

HowTo: FW-Update & Stacking DGS-1510-Series

[Requirements]

1. DGS-1510-xx with latest Firmware 1.30B19 or newer
ftp://ftp.dlink.de/dgs/dgs-1510-20/driver_software/

[Stacking Topologie]

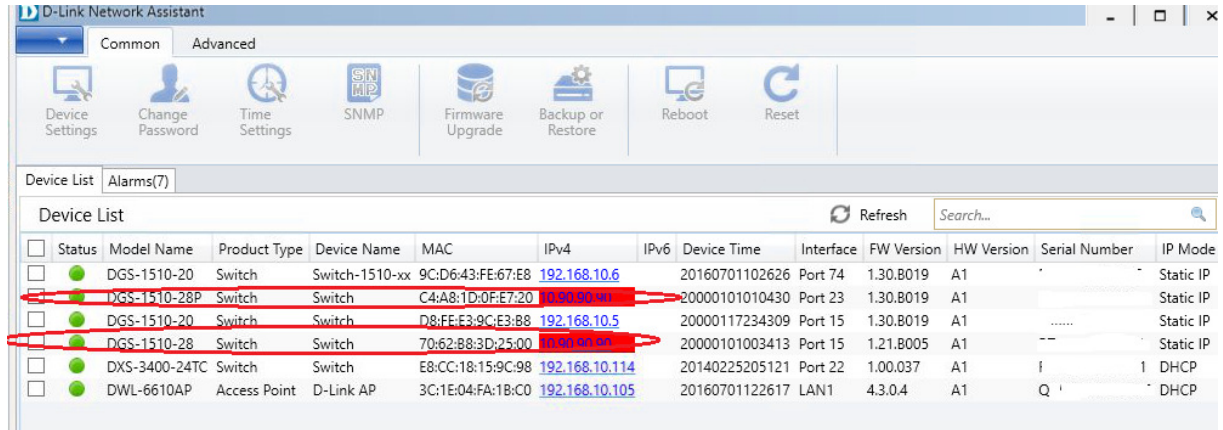


[Preparations]

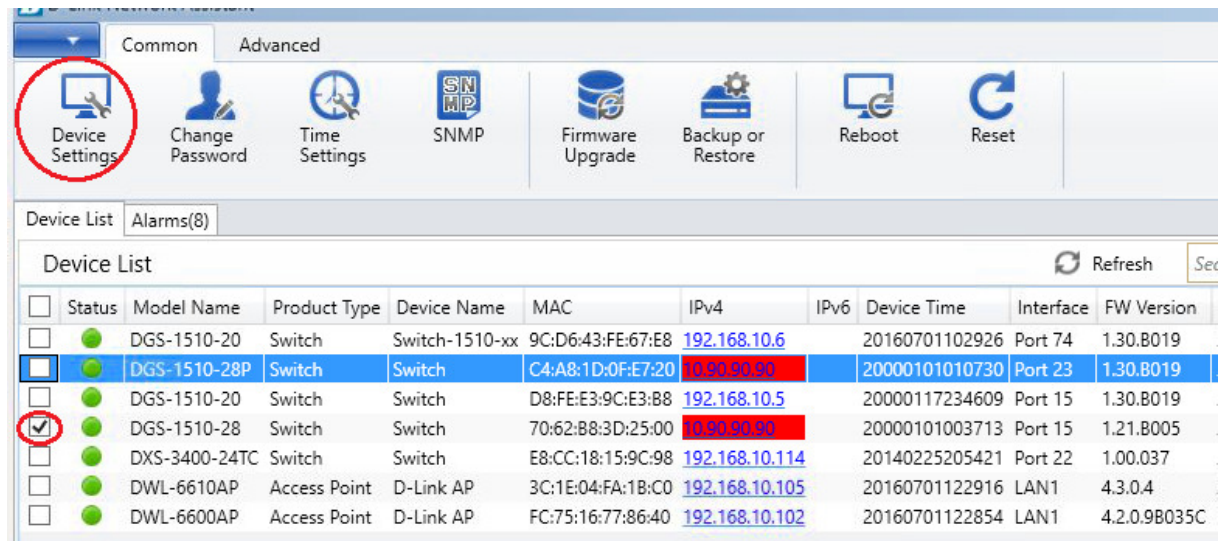
- ⇒ The Switch's default IP Address is 10.90.90.90/8
- ⇒ The physical stacking is **ONLY** working on the last 2 SFP+ Ports of the Switch
 - If using an DGS-1510-28X or DGS-1510-52X you have 2 additional SFP+ ports for 10G Uplink or Client connections
 - You can stack always within the same device series (f.e. DGS-1510-20 + DGS-1510-52)
- ⇒ The physical stacking is **ONLY** working when using SFP+ or DAC-Modules
- ⇒ All switches should have the same Firmware version installed.
- ⇒ Please finish the stacking before you configure anything else, since the stacking is the basic definition of the whole stack
- ⇒ For easy initial setup, please use the DNA (D-Link Network Assistant) for Firmware Update (*the DNA is capable of discovering/managing devices using different IP Subnets, as long as they are in the same L2 network (vlan), but may not work with older Switch Firmwareversions*)
 - ftp://ftp.dlink.de/dgs/dgs-1510-20/driver_software/

