

LANactive Manager

Version 7.04 or later

Manual

KD598E23

FEATURES

- For all Nexans devices with V3.xx, V4.xx, V5.xx, V6.xx or V7.xx firmware
- o Fast Layer-2 Autodiscovery and simple basic configuration for devices within the local segment
- o Automatic Layer-2 basic configuration for devices within the local segment
- o Layer-3 Autodiscovery thru three user configurable IP ranges for devices behind IP routers
- o The devices are permanently polled and marked in the device list in corresponding colours
- o The device list is automatically updated through polling and changes are highlighted in colour
- o Devices with alarm messages are automatically shifted to the top of the list
- o Devices are automatically polled and indicated in device-List in green (ok) or red (failure)
- o Firmware update for one or more devices
- o Scheduled firmware update in the night or at the weekend
- o Reading and writing of device configurations via TFTP and SCP
- o Username/password protected reading and writing of device configurations
- o Automatic download of device configurations for one or more devices
- o Storage of device configurations in a database on the PC or on a central server
- o Storage of old device configurations via history function in the database
- o Three state tabs with online indication of all state information of the device
- Reset of Error and Statistics counters for one or more devices
- o Individual selection of storage locations for device lists, database, master configurations and firmware
- o Creation of any number of device lists, e.g. to arrange devices into groups etc.
- o Creation of any number of master configurations for distribution to one or more devices
- o Each master configuration may specify different parameters for distribution
- o Comprehensive information on update and progress in a log window
- o Information from the log windows available for later analysis
- o Sorting of device list by IP address, MAC addresses, device name and software version
- o Import of device lists as CSV (comma/semicolon separated) files, e.g. from NSCM or Excel
- o Import of device lists from the Nexans Basic Configurator

- o Direct calling of Telnet or WEB from the configuration editor
- o Easy restoration of the delivery condition
- Full IPv6 support
- o Basic Configurator Features:
 - Configuration of the following basic switch parameters:
 - DHCP, IP address, network mask and gateway
 - Switch name, location und contact
 - Management VLAN-ID
 - Trunk port (Uplink)
 - User templates for quick configuration of multiple switches with similar settings
 - User templates can be saved to hard disk and recalled
 - No DHCP server and no manipulation of configuration switches required
 - · Changes take immediately effect without rebooting
 - For security reasons any access via the Basic Configurator is only allowed if the switch is set to its factory default admin name/password (admin/nexans)
 - Running in (MAC Address Mode):
 - Centralized configuration, e. g. during 'Autodiscover (Layer-2)' with LANactive Manager
 - Configuration is done via the switch MAC address determined during Autodiscover
 - The PC and the switch to be configured must be located in the same segment or VLAN
 - Running in (Local Mode):
 - Easy on-site configuration by the installer
 - PC needs to be connected to port TP1
 - Configuration can optionally be added to a device list and imported by the LANactive Manager
- Client/Controller Features:
 - Observe all devices by a server application and store relevant informaton into a SQL database
 - Communication to the Switches is completely done by the Controller
 - User Management with client capability that offers different roles and access rights
 - Zero Touch Configuration for automatic discovery, firmware updates, configuration and adding to the database
 - Log Message Server for SYSLOG, SNMP Trap and Controller Messages
 - E-Mail Notifications for all types of Log Messages
 - Time scheduled import of devices from a third-party csv-file
 - Time scheduled configuration of devices
 - Import/Export Device-Lists from or to LANactive Manager Stand-Alone
 - HTTPS support

- Active Directory and RADIUS Authentication
- Crossplatform Controller running on multiple OS like macOS or LINUX
- Integrated Web Interface for client independet diagnostics and configuration

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1. PC Software and Hardware Requirements

LANactive Manager Stand-Alone and Client/Controller require one of the following Microsoft operations systems:

- Windows Server 2016
- Windows Server 2019
- Windows 10

LANactive Manager Controller requires one of the following SQL Databases:

- SQL Server 2016
- SQL Server 2017
- SQL Server 2019

Additionally, both applications require the following packages of the new Microsoft .NET 5 framework.

ASP.NET Core 5.0 Runtime:

https://dotnet.microsoft.com/download/dotnet/thank-you/runtime-aspnetcore-5.0.11-windows-hosting-bundleinstaller

.NET Desktop Framework 5.0:

https://dotnet.microsoft.com/download/dotnet/thank-you/runtime-desktop-5.0.11-windows-x86-installer

The Client/Controller-Setup has both files already included.

For the LANactive Manager Controller it is recommended to install the Microsoft SQL Management Studio: <u>https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-server-</u> ver15

This application offers Backup and Diagnostic functionalities for the database and automatically downloads necessary packages which might be missing on the server and can solve most of the common installation problems. This step is not mandatory.

The Hardware requirements are dependent on the operation system.

Installation, Update and Start of the Manager

For installing the Manager, the file LANactive Manager_VX.xx_Setup.exe, that can be downloaded from the support portal: www.nexans-ans.de/support needs to be executed.

If a previous Manager version is installed, this installation will only update the existing Manager. All settings and directories will be preserved.

If desired, during installation a new directory can be defined in order to preserve the previous Manager version. However, a downgrade to an older version is also possible without any problem.

Depending on the PC's configuration and possible company-specific limitation of rights it might be necessary to execute the installation file with administrator rights. In this case, it might also be necessary to launch the installed Manager with administrator rights.

1.1. Installation of LANactive Manager Stand-Alone

Setup	×
License Agreement Please read the following important information before continuing.	
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.	
License Agreement	^
LANactive Manager Copyright 2003-2022 Nexans Advanced Networking Solutions GmbH ("NEXANS")	
END-USER LICENSE AGREEMENT	
IMPORTANT-READ CAREFULLY: This End-User License Agreement ("EULA") is a legal agreement between	
product ("SOFTWARE	~
● I accept the agreement	
○ I do not accept the agreement	
Next	Cancel

For the installation of the LANactive Manager Stand-Alone version, execute the file LANactive

Manager_VX.xx_Setup.exe. First read the license agreement and then accept the agreement. Continue with clicking **Next**.

Setup X
Select Destination Location Where should LANactive Manager V7 - Stand-Alone be installed?
Setup will install LANactive Manager V7 - Stand-Alone into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
2:\Program Files (x86)\Wexans\LANactive Manager V7 - Stand-Alone Browse
At least 227,0 MB of free disk space is required.
Back Next Cancel

Choose the installation folder. Use **Browse...** to select a folder or just click **Next** to keep the default directory.

Setup		×
Select Application Data Folder This folder holds the LANactive Manager V7 temporary files	- Stand-Alone preferences, log and	Z
Application data folder (must be writable) C: \Users \admin \Documents \LANactive Mana	ager Browse	
	Back Next Cancel	

Specify the application data folder for LANactive Manager. The application folder will contain the configuration files like LANactive Manager.config where all preferences of the LANactive Manager are stored. The folder must be writable.

Setup X
Select Default Data Folders This settings can be changed later via the Preferences menu within LANactive Manager - Stand-Alone.
Databases folder: C:\Users\admin\Documents\LANactive Manager\database Device-Lists folder: C:\Users\admin\Documents\LANactive Manager\device-lists Browse Firmware-Images folder: C:\Users\admin\Documents\LANactive Manager\firmware-images Browse Inventory-Lists folder: C:\Users\admin\Documents\LANactive Manager\firmware-images Browse
Back Next Cancel
This settings can be changed later via the Preferences menu within LANactive Manager - Stand-Alone.
Master-Configs folder: C:\Users\admin\Documents\LANactive Manager\master-configs Browse
Basic-Configs folder: C:\Users\admin\Documents\LANactive Manager\basic-configs Browse
CLI Configs folder: C:\Users\admin\Documents\LANactive Manager\configs Browse
Scripts folder: C:\Users\admin\Documents\LANactive Manager\scripts Browse
Back Next Cancel

Specify the data folders for LANactive Manager. Read more about the folders in chapter 18.5 Folders.

Setup	×
Select Menu Language Please select your prefered language for menus and messages	
English	
◯ Deutsch	
○中国人	
Back	Next Cancel

Select your preferred language. The language can also be changed via the preferences after the installation.

Setup X
Select Start Menu Folder Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
LANactive Manager V7 - Stand-Alone Browse
Don't create a Start Menu folder
Back Next Cancel

Choose a name for the start menu folder or decide not to create one.

Setup X
Select Additional Tasks Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing LANactive Manager V7 - Stand-Alone, then click Next. Additional icons:
Back Next Cancel

Decide, whether you want to have a shortcut created on your desktop.

Setup ×
Register LANactive Manager V7 - Stand-Alone The registration data can also be added later via the Register menu within LANactive Manager V7 - Stand-Alone.
Please enter your personal licence data which you have received from Nexans - OR - leave blank to run in EVALUATION mode.
Name:
Company:
Registration Kev:
Back Next Cancel

Enter a registration key if available. Leave blank to use the EVALUATION version of LANactive Manager. The registration key can also be entered after the installation.

Setup X
Ready to Install Setup is now ready to begin installing LANactive Manager V7 - Stand-Alone on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location: C:\Program Files (x86)\Nexans\LANactive Manager V7 - Stand-Alone Start Menu folder: LANactive Manager V7 - Stand-Alone Additional tasks: Additional icons: Create a desktop icon
< > >
Back Install Cancel

Check the summary of your settings and click on **Install** to start the installation.



Once the installation is completed click on **Finish** to end the setup and launch LANactive Manager.

1.2. Installation of LANactive Manager Client / Controller



For the installation of LANactive Manager Client and/or LANactive Manager Controller execute the file **LANactive Manager_ClientController_VX.xx_Setup.exe**. First read the license agreement carefully and accept the terms in the agreement. By clicking the button **Options**, you can choose between the different products to be installed.



- Install .NET 5 Framework / Hosting Bundle: The Microsoft .NET Framework version 5. Necessary for using LANactive Manager Client and LANactive Manager Controller. It is recommended to keep this product selected, because it will be skipped automatically if already installed.
- Install SQL Server Express 2019: Necessary for the LANactive Manager database, must be installed together with LANactive Manager Controller, if controller and database shall run on the same machine.

There is no need to install this product if you run the LANactive Manager Client only or if you have SQL Server Express already installed.

- **Install LANactive Manager Controller**: The controller part of the LANactive Manager application. Contains the service to collect device information and store them to the SQL database.
- Install LANactive Manager Client: The client part to configure the Nexans devices and connect to the server.

If you choose to install LANactive Manager Controller, you must reboot your computer after the setup is finished by clicking **Restart**. If you click **Close** the service is stopped until the next reboot.

记 LANactive Manager - Client/Co	ontroller Setup	—		×
Nexans	LANactive Manager - Client/Controller			
Installation Success	sful			
v	ou must restart your computer before changes wi	ll take effe	ct.	
	F	Restart	Clos	se

1.2.1. Installing LANactive Manager Controller

Click **Next** to start the installation of LANactive Manager Controller.

🖶 LANactive Manager V7 - Controller Setup —	
End-User License Agreement Please read the following license agreement carefully	Nexans
License Agreement	^
LANactive Manager Copyright 2003-2022 Nexans Advanced Networking Solutions GmbH ("NEXANS")	
END-USER LICENSE AGREEMENT	
IMPORTANT-READ CAREFULLY: This End-User License Agreement ("EULA") is a legal agreement between you (either an individual or a single entity) a I accept the terms in the License Agreement	nd V
Print Back Next	Cancel

Read the license agreement and accept the terms in the agreement. Continue with clicking Next.

F LANactive Manager V7 - Controller Setup —		×
Destination Folder Click Next to install to the default folder or click Change to choose another.	Nex	ans
Install LANactive Manager V7 - Controller to:		
C:\Program Files (x86)\Wexans\LANactive Manager V7 - Controller\ Change		
Back Next	Cance	

Choose the installation folder. Use **Change...** to select a folder or just click **Next** to keep the default directory.

🛃 LANactive Manager V7 - Controller Setup			-		×
Controller and Database Configuration				Nex	kans
Dlease specify service port number (default number	https: '9	0002').			
9092	nepsi s				
, Database server name (example: .\SQLEXPRESS):					
\SQLEXPRESS					
Database name:					
LANMANDb					
Database user name:					
admin					
Database user password and confirm password (def	ault = 'a	idmin'):			
••••					
••••					
Ba	ack	Next		Cance	el

For configuring the server specify the service port number first. This number is going to be the port number used for https access. The ports for http access will be set automatically according to the given value:

- Http port Client: [given port] 2
- Http port Web: [given port] 1

That means, setting the https port to 9092 would set the http ports to 9090 and 9091. This two different http ports are necessary, because the LANactive Manager Client and common web browsers require different protocol versions while using http.

After that, set the database server name and the name of the database itself. Use the default entry if you install the LANactive Manager controller and the database on the same machine. Otherwise add the

database server address or name, like 192.168.2.11\SQLEPRESS or

[DatabaseServerName]\SQLEXPRESS. Note, that in case of an external database SQL Server Express must already be installed on that machine. At last, enter the username and password needed to connect to the database. The default password is 'admin'. The 'Next'-Button will be disabled, if any value is missing or password and password confirmation do not match.

Note: If you are using IPv6 as database server address please be aware of the following rules:

- Replace colons ":" with dashes "-"
- Add the following to the end of the IPv6 address: '.ipv6-literal.net'

Example: fe80::22a:b2ff:fe22:2bb2 → fe80-22a-b2ff-fe22-2bb2.ipv6-literal.net

😽 LANactive Manager V7 - Controller Setup	—	
Ready to install LANactive Manager V7 - Controller		Nexans
Click Install to begin the installation. Click Back to review or change ar installation settings. Click Cancel to exit the wizard.	iy of yo	our
Back Install		Cancel

Click Install to start the installation.



Once the installation is completed click Finish to end the setup of LANactive Manager Controller.

1.2.2. Installing LANactive Manager Client



Click Next to start the installation of LANactive Manager Client.

记 LANactive Manager V7 - Client Setup —	□ ×
End-User License Agreement	Nexans
Please read the following license agreement carefully	
License Agreement	^
LANactive Manager	
Copyright 2003-2022 Nexans Advanced Networking	J
Solutions GmbH ("NEXANS")	
END-USER LICENSE AGREEMENT	
IMPORTANT-READ CAREFULLY: This End-User Licens	se
Agreement ("EULA") is a legal agreement betwee	en
you (either an individual or a single entity)	and Y
☑ I accept the terms in the License Agreement	
Print Back Next	Cancel

Read the license agreement and accept the terms in the agreement. Continue with clicking Next.

# LANactive Manager V7 - Client Setup —	
Destination Folder Click Next to install to the default folder or click Change to choose another.	Nexans
Install LANactive Manager V7 - Client to:	
C:\Program Files (x86)\Nexans\LANactive Manager V7 - Client\	
Change	
Back Next	Cancel

Choose the installation folder. Use **Change...** to select a folder or just click **Next** to keep the default directory.

记 LANactive Manager V7 - Client Setup —		×
Controller Configuration	Nex	kans
Please specify the controller service URI: (for example, if LANactive Manager Controller service port number is defa and this LANactive Manager Client will be installed on: - the same PC as the LANactive Manager Controller = https://localhost.controller.nexans:9092 - another PC as the LANactive Manager Controller = https://[Address of Controller PC].controller.nexans:9092)	ult = 9092	
https://localhost.controller.nexans:9092		
Back Next	Cance	el

Enter the server URI the client must use to connect to the server containing the server address and the port number as you have specified it in chapter 2.2.1 Installing LANactive Manager Controller. If you install the client on the same machine as the controller, use the "localhost" keyword or the IP address 127.0.0.1, otherwise ensure that you type in the correct IP address of your server.

😽 LANactive Manager V7 - Client Setup	—	
Select Preferences Folder This settings can be changed later via the Preferences menu.		Nexans
Brafarances folder:		
C:\Users\Public\Documents\LANactive Manager Client\		Browse
Back Nex	ct	Cancel

Specify the application data folder for LANactive Manager. The application folder will contain the configuration files like LANactive Manager.config where all preferences of the LANactive Manager are stored. The folder must be writable. This path also will be the base path for the following directories.

记 LANactive Manager V7 - Client Setup —	
Select Default Data Folders This settings can be changed later via the Preferences menu.	Nexans
Databases folder:	
C:\Users\Public\Documents\LANactive Manager Client\database\	Browse
Firmware-Images folder: C:\Users\Public\Documents\LANactive Manager Client\firmware-images\ Inventory-Lists folder:	Browse
C:\Users\Public\Documents\LANactive Manager Client\inventory-lists\	Browse
, Back Next	Cancel

🐺 LANactive Manager V7 - Client Setup 🦳 —	
Select Default Folders for Configuration This settings can be changed later via the Preferences menu.	Nexans
Master-Configs folder:	
C:\Users\Public\Documents\LANactive Manager Client\master-configs\	Browse
Basic-Configs folder: C:\Users\Public\Documents\LANactive Manager Client\basic-configs\ CLI Configs folder:	Browse
C:\Users\Public\Documents\LANactive Manager Client\configs\	Browse
Scripts folder: C:\Users\Public\Documents\LANactive Manager Client\scripts\	Browse
Back Next	Cancel

Specify the data folders for LANactive Manager Client to store its data. Read more about the folders in chapter *18.5 Folders*.

🚜 LANactive Manager V7 - Client Setup	_	
Select Additional Shortcuts Which additional icons should be created?		Nexans
Select the additional icons you would like Setup to create while installing LANactive Manager - Client, then click Next.		
 ✓ Create a desktop shortcut. ✓ Create a shortcut in the start menu. 		
Back Next		Cancel

Decide, whether you want to have shortcuts created on your desktop or in your start menu.



Finally click **Install** to start the setup.



Once the installation is completed click Finish to end the setup of LANactive Manager Client.

1.2.3. Using custom version of SQL Server

By default, the Setup is going to install SQL Express 2019 and includes any additional package that is needed to create the database. To use a custom version of SQL Express or SQL Server some additional packages needs to be installed, depending of operating system and the SQL Server version which should be used:

- SQL Shared Management Objects (only for SQL Server 2014 and below)
- Microsoft System CLR Types

Both packages can be downloaded from the *Microsoft SQL Server Feature Pack*:

- SharedManagementObjects.msi
- SQLSysClrTypes.msi

If you are using Windows Server 2019 or higher please ensure that the *Microsoft Visual C++ Redistributable Package 2013* is installed. If not, this package can be downloaded from the Microsoft Home Page.

It is highly recommended to install Microsoft SQL Management Studio, because on the one hand a server running a SQL database should also have a maintenance tool installed and on the other hand this setup is going to **download any missing package** for your operating system and SQL Server version **automatically**.

https://docs.microsoft.com/en-us/sql/ssms/download-sql-server-management-studio-ssms?view=sql-serverver15

Using SQL Server Management Studio configure the existing database as follows:

- Security → Server authentication: SQL Server and Windows authentication mode
- Connections → Remote Server Connections: Allow remote connections to this server

Use the SQL Server Configuration Manager to ensure that

- Shared Memory
- TCP/IP
- Named Pipes

are enabled for your database instance.

1.2.4. User rights for SQL Express or SQL Server

To be able to install SQL Express or SQL Server the following user rights are needed:

Local Policy Object Display Name	User Right
Backup files and directories	SeBackupPrivilege
Debug Programs	SeDebugPrivilege
Manage auditing and security log	SeSecurityPrivilege

Read more at

https://support.microsoft.com/en-us/help/2000257/sql-server-installation-fail-if-setup-account-not-have-someuser-right

1.2.5. Common installation problems

To ensure that the Controller and database setup will be successful the following points are important:

- Always start the setup with administrator rights
- Ensure that any needed package is installed and the database settings are equal to those described in chapter 2.2.3: Using custom version of SQL Server.
- The installing user needs some additional rights as described in chapter 25: User rights for SQL Express or SQL Server
- If https is used read chapter 26: Using https

If you have a previous version of the controller installed and the controller setup shows an error message like

- Please wait while the installer finishes determining your disk space requirements
- Please ensure that you have enough privileges to install windows services

although the setup is running with administrator rights, try the following steps:

- Create a backup of the data folder
 - C:\Users\Public\Documents\LANactive Manager Client
- Create a backup of the controller files folder if necessary:
 - C:\Program Files (x86)\Nexans\LANactive Manager V7 (LANactive Manager) Controller\files
- Manually uninstall Client and Controller and perform a reboot
- Delete the mentioned folders and the installation folders:

C:\Program Files (x86)\Nexans\LANactive Manager V7 (LANactive Manager) - Client

C:\Program Files (x86)\Nexans\LANactive Manager V7 (LANactive Manager) - Controller

- Install Client and Controller again
- Replace the mentioned folders with the backups

If Windows blocks deleting the folders, they can just be renamed. Afterwards the system must be rebooted again.

Those folders, which are completely blocked by Windows for no reason can be deleted with the Windows Unlocker Version 1.9.

There is no need to create a backup of the SQL database.

1.2.6. Using https

The controller support the usage of https, but http is still enabled. During the installation the https port number needs to be set. The default value is 9092. The http port number will always be 9090. The ports can be changed inside the *appsettings.json* file located in the installation folder of the controller.

Transport layer security use a certificate which will be installed on the server during the controller setup. This certificate is valid for any URL like '*.controller.nexans'. This means, the default http URL

'http://localhost:9090' will change to 'https://localhost.controller.nexans:9092'. 'localhost' needs to be replaced by the given name in the DNS server or windows hosts file, if the client is running on a different machine than the controller.

By default, the client will not be able to reach 'localhost.controller.nexans'. This must be accomplished by setting up either a DNS server to map this server name with the corresponding IP address or editing the windows hosts file manually on every client. The hosts file can be found under

C:\Windows\System32\drivers\etc

For example, to use the default URL the following line should be added to the end of the file:

127.0.0.1 localhost.controller.nexans

Using an external server would look like the following:

192.168.0.10 192_168_0_10.controller.nexans

or

192.168.0.10 my_server_name.controller.nexans

This results in the following URL that must be entered in the clients login dialog or browser:

https://192_168_0_10.controller.nexans:9092

or

https://my_server_name.controller.nexans:9092

NOTE: Beside ".controller.nexans" there must not be any additional dot ('.') in the DNS name.

1.2.6.1. Use custom certificate

By default, the Controller uses its own certificate, which will be added to the Windows Certificate Store during the setup. The file is located inside the Controllers installation folder. To change the certificate, the path to the new certificate can be changed inside the appsettings.json file, located inside the Controllers installation folder as well:

```
"Https": {
    "Url": "https://0.0.0.0:9092",
    "Certificate": {
        "Path": "certificate.pfx",
        "Password": "password"
    }
}
```

To use a certificate from the Windows Certificate Store, the https tag can be changed as follows:

```
"Https": {
    "Url": "https://0.0.0.0:9092",
    "Certificate": {
        "Subject": "*.controller.nexans",
        "Store": "My",
        "Location": "LocalMachine",
        "AllowInvalid": "true"
    }
}
```

After that, the user that is running the Controller Service (by default: Network Service) must be granted read permissions to the private key of the certificate. To do so, open the store, select the certificate and click "All Tasks" \rightarrow "Manage Private Keys" and add the user.

1.2.6.2. Supported Cipher-Suites

The LANactive Manager Controller supports the following TLS 1.2 cipher suites: TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384 TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256 TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA384 TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256 TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA384 TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA256 TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA384

TLS 1.0 and TLS 1.1 are not supported.

1.3. Setting up the LINUX Controller

To set up the LANactive Manager Controller on LINUX extract the

LANactiveManager_ClientController_VX.xx.zip file anywhere on your LINUX machine, but for further

progress it is recommended to extract it directly to the future installation directory.

Ensure that the current user has the rights to execute all extracted file.

Use the terminal to execute the **Install_LANMAN_Controller.sh** shell script and simply follow the instructions.

The script will automatically download all necessary additional packages, which are:

- Apt-transport-https
- Unzip
- Putty-tools

By default the Microsoft SQL Server for LINUX will be used as database server, but any other SQL database can be used as well. In that case, skip the installation of MSSQL-Server by answering the corresponding question with '**n**'.

In both cases the script will use the **Install_LANMAN_DB.sh** script to set up the controllers database. During the setup of the database the default values of the database name and the user credentials can be changed.

<u>Note:</u> This changes have to be repeated manually in the connection string LANMANDbLinux inside the appsettings.json file located in the LANactive Manager Controller directory.

At the end, the setup script will create the service file named **LANMAN_Controller.service** located in **/etc/system/**. This file tells the service daemon where to find the controller files and how to run the service. The file should always look like the following:

```
[Unit]
Description=LANactive Manager Controller Service Application
[Service]
Type=notify
ExecStart=[Controller Directory]/LANactiveManager_ClientController.GrpcService
WorkingDirectory=[Controller Directory]
```

```
[Install]
WantedBy=multi-user.target
```

There is also a script file named **Update_LANMAN_Controller.sh**. This script can be executed if a previous version of the LANactive Manager Controller already exists to simplify the update process. In this case, there is no need to run the **Install_LANMAN_Controller.sh** script again.

1.4. Migrate NEXMAN Stand-Alone and NEXMAN Client/Controller settings and data into LANactive Manager

The migration of settings from NEXMAN Stand-Alone or NEXMAN Client/Controller into LANactive Manager will happen **automatically** during the setup and first start of LANactive Manager as long as the previous NEXMAN version is still installed!

In any other case, data and settings from NEXMAN Device Manager can be easily migrated into the new LANactive Manager. To achieve this, the previous data files and directories have to be copied into the LANactive Manager directory. Using default values, it would look like the following: **Stand-Alone:** The files and directories from C:\Users\[User]\Documents\NEXMAN should be copied into C:\Users\[User]\Documents\LANactive Manager **Client:** The files and directories from C:\Users\Public\Documents\NEXMAN Client should be copied into C:\Users\Public\Documents\LANactive Manager Client

It is possible to just select the previous data directories during the setup. In that case, nothing needs to be copied.

As a last step, the **NEXMAN.config** file from the old directories must be renamed to **LANactiveManager.config** and replace the new file created during the setup.

Controller:

The <u>SQL database</u> of the Controller will be migrated <u>automatically</u> in any case.

The <u>controller settings</u> will be migrated <u>automatically</u>, even if the previous version is already uninstalled. But to do this manually, the settings are stored in the **user.config** file which can be found at:

C:\Windows\ServiceProfiles\NetworkService\AppData\Local\Nexans_Deutschland_GmbH\

This directory contains all settings for all versions that were installed on the server. For each major version a directory named 'NEXMAN_ClientServer.Servi_Uri + unique ID' is created which itself contains directories named after the corresponding minor version. To find the latest config file the highest version number must be located, for example:

C:\Windows\ServiceProfiles\NetworkService\AppData\Local\Nexans_Deutschland_GmbH\NEXMAN_ClientS erver.Servi_Url_bzbcy2fyzvnwuj4ghpjunvh4mjfxmobu\6.4.651.97

The user.config file needs to be copied into the newly created LANactive Manager directory, for example: C:\Windows\ServiceProfiles\NetworkService\AppData\Local\Nexans_Advanced_Networkin\LANactiveManag er_ClientCo_Url_zqozkjkauoo4tv0zri00gmfu40rowyhd\7.1.28.99

Since the LANactive Manager is a fresh installation, there should be only one directory for the LANactive Manager and its user.config can easily be replaced.

