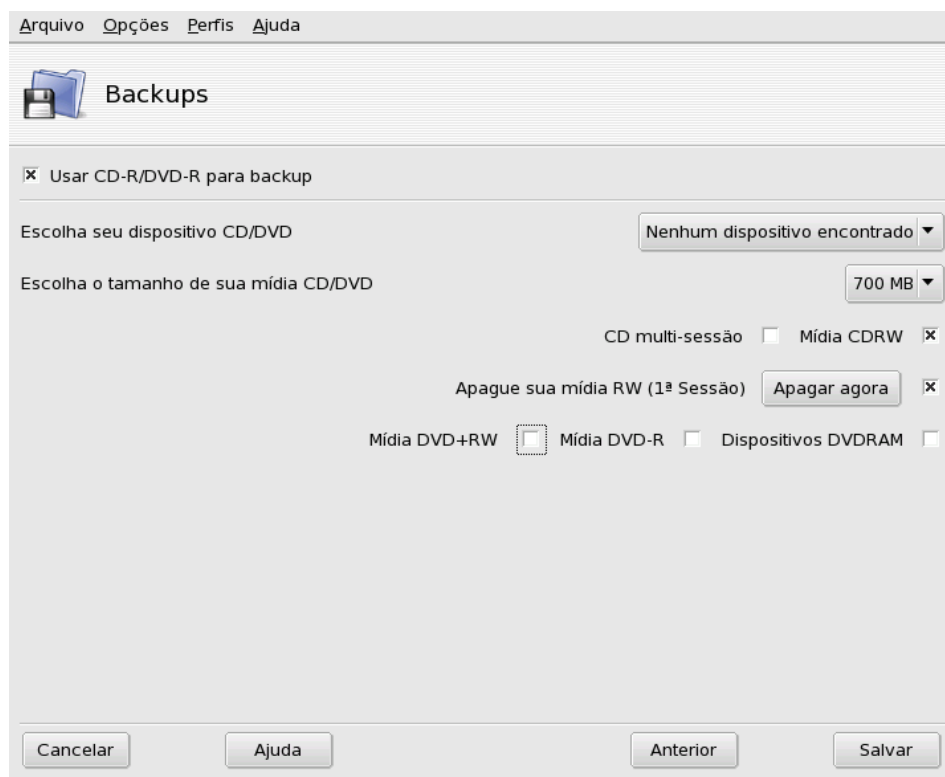
To store the backup on a remote computer accessible using different methods. You can set the connection parameters as well as the access method and its options (if applicable). Please note that NFS backups are considered to be local disk backups, even if they are effectively stored on a remote system.

### On Tape

To store the backup on a tape drive. You can set the tape device if it’s not detected automatically, and tape parameters such as writing directly on tape, whether or not to rewind, erase and eject the tape.

### Optical Media (CD-R)

To store the backup on optical media: (re)writable CD or DVD. This is our preferred media for the example, so click on its Configure button to set the required parameters (see Figura 5-18).

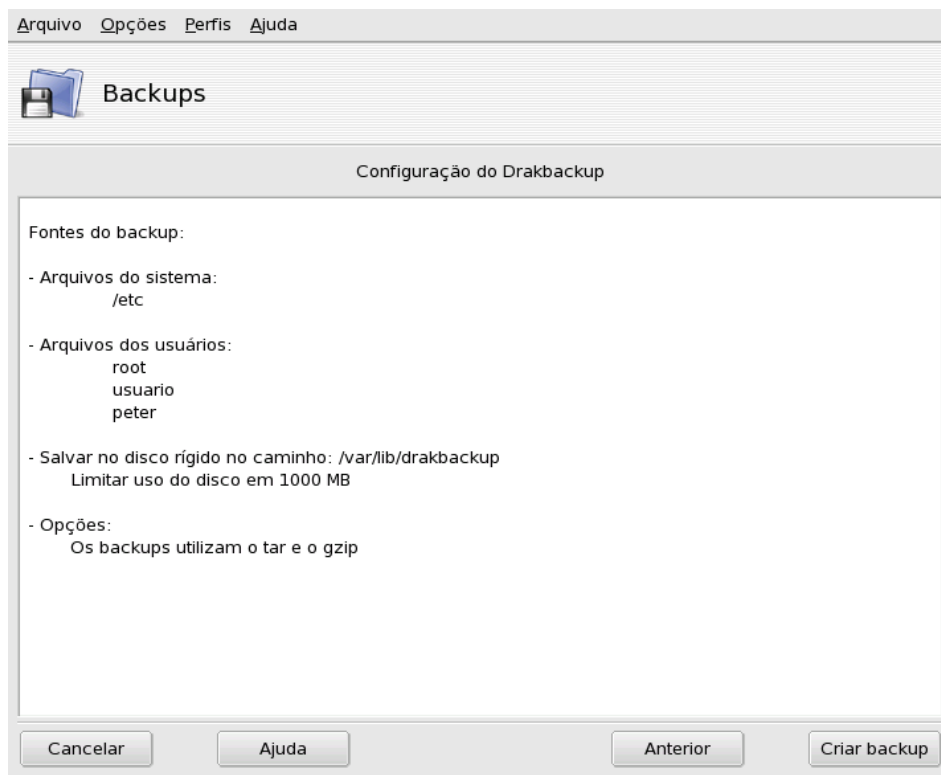


**Figura 5-18. Setting Optical Media Parameters**

If it isn’t done automatically, use the Choose your CD/DVD device combo box to set the CD/DVD device. Set the medium’s type and size, multisession and erasing options.

For multisession recordings, please have in mind that the option to erase the medium is only effective for the 1<sup>st</sup> session and also that session-related information recording takes some space out (20 to 30 MB) for each session, so the “real data” storage space will actually be less than the medium’s size.

### 5.8.1.3. Third Step: Review and Store the Configuration



**Figura 5-19. Review Configuration Parameters**

The last wizard step shows a summary of the configuration parameters. Use the Previous button to change any parameter you are not satisfied with. Click on Save to store them. The backup set is now ready to be performed.

