Unbricking of a Buffalo LinkStation Duo
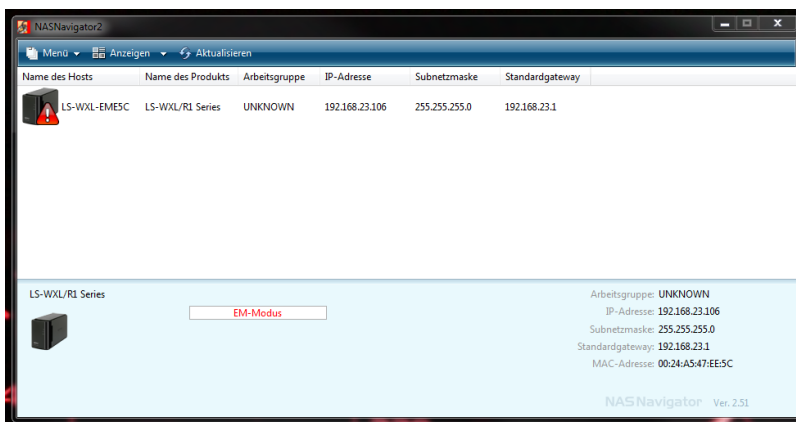
Unbricking of a Buffalo LinkStation Duo

- Buffalo LinkStation DUO 1TB (LS-WXL/R1)
- 2x Samsung 500 GB Drives

Bricking

I removed the RAID0-array to rebuild as a RAID1-array. Because there were errors during the creation of the array, I tried rebooting the device. Unfortunately, now it would not want to boot anymore.

I tried resetting to factory defaults (hold FUNCTION while powering on, then release and press once), but to no avail.

NASNavigator2 reported the device as in EM-Mode (Emergency) and requested a firmware update or a service call.LS-Updater would not update the firmware since it could not find the partitions.

So I removed the drives and connected them to my Windows PC with a USB-to-SATA-adapter. After removing all partitions, I inserted them back into the device.

The Function LED glows permanent red and now it was seriously bricked, since it had no operating system and it would not boot via TFTP.
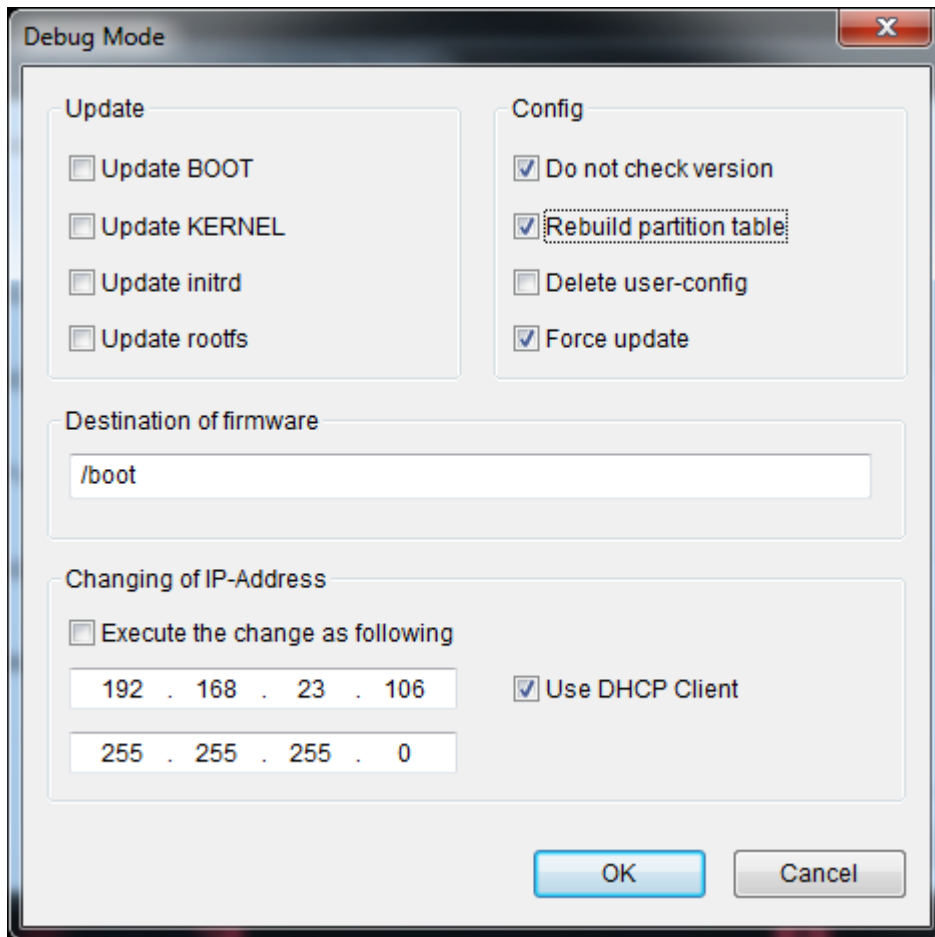
Ouch.