1.5. Upgrade Microsoft SQL Server from version 2012 to 2019

- 1. Install the MS SQL Server 2012 Service Pack 2 https://www.microsoft.com/en-us/download/details.aspx?id=43340
- 2. Start the 'SQLEXPR_x64_2019_ENU.exe' setup file.
- Select a directory for extracting temporary installation files. Choose a short path like C:\Temp\SQL, otherwise the setup could cancel showing an error message that the directory name is too long. The directory must be empty.
- 4. Choose 'Upgrade from a previous version of SQL Server'



5. Check 'Use Microsoft Update to check for Updates (recommended)' and click 'Next'

\overline Upgrade to SQL Server 2019	X		
Microsoft Update Use Microsoft Update to check for important updates			
Global Rules Microsoft Update Product Updates Install Setup Files Upgrade Rules License Terms Select Features Feature Rules Upgrade Progress Complete	Microsoft Update offers security and other important updates for Windows and other Microsoft software, including SQL Server 2019. Updates are delivered using Automatic Updates, or you can visit the Microsoft Update website. Use Microsoft Update to check for updates (recommended) <u>Microsoft Update FAQ</u> <u>Microsoft Update Privacy Statement</u>		
	< Back Next > Cancel		

6. Accept the license terms and click 'Next'

🐻 Upgrade to SQL Server 2019	-		\times
License Terms			
To install SQL Server 2019, yo	u must accept the Microsoft Software License Terms.		
Global Rules Microsoft Update Product Updates Install Setup Files Upgrade Rules License Terms Select Instance Select Features Feature Rules Upgrade Progress Complete	MICROSOFT SOFTWARE LICENSE TERMS MICROSOFT SQL SERVER 2019 EXPRESS These license terms are an agreement between you and Microsoft Corporation (or on affiliates). They apply to the software named above and any Microsoft services or soft updates (except to the extent such services or updates are accompanied by new or ac terms, in which case those different terms apply prospectively and do not alter your o Microsoft's rights relating to pre-updated software or services). IF YOU COMPLY WIT THESE LICENSE TERMS, YOU HAVE THE RIGHTS BELOW. BY USING THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR ACCEPT THESE TERMS. IF YOU DO NOT ACCEPT THEM, DO NOT USE THE SOFTWAR DIFT TO SOL. Server 3010. (or components of put of them) this coftware will automatic SQL Server transmits information about your installation experience, as well as other usage and performance data, to Microsoft to help improve the product. To learn more about data procesp privacy controls, and to turn off the collection of this information after installation, see the documentation.	e of its ware Iditional TH LE, YOU ARE. RVER. I Server Server Copy F d ssing and	f v Print
	< Back Next >	Cancel	

7. Just click 'Next' to proceed

🝯 Upgrade to SQL Server 2019					- 0	×
Select Instance Specify the instance of SQL Serv	er to modify.					
Global Rules Microsoft Update Product Updates Install Setup Files Upgrade Rules License Terms	Select the instance of features" and then clic Instance to upgrade: SQLEXPRESS Installed instances:	SQL Server to upgrade k next.	e. To upgrade only sha	ared features, select "U	lpgrade sha	red
Select Instance	Instance Name	Instance ID	Features	Edition	Version	
Select Features Feature Rules Upgrade Progress Complete	SQLEXPRESS <shared compone<="" td=""><td>MSSQL11.SQLEXPR</td><td>SQLEngine LocaIDB</td><td>Express</td><td>11.0.2100.4 15.0.4153.</td><td>50</td></shared>	MSSQL11.SQLEXPR	SQLEngine LocaIDB	Express	11.0.2100.4 15.0.4153.	50
			< Ba	ick Next >	Car	icel

8. Wait for the setup to finish.

1.6. Changing LANactive Manager Controller Service URL and Port Number after Setup

It is possible to change the Controller service URL or the port number after the setup is finished. The configuration file called **'appsettings.json'** is located inside the installation directory of the LANactive Manager Controller. This file contains the description and details of all used endpoints. For example:

```
"HttpGrpc": {
    "Url": "http://0.0.0.0:9090",
    "Protocols": "Http2"
},
```

This specifies the endpoint to listen to any IPv4 address using http with protocol version HTTP/2 and port number 9090. The port number can be changed according to personal needs. But it is important, that the communication from Client to controller requires HTTP/2, while the Web Interface requires HTTP/1. When using HTTPS both are using HTTP/2.

Also the used HTTPS certificate or the database connection string can be changed here. Any changes of this file require a reboot of the Controller service.

More Information about the appsettings.json file can be found here: https://docs.microsoft.com/en-us/aspnet/core/fundamentals/configuration/?view=aspnetcore-6.0

1.7. Changing LANactive Manager Controller Service user and database connection string

By default the Controller service is started with the user 'Network Service'. This is a windows system account which has usually access to the SQL database, the network interfaces and the used directories. The service user can be changed using Services \rightarrow LANactive Manager – Controller \rightarrow Properties \rightarrow Log on. Please ensure that the new user has read and write access to the database and the controller installation folder.

The connection string can be found in the appSettings.json file, located in the Controllers installation folder. By default, the connection string looks like this:

"Data Source=.\\SQLEXPRESS;Initial Catalog=LANMANDb;Integrated

Security=False;User ID=admin;Password=admin;Trusted_Connection=true"

To use Windwos Authentication to authenticate against the database, the connection string can be changed as follows:

"Data Source=.\\SQLEXPRESS;Initial Catalog=LANMANDb;Integrated Security=True"

2. Switch Firmware Requirements

In order to use all features of LANactive Manager, a firmware version 3.68 or higher needs to be installed on the switches:

If an older V3 firmware version is installed, any not supported parameters and status displays will be hidden or an appropriate message will be indicated.

If a firmware version 1.xx or 2.xx is installed on a device, this firmware needs first to be updated to the above version using the LANactive Manager.

In case of a failed TFTP access you should check, whether it is blocked because of a too restrictively configured antivirus scanner.

For Zero Touch Configuration a firmware version V6.xx and hardware version 5 are required.

3. Firewall

For accessing the device configuration LANactive Manager requires the following protocols:

- UDP Port 50266 User authentification and device state
- UDP Port 50268 Layer-2 Autodiscovery
- UDP Port 50222 Zero Touch Configuration (LANactive Manager Controller only)
- UDP Port 514 SYSLOG Messages (LANactive Manager Controller only)
- UDP Port 162 SNMP Trap Messages (LANactive Manager Controller only)
- TFTP Port 69 Reading/writing of the configuration (if Manager Access Mode is set to "UDP/TFTP")
- TCP Port 50271 Reading/writing of the configuration with SCP

If a firewall is installed on the local PC or on an installed router, you should check whether the above mentioned protocols are enabled.

For Client/Server-Communication the following protocols are needed additionally:

- TCP Port 9090/9091 (Default http)
- Communication from Client/Web to Server

• TCP - Port 9092 (Default https)

Communication from Client to Server

4. Software Registration

To use the software without restriction a valid registration key is needed. Without a valid key the LANactive Manager will work in the EVALUATION mode (see chapter *6. Restrictions of the EVALUATION Version*). If you have received LANactive Manager on a licensed CD-ROM, there is a file named LANactive Manager_Key.txt in the installation directory of the CD-ROM. This file contains the personalised key and will be automatically read during the installation procedure. Additionally the registration data is printed on a separate registration certificate.

As an alternative the key can be entered later via the **LANactive Manager Help** → Register LANactive Manager menu.

5. Restrictions of the EVALUATION Version

The EVALUATION version allows the management of individual devices. This version is free of charge and its run-time is unrestricted. However, all features necessary for the management of device lists have been disabled.

The EVALUATION version has the following restrictions as compared with the licensed version:

- a time-lagged start screen is shown prompting to enter the registration key.
- a maximum of five Devices can be strored and reloaded from a Device-List
- a maximum of five Devices can be selected and edited simultaneously
- Client/Controller:
 - o Importing/Export Device-Lists from/to Stand-Alone version
 - o Zero Touch Configuration
 - Time scheduled configuration

are limited to five devices as well.

6. Help and Documentation

The documentation on LANactive Manager (LANactive Manager), Nexans Switch Basic Configurator and on the switch firmware can be loaded via the Manager Help menu as a PDF file. The following documentation is available:

Help → Manuals → LANactive Manager (LANactive Manager)
 Manual of LANactive Manager (the present document)

- Help → Manuals → Switch Firmware and Parameters
 Detailed description of all switch functions and configuration settings
- Help → Manuals → Release Notes
 Release Notes for Manager, Basic Configurator and Firmware.

7. Firmware Upgrade from Version V1/V2 to V3/V4/V5/V6/V7

A change of firmware version V1.xx/V2.xx to V3.xx/V4.xx/V5.xx/V6.xx/V7.xx results in a basic functional upgrade in the firmware and in the LANactive Manager LANactive Manager.

Because LANactive Manager V7 is only able to read and write the configuration of firmware V3.xx/V4.xx/V5.xx/V6.xx/V7.xx, a firmware update to V3.xx/V4.xx/V5.xx/V6.xx/V7.xx must be performed. This update has to be performed using LANactive Manager V7.

Important note:

We <u>urgently</u> recommend reading the Management Module and Firmware Versions chapter in the Nexans Switch Management manual and in particular the included remarks on the different firmware images prior to performing a firmware update.

8. Integration into a Central Management System

LANactive Manager Stand-Alone can easily be integrated into a central management system (e. g. SNMPc, HP-Openview etc.) by entering optional parameters at the start of LANactive Manager Stand-Alone. This procedure will bypass the device list and start directly the device editor.

The following two parameters are possible:

• LANactive Manager_StandAlone.exe -device -ip a.b.c.d

The parameter "-device" will read and display the current device configuration. To do so, LANactive Manager will query the Admin or User account.

Moreover the above parameter a.b.c.d has to be replaced by the device IP address. Usually management systems provide placeholders which, when called, are replaced by the IP address of the selected device. For example, with SNMPc this is "\$a", i.e. the full command would be as follows:

C:\Program Files\Nexans\LANactive Manager\LANactive Manager_StandAlone.exe -device -ip \$a

• LANactive Manager_StandAlone.exe -database -ip a.b.c.d

The parameter "-database" will read the last configuration from the database. This is very useful, e.g. when the device cannot be reached, but the configuration needs to be consulted.

Note:

On the LANactive Manager state page the current state of the device is always indicated, independent of what is stored in the database, and displayed on the appropriate configuration tabs. If the device cannot be reached, the state page remains empty.

Among others, for SNMPc a corresponding integration was created by Nexans and is available on request:


9. Name and Password as Starting Parameters

The indication of the optional parameters "-name <name>" and "-password <password>" at the start of LANactive Manager Stand-Alone simplifies the manual entry of the name and password. In this case, the name and password indicated as parameters will be taken over as default into the dialog box.

Examples:

• LANactive Manager_StandAlone.exe -name admin -password Nexans

This command line will start LANactive Manager and display the device list which was last loaded. As soon as the device is accessed the Authentication dialog window will be displayed with the specified name and password.

• LANactive Manager_StandAlone.exe -device -ip a.b.c.d -name admin -password Nexans

This command line will directly start the configuration editor for the device with the IP address a.b.c.d (see chapter *9 Integration into a Central Management System*). Here too, the Authentication dialog window will be displayed with the specified name and password.

10. Functional Description of Configuration Parameters

All configuration parameters within the Device-Editor are detailed in the "Switch Firmware" manual. This manual can be displayed via the menu <u>Help \rightarrow Manuals \rightarrow Switch Firmware and Parameters</u>:

N Device-List - NEXMAN [Default]							
File Edit Add/Remove Templates Inventory	Logfile	He	lp				
i 🔽 🗖 🛃 🚔 🗋 🖳 🖳 🖳 🕂 🕅 🥦 🖏			Manuals	•	Switch Firmwar	e and Parameters (EN)	
Device-List 🗸 Device-List			License Agreement		Switch FiffNiwar	e and Parameters (DE)	
All Devices [11]			Nexans LANactive Homepage		Nexans Device	Manager V5 (NEXMAN)	
Unassigned Devices [0]			Nexans LANactive Support Portal		Release Notes		
Categories Check Devic	ce Alarms		Register NEXMAN		ACTIVE MAC Address	Name	Location
A Dilding A [2 11 -]	8 8		About	ľ	7		V
4 🛅 Floor 0 [3 9 -]	h 0	DISU		_	00:C0:29:29:3A:43	ASC_Test_HW5_P7	ASC

11. Quick Start

11.1. Starting LANactive Manager Stand Alone

If no valid registration key was entered during the installation procedure, LANactive Manager displays the following starting screen:

EVALUATION VERSION
Nexans Device Manager V6 (NEXMAN) - Client Version 6.00A
<u>Visit Nexans http://www.nexans.de/ans</u>
EVALUATION VERSION
Name:
Company:
Registration Key:
Please wait 6 seconds. Continue
Copyright 2003-2019 Nexans Deutschland GmbH

Please enter a valid key OR leave all fields empty. Please make sure that Name, Company and Registration Key are entered exactly as they are indicated on the Licence Sheet.

If the Registration Key field is left empty, LANactive Manager will start in the EVALUATION mode (see chapter 6 *Restrictions of the EVALUATION Version*).

After pressing the <u>**Continue</u>** button the last device list is automatically loaded. If the device list is empty (as is the case after an initial installation), you will be asked first whether the Autodiscover (Layer-2) function shall be launched (only in Stand-Alone version, more information on this topic see the next chapter):</u>



11.2. Starting LANactive Manager Client

In order to use LANactive Manager Client you must connect to the server:

N Login	
Nexans Device Manager	EXANS V6 (NEXMAN) - Client Version V6.00A
Server name: User name: Password:	http://localhost:8080
	Login

Type in the server's IP-Address or select a previously used address. Then enter your username and password to connect to the server. If you start the LANactive Manager Client for the first time the default user and password are both 'admin'.

Please change the default password immediately.

Read more about editing a user in chapter *12.5 User Management in Client/Controller-Version*. The default server names are:

- http://localhost:9090
- https://localhost.controller.nexans:9092

If you cannot connect (server is offline, wrong address...), an error message is shown:

№ Login	
Nexans Device Manager	EXANS V6 (NEXMAN) - Client Version V6.00A
Server name: User name:	http://localhost:8081
Password:	****
Ca	Login

Invalid user credentials will be notified as follows:

N Login	
Nexans Device Manager	EXANS V6 (NEXMAN) - Client Version V6.00A
Server name:	http://localhost:8080
User name:	admin
Password:	****
Inval	Login id user name or password

11.3. Adding Devices to Device-List

11.3.1. Adding Devices via Layer-2 Autodiscovery

The <u>Autodiscover Devices on local segment (Layer-2)</u> feature detects all devices in the network which are located in the same segment or LAN as the management PC.

Devices, which can be addressed via a router only, can be detected automatically using the considerably slower **Autodiscover Devices by IP address range (Layer-3)** function (see next chapter).

Devices which have been detected using the Autodiscovery Layer-2 feature (also those without IP address) can be configured quite easily with their basic parameters (IP parameters, names, trunk port) in this mode. In this case the needed Basic Configurator is called directly from the Autodiscovery window. Autodiscovery can be launched either directly after launching the Manager (if the device list is empty, see

previous chapter) or via the <u>Add/Remove</u> menu

N Device-List	- NEXMAN [Default]	
File Edit	Add/Remove Templates Inventory Logfile Help	
i 🗹 🗖 😼	Autodiscover Devices on local segments (Layer-2)	
Device-List	La, Autodiscover Devices by IP address range (Layer-3) 너머	
All Devi	🗛 Manual add single Device	
Unassig	Hanual add range of Devices	Power Consumption PoE

or via the corresponding icon in the shortcut menu:

	_net]
File Edit Add/Remove	Templates Inventory Logfile Help
i 🖸 🗖 📓 💕 🗋 🖳 🖳	🕞 🖶 🚧 🔎 🕷 🖥
Device-List	8 Device-List
All Devices [1]	

First of all, the interface to use for discovering has to be selected.

Basic Configurator (Found Interfac	ces) - NEXMAN				
Select interafaces to use for Discover	Ŋ				
IPAddress	IPSubnet	DefaultIPGateway	MACAddress	Description	Index
192.168.13.1	255.0.0.0		00:24:9B:15:57:AC	ASIX AX88179 USB 3.0 to Gigabit Ethernet Adapter	19
192.168.0.123	255.255.255.0	192.168.0.1	FC:3F:DB:F8:A0:02	Intel(R) Ethernet Connection (3) I218-LM	12
fe80::f024:4446:d661:8f48%22	0.0.00		0A:00:27:00:00:16	VirtualBox Host-Only Ethernet Adapter	22
192.168.56.1	255.255.255.0		0A:00:27:00:00:16	VirtualBox Host-Only Ethernet Adapter	24
	🔲 Use Al	Interfaces OK	Cancel		

This can be achieved by selecting the desired interface and clicking **OK** afterwards or with a double click on the relevant interface. By clicking **'Use All Interfaces'** and **OK** every available interface will be used.

After starting the Autodiscovery window shows all devices answering to the periodic Layer-2 broadcast of LANactive Manager. This can be devices with or without an IP address:

N	Autodiscov	ver Devices on local	segments - NEXMAN							- 0 X
Γ	Waiting for rea	sponse from new or cl	hanged Devices							
	State	Basic Configurator	Move to Device-List	Active MAC Address	IPv4 Add 🛋	Pv6 Address	IPv6 Link Lokal Address	Name	Location	Description
	New Device	Basic Configurator)	00:C0:29:0B:3A:E0	0.0.0.0	:		NEXANS-00C0290B3AE0	not defined	iGigaSwitch 1
	New Device	Basic Configurator)	00:C0:29:25:D0:BB	0.0.0.0	:	::	NEXANS-00C02925D0BB	not defined	iSwitch G 104
	New Device	Basic Configurator	Move to Device-List	00:C0:29:29:3A:43	192.168.0.3	:	::	NEXANS-00C029293A43	not defined	GigaSwitch V5
	•									÷.
lr	Don't dieco	wer Devices already i	in Device-List						Discour	ared Deviews 2
Ľ	W Dont disco	ver Devices already	III Device-List						DISCOV	ered Devices. 3
	Important note: This function quickly discovers Devices with Firmware V3.30 or higher. The Devices must be connected directly to this PC or must be in the same VLAN. To discover Devices by the address cannot be "Magual add."									
							,			
	Move all I	Devices (with valid IP	Address) to Device-Lis	t	Setup Autoconfig	uration Sta	art Autoconfiguration	Open logfile Stop Autod	iscover	Close

The box **Don't discover Devices already in Device-List** is checked by default. Responses from devices already listed in the currently open device list will be ignored.

Devices which have already received an IP address (e. g. via DHCP), can immediately be added to the device list. This is done via the <u>Move to Device-List</u> button for a single device or via <u>Move all Devices to</u> <u>Device-List</u> button for all devices in the list:

	🕻 Autodiscover Devices on local segments - NEXMAN									
Waiting for re	esponse from new or cl	hanged Devices								
State	Basic Configurator	Move to Device-List	Active MAC Address	IPv4 Add 🖄	IPv6 Address	IPv6 Link Lokal Address	Name	Location	Description	
New Device	Basic Configurator)	00:C0:29:0B:3A:E0	0.0.0.0	::	::	NEXANS-00C0290B3AE0	not defined	iGigaSwitch 1	
New Device	Basic Configurator		00:C0:29:25:D0:BB	0.0.0.0	::	::	NEXANS-00C02925D0BB	not defined	iSwitch G 104	
New Device	Basic Configurator	Move to Device-List	00:C0:29:29:3A:43	192.168.0.3	::	::	NEXANS-00C029293A43	not defined	GigaSwitch V5	
•	III								4	
🔽 Don't disc	cover Devices already	in Device-List						Discove	ered Devices: 3	
Important note This function To discover [Important note: Discover Devices already in Device-List Discovered Devices: 3 Important note: This function quickly discovers Devices with Firmware V3.30 or higher. The Devices must be connected directly to this PC or must be in the same VLAN. Clear List To discover Devices behind an IP router or Devices with older V3 firmware, use functions 'Autodiscover Devices by IP address range' or "Manual add". Clear List									
Move all	I Devices (with valid IP	Address) to Device-Lis	t	Setup Autoconfi	guration Sta	art Autoconfiguration	Open logfile Stop Autod	iscover	Close	

After being moved into the device list the devices are removed from the Autodiscovery window.

Devices without IP address cannot be moved into the device list and need to be assigned an IP address first via the **<u>Basic Configurator</u>**:

∧ Autodiscov	er Devices on local :	segments - NEXMAN							- 🗆 🗙	
Waiting for res	ponse from new or cl	hanged Devices								
State	Basic Configurator	Move to Device-List	Active MAC Address	IPv4 Add 🖄	IPv6 Address	IPv6 Link Lokal Address	Name	Location	Description	
New Device	Basic Configurator	Π	00:C0:29:0B:3A:E0	0.0.0.0			NEXANS-00C0290B3AE0	not defined	iGigaSwitch 1	
New Device	Basic Confidurator]	00:C0:29:25:D0:BB	0.0.0.0	::	::	NEXANS-00C02925D0BB	not defined	iSwitch G 104	
New Device	Basic Configurator	Move to Device-List	00:C0:29:29:3A:43	192.168.0.3	::	::	NEXANS-00C029293A43	not defined	GigaSwitch V5	
•									٢	
Don't disco	ver Devices already i	in Device-List						Discov	ered Devices: 3	
Important note: This function q To discover De	mportant note: This function quickly discovers Devices with Firmware V3.30 or higher. The Devices must be connected directly to this PC or must be in the same VLAN. To discover Devices behind an IP router or Devices with older V3 firmware, use functions 'Autodiscover Devices by IP address range' or "Manual add".									
Move all [Devices (with valid IP	Address) to Device-Lis	t :	Setup Autoconfig	guration Sta	art Autoconfiguration	Open logfile Stop Autod	iscover	Close	

Afterwards the configuration of the respective device is automatically read and displayed via the Switch Basic Configurator:

Device Info Description: Giga Switch V5 SFP-2VI 54VDC Part Number (P/N): 88303953 Production Lot: 3746 Serial Number (S/N): 007783 Firmware Version: HW5-F40-P07-OFFICE-V6.01bs Active MAC Address: 00:C0:29:29:3A:43 Device Setup User Defaults Name: NEXANS-00C029293A43 Location: not defined Contact: not defined IP Address: 0.0.0 IP Address: 0.0.0 Q 0.0.0 Outon 0.0.0 Remark: 0.0.0.0	~
Description: Giga Switch V5 SFP-2VI 54VDC Part Number (P/N): 88303953 Production Lot: 3746 Serial Number (S/N): 007783 Firmware Version: HW5-F40-P07-0FFICE-V6.01bs Active MAC Address: 00:C0:29:29:3A:43 Device Setup User Defaults Name: NEXANS-00C029293A43 Location: not defined Contact: not defined IPv4 Access enabled: V IP Address: 0.0.0 Netmask: 0.0.0 0.0.0 0.0.0 0.0.0 0.0.0	
Part Number (P/N): 88303953 Production Lot: 3746 Serial Number (S/N): 007783 Firmware Version: HW5-F40-P07-OFFICE-V6.01bs Active MAC Address: 00:C0:29:29:3A:43 Device Setup User Defaults Name: NEXANS-00C029293A43 Location: not defined Contact: not defined IPv4 Access enabled: Image: I	
Production Lot: 3746 Serial Number (S/N): 007783 Firmware Version: HW5-F40-P07-OFFICE-V6.01bs Active MAC Address: 00:C0:29:29:3A:43 Device Setup User Defaults Name: NEXANS-00C029293A43 Location: not defined Contact: not defined IPv4 Access enabled: V IP Address: 0.0.0 Netmask: 0.0.0 Output: 0.0.0 Output: 0.0.0 Output: 0.0.0	
Serial Number (S/N): 007783 Firmware Version: HW5-F40-P07-OFFICE-V6.01bs Active MAC Address: 00:C0:29:29:3A:43 Device Setup User Defaults Name: NEXANS-00C029293A43 Location: not defined Contact: not defined IPv4 Access enabled: Image: I	
Firmware Version: HW5-F40-P07-OFFICE-V6.01bs Active MAC Address: 00:C0:29:29:3A:43 Device Setup User Defaults Name: NEXANS-00C029293A43 Location: not defined Contact: not defined IPv4 Access enabled: Image: I	
Active MAC Address: 00:C0:29:29:3A:43 Device Setup User Defaults Name: NEXANS-00C029293A43 Location: not defined Contact: not defined IPv4 Access enabled: Image: Imag	
Device Setup User Defaults Name: NEXANS-00C029293A43 Location: not defined Contact: not defined IPv4 Access enabled: Image: Contact: DHCP IPv4 enabled: Image: Contact: IP Address: 0.0.0 Netmask: 0.0.0 Gateway: 0.0.0	
Name:NEXANS-00C029293A43Nicht definientLocation:not definedNicht definientContact:not definedNicht definientIPv4 Access enabled:IIDHCP IPv4 enabled:IIIP Address:0.0.00.0.0Netmask:0.0.00.0.0Gateway:0.0.00.0.0	_
Location:not definedNicht definietContact:not definedNicht definietIPv4 Access enabled:Image: Contact:Image: Contact:DHCP IPv4 enabled:Image: Contact:Image: Contact:IP Address:0.0.0Image: Contact:Netmask:0.0.0Image: Contact:Gateway:0.0.0Image: Contact:	
Contact: not defined Nicht definiert IPv4 Access enabled: Image: Contact in the image: C	
IPv4 Access enabled: IP DHCP IPv4 enabled: IP IP Address: 0.0.0 Netmask: 0.0.0 Gateway: 0.0.0	
DHCP IPv4 enabled: Image: Contract of the second secon	
IP Address: 0.0.0.0 Netmask: 0.0.0.0 Gateway: 0.0.0.0	
Netmask: 0.0.0.0 0.0.0.0 Gateway: 0.0.0.0 0.0.0.0	
Gateway: 0.0.0.0 0.0.0.0	
IPv6 Address Mode: Disable IPv6 access	
IPv6 Address: ::	
Prefix Length: 0 0	
IPv6 Gateway:	
Trunk Port: none	
Mgmt VLAN ID: 1	
Write Setup to Device Save Defaults Load Defaults	
Exit	
Used network interface: [192.168.13.1] ASIX AX88179 USB 3.0 to Gigabit Ethernet Adapter	.:

If the configuration has been correctly read, the respective values will be displayed in the **Device Info** and **Device Setup** fields and can be modified. The data in the **Device Info** window is Read-Only and meant for your information only.

If multiple devices shall receive a similar configuration, a general basic setting can be defined in the <u>User</u> <u>Defaults</u> field and copied via the <u>Save Defaults</u> or <u>Load</u> <u>Default</u> buttons any template can be saved to or reloaded from hard disk.

Device Setup			User Defaults
Name:	NEXANS-00C029293A43		SW-B221
Location:	not defined		Room-221
Contact:	not defined		Employee B
IPv4 Access enab	led: 🔽		
DHCP IPv4 enabl	ed: 🔽	6	
IP Address:	0.0.0.0		192.168.0.5
Netmask:	0.0.0.0		255.255.255.0
Gateway:	0.0.0.0		192.168.0.1
IPv6 Address Mod	e: Disable IPv6 access	•	Disable IPv6 access
IPv6 Address:	::		::
Prefix Length:	0		0
IPv6 Gateway:	::		::
Trunk Port:	none 🔻		none 🔻
Mgmt VLAN ID:	1		1
	Write Setup to Device		Save Defaults Load Defaults

In order to write the modified configuration back into the device the Admin Name and the Admin Password should be set to Factory Default (name = admin, password = nexans). This restriction is a security feature to prevent installed devices, which have been assigned a customer-specific password, from being modified by the Basic Configurator.

After entry of the desired parameters a click on the <u>Write Setup to Device</u> button will transfer the configuration into the device. The configuration will take immediately effect without rebooting. A message informs about the successful completion of the write operation:

🕂 Basic Configurat	tor (MAC Address	Mode) - NEXMAN	
Device Info			
Description: GigaSwitch V5 SFP-2VI 54VDC			
Part Number (P/N):	88303953		
Production Lot:	3746		
Serial Number (S/N)	: 007783		
Firmware Version:	HW5-F40-P07	7-OFFICE-V6.01bs	
Active MAC Address	: 00:C0:29:29:3	A:43	
Device Setup			User Defaults
Name: S	W-B221		SW-B221
Location: R	oom-221		Room-221
Contact: E	mployee B		Employee B
IPv4 Access enable	d: 🔽	Info	
DHCP IPv4 enabled	I: 🔳		
IP Address:	192.168.0.5	Write successful.	
Netmask:	255.255.255.0		5.0
Gateway:	192.168.0.1	ОК	
IPv6 Address Mode:	Disable IPv6 acc	cess 🔻	Disable IPv6 access
IPv6 Address:	::		::
Prefix Length:	0		0
IPv6 Gateway:			::
Trunk Port:	none 🔻		none 🔻
Mgmt VLAN ID:	1		1
	Write Setup to De	vice	Save Defaults Load Defaults
			Exit
Used network interf	ace: [192.168.13.1] ASIX AX88179 USB 3.0 to Gigab	it Ethernet Adapter .::

After confirming the Write Successful message, the <u>Write Setup to Device</u> button is disabled and the Basic Configurator can be left via the <u>Exit</u> button, in order to return to the Autodiscovery list:

As soon as the configured device answers again, the Autodiscovery window will be updated with the new values and the device can now be moved into the device list via the <u>Move to Device-List</u> button:

Л	N Autodiscover Devices on local segments - NEXMAN									
Waiting for response from new or changed Devices										
	State	Basic Configurator	Move to Device-List	Active MAC Address	IPv4 Add 🔝	IPv6 Address	IPv6 Link Lokal Address	Name	Location	Description 🔺
	New Device	Basic Configurator	Move to Device-List	00:C0:29:0B:3A:E0	192.168.0.5			SW-B221	Room-221	i βigaSwitc ≡
	New Device	Basic Configurator	Move to Device-List	00:C0:29:29:3A:43	192.168.0.3	::		NEXANS-00C029293A43	not defined	GigaSwitcl

Read more about the Basic Configurator in chapter 13 Basic Configurator.

11.3.2. Automatic Basic Configuration

An easy way to apply the basic configuration to multiple device at the same time is the so called <u>Autoconfiguration</u>. All discovered devices with IP Address 0.0.0.0 and factory default username and password will automatically be configured with the pre-defined settings These settings must be prepared by clicking on <u>Setup Autoconfiguration</u>.