[initial Firmwareupdate via DNA]

- Power on all the Switches you want to stack and interconnect them simply with one network cable each, connect them to your network with DHCP-Server
- connect your Management-PC into this network
- Start the DNA Software & wait some minutes till all devices are discovered



Choose the 1st device you want to modify by clicking on the checkbox and then “device setting”



Choose the IP Settings you want to use (f.e. DHCP or Static) and confirm with “next”

Device Settings

1 General Config 2 Confirm Summary

Device Name DGS-1510-28 MAC 70:62:B8:3D:25:00
Serial Number RZ ... 37

System Name Switch Web Port Number 80

IPv4 Settings | IPv6 Settings

Set IP Address

Static IP DHCP BOOTP

IP Address 10.90.90.90
Subnet Mask 255.0.0.0
Default Gateway

Set DNS Address

Obtain DNS Server Address Automatically
 Set DNS Server Address Manually

Primary DNS Server
Secondary DNS Server

Next

In this example we set the IP to DHCP for initial Setup only.

Username & Password are by default “admin”, confirm with submit.

1 General Config 2 Confirm Summary

System Name Switch Web Port Number 80

IPv4 Settings IPv6 Settings

IP Mode DHCP
Primary DNS Server
Secondary DNS Server

IP Address
Subnet Mask
Default Gateway
Primary DNS Server
Secondary DNS Server

Device List

Model Name	MAC	IP Address	Serial Number
DGS-1510-28	70:62:B8:3D:25:00	10.90.90.90	RZ...7

Notification
Note: The new settings may take up to 60 seconds to take effect.
 I understand the risks