### 5.8.1.4. Performing the Backup

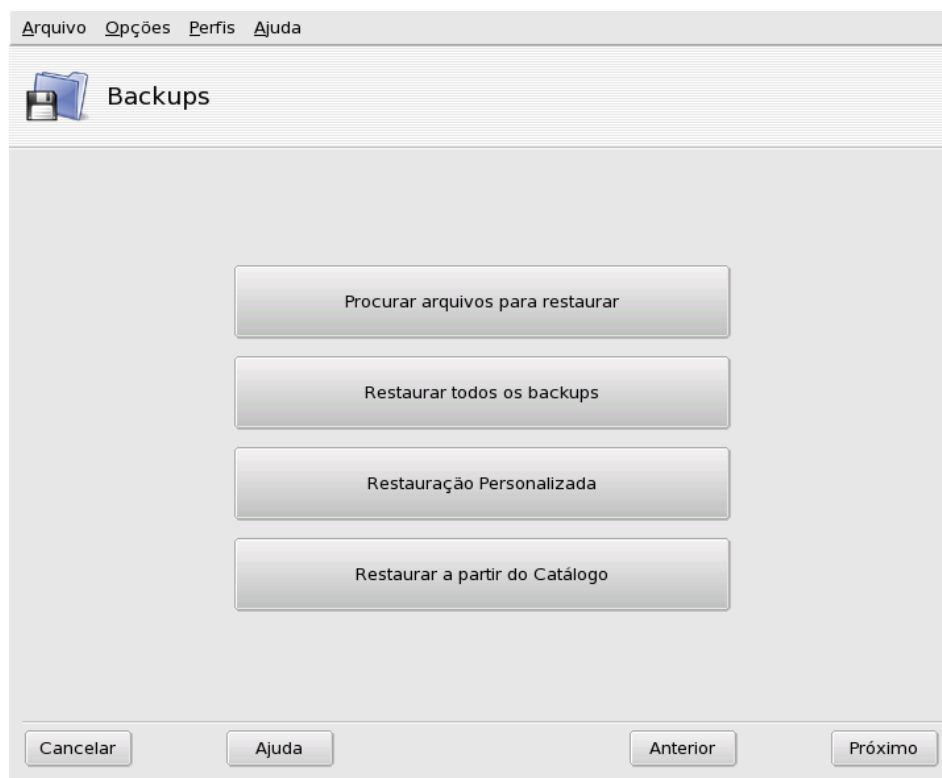
Click on Backup Now, make sure the corresponding media is ready (the recordable CDs in our example), and then on Backup Now from configuration file to perform the backup.



If the backup set size exceeds the medium's available capacity, the backup operation might just fail. This is a known issue and it's being worked on. As a work-around, please try to remove files from the backup set so its size never exceeds the medium's available capacity.

A dialog will display the current progress of the operation. Please be patient: the time it takes to back up depends on many factors such as the size of the backup file set, the speed of the storage option selected, and so on. Once the operation is finished a report is shown: look for possible errors on it and take corrective measures if needed.

### 5.8.2. Restoring Backups



**Figura 5-20. Choosing the Restore Type to Perform**

Make sure the media you want to restore the backup from is accessible and ready and click on the Restore button. In our example we will restore the whole backup so on the restore dialog (Figura 5-20) click on Restore all backups and then on the Restore button to start the restoration process.



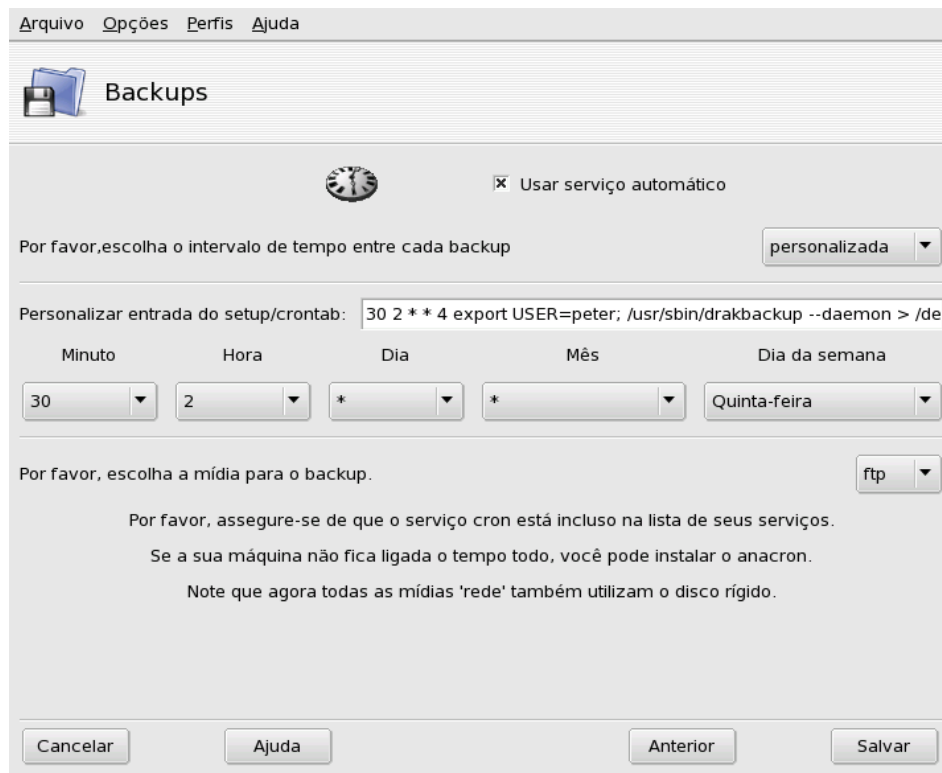
Existing files in the target restoration directory (same location where the backup was made from, by default) will be overwritten.

Feel free to investigate the other restore options if you want to restore part of a backup instead of the full file set.

### 5.8.3. Automating Periodic Backups

In the tool’s main window, click on Advanced Configuration and then on the When button. In The backup scheduling window (see Figura 5-21) select Use daemon to define the schedule.