62	HW3/ENHANCED/SECU	RITY/V4.10C	3	487 d : (02 h : 59 m	12.10.2018	15:11:16	Ŧ
						Discov	۲ vered Devi Clear Li	ces: 102 st
[Setup Autoconfiguration	Start Autoconfig	uration	Open logfile	Stop Autor	discover	Close	

If you like to enter the IP Address range without additional information select <u>IP Address</u> range and fill in the necessary values. It is possible to exclude some special IP Addresses from the given range.

Autoconfigure Devices - NEXMAN					
IP Version					
IP Address range					
IP Address range					
Start IP Address:	Stop IP Address:				
192.168.0.1	192.168.0.10	Exclude IP xxx xxx xxx.0			
Subnet Mask:	Gateway:	Exclude IP xxx xxx xxx 1			
255.255.255.0	0.0.0.0	Exclude IP xxx xxx xxx 255			
CSV-File					
Read from csv-file Choose file					
File must have the following format:					
MAC; IP; Netmask; Gateway; Name [opt.]; I	Location [opt.]; Contact [opt.]				
Trunk Port: none 💌					
Maret VI AN ID: 1					
Note: The Autoconfiguration only works for switches with IP Address and user credentials on factory default.					
Apply Cancel					

If your basic configuration should already contain information like name, location or contact prepare a .csvfile where these information are assigned to a specific MAC address like shown in the picture below:

	Α	В	С	D	E	F	G	н
1	00:C0:29:20:33:56	10.242.1.158	255.255.252.0	10.242.0.1	NEXANS-00C029203356	testlocation	testcontact	
2	00:C0:29:0B:3A:E0	192.168.0.1	255.0.0.0	0.0.00	NEXANS-00C0290B3AE0	testlocation	testcontact	
3	00:C0:29:25:D0:BB	192.168.0.2	255.0.0.0	0.0.00	NEXANS-00C02925D0BB	testlocation	testcontact	
4	00:C0:29:29:3A:43	192.168.0.3	255.0.0.0	0.0.00	NEXANS-00C029293A43	testlocation	testcontact	
5								
6								
7								

MAC address, IP address, gateway and netmask are compulsory entries.

Click **Apply** and **Start Autoconfiguration** to start. Every new device added by the Autodiscovery will also be included in the configuration process. By clicking **Stop Autoconfiguration** you can end the progress. This will also happen if no further IP addresses are available in your file or generated range. Open the logfile to have a look at the results. Note, that devices to be configurated must be accessible with default username and password.

11.3.3. Adding Devices via Layer-3 Autodiscovery

Devices, which can be addressed via a router only, can be detected automatically using the <u>Autodiscover</u> <u>Devices by IP address range (Layer-3)</u> function. As a precondition these devices must already be configured with an IP address.

Autodiscovery can be started either via the Add/Remove menu

5	√ Device-List - NEXMAN [Default]										
	File	Edit	Add	Add/Remove Templates Inventory Logfile Help							
÷	Image: Contract of the second seco		2	Autodiscover Devices on local segments (Layer-2)							
	Device	e-List	4	Autodiscover Devices by IP address range (Layer-3)							
	A	All Devic		مه Manual add single Device				12			
	l	Jnassig		🕂 Manual add range of Devices					Power Consumption PoE	Input Voltage PoE	
				Add fixed IP 172.23.44.111					rower consumption roc	Input voltage r oL	
										8	V

or via the corresponding icon in the shortcut menu:

N Device-List - NEXMAN [My_Test_net]					
File Edit Add/Remove 1	Templates Inventory Logfile Help				
i 🗹 🗖 📙 🚅 🗋 🖳 🖳	🕞 🕂 🖄 🔎 🕲 🖥				
Device-List	₽ Device-List				
All Devices [1]					

In the following dialog box, up to three IP ranges can be indicated for searching for Nexans devices:

Autodiscover Devices by IP range - NEXMAN						
	Start IP Address:	Stop IP Address:				
V	192.168.0.0	192.168.0.255				
	0.0.0	0.0.0.0				
	0.0.0.0	0.0.0.0				
🔽 CI	heck new Devices in Lis	t				
Skip Devices already in List						
Apply Cancel						

After pressing the **Apply** button and subsequent entry of the Admin Name and Admin Password all indicated IP addresses will be processed one after the other. Progress can be monitored in a log window (Note: If the required devices still have their Factory Default settings, there is no need to enter name and password):

Log Messages - NEXMAN	
Authenticating User via UDP: UDP authentication not allowed. Retrying with SCP authentication Reading Config via SCP: ok Verify Config: ok Success	^
READING Config from Device [SW-B221][192.168.0.5] Authenticating User via UDP: UDP authentication not allowed. Retrying with SCP authentication Reading Config via SCP: ok Verify Config: ok Success ####################################	E
	T
Cancel	

After pressing the Close button all detected devices are entered into the device list.

11.3.4. Adding Devices Manually to the Device List

If the IP address of the respective devices is known, these devices can be added manually to the device list. This can be done via the <u>Add/Remove</u> menu

ſ	𝕂 Device-List - NEXMAN [New List]						
	File Edit	Add	I/Remove Templates Inventory Logfile Help	_			
	🗹 🔲 🛃	2	Autodiscover Devices on local segments (Layer-2)	ľ			
	Device-List	13	Autodiscover Devices by IP address range (Layer-3)				
	All Devi		Manual add single Device	ľ			
	Unassig	++,	Manual add range of Devices 🖓	ŀ			
			Add fixed IP 172.23.44.111				
			Add Devices from Device-List	1			
		*>	Remove checked Devices from Device-List	1			
			Remove checked Devices from Device-List and Database	Remove checked Devices from Device-List and Database			
			Remove unknown Devices from Device-List				
			Move checked Devices to Unassigned Devices	1			
		_	1111	-			

or via the corresponding icon in the shortcut menu:

N Device-List - NEXMAN [My_Test_net]					
File Edit Add/Remove	Templates Inventory Logfile Help				
i 🗹 🔲 🛃 💕 🗋 🖳 🔩	🕞 🔁 🖄 🔎 🗟 🖥				
Device-List	Bevice-List				
All Devices [1]					

As an example, you can now add a single device to the list by selecting the <u>Manual add single Device</u> menu option. Checking the <u>Check new Device in List</u> box will check the new device in the device list and select it for further actions:

IP Address - N	EXMAN	
IP Address:	192.168.0.100	
Check ner	w Device in List	
ок		Cancel

Alternatively, a complete IP address range can be added to the list by selecting the <u>Manual add range of</u> <u>Devices</u> menu option:



After clicking on the OK or Apply button the device is entered into the device list and most of the columns are marked with a "?" because the configuration of the device has not yet been read via automatic device polling:

										Drag	a column here	e to gr	oup by this column.					
Check	Device	Alarms	Redundancy	PoE	Power Consumption PoE	Input Voltage PoE	IPv4 Address	Active MAC Address	Name	Location	Description	Туре	Mgmt Firmware Vers.	Mgmt Hardware Vers.	Voice VLAN	Def. VLAN	Uptime	l
	8	8	8	T	V	8	8	T	8	8	8	V	T	V	8	T	7	
•	Unkn				0	0	192.168.0.20	?	?	?	?	-1	?				?	
	Unkn				0	0	192.168.0.19	?	?	?	?	-1	?				?	
	Unkn				0	0	192.168.0.18	?	?	?	?	-1	?				?	
•	Unkn				0	0	192.168.0.17	?	?	?	?	-1	?				?	
•	Unkn				0	0	192.168.0.16	?	?	?	?	-1	?				?	
	Unkn				0	0	192.168.0.15	?	?	?	?	-1	?				?	
•	Unkn				0	0	192.168.0.14	?	?	?	?	-1	?				?	
	Unkn				0	0	192.168.0.13	?	?	?	?	-1	?				?	
	Heke				0	0	100 100 0 10	2	2	2	2		2				2	

For more information regarding the automatic polling see chapter 14.2. Automatic polling of Device-Lists.

11.4. Database Management in Client/Controller-Version

If you are using the Client/Controller-Version, all devices are handled by the controller and every device to be observed must be stored in the database. To do this open the **<u>Database-Management</u>** by clicking on the shortcut or using the **<u>Edit</u>** menu as admin-user.

N Device-List - NEXMAN Client						
File Edit Remove Tem <mark>plates</mark>	Invent	tory	Logfile	He	elp	
j 🖸 🗖 🖌 🚰 🖄 🔎 🐊 🍔 🖡	8	7				
Device-List	Ş		Device-Li	st	Log I	Messages
My_Test_Net						
Devices	•	Che	eck De	vice	Alarms	IPv4 Addre

On the first time entering the Database Management the database is empty. To add devices to the database the same functions as described in the chapter *12.3 Adding Devices to Device-List* are available. The only difference is that you can start the Layer-2 Autodiscovery from server side or from client side (Locally). The basic configuration can only be done during local Autodiscovery.

N Database Manager	ment				
		.	* () E		Ô,
Drag a column header and	d drop it here to group by that	t column			
Move to Device-List	Active MAC Address	IPv4 Address	IPv6 Address	IPv6 Link Local Address	Name
	V	T T	V	۷	
Move to Device-List	00:C0:29:29:3A:43	192.168.13.18	:	:	TEST_1
Move to Device-List	00:C0:29:26:5B:6E	192.168.13.16		:	ASC Tes

Due to the fact that devices are not stored locally you can decide whether to move a discovered device to the database or to the database and to the currently opened device list on client side at once. Note, that no device can be moved to any device list without being stored in the database. Also every device can exists only once in the database and device list. However, a device still can be added to multiple device lists.

Basic Configurator	Move to Database	Move to Database and Device-List	Active MAC Address 🕅	IPv4 Address T	IPv6 Address 🛛 页	IPv6 Link Local Address 🏹	Name	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:28:01:CA	10.242.2.94	:	:	NEXANS-00C029	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:25:A7:9B	10.242.2.87	:	:	NEXANS-00C029	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:28:D0:80	10.242.2.86	Not supported by FW	Not supported by FW	NEXANS-00C029	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:25:A4:45	10.242.2.85	:	:	NEXANS-00C029	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:28:00:6B	10.242.2.75	:	:	NEXANS-00C02	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:25:A7:F0	10.242.2.67	:	:	NEXANS-00C02	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:25:A9:23	10.242.2.60	:	:	NEXANS-00C02	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:25:B0:93	10.242.2.59	:	:	NEXANS-00C02	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:25:A9:32	10.242.2.57	:	:	NEXANS-00C02	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:23:58:17	10.242.2.50	Not supported by FW	Not supported by FW	KKM ANS Versa	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:25:4E:5F	10.242.2.41	:	:	Raum-402-KKM	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:22:52:60	10.242.2.34	:	:	KKM-Run-In	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:25:A4:65	10.242.2.30	:	:	NEXANS-00C02	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:23:96:51	10.242.2.3	Not supported by FW	Not supported by FW	NEXANS-00C02	
Basic Configuration	Move to Database	Move to Database and Device-List	00:C0:29:25:AA:D7	10.242.2.234	:	:	NEXANS-00C02	
n't discover Devices already in Device-List Discovered De								

LANactive Manager

												_
N	Database Manager	ment										-
:			l 🛛 🎗									
D	rag a column header and	I drop it here to group by that co	olumn									
M	ove to Device-List	Active MAC Address 🕅	IPv4 Address 🕅	IPv6 Address 🕅	IPv6 Link Local Address 🕅	Name T	Location T	Description 🕅	Туре 🕅	Mgmt FW T	Mgmt HW 🝸	•
N	love to Device-List	00:C0:29:0A:BE:20	192.168.13.26	2000:2000:13::26	fe80::2c0:29ff:fe0a:be20	ASC_Test_HW3_P16	Room P1.411	iGigaSwitch 1604 E+ SFP-4VI PRO3	40	HW3-F30-P16-INDUSTRIAL-V5.03hd	3	U.
N	love to Device-List	00:C0:29:25:D0:BB	192.168.13.20	2000:2000:13::20	fe80::2c0:29ff:fe25:d0bb	ASC_Test_HW3_P10	Room P1.411	iSwitch G 1043E+ SFP-3VI PRO3	36	HW3-F22-P10-INDUSTRIAL-V5.03he	3	U.
N	love to Device-List	00:C0:29:29:3A:43	192.168.13.17	:	:	ASC_Test_HW5_P07	Room P1.411	GigaSwitch V5 SFP-2VI 54VDC	74	HW5-F40-P07-OFFICE-V6.01bs	5	1
N	love to Device-List	00:C0:29:26:3D:E1:MC	192.168.13.16	2000:2000:13::16	fe80::2c0:29ff:fe26:3de1	ASC_Test_HW3_P06_Cabel_Canal	Room P1.411	GigaSwitch V3 TP SFP-I 48V ES3	62	HW3-F21-P06-OFFICE-V6.01bn	3	l.
N	love to Device-List	00:C0:29:28:D1:04	192.168.13.15	2000:2000:13::15	fe80::2c0:29ff:fe28:d104	ASC_Test_HW3_P06_Desk	Room P1.411	GigaSwitch 641 Desk SFP-I ES3	70	HW3-F21-P06-OFFICE-V5.03he	3	4
N	love to Device-List	00:C0:29:26:1E:C2	192.168.5.17	2000:2000:1::17	fe80::2c0:29ff:fe26:1ec2	AWR 10-Port Switch Linux	AWR Buero	iGigaSwitch 1002 E+ SFP-2VI PRO4	85	HW5-F46-P10-INDUSTRIAL-V6.01cr	5	
	love to Device-List	00:C0:29:29:68:D6	192.168.0.97	2000:2000:1::97	fe80::2c0:29ff:fe29:68d6	Rack_HW5_P07	Rack	GigaSwitch V5 TP SFP-VI 54VDC	73	HW5-F40-P07-OFFICE-V6.01bs	5	
	love to Device-List	00:C0:29:29:68:CF	192.168.0.96	2000:2000:1::96	fe80::2c0:29ff:fe29:68cf	Rack_HW5_P07	Rack	GigaSwitch V5 TP SFP-VI 54VDC	73	HW5-F40-P07-OFFICE-V6.01bs	5	
	love to Device-List	00:C0:29:26:5D:86	192.168.0.95	2000:2000:1::95	fe80::2c0:29ff:fe26:5d86	Rack_HW5_P07	Rack	GigaSwitch V5 TP(PSE+) SFP-2VI 54VDC	72	HW5-F40-P07-OFFICE-V6.01bs	5	
	love to Device-List	00:C0:29:26:5D:8E	192.168.0.94	2000:2000:1::94	fe80::2c0:29ff:fe26:5d8e	Rack_HW5_P07	Rack	GigaSwitch V5 TP(PSE+) SFP-2VI 54VDC	72	HW5-F40-P07-OFFICE-V6.01bs	5	
	love to Device-List	00:C0:29:26:5D:81	192.168.0.93	2000:2000:1::93	fe80::2c0:29ff:fe26:5d81	Rack_HW5_P07	Rack	GigaSwitch V5 TP(PSE+) SFP-2VI 54VDC	72	HW5-F40-P07-OFFICE-V6.01bs	5	
	love to Device-List	00:C0:29:29:68:B4	192.168.0.92	2000:2000:1::92	fe80::2c0:29ff:fe29:68b4	Rack_HW5_P07	Rack	GigaSwitch V5 TP SFP-VI 54VDC	73	HW5-F40-P07-OFFICE-V6.01bs	5	
	love to Device-List	00:C0:29:26:5D:87	192.168.0.91	2000:2000:1::91	fe80::2c0:29ff:fe26:5d87	Rack_HW5_P07	Rack	GigaSwitch V5 TP(PSE+) SFP-2VI 54VDC	72	HW5-F40-P07-OFFICE-V6.01bs	5	
	love to Device-List	00:C0:29:29:68:AD	192.168.0.90	2000:2000:1::90	fe80::2c0:29ff:fe29:68ad	Rack_HW5_P07	Rack	GigaSwitch V5 TP SFP-VI 54VDC	73	HW5-F40-P07-OFFICE-V6.01bs	5	
	love to Device-List	00:C0:29:25:AA:D7	10.242.2.234	8	:	NEXANS-00C02925AAD7	not defined	GigaSwitch V3 TP SFP-I 48/54VDC ES3	62	HW3/ENHANCED/SECURITY/V4.14U	3	
	love to Device-List	00:C0:29:25:AC:5A	10.242.2.232	8	:	NEXANS-00C02925AC5A	not defined	GigaSwitch V3 TP SFP-I 48/54VDC ES3	62	HW3/ENHANCED/SECURITY/V4.14U	3	
	love to Device-List	00:C0:29:25:A8:1C	10.242.2.223	8	:	NEXANS-00C02925A81C	not defined	GigaSwitch V3 TP SFP-I 48/54VDC ES3	62	HW3/ENHANCED/SECURITY/V4.14U	3	
	love to Device-List	00:C0:29:28:0A:89	10.242.2.222	:	:	NEXANS-00C029280A89	not defined	GigaSwitch V3 TP SFP-I 48/54VDC ES3	62	HW3/ENHANCED/SECURITY/V4.14U	3	1
	love to Device-List	00:C0:29:25:B0:8E	10.242.2.221	:	:	NEXANS-00C02925B08E	not defined	GigaSwitch V3 TP SFP-I 48/54VDC ES3	62	HW3/ENHANCED/SECURITY/V4.14U	3	
	love to Device-List	00:C0:29:25:A4:E5	10.242.2.220	8	:	NEXANS-00C02925A4E5	not defined	GigaSwitch V3 TP SFP-I 48/54VDC ES3	62	HW3/ENHANCED/SECURITY/V4.14U	3	
	love to Device-List	00:C0:29:25:A7:79	10.242.2.219	8	:	NEXANS-00C02925A779	not defined	GigaSwitch V3 TP SFP-I 48/54VDC ES3	62	HW3/ENHANCED/SECURITY/V4.14U	3	
	love to Device-List	00:C0:29:25:B0:79	10.242.2.208	:	:	NEXANS-00C02925B079	not defined	GigaSwitch V3 TP SFP-I 48/54VDC ES3	62	HW3/ENHANCED/SECURITY/V4.14U	3	1
	love to Device-List	00:C0:29:28:03:F2	10.242.2.207	8	:	NEXANS-00C0292803F2	not defined	GigaSwitch V3 TP SFP-I 48/54VDC ES3	62	HW3/ENHANCED/SECURITY/V4.14U	3	
	love to Device-List	00:C0:29:26:13:2E	10.242.2.203	8	:	NEXANS-00C02926132E	not defined	GigaSwitch V3 TP SFP-I 230VAC ES3	62	HW3/ENHANCED/SECURITY/V4.10C	3	÷
											+	

11.5. User Management in Client/Controller-Version

11.5.1. Create a new user

To create, modify or delete a user, open the <u>User-Management</u> by clicking on the shortcut or using the <u>Edit</u> menu. You must be logged in as an administrator to do so.

N Device-List - NEXMAN Cli	ent
File Edit Remove	Templates Inventory Logfile Help
🗹 🗖 🔚 📑 松 🔎	👂 🔍 🐨 🐨
Device-List	😣 🛛 Device-List 🔹 Log Messages
My_Test_Net	

Click on the Add User button to create a new user.

Ń	User Managem	ent						_		\times
2	>									
Dra	ig a column header a	nd drop it here to g	roup by that column							
	Actions	State	First Name 🕅	Last Name 🕅	Username 🕅	Date Create 🟹	Created By 🕅	Last Login	Role Te	mpl 🟹
>	🎐 💡 🤱	- 🎗	Administrator	Administrator	admin	10/12/2021 11	system	12/1/2021 1:	3: Admin	

Enter the user's credentials and assign the Role Template.

🕂 Add User			×
First name:	New]
Last name:	User]
Username:	Testuser]
Password:		•••••]
Confirm Passw	vord:	•••••]
Role Template	:	Admin 🔹]
		Save Cancel	

To add or modify a new Role Template click on the <u>Edit Role Templates</u> button.

Ņ	User Managem	ent									
2)										
Dra	ag a column header a	ind drop it here to g	roup by that column								
-	Actions	State	First Name 🕅	Last Name 🕅	Username 🕅	Date Creat 🕅	Created By 🟹	Last Login	T	Role Templ	T
>	🎐 루 🤱	- 🎗	Administrator	Administrator	admin	10/12/2021 11	system	12/1/2021	1:3	Admin	

Click Add new Role Template to create a new one.

N	Role Template N	Management						×
G								
Dra	g a column header a	and drop it here to group by that o	olumn					
	Actions	Name 🕅	Date Created 🛛 🦷	Created By	Roles 🕅	Ports		A
>	i 🖉 🙀	Admin	10/12/2021 11:58:24 AM	system	Administrator	0, 1, 2, 3, 4	4, 5, 6, 7, 8), 9, 1C

Choose an name and the roles this template should contain. Read more about roles in chapter 12.5.2 User roles.

Afterwards assign any device list the user should be allowed to work with.

N Add Template				×
Name:	NewTemplate			
Roles:	Available Roles	_	Assigned Roles	
	Administrator		User	
		>		
		<		
Device-Lists:	Available Device-Lists	_	Assigned Device-Lists	_
	New Devices [system]		New Switch List	
		>		
		<		
Device-Editor Pages:	Available Device-Editor Pages	7	Assigned Device-Editor Pages	_
	TACACS+ Authorization		MRP	•
	TACACS+ Accouting	>	HSR / PRP / Zeroloss	
	ACL		DHCP Relay / Snooping	
	Scripting	<	Zero Touch Configuration	
	RADIUS CoA		TACACS+ Authentication	,
Accessible Ports:	Available Ports	7	Assigned Ports	_
	Port 0 (MGMT)		Port 1	
		>	Port 2	-
			Port 3	
		<	Port 4	
			Port 5	
	Save	Cancel		

Also, you must assign the Device-Editor pages the user should be able to edit. Click <u>Save</u> to accept your changes.

At least assign the ports the user should be able to configure. Unassigned ports will not be visible to the user in the Device-Editor.

The administrator is allowed to modify every user. He is also allowed to delete every user except his own.

Additionally, the administrator can change any user's password.

There are no restrictions on Device-Editor pages or ports to administrator users, even if none are assigned to that user.

11.5.2. User roles

There are two different user roles which can be assigned to a user:

- Administrator: Has full access to the user- and database-management. Can add, modify and delete device lists. Can edit all taps of the device editor.
- User: Configure all devices that are included in the device lists, assigned to this user. Editable Device Editor pages must be assigned.

11.5.3. User Access Rights

To be able to edit device parameter the user must have access to the corresponding page in the Device Editor. The pages have to be assigned to the user by the administrator inside the Edit User window.

Device-Editor Pages:	Available Device-Editor Pages]	Assigned Device-Editor Pages			
	IPv4 / IPv6 Setup		Global + Link State	•		
	Agent		MAC + Security State	=		
	Local Accounts		PoE State			
		>	Input / Output State			
			Radius State			
			Device Info			
			Port Setup			
			Access Global	-		_
4	L	1			•	Ť
	Save	Cance	1			

The user has read only access to any unassigned Device-Editor page.

The accessible ports have to be assigned to the user, too. Every unassigned port is not visible to the user and thereby cannot be edited.

Accessible Ports:	Available Ports		Assigned Ports	
	Port 0 (MGMT)		Port 1	^
			Port 2	=
			Port 3	
		<	Port 4	
			Port 5	-

11.6. Import Device-List from Stand-Alone version into Controller

database

To import a Device-List stored as XML file to the database click on **Import Device-List into database** shortcut or use the **<u>File</u>** menu.

N Device-List - NEXMAN Client										
File	Edit	Remove	Templates	Inventory	Logfile	Help				
i 🗹 🗆] 🞽	12 🏂	. 🗊 🕷 🤇	8						
Device-Li	ist				\$	Device-List				
My_Tes	t_Net			- ᡖ 🦫	•					

Choose the file to be imported. A new device list will be created named after the file name and every category and device will be added. If a device is unknown, it will be added to the database, too.

11.7. Export Device-List from Controller database to Stand-Alone

version

To export a Device-List from the Controller database to a XML file that can be opened with the Stand-Alone version click on <u>Save Device-List as XML</u>.

N Devie	e-List -	NEXMAN CI	ient			
File	Edit	Remove	Templates	Inventory	Logfile	Help
		🖻 🖄 👂) 🔒 🝔 📮	8 🖉 🖌		
Device-Li	st			\$	Device-List	Log Messag
My_Tes	t_Net		-			

After choosing a file name the selected Device-List will be saved as XML file and can be opened by the Stand-Alone version.

11.8. Searching for MAC Addresses

N Device-List - NEXMAN Client												
File Edit Remove	Templates Inven	tory Logfile	Help									
i 🖸 🗖 🔛 🖼 🎽 🖊	🏂 🚉 🐺 🔻	8										
Device-List	Ŕ	Device-Lis	st Log Me	essages								
My_Test_Net												
Devices	- •											

With clicking <u>Search MAC Address in current Device-List</u> one or more MAC Addresses can be searched inside the neighbor tables of the devices inside the current Device-List.

When successful, a message box shows on which device and port the MAC Address can be found.



11.9. Firmware Update for Devices with Firmware V1.xx / V2.xx

If an older firmware version 1.xx or 2.xx is installed in the device, the first step is to update the firmware. **Note:**

Devices with firmware version V1.xx or V2.xx are displayed in the LANactive Manager Device-List as an

Unknown Device, because firmware V1.xx and V2.xx does not deliver a status information. For this reason,

in the Alarms column the device is additionally defined as **<u>Ping Only</u>**.

Important note:

We <u>urgently</u> recommend reading the Management Module and Firmware Versions chapter in the Nexans Switch Management manual and in particular the included remarks on the different firmware images prior to performing a firmware update.

To start the update the devices must be selected in the <u>Check</u> column and the menu option <u>Edit > Update</u> <u>Firmware of checked Devices</u> selected:

N Device-L	ist - NEXMAN [Default]
File Edit	Add/Remove Templates Inventory Logfile Help
i 🖸 🗆	Uncheck all Devices
Devic 🗹	Check all Devices
	Read Config of checked Devices into Database
	Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default)
	Read CLI-Config of checked Devices into Database (with all parameters)
	Read Local Logging messages of checked Devices into Database (via SCP)
	Read Config of checked Devices into Database simultaneously
	Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default) simultaneously
	Read CLI-Config of checked Devices into Database (with all parameters) simultaneously
	Read Local Logging messages of checked Devices into Database (via SCP) simultaneously
	Stop simultaneous reading
	Open Basic Configurator (Local Mode)
	Acknowledge changes of checked Devices
	Reset statistic counters of checked Devices
	Update Firmware of checked Devices
	Update Firmware of checked Devices scheduled by Manager
	Update Firmware of checked Devices scheduled by Device time client

After selecting the appropriate firmware file the device is automatically updated.

Important:

All device settings entered in firmware V1.xx or V2.xx will be retained during the update.

11.10. Starting the Device Editor and Configuring the Device

A double-click on the device in the device list will start the device editor.

