

Building a custom Linux with the NimbleX Live CD Generator

EASY BUILDER

If you want customization without all the fuss, then try building your own custom ISO image with the web-based Custom NimbleX Live CD Generator.

BY THOMAS PELKMANN

NimbleX [1] is a minimal Linux distribution based on Slackware. The compact NimbleX system is used primarily for Live CDs and USB sticks, and according to the website, NimbleX also runs well from the hard drive or even over the network. But perhaps the most interesting feature of NimbleX is the custom CD generation service available through the project website [2]. The Custom NimbleX Live CD Generator lets you select the components and applications you want to include in the system, then it generates a Live

CD image on the basis of your specifications. By simply selecting applications from a series of menus, the Live CD Generator resolves any dependencies behind the scenes.

Getting Started

Because the Live CD Generator is designed for speed and ease of use, it does not offer the full range of options available if you are building a complete system from scratch. The tool resembles the graphical installation wizard included with many conventional

Linux systems. It presents the user with a series of choices defining the characteristics of the system and generates an

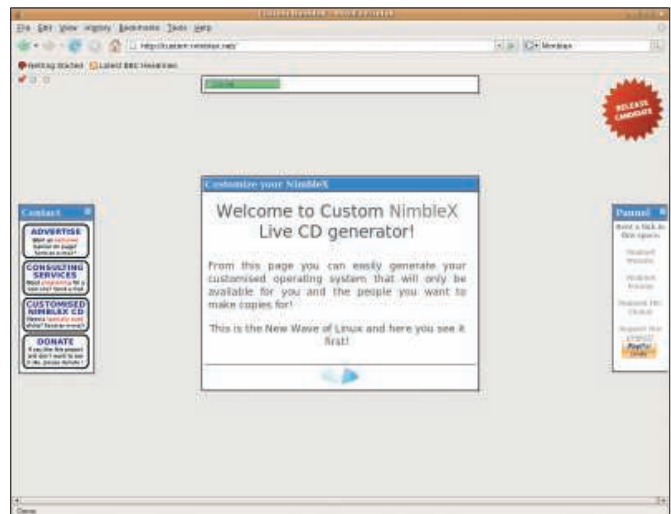
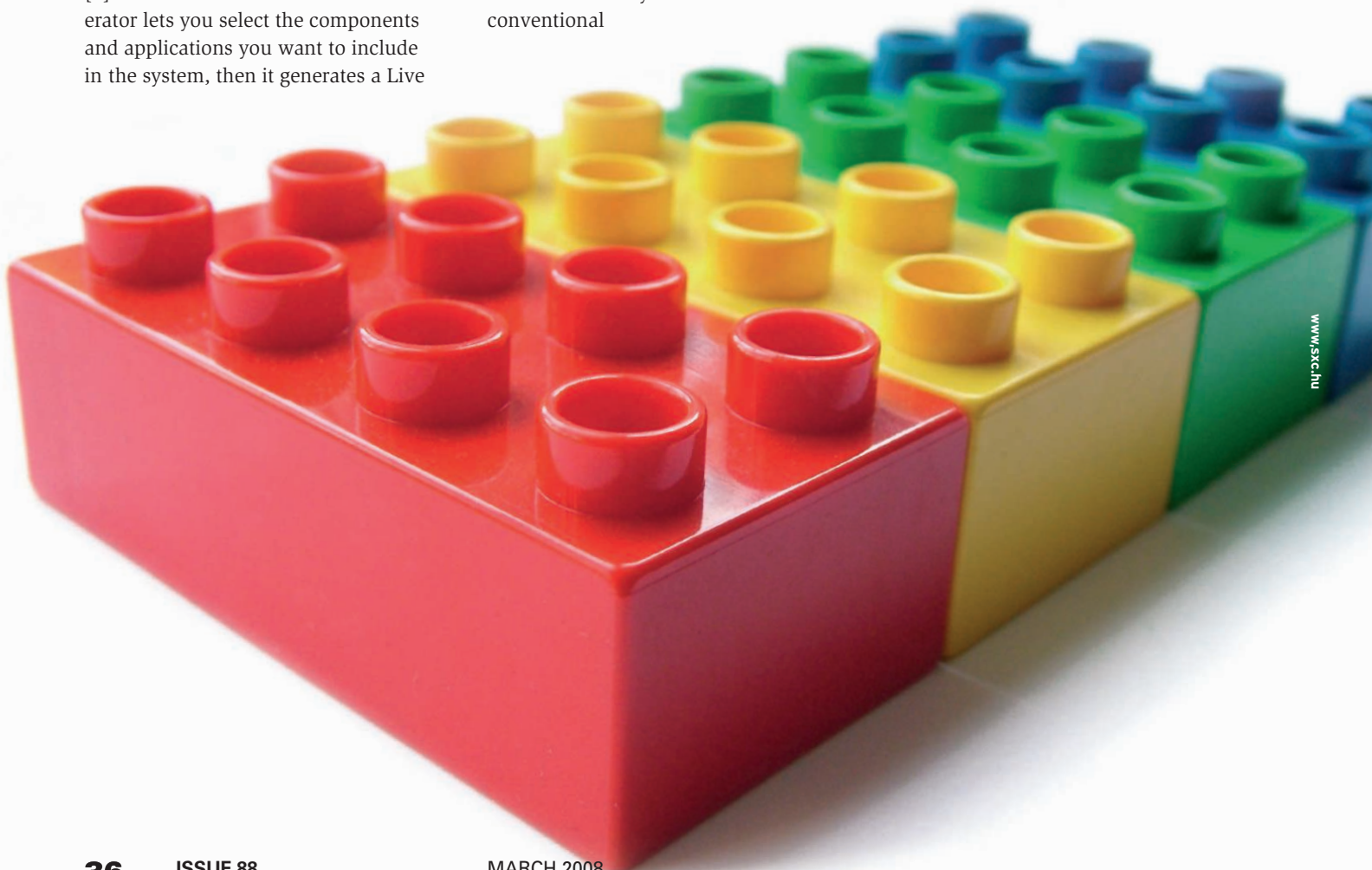