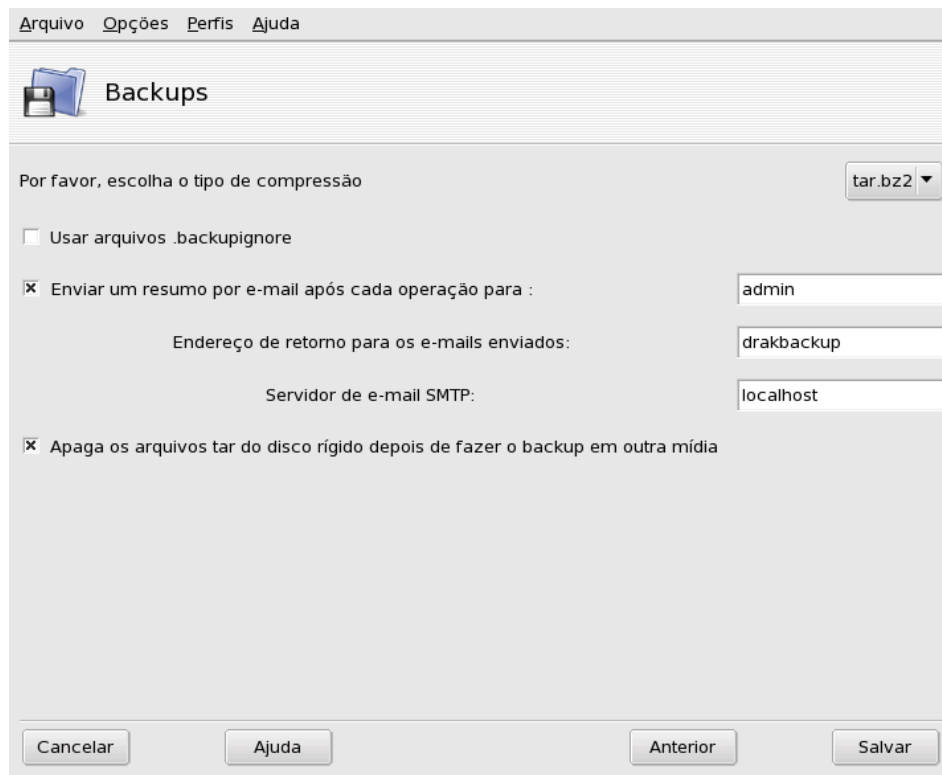


**Figura 5-21. Daemon Options Window**

You are then asked to specify the interval (or period) between each backup operation and the storage media. In our example we set up a customized calendar (custom period selected) to perform a backup every Friday at a quarter to midnight and store it on CD.

#### 5.8.4. Advanced Drakbackup Configuration

Click on Advanced Configuration and then on the More Options button to set more backup options (see Figura 5-22).



**Figura 5-22. Miscellaneous Options Window**

Use the Please choose the compression type pull down list to select the compression used for your backups among `tar` (no compression), `tar.gz` (gzip compression) and `tar.bz2` (bzip2 compression: better but slower).

Select the Use `.backupignore` files option to have certain files excluded from the backup. The `.backupignore` file should be present in every directory of the backup file set where files are to be excluded. Its syntax is very easy: a one-file-per-line list of the names of the files to exclude.



You can use the star (`*` = “matches any string”) and the question mark (`?` = “matches one and only one character, regardless of what that character is”) in the `.backupignore` file to exclude sets of files. For example, `somename*` matches all files whose names start with `somename`, and `image00?.jpg` matches files named `image001.jpg`, `image009.jpg`, `image00a.jpg`, `image00h.jpg`, etc.

Select the Send mail report after each backup to option and fill the e-mail address so the tool knows to whom to mail the backup operation report. Please bear in mind that the system needs to have a working MTA (Mail Transport Agent) for this option to be effective.

Select the Delete Hard Drive tar files after backup to other media option to free that space after performing the backup.

## Capítulo 6. Pontos de Montagem e Diretórios Remotos

### 6.1. Managing your Hard Drive Partitions with DiskDrake



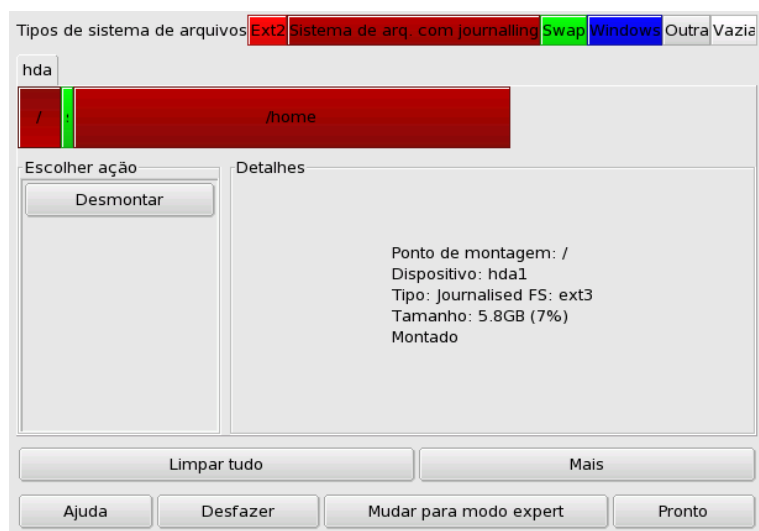
Partitions are initially set up during the installation process. DiskDrake allows you, to some extent, to resize your partitions, move them, etc. DiskDrake can also deal with RAID devices and supports LVM but we will not discuss these advanced uses here. Please refer to the *Guia de Referência* to learn more about what partitions are used for.



DiskDrake is very powerful and can therefore be a dangerous tool. Misuse of it can very easily lead to data loss on your hard drive. Because of this potential loss of data, you are strongly advised to take some protective measures before using DiskDrake:

1. Back up your data. Transfer it to another computer, ZIP disks, etc.
2. Save your current partition table (the table describing the partitions held on your hard drive(s)) to a floppy disk (see Seção 6.1.2).

#### 6.1.1. The Interface



**Figura 6-1. DiskDrake's Main Window**

DiskDrake enables you to configure each physical hard drive on your machine. If you only have one IDE disk, you will see a single tab called `hda` below the file-system types. If there is more than one drive, then each drive will have its own tab and will be named according to the Linux name for that drive. DiskDrake will allow you to manage the partitioning of each drive.

The window (see Figura 6-1) is divided into four zones:

- Top. The structure of your hard drive. When you launch DiskDrake it will display the current structure of the drive. DiskDrake will update the display as you make changes.
- Left. A menu relevant to the partition currently selected in the above diagram.
- Right. A description of the selected partition.
- Bottom. Buttons for making general actions. See next section.

We will now review the actions available through the buttons at the bottom of the window, and then describe a practical use case.

### 6.1.2. DiskDrake's action buttons

Clear all

Clicking on this button will clear all partitions on the current hard drive.

More

Displays a three button dialog allowing you to:

Save partition table

Allows you to save the current partition table to a file on a disk (a floppy, for example). This may prove useful if a problem arises (such as an error made during drive repartitioning).

Restore partition table

Allows you to restore the partition table as previously saved with Save partition table. Restoring a partition table may recover your data as long as you do not reformat partitions, because the formatting process will overwrite all your data.

