

Easy-LTSP

How to configure an openSUSE LTSP server easily
27.06.2009
Jan Weber





About Jan Weber

- Born 1983
- Student
 - Applied computer science
 - University of applied science
 - Offenburg
- openSUSE member
 - openSUSE Education
- jan.weber@opensuse.org
- `the_code` in `irc.Freenode.net`





Content

- Linux Terminal Server Project (LTSP)
- KIWI-LTSP
- Easy-LTSP
 - KIWI Configuration
 - LTSP Configuration
 - Task based configuration
 - Advanced configuration
 - Thin-Client management
- Future of Easy-LTSP

Linux Terminal Server Project

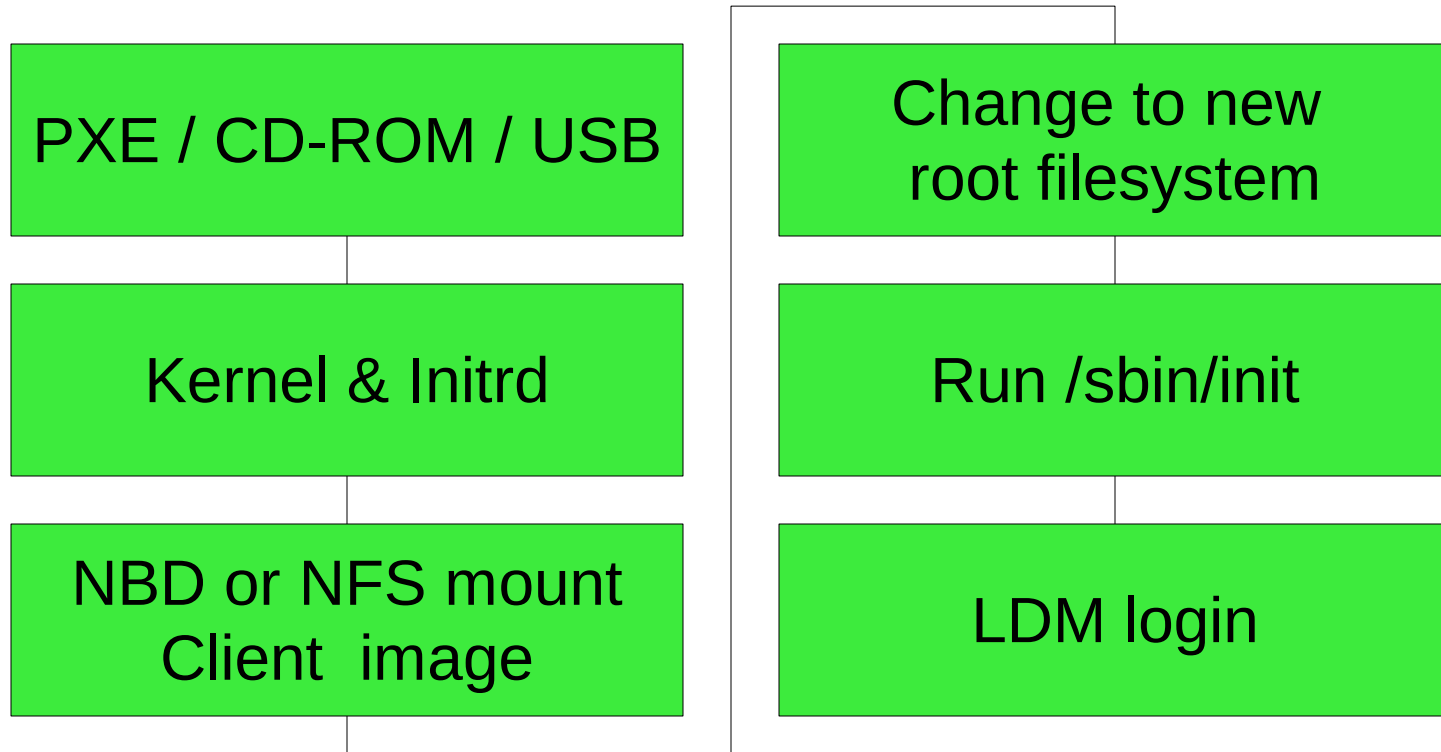


LTSP

- Add-on for Linux Systems
- Applications run on the server
- Thin-clients are used for user interaction
- Thin-clients are normally low-powered and lack a hard disk
- Legacy computers can be turned into thin-clients
- Terminal Server are becoming popular in educational institutions and enterprises