Figure 1: The Live CD Generator starts with a simple welcome screen. The green progress indicator shows how much disk space your distribution needs.



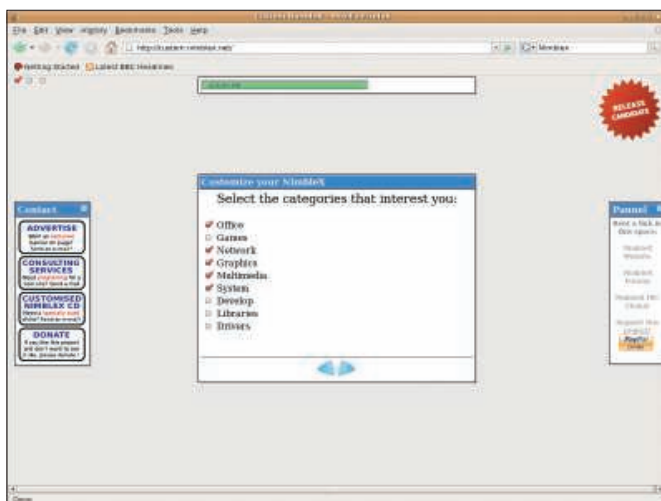


Figure 2: The Custom and Recommended customization levels let you add applications to the minimal system.

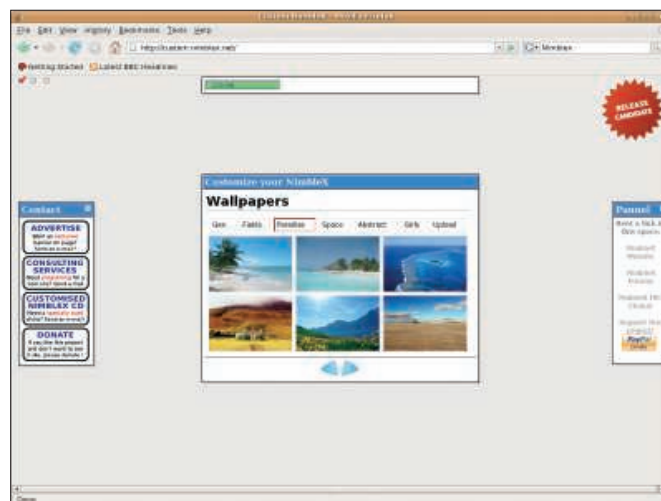


Figure 3: Select wallpaper for your desktop or upload your own background image.

ISO image, which is then available for immediate download.

The Live CD Generator starts with a simple welcome page (see Figure 1). A progress indicator at the top of the browser window shows a value of 200MB, representing the size of a minimal NimbleX system.