Alternatively, this can also be done by right-clicking onto the device and subsequently selecting the **Open Device-Editor from Device** menu option:

N De	V Device-List - NEXMAN [Default]																		
File	File Edit Add/Remove Templates Inventory Logfile Help																		
	🗹 🗆 🖌 🖉 🗋 🖳 🤹 🖕 (秋) 🕷 🥱																		
Devic	e-List 🖗	Dev	ice-List																
	All Devices [18]	F										Drag	a column her	e to aro	up by this column.				
	Unassigned Devices [18]	Check	Doution	Alarma	Poduodana	DeE	Power Consumption PoE	Input Voltage RoE		Active MAC Address	Nam	Logation	Description	Tupo	Mamt Firmurara Vara	Mant Harduara Vara	Voice M AN	Dof M AN	1.
	Categories	CHECK	Device	Aidillis	Reduitdancy	FOE	Fower Consumption Foe	Input voltage FOE	II V4 Address	Active MAC Addres	SINGIN	Location	Description	Type	Mgint Filliware vers.	mgnit Hardware vers.	VOICE VLAIN	Del. VLAN	ľ
4	🎽 Building A [- - -]		J	7 8	8	8	8	V	8	٢	7 5	8	V	8	8	8	A	A	
	🔺 🚞 Floor 0 [- - -]		Switch	0	Disabled	Po_	64	54	192.168.0.3	00:C0:29:29:3A:43	00	an Device.	Editor from I	Device	UNE 540 007 0551	F 40			0
	🛅 Room 001 [- - -]	Room 001[- - -] Switch 0 0 Port(s) bL No. 0 0 192.168.0.4 00:C0.2925.D0.BB Content vertee										0							
	🚞 Room 002 [- -] -]		Switch	0	0 Port(s) bl	No	0	0	192.168.0.5	00:C0:29:0B:3A:E0	Op	en Device-	aitor from I	Jatabas	e				0
	4 📴 Floor 1 [- - -]		Switch	0	Disabled	Po_	0	47	192.168.0.70	00:C0:29:24:F5:51	Ор	en WEB Bro	owser						0

The editor first verifies the name and password in the Authentication dialog box for accessing the device (factory default is "admin" and "nexans"):

Authentication - NEXMAN									
Please enter Name and Password for Admin or User Account.									
Name:									
Password:									
Read	Cancel								

NOTE:

If the **Manager authentication mode** is set to **none** in the device, the name and password need not be entered, because the device will not perform any authentication. However, in this case a warning message is displayed in the log window informing the user on the unsecure setting of the device:

Log Messages - NEXMAN
READING Config from Device INEXANS-00C029293443[[192.168.0.3] Authenticating User via UDP SECURITY WARNING (Name/Password ignored because 'Manager authentication mode' is set to 'None') Reading Config via TFTP: ok Verify Config: ok Success
Cancel Close Close this dialog box automatically if action has finished without any warning or failure

If name and password are correctly entered, the device editor state page is displayed:

00C029293A43[[192.168	10.3													
[Quit] [Read Config	from Device] [Write	Config to Device} Show	Configure Database T	emplate										
	Gobal+Lrik State													
al+Link State - Security State Itate	Refresh interval (sec	ords) 1 Manual	d Rahmah ()	in TP Parts TP-	Head Position.	Local Log	Show Entries. At 5							
xs State	Port Link State	10									111		100	100
ło	No Description	Name	Power	Link	Unk	Link/SEP	Time since last link change	Error	Security	Default	Voice	Active Trunking	Flow	Redundancy
0	and the second second	and the second s	Setup .	24940	State	Adarm State	District Association and Association and a	Courses	State	VLAN	VLAN	Mode	State	State
1 (TQ. 41	0 MGMT			1										
2 (19-2)	1 TP-1	chone>	Auto (02.3et High-Power	Autoneg.	1000 F DX	No alarm	0 days 01 hours 18 min 24 sec	0	Disabled	1	Disabled	Disabled	Disabled	Disabled
3 (TP-3)	2 19-2	(none>	Auto RU2 Set High-Power	Autoneg	100 F DX	No alarm	0 days 100 hours 40 man 10 sec	0	Disabled	1	Disabled	Clisabled	Dissbled	Disabled
4 (T/P-4)	3 19-3	Chones	Auto 807 Set High-Power	Autoneg.	1000 / 100	No alarm	0 days 00 hours 36 min 15 sec		Disabled	-	Disabled	Dissoled	Dissbied	Disabled
5 (SPP-5)	5 000	Children of the second	HERE BUT THE HERE LOWNE	Autoreg	TO LOD	No alarm	No change since test record	0	Disabled		Disabled	Deabled	Disabled	Cisable d
6 (579-6)	c ccn.c	(Inter-		Anneg.	and the second second	No alarm	No change since last rebot	0	Dashiet		Disabled	Cashiel	Disabled	Disabled
nent	in Such	0.046		Hotoreg.	1001000	NO BRIT	two change since last report.	v.	Craistered.	4	PA380460	Protoked	C-930-60	Creatives.
a 8061850 er 1 Setup	Gobal State													
is IEC61250 er I Setup I Table / toon / CoS	Global State Temperature (°C) Uptime	internal Voltage O days (03 hours ; 35 min	11 (V) 2456 Internal 44 sec. Time from time serv	Voltage 2 (V)	201 PuE In ed	put Voltage (V): 24 Total Boots: 174								
si IEC61350 er I Setup I Table f ton / CoS s Destinations	Global State Temperature (*C) Uptime Active MAC Address	23 Internal Voltage 0 days (03 hours (18 min ; 00 C0 29 29 34 43	e 1 (V) 2436 internal 44 sec Time from time serv Memory Card	Voltage 2 (V) er: Time Clent duabl None inseted	205 PoE in ed	put Voltage (V) <mark>94</mark> Total Boots: 174								
er I Setup 1 Table 6 bon / CoS el Destinations al Alarms	Global State Temperature (°C) Uptime Active MAC Address Function Input State	0 Internal Voltage 0 days: 03 hours: 39 min ; 00 C0 29 29 34-43	n T (V) 2456 Internal 44 sec Time from time serv Memory Card	Voltage 2 (V) er: Time Clent disable None inseted	1205 P oE In Ind	put Voltage (V) 54 Total Boots: 174	-							
is IEC62350 er I Setup T Toble 6 bon / CoS In Destinations In Destinations In Partia	Global State Temperature (°C) Upsime Active MAC Address Function Input.	D days (03 hours : 33 min : O days (03 hours : 33 min : O door 25 25 3A 43	e 1 (V) 2455 Internal 44 sec. Time from time serv Memory Card Function legal N	Voltage 2 (V)	206 PuE In Ind	put Voltage (V) 54 Total Boots: 174								
is IEC62850 er I Setup I Table I Table I Destinations al Alarms I Paputa I arms	Global State Temperature (°C) Ustime Active MAC Address Function Input State Function Input	D Internal Voltage O days: 03 hours: 33 min : 00 co 2 2 2 9 3 4 43 Open	e 1 (c) 2.0% Internal 44 acc Time Iron Sero Memory Card Function Input N	Voltage 2 (V) er Time Clert disable None inserted	1256 PuE In Ind d	put Voltage (V): <mark>24</mark> Totel Boots: 174								
is IEC62350 rr 1 Setup 1 Table 1 Table 1 Destinations al Alarma 1 Pouta airma airma 1 Setup	Global State Temperature (°C) Uptime Active MAC Address Function Input Function Input	20 Internal Voltage 8 days: 03/sours: 23 min 9 00:02:29:34:43 Open	r T (r) 25% Internal 44 anc Time Hom Sine sen Memory Cará Function Input N	Voltage 2 (V) er: Time Clevit disable Norie insetted lame. not defined	226 PuE In ed	put Voltage (V): 🛃 Total Boots: 174								
is IEC61350 er ISenuo ISenuo ISenuo toun / CoS is Destinations al Alarma Arma Arma Ito Senuo US Giona) Aum	Global State Temperature (°C) Uptime Active Mick Address Function Input	Internal Voltage Odayn 03 hours 39 nm Occ0 29 29 3A 43 Open	n 1 (r) 2005 Internal 44 acc Time from Sime som Memory Cand Function Input N	Voltage 2 (V) er Time Clarit daable None insetted Ianne. not defined	206 PuE In ed	put Voltage (V): <mark>54</mark> Total Book: 174								
In ECG2850 rr Softwar Table / Softwar Softwar Softwar In Cofs In Co	Global State Temperature (*C) Uppine Active MAC Address Function Houd State Function Houd	Internal Voltage 0 days (3) hours 0 days (3) hours 0 000222233443 (3) Open (3)	e T (V) 2006 Internal 44 sec Time Hom Sine ser- Memory Card Function Input N	Voltage 2 (V)	e Rođen Rođe	put Voltage (V): <mark>34</mark> Total Boota: 174								
IN ECCESSO IS SENDO Table Moni, / CoS In Destimators In Destimators In Destimators In Destimators In Senso Ity S	Global State Temperature (°C) Uptime Active MIC Address Function Hout State Function Hout	Billion Stream Voltage Billion Stream Stream 1 00:02:22:23:34:43 Open	e 1 (1) 2455 Interna 44 aac Time how time sam Memory Card Function Input N	Voltage 2 (V) er Time Clert disable None insetted Isane. not defined	236 PuE In ed	put Voltage (V): <mark>54</mark> Total Boots: 174								
IN ECCLISIO T Software to A / COS In Derstrundores Anterna Anterna Anterna Software Anterna Software Soft	Global State Temperature (°C) Uglime Active MAC Address Function Hput State Function Hput	Desma Volape Bars Dhwar, Shim 100022293443 Open	1 (r) 200 Internal 44 arc Time from Same Memory Card Function Input N	Voltage 2 (V)	PuE In Ind	put Voltage (V): <mark>34</mark> Total Boola, 174								
H BCGLIBD Schup = Schup = Traieit / Tooleit / Schup = / Schup =	Global State Temperature (°C) Upsine Active MAC Address Function Hout State Function Hout	Diesenal Voltage Ordens Olihours Brein 9 00:02:32:334-43 Open	e 1 (0) 2455 Internal 44 aac Time kom Sine sam Memory Card Function Input N	Voltage 2 (V) er Time Clert disable None reseted Iame. not defined	2016 PuE In ed	put Voltage (V): <mark>54</mark> Total Boots: 174								
H ECGIBBO T Software So	Gebal Sate Temperature (°C) Uglime Active MAC Address Function Input Function Input	Dennal Waage 8 days (3) huun, 33 min 8 00022293443 Open	11 (r) 200 Internal 44 arc Time from Sime sam Memory Card Function Hypel N	Voltage 2 (V)	u <mark>zon P</mark> uEin Ind	put Voltage (V): Sa Total Books 174								
H BCGLBDO Troiter Softwar Traiter Traiter Cono / C65 Destinations at Alarma at Alarma at Alarma di Sanouting US Annouting 2023X X H H Strap	Global State Temperature (°C) Uglime Active MICA Address Function Houd State Function Houd State	Dieneral Voltage Ordens Olihours Streen 9 0000232334-03 Open	e 1 (r) 2405 Internation 44 aan Time from Sime aan Mennory Carill Function Ingel N	Voltage 2 (/) er: Tier Charl Nore insetted	ed Puë In	put Voltage (V): <mark>54</mark> Total Boots: 174								
H BCG1850 rr John John John John John John John John	Gebal Sate Temperature (°C) Uglime Active MAC Address Function Input Sate Function Input	Distored Voltage Didge Oltawa Steen DIC22293443	1 (n) 200 Internal 44 are: Time from size sam Memory Card Function level N	Voltage 2 (V)	22 PuE in nd	put Voltage (V): <mark>5-2</mark> Total Boots 174								
H BCGLEBD F Senup Table Ta	Gibbl State Temperature (°C) Ugline Active MICA Address Function Input. State Function Input.	Die Internal Voltage Ordens Olihours Brein 0000232934-03 Open	e 1 (0) Z455 Internal 44 aac Time kom Sine aan Menory Caril Function Input N	Voltage 2 (r) .	820 PuE in ed	put Voltage (*) 🔀 Total Bools: 174								
H BCGLIBD rr Schup Schup Table r Schup	Gobal State Temperature (°C) Ugine Active MAC Address Function Input State Function Input	Den Stend Volage Odge Olavor 35er 2002223443	1 (10) 200 Internal 44 are: Time from size airo Memory Card Function legal N	Voltage 2 (r).	220 Put In Hel	put Voltage (V) 💆 Total Bools: 174								
H BCGLEBD rr Senue Trace Trace ro A Cods a Destandors A Cods a Destandors A Cods a Destandors A Cods a Co	Gibbl State Temperature (°C) Ugline Active MICA Address Function Input. Date Function Input.	Contract Voltage Orden Olihours Brein 0000232334-03 Open	e 1 (0) Z455 keterna 44 aac Time kom Sine aan Menory Caril Function Ingel N	Volage 2 (r) 👔	200 Net In He	pat Voltage (V) 21 Tead Bools, 174								
H BCGLIBD rr User Senup = Senup	Gobal State Temperature (°C) Ugine Active MAC Address Function Input Function Input	Den Sternal Voltage Den Oltavor 35 en 00022233443	e 1 (n) 200 Interna 44 ann Memory Card Function Input N	Voltage 2 (r) er: Time Chert dauble Norw reweted lame. not defined	226 Pale In Hel	pul Voltage (Y) 2 Total Boots: 174								
I BECALEDO IF INDE SEMILO TROLE I SEMILO TROLE I SEMILO I Atamas I A	Gibbl State Temperature (°C) Ugline Active MICA Address Function Input. Date Function Input.	Denna Voltage Gdars (3) swar, 33 en r a (00022233443) Open	e T (r) 2006 Internal 44 sec Trace from Same same Memory Card Function light N	Voltage 2 (r) er Tre Glert dør Nore resetted løre: rot døfned	200 Net In He	put Voltage (V) 21 Tead Bools 174								

On the state pages (Tabs "Global+Link State", "MAC+Security State" and "PoE State") always the current state of the device is displayed, independent of whether changes have been made in the other tabs (Agent, Access, Global, ...) and not yet transferred into the device.

Now the configuration settings of the device can be edited via the tabs (in the red box in the above figure) and transferred to the device via the **[Write Config to Device]** menu button.

IMPORTANT:

All changes will be immediately applied by the device without rebooting.

NOTE:

The Management Module manual contains a detailed description of the device editor parameters. This manual can be opened via the help menu <u>Help \rightarrow Manuals \rightarrow Switch Firmware and Parameters</u>. After completion of the configuration you can quit the device editor via the <u>[Exit & Save]</u> menu button. The current configuration is saved in the data base. You can leave the Device Editor without saving the configuration by pressing the <u>[Quit]</u> button:

8	V Device-Editor												
	[NEXANS-00C029293	3A43] [192.168.	.0.3j										
I	[Exit & Save] [Quit]	[Read Config	from	Device]	[Write Co	onfig to Device] Show	Configure Database Te	emplate					
ŀ	✓ State		Glo	obal+Link S	itate								
Ш	Global+Link State	•			17	L Manuel I	-task		TD 11	10.00			
Ш	MAC+Security Sta	ite	II R	etresh inte	erval (secon	nds): I Manual r	Cable Diagnostic a	II IP Ports	TP-Hea	d Position:	Local Log:	Show Entries	•
Ш	PoE State								Horizont	tal	Log entries present	5	
Ш	Radius State			Port Link S	tate								
Ш	Device Info						Power	Link		Link	Link/SEP		
Ш	✓ Port Setup			No Desci	ription	Name	Setup	Setup		State	Alarm State	Time since last	lin
H	Port 0 [MGMT]			0 MGM	Т								-
Ш	Port 1 [TP-1]			1 TP-1		<none></none>	Auto 802.3at High-Power	Autonea.		1000 FDX	No alarm	0 days : 01 hour	rs :
Ш	Port 2 [TP-2]			2 TP-2		<none></none>	Auto 802 3at High-Power	Autonea		100 FDX	No alarm	0 days : 00 hour	5
Ш	Port 3 [TP-3]			3 TP-3		<none></none>	Auto 802.3at High-Power	Autonea.		1000 FDX	No alarm	0 days : 00 hour	s :
Ш	Port 4 [TP-4]			4 TP-4		(none)	Auto 802 3at High-Power	Autonea		no link	No alarm	No change since	e li
	Port 5 [SFP-5]			5 SEP-F	5	<none></none>	in the second	Autonea		no link	No alarm	No change sinc	el
	Port 6 [SFP-6]			6 SEP-6	, ,	(none)		Autoneg.		no link	No alarm	No change sinc	el
L	▲ Management		II P	0 011-0	·	SHOHOS		Autorieg.		nomine	no arafin	no enange anto	-

NOTE:

Configurations already stored in the database will not be overwritten, but shifted to the History database. In

the device editor these can then be loaded into the editor via the **Database > Load Config** menu and written back into the device, if necessary:

[Exit & Save] [Quit] [Read Config 1	rom Device] [Write Config to Device] Show Configure Database Template	
▲ State	Global+Link State Save Config	
Global+Link State	Refresh interval (seconds): 1 Manual Refresh Concerning 15.11.2018 11:42:54 Local Log:	Show
PoE State	15.11.2018 11:42:23 15.11.2018 11:42:23 15.11.2018 11:77.12	present
Radius State	Port Link State	
Device Info		

11.11. Configuration of multiple devices

11.11.1. Reading configuration of multiple devices

It is possible to read the configuration of multiple devices simultaneously. Start this action with <u>Edit > Read</u> <u>Config of checked Devices into Database simultaneously</u>.

V Dev	/ice-Li	st - NEXMAN [Default]		
File	Edit	Add/Remove Templates Inventory Logfile Help		
🖸 🛛		Uncheck all Devices	1	
Devio		Check all Devices		
		Read Config of checked Devices into Database		
		Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default)	age PoF	
		Read CLI-Config of checked Devices into Database (with all parameters)		II VY AUGI
4		Read Local Logging messages of checked Devices into Database (via SCP)	V	100 100 0 0
		Read Config of checked Devices into Database simultaneously		192.168.0.3
		Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default) simultaneously $^{ m b3}$		192.168.0.4
		Read CLI-Config of checked Devices into Database (with all parameters) simultaneously		192.168.0.0
		Read Local Logging messages of checked Devices into Database (via SCP) simultaneously		192.100.0.7
		Stop simultaneous reading		192.168.0.7
		Open Basic Configurator (Local Mode)		192 168 0 7
		Acknowledge changes of checked Devices		192,168.0.7
		Reset statistic counters of checked Devices		192.168.0.7
		Update Firmware of checked Devices		192.168.0.7
		Update Firmware of checked Devices scheduled by Manager		192.168.0.7
		Update Firmware of checked Devices scheduled by Device time client		192.168.0.8
		Update Firmware of checked Devices simultaneously		192.168.0.8
		Stop simultaneous Firmware Update		192.168.0.8
		Clear Firmware Update Column of checked Devices		192.168.0.8
		Enable Scheduled Configuration Download		192.168.0.8
		Disable Scheduled Configuration Download		192.168.0.8
	8	Clear custom filters		192.168.0.2
	3	Disable custom filters		
		Preferences		
	-		1	

Next, enter the user credentials and the maximum number of simultaneous devices.

Authentication - NEXMAN	
Please enter Name and Pass Account.	word for Admin or User
Admin Account	
Admin Name:	admin
Admin Password:	*****
Maximum number of simultar	neous devices
10 (1100)) [10]
Start Reading	Cancel

After clicking start, a new column "File Transfer" will become visible, showing the progress of each device.

N Device-List - NEXMAN [Default]	M Device-List - NEXMAN [Default]							
File Edit Add/Remove Templa	tes Inven	tory Logfile Help						
i 🗹 🔲 🛃 💕 🗋 🖳 🖳 🕂	× 🛛 🖏	7						
Device-List 🖇	Devic	e-List						
All Devices [18]	F							
Unassigned Devices [2]	Charle	Eile Terrefer	Device	A1	Deductor			
Categories	Спеск	File Transfer	Device	Alarms	Redundancy			
▲ i Building A [- 11 -]		V	V	T	V			
⊿ 🛅 Floor 0 [2 7 -]		Data saved: 15.11.2018 15:23:21	Switch	0	0 Port(s) blocking			
🚞 Room 001 [2 - -]		Data saved: 15.11.2018 15:23:30	Switch	0	0 Port(s) blocking			
Room 002 [3 - -]		Data saved: 15.11.2018 15:23:46	Switch	0	0 Port(s) blocking			
A FIOOT 1 [- 4 -]		Data saved: 15.11.2018 15:23:46	Switch	0	Disabled			
Boom 104 [2 - -]		Data saved: 15.11.2018 15:23:42	Switch	0	Disabled			
▲ i Building B [- 5 -]		Data saved: 15.11.2018 15:23:37	Switch	0	Disabled			
⊿ 🛅 Floor 0 [1 2 -]		Data saved: 15.11.2018 15:23:43	Switch	0	Disabled			
New Category [1]		Data saved: 15.11.2018 15:23:34	Switch	0	Disabled			
A Floor 1 [1 -] -]		Data saved: 15.11.2018 15:23:39	Switch	0	Disabled			
▲ Ploor 2 [1 2 -]		Data saved: 15.11.2018 15:23:37	Switch	0	Disabled			
📴 New Category [1		Data saved: 15.11.2018 15:23:45	Switch	0	Disabled			
		Data saved: 15.11.2018 15:23:38	Switch	0	Disabled			
		Data saved: 15.11.2018 15:23:38	Switch	0	Disabled			
		Data saved: 15.11.2018 15:23:36	Switch	0	Disabled			
		Data saved: 15.11.2018 15:23:36	Switch	0	Disabled			
		Data saved: 15.11.2018 15:23:36	Switch	0	Disabled			
		Data saved: 15.11.2018 15:23:36	Switch	0	Disabled			
		Data saved: 15.11.2018 15:23:43	Switch	0	Disabled			

11.11.2. Enable Scheduled Configuration Download

If you want to read the configuration of your devices frequently, you can set up a time via the <u>Edit ></u> <u>Preferences</u> menu and navigate to the page "Global".

N Preferences - NEXMAN		×
Global	Global	
Device-Editor Access Folder	Save window sizes:	Restore default sizes
	Save Device-Editor docking state:	
	Number of retries for simultaneous reading/writing actions	3 (110)
	Timeout for reading or writing Config (seconds)	30 (30120)
	Timeout for writing Firmware (minutes)	3 (310)
	Timeout for status polling (seconds):	1 (110)
	Don't save Config to Database:	Delete Database
	Maximum number of database history entries:	10 (0100)
	Menu language:	English
	NEXMAN Theme	Manager Silver (Default)
	Scheduled Configuration Download Time:	0 🛫 : 0 🛫 (HH:MM)
	Save Cancel	ai

N Dev	/ice-Lis	t - NEXMAN [Default]			
File	Edit	Add/Remove Templates Inventory Logfile Help	_		
		Uncheck all Devices			
Devic		Check all Devices			
		Read Config of checked Devices into Database			
		Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default)	evice	Alarms	Red
		Read CLI-Config of checked Devices into Database (with all parameters)			- Hou
4	1	Read Local Logging messages of checked Devices into Database (via SCP)	V	V	0.0.1/
		Read Config of checked Devices into Database simultaneously	witch	0	0 Port(s
		Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default) simultaneously	witch	0	0 Port(s
		Read CLI-Config of checked Devices into Database (with all parameters) simultaneously	witch	0	Direction
		Read Local Logging messages of checked Devices into Database (via SCP) simultaneously	witch	0	Disable
		Stop simultaneous reading	witch	0	Disable
1		Open Basic Configurator (Local Mode)	witch	0	Disable
		Acknowledge changes of checked Devices	witch	0	Disable
		Reset statistic counters of checked Devices	witch	0	Disable
		Update Firmware of checked Devices	witch	0	Disable
		Update Firmware of checked Devices scheduled by Manager	witch	0	Disable
		Update Firmware of checked Devices scheduled by Device time client	witch	0	Disable
		Update Firmware of checked Devices simultaneously	witch	0	Disable
		Stop simultaneous Firmware Update	witch	0	Disable
		Clear Firmware Update Column of checked Devices	witch	0	Disable
		Enable Scheduled Configuration Download	witch	0	Disable
		Disable Scheduled Configuration Download	witch	0	Disable
	8	Clear custom filters	witch	0	Disable
		Disable custom filters			
		Preferences			
	_				

Via <u>Edit > Enable Scheduled Configuration Download</u> you can start the process. Afterwards the configuration of each device in the current device list will be read into the database at the given time each day. A notification inside the status bar shows whether the scheduled download is activated or not.



11.11.3. Update firmware of multiple devices

To update the firmware of multiple devices simultaneously go to <u>Edit > Update Firmware of checked</u> <u>Devices simultaneously</u>.

N Devi	ce-Lis	t - NEXMAN [Default]			
File	Edit	Add/Remove Templates Inventory Logfile Help	_		
i 🗹 🛛		Uncheck all Devices			
Devio	✓	Check all Devices			
		Read Config of checked Devices into Database	F		
		Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default)		PoF	Power
		Read CLI-Config of checked Devices into Database (with all parameters)			2
4		Read Local Logging messages of checked Devices into Database (via SCP)	V	U	
		Read Config of checked Devices into Database simultaneously	g -	Powered	64
		Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default) simultaneously	g	Not installed	0
		Read CLI-Config of checked Devices into Database (with all parameters) simultaneously	9 	Rowered	0
		Read Local Logging messages of checked Devices into Database (via SCP) simultaneously		Powered	0
		Stop simultaneous reading		Powered	0
		Open Basic Configurator (Local Mode)		Powered	0
		Acknowledge changes of checked Devices		Powered	0
		Reset statistic counters of checked Devices		Powered	0
		Update Firmware of checked Devices		Not installed	0
		Update Firmware of checked Devices scheduled by Manager		Not installed	0
		Update Firmware of checked Devices scheduled by Device time client		Not installed	0
		Update Firmware of checked Devices simultaneously		Powered	0
		Stop simultaneous Firmware Update		Powered	0
		Clear Firmware Update Column of checked Devices		Powered	0
		Enable Scheduled Configuration Download		Powered	0
		Disable Scheduled Configuration Download		Powered	0
	8	Clear custom filters		Not installed	0
		Disable custom filters			
		Preferences			
	-		1		

Select the firmware image you want to use. Afterwards you have to enter the user credentials and the maximum number of simultaneous updates.

If you like, you can set up a scheduler to have the update being processed at a specific time. Thereby the image file will be transferred to the switch and the update will start at the given time.

Since the switch has to reboot to finish the update you can choose whether you want to wait until the switch has rebooted or not. If you do not want to wait, the update process will be marked as finished right after the update file has been transferred to the switch. To ensure that every is able to receive the complet firmware image you should use a star topology. Otherwise a connection might get lost when a switch is rebooting.

Authentication - NEXMA	N				
Please enter Name and Admin Account	Password for Admin Account.				
Admin Name:	admin				
Admin Password:	•••••				
Scheduler					
Update Firmware by	/ Device time client				
Schedule Date: Dor	nnerstag, 15. November 2018 🔲 💌				
Schedule Time: 15					
Maximum number of sim	ultaneous updates				
10 (1	100) [10]				
Update Firmware					
Don't wait for switch reboot					
Start Update	Cancel				

The update process is shown in the "File Transfer" column.



If you have decided to wait until the switch has rebooted, a message is shown while the switch is flashing and rebooting. The flashing process will be also underlined with a blinking check column. While rebooting the switch is marked as "offline".

When the update has finished a status massage is shown in the same column.



11.11.4. Copy Configuration Templates to checked Devices

By clicking on the <u>Templates > Copy Configuration Templates to checked Devices</u> menu you can copy configuration templates like a master configuration to multiple devices simultaneously.

∫ Device-List - NEXMAN [My_Test_net]						
File Edit Add/Remove	Templates Inventory Logfile Help					
i 🖸 🔲 🛃 💕 🗋 🖳 🖻	Edit Master-Config					
Device-List	Copy Master-Config to checked Devices					
All Devices [1] Copy Master-Config to checked Devices scheduled						
Unassigned Devices [1] Copy Master Config and Configuration Templates to checked Devices simultant						
Categories	Categories Stop copying Configuration Templates					
New Category [- -] -]		-v				

Enter the user credentials and select a file to be copied to all checked devices. Change the number of maximum simultaneous actions if needed and click "Copy" to start. The status of each process is shown in the "File Transfer" column.

Copy Configuration Templates -	NEXMAN			
Discourse Name and Descured				
Flease enter Name and Fassword	for Admin Account.			
Admin Account				
Admin Name:]	
Admin Password:]	
Select Configuration Files				
Master Config:	Select	Deselect		
Script File:	Select	Deselect] [Edit
Customer Default CLI Config:	Select	Deselect] [Edit
Customer Reboot CLI Config:	Select	Deselect		Edit
Running CLI Config:	Select	Deselect		Edit
			Copy Running Config with	hout reset to factory default
			Leave empty to keep current	configuration
Maximum number of simultaneou	s updates			
10 (1100) [10]				
	Сору		Cancel	

12. Basic Configurator

12.1. Functional overview

Nexans Basic Configurator is part of LANactive Manager (LANactive Manager).

It provides the basic configuration of the switch and includes the following parameters:

- Switch description (name, location, contact)
- IP parameters (DHCP, IP address, netmask, gateway)
- Trunk uplink parameters (trunk port, mgmt VLAN-ID)

Note: By factory default the switch is set to DHCP and thus can receive its basic configuration directly from a DHCP server. Detailed information on the automatic configuration via BOOTP/DHCP can be found in the Firmware Manual.

The Basic Configurator supports two different operating modes:

MAC Address Mode

The (MAC Address Mode) has been designed for the centralized configuration of the switch parameters within the LANactive Manager 'Autodiscover Devices on local segments (Layer-2)' feature and consequently can only be called from LANactive Manager.

• Local Mode

The (Local Mode) has been designed for the local on-site configuration of the switch parameters. This requires the PC to be directly connected via the network cable with the first Twisted Pair port (TP1) of the switch.

After completion of the basic settings via the Basic Configurator any further configuration can be executed via the Device-List of the LANactive Manager (LANactive Manager).

12.2. Basic Configurator in (MAC Address Mode)

12.2.1. Basic configuration via Autodiscovery (MAC Address Mode)

The (MAC Address Mode) of the Basic Configurator primarily serves to **centrally** configure the switch parameters within the <u>Autodiscover Devices on local segments (Layer-2)</u> LANactive Manager function.

Switches which have been detected using the Autodiscovery feature (also those without an IP address) can be configured in (MAC Address Mode) with their basic parameters from a central location. In this case Basic Configurator is called directly from the Autodiscovery Layer-2 window of LANactive Manager.

Further information can be found in the in chapter 12 Quick Start.

12.2.2. Basic configuration via Device-List (MAC Address Mode)

A switch, which has already been included in the Device List, can later be reconfigured by right-clicking on the corresponding line and selecting the **Open Basic Configurator from Device (MAC Address Mode)** menu option:



12.3. Basic Configurator in (Local Mode)

12.3.1. Functioning Principle (Local Mode)

The (Local Mode) has been designed for the local on-site configuration of the switch parameters. This requires the PC to be directly connected via the network cable with the first Twisted Pair port (TP1) of the switch. And the Admin Name, Admin Password and the VLANs need to be set to Factory Default. Any parameters which are written via the <u>Write Setup to Device</u> button into the switch will be immediately activated. There is no need to subsequently reboot the switch.