LTSP boot process





KIWI-LTSP



KIWI-LTSP

- KIWI Image System is used to create thin-client images
 - KIWI is widely used (SUSE-Studio, Build Service)
 - KIWI is integrated in YaST
 - Local applications can easily be added to client images
 - PXE, CD and USB images can be created with one configuration
- Visit <http://kiwi.berlios.de> for more information



KIWI-LTSP Services

- DHCP server for network configuration
- TFTP server for boot images
- NBD/NFS for client images
- SSH LDM uses SSH for Xsession
- LTSPFS for mounting local devices



Easy-LTSP

Easy-LTSP



Easy-LTSP

- Developed during Google Summer of Code 2008
- Mentored by Jigish Gohill (cyberorg) and Lars Vogdt (kl_eisbaer)
- Configuration of LTSP server easier
- Designed to work with all distributions

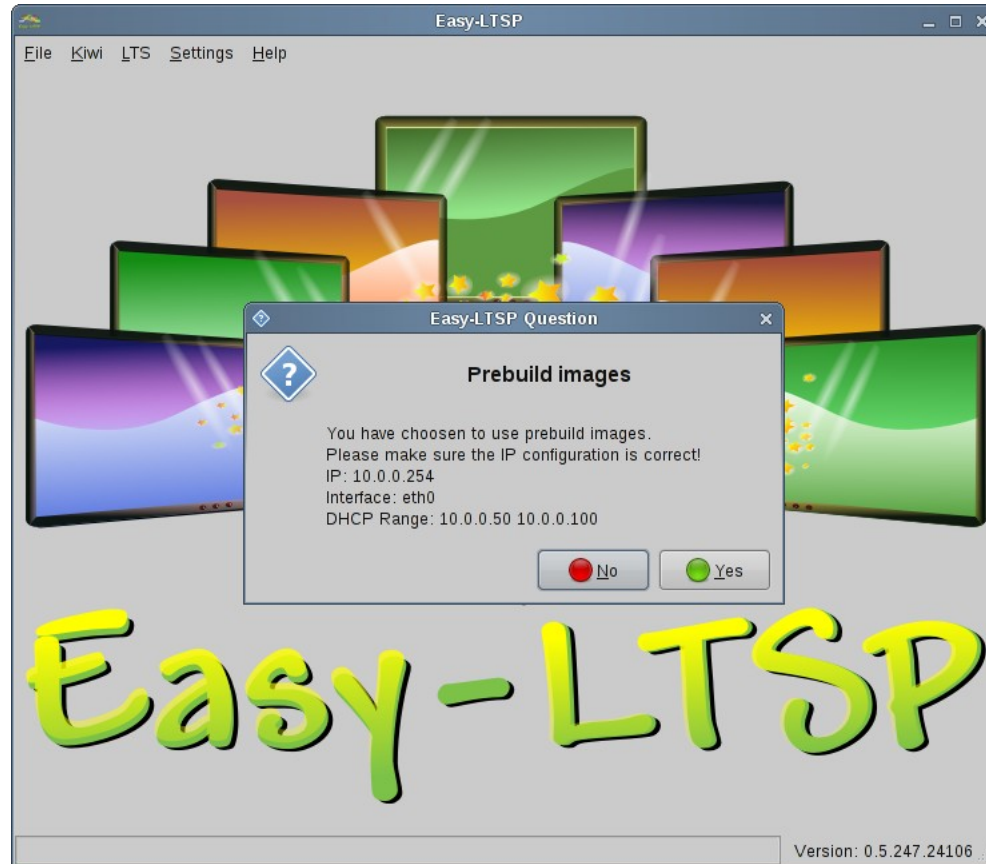


KIWI-LTSP Configuration

- Easy-LTSP can be used to create client images, PXE, USB and CD
- Prebuild images should require no configuration
- Configuration of KIWI-LTSP image creation in three different ways
 - Automatic detection of settings
 - Simple configuration of IP settings
 - Advanced configuration for all settings