Unbricking

Edit LSUpdater.ini

```
[Flags]
VersionCheck = 0
NoFormatting = 1

[SpecialFlags]
Debug=1
```
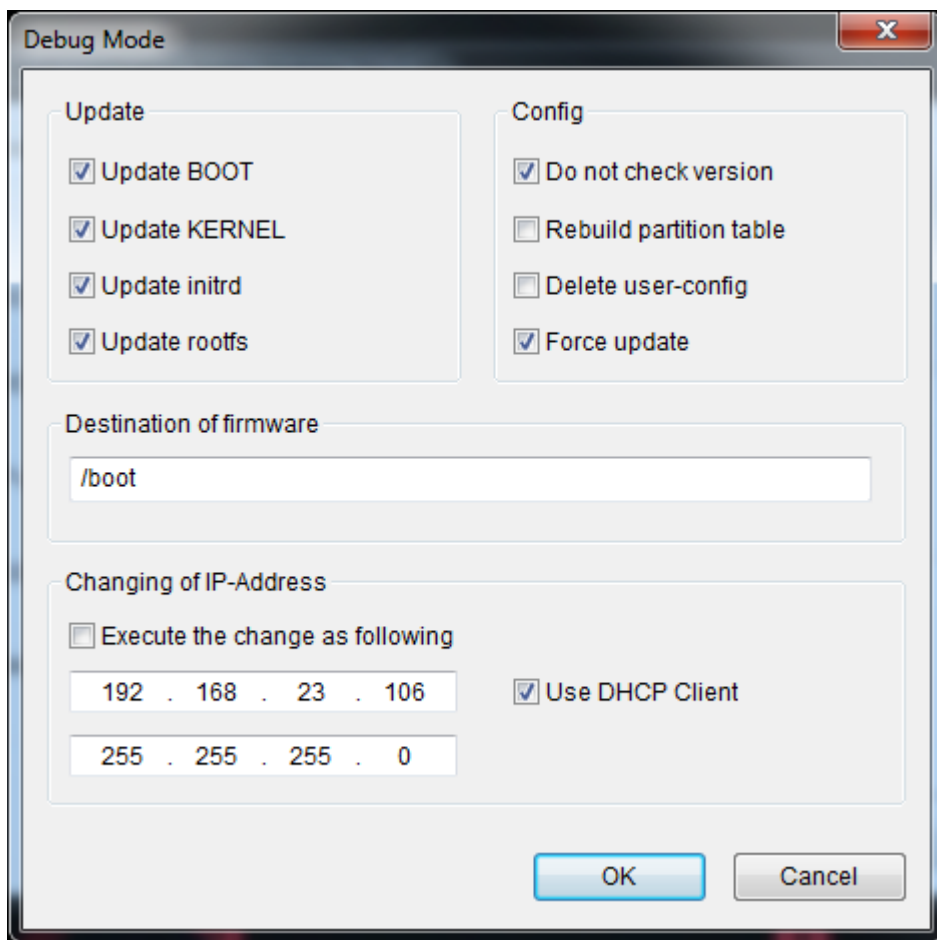
Start LS-Updater, it should find the device in EM-Mode. Open System Menu and go to Debug-Options.

Debug Mode

Update
- ☐ Update BOOT
- ☐ Update KERNEL
- ☐ Update initrd
- ☐ Update rootfs

Config
- ☑ Do not check version
- ☑ Rebuild partition table
- ☐ Delete user-config
- ☑ Force update