Authentication
User Name admin
Password *****

Previous Submit

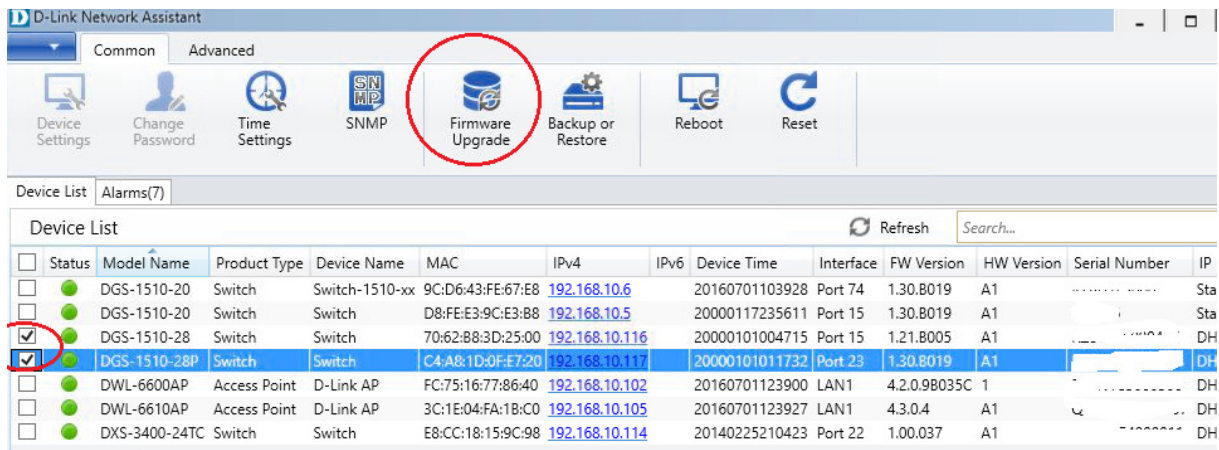
1 General Config 2 Confirm Summary

Result

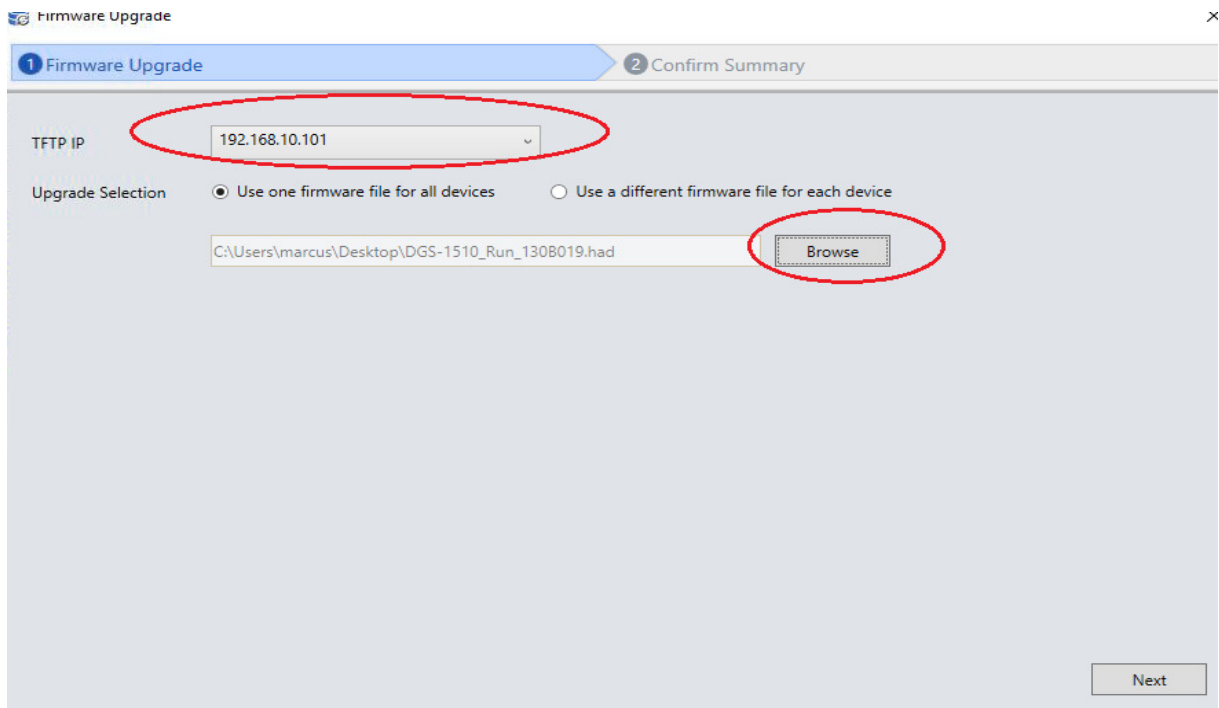
Result	Model Name	MAC	IP Address	Details
✓	DGS-1510-28	70:62:B8:3D:25:00	10.90.90.90	(IPv4)Command has been succesfully executed

Repeat this step till all devices have an IP Address.

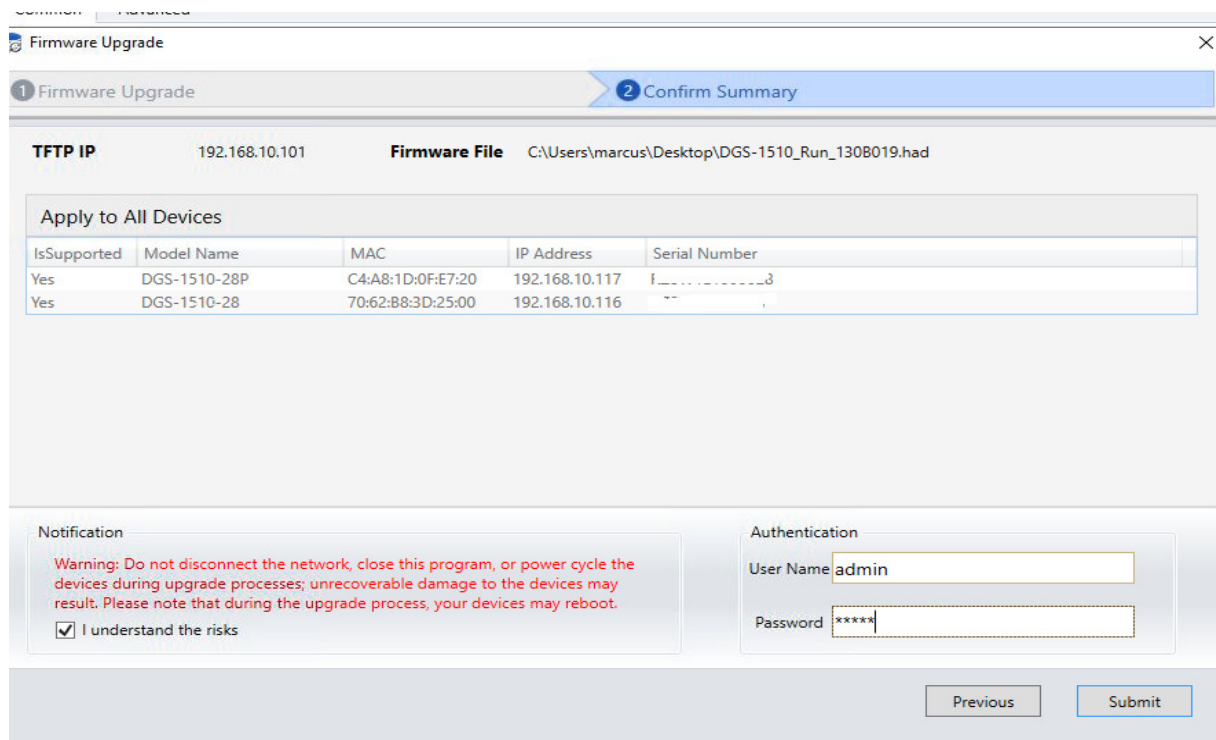
Now select all devices you want to update to latest firmware and select “Firmware Upgrade”