If you click the right arrow to proceed to the next screen, the generator asks you to select a level of customization. The options are:

- **Minimal** – The Minimal customization level is no customization. The CD generator simply creates a bare-bones 200MB Live CD ISO image without additional software.
- **Custom** – The user selects additional software from a menu of optional applications, libraries, and drivers.
- **Recommended** – Similar to the Custom option, but only a recommended collection of tools is selected by default and you can still deselect any of the tools you don't want.

In this article, I focus on the Custom option. The Recommended option is similar, and the Minimal option really doesn't require much explanation because it just cooks up a CD without additional input.

Customizing

If you choose the Custom option and click the right arrow, you'll land on a screen that lets you select categories of tools (Figure 2). For each category you select, the Live CD Generator will present a menu of optional software. If you hover your mouse over a category, the

applications included in the category will appear to the right.

After selecting your categories, click the right arrow to move to more granular selections. Each category you select leads to a subsequent menu displaying options within the category. The Office option, for instance, lets you select from tools such as OpenOffice, KOffice, a PDF editor, a calculator, and the Kdissert mind-mapping utility.

See the box "Custom NimbleX Highlights" for a sample of some popular Custom NimbleX options.

The generator offered no options for the Libraries category at the time this issue went to press.

Custom NimbleX Highlights

Office	Opera 9.22	VirtualBox 1.4
OpenOffice 2.3	Samba 3.0.23c	ClamAV 0.90
KOffice 1.6	Wireshark 0.99	Wine 0.9.40
Scribus 1.3.3	Nessus 2.2.9	JRE 1.6
Dia 0.94	OpenVPN 2.0.9	Man pages
Kdissert 1.0.7	Ktorrent 2.1.4	Development
Kile 1.9.3	Graphics	Kdevelop 3.3.4
Pdfedit 0.3.1	Gimp 2.2.16	KDEWebDev 3.5
Qalculate 0.96	Inkscape 0.45	Python 2.4
Games	Blender 2.42	Gambas 1.0.18
The Battle for Wesnoth 1.3.4	Multimedia	Compiler pack
globulation2 0.8.21	AmaroK 1.3.9	Debugger pack
SuperTux 0.1.3	Jack and Qjackctl 0.103	Drivers
Njam 1.25	Xine 0.99	Printer drivers
Ksudoku 0.3	ardour 2.2.0.2	Scanner drivers
Arcade emulators	Rosegarden 1.5.1	Nvidia Desktop
Network	Audacious 1.3.2	Intel Pro Wireless 3945
Firefox 2.0	System	WiFi experimental drivers

After you click through the application menus, it's design time. The *Wallpapers* screen (Figure 3) lets you choose wallpaper for your custom system. The tabs at the top (Fields, Paradise, Space) subdivide the wallpaper options by subject. The *Upload* tab gives you the option of uploading wallpaper from your own selection of photos. The wallpaper image is not tiled, but scaled, so make sure you choose an image of sufficient quality. Ideally, the image size and screen resolution should match.

The next screen lets you customize your sound settings. It is perfectly okay to use the defaults – unless you know exactly what values your sound card

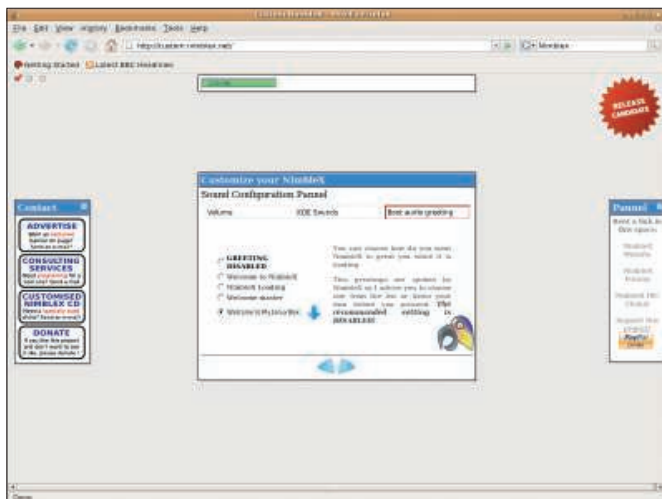


Figure 4: You can even choose a personal greeting that will play at system launch time.