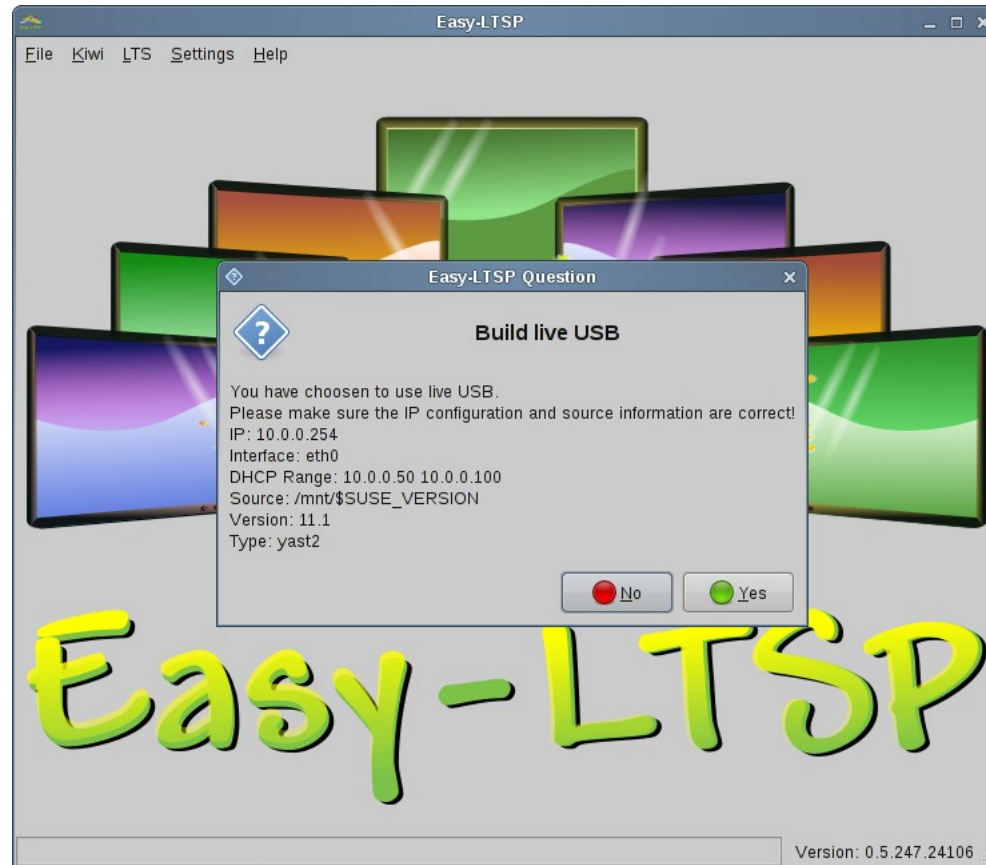


Easy-LTSP – Prebuild Images





Easy-LTSP – Live USB Image





Easy-LTSP – KIWI-LTSP simple

A screenshot of the Easy-LTSP application window. The window title is "Easy-LTSP" and it has a menu bar with "File", "Kiwi", "LTS", "Settings", and "Help". The main content area is titled "Network Configuration" and contains several input fields: "Server IP" (10.0.0.254), "Gateway IP" (\$SERVER_IP), "DNS Server" (\$SERVER_IP), "Domain" (digitalairlines.com), "DHCP interface" (eth0), "DHCP Subnet" (10.0.0.0), "DHCP Netmask" (255.255.255.0), and "DHCP Range" (10.0.0.50 10.0.0.100). Below these fields is an "Advanced" button with a gear icon. At the bottom right are "Cancel" and "Save" buttons. The version number "Version: 0.5.247.24106" is displayed in the bottom right corner of the window.



Easy-LTSP – KIWI-LTSP advanced

The screenshot shows the Easy-LTSP configuration window with the following settings:

Section	Field Name	Value	Action
Client-Image	Local Apps	firefox	
	Image type	NBD	
	Install Source	/mnt/\$SUSE_VERSION	Choose...
	Source Type	yast2	
	SUSE Version	11.1	
Misc. Settings	TFTP Server IP	\$SERVER_IP	
	Paths		
Paths	TFTP Bootpath	/srv/tftpboot	Choose...
	KIWI	/usr/share/kiwi/image/ltsp/suse-\$SUSE_VERSION	Choose...
	Destination	/srv/kiwi-ltsp	Choose...
	TMP	/tmp/kiwi-netboot	Choose...
	LTS Squash	/srv/kiwi-ltsp	Choose...
	LTS NFS	\$LTSSQUASHPATH-nfs	Choose...
	KIWI Netboot	/usr/share/kiwi/image/netboot/suse-\$SUSE_VERSION	Choose...