Rescue partition table

If you lose your partition table and have no backup, this function scans your hard drive to try and reconstruct the partition table.

Help

Display this documentation in a browser window.

Undo

Cancels last action. Most modifications done on your partitions are not made permanent until DiskDrake warns you it will write the partition table. This button therefore allows you to undo all of your modifications on partitions up to last write.

Toggle to expert mode

This button allows you to access the expert mode functions (which are even **more** dangerous if you are not sure what you are doing). Reserved for experts.

Done

Saves your changes and exits DiskDrake.

### 6.1.3. Resizing an Old Partition and Creating a New One

In this section, we are going to do a little exercise to demonstrate one of the more useful features of DiskDrake. Let us imagine that you decide to use your machine as an FTP server and you want to create a separate `/var/ftp` partition in order to host the FTP files. **Note that doing this step-by-step tutorial will actually modify the structure of your hard drive.**

This is what the current `/home` partition looks like (see Figura 6-2), before any modification. We are going to shrink this partition in order to create free space for the new file system.



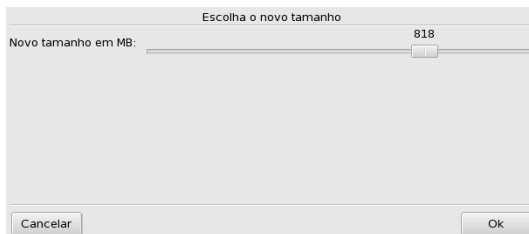
In order to perform the steps in this example, all users of your system must be logged out, except `root`.

First of all, you need to unmount the `/home` partition by clicking on it and then pressing the Unmount button.



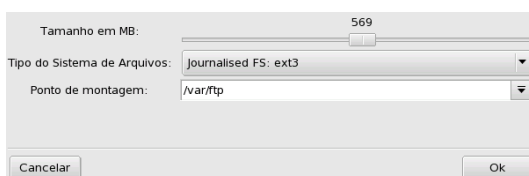
**Figura 6-2. The `/home` Partition Before Resizing**

The next step, as you may have guessed, is to click on the Resize button. A dialog will appear (see Figura 6-3) which will allow you to choose the new size for the `/home` partition. Move the slider to reflect the new size, then click on OK.



**Figura 6-3. Choosing a New Size**

When this is done, you will notice that the graphic representation of your hard drive has changed. The `/home` partition is smaller, and an empty space appears on the right. Click on the empty space and then on the Create button which appears. A dialog (see Figura 6-4) will let you choose the parameters for the new partition. Set the size, choose the file system you want to use (usually Journalized FS: `ext3`) and then enter the mount point for the partition, which in our example will be `/var/ftp`.



**Figura 6-4. Defining the New Partition**

Figura 6-5 shows what our projected partition table now looks like.



Figura 6-5. The New Partition Table

The last step is to format (prepare to host files) the newly created partition. To format the partition, click on its representation in the partitions picture, then on the Format button. Confirm the writing of the partition table to disk, the formatting of the partition and the update to the `/etc/fstab` file. You may be asked to reboot the computer to make changes effective.

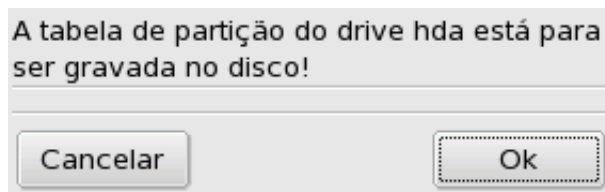
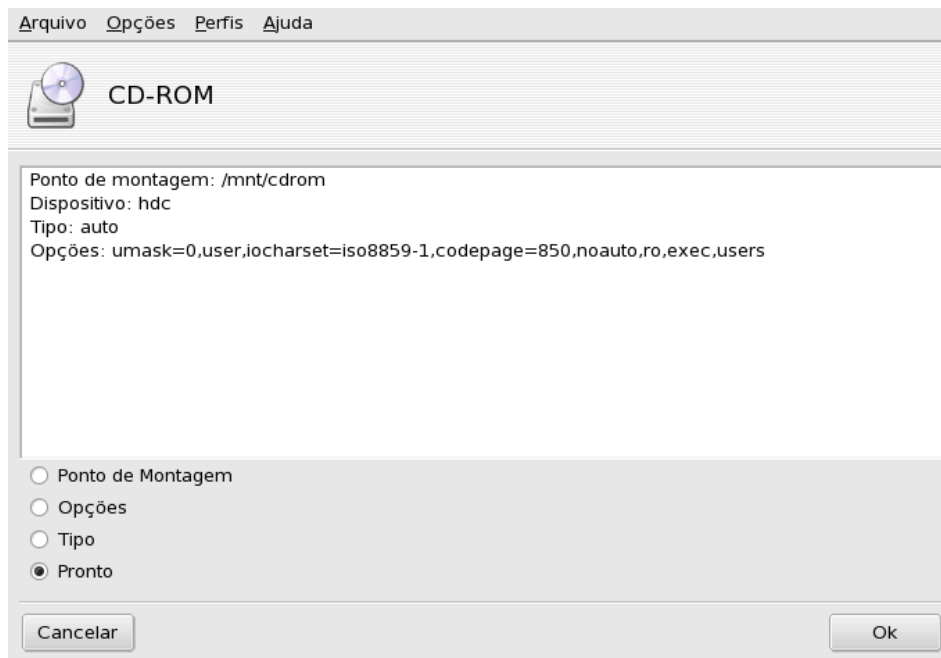


Figura 6-6. Confirming the Writing of the Partition Table

## 6.2. Managing Removable Devices



These tools enables system administrators to easily control most options which affect the behavior of removable devices such as floppy, CD and DVD disks. Note that, by default, all removable devices are automatically made available so users shouldn't have to manually mount media.



**Figura 6-7. Changing a Parameter**

For each device the following properties may be changed:

- **Mount point.** The directory where the device's files will be accessible from. You can either choose an entry in the list or type in your own path. If the directory does not exist, it will be automatically created.
- **Options.** Controls various device options, notably whether it is mounted automatically (supermount) or not. Note that if the supermount option is selected, the two others (user and noauto) must not be selected.
- **Type.** Displays a list of file-system types. If you have a specific medium with an uncommon file system on it, this is where you can tell Linux how to access it.

Select the property you wish to change and click on OK. The corresponding dialog will pop up in which you can change your settings. Then click on OK again. The system will then ask you if you want to save the modifications in the `/etc/fstab` file. By saying yes, you will not have to unmount and re-mount that device: it will be done automatically

### 6.3. Importing Remote SMB Directories



This tool allows the system administrator to import remote shared directories based on the SMB protocol (used mainly by Windows®) on the local machine.