If the switch was booted (via the configuration switch) using the fixed IP address 172.23.44.111, the switch will answer to the Basic Configurator (Local Mode) queries on all switch ports (also on the Uplink Port). Booting the switch using a fixed IP address should thus be avoided and is practicable only in exceptional cases (e. g. after modification of the VLAN settings).

12.3.2. Starting the Basic Configurator (Local Mode)

Starting the Basic Configurator in (Local Mode) can be performed in two ways:

Within LANactive Manager through menu <u>Edit > Open Basic Configurator (Local Mode)</u>:

v	V Device-List - NEXMAN [Default]							
F	ile	Edit	Add/Remove Templates Inventory Logfile Help	_				
	0 d		Uncheck all Devices					
C	evio	✓	Check all Devices					
	,		Read Config of checked Devices into Database					
			Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default)	a PoE				
			Read CLI-Config of checked Devices into Database (with all parameters)		T VY Address			
	4		Read Local Logging messages of checked Devices into Database (via SCP)	V	Y			
			Read Config of checked Devices into Database simultaneously		192.168.0.3			
			Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default) simultaneously		192.168.0.4			
			Read CLI-Config of checked Devices into Database (with all parameters) simultaneously		192.168.0.70			
			Read Local Logging messages of checked Devices into Database (via SCP) simultaneously		192.168.0.71			
			Stop simultaneous reading		192.168.0.72			
	⊿ [Open Basic Configurator (Local Mode)		192.168.0.73			
			Acknowledge changes of checked Devices		192.100.0.74			
			Reset statistic counters of checked Devices		192 168 0 78			
			Update Firmware of checked Devices		192 168 0 79			
			Update Firmware of checked Devices scheduled by Manager		192,168,0,80			
			Update Firmware of checked Devices scheduled by Device time client		192.168.0.82			
			Update Firmware of checked Devices simultaneously		192.168.0.83			
			Stop simultaneous Firmware Update		192.168.0.84			
			Clear Firmware Update Column of checked Devices		192.168.0.85			
			Enable Scheduled Configuration Download		192.168.0.86			
			Disable Scheduled Configuration Download		192.168.0.212			
			- Clear custom filters					
		~	Disable custom filters					
		-	Proferencer					
		-		1				
• Via the Windows start menu:



Upon the first start of the (Local Mode) an empty configuration page is displayed:

N Basic Configurator (Local Mode) - NEXMAN	
Device Info	
Description:	
Part Number (P/N):	
Production Lot:	
Serial Number (S/N):	
Firmware Version:	
Active MAC Address:	
- Device Setup	User Defaults
Name:	
Location:	
Contact:	
IPv4 Access enabled:	
DHCP IPv4 enabled:	GIF
IP Address: 0.0.0.0	0.0.0.0
Netmask: 0.0.0.0	0.0.0.0
Gateway: 0.0.0.0	0.0.0.0
IPv6 Address Mode:	Disable IPv6 access
IPv6 Address:	
Prefix Length: 64	32
IPv6 Gateway:	
Trunk Port:	none
Mant VI AN ID	1
Was Charle Daria	
Read Device (via first TP Port)	Exit

12.3.3. Reading the Switch Configuration (Local Mode)

In order to configure a switch, the currently installed configuration needs to be read first.

To do so the following requirements must be fulfilled:

- The PC needs to be connected to the first Twisted Pair Port (TP1) of the switch.
- The switch VLANs need to be set to Factory Default.

To read the switch, click the Read Device (via first TP Port) button:

N Basic Configurate	or (Local Mode) - NEXMAN		
Device Info			
Description:	GigaSwitch V3 TP SFP-I 48V ES3		
Part Number (P/N):	88303855		
Production Lot:	8579		
Serial Number (S/N):	0911		
Firmware Version:	HW3-F21-P06-OFFICE-V6.01bn		
Active MAC Address:	00:C0:29:26:3D:E1		
Device Setup]	User Defaults
Name: NE	XANS-00C029263DE1		
Location: not	t defined		
Contact: not	t defined		
IPv4 Access enabled			
DHCP IPv4 enabled:			
IP Address:	0.0.0.0		
Netmask:	0000	٥	0.0.0
Gateway:	0000		0.0.0
IPv6 Address Mode:			
IPvC Addresse			
Profix Length:	22		22
IPv6 Gateway:			
T i b i			
Trunk Port:	none 💌		
Mgmt VLAN ID:	<u>]1</u>		
	Write Setup to Device		Save Defaults Load Defaults
Rei	ad Device (via first TP Port)		Exit
		1	
Used network interfa	ace: [192.168.13.1] ASIX AX88179 USB 3.0 to	Gigabit	Ethernet Adapter:

If the configuration has been correctly read, the respective values will be displayed in the **Device Info** and **Device Setup** fields and can be modified. The data in the **Device Info** window is Read-Only and meant for your information only.

If multiple switches shall receive a similar configuration, a general basic setting can be defined in the <u>User</u> <u>Defaults</u> field and copied via the G button into the <u>Device Setup</u> field. Via the <u>Save Defaults</u> or <u>Load</u> <u>Defaults</u> buttons any template can be saved to or reloaded from the pc file system.

M Basic Configu	rator (Local Mode) - NEXMAN		
Device Info			
Description:	GigaSwitch V3 TP SFP-I 48V ES3		
Part Number (P/N	I): 88303855		
Production Lot:	8579		
Serial Number (S	/N): 0911		
Firmware Version	HW3-F21-P06-OFFICE-V6.01bn		
Active MAC Addr	ess: 00:C0:29:26:3D:E1		
Device Setup]	User Derauits
Name:	NEXANS-00C029263DE1		SW-B221
Location:	not defined		Room-221
Contact:	not defined		Employee B
IPv4 Access ena	bled: 🔽		v
DHCP IPv4 enab	led: 🔽	G	
IP Address:	0.0.0.0		192.168.0.5
Netmask:	0.0.0.0		255.255.0.0
Gateway:	0.0.0.0		192.168.0.1
IPv6 Address Mo	de: Disable IPv6 access		Disable IPv6 access
IPv6 Address:	::		::
Prefix Length:	32		32
IPv6 Gateway:	::		
Trunk Port:	none 💌		none
Mgmt VLAN ID:	1		1
	Write Setup to Device		Save Defaults Load Defaults
	Read Device (via first TP Port)		Exit
Used network int	erface: [192.168.13.1] ASIX AX88179 USB 3.0 to	o Gigabit	Ethernet Adapter:

12.3.4. Writing the Switch Configuration (Local Mode)

In order to write the configuration after successful reading and modification back into the switch the admin name and the admin password must be set to Factory Default (name = admin, password = nexans). This restriction is a safety feature in order to prevent installed switches, which have been assigned a customer-specific password, from being modified by the Basic Configurator.

After entry of the desired parameters a click on the <u>Write Setup to Device</u> button will transfer the configuration into the switch. The configuration will take immediately effect without rebooting:

M Basic Configurato	r (Local Mode) - NEXMAN		
Device Info			
Description:	GigaSwitch V3 TP SFP-I 48V ES3		
Part Number (P/N):	88303855	Info	×
Production Lot:	8579		
Serial Number (S/N):	0911		Write successful.
Firmware Version:	HW3-F21-P06-OFFICE-V6.01bn		
Active MAC Address:	00:C0:29:26:3D:E1		OK
Device Setup		1	User Defaults
Name: SW	/-B221		SW-B221
Location: Roo	om-221		Room-221
Contact: Em	ployee B		Employee B
IPv4 Access enabled:			
DHCP IPv4 enabled:		G	Г
IP Address:	192.168.0.5		192.168.0.5
Netmask:	255.255.0.0		255.255.0.0
Gateway:	192.168.0.1		192.168.0.1
IPv6 Address Mode:	Disable IPv6 access		Disable IPv6 access
IPv6 Address:	::		::
Prefix Length:	32		32
IPv6 Gateway:	::		
Trunk Port:	none 🔻		none
Mgmt VLAN ID:	1		1
	Write Setup to Device		Save Defaults Load Defaults
Rea	ad Device (via first TP Port)		Exit
Used network interfa	ce: [192.168.13.1] ASIX AX88179 USB 3.0 to	Gigabit	Ethernet Adapter:

A message in the left lower corner informs about the successful completion of the write operation.

After completion of the basic settings of the switch via the Basic Configurator any further configuration can be executed using LANactive Manager.

12.4. General Features

12.4.1. Configuring the Trunk Port and the Mgmt VLAN ID

If a firmware release V3.30 or higher is installed on the respective device, the Management VLAN-ID and the Trunk Port can be configured, too. If a device with an older V3 firmware release is read, the two 'Trunk Port' and 'Mgmt VLAN ID' input fields are inactive.

When writing the device setup two different cases are to be considered:

- Trunk Port = none
- Trunk Port = Port x

Trunk Port = none:

Trunk Port	none 💌
Mgmt VLAN ID	1

If Trunk Port is set to **none**, the VLANs of the device will be set to **Factory Default**. That means that trunking is disabled on ALL ports and the 'Default VLAN ID' is set to 1 (including Management Interface).

Trunk Port = Port x:

Trunk Port	Port 5	•
Mgmt VLAN ID	112	

If a port number has been selected for Trunk Port (normally the desired Uplink Port), the Trunking Mode for this is set to 'IEEE802.1Q Tagging'. Moreover, the Management Interface is set to the VLAN-ID indicated in the 'Mgmt VLAN ID' field.

Important:

Only the packets of the Management Interface are tagged with the configured 'Mgmt VLAN ID' to the uplink. This will ensure that at least the Management Interface can be reached via a tagged VLAN via Trunk Port. After writing the configuration using the <u>Write Setup to Device</u> button the Management Interface can only be reached via the configured 'Mmgt VLAN ID' and via the configured 'Trunk Port'. Note:

The 'Default VLAN-ID' of all Ethernet ports (including Uplink Port) is principally set to '1'. This means that the data packets of all user ports are forwarded untagged to the uplink and thus all users are located in the Default VLAN. Any configuration, if necessary, of the user ports with other VLAN-IDs can subsequently be performed via LANactive Manager, WEB, Telnet or SNMP.

12.4.2. Saving the Basic Configurator Settings

All settings in the <u>User Defaults</u> field will be saved and reloaded with the next restart of the Basic Configurator.

13. Device-Lists

In a device list several devices can be combined to form a group. It is possible to create any number of lists in order to sort the devices by floors, buildings, etc. The groups are managed via the **<u>File</u>** menu:

Λ D	evice-List	- NEXMAN [Defa	ult]	• .
File	Edit	Add/Remove	l emplates	Invento
2	Open		N	8
H	Save		5	Device-
	New			
	Save as			ack [
	Save as	(checked Device	e only)	
X	Exit			
				-

13.1. Device-Category

To the left of the device list you will find the categorization of devices. There are following categories:

- All Devices List of all switches
- Unassigned Devices List of all switches that have not yet categorized
- Categories User Specific Categories

The number in brackets after **All Devices** and **Unassigned Devices** represents in each case the total number of devices in the appropriate category.

The **Categories** tree is always if new an empty list which can be created user-specifically. The user has the option to categorize their devices with their own tree structure itself.

ned Devices (181												
	and the second se						Drag a column here to group by	this column.			-	
Categories	Check Device Name	Redundancy	PoE Power C	onsumption PoE Input Voltage Po	E IPv4 Address	Active MAC Address	Name		Location	Description	Typ	e Mgnt Firmware Vers
	¥, 3	·	V V	v	Y	V		V		N	100	1
	Switch 0	Disabled	Powersc 64	24	192.168.0.3	00:00:29:29:34:43	NEXANS-00C029293443	not defined		GigaSwitch V5 SFP-2VI 54VDC	74	HW5-F40-P07-OFFICE-V5.0206
	Switch 0	0 Port(s) block	Notinat. 0	0	192.168.0.4	00 C0 29 25 D0 BB	NEXANS-00C029250088	not defined		ISwitch G 1043E+ SFP-3VI PRIO3	36	Hwo-F22-P10-INDUSTRIAL-V8.02D
	Seitch 0	0 Port(s) block	Not mat. 0	0	192.168.0.5	00.C0.29.08.3A.E0	SN-8221	Room-221		iGigaSwitch 1904 E+ SFP-4VI PR03	40	HW3-F30-P16-INDUSTRIAL-V5.02D
	Switch 0	Disabled	Fineset 0	47	192.168.0.70	00 C0 29 24 F5 51	NEXANS-00C02924F551	not defined		GigeSwitch V3 TP SX GI(SC) 48V ES3	60	HW3 F21-P06-OFFICE-V5.02E
	Seitch 0	Disabled	Powered 0	4	192.168.0.71	00 C0 29 25 02 89	not defined	not defined		GigaSwitch V3 TP SX GI(SC) 48V ES3	60	HW3-F21-P06-OFFICE-V5.02E
	Switch 0	Disabled	Present 0	9	192 168 0 72	00 C0 29 25 0C 17	not defined	not defined		GigeSwitch V3 TP SX GI(SC) 48V ES3	60	Hv/3-F21-P06-OFFICE-V5.02E
	Seitch 0	Disabled	Powered ©	4	192.168.0.73	00 C0 29 24 FA 86	not defined	not defined		GigaSwitch V3 TP SX GI(SC) 48V ES3	60	HW3-F21-P06-OFFICE-V5.02E
	Switch 0	Disabled	Powered 0	4	192 168 0.74	00.C0.29.25.0C 1A	not defined	not defined		GigeSwitch V3 TP SX GI(SC) 48V ES3	60	Hv/3-F21-P06-OFFICE-V5.02E
	Seitch 0	Disabled	Present 0	47	192.168.0.75	00 C0 29 25 2A 88	not defined	not defined		GigaSwitch V3 TP SX GI(SC) 48V ES3	60	HW3-F21-P06-OFFICE-V5.02E
	Switch 0	Disabled	Notinet. 0	0	192,168.0.78	00.00.29.25.47.F5	not defined	not defined		GrgeSwitch V3 TP SFP4 230VAC ES3	61	HW3-F21-P06-OFFICE-V5.02E
	Switch 0	Disabled	Notinat. 0	0	192,168.0.79	00 C0 29 24 EB 56	not defined	not defined		GigaSwitch V3 TP SX GI(LC) 230VAC.	60	Hw3-F21-P06-OFFICE-V5.02E
	Switch 0	Disabled	Notinet, 0	0	192,168.0.80	00.C0.29.25.47.CE	not defined	not defined		GigeSwitch V3 TP SEP-1 230VAC ES3	61	HW0-F21-P06-OFFICE-V5.02E
	Saitch 0	Disabled	Powered 0	4	192.168.0.82	00 C0 29 25 75:04	not defined	not defined		GigaSwitch V3 TP SFP-I 48V ES3	62	HW3-F21-P06-OFFICE-V5.02E
	Switch 0	Disabled	Powered 0	4	192,163.0.83	00:00:29:25:81:00	not defined	not defined		GigaSwitch V3 SFP-2VI 48V ES3	63	HW3-F21-P06-OFFICE-V5.02E
	Switch Q	Disabled	Powered 0	47	192.168.0.84	00-C0-29-25-75-A3	not defined	not defined		GigaSwitch V3 TP SFP-I 4EV ES3	62	HW3-F21-P06-OFFICE-V5.02E
	Switch 0	Disabled	Powered 0	4	132,163,0.85	00 C0 29 25 75 00	not defined	not defined		GigaSwitch V3 TP SFP-14EV ES3	62	HW3-F21-P06-OFFICE-V5.02E
	Switch 0	Disabled	Powered ©	43	192.168.0.06	00-C0-29-25-80-80	not defined	not defined		GigaSwitch V3 SFP-2V1 40V ES3	6	HW3-F21-P06-OFFICE-V5.02E
	Switch 0	Disabled	Notinet. 0	0	192,168.0.212	00.00.29.00.08.80	NEXANS-00C0290C0880	not defined		(GigaSialtch 1604 E+ SFIP-4VI PRO3	40	HW3-F30-P16-INDUSTRIAL-V5.01g

13.1.1. Create Category

With a right click of the mouse in the "Categories" section a drop box opens to <u>Add Root Category</u>, <u>Add</u> <u>Sub Category</u> or Delete <u>Category</u>.

٨	Dev	ice-List	- NEXI	MAN [Defau	ılt]						
I	File	Edit	Add/	/Remove	Templa	te	s Inve	ntory	Logfile	Help	
1] 📙	2) 🕒 B	🚯 🕞 🗄	1	1	8			
I	Device	e-List			Ş		Dev	ice-List			
	A	II Devio	es [0]								
	l	Inassigr	ned De	evices [0]			Charle	Deuties	Alarana	Daduadaaa	Dal
			Categ	pories			Спеск	Device	Alarms	Redundancy	FO
			_					V	8	V	5
				Add Roo	t Categoi	y					
				Add Sub	Category	/		4	5		
				Rename	Category	,			_ I		
				Delete C	ategory						
				Import D	evice-Lis	t ir	nto this (Category			
			_								

At the beginning of a new list it is only possible to create a new root category. When you <u>Add Root</u> <u>Category</u>, a new folder appears, which by default is called "New Category". You can rename this folder as for example "Building A". If you continue to create root categories, these are named "New Category_X". "X" represents a sequential number.

N Device-List - NEXMAN [Default]	
File Edit Add/Remove Templates Inventory Logfile H	Help
i 🗹 🗖 🛃 📂 🗋 🖳 🖳 🖓 🕂 🗮 🔧 🖏 🥱	
Device-List	
All Devices [0]	
Unassigned Devices [0]	
Check Device Alarms Re	edundano
Categories	
New Category	

After creating a root category, it is possible to <u>Add Sub Category</u>. This will always be created in the currently selected category, with the same notation "New Category". As seen in the image, a folder has emerged, which is assigned to "Building A".

1	♦ Device-List - NEXMAN [Default]					
	File Edit Add/Remove Templa	tes	Inven	tory l	Logfile	Help
1	🗹 🔲 📙 💕 🗋 🖳 🖳 🕂	1		7		
	Device-List	/	Devic	e-List		
	All Devices [0]	[
	Unassigned Devices [0]	C	`heck	Device	Alarms	Redu
Г	Categories		moon			Hodui
I	✓ image: A [- - -]			V	V	
I	New Category					
h	+	L+				

Next to the folder "Building A" a small arrow sign has appeared. When you click this sign all subcategories of the root category will hide. You can create as many sub-categories as you like, which will all depend on the context of the respective upper and subcategories.

The purpose of this tree could for example be the following categorization. You have a top category "building", which has a sub-category "floor", which in turn has a sub-category of "room". Each of these categories is now able to manage devices in order to obtain an improved and simplified overview.

Nexans Advanced Networking Solutions

N Device-List - NEXMAN [Default]	• •								_	• **
File Edit Add/Remove Templates Inventory	Loafile Helr	>								
M T I II 🖉 D I II. II. A 💫 I 🕿 🥱										
Device-List 8 Device	tict									
All Devices [18]	e-ust									
Unassigned Devices [18]				Drag a	column here to gro	up by this column.				
Categories	Device Alarms	Redundancy	PoE	Power Consumption PoE Input Voltage PoE	IPv4 Address	Active MAC Address	Name	Location		
Building A [- - -]	A A	Y	V	Y V	V	V	Ŷ			Y
4 🛅 Floor 0 [- - -]	Switch 0	Disabled	Powered	64 54	192.168.0.3	00:C0:29:29:3A:43	NEXANS-00C029293A43	not defined		
Com 001 [- -]	Switch 0	0 Port(s) blocking	Not inst	0 0	192.168.0.4	00:C0:29:25:D0:BB	NEXANS-00C02925D0BB	not defined		
4 Televisia	Switch 0	0 Port(s) blocking	Not inst	0 0	192.168.0.5	00:C0:29:0B:3A:E0	SW-B221	Room-221		
a Room 103 [-]-]-]	Switch 0	Disabled	Powered	0 47	192.168.0.70	00:C0:29:24:F5:51	NEXANS-00C02924F551	not defined		
🛅 Room 104 [- -] -	Switch 0	Disabled	Powered	0 47	192.168.0.71	00:C0:29:25:02:89	not defined	not defined		
4 🎦 Building B [- -]	Switch 0	Disabled	Powered	0 47	192.168.0.72	00:C0:29:25:0C:17	not defined	not defined		
⊿ 🎦 Floor 0 [- -] 📃	Switch 0	Disabled	Powered	0 47	192.168.0.73	00:C0:29:24:FA:86	not defined	not defined		
Mew Category [- - -]	Switch 0	Disabled	Powered	0 47	192.168.0.74	00:C0:29:25:0C:1A	not defined	not defined		
New Category [-]-]	Switch 0	Disabled	Powered	0 47	192.168.0.75	00:C0:29:25:2A:BB	not defined	not defined		
⊿ 🎦 Floor 2 [- -]	Switch 0	Disabled	Not inst	0 0	192.168.0.78	00:C0:29:25:47:F5	not defined	not defined		
🎦 New Category [- -]	Switch 0	Disabled	Not inst	0 0	192.168.0.79	00:C0:29:24:EB:56	not defined	not defined		
	Switch 0	Disabled	Not inst	0 0	192.168.0.80	00:C0:29:25:47:CE	not defined	not defined		
	Switch 0	Disabled	Powered	0 48	192.168.0.82	00:C0:29:25:75:04	not defined	not defined		
	Switch 0	Disabled	Powered	0 48	192.168.0.83	00:C0:29:25:B1:0D	not defined	not defined		
	Switch 0	Disabled	Powered	0 47	192.168.0.84	00:C0:29:25:75:A3	not defined	not defined		
	Switch 0	Disabled	Powered	0 48	192.168.0.85	00:C0:29:25:75:0D	not defined	not defined		
	Switch 0	Disabled	Powered	0 48	192.168.0.86	00:C0:29:25:B0:B0	not defined	not defined		
	Switch 0	Disabled	Not inst	0 0	192.168.0.212	00:C0:29:0C:0B:80	NEXANS-00C0290C0B80	not defined		
										•
Registered for Nexans, Nexans Training Checked Device	es: 0						Poll	Interval: 1 seconds Ad	ijust Colu	mn Size

13.1.2. Allocating Category

After successfully creating the categories (see chapter *14.1.1 Create Category*), it is now possible to associate the devices into their respective folders with drag-and-drop.

Hold the left mouse button on the device and pull it over to the folder you like to associate and release the mouse button. To associate multiple devices into a category, you have to select them each with the CTRL key and then drag them with the left mouse button over. For several following devices hold the SHIFT key, click on the first device and the last and pull the last device into the folder.

л	N Device-List - NEXMAN [Default]												
	File Edit Add/Remove Templates	In	ventory	Logfil	e Hel	p							
Device-List B Device-List													
	All Devices [18]								Drag a	column here to grou	up by this column.		
	Categories	-11	Check	Device	Alarms	Redundancy	PoE	Power Consumption PoE	Input Voltage PoE	IPv4 Address	Active MAC Address	Name	
	A Dia Building A [- 1 -]			V	V	V	V	7	7	8	V		8
	4 🥻 Floor 0 [- 1 -]			Switch	0	Disabled	Powered	64	54	192.168.0.3	00:C0:29:29:3A:43	NEXANS-00C029293A43	
	🚞 Room 001 [1 - -]			Switch	0	0 Port(s) blocking	Not inst	0	0	192.168.0.4	00:C0:29:25:D0:BB	NEXANS-00C02925D0BB	
	Room 002 [- - -]			Switch	0	0 Port(s) blocking	Not inst	0	0	192.168.0.5	00:C0:29:0B:3A:E0	SW-B221	
	4 G Floor 1 [- -]			Switch	0	Disabled	Powered	0	47	192.168.0.70	00:C0:29:24:F5:51	NEXANS-00C02924F551	
	Room 105 [-]-]-]			Switch	0	Disabled	Powered	0	47	192.168.0.71	00:C0:29:25:02:89	not defined	
	Building B [- - -]			Switch	0	Disabled	Powered	0	47	192.168.0.72	00:C0:29:25:0C:17	not defined	
	4 📴 Elear O.C. L. L. 1		-	0.51	0	N: 11 1		•	17	100 100 0 70	00.00.00.04.54.00	1.1.F. 1	

When a device is assigned to a category, the category name appears behind the statistics in brackets.

The left column represents the number of devices in this category alone.

The middle column represents the total number of devices that are included in the sub categories (added to the category of their own).

The right column shows the number of alarms available in the respective category (see next chapter 14.1.3

Category Alarm)

N Device-List - NEXMAN [Default]												
File Edit Add/Remove Templates	Inventory	Logfi	e Hel	р								
Device-List 🖗	Devic	e-List										
All Devices [18]	[[Dra	a a column here to	aroun by this column			
Unassigned Devices [2]	Check	Device	Alarms	Redundancy	PoF	Power Consumption PoF	Input Voltage PoE	IPv4 Address	Active MAC Address	Name	Location	Description
Categories	Check	Device	Aumo	ricdunduncy	102		input voltage i oc	in vy Address	Address	nune	Location	Description
Building A [- 11 -]		Y	V	V	V	V	V	V	V	Y	V	V
4 🛅 Floor 0 [2 7 -]		Swit	0	Disabled	Powered	0	47	192.168.0.84	00:C0:29:25:75:A3	not defined	not defined	GigaSwitch V3 TP SFP-I 48V ES3
🚞 Room 001 [2 - -]		Switch	0	Disabled	Powered	0	48	192.168.0.85	00:C0:29:25:75:0D	not defined	not defined	GigaSwitch V3 TP SFP-I 48V ES3
🚞 Room 002 [3 - -]												
⊿ 🛅 Floor 1 [- 4 -]												
🚞 Room 103 [2 - -]												
🚞 Room 104 [2 - -]												
4 🛅 Building B [- 5 -]												
Floor 0 [1 2 -]												
Floor 1 [1 - -]												
Floor 2 [1 2 -]												

13.1.3. Category Alarm

If a device sets an alarm, it will be directly symbolically shown in the User-Defined list.

By opening the respective categories you will find that the device reports an error.

N Device-List - NEXMAN [Default]							
File Edit Add/Remove Template	es Inven	tory l	ogfile	Help			
🗹 🗖 📓 💕 🗋 🖳 🖳 🕞							
Device-List 😵	Devio	e-List					
All Devices [18]							Drag a column
	Check	Device	Alarms	Redundancy	PoE	Power Consumption PoE	Input Voltage PoE
		7	T	V	8	8	8
Building A [- 11 -] Floor 0 [2 7 -]		Switch	0	Disabled	Powered	64	54 1
Room 001 [2 - 1]		Switch	Offline	0 Port(s) blockieren	Nicht installiert	0	0 1
Room 002 [3 - -] ▲ Dorn 1[- 4 -]							
📔 📄 Room 103 [2 - -]							

After you have corrected the error the number of errors and the symbol representing it, independently change to its normal state again.

13.1.4. Reordering Categories via Drag&Drop

Categories can be reordered by dragging them into a new position. If a Category is dragged directly onto another Category, it will become a new subcategory of that position. In order to prevent reordering by accidently clicking on the category tree, you can lock or unlock the reordering using the 'Lock/Unlock' button.

Device-List	Ş
All Devices [4]	
Unassigned Devices [4]	
Categories	â

13.2. Automatic polling of Device-Lists

Depending on the configured polling interval the contents of the device list is automatically updated in periodic intervals. If it is a Nexans device and if this device is reachable via UPD port 50266 (a firewall might block this port), the *Check* field is indicated in dark green and all fields will be updated with the corresponding values of the respective device. All fields which have changed their values will be indicated with a yellow background colour.

Л	V Device-List - NEXMAN [Default]												
	File Edit Add/Remove Templat	es Inver	ntory Logfil	e Help									
Device-List B Device-List													
	All Devices [18]	this column.											
	Unassigned Devices [2]	Check	Device Alarn	s Redundancy	PoE	Power Consumption PoE	Input Voltage PoE	IPv4 Address	Active MAC Address	Name	Location		
	Categories		7	7 57	, 	7	7	7				2	
	⊿ a Building A [- 11 -]	_	0.11.0	· · · · ·		сı.	F 4	100 100 0 0	00.00.00.00.00.00.00	C1.0000	D D000		
	4 🎽 Floor 0 [2 7 -]		Switch U	Disabled	Powered	64	54	192.168.0.3	00:C0:29:29:3A:43	SWB220	Room B220	Gg	
	🚞 Room 001 [2 - -]		Switch 0	0 Port(s) blocking	Not installed	0	0	192.168.0.4	00:C0:29:25:D0:BB	NEXANS-00C02925D0RR	not defined	i¢,	
	Boor 1 [4]		Switch 0	0 Port(s) blocking	Not installed	0	0	192.168.0.5	00:C0:29:0B:3A:E0	SW-B221	Room-221	iGi	

The <u>Edit > Acknowledge changes of checked Devices</u> menu can be used to remove the yellow background colour of the fields:

Note: In order to update all fields during polling, firmware version 3.64 or higher needs to be installed on the device. If an older firmware should be installed, some fields may be empty or marked with a '?'.