Version: 0.5.247.24106

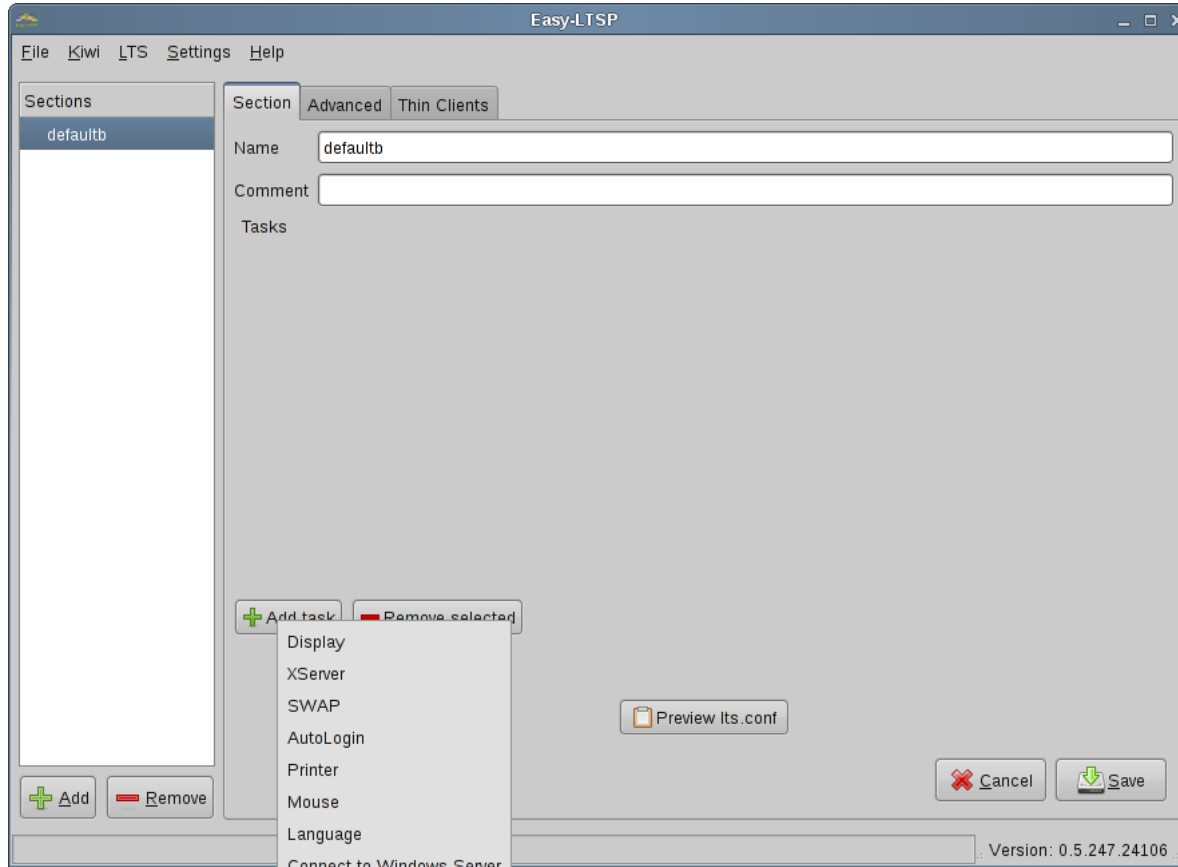


LTSP task Configuration

- Configuration of common settings using tasks
 - Display
 - XServer
 - SWAP
 - AutoLogin
 - Printer
 - Mouse
 - Language
 - Connect to Windows Server
 - Sound
 - Localdev
 - Disable X Security
 - Keyboard