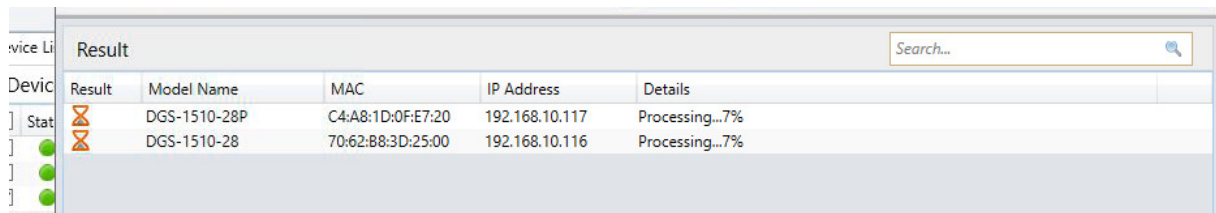
Choose the correct IPv4 IP Address of your computer and also by browse the new firmware-file. Confirm with “next”



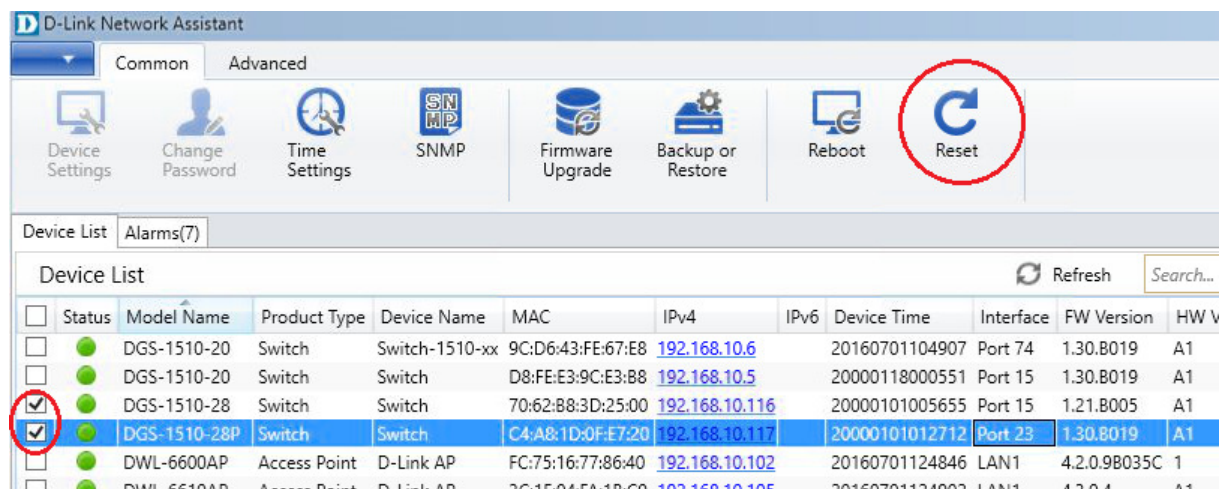
Username & Password are by default “admin”, confirm with submit.



Wait till the update is finished:



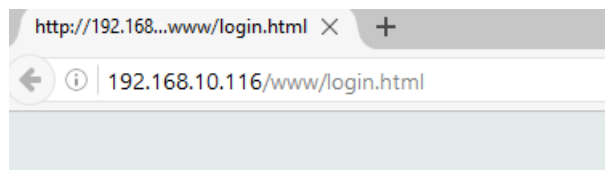
The update needs a reboot till finish, you could do this right now by selecting the Option “reset”, otherwise continue directly to next point for basic stacking configuration.