If the device does not answer on UDP port 50266, but only to a ping (e. g. because a firewall is blocking Port 50266), the **Check** field will be displayed in light green:



If the device answers neither on port 50266 nor to a ping, the <u>Check</u> and <u>Alarm</u> fields will be displayed with red background:

N Device-List - NEXMAN [Default]											
File Edit Add/Remove Template	s Inven	tory l	ogfile	Help							
i 🗹 🗖 🛃 💕 🗋 🖳 🖳 🕂	2 🕅	7									
Device-List 🛛	Devic	e-List									
All Devices [18]	-										
Unassigned Devices [2]	Check	Device	Alarms	Redundancy	PoE	Powe					
Categories		8	8	V	7						
A Distance of the second se		Switch	Ping only	Deaktiviert	Eingeschaltet	0					
🕕 Room 001 [2 - -]		Switch	Ping only	0 Port(s) blockieren	Nicht installiert	0					
Room 002 [3] - [2]		Switch	Fing only	0 Fon(s) blockleren	licht installiert	0					
Floor 1 [- 4 -] Room 103 [2 - 2]		Switch	Offline	Deaktiviert	Eingeschaltet	0					
Room 104 [2] - [2]		Switch	Offline	Deaktiviert	Eingeschaltet	0					
🔺 🕕 Building B [- 5 -]		Switch	Offline	Deaktivien	Eingeschaltet	0					
Floor 0 [1 2 1]		Switch	Offline	Deaktiviert	Eingeschaltet	0					

13.3. Saving the Device List under a New Name

After the first start of LANactive Manager the device list "Default.xml" is created by default. If you want to save the device list under a new name, select the **<u>File</u>** menu:

s	V De	Device-List - NEXMAN [Default]													
Γ	File	Edit Add/Remove Templ	ates	Inver	tory l	Logfile	Help								
	2	Open		8	7										
	-	Save		Devie	e-List										
		New													
Γ		Save as			Destan	A1	Deduction	D-F		In the last of the set					
L		Save as (checked Device only)		еск	Device	Alarms	Redundancy	FOE	Power Consumption PoE	Input voltage PoE	IPV4 Address				
	X	Exit	011		V	T	V	V	8	V	R				
7		🔺 🛅 Floor 0 [2 7 -]			Switch	0	Disabled	Powered	64	54	192.168.0.3				
		🚞 Room 001 [2 - -]			Switch	0	0 Port(s) blocking	Not installed	0	0	192.168.0.4				
		🚞 Room 002 [3 - -]			Switch	0	0 Port(s) blocking	Not installed	0	0	192 168 0 5				

In the subsequent file browser window, the desired name for the Device List can be entered:

✓ Save Device-List as		-					-		x
C:\Users\Tes	st\Documents\NEXMAI	V\device-lists					device-lists durchs	uchen	٩
Organisieren 🔻 Neuer	Ordner							•	0
📕 Benutzere 🔺	Name	*		Änderungsdatum	Тур	Größe			
🦾 cap 📙 Documer 📙 Grafiken	Default.xml			15.11.2018 13:10	XML-Dokument	25 KE	1		
ISExpress Meine en My Web IN Nexans NEXMAN Basic-c databas device- In firmwaa			2						
Dateiname: New I Dateityp: Device	.ist.xml e-List files (*.xml)								•
) Ordner ausblenden						(Speichern	Abbreche	en

NOTE:

The directory shown for <u>Save as</u> or <u>Open</u> has been specified during the installation procedure and is set to "C:\Program Files\Nexans\LANactive Manager\device-lists" by default. You can modify this directory via the <u>Edit \rightarrow Preferences</u> menu and for example enter a server directory.

After the device list was stored under a new name, this list will be loaded as the current device list and indicated in the header:

N Device-List - NEXMAN [Default]											
	File	Edit	Add/Remove	Templates	Inventory	Logfile	Help				
:[·] 🔒	💕 🗋 🖳 🖻), 🕞 🖶 🚧	8 7						
	Device	e-List		\$	Device-List	-					
		All Devic	tes [18]								

13.4. Importing Device Lists

The <u>Add/Remove</u> menu allows you to import existing device lists. The imported device lists are added to the device list which is currently open:

s	V Device-List - NEXMAN [New List]												
	File Edit	Add	l/Remove	Templates	Inventory	Logfile	Help						
	🗹 🗆 🛃	2	Autodisco	over Devices on	local segme	nts (Layer-	2)	- 1					
	Device-List Autodiscover Devices by IP address range (Layer-3)												
	All Devid		Manual a	dd single Devic	e								
	Unassig	₩,	Manual a	dd range of De	vices								
		Add fixed IP 172.23.44.111											
			Add Devid	es from Device	e-List								
		*>	Remove c	hecked Device	s from Device	e-List							
			Remove c	hecked Device	s from Device	e-List and l	Database						
Remove unknown Devices from Device-List													
			Move che	cked Devices to	o Unassigned	Devices							
	'	_											

The following import functions are available:

Add Devices from Device-List

This function allows you to load device lists which have been created using LANactive Manager.

14. Master Configuration

A master configuration is used for distributing uniform basic settings to one or more devices of a device list. The master configuration offers the advantage that the administrator can choose which parameters to distribute. For example, you would be able to create one master configuration where only the SNMP settings are modified and another where only the RADIUS parameters are set. You could also create a master configuration for each department, if they require different settings.

14.1. Creating a Master Configuration

Before distributing a master configuration, a template has to be created and edited. To do so, a device of the corresponding device type needs to be loaded into the device editor, e.g. by selecting a device from the device list by double-clicking on it.

Afterwards select the Templates > Save as Master Config menu option:

[KKM-??] [10.242.1.1	58]										
Juit] [Read Config	fror	n De	vice] [Write Co	onfig to Device] Show	Configure Datab	ase Template					
	6	iloba	I+Link State			Save as N	Master-Config				
nk State		Refr	esh interval (secor	nde): 1 Manual F	Refresh Cable Di	Update e	existing Master-Config	is with new Firmware feat	ures of this Device		
urity State		T C II	con interval (occor			J		Log entries pres	ant 841		
te		Por	t Link State					Log critico pres			
		No	Description	Name	Link Setup	Link State	Time since last link c	hange	Error Counter	Security State	Ar D V
(MT]		0	MGMT								24
1]		1	TP-1	<none></none>	Autoneg.	no link	627 days : 00 hours : 1	29 min : 29 sec	0	Disabled	4

In the file browser window, which opens afterwards, a name for the master configuration needs to be entered. You should choose a mnemonic name describing the function of the master configuration:



NOTE:

The directory shown has been specified during the installation procedure and is set to "C:\Program

Files\Nexans\LANactive Manager\masters" by default. You can modify this directory via the <u>Edit ></u>

 $\underline{\mbox{Preferences}}$ menu and for example indicate a server directory.

If you want to edit the master template you need to exit the device editor and select the <u>Templates → Edit</u> <u>Master-Config</u> menu option:

N Device-List - NEXMAN [New L	ist]	
File Edit Add/Remove	Templates Inventory Logfile Help	
i 🗹 🔲 🛃 💕 🗋 🖳 🖻	Edit Master-Config	
Device-List	Copy Master-Config to checked Devices	
All Devices [4]	Copy Master-Config to checked Devices scheduled	[Write
Unassigned Devices [4]	Copy Configuration Templates to checked Devices	State

Select the previously stored master configuration in the next file browser window:

N Open Master-Config file	Find		— X —
◯◯▽ 🕌 « OSDisk (C:) → Benutzer → alschnei →	Eigene Dokumente 🕨 NEXMAN 🕨 master-configs	✓ ⁴ → mast	ter-configs durchsuchen 🔎
Organisieren 👻 Neuer Ordner			∷ - ⊡ 0
Eigene Dokumente Benutzerdefinierte Office-Vorlagen	↑ Name ↑	Änderungsdatum T 10.11.2018 14:44 D	yp Größe DAT-Datei 21 K
 Cap Documentation Grafiken IISExpress Meine empfangenen Dateien My Web Sites 			
 Nexans NEXMAN basic-configs database device-lists firmware-images 			
inventory-lists master-configs tmp		m	,
Dateiname: raidus.dat		✓ Maste	er-Config files (*.dat)

After selection of the master configuration a message is displayed first:

V Device-Editor	
Master-Config [raidus]	
[Exit & Save] [Quit] [Check all par	rameters] [Uncheck all parameters] Master-Config
Device Info	Device Info
✓ Port Setup	
Port 0 [MGMT]	Management Info
Port 1 [TP-1]	
Port 2 [TP-2]	Management Firmware Version: HW3/ENHANCED/SECURITY/V4.10C
Port 3 [TP-3]	
Port 4 [TP-4]	
Port 5 [UPLINK]	
⊿ Management	
IPv4 / IPv6 Setup	
Agent	Device-Type: 07
Local Accounts	
Access Global	
Access SNMP	This Master-Config was stored from the above Management Firmware Version and Device-Type.
Access IEC61850	If you need a Master-Config with features from another Management Firmware Version and Device-Type,
Banner	open Device-Editor for a Device with the needed Management Firmware Version and Device-Type and select menu "Master-Confin" as Master-Confin"
Global	
⊿ VLAN	
VLAN Setup	
VLAN Table	
Discovery	
Prioritisation / CoS	
⊿ Alarms	
Alarm Destinations	
Global Alarms	
▲ Security	
Security Setup	
RADIUS Global Auth.	

This message reminds you that the master configuration was created for a particular device type (in this example for Device Type 34; the respective device type is indicated on the Info tab).

Although this master was stored for device type 34 (as an example), it nevertheless can be transferred to other device types, if all device types contain the selected parameters (e. g. SNMP parameter). However, if you want to distribute special settings, such as Speed/Duplex, you have to consider, that these are different for each device type, since each device type has a different number of ports and/or port arrangement.

The master editor differs from a normal device editor in that is has no state page and that it offers additional check boxes preceding the individual parameters:

🔊 Device-Editor		• 33
Master-Config [raidus]		▽ 23
[Exit & Save] [Quit] [Check all parameters]] [Uncheck all parameters] Master-Config	
[Exit & Save] [Quit] [Check all parameters] Device Info Agent Port Setup Port 0 [MGMT] Port 1 [TP-1] Port 2 [TP-2] Port 3 [TP-3] Port 4 [TP-4] Port 5 [UPUINK] Management IPv4 / IPv6 Setup Agent Local Accounts Access Global Access Global Access Global Access ISIMP La Discovery Prioritisation / CoS Alarms Alarm Destinations Global Alarms Security Security Security Security Security Setup RADIUS Global Auth. RADIUS Global Auth. RADIUS Scounting IEE802.1X	[Urcheck all parameters] Master-Config set Setur reset Action: None Memory Card Mode:	•
Multicasts Time Client SNTP Setup Powerstee Setup		
Redundancy Spanning Tree		
Multiple Spanning Tree Link Aggregation	eck all parameters of this page Uncheck all parameters of this page 0 parameter total checked for copy	

These check boxes allow you to choose which parameters are to be distributed to other devices. No other parameters will be changed in the target devices, i.e. the settings for theses parameters are irrelevant as long as the respective box is not checked.

When you first open the master configuration no parameters are selected. This is confirmed by the counter in the left lower corner which indicates: "0 parameters checked for copy".

If you want to select/deselect all parameters for the whole switch or a single page you can do that simply via the menu options [Check all parameters], [Uncheck all parameters], Check all parameters of this page or Uncheck all parameters of this page respectively:

Device-Editor						e 23
Master-Config [raidus]						▽ 23
[Exit & Save] [Quit]	[Check all	parame	ters]	[Uncheck all parameters]	Master-Config	
Device Info		▲ Ag	jent			
Port Setup Port 0 [MGMT]			Reset	Setup		
Port 1 [TP-1]				Reset Action:	None	
Port 2 [TP-2]				Memory Card Mode:	·	
Port 3 [TP-3]			Nama	Satura		
Port 4 [TP-4]				Setup		n l
Port 5 [UPLINK]				Name:	Get Name from CSV file by MAC Address (xXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	
IPv4 / IPv6 Setup				Filename: Browse O	pen	
Agent				Location:	Teekchee3 (max 50 chars)	
Local Accounts				Contact	not defined (may 50 chare)	
Access Global			_	Contact.		
Access SINIMP Access IEC61850				Domain:	(max 50 chars)	
Banner			Layer	2 Functions		
Global				Life/Autorinesurer Protect Pate	Paris Configurator Assessor Fractication	
✓ VLAN				Elle/Autodiscover racket mate	Basic Configuration Access.	
VLAN Setup			Config	guration Switch Setup		
Discovery			Ц	Fixed IP:	Enabled	
Prioritisation / CoS				Factory Reset:	Enabled -	
▲ Alarms						
Alarm Destinations						
Global Alarms						
Security Setup						
RADIUS Global Aut	th.					
RADIUS Manageme	ent Auth.					
RADIUS Accounting	9					
IEEE802.1X						
▲ Time Client						
SNTP Setup						
Powersave Setup						
Redundancy						
Spanning Tree Multiple Spanning	Tree					
Link Aggregation	nee	-	Check	all parameters of this page	Uncheck all parameters of this page 0 parameter total checked for copy	

In the following example we want to create a master for the RADIUS settings. So we select the RADIUS Global Auth. tab and check the relevant boxes:

Device-Editor		·		
Master-Config [raidus]				
[Exit & Save] [Quit] [Check all p	parameters]	[Uncheck all parameters] Mast	ter-Config	
Device Info	A RADIUS	Global Auth.		
✓ Port Setup	Globa	Authentication Server Setup		
Port 0 [MGMT]	Ciobo			
Port 1 [TP-1]		Server 1 Address:	192.168.0.20	Edit
Port 2 [TP-2]		Server 2 Address:		Edit
Port 3 [TP-3]				
Port 4 [TP-4]		Server 3 Address:		Edit
Port 5 [SFP-5]		Server 4 Address:		Edit
Management				
IPv4 / IPv6 Setup		Authentication UDP Port:	1812 (065535)	
Agent		Shared secret		(max 50 chars)
Local Accounts				(max oo onalo)
Access Global		Confirm shared secret:		
Access SNMP		Request timeout (seconds):	5 (1255)	
Access IEC61850	_		-	
Banner		Request retries:	2 (0255)	
Global		VLAN attribute:	IETF Tunnel-Private-Group-ID with VLAN-ID o	or VLAN-Name
⊿ VLAN		C: 1 :	Line doution traffic plans which to not Vision Vi	AN to received VLAN ID
VLAN Setup		Cisco device-tranic-class mode:		
Discovery		Server request algorithm:	Strict-Priority	▼
Prioritisation / CoS	MAC	Based Portsecurity		
⊿ Alarms		MAC address separator:	(max 1 char)	
Alarm Destinations		Parta courity accourage	(max r onary	(max 14 chars, leave empty to use
Global Alarms		Portsecurity password.		MAC address)
Alarm Inputs		Startup VLAN-ID:	Unsecure VLAN-ID	
SFP Alarms		Portsecurity realm:		(max 50 chars)
⊿ Security	Mana	gement Authentication		
Security Setup		Management realm:		(may 50 share)
RADIUS Global Auth.		Management realm.		(max so chars)
RADIUS Management Autn.	Globa	al Realm Setup		
IEEE802.1X		Realm location:	Suffix -	
Multicasts				
▲ Time Client		Realm separator:	(max 1 char)	
SNTP Setup				
Powersave Setup				
A Redundancy	 Chec 	k all parameters of this page Un	check all parameters of this page 3 param	neter total checked for copy
/Users\alschnei\Documents\NEXMAN\m	naster-configs	s\raidus.dat/.xml		

NOTE:

Some settings, i.e. some tables, can only be selected as a whole. For that reason the check mark will apply to the whole table.

At the bottom you can see that 4 parameters have been selected.

Exit the master editor and save the configuration via the **[Exit & Save]** menu option.

14.2. Distributing a Master Configuration

You can only distribute a master configuration, if you have first created and edited the respective master (see previous chapter).

All devices, which shall receive the master configuration, must be selected in the *Check* column of the device list. Distribution is started by selecting the menu option <u>Templates > Copy Master to checked</u>

Devices:

N Device-List - NEXMAN [New L	.ist]	
File Edit Add/Remove	Templates Inventory Logfile Help	
i 🗹 🗔 🛃 💕 🗋 🖳 🔄	Edit Master-Config	
Device-List	Copy Master-Config to checked Devices	
All Devices [4]	Copy Master-Config to checked Devices scheduled	Write Con
Unassigned Devices [4]	Copy Configuration Templates to checked Devices	Ctate
Catagorian		, State

Note:

By selecting the menu option <u>**Templates > Copy Master to selected Devices scheduled</u> a scheduled distribution is possible.</u>**

After selecting the desired menu option a confirmation query is displayed indicating the selected devices:

Info - NEXMAN
You have checked 4 Device(s). Are you sure?
Uncheck successful devices
Yes No

Note:

By checking the box <u>Uncheck successful Devices</u> the check mark in the <u>Check</u> column will be removed for all devices, to which the master has been successfully copied. Thus after completion of the distribution only those devices still have their check mark in the device list, for which the distribution has failed. So you do not need to look for them in the log book. By clicking on the <u>Check</u> column title these devices are moved to the top of the device list.

When you have answered the query with Yes a file browser window opens for selecting the previously created master configuration:

N Open Master-Config file				×
◯◯ - 🖟 « OSDisk (C:) → Benutzer → alschnei → Eig	ene Dokumente 🕨 NEXMAN 🕨 master-configs	▼ 49	master-configs durchsuc	hen 🔎
Organisieren 🔻 Neuer Ordner				
📗 Eigene Dokumente	^ Name	Änderungsdatur	n Typ	Größe
Benutzerdefinierte Office-Vorlagen Cap	😰 raidus.dat	10.11.2018 14:56	DAT-Datei	21 K
Documentation Grafiken				
 IISExpress Meine empfangenen Dateien 				
My Web Sites	E			
basic-configs database				
uevice-lists 👔 firmware-images				
inventory-lists master-configs				
鷆 tmp	• •	III		•
Dateiname: raidus.dat		•	Master-Config files (*.dat Öffnen) 🔻

Now there is again a confirmation request displayed indicating the selected parameters:



Prior to the distribution the name and password of the Admin account have to be entered:

Authentication - NEXMAN				
Please enter Name and Pas Current	sword for Admin Account.			
Admin Name:	admin			
Admin Password:	*****			
Admin-Name/Password	changes after writing Device			
New				
Admin Name:				
Admin Password:				
Write Config to Device				
Don't read back Config after writing Device				
Copy Master	Cancel			

Note:

If the master configuration changes the Admin account, both the current Admin account and the new Admin account must be entered. In this case the box "Admin-Name/Password changes after writing Device" must be checked.

After pressing **Copy Master** the distribution is started.

The progress can be monitored in the log window. After completion of all devices a summary is displayed at the end of the log book:

Log Messages - NEXMAN	
	<u> </u>
WRITING Config to Device [SW-B221][192.168.0.5] Authenticating User via UDP: UDP authentication not allowed. Retrying with SCP authentication Writing Config via SCP: ok Activating new Config: ok Authenticating User via UDP: UDP authentication not allowed. Retrying with SCP authentication Reading Config via SCP: ok Verify Config: ok Success	
SUMMARY: Time started: 15.11.2018 13:43:16 Time finished: 15.11.2018 13:44:33 Devices success: 3 Devices failed: 0 ####################################	
Cancel	

14.3. Distributing of Name and Location via Master Configuration

The name and the location of a device are typically assigned individually. That is why the standard procedure (as described above) with direct indication of a name or a location in the Master Editor cannot be used. Instead, in the Master configuration a reference can be made to an external CSV file from which the name and the location, if required, can be derived from the MAC address.

In the Master Editor you can choose among the following four procedures:

Name	Setup	
V	Name:	Get Name from CSV file by MAC Address (xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
_	Filename: Browse Oper	Get Name from CSV file by MAC Address (xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
	Location:	Roc Get Name/Location from CSV file by MAC Address (xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
	Contact:	Get Name/Location/Contact from CSV file by MAC Address (xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
	Domain:	Get Name/Location/Contact/Domain from CSV file by MAC Address (cocococococ;Name;Location,Contact;Domain) (max ou cnars)

The corresponding format of the CSV file is indicated in brackets. A file for the selection of "Get Name/Location from CSV file by MAC Address (xx:xx:xx:xx:xx:xx;Name;Location) could look as follows:

Nam-Loc.txt - Editor	x	
Datei Bearbeiten Format Ansicht ?		
00:C0:29:24:F5:51;SW-B220;Room-B220 00:C0:29:24:F2:C7;SW-B221;Room-B221 00:C0:29:24:F8:55;SW-B222;Floor-B222		*
		Ŧ
<	. Þ.	зđ.

Note: Possible letters in the MAC address are accepted as upper- and lower-case letters.

Afterwards the created CSV file must be selected in the Master Editor via the **Browse** button and the Master check mark be set:



A template for the CSV file can be automatically created using the Manager. To do so select the desired devices in the **Check** column of the Device List and then select the menu item

Inventory → Create CSV MAC-Address-List for Master-Config from Database

(xx:xx:xx:xx:xx;Name) or Inventory → Create CSV MAC-Address-List for Master-Config from Database (xx:xx:xx:xx:xx;Name;Location):



Now you can directly edit the created CSV file:

Question	23
2	MAC-Address-List for Master-Config successfully saved. Do you want to open the List now?
	Yes No

Alternatively, the CSV file can also be opened directly from the Master Editor via the Open button:

Name	Setup			
\checkmark	Name:			Get Name/Location from CSV file by MAC Address (xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
	Filename:	Browse	Open	C:\Users\Administrator\Documents\NexMan\master-configs\Nam-Loc.txt

After saving the Master configuration can be distributed (see previous chapter).

Note:

The log book shows whether the Manager has found the respective MAC address of the device during the distribution of the Master configuration. The executed changes are documented:

Log Messages - NEXMAN	
Verify Config: ok Success	*
COPY MASTER [C:\Users\alschnei\Documents\NEXMAN\master-configs\raidus.dat] to Device [SW-B221][192.168.0.5]	
READING Config from Device [SW-B221][192.168.0.5] Authenticating User via UDP: UDP authentication not allowed. Retrying with SCP authentication Reading Config via SCP: ok	
Success	-
Reading Device-Name from file 'C:\Users\alschnei\Documents\NEXMAN\master-configs\Nam-Loc.txt': Change Name from'SW-B221' to 'SW-B221'	
WRITING Config to Device [SW-B221][192.168.0.5] Authenticating User via UDP: UDP authentication not allowed. Retrying with SCP authentication Writing Config via SCP: ok	÷
Cancel	

If the respective MAC address is not found in the CSV file, a corresponding error message is returned and the name or location will not be changed. However, all other parameters of the Master configuration, which have been selected by Master check marks, will be accepted:

Log Messages - NEXMAN	
####################################	
Reading Config via SCP: ob Pautientication not allowed. Retrying with SCP autientication Reading Config: ok Verify Config: ok Success Reading Device-Ivame from tile C:\Uters\alschnei\Documents\NEXMAN\master-configs\Nam-Loc.txt*: MAC Address not found	Ξ
WRITING Config to Device [NEXANS-00C02924F551][192.168.0.70] Authenticating User via UDP: UDP authentication not allowed. Retrying with SCP authentication Writing Config via SCP: ok Activating new Config: ok Authenticating User via UDP: UDP authentication not allowed. Retrying with SCP authentication	
Cancel	

14.4. Distributing of IP Address via Master Configuration

In the same way as described in the previous chapter you can distribute the IP Address, Netmask and Gateway by using a .csv file. Therefore, click the check box next to the IP Address on tab 'IPv4 / IPv6 Setup' in the Master Editor.

V	IPv4 Address:	Get IP-Address/Netmask/Gateway from CSV file by MAC Address (xxxxxxxxxx;IP-Address;Netmask;Gateway)		
	Browse Open	C:\Users\Public\Documents\NEXMAN Client\master-configs\autoconfigtest.csv		
	Netmask:	255.255.255.0		
	Gateway Address:	0.0.0.0		

The checkboxes for netmask and gateway will become disabled after selecting the IP Address, because these values are also taken from the .csv file. In this case, the file must have the following format: MAC Address ; IP Address ; Netmask ; Gateway

Use the Browse button to select an existing file and the Open button to modify it.

14.5. Rebooting switches via Master Configuration

A reboot of single or all switches without changing the configuration can be performed via the Master configuration.

To do so, the Master check mark is set on the **Agent** tab and the Parameter check mark for **Reboot**. Please take care that this is the only Master check mark set (see indication in the footer):

Reset Setup Image: Reset Action: None Name: Reset Action: Rebot (cold Start) Reset Provide and Mode: Rebot (cold Start) Name: Reset Total Boots Counter Reset Fort Counters Reset Action: Reset Action: Reset Provide and Reset Provide and Reset Provide Action Time Reset Counters Reset Counters Reset Total Operation Time Reset Counters Reset Total Boots Counter, Pot Counters, Total Operation Time and Local Logging Reset Counters Reset Total Boots Counter, Pot Counters, Total Operation Time and Local Logging Rebot with outsomer rebot settings Rebot with outsomer rebot settings Rebot with outsomer rebot settings Rebot with outsomer rebot settings Rebot with outsomer rebot settings (max 50 chars) Domain: (max 50 chars) Layer-2 Functions (max 50 chars) Life/Autodiscover Packet Rate: 1min Basic Configurator Access: Enabled Fixed IP: Enabled Fixed IP: Enabled Fixed IP: Enabled	Agent					
Reset Action: None Memory Card Mode: Reboot (Cold Start) Reboot (Wh Factory Default (Except IP Parameters) Reboot (Cold Start) Name Setup Reset Total Boots Counter Reset Total Counters Reset Total Counter Reset Total Counters Reset Total Counter Reset Total Doperation Time Reset Total Boots Counter reset Total Operation Time and Local Logging Filename: Browse De Reboot with out cutomer reboot settings Reboot with cutourner reboot settings Reboot with cutourner reboot settings Reboot with cutourner reboot settings Reboot with cutourner reboot settings Reboot with cutourner reboot settings Reboot with cutourner reboot settings Reboot with cutourner reboot settings Reboot with cutourner reboot settings Reboot with cutourner reboot settings Reboot with cutourner reboot settings Reboot with cutourner reboot settings Location: not defined (max 50 chars) Domain: max 50 chars) (max 50 chars) Layer-2 Functions Itie/Autodiscover Packet Rate: 1min Enabled Fixed IP: Enabled Imable Fixed IP: Enabled Fixed IP: </th <th>Reset</th> <th>Setup</th> <th></th> <th></th>	Reset	Setup				
Memory Card Mode: Rebot (Cold Start) Rebot with Factory Default (Except IP Parameters) Reset Total Boots Courters Reset Total Boots Courters Reset Total Boots Courters Reset Total Boots Courters, Total Operation Time and Local Logging Reset Total Boots Courter, Pot Courters, Total Operation Time and Local Logging Reset Total Boots Courter, Pot Courters, Total Operation Time and Local Logging Reset Total Boots Courter, Pot Courters, Total Operation Time and Local Logging Rebot without cutomer rebot settings Reboot with customer default settings Location: Image: Contact: not defined (max 50 chars) Domain: (max 50 chars) Layer-2 Functions (max 50 chars) Life/Autodiscover Packet Rate: 1min Fixed IP: Enabled Fixed IP: Enabled Fixed IP: Enabled	V	Reset Action:	None v			
Name Setup Reset Total Boots Counter Reset Total Boots Counters Reset Total Operation Time Reset Total Operation Time Reset Total Operation Time Reset Total Operation Time Reset Total Operation Time Reset Total Operation Time Reset Total Operation Time and Local Logging Filename: Browse Operation Time rebods settings Rebot with customer rebods settings (max 50 chars) Contact: not defined (max 50 chars) Domain: (max 50 chars) Layer-2 Functions (max 50 chars) Life/Autodiscover Packet Rate: 1min Fixed IP: Enabled Fixed IP: Enabled Fixed IP: Enabled		Memory Card Mode:	Reboot (Cold Start)			
Filename: Browse Ope Reset Total Boots Counters, Total Operation Time and Local Logging Location: Reboot without cutomer reboot settings Imax 50 chars) Contact: not defined (max 50 chars) Domain: (max 50 chars) Layer-2 Functions (max 50 chars) Configuration Switch Setup Fixed IP: Fixed IP: Enabled Fixed IP: Enabled Fixed IP: Enabled	Name	Setup Name:	Reset Total Boots Counter Reset Total Doparation Time Reset Total Logging			
Image: Problem of the customer default settings Hoom b22U Image: Domain: Domain: Image: Domain:		Filename: Browse Ope	Reset Total Boots Counter, Port Counters, Total Operation Time and Local Logging Reboot without cutomer reboot settings			
□ Contact: not defined (max 50 chars) □ Domain: (max 50 chars) Layer-2 Functions (max 50 chars) □ Life/Autodiscover Packet Rate: 1 min Configuration Switch Setup		Location:	Reboot with customer default settings Hoom BZZU (max 50 chars)	1		
Domain: (max 50 chars) Layer-2 Functions		Contact:	not defined (max 50 chars)			
Layer-2 Functions □ Life/Autodiscover Packet Rate: 1 min Basic Configurator Access: Enabled Configuration Switch Setup □ Fixed IP: Enabled □ Factory Reset: Enabled		Domain:	(max 50 chars)			
Life/Autodiscover Packet Rate: 1 min Basic Configurator Access: Enabled Configuration Switch Setup Fixed IP: Fixed IP: Factory Reset: Enabled	Layer-2	2 Functions				
Configuration Switch Setup Fixed IP: Factory Reset: Factory Reset:	Life/Autodiscover Packet Rate: 1 min Basic Configurator Access: Enabled					
Fixed IP: Enabled Factory Reset: Enabled Factory Re	Configuration Switch Setup					
Factory Reset: Enabled		Fixed IP: Enabled				
		Factory Reset:	Enabled			

When this Master configuration is distributed, a single switch is rebooted at a time and then the process is paused until this switch is online again, before the next switch is addressed. The current configuration of the switches (after rebooting) is saved to the database so that possible changes in the configuration are recorded by DHCP/BOOTP.