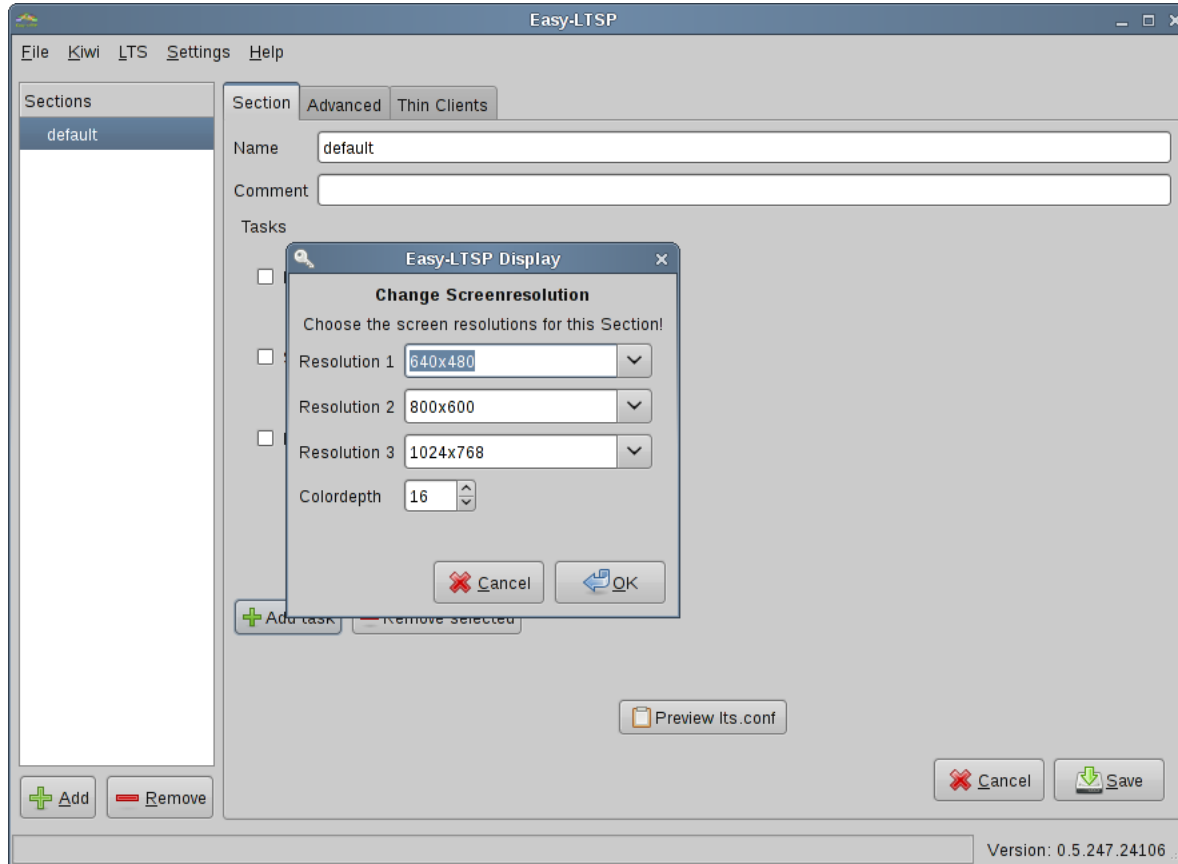


Easy-LTSP – LTSP tasks



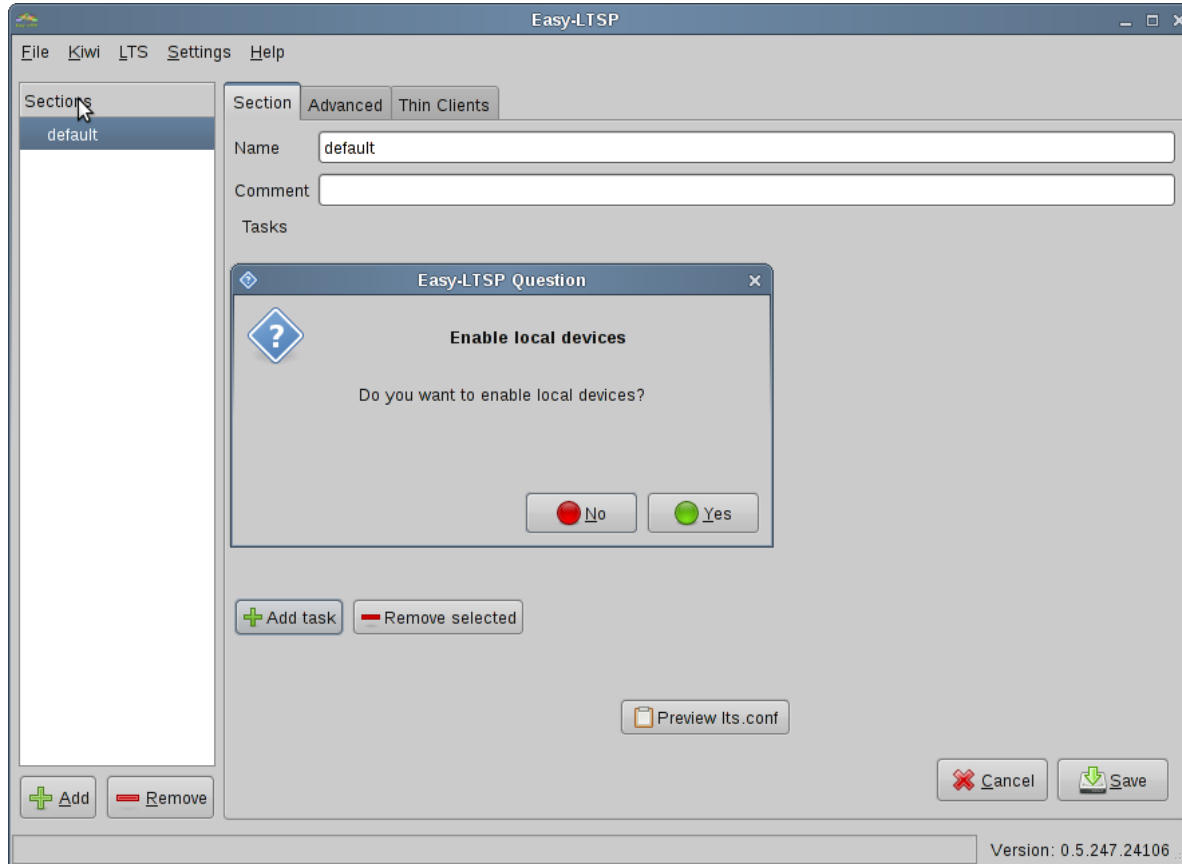


Easy-LTSP – Display Task





Easy-LTSP – Localdev task