While users can individually access remote shares through their file managers, it may be required in some cases to import a specific share for it to become immediately available for all users. We'll go through an example showing you how to import a template directory from a Windows® machine.

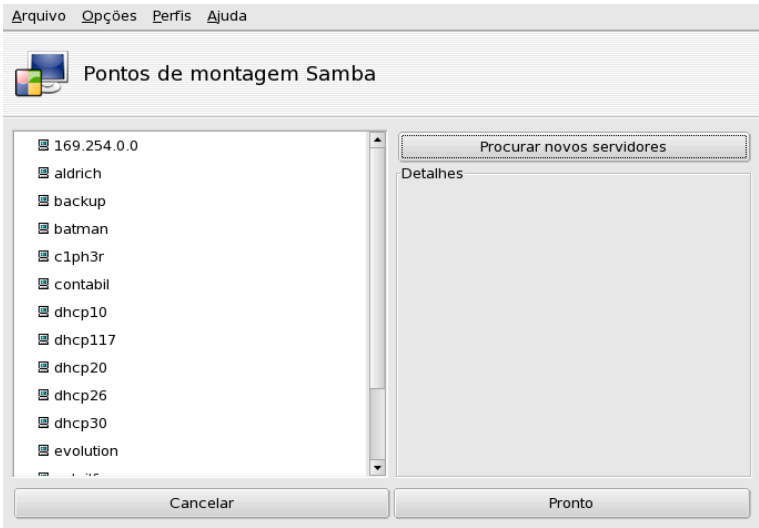


Figura 6-8. Scanning the Whole Network

Clicking on the Search servers button scans the local network for machines which currently share directories (including the local one). In our example, many servers are available. We'll choose `skywalker` and we'll make it available locally for all users.

Clicking on a machine's name will try to connect to it and browse for available shares. If that machine has password-protected shares, a dialog will pop up asking you to identify yourself.



Figura 6-9. Authenticating on a Remote Samba Server

Enter the correct Username, Password and Domain. The available shares on that machine will then appear. Click on the little arrow on the left of the server icon to show available shares.



If the machine you're connecting to has both public and password-protected shares, then canceling the password entry dialog will connect you to that machine, but only to its public shares.



Figura 6-10. Choosing the Remote Directory to Import

Once a share is selected, a Mount point button appears. Clicking on it displays a dialog where you can type the local directory name where remote files will be accessible.



Once this is done, two more buttons appear:

- **Mount.** Makes the resource available locally. When this is done, users simply have to point their file manager to the directory selected as the mount point to get the files hosted by the server.
- **Options.** Allows you to set a user name and password to access that SMB mount point. Other permissions and advanced settings can also be set through this button.

Also, the little icon in front of the shared directory  becomes .

When you're finished configuring the access points for remote directories, click on Done. A dialog box will appear asking you whether you wish to save your modifications to the `/etc/fstab` file (where mount point information is usually stored), or not. Click on Yes to make the shares configuration persistent between sessions. Click on No to exit without saving your changes.

## 6.4. Importing Remote NFS Directories



This tool is exactly the same as the one mentioned in Seção 6.3, except that it controls file sharing through the NFS protocol rather than SMB. Therefore it allows you to locally import shared files from NFS-friendly machines. The interface is the same as the one described in *Importing Remote SMB Directories*, and the effects are similar. Only the corresponding machines are different: UNIX® for NFS and Windows® for SMB.

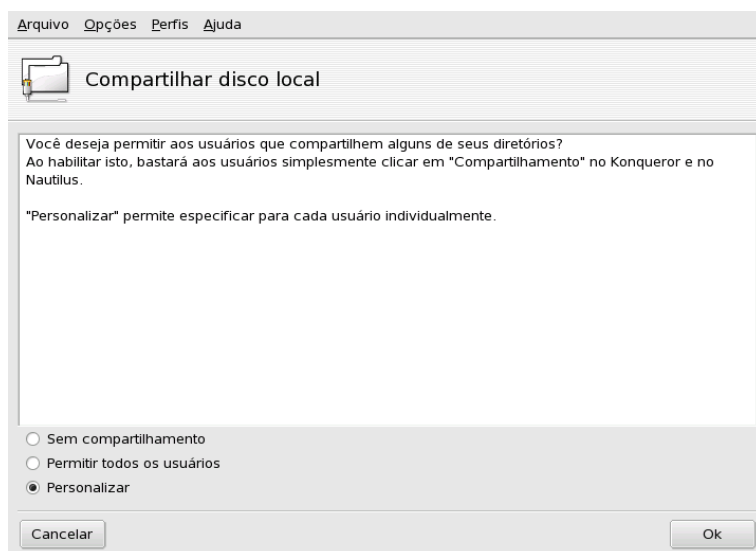
Another difference is that there is no need to provide a password to access NFS shares. The authentication mechanism is host-based.

## 6.5. Allowing Users to Share Folders



This tool enables you to share files with other users of your computer network. File sharing can be done on heterogeneous systems such as GNU/Linux and Windows®.

The file-sharing configuration is done in two simple steps: determining who can export folders, and then which protocol to use. A 3<sup>rd</sup> step is necessary if you select the Custom export option.



**Figura 6-11. Controlling Exports**

First of all, you must determine who will be able to share folders. Here are the different available options:

- **No sharing.** Prevents users from sharing data with others.
- **Allow all users.** All users are allowed to share data with others.
- **Custom.** By choosing this option, only users within the same `fileshare` group will be allowed to share data. If you choose this option, the `fileshare` group will be created and, as a 3<sup>rd</sup> step, you will be prompted to run UserDrake in order to add the allowed users to this group (see Seção 5.7).



Figura 6-12. Choosing the Export Protocol

Then you must choose which protocol to use for file sharing. Check one or both of the following:

- **SMB.** If you want your users to share files using Windows<sup>®</sup> systems.
- **NFS.** If you want your users to share files using UNIX<sup>®</sup> systems (such as GNU/Linux).

Once you have checked the appropriate boxes, click on OK. The required packages will be installed, if needed. If you uncheck a previously checked box, the corresponding service will be stopped.

Once users are allowed to share data, they can select the folders to be shared through their preferred file manager.