Destination of firmware

/boot

Changing of IP-Address
- ☐ Execute the change as following

| 192 . 168 . 23 . 106 | ☑ Use DHCP Client |

| 255 . 255 . 255 . 0 |

OK   Cancel

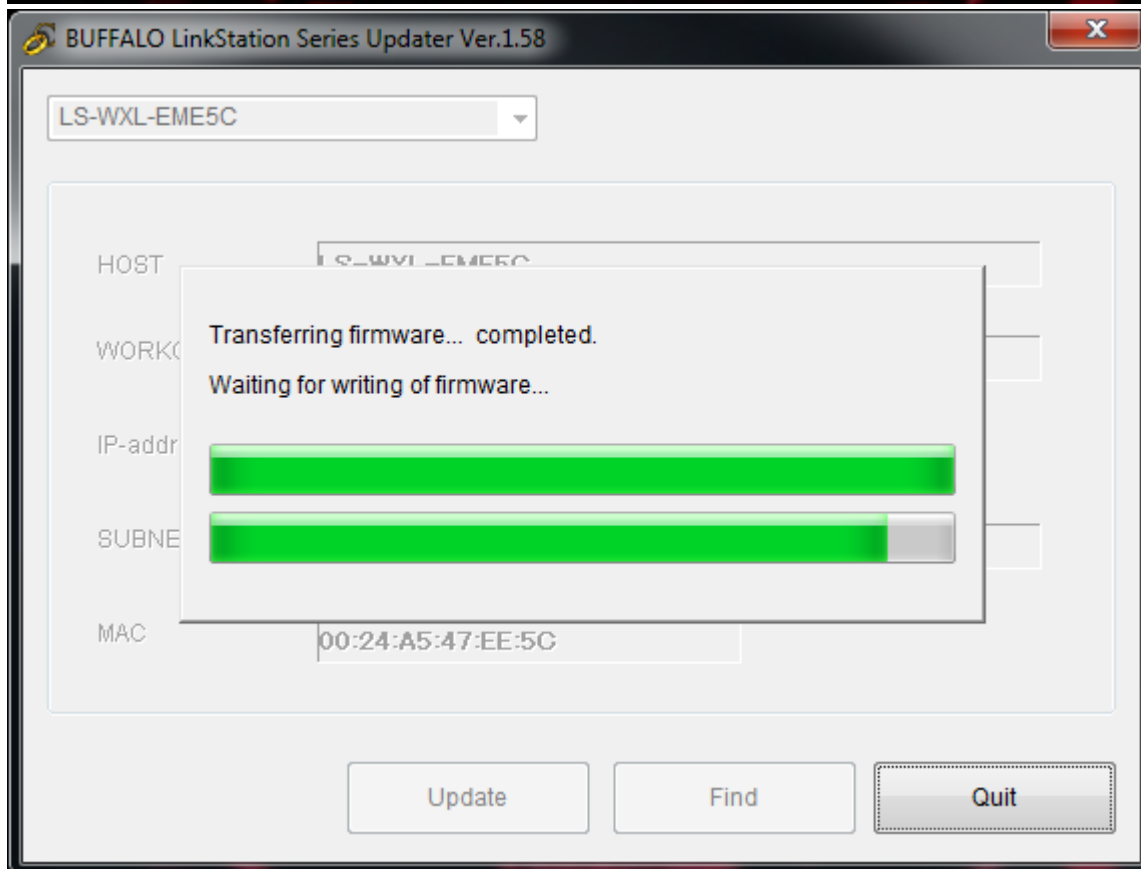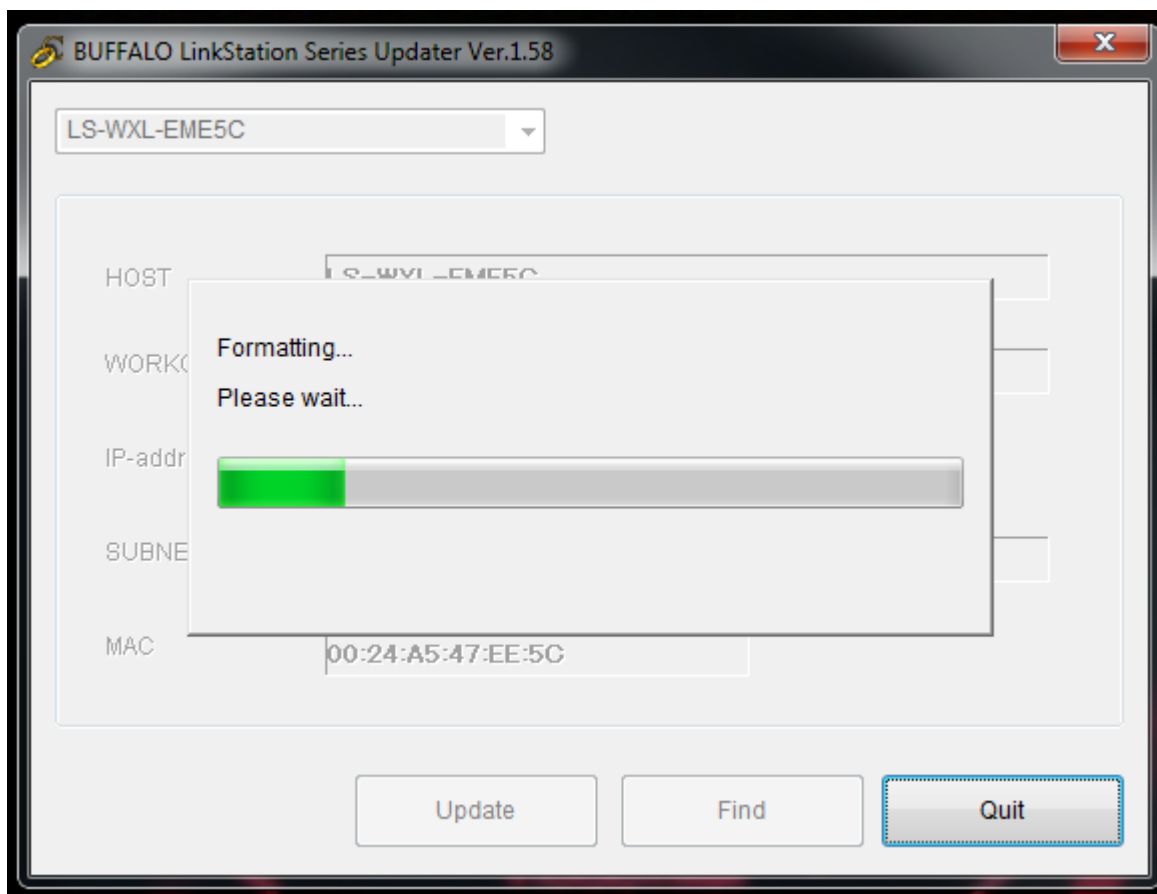Deselect everything. Select Ignore Version, Rebuild table, Force Update.