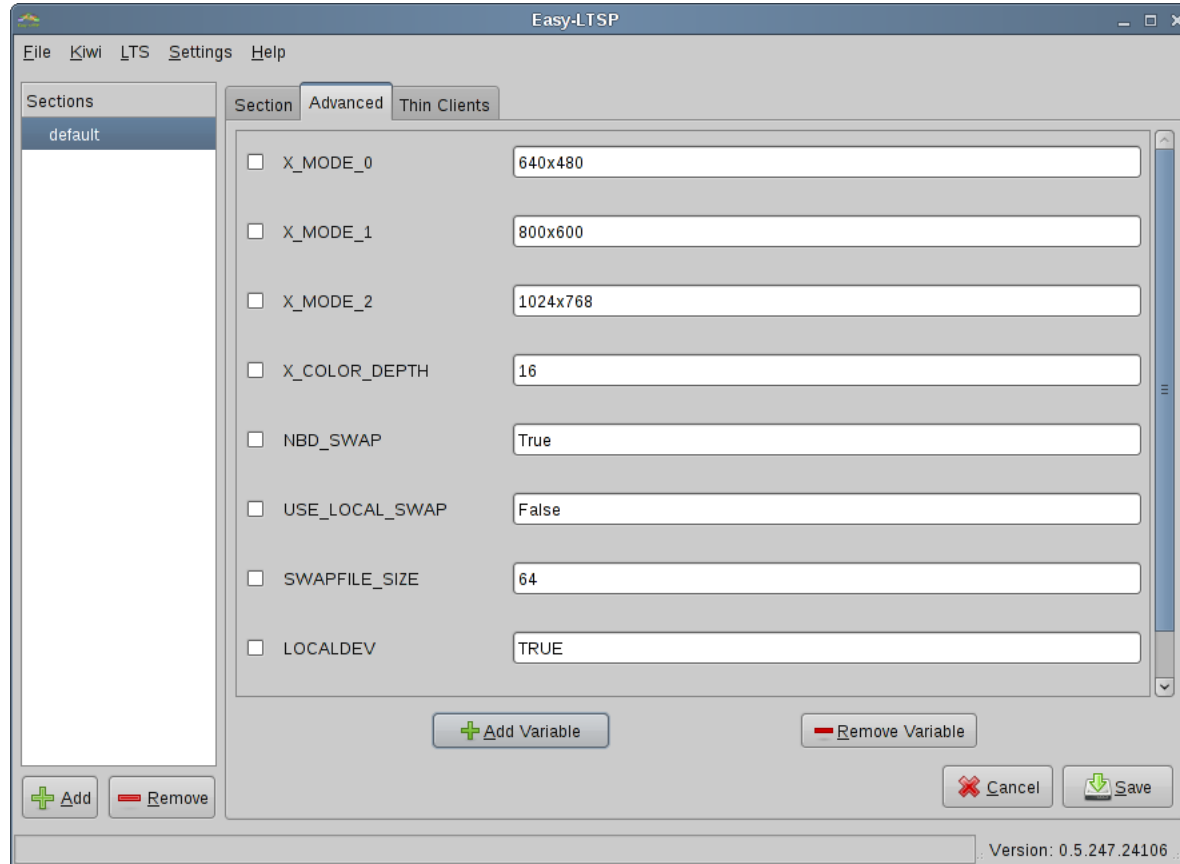


LTSP Configuration

- Expert configuration for each variable
- Thin-clients can be added to a configuration section