## 6.6. Setting up WebDAV Mount Points



WebDAV (*Web-based Distributed Authoring and Versioning*) is an extension to the HTTP protocol which allows you to create, move, copy, and delete resources on a remote web server. In practice, mounting a remote WebDAV repository on your local machine will allow users to modify a remote web server's files as if those files were local to the system.



Browse the WebDAV Resources (<http://www.webdav.org/>) pages to learn more about this protocol.



**Figura 6-13. Managing WebDAV Mounts Points**

The first time you launch this tool the required packages will be installed if needed, and only two buttons will be available. New, which allows you to define a new mount point, the other one just Quits the application. After you have defined mount points, they will appear as new buttons at the top of the buttons list. Clicking on a mount point button will get you to the mount point menu (see Figura 6-14).

When you click on the New button you are asked for the URL of the web server. Enter the complete URL of the web server, beginning with `http://` or `https://`, then click OK.



**Figura 6-14. WebDAV Menu**

You must now decide where the web server files will be accessible from. Select the Mount point option and click OK. There you will be able to choose a local directory or type in your own. If the selected mount point does not exist, it will be created.

If the server requires authentication, do not forget to fill the username and password fields in the Options dialog. Then all you need to do is to actually mount the remote repository by selecting Mount and clicking OK.

You will now be able to browse and modify files on the local mount point you have defined and the changes will be immediately available on the web server.

To make your settings persistent between sessions, do not forget to save modifications to the `/etc/fstab` file, as suggested when you quit the wizard.

## Capítulo 7. “Security” Section

### 7.1. Securing your Machine through DrakSec



draksec is a graphical interface to msec (which stands for Mandriva Linux Security Tool). It allows you to change your system's security level and to configure every option of msec's security features.

msec has two aspects: system behavior configuration and periodic checks of system state. Each security level modifies the system configuration, making it more and more secure, and verifying more and more security related aspects.

#### 7.1.1. Setting your Security Level



This tool is only displayed in expert mode. Choose Options→Expert mode from the menu and then access the Security section of Mandriva Linux Control Center.



**Figura 7-1. Choosing the Security Level of your System**

Simply choose the security level you want from the Security Level pull-down list: it will be effective as soon as you click on OK. Please read the help text regarding security levels very carefully so that you know what setting a specific security level implies.



If you wish to check which options are activated for each security level, review the other tabs: Network Options, System Options and Periodic Checks. Click on the Help button to display information about the options and their default values. If some of the default options don't suit your needs, simply redefine them. See Seção 7.1.2, for details.

Put a check mark on the Security Alerts box to send by mail possible security issues found by msec to the local user name or to the e-mail address defined in the Security Administrator field.



We highly recommend you activate the security alerts option so that the administrator is immediately informed of possible security issues. Otherwise the administrator will have to regularly check the relevant system log files.

### 7.1.2. Customizing a Security Level

Clicking on each of the Options tabs (and the Periodic Checks one) lead you to msec's list of security options. This allows you to define your own security level based on the security level previously chosen.



Figura 7-2. Modifying Standard Options

For each tab, there are two columns:

1. **Options List.** All available options are listed.
2. **Value.** For each option<sup>1</sup> you can choose from the corresponding pull-down menu:
  - **Yes.** Activate this option no matter what the default value is.
  - **No.** Deactivate this option no matter what the default value is.
  - **Default.** Keep the default security level behavior.
  - **Ignore.** Use this option if you don't wish that test to be performed.
  - **ALL, LOCAL, NONE.** The meaning of these are option-dependent. Please see the Help text available through the Help button for more information.

Clicking on OK accepts the current security level with custom options, applies it to the system and exits the application.

---

1. The default security level setting is shown in the Help window.

## 7.2. Controlling File Permissions with DrakPerm

In Seção 7.1, you saw how to change your system’s security level and customize the security checks associated to those levels.



drakperm allows you to customize the permissions which should be associated with each file and directory in your system: configuration files, personal files, applications, etc. If the owners and permissions listed here don’t match the actual permissions of the system’s files, then `msec` (which stands for *Mandriva Linux Security Tool*) will change them during its hourly checks. Those modifications can help prevent possible security holes or intrusions.



This tool is accessible only in expert mode. Choose Options→Expert mode from the menu and then access the Security section of Mandriva Linux Control Center.



**Figura 7-3. Configuring File-Permission Checks**

The list of files and directories which appears depends on the current system’s security level as set by `msec`, along with their expected permissions for that security level. For each entry (Path) exists a corresponding owner (User), owner group (Group) and Permissions. In the drop-down menu, you can choose to display only `msec` rules (System settings), your own user-defined rules (Custom settings) or both as in the example shown in Figura 7-3.



You cannot edit system rules, as stated by the “Do not enter” sign on the left. However you can override them by adding custom rules.

If you wish to add your own rules for specific files or modify the default behavior, display the Custom settings list and click on the Add a rule button.



**Figura 7-4. Adding a File-Permissions Rule**

Let’s imagine your current security level is set to 3 (high). This means that only the owners of the home directories can browse them. If you wish to share the content of Queen’s home directory with other users, you need to modify the permissions of the `/home/queen/` directory.



msec only changes file permissions that are more permissive than the one required by a certain security level. That means that for the change above, the permissions must be changed by hand.

You can do that in Konqueror by modifying the permission properties of your home directory, and checking the Apply changes to all subfolders and their contents option.

If you create more rules, you can change their priorities by moving them up and down the rules list: use the Up and Down buttons on your custom rules to have more control over your system’s permissions.

### 7.3. Protegendo sua Conexão Internet com o DrakFirewall



Esta pequena ferramenta permite a configuração de um firewall básico para sua máquina. Ele filtra tentativas de conexão vindas de fora e bloqueia as que não forem autorizadas. É recomendado que a ferramenta seja executada logo após a instalação da máquina e antes de se conectar à Internet, minimizando portanto os riscos da sua máquina ser comprometida.





Figura 7-5. A Janela do DrakFirewall

Se estiver marcada, desmarque a opção Todos (sem firewall) e marque as opções correspondentes aos serviços que você deseja tornar disponíveis para o mundo externo. Se você desejar disponibilizar um serviço que não está listado aqui, clique no botão Avançado para especificar manualmente as portas que devem ser abertas.



O botão Avançado faz surgir um novo campo chamado Outras portas onde você pode digitar o número da porta e seu protocolo que deve ser aberta para o mundo externo. Alguns exemplos são apresentados logo acima deste campo: use-os como guia. É ainda possível especificar faixas de portas usando a sintaxe : como em 24300:24350/udp.