15. Data Backup

In order to perform a data backup, the folders indicated during installation must be saved. By default these folders are created in the following path:

C:\Users\[your username]\Documents\LANactive Manager

If these folders were modified during installation, the paths can be verified in the Device-List in the "Edit > Preferences > Folders" menu.

N Preferences - NEXMAN			
Global Device-List Device-Editor Access Folders	Folders Application data folder	(*) C:\Users\alschnei\Documents\NEXMAN	
B	Database: Browse	C:\Users\alschnei\Documents\NEXMAN\database	
	Master-Configs: Browse	C:\Users\alschnei\Documents\NEXMAN\master-configs	
	Basic-Configs: Browse	C:\Users\alschnei\Documents\NEXMAN\basic-configs	
	Firmware-Images: Browse	C:\Users\alschnei\Documents\NEXMAN\firmware-images	
	Inventory-Lists: Browse	C:\Users\alschnei\Documents\NEXMAN\inventory-lists	
	Device-Lists: Browse	C:\Users\alschnei\Documents\NEXMAN\device-lists	
		(*) Execute NEXMAN setup to change this folder	
Save Cancel			

For a data backup the following folders should be saved:



For a new installation or transfer of data to a new computer the existing folders can be replaced by the saved ones.

- .

In order to import all settings made under Preferences, the LANactive Manager configuration file must be saved. This file is located in the main directory, where also the folders are placed.

NEXMAN.config	10.11.2018 14:56	CONFIG-Datei	17 KB
---------------	------------------	--------------	-------

This file contains the paths of the configuration folders. It might be necessary to modify them.

16. Multi-User capability

Multi-user capability is particularly useful if the Manager is installed on different computers and these access the same server directories for database and device lists. Another application would be launching the Manager several times on the same computer.

16.1. Terminal Server Support

All common terminal servers are supported. This allows several users to execute the Manager simultaneously on a computer.

16.2. Device-List

As precondition an interval should be configured for automatically saving the device list under menu item Edit > Preferences > Device-List using the Autosave Device-List configuration setting. Here the device list is only saved, if changes have been performed on the list. If a second Manager has opened the same device list in parallel and wants to add or remove devices, it will recognize the changed and automatically saved device list of the first Manager and issue an appropriate warning:



16.3. Device-Editor

As soon as a device is opened in the Device-Editor for editing, the Manager creates a Lock file for this device in the Database directory. If then a second Manager tries to edit the same device in parallel, an appropriate warning is issued indicating user name, PC name, date and time:

Device Lock Info - NEXMAN	
User [NEXANSDOMAIN\alschnei] on PC [W110RHN2113920] is just editing this Device since [15.11.2018 14:02:23]. Ignore and start Device-Editor Cancel	

After leaving the editor the Lock file is deleted again.

17. Preferences

The basic settings for LANactive Manager can be entered via the <u>Edit > Preferences</u> menu:

C Device-L	ist - NEXMAN [New List]	
File Edit	t Add/Remove Templates Inventory Logfile Help	_
	Uncheck all Devices	
Devic 🗹	Check all Devices	
	Read Config of checked Devices into Database	
	Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default)	e Po
	Read CLI-Config of checked Devices into Database (with all parameters)	
	Read Local Logging messages of checked Devices into Database (via SCP)	
	Read Config of checked Devices into Database simultaneously	
	Read CLI-Config of checked Devices into Database (only with parameters changed from Factory-Default) simultaneously	
	Read CLI-Config of checked Devices into Database (with all parameters) simultaneously	
	Read Local Logging messages of checked Devices into Database (via SCP) simultaneously	
	Stop simultaneous reading	
	Open Basic Configurator (Local Mode)	
	Acknowledge changes of checked Devices	
	Reset statistic counters of checked Devices	
	Update Firmware of checked Devices	
	Update Firmware of checked Devices scheduled by Manager	
	Update Firmware of checked Devices scheduled by Device time client	
	Update Firmware of checked Devices simultaneously	
	Stop simultaneous Firmware Update	
	Clear Firmware Update Column of checked Devices	
	Enable Scheduled Configuration Download	
	Disable Scheduled Configuration Download	
8	Clear custom filters	
3	Disable custom filters	
	Preferences	

In the displayed dialogue box you can now select an appropriate category in the selection menu on the left side:

N Preferences - NEXMAN					
Giobal Device-List Device-Editor Access Folders	Global Save window sizes: Save Device-Editor docking state: Number of retries for simultaneous reading/writing actions Timeout for reading or writing Config (seconds) Timeout for writing Firmware (minutes) Timeout for status polling (seconds): Don't save Config to Database: Maximum number of database history entries: Menu language: NEXMAN Theme Scheduled Configuration Download Time:				

17.1. Global

The global settings are defined in this category:

Global

Save window sizes:	\checkmark	Restore default sizes
Save Device-Editor docking state:	\checkmark	
Don't save Config to Database:		Delete Database
Maximum number of database history entries:	10	(0100)
Menu language:	English	~
LANactive Manager Theme	Manager Silv	ver (Default) 🗸 🗸 🗸
Number of retries for simultaneous reading/writing actions	3	(110)
Sleep between retries (seconds)	1	(1600)
Timeout for reading or writing Config (seconds)	30	(30120)
Timeout for writing Firmware (minutes)	3	(3100)
Timeout for status polling (seconds):	1	(110)
Scheduled Configuration Download Time:	0 ≑ : 0) (HH:MM)

17.1.1. Save Window Sizes

If this box is checked, the window positions and sizes of the device list, the device editor and the master editor are saved and reloaded with each call. If this box is not checked, the default size and positions will be used for each start. Pressing the Restore default sizes button will reset the saved values to the default values.

17.1.2. Save Device-Editor docking state

If this box is checked, the docking state of the device editor and the master editor is saved. That means, depending on the state of the last closed editor new editors will be opened as floating windows or tabbed to the main window. If this box is not checked, new editors will be tapped to the main window. In this case, saved window sizes have also no effect on new editors.

17.1.3. Number of retries for simultaneous reading/writing actions

This value defines how often the LANactive Manager retries to connect to the switch during any simultaneous action if any connection error occurs.

These actions are described in chapter 12.9 Configuration of multiple devices.

Note: This setting has been moved to Controller Settings in the Client/Controller version.

17.1.4. Sleep between retries (seconds)

This value sets the time to wait before retrying any reading/writing action after the previous one has failed. Note: This setting has been moved to Controller Settings in the Client/Controller version.

17.1.5. Timeout for reading or writing Config (seconds)

While reading or writing a configuration to the device, LANactive Manager is waiting for the indicated period of time, until the device activates the configuration. The default value is 30 seconds. This default value should be changed in exceptional cases only (e. g. if after a reboot of the device and the related link loss a very long dead time would be added by the core device).

Note: This setting has been moved to Controller Settings in the Client/Controller version.

17.1.6. Timeout for writing Firmware (minutes)

While updating the firmware, LANactive Manager is waiting for the indicated period of time, until the device has booted with the new firmware. The default value is 3 minutes. This default value should be changed in exceptional cases only (e. g. if after a reboot of the device and the related link loss a very long dead time would be added by the core device).

Note: This setting has been moved to Controller Settings in the Client/Controller version.

17.1.7. Timeout for status polling (seconds)

This is the period of time used for waiting for an answer from the device during status polling until it is considered offline. This applies both to polling the devices in the Device List (Stand-Alone version) and to

polling within the Device Editor. The default value is one second. This value should be changed in exceptional cases only (e. g. if the connection to the device is made via a very slow dial-up connection). Note: This setting has been moved to Controller Settings in the Client/Controller version.

17.1.8. Don't save Config to Database

If this setting is enabled, binary and CLI configurations are prevented from being saved in the database. This makes particular sense, if for reasons of security the switch configuration must not be saved to a data storage medium.

17.1.9. Maximum Number of Database History Entries

This value defines the maximum number of configurations which can be archived for each individual device in the database folder. After each save operation of a modified configuration to the database a new archive entry is created and excess entries, if any, deleted. These archived configurations can be loaded into the device editor via the **Database > Load Config** menu:

M Device-Editor											
[SW-B220][192.168.0.3]											
[Exit & Save] [Quit] [Read Config from Device] [Write Config to Device] Show Configure Database Template											
▲ State	Global	Link State		Save Config	_			_			
Global+Link State	Global+Link State Load Config				•	15.11	1.2018 13:55:21				
MAC+Security State	Refresh interval (seconds): 1 Manual Refresh					3 15.11	1.2018 13:43:31	Local Lo			
PoE State						15.11	1.2018 13:19:32	Log entr			
Radius State	Port Link State					15.11	1.2018 11:42:54				
Device Info	NI-	Description	News	Power	Link	15.11	0010 11.40.00	Link/SFF			
✓ Port Setup	NO	Description	Name	Setup	Setu	15.11	1,2018 11:42:25	Alarm St			
Port 0 [MGMT]	0 MGMT					15.11	15.11.2018 11:27:12				
Port 1 [TP-1]	1	TP-1	<none></none>	Auto 802.3at High-Power	Autone	eq.	1000 FDX	No alarm			
Port 2 [TP-2]	2	TP-2	<none></none>	Auto 802.3at High-Power	Autone	eg.	100 FDX	No alarm			
Port 3 [TP-3]	3	TP-3	(none)	Auto 802 3at High-Power	Autone	en	1000 EDX	No alarm			

Moreover, the most current configuration in the database can be loaded into the device editor by selecting the **Open Device-Editor from Database** menu option from the right-click menu:

N Device-List - NEXMAN [Default]											
	File Edit Add/Remove Templates Inventory Logfile Help										
i 🗹 🗖 🛃 😂 🗋 🖳 🖳 🐎 🚧 🖏 🧏											
	Device-List 🖇	Devi	ce-List								
	All Devices [18]	Drag a column here to group by this column.						this column.			
	Unassigned Devices [2]	Check	Device	Alarms	Redundancy	PoE	Power Consumption PoE	Input Voltage PoE	IPv4 Address	Active MAC Address	
	Categories				-						1
	▲ i Building A [- 11 -]		V	T		8 8	V	V	V	V	
	⊿ 🛅 Floor 0 [2 7 -]	✓	Switch	0	Disabled	Open Device-Ed	itor from Device	F (100 100 0.0		SW
	🚞 Room 001 [2 - -]		Switch	0	0 Port(s) block					-W	
	🚞 Room 002 [3 - -]		Switch	0	0 Port(s) blocl	Open Device-Ed	itor from Database				w
	▲ 🎦 Floor 1 [- 4 -]		Switch	0	Disabled	Open WEB Brow	ser		- 0		NE
	🧰 Room 103 [2 - -]		Culture	•	Direction	Open WEB Brow	ser (HTTPS)				
	🚞 Room 104 [2 - -]		Switch	U	Disabled						IOL
	a 🛅 Building B [- 5 -]		Switch	0	Disabled Open Telnet Client [NEXMAN default client]				not		
	⊿ 🚞 Floor 0 [1 2 -]		Switch	0	Disabled	Open SSH Client	[NEXMAN default client]				not

Any configuration, which has been loaded in such a way, can be written back to the device using the <u>Write</u> <u>Config to Device</u> function.

Another possibility of using the database is the simple replacement of a device. For example: The replacement device can receive the configuration of the old device prior to installation without having to be

activated with its final IP address in the network. To do so, you just have to boot the device with the fixed IP address and subsequently write back the configuration, which was loaded into the device editor via the <u>Open</u> <u>Device-Editor from Database</u> menu option, via the <u>Configure Device > Write Config to Device with fixed</u> IP 172.23.44.111 menu:

1	20 Device-Editor								
	[SW-B220] [192.168.0.3]								
	[Exit & Save] [Quit] [Read Config f	from Device] [Write Config to Device] Show	Configure Database Template						
	⊿ State ▲	Global+Link State	Read Config from Device						
н	Global+Link State		Write Config to Device						
	MAC+ Security State	Refresh interval (seconds): 1 Manual	Write Config to Device with fixed IP 172.23.44.111						
	PoE State Radius State Port Link State		Open WEB Browser [Port 80]						
	Device Info		Open WEB Browser (HTTPS) [Port 443]						
н	▲ Port Setup	No Description Name	Open Telnet Client [NEXMAN default client]						
	Port 0 [MGMT] Port 1 [TP-1]	0 MGMT	Open SSH Client [NEXMAN default client]						

17.1.10. Menu language

You can here change the language of LANactive Manager. The following languages can be selected:

- English
- Deutsch
- Français

17.1.11. LANactive Manager Theme

The following themes can be chosen:

- LANactive Manager Silver (Default)
- Windows 7
- Desert
- Metro Blue
- Metro

17.1.12. Scheduled Configuration Download Time

Set the time for frequent configuration download. See chapter 12.9.2 Enable Scheduled Configuration Download for details.

Note: This setting has been moved to Controller Settings in the Client/Controller version.

17.2. Device-List

These basic settings only apply to the behaviour and the appearance of the device list:

Device-List	
Adjust column size on category change:	
Enable custom filters:	
Use fast scrolling:	(better for large switch lists or if all columns are displayed)
Column order:	Restore defaults
Poll interval (seconds):	1 (0 for disable)
Simultaneously polls:	16 (116)[2]
Enable Excel-like filtering:	
Show Devices from Subcategories:	\checkmark
Autosave Device-List (minutes):	0 (0 for disable)
Save columns 'Uptime' and 'Last seen' to Device-List:	

17.2.1. Poll interval (seconds)

This period of time defines the intervals at which the devices in the device list are polled via UDP port 50266. This setting does not exist in Client/Server version.

17.2.2. Poll Controller interval (seconds)

This period of time defines the intervals at which the client polls the controller for any new information, for example Device-List updates or new log messages.

This setting does not exist in the Stand-Alone version.

17.2.3. Simultaneously polls:

Here the number of parallel queries of several switches contained in the Device List is set. In particular for a large number of devices this provides the advantage that the switch status will be refreshed more quickly. This setting does not exist in Client/Server version.

17.2.4. Autosave Device-List (minutes)

Here an interval for automatically saving the Device List can be configured. The device list is only saved, if changes have actually been performed on the list.

This setting does not exist in Client/Server version.

17.2.5. Save columns 'Uptime' and 'Last seen' to Device-List

In the Device List the <u>Uptime</u> column shows the time since the last booting of the device. Moreover, in the <u>Last seen</u> column the date and time of the last received response of the device is listed. By default these two columns are not saved in the Device List file.

If the Device List shall display the current values for these two columns immediately after opening, the <u>Save</u> <u>columns 'Uptime' and 'Last seen' to Device-List</u> option is to be checked. However, now with <u>each</u> change of the Device List and <u>each</u> shut down of the Manager a message will be displayed reporting the change in the Device List and asking, whether it shall be saved or not. Since both columns are principally updated with <u>each</u> polling run of the Device List and thus the Device List contents is changed, the above message is bound to be displayed.

17.2.6. Adjust column size on category change

If the check mark is set for this function, the sizes of the columns in the device list will be automatically adjusted to the contents of the fields, when the category is changed. However, for the first polling run of the devices in the device list the sizes of the columns are principally determined automatically. If this function is disabled, the size of the column can be changed by drawing the column header after the first polling run, or by selecting "Adjust Column Size" below the device-list.

17.2.7. Enable custom filters:

When this function is disabled, the Custom Filter line is removed from the Device List.

17.2.8. Available Columns / Displayed Columns

These two selection fields allow you to define which columns shall appear in the device list. Only those columns will be shown which are indicated in the 'Displayed Columns' field. Via the 'Add' and 'Remove' buttons you can then add or remove columns. Moreover, the two green buttons enable you to configure the order of the columns.

17.2.9. Use fast scrolling

Selecting this function will enable fast scrolling.

17.2.10. Enable Excel-like filtering

Enable Excel-like filtering for the Device-List. By doing so, the filtering row disappears and a filter button in the header cell is visible, opening a dialog showing all possible values in this column.

17.2.11. Show Devices from Subcategories

After this setting is enabled, selecting a parent category does not only show its Devices, but also the Devices located in all subcategories.

17.3. Device-Editor

These basic settings determine the behaviour of the device editor:
Device-Editor		
Refresh interval for State tabs (seconds):	1	(0 for disable)
Refresh interval for Show buttons (seconds):	1	(0 for disable)
Maximum number of opened Device-Editors:	5	(110)[4]

17.3.1. Refresh interval for State tabs (seconds)

This period of time defines the intervals at which the 'State' tabs in the device editor are automatically updated. If this value is set to '0', no automatic update will be made. Pressing the <u>Manual Refresh</u> button will initiate an immediate update:

N	Device-Editor										
	[SW-B220][192.168.0.3]										
Γ	[Exit & Save] [Quit] [Read Config from Device] [Write Config to Device] Show Configure Database Template										
	⊿ State	G	ilobal	+Link State							
Global+Link State MAC+Security State Refresh interval (seconds): 1				ids): 1 Manual F	nual Refresh Cable Diagnostic all TP Ports TF		d Position:	Local Log: Show Entries:			
	PoE State						Horizont	al	Log entries present	22	
	Radius State		Port	t Link State							
	Device Info					Power	Link	Link	Link/SFP		
	✓ Port Setup		No	Description	Name	Setup	Setup	State	Alarm State	l ime since last link cha	
	Port 0 [MGMT]		0	MGMT							
	Port 1 [TP-1]		1	TP-1	<none></none>	Auto 802.3at High-Power	Autoneg.	1000 FDX	No alarm	0 days : 03 hours : 44 m	

17.3.2. Refresh interval for Show buttons (seconds)

This time period defines at which intervals the windows appearing after pressing a 'Show' button will be automatically refreshed. If this value is set to '0', no automatic refreshing will take place. In this case pressing the <u>Manual Refresh</u> button will trigger an update:



17.3.3. Maximum numer of opened Device-Editors

Defines the maximum number of simultaneously opened Device-Editors.

17.4. Access

This category summarizes basic settings for access via external programs:

Access	
Manager access mode:	UDP/TFTP first, then SCP
Protocol version:	IPv4 only 👻
WEB browser TCP port:	80 (165535) [80]
WEB browser HTTPS TCP port:	443 (165535) [443]
Telnet client:	NEXMAN default client
Browse	
SSH client:	NEXMAN default client
Browse	

17.4.1. Manager Access Mode

The Manager Access Mode defines which protocols the Manager uses to read or write the switch configuration.

This includes the following actions:

- Reading the binary configuration
- Writing the binary configuration
- Reading the CLI configuration
- Firmware update

UDP/TFTP only:

Here file transfer of the configuration or firmware is performed via the switch-integrated TFTP server. Access to the TFTP server generally requires prior authentication, which is performed using a proprietary protocol via UDP port 50266. After successful authentication only one single Get or Put TFTP transfer may be performed. After successful completion of the TFTP transfer, access to the TFTP server is locked again. In detail the process is as follows:

- The user enters his/her account data (name/password) into the Manager's authentication dialogue.
- The Manager encrypts name and password using a proprietary procedure.

- The encrypted account data are transmitted via UDP port 50266 to the switch. At the same time the UDP packet informs whether a TFTP Put or Get access is requested.

- The switch receives the packet and decrypts name and password.

- Depending on the "Manager Authentication Mode" setting the switch compares the data with the local Read/Write and Read/Only account or sends them to a Radius server.

- Depending on whether name, password and the access request (Get or Put) match a Read/Write or Read/Only account, the switch answers per UDP packet on port 50266 with a positive or negative acknowledgement to the Manager.

In case of a positive acknowledgement the switch simultaneously enables access to the TFTP

server. Depending on whether a Get or Put access has been authenticated, TFTP access is unlocked exclusively for Get or Put.

- Now the Manager performs the requested Get or Put access via TFTP.
- After successful completion of the TFTP file transfer, the TFTP server is locked again.

Note: The server is locked also in case of a transfer failure.

UDP/TFTP first, then SCP

This is a Manager's default setting. First, an authentication via UDP is attempted. If this attempt is successful, file transfer via TFTP will be performed.

If the switch rejects the UDP authentication, because no matching account was found, access to the switch will be aborted.

If the switch rejects the UDP authentication due to the "Manager Authentication Mode" is set to SNP, another authentication attempt via SNP will be initiated. If this attempt is successful, file transfer via SCP will be performed.

If the switch also rejects the SNP authentication, because no matching account was found, access to the switch will be aborted.

17.4.2. Protocol version

Defines which protocol version should be used to access the switch.

17.4.3. WEB Browser TCP Port

This setting defines which TCP port is used when selecting the Open WEB Browser menu option. The default port for WEB is 80.

17.4.4. WEB Browser HTTPS TCP Port

This setting defines which TCP port is used when selecting the **Open WEB Browser (HTTPS)** menu option. The default port for WEB is 443.

17.4.5. Telnet Client

This setting defines which Telnet client is started when selecting the **Open Telnet Client** menu option. If the **Use Windows default client** box is checked, the Windows-registered Telnet Client is called. If this box is not checked, you can select any Telnet application to be started instead by pressing the **Browse** button.

17.4.6. SSH Client

Here you can configure, which SSH client is launched upon selection of the <u>Open SSH Client</u> menu option. The <u>Browse</u> button allows you to select an SSH client which already has to be installed on the PC. It is called with the selected file name and the attached IP address of the device.

17.5. Folders

In the Folders category several default directories are defined. These directories will then be offered to the user as defaults when opening directories:

Folders	
Application data folder	(*) C:\Users\alschnei\Documents\NEXMAN
Database: Browse	C:\Users\alschnei\Documents\NEXMAN\database
Master-Configs: Browse	C:\Users\alschnei\Documents\NEXMAN\master-configs
Basic-Configs: Browse	C:\Users\alschnei\Documents\NEXMAN\basic-configs
Firmware-Images: Browse	C:\Users\alschnei\Documents\NEXMAN\fimware-images
Inventory-Lists: Browse	C:\Users\alschnei\Documents\NEXMAN\inventory-lists
Device-Lists: Browse	C:\Users\alschnei\Documents\NEXMAN\device-lists
	(*) Execute NEXMAN setup to change this folder

17.5.1. Database

The configurations of the individual devices are stored in this folder. For each device a file of the name $a_b_c_d$ at is created ($a_b_c_d$ is the IP address a.b.c.d of the device). Within the folder another folder called 'history' is created containing the archived configuration.

17.5.2. Device-Lists

The device lists are stored in this folder. If several PCs are used to access this folder (e. g. because it references a network drive), LANactive Manager checks whether the currently loaded device list has been modified by another PC and returns a corresponding message, if necessary. This folder does not exist in Client/Server version.

17.5.3. Master-Configs

The master configurations are stored in this folder.

17.5.4. Basic-Configs

User-Default templates of the Basic Configurator are stored in this folder.

17.5.5. Firmware Images

The firmware images are stored in this folder.

17.5.6. Application Data Folder

The basic configuration (above Preferences) and several temporary files of LANactive Manager are stored in this folder. Consequently, this folder can only be defined during installation of LANactive Manager. If the position of this folder shall be changed at a later stage, this can be done by recalling the LANactive Manager Setup Program.

18. LANactive Manager Controller

18.1. Switch Communication

In the Client/Controller version every communication to the switch is done by the controller. The clients will only receive information from or send commands to the controller. This changes the way the file management is handled.

The controller will only send configuration/firmware files which are stored on the controller. That means, before starting a configuration or firmware update the corresponding files must be uploaded to the controller. This can be done using the "**Local files...**" button on any file selection dialog or using the file management described in chapter *18.4 Configuration Files stored on the Server*.

Also reading configurations will first save the configuration file on the controller and download them to the client afterwards.

For example, to edit a Master Configuration the file has to be downloaded to the client first (if already existing, local files can be selected as well):

✔ Device-List - LANactive Manager Client							
File Edit Remove	Templates Inventory Logfile Help						
2 🖸 🔲 📓 🚰 🎋 🖇	Edit Master-Config						
Device-List	Copy Master-Config to Phecked Devices						
New Switch List	Copy Master-Config to checked Devices scheduled						
Devices	Copy Master-Config and Configuration Templates to checked Devices simultaneously Cancel Copy Master-Config and Configuration Templates scheduled						
All Devices	Stop copying Configuration Templates						

Select Master Config File From Server							
File Name	Creation Time	Modification Time	File Typ				
192_168_0_89.dat	14.09.2021 14:16:30	25.02.2021 10:40:53	MasterConfigFile				
٩ [1111		•				

After finished editing, the changes will be saved locally. The file must be uploaded to the controller to be able to send it to any Device. This can be done by clicking **"Save & Upload"** or answering the question whether the file should uploaded with 'yes' after clicking **"Exit & Save"**.

Ş	Device-List Log Messages [AS	C_Test_HW5_P6_Desk] [192.168.13.16]	Master-Config [192_168_0_89]*
0	[Exit & Save] [Cancel] [Check all par	ameters] [Uncheck all parameters]	Master-Config
0	Device Info	Device Info	Open
	Port Setup	Management Info	Save
	⊿ Management		Save as
	IPv4 / IPv6 Setup		Save & Upload
	Agent	Management Firmware Version:	V6.04H
-	Local Accounts		
	Access Global		

18.2. Zero Touch Configuration

Zero Touch Configuration is a feature, which allows the Controller to do firmware updates, to copy config files and to add new devices to the database automatically.

To start and stop this feature click Start **Zero Touch Configuration** in the button in the **Database Management** (see Chapter *12.4 Database Management in Client/Controller-Version*).

ſ	🕂 Database Manager	ment							
	i 🖻 🖻 🗟 🛛 🕶 💓 🗰 💓 🗊 📄 🕨 🖓 🖵 🏛 🤅								
l	Drag a column header and drop it here to group by that column								
l	Move to Device-List	Active MAC Address	IPv4 Address	IPv6 Address	IPv6 Link Local Address	Name			
		V	V	V	V				

After starting, the Controller will listen for packets sent by any device to register itself. Therefore, corresponding devices must have a **firmware version V6.xx** or above, belong to one of the **device family F40, F46, F47 or F48** and have Zero Touch Configuration enabled, like it is at factory default. Also, all new devices must receive their IP Address from a DHCP Server first. This DHCP Server must have the Option 43 configured, to tell the device the Controllers IP Address. The Nexans Switch Management Manual contains more information about how to configure Option 43. After that, the device will repetitive send a message to the controller until the Controller itself or any user disables Zero Touch Configuration on the switch.

When receiving a message, the Controller checks whether this device (means this MAC Address) already exists in the database. In this case, the message will be ignored. Otherwise, depending on the settings, the controller will update the firmware, copy the config file to the switch and add the switch to the database. Additionally, the switch will be added to the device list '**New Devices [system]**', which can only be seen by administrator users and not be edited manually, except removing switches from this list. Last, the switch will be added to a category describing the result of the progress and the Controller sends a notification E-Mail, if enabled.

The firmware the device should be updated to can be set in the settings menu. One firmware for every device family which supports Zero Touch Configuration. Also updating the firmware can be enabled or disabled.

The default CLI configuration file which should be copied to the device can be set up in the same way. This file will be taken if nothing else is specified. If there is any need to copy individual configurations to different devices, the **Predefined Device List** should be preferred. If the device to configure is listed here, the corresponding configuration file will be copied to the device, otherwise the default configuration fill will be used. Enabling or disabling the copying of configuration files will have impact on both, default configuration and Predefined Device List. It is also possible to use master configurations for Zero Touch Configuration. To select a master config, change the file type after clicking the upload button.



The corresponding xml-file containing the parameters which should be copied to the device must exist in the same directory as the master config and will be uploaded automatically.

Read chapter *19.3.4 Zero Touch Configuration Settings* for more information about setting up Zero Touch Configuration.

The following picture shows the workflow of Zero Touch Configuration.



18.3. Predefined Devices

If nothing else is specified, the default configuration file set up in the Controller settings will be used for every new device depending on the device family. For an individual configuration the MAC Addresses of the devices which should be configured can be add to the **Predefined Devices List**. Click **'Predefined Devices'** to open that list.