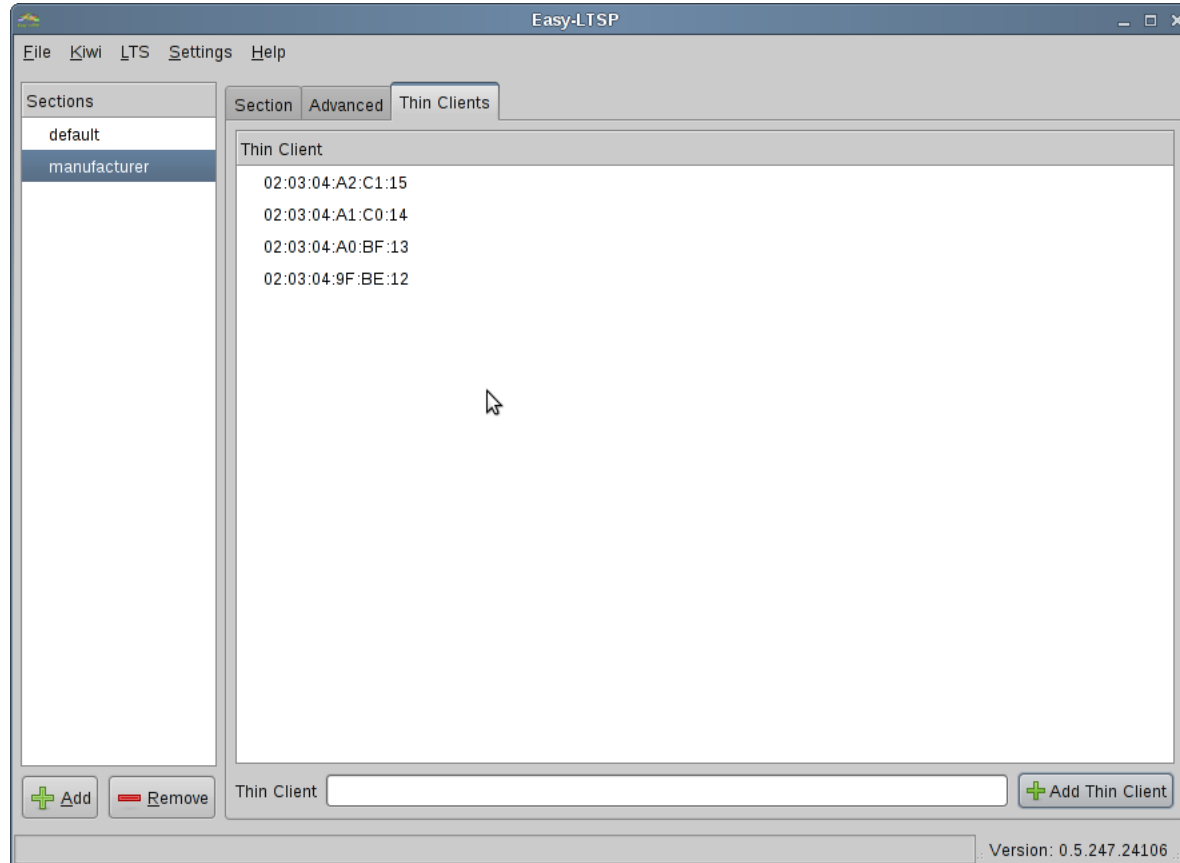


Easy-LTSP – Advanced configuration





Easy-LTSP – Thin-Clients



Future of Easy-LTSP



Future of Easy-LTSP

- Easy-LTSP-NG
 - Development started
 - Python
 - PyGTK
- Possible cooperation with Ubuntu project
 - TCM-NG (Thin Client Manager Next Generation)
 - Jordan Erickson, Josh Dukes

Unanswered questions?