Não marcar um serviço nesta lista não impedirá uma conexão sua **para** o serviço. Irá apenas impedir conexões **vindas da Internet** para este serviço na sua máquina. Se você não planeja hospedar serviços na sua máquina (caso comum para máquinas domésticas ou desktop), deixe todas as opções desmarcadas.

Por outro lado, caso você deseje desabilitar o firewall e deixar todos os serviços acessíveis para o mundo externo, marque a opção Todos (sem firewall) mas, por favor, tenha em mente que isto é **bastante inseguro** e não recomendado.

Após clicar no botão OK, o próximo passo será selecionar qual a interface que conecta sua máquina à Internet.



**Figura 7-6. A Interface Internet**

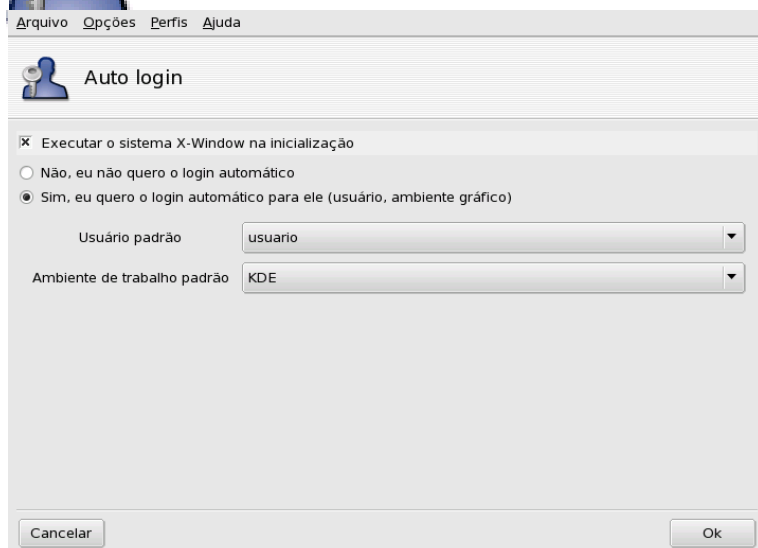
Analise os exemplos para determinar o nome da sua interface que está conectada à Internet. Se não tiver certeza, consulte a configuração de rede do sistema (veja Seção 4.1.3). Por fim, clique no botão OK para instalar os pacotes necessários, ativar o firewall e aproveitar sua conexão protegida.

## Capítulo 8. “Boot” Section

### 8.1. Configuring the Login Mode



This tool allows a user to be automatically logged into the system at boot time, without a password being required.



**Figura 8-1. Choosing the Login Mode**

There are a few parameters:

1. Graphical interface: if you wish to have the X Window System (graphical display) started at boot time, check the Launch the graphical environment when your system starts box. If you leave it unchecked, the text login will be displayed and you will need to start the graphical environment manually.
2. Autologin: if you're the only person using your machine and nobody else has access to it, you may choose to be automatically logged in at boot time. To do so, select the Yes, I want to autologin with this (user, desktop) option. Then choose the user you want to be logged on automatically in the Default user, as well as the preferred Default desktop in the pull-down menus.

### 8.2. Changing your Bootup Configuration



This tool allows you to configure the bootloader and the boot menu entries.



Unless you're an expert, it's not recommended to change these settings as this may prevent you from booting your machine the next time you try to power it on.

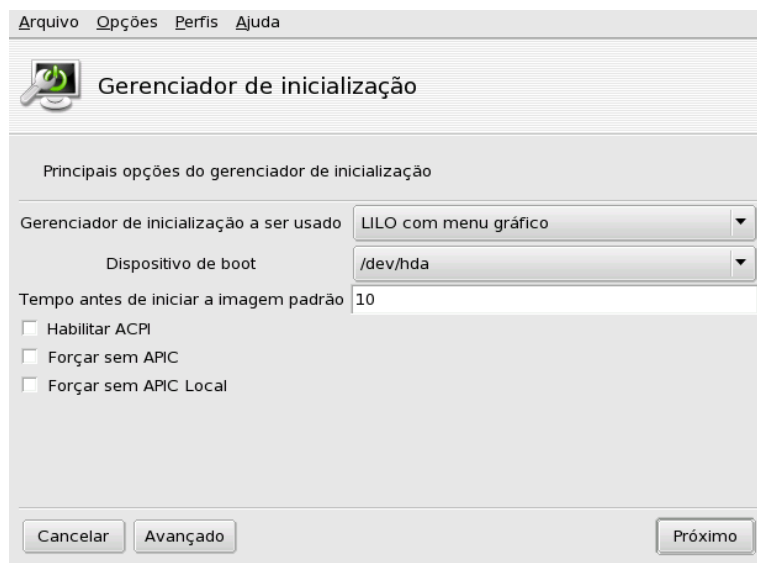


Figura 8-2. Choosing the Boot Mode

### 8.2.1. Configuring the Bootloader

You can choose between the GRUB and the LILO bootloader. Either one will allow you to boot Mandriva Linux, it's just a question of taste.

Unless you know what you're doing, you shouldn't change the default Boot device shown, since that's where the bootloader installs itself. If more than one OS is installed on your machine, it's a good idea to leave at least 5 seconds so that you can easily select a different menu item than the default image.

The dialog finally shows a few options which can be useful depending on your specific hardware.

#### Enable ACPI

Enable this option to allow better power management support if your hardware is ACPI compatible. ACPI is often needed for new laptops which no longer support APM.

#### Force No APIC

The IO-APIC (<http://www.wlwg.org.nz/APIC>) is only really useful for multi-processor systems. It may cause problems on single processor systems and should be deactivated in that case by checking this box.

#### Force No Local APIC

The Local APIC can be used by Linux to program interruptions to wake up threads. On multi-processor machines it can be used to send interrupts to another processor.

These relatively new APIC features are known to cause problems on some computers because of badly designed chip sets or poor support in Linux kernel drivers. These problems can cause system freezes or incorrect device detection. So you may need to deactivate them by checking the corresponding box.

Click on Advanced to be able wipe the contents of the /tmp directory (which might hold some files you download from the Internet, for instance) and to tell Linux how much RAM your machine uses should this prove to be an issue at boot time.

### 8.2.2. Managing Boot Entries

After clicking Next, the list of available entries at boot time is displayed; the default one is marked by a star (\*).