[enabling the Stacking & Stacking together]

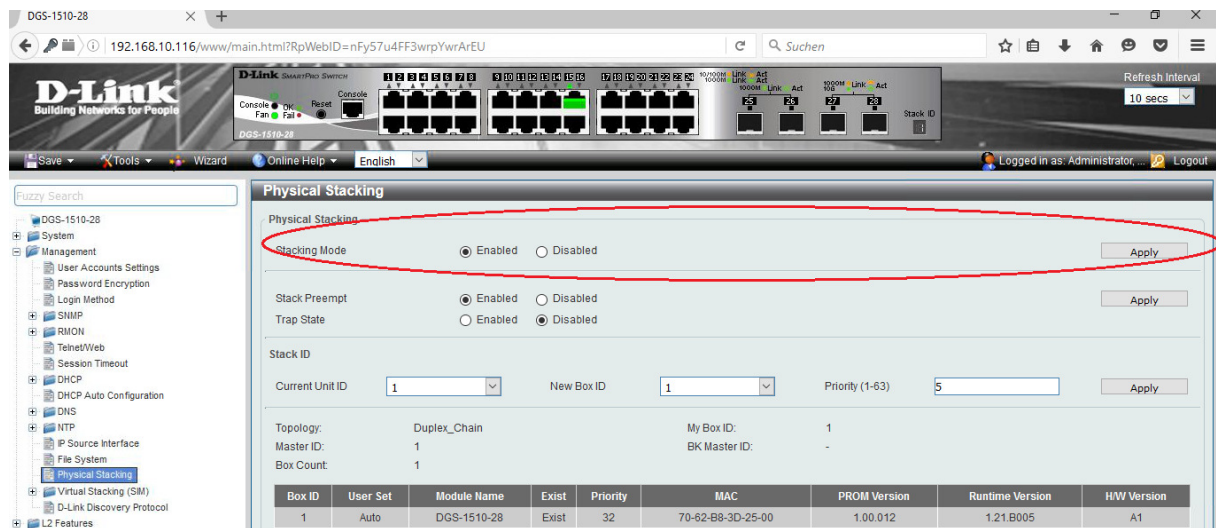
Click on the IPv4 Address and your browser will directly open the device.

Status	Model Name	Product Type	Device Name	MAC	IPv4	IPv6	Device Time
<input type="checkbox"/>	DGS-1510-20	Switch	Switch-1510-xx	9C:D6:43:FE:67:E8	192.168.10.6		20160701105027
<input type="checkbox"/>	DGS-1510-20	Switch	Switch	D8:FE:E3:9C:E3:B8	192.168.10.5		20000118000711
<input checked="" type="checkbox"/>	DGS-1510-28	Switch	Switch	70:62:B8:3D:25:00	192.168.10.116		20000101005816
<input checked="" type="checkbox"/>	DGS-1510-28P	Switch	Switch	C4:A8:1D:0F:E7:20	192.168.10.117		20000101012832
<input type="checkbox"/>	DWL-6600AP	Access Point	D-Link AP	FC:75:16:77:86:40	192.168.10.102		20160701125023
<input type="checkbox"/>	DWL-6610AP	Access Point	D-Link AP	3C:1E:04:FA:1B:C0	192.168.10.105		20160701125018
<input type="checkbox"/>	DXS-3400-24TC	Switch	Switch	E8:CC:18:15:9C:98	192.168.10.114		20140225211523