Select Update.

This will recreate the disk structures. It will take a while and end with an error message which can be ignored.

Debug Mode

Update
- ☑ Update BOOT
- ☑ Update KERNEL
- ☑ Update initrd
- ☑ Update rootfs

Config
- ☑ Do not check version
- ☐ Rebuild partition table
- ☐ Delete user-config
- ☑ Force update

Destination of firmware

/boot

Changing of IP-Address

- ☐ Execute the change as following

192 . 168 . 23 . 106   ☑ Use DHCP Client

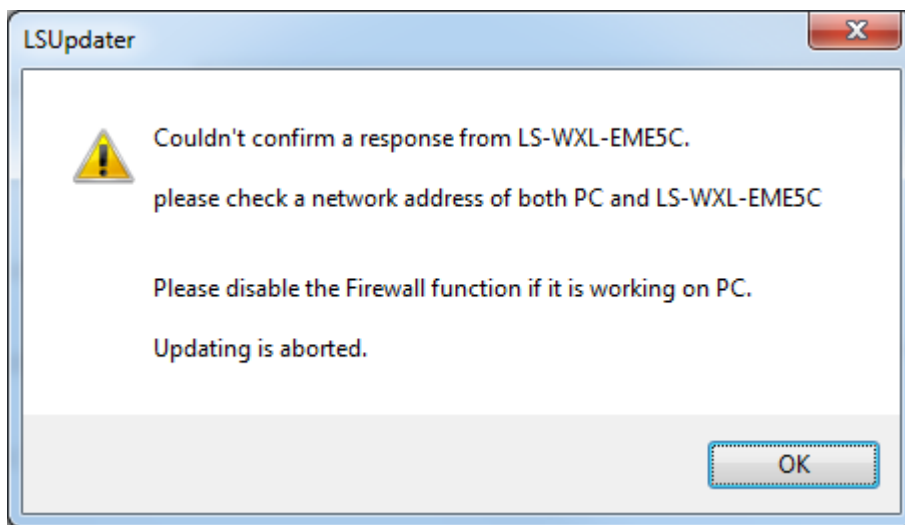255 . 255 . 255 . 0

OK   Cancel

Now back to the Debug-Options. Deselect Rebuild table, select everything in the left Update column.

Select Update.

Since we have partitions, the update process can install the firmware. This may take a while.

And it ends with an error message:

LSUpdater

⚠ Couldn't confirm a response from LS-WXL-EME5C.