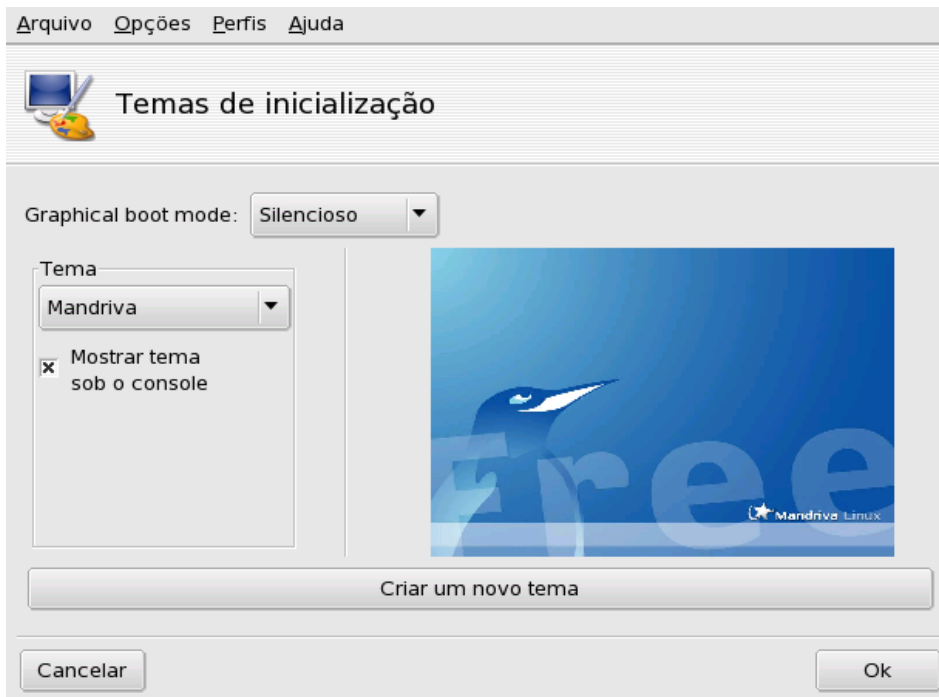
It's also possible to make an entry the default one by checking the Default checkbox in the Modify dialog.

### 8.3. Customizing your Boot Theme



The Boot Theme utility enables you to change the default theme displayed at boot time, as well as a few other options.

- Choose one of the available boot modes in the pull-down menu (Figura 8-3).
- Uncheck the Display theme under console option if you want a clean, “traditional” console. This relates to those accessible through the **Ctrl-Alt-Fn** keys.



**Figura 8-3. DrakBoot Theme Window**

The boot theme setting will have no effect if your system isn’t set to boot using the graphical mode. Please refer to Seção 8.2, for more information on setting the boot mode.

If you only have one theme available, you can install the `bootsplash-themes` package which you will find in `contribs`. Other themes are also available on the web.

The Create new theme button allows you to fully customize an existing boot theme or create a new boot theme from scratch. Adjust the parameters to your liking and save it. It will then be accessible in the available Themes list.



# Índice Remissivo

## aplicações

- Centro de Controle Mandriva Linux, 11
- Rpmdrake, 11

## applications

- DiskDrake, 85
- Drakbug, 8
- DrakPerm, 97
- DrakSec, 95
- HardDrake, 27
- lpd, 45
- Mandriva Linux Control Center, 2
- Mandriva Linux Control Center, 55
- MenuDrake, 65
- msec, 95, 97
- PrinterDrake, 35
- Rfbdrake, 21
- ScannerDrake, 46
- UserDrake, 75

## backup

- restore, 82
- wizard, 78

## bootloader

- configuration, 102

## Borges, ??

## bugs

- reports, 8

## CD, 88

## command

- exit, 75

## commands

- DrakConf, 2

## console

- access, 75
- virtual terminal, 75

## date

- adjust, 71

## desenvolvimento, 2

## devices

- removable, 88

## DHCP, 63

## DiskDrake

- hda, 85
- NFS, 91
- removable devices, 88
- Samba, 89

## DocBook, ??

## documentação

- Mandriva Linux, 5

## Drakbug, 8

## DrakConf, 2

## DrakPerm, 97

## DrakSec, 95

## DVD, 88

## empacotamento, 2

## file

- permissions, 97
- sharing, 91

## firewall

- configuração básica, 98

## floppy, 88

## fonts

- management, 70

## gateway

- configuring, 61

## HardDrake, 27

- other devices, 28

## hardware

- configuration, 27
- troubleshooting, 28

## internacionalização, 2

## keyboard

- changing layout, 34

## language

- keyboard, 34

## log files

- searching through, 72

## login mode

- autologin, 101
- configuring, 101
- graphical interface, 101

## lpd, 45

## Mandriva Linux Control Center, 2

## Mandriva Expert, 1

## Mandriva Club, 1

## Mandriva Linux

- atualizando, 15
- listas de discussão, 1
- segurança, 1

## Mandriva Store, 2

## MenuDrake, 65

- add entry, 66
- advanced features, 69

## mouse

- configuration, 34

## msec, 95, 97

## network

- connection, 55

## NFS

- file sharing, 91

## pacotes

- gerenciamento, 11, 11
- instalando, 18

## partition table, 85

## partitions

- formatting, 88
- management, 85

## Peter Pingus, 6

## printer

- add, 37
- auto-configuration, 35
- configuration, 35
- connection type, 45
- default, 37, 42
- edit, 37
- expert mode, 38
- local, 45
- multi-function, 40
- network, 45

- options, 42
- refresh, 38
- remote lpd, 45
- remote printers, 44
- removal, 37
- sharing, 38
- SMB, 45
- testing, 42
- URI, 45
- PrinterDrake, 35
- profile
  - boot, 7
- programação, 2
- proxy
  - mídia, 16
- Queen Pingusa, 6
- remote control, 21
- resolution
  - changing display, 28
- Samba, 89
  - directories, importing, 89
- scanner, 45
  - OCR software, 51
- ScannerDrake, 46
- security
  - choose, 95
- services
  - configuration at start-up, 69
- sinopse
  - comando, 6
- time
  - adjust, 71
- time zone
  - settings, 71
- troubleshooting
  - hardware, 28
- TV
  - configuration, 32
- UserDrake, 75
- users
  - adding, 77
  - management, 75
  - Peter Pingus, 76
  - Queen Pingusa, 76
- usuários
  - genérico, 6
- WebDAV
  - mounting, 92
- Windows
  - file sharing, 89, 91
- X graphical server
  - configuration, monitor, 31
- X graphical server
  - on boot-up, 32