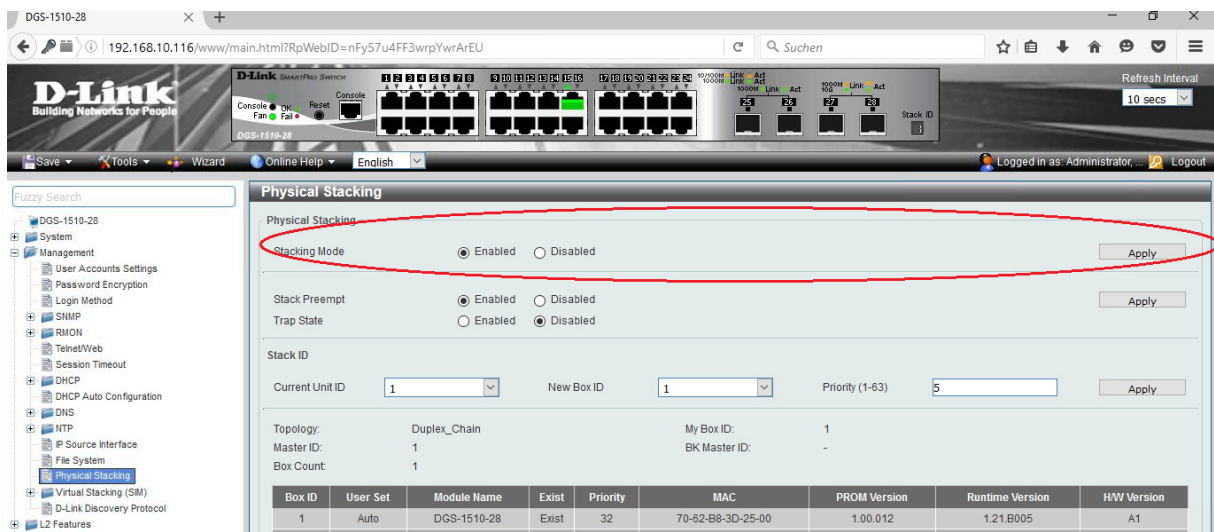
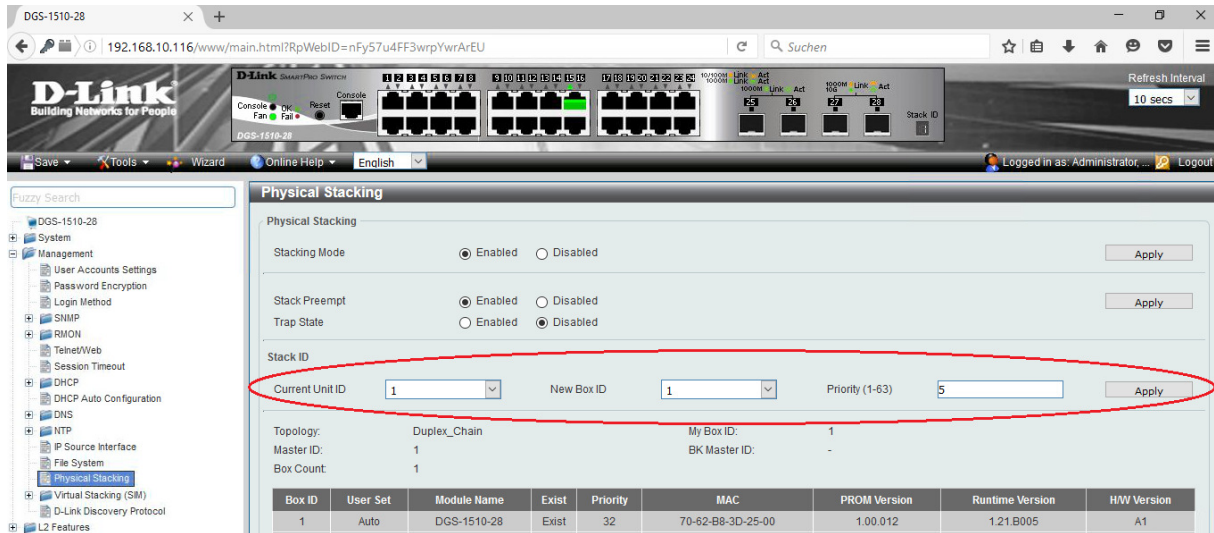


Login with default credentials “admin & admin”

- ⇒ Do NOT configure anything else, except the stacking right now.
- ⇒ Enable Stacking Mode & Apply

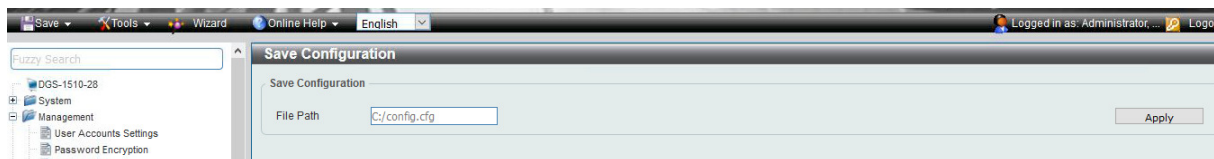


- ⇒ Afterwards you already can configure the Unit/Box ID (which defines the Ports in a Stack)
 - BoxID 1 = Unit 1 f.e. Ports eth 1/0/x
 - BoxID 2 = Unit 2 f.e. Ports eth 2/0/x
- ⇒ Priority defines the MASTER of the Stack (the lowest ID is Master)

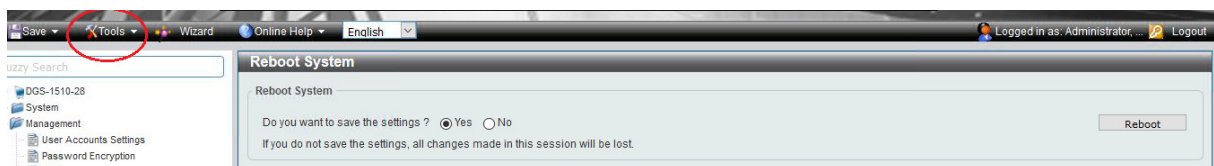


After configuring the stacking options, save the config and reboot the switch.

(When you use older FW-Version the WebGUI Stacking Option MAY not work for enabling!)