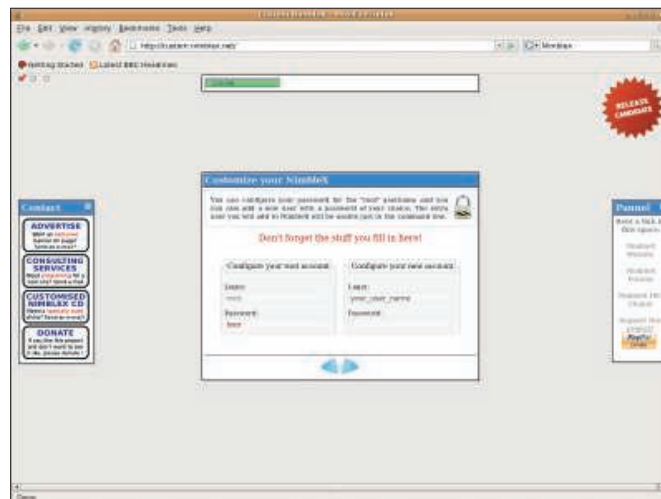


Figure 5: Next, choose a root password and configure an additional user account.

needs. Then go to the *KDE Sounds* tab to select a sound for booting and shutting down your system. The sound also plays when you click an option.

The *Boot audio greeting* option in the last tab of the *Sound Configuration* screen promises some originality: For example, you can type an individual greeting in the box (say, *Welcome to My Linux box*) and click on the down arrow to listen to the screen reader's rendering of the welcome message (see Figure 4). However, you can't add a lengthy greeting – the welcome message is restricted to 30 characters.

The next step is to define your root password and create an additional user account (Figure 5). Next, choose the KDE desktop language and move to a summary of your selections (Figure 6). If you want to change anything, you can

use the left arrow to go back to previous screens and revise your selections.

In the summary screen, accept the selected options and click the execute arrow. The website takes just a couple of seconds to create an ISO image of your customized distribution.

You have 12 hours to download the new ISO image. To start downloading, press the arrow and burn the image onto a CD. Your own custom Linux is now ready to go.

Praise and Concerns

Although the Custom NimbleX Live CD Generator is spartan, the unequivocal navigation is worthy of praise. Everything you need you can find with little danger of detouring or losing your way. It couldn't be easier to put together a custom distribution.

age repository for adding even more applications. NimbleX's category system is sometimes inconsistent as concerns the needs of the target user. For example, the multimedia category is designed for both consumers and producers of music, and the Live CD Generator offers applications like Jack and QJackCtl to support music creation. But Custom NimbleX stops halfway and doesn't offer anything in the line of virtual instruments.

Conclusions

The idea of mixing your own distribution is fantastic, and the approach is foolproof. If the Live CD Generator offered a larger selection of state-of-the-art programs, it would be perfect. But even at its current state of evolution, Custom NimbleX is still worthwhile. ■

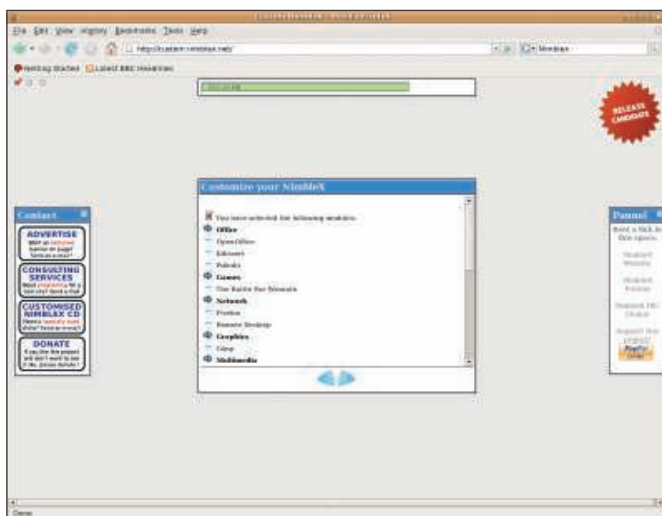


Figure 6: Review a summary of your selections before generating your custom CD image.

The Live CD Generator is intended as a specialized tool for creating ready-made ISO images, but keep in mind that Custom NimbleX offers nothing close to the scope of applications available through a full Linux distribution such as OpenSUSE or Ubuntu.

Also, a full distribution provides access to a pack-

INFO

- [1] NimbleX: <http://www.nimblex.net>
- [2] Custom NimbleX: <http://custom.nimblex.net/>
- [3] NimbleX package list: <http://nimblex.net/package-list.html>

THE AUTHOR

Thomas Pelkmann has worked for more than 20 years as an author and editor for radio, newspapers, and business and computer magazines.

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