N Database Management							
		🔜 😡 🗐	i * i				
Drag a column header and drop it here to group by that column							
Move to Device-List	Active MAC Address	IPv4 Address	IPv6 Address	IPv6 Link Local Address	Name		

To add a new device, click on the row '**Click here to add new item**'. Add the MAC Address and select a config file from the drop-down box in column '**Config File Name**'. Only already uploaded files can be selected. After that, hit the **Enter key** to add the new item to the list. The column '**Exists In Database**' indicates whether this MAC Address already has been added to the database. Validation Result shows any error possibly made during adding a new item. Click '**Save**' to store the items in the database if no error is listed.

N	Predefined Devices	and a feet benefit and	And have signified	10 JUL 1- 10 JUL 1		X
	MAC Address	Config File Name	A	Exists In Database 🕅	Validation Result	T
5	Click here to add new item	ı				
>	X 00:C0:29:0D:5D:40	Zero_Touch_Conf	ig_test.cfg		ОК	
	X 00:C0:29:0A:BE:20	Zero_Touch_Conf	ig_test.cfg	\square	ОК	
L						
SI	ow Config Files On Server	Import From CSV File	Delete Selected Items		Save	Close

To add multiple MAC Addresses and config files at once, click '**Import From CSV File**'. This file should only contain the MAC Address and the name of the configuration file. If the configuration file is not known to the Controller (not uploaded yet), the corresponding cell remains blank and an error is listed.

To add new files to the server, click 'Show Config Files On Server' button. Use 'Upload Config Files...' to select and upload new files, 'Deleted Selected Files' to delete every selected item or the 'X' button to delete

a specific file. Please have in mind, that only **CLI config files** or **Master Configurations** can be used for Zero Touch Configuration.

N Files on Controller							-	- 🗆	×
Database Files		File Name			File Type	Creation time	e	Modificatio	n time
Configuration Files				٦ ل	- T	Enter date	• 7	Enter date	• 7
Master Config Files	X	Zero_Touch_Config_Test.	fg		CLIConfigFile	14.09.2021 1	4:16:26	01.04.2021	14:15:11
Firmware Files	X	Zero_Touch_Config_Test_	2.cfg		CLIConfigFile	08.11.2021 0	9:32:01	08.11.2021	09:32:01
Inventory Lists									
Script Files									
		Upload Files	Download Selected Files	Delete Selec	ted Files			Clos	e

To automatically fill the Predefined Devices List from the database the **"Move Selected To Predefined Devices"** functionality can be used.

🕂 Database Management							
		🖩 🔛 Q 🕯	i * i				
Drag a column header and drop it here to group by that column							
Move to Device-List	Active MAC Address	IPv4 Address	IPv6 Address	IPv6 Link Local Address	Name		

By using this feature, the controller will read the configurations of every selected device and saves them as 'IP_Address.cfg'. Afterwards, the Devices will be added to the Predefined Devices List selecting the corresponding configuration.

Existing Devices can be easily exchanged from within the Device-List by using **Right Click** \rightarrow **Replace MAC Address in Predefined Devices**. The existing MAC Address will be replaced with the given new one. The configuration file will stay the same.

Check Device Alarms Redundancy Poe Power Consumption PoE Input Voltage PoE IPV4 Address Active MAC Address Name Image: Switch Offline Disabled Po Image: Switch Offline Image: Switch Offline Disabled Po Image: Switch Offline Disabled Po Image: Switch Open Device-Editor from Device Image: Switch Open Device-Editor from local Database file Open WEB Browser (HTTPS) Open Telinet Client [LANactive Manager default client] Open SSH Client [LANactive Manager default client] Open SSH Client [LANactive Manager default client] Show Local Logging messages Read Local Logging messages Read Local Logging messages Read CLi-Config from Device into local Database file (via SCP) Read CLi-Config from Device into local Database file (via SCP) Read CLi-Config from Device into local Database file (with all parameters) Open CLI-Config from Levice into local Database file (with all parameters) Open CLI-Config from local Database file Open Address to clipboard 192.168.13.16 Copy Active MAC to clipboard 00C029265866E Copy Active MAC to clipboard 00C0	Devie	ce-List	Log	Messages	- /							
Check Device Alarma Redundancy Poil Power Consumption Poil Input Voltage Poil IPv4 Address Active MAC Address Name V <											Drag a column here t	to grou
V V	Check	Device	Alarms	Redundar	ncy	PoE	Power Consumption PoE	Input Voltage PoE	IPv4 Address	Active MAC Address	Name	
Switch Offline Disabled Por Open Device-Editor from Device Open Device-Editor from local Database file Open WEB Browser Open WEB Browser Open WEB Browser (HTTPS) Open Telnet Client [LANactive Manager default client] Open SSH Client [LANactive Manager default client] Open SSH Client [LANactive Manager default client] Show Local Logging messages Read Local Logging messages from Device into local Database file (via SCP) Read Script File from Device into local Database file (via SCP) Read CLI-Config from Device into local Database file (via SCP) Read CLI-Config from Device into local Database file (via SCP) Read CLI-Config from Device into local Database file (via SCP) Read CLI-Config from Device into local Database file (via SCP) Read CLI-Config from Device into local Database file (via SCP) Read CLI-Config from Device into local Database file (via SCP) Read CLI-Config from Local Database file (via SCP) Read CLI-Config from Local Database file Open Basic Configurator (MAC Address Mode) Copy IP address to clipboard 000:C02926586E Copy Active MAC to clipboard 000:C02926586E Copy Active MAC to clipboard 000:C02926586E Copy Active MAC to clipboard 000:C02926586E		V	V		8	2	7	V	V	V		T
Replace MAC Address in Predefined Devices		Switch	Offline	Disabled			Open Device-Editor from D Open Device-Editor from D Open Device-Editor from Io Open WEB Browser Open WEB Browser (HTTPS) Open Telnet Client [LANactive Show Local Logging messa Read Local Logging messa Read Local Logging messa Read Cli-Config from Devic Read CLI-Config from Devic Open CLI-Config from Devic Open CLI-Config from Iocal Open Basic Configurator (M Copy IP address to clipboa Copy Active MAC to clipboa Copy Active MAC to clipboa Copy Active MAC to clipboa	evice cal Database file ve Manager default Manager default cli ges ges from Device into e into local Databas ite into local Databas ite into local Databas ite into local Databas (Database file IAC Address Mode) rd 192.168.13.16 ard 00:C0:29:26:58:6E ard 00:C0:29:26:58:6E ard 00:C0:29:26:58:6E ard 00:C0:29:26:58:6E ard 00:C0:29:26:58:6E	client] ient] e file (via SCP) se file (only with se file (with all p	file (via SCP) parameters changed f arameters)	rom Factory-Default)	

18.4. Configuration Files stored on the Server

To handle the configuration files, which are stored on the server like described in the previous chapter, the button **Config File On Server** can also be used.

ſ	💦 Database Manager	ment									
	: R R R . : : : : : : : : : : : : : : :										
l	Drag a column header and	d drop it here to group by that	: column								
l	Move to Device-List	Active MAC Address	IPv4 Address	IPv6 Address	IPv6 Link Local Address	Name					
		T T	V	V	V						

All files known by the Controller of any type are listed here. Using "**Upload files...**", new files can be added to the Controller. With "**Download Selected Files**" files can be saved on the local client computer. To change the location of the controller files, see chapter *18.8.1 General Settings*.

18.5. Log-Messages Server

The Controller can receive different kinds of messages and store them into the database. These messages are

- SYSLOG Messages
- SNMP Trap Messages
- Zero Touch Configuration Messages
- Controller Notifications

To enable the listening to SYSLOG and SNMP Trap messages, click '**Start Log-Messages Listening**' inside the Database Management. Messages sent by the controller itself, like Zero Touch Config or Controller Notifications will be stored anyway.

ſ	🔨 Database Manage	ment									
	$[\mathbb{R} \oplus \mathbb{R} \oplus \mathbb{R}] = \mathbb{R} \oplus \mathbb{R} $										
l	Drag a column header and drop it here to group by that column										
l	Move to Device-List	Active MAC Address	IPv4 Address	IPv6 Address	IPv6 Link Local Address	Name					
		V	V	V	V						

To receive SYSLOG and SNMP Trap messages, the controller's IP Address must be entered into the device's configuration using the Device-Editor.

To have a look at the received messages click 'Show/Hide Log-Message' in the main window.

V Device-List - NEXMAN Client									
File Edit Remove Templates Inver	ntory	L	ogfile He	р					
🗹 🗖 🚰 🖄 🔰 💐 🖏 🧠 🧏									
Device-List		Ş	Devic	e-List					
New Switch List					_				
Devices		•	Check	Device	Alarms	Redundancy	PoE	Power Consumption Po	
All Devices	6	1		T	T	V	V		
Unassigned Devices	6	1		Switch	2	Disabled	No	0,0	
				COMPANY	0	Disabled	D -	0.0	

The new tab page lists all types of messages concerning devices inside the current Device-List. Administrators will see all messages. The **'Delete'** button allows the deleting of any message. The page can also be moved anywhere inside the main window and the new position will be stored until the **'Show/Hide Log-Message'** button is clicked again.

Device-List L	og Messages							
Drag a column header and drop it here to group by that column								
Sender IP Address 🕅	Time-Stamp 🛛 🕅	Message Type 🟹	Message					
192.168.13.17	17.09.2019 11:59:11	Syslog	Configuration Changed: Total Configuration Changes=445, User=admin, Source=Manager/SCP					
192.168.13.17	17.09.2019 11:59:11	Syslog	Cold Start: Source=Power interruption -or- Watchdog -or- Hardware reset by pressing both config buttons					
192.168.13.17	17.09.2019 11:59:12	Syslog	Port Link Up: Portnumber=1, Description=TP-1, Name= <none></none>					
192.168.13.17	17.09.2019 11:59:12	Syslog	Port Link Down: Portnumber=1, Description=TP-1, Name= <none></none>					
192.168.13.17	17.09.2019 11:59:12	Syslog	Port Link Change: Link-State=Down, Portnumber=1, Description=TP-1, Name= <none></none>					
192.168.13.17	17.09.2019 11:59:12	Syslog	Internal Voltage Failure: Voltage1(mV)[2500+-150]=0, Voltage2(mV)[3300+-150]=0					

18.6. E-Mail Notifications

The Controller is able to send notifications via E-Mail to inform the user about special events. The different types of notifications can be activated in the Controller Settings menu (see chapter *19.4.5 E-Mail Notifications*).

18.6.1. Zero Touch Configuration Notifications

If activated, the controller will send an E-Mail after a specific amount of time containing the information about the devices which have been updated, configurated and added to the database since the last notification. Also, it tells about the current firmware version, the used configuration file and the category the device has been moved to. The E-Mail will look like the following:



18.6.2. SYSLOG Notifications

When receiving a SYSLOG messages with a severity level equal or lower than specified in the settings the Controller will send an E-Mail like the following:

Von neuman_notificator@neuans.de						Antworten	A Weiterleiten	Archivieren 🖻	🗊 Löschen	Meh
Betreff Syslog Notification									02.09.2	019, 11
An Mich 🗘										
The following Syslog messages have been receive	d:									
Sender IP Address	Hostname	Facility	Severity	Time Stamp	Message					
192.168.13.17 Source-Manager/SCP	NEXANS-00C029293443	1	1	02.09.2019 11:04:22	Mgmt Authentication: User has R/W access,	IP-Address	=192.168.13.	1, User=admin	n, Status=O	Κ,

18.6.3. SNMP Trap Notifications

When receiving a SNMP Trap message, the Controller will send an E-Mail like the following:

Von norman notificator@novans.dc 🛱		5 Antworten	A Weiterleiten	ā Archivieren	🗊 Löschen	Mehr 🗤
Betreff SNMP Trap Notification					02.09.2	2019, 11:04
An Mich 🏚						
The following SNMP Traps have been received:						
Sender IP Address Time Stamp Messa	iêc					
192.168.13.17 02.09.2019 11:04:21 Mgmt Manager/SCP	authentication: Management Authentication- User has R/W access, IP-Address-192.160	0.13.1, User	-admin, Stat	us-OK Last So	wrce Inter	rface-

To decrypt SNMPv3 message username, authentication password and privacy password must be entered in the Controller Settings (see chapter *19.4.6 Log-Messages Server Settings*) and the device's SNMP protocol version must be set to 'SNMPv3 [Auth.-SHA][Priv.-AES-128]' with same SNMPv3 Trap Account credentials.

18.6.4. Controller Notifications

The Controller is also able to send notifications on its own, every time a known switch goes offline. The corresponding E-Mail will look like the following:

Von nexman_notificator@nexans.de 🏠		
Betreff Switch Went Offline Notification		
An Mich 😭		
The following Controller Notifications have been	received:	
Sender IP Address	Time Stamp	Message
10.242.2.65	02.09.2019 14:46:21	Switch is offline: 10.242.2.139!

18.7. Importing Devices from file

To avoid adding Devices to the database manually or the network is scanned by any third-party tool it is possible to schedule an import process which will read and import Devices from a csv-file at a specific time. The Devices will be added to a Device-List which has to be selected in the general settings and if possible to new categories which are created like it is written in the device's location. Therefore, the csv-file must have the following format:

IP Address; Location

If the categories inside the location are separated with the same character as the IP Address and Location, the Location should be enclosed in quotation marks. The separators can be set in the settings menu, like the maximum category level, which means how many subcategories should be created.

The following picture demonstrates how the file could look like:

1 192.168.13.26;BuildingA\RoomB\A101
2 192.168.13.20;BuildingA\RoomB\A105
3 192.168.13.17;BuildingA\RoomB\A102
4 192.168.13.16;BuildingA\RoomB\A103
5 192.168.13.15;BuildingA\RoomB\A104
6 192.168.13.5.;BuildingB\RoomA\B105
7 192.168.6.200;BuildingB\RoomA\B106
8 192.168.6.120;BuildingB\RoomC\B107

To read more about setting up time scheduled device import see chapter 19.6.1 General Settings.

18.8. Time Scheduled Configuration

The Controller is able to copy specific configurations to devices at a given point of time. When this feature is enabled and that point of time is reached, the Controller will first read the current configuration of the target device and save it. Afterwards the new configuration will be copied to the devices. This configuration will last until the end time is reached. Then the old configuration will be copied back to the device. To enable this

feature use the **Settings** menu as described in chapter *19.8.1 General Settings*. For setting up the configuration files and the corresponding devices open the **Time Scheduled Configuration** dialog by clicking the **Open Time Scheduled Configuration** button.



In this dialog several IP addresses of devices to be configured can be entered. The configuration file can be choosen in column "Config File Name". The dropdown list shows every configuration file stored on the server. To add or remove files see chapter *19.3 Configuration Files stored on the Server*. The start time tells the Controller when the new configuration should be copied to the device. At the end time the old configuration is copied back to the device. Both points of time must lay in the future. After setting all values hit the **Enter key** to add the new item to the list.

N	lime	Scheduled Configuration			-	(I have a set of heads)		
		IP Address	Config File Name	Start		End	Validation Result	
			۲ 🗌 🗸	Enter date	1	Enter date	ব 🗌	A
7	Cli	ck here to add new item						
	X	192.168.0.15	default.cfg	06.10.20 10:15		06.10.20 10:45	OK	
Sh	ow (Config Files On Server Delete	e Selected Items 🔲 Delete completed config	jurations			Save	Close

18.9. Authentication

By default, the controller uses the Build-In user management to authenticate any user (see chapter 11.5 *User Management in Client/Controller-Version*). Alternatively, a RADIUS or Active Directory Server can be used to validate login requests. The Authentication Settings are described in chapter 18.9.7 Authentication Settings.

18.9.1. RADIUS Authentication

To use RADIUS authentication the following values must be configured on the RADIUS Server:

- Vendor "nexans" with Vendor ID "266"
- Attribute "Nexans-User-Role-Template" with attribute ID "100" of type string added to Vendor "nexans"

Vendors						
ID	Vendor Name	Enabled				
0	dhcp	Yes				
1	ietf	Yes				
5	acc	Yes				
9	cisco	Yes				
11	hp	Yes				
43	3comss	Yes				
61	merit	No				
64	gandalf	No				
166	shiva	No				
177	net	No				
266	nexans	Yes				
Attribute ID	O Attribute Nam	e		Attribute T	уре	Enabled
100	Nexans-User-	Role-Templa	e	string		Yes

Every user must have the attributes "User-Password" and "Nexans-User-Role-Template" to be successfully authenticated.

Attribute	Туре	Value
User-Password	Check	******
Nexans-User-Role-Template	Success-Reply	Admin

The value of "Nexans-User-Role-Template" must be equal to one of the Role Templates which can be defined in the User Management (see chapter *11.5 User Management in Client/Controller-Version*).

18.9.2. Active Directory Authentication

To use Active Directory authentication the following values must be configured on the Active Directory Server:

- Attribute "nexansUserRoleTemplate"

COM+	Environm	nent	Sessions Re		Remo	te control	
Remote D	esktop Servi	ces Pro	file	Securit	ty	Dial-in	
Published Co	ertificates	Pass	word Re	plication	Attri	bute Editor	
Attri <u>b</u> utes:							
Attribute		Va	alue			^	
msTSRecor	nnectionActio	n ॑ <r< td=""><th>not set></th><td></td><td></td><td></td></r<>	not set>				
msTSRemot	teControl	<	not set>				
msTSSecon	ndaryDesktop:	s ⊲r	not set>				
msTSWork[Directory	<r< td=""><td colspan="5"><not set=""></not></td></r<>	<not set=""></not>				
name		Te	Test TT. Test				
networkAdd	ress	<	<not set=""></not>				
nexansUser	ID	1(100				
nexansUser	RoleTemplate	e Ad	dmin				
ntPwdHistor	У	<r< td=""><th>not set></th><td></td><td></td><td></td></r<>	not set>				
0		<⊓	<not set=""></not>				
objectCateg	ory	CI	CN=Person,CN=Schema,CN=Configura				
objectClass		to	top; person; organizationalPerson; user				
objectGUID		50	5caaef6e-f93a-42ba-8632-43f37985f14				
objectSid		S	-1-5-21-3	064795332	-272105	5949-14! 🗡	
<						>	
<u>E</u> dit						<u>Filter</u>	

The value of "nexansUserRoleTemplate" must be equal to one of the Role Templates which can be defined in the User Management (see chapter *11.5 User Management in Client/Controller-Version*).

Inside the Authentication Settings (see chapter *18.11.7 Authentication Settings*) it is possible to add an IP Address or DNS name of a specific Domain Controller. If set, the Controller will try to authenticate the users against this DC. Otherwise the Controller will use the domain associated with the computer account on the server to contact any possible DC. It is also possible to add a port number separated by a colon (':'). If the Domain Name is not set the Controller will try to find the current Domain by reading the Root Directory Server Agent Service Entry (RootDSE).

Instead of Microsoft Active Directory, other LDAP Services can be used, too.

18.10. Web Interface

To access the Web Interface the same URL as from within the client can be used, which are by default:

- http://localhost:9091
- https://localhost.controller.nexans:9092



The Web Interface uses the same controller services as the client, so user credentials, authentication methods etc. are the same.

<u>Note:</u> This also includes that sessions with the LANactive Manager Client using the same user will be closed.

18.10.1. Device-List

Using the menu strip on the left, the Device-List page can be accessed.

Home	Vew Switch List	1 Romove selected	🛔 Remove selected Devices from Iai 🥒 Copy Template/Firmware to selected Devices 🛛 🕲 Stop Configuration/Update 🔷 Move selected Devices to Category									
Device-List		Page Size 10	ige Size: 10 ÷									
atabase-Management	Devices	Drag a column header	and drop it here	to group by	that column							
og-Messages	All Devices (2 / 0)		Status	Atarms	Redundancy	PoE	Power Consumpti	Input Voltage PoE	IPv4 Address	Active MAC Address	3	
D. Charles and a second	Unassigned Devices [2 / 0]		(All) •	۲	T	T	Ŧ	T	T	T		
	Categories + 1	Editor Web GUI	Online	0	Deaktiviert	Engeschalt	0.0	54	192.168.13.17	00 C0 29 25 75 17		
		Editor Web GUI	Online	0	Deaktiviert	Engeschaft	0.0	54	192,160,13,18	00-C0 29 29 3A 43	1	
		1.0									,	
										1 - 2 of 2 ite	eme	

Desgin an functionalities are very close to the client. But due to the browser environment there are some differences.

Since Drag&Drop is not supported, moving a Device to a Category can be done by selecting any Device and clicking Move selected "**Device to Category**" button.

ected Devices	Stop Configuration/	'Update → Move sel	ected Devices to Cat	tegory	
PoE	Power Consumpti	Input Voltage PoE	IPv4 Address	Active MAC Address	N
T	Ţ	T	T	T	
Eingeschalt	0,0	54	192.168.13.17	00:C0:29:25:75:17	te
Eingeschalt	0,0	54	192.168.13.18	00:C0:29:29:3A:43	te

To copy a config or firmware file to the switch the "**Copy Template/Firmware to selected Devices**" button can be used. After clicking this button, the user credentials must be entered and the corresponding file has to be selected. See chapter *18.10.4 File-Management* for more information. By clicking the "**Configure**" button in the upper right of the dialog the process can be started.

Select File		[٥	0
Username				
Password				
● Config Files 〇 Firmwa	are Files			
Available files on server:	Please select a file			•

Since there is no context menu, the Device-Editor can be opend by clicking the "**Editor**" button at the beginning of each row inside the list. There is also a button "**Web GUI**" to open the switches Web Interface. But using this button, the request is routed through the controller, meaning that the client PC does not need be able to reach the switch itself.

Hello admin! I+ Logout	
Device-List + New Switch List	Image Remove selected Devices from list Image Control Page Size: 10 Drag a column header and drop it here to group
All Devices [2 / 0] Unassigned Devices [2 / 0]	Status Alarms (All) T
Categories	 ✓ Editor ✓ Web GUI ✓ Editor Online Online Online
0-1-4-1 (1 0	Web GUI

18.10.1.1. Device-Editor

After clicking the "**Editor**" button, the user has to be authenticated on the switch by entering the credentials inside the "**User Authentication**" dialog and confirming with the "**Read**" button at the upper right of the dialog. By clicking "**Cancel**" the Web Interface returns to the Device-List.



At the current state of development, the Device-Editor contains every state page which show all necessary information about the switch status.

spar+Link state	Por	t Link Sta	te:							
E State										
dius State	: N/-	Description	Name	Power Setup	Link Setup	Link State	EEE Status	Link/SFP Alarm State	Time since last link change	E
ACS+ State	0	MGMT								
	1	TP-1	<none></none>	IEEE802.3at / 30 W	Autoneg.	1000 FDX	NOTACTIVE	Kein Alarm	0 days : 00 hours : 39 min : 59 sec	
	2	TP-2	<none></none>	IEEE802 3at / 30 W	Autoneg.	no link	no link	Kein Alarm	No change since last reboot	
	з	TP-3	<none></none>	IEEE802 Sat / 30 W	Autoneg.	no link	no link	Kein Alarm	No change since last reboot	
	4	TP-4	<none></none>	IEEE802 3at / 30 W	Autoneg.	no link	no link	Kein Alarm	No change since last reboot	
	5	UPLINK- SFP	<none></none>		1000 FDX	no link	n/a	Kein Alarm	No change since last reboot	
	6	UPLINK-TP	<none></none>		Autoneg.	no link	no link	Kein Alarm	No change since last reboot	
	Glo	bal State:								
	Ter	nperatur (°C):		35 Internal Vol	tage 1 (V):	2,492	Internal Voltage 2 (V)	3,307	PoE Input Voltage (V): 54	
	Upt	time:		0 days : 00 hours : 40 min : 2	l8 sec	Time from time se	rver. Tir	ne Client disabled	Total Boots: 419	
	Act	we MAC Addres	5.	00.C0.29.25.75.17		Memory Card:	Ке	rine eingesetzt		
	Fun	ction Inpu	ut State:							
	Fur	action Input		Others		Function Input Na	me	a de de la de l		

18.10.1.2. Switch Web GUI

The switches Web GUI can be reached through the controller without any need for the client to be able to reach the switch by itself.

Read more about the Web GUI in the Nexans Switch Management Manual.

NEXANS							Advanced	Networking	Solutions				Switch	n Manage	
					Descrip	tion GigsSwite	h V3 TP SFP.140	IV ES3 Name	test Location test Contact test						
Port State								1	unction Input State						
> PoE State > Switch Setup	Function input [not defined]			Open											
VLAN Table				12			-		Port State						
Name Setup Prioritisation*Limiter	Port No.	Port Descr.	Port Name	Link Type Port Type	Speed Duplex Setup	Current Link / EEE State	Autocross. Autopol. Setup	Error Counter	Security Mode [MAC Addr.](MAC State)	Security State [Allowed MACs Overflow Addc.]	Active Default VLAN-ID	Active Voice VLAN-ID	Active Trunking Mode	Flow Control State	
> Port Monitor > Local Log > Device Info	0 Sette	MGMT	2	n Internat Management	-	-	-	20			,		-	2	
Logout	1 Setue	TP-1 Dationary	<none></none>	User Capper 1000/100/10 MBais Cable Diversitie	Astoneg	1000FDX	ENABLED	0 Al Counters	Disabled [00:C0:29:29:3A:45] (Learned) [00:R0:4C:05:R5:26] (Learned)	Disabled	,	Disabled	Disabled	Disabled	
	2 Setup	TP-2 Dakoutri	<none></none>	User Capper 1000/100/10 MBA/s Cable Divenoités	Autoneg	no link.	ENABLED	0 Al Courtera	Disabled	Disabled	,	Disabled	Disabled	Disabled	
	3 Setue	TP-3 Discourse	<none></none>	User Copper 1000/100/10 MBI/s Cable Diagnostic	Autoneg	no link	ENABLED	0 Al Counterp	Disabled	Disabled	,	Disabled	Disabled	Disabled	
	4 Setue	TP-4 Discount	<none></none>	User Copper 1000/100/10 MBais Cable Discontilio	Autoneg	no link	ENABLED	0 Al.Contern	Disabled	Disabled	•	Disabled	Disabled	Disabled	
	5 Setue	UPLINK-SFP Decorry SFP 200	<none></none>	Upter/Dountine Fiber 1 GBIts	1000FDX	no link		0 All.Counters	Disabled	Disabled	,	Disabled	Disabled	Disabled	
	6 Setup	UPLINK.TP Discussi	<none></none>	Uplini/Downlink Copper 1000/100/10 MBIN Satis_Diversits	Autoneg	no link	ENABLED	6 Al.Courters	Disabled	Disabled	1	Disabled	Disabled	Disabled	

18.10.2. Database-Management

	@ Laver-3 + Manual Add		emove I w Move to De	VICE-LIST Page Size	10	±					
	Drag a column header and dro	op it here	to group by that column								
-4.04			Active MAC Address	IPv4 Address	IPv6 Address	IPv6 Link Local Ad	Name	Location	Description	Type	Mgmt PW
ise Management			T	T	T	T	т	т	Ŧ	÷ т	T
ssages :	¥ Move to Device-List		00.C0.29.25.75.17	192.168.13.17	2000-2000-13:17	0.0:0:13:	test	test	GigaSwitch V3 TP SFP-1 48V ES3	62	HW3-F21-P06 OFFICE-V7.01
gement	* Move to Device-List		00 C0 29 29 34 43	192 168 13 18	2000/2000/13:18	fe80_2c0.29# fe2	test	test	GigaSwitch V5 SFP-2VI 54VDC	74	HW5-F40-P07- OFFICE-V7.01
	* Move to Device-List		00.C0 29 25 00 88	192.168.13.20		0.0.0.13	ASC_Test_HW3_	Room P1.411	ISwitch G 1043E+ SEP-3VI PROS	36	HW3-F22-P10 INDUSTRIAL- V7.01hy
	* Move to Device-List		00.C0 29.25.75.A6	192 168 0 96	-		NEXANS- 00C0292575A6	not defined	GigaSwitch V3 TP SFP-I 48V ES3	62	HW3-F21-P05- OFFICE-V7.01
	+ Move to Device-List		00 C0 29 25 80 80	192.168.0.95			NEXANS- 00C0292580B0	not defined	GigaSwitch V3 SFP-2VI 48V ES3	63	HW3-F21-P06- OFFICE-V7.01
	* Move to Device-List		00:C0:29:25.74:E4	192.168.0.94	-		NEXANS- 00C0292574E4	not defined	GigaSwitch V3 TP SFP-1 48V ES3	62	HW3-F21-P05 OFFICE-V7.01
	Move to Device-List		00 C0 29 25 47 F5	192,168,0.93			NEXANS- 00C0292547F5	not defined	GigaSwitch V3 TP SFP-1 230VAC ES3	61	HW3-F21-P05 OFFICE-V7.01
	* Move to Device-List		00.C0.29.24.E8.56	192.168.0.92	-		NEXANS- 00C02924EB56	not defined.	GigaSwitch V3 TP SX GI(LC) 230VAC ES3	60	HW3-F21-P06 OFFICE-V7.01
	* Move to Device