please check a network address of both PC and LS-WXL-EME5C

Please disable the Firewall function if it is working on PC.
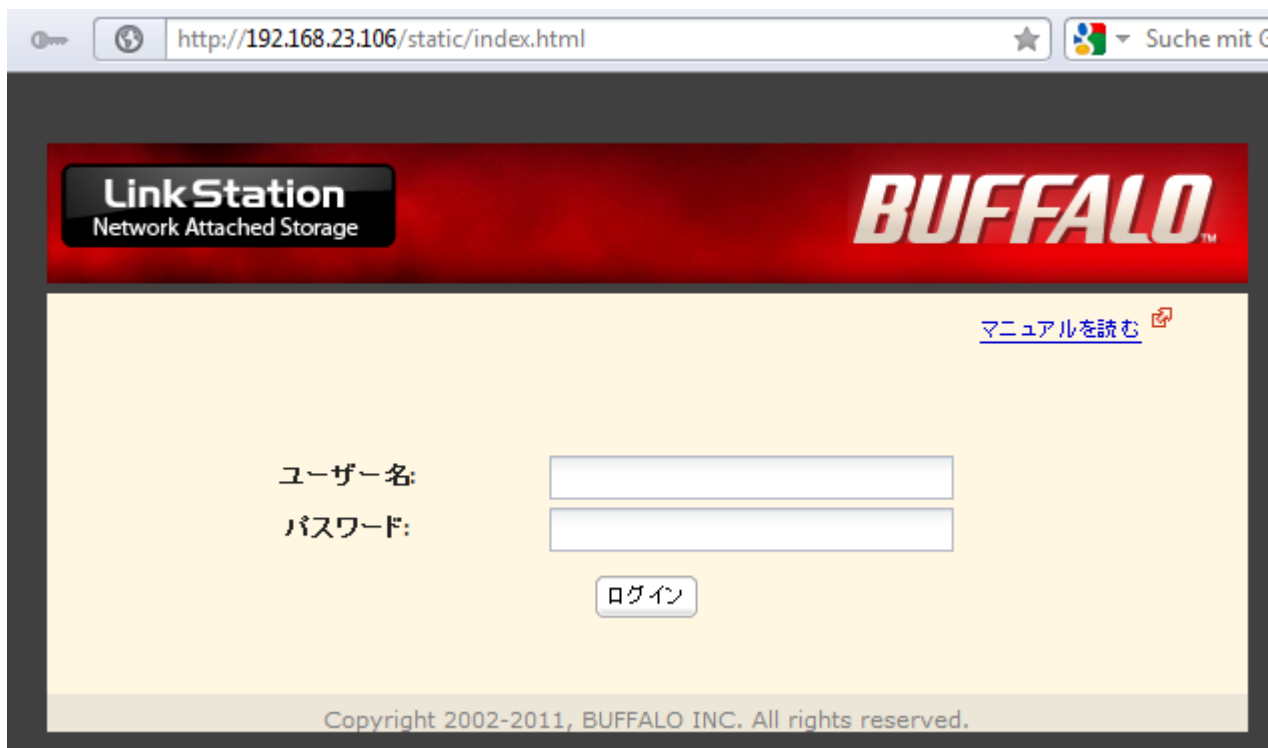
Updating is aborted.

OK

Now, power down, wait a few seconds and power up again.

The permanent red Function LED is replaced with a blinking amber Information LED (2x long, 5x short = Code 25, updating firmware)

Leave the device alone, it is updating and will reboot on its own. DO NOT TOUCH IT!

Wait until the power LED stops blinking after the reboot.

http://192.168.23.106/static/index.html ☆ 🔍 ▾ Suche mit G

Link Station
Network Attached Storage

BUFFALO.

マニュアルを読む ↗

ユーザー名: [   ]

パスワード: [   ]

ログイン

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The device is now reachable via the browser.

Unfortunately, it defaulted to japanese, so after login, you might want to change this first.

Congratulations, your LinkStation is back! Have fun configuring all the stuff again :-)

References

- http://forum.buffalo.nas-central.org/viewtopic.php?f=75&t=27279
- http://forums.buffalotech.com/index.php?topic=11662.0
- http://forums.buffalotech.com/index.php?topic=24378.0
- http://forum.nas-portal.org/showthread.php?19124-Ls-wxl-Firmware-aufspielen
- http://forum.nas-hilfe.de/buffalo-linkstation-duo/linkstation-duo-ls-wxl-mit-ssd-t2236.html
- http://commonmanrants.blogspot.de/2014/01/buffalo-linkstation-partition-not-found.html
- http://gen12.com/greatcontentment/2014/10/02/buffalo-nas-ls-wvl-emergency-mode-recovery/
- http://forum.ixbt.com/topic.cgi?id=11:43409
- http://bbs.mydigit.cn/read.php?tid=1621371&toread=1&page=15
- http://fatmin.com/2015/02/08/how-to-fix-the-buffalo-linkstation-nas-partition-not-found-error/
- http://www.amazon.com/BUFFALO-LinkStation-Diskless-Enclosure-LS220DE/dp/B00NP7JUO2
- https://buffalonas.miraheze.org/

Thank you for linking this article!

... and finally: the references list is created manually, so no amount of referrer spamming will ever get you in there.