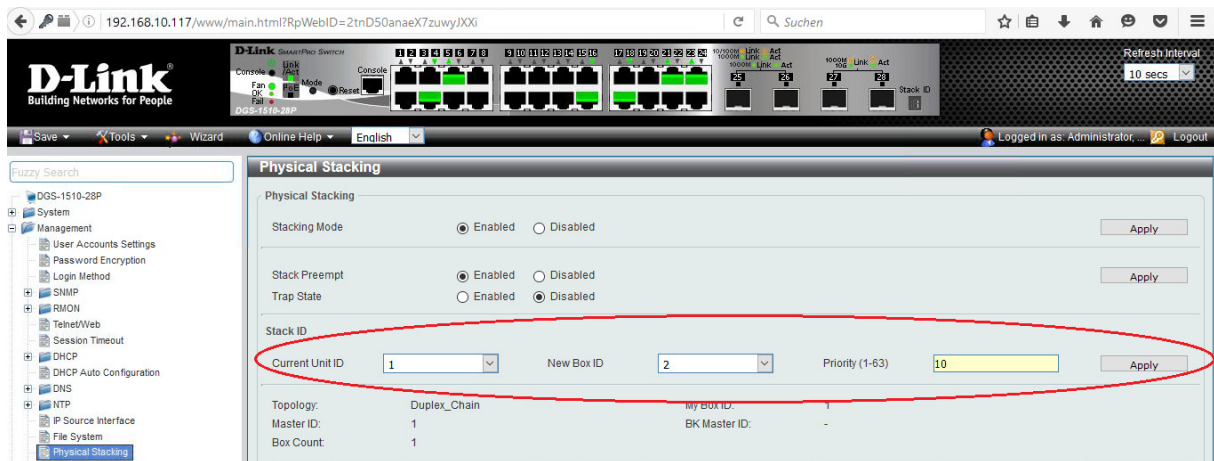


In the Tools menu you'll find the Reboot System Option.



After rebooting the System you'll see the settings

In this example 2 Switches will be stacked together. The BoxID and Priority is manually set.

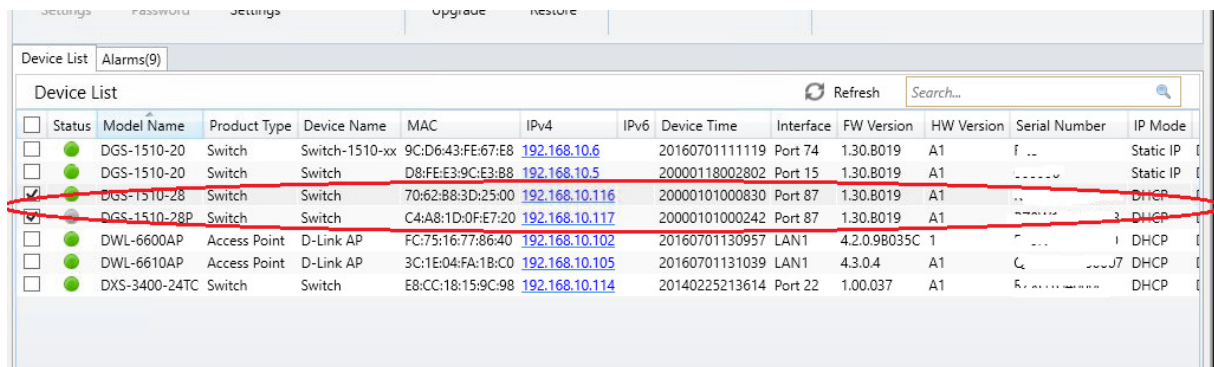


Repeat all Steps at all Switches you want to stack together.

After the reboot of the switches you need to remove all connections, except your uplink to your client, and need to connect the 10Gbit Stacking connection.

If you fail to do so you will have immediately a Loop inside your network!

The DNA now will only show you the MASTER Unit of the stack.



When Accessing the Switch now by WebGUI of the Master, you'll see in Stackin Mode now all the Units.

The screenshot shows the Physical Stacking configuration page in the D-Link WebGUI. The page includes a navigation menu on the left and a main configuration area. The Physical Stacking section is expanded, showing the following settings:

- Stacking Mode: Enabled Disabled
- Stack Preempt: Enabled Disabled
- Trap State: Enabled Disabled

Below these settings, there are fields for Stack ID configuration:

- Current Unit ID: 1
- New Box ID: Auto
- Priority (1-63): [Empty]

The table below shows the current stack configuration:

Box ID	User Set	Module Name	Exist	Priority	MAC	PROM Version	Runtime Version	HW Version
1	User	DGS-1510-28	Exist	5	70-82-B8-3D-25-00	1.00.012	1.30.B019	A1
2	User	DGS-1510-28P	Exist	10	C4-A8-1D-0F-E7-20	1.00.012	1.30.B019	A1
3	-	NST-EXIST	No	-	-	-	-	-

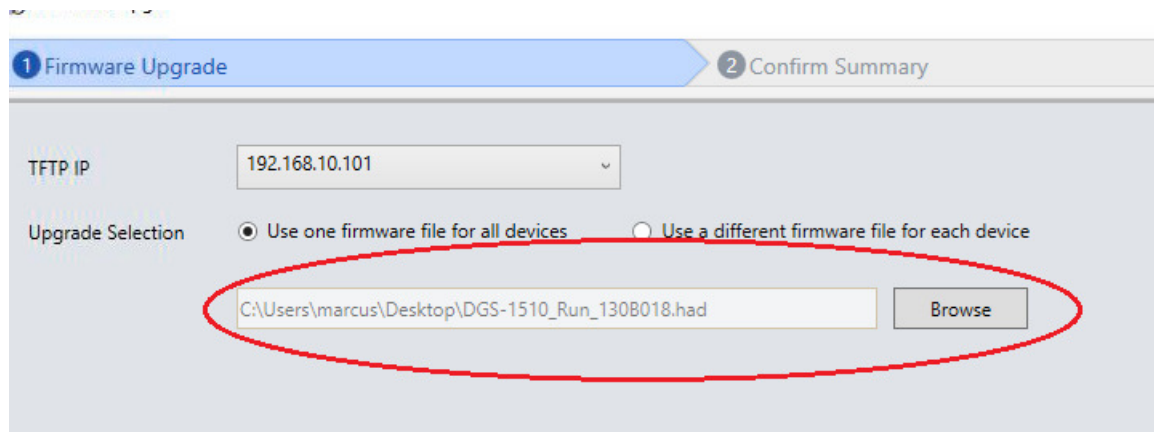
As of now your stack setup is done and you can configure the Stack as you wish.

[FW Update of a Stack using DNA]

IF you later on want to down/upgrade the Stack via the DNA, you simply follow the beginning of this HowTo again.

In this example we “downgrade” the whole stack to 1.30B18 using the DNA.

Please ensure to wait for the till the whole process is finished, since the update/downgrade now takes longer as the firmware is pushed to all stack member now.



Result	Model Name	MAC	IP Address	Details
✓	DGS-1510-28	70:62:B8:3D:25:00	192.168.10.116	Success!

Afterwards reboot the Stack with the “Reboot” option of the DNA.

When checking now the stack and its Firmware you’ll see the new Firmware active on all Units.

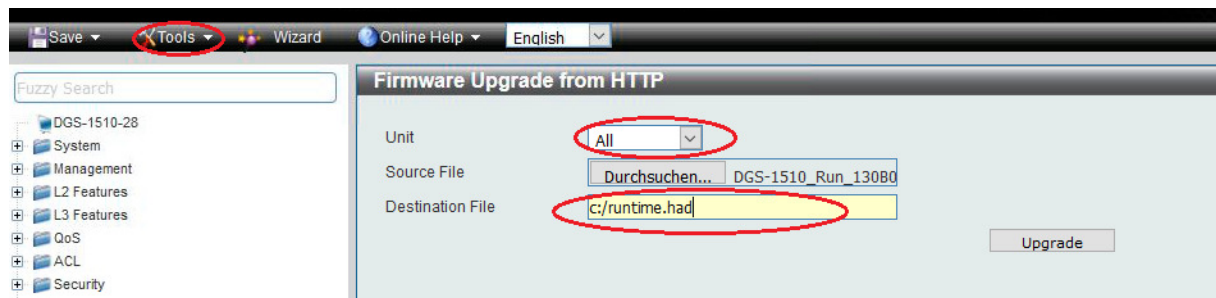
Master ID:	1	BK Master ID:	2					
Box Count:	2							
Box ID	User Set	Module Name	Exist	Priority	MAC	PROM Version	Runtime Version	H/W Version
1	User	DGS-1510-28	Exist	5	70-62-B8-3D-25-00	1.00.012	1.30.B018	A1
2	User	DGS-1510-28P	Exist	10	C4-A8-1D-0F-E7-20	1.00.012	1.30.B018	A1
3	-	NOT_EXIST	No	-	-	-	-	-

[FW Update of a Stack using WebGUI]

This way only works, when you haven't modified the Boot-File before on the switches.

If you have done so, please consult the manual to revert the settings.

Go to the Firmware Upgrade Menu on the Stack-Master and choose f.e. Upgrade from HTTP

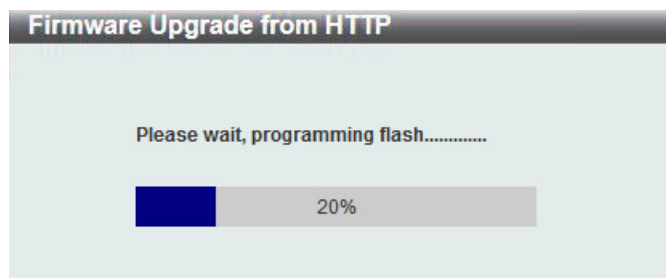


Select the Source file on your local PC.

Also you **MUST** choose for Units "ALL", so that all units will be upgraded together, otherwise only the selected unit will be updated.

Add as the destination file the string "c:/runtime.had" and press "upgrade" to start the process.

The WebGUI might not respond/change for some minutes. Please wait patiently till the upgrade display is being shown.



After the reboot of the stack, the Firmware is updated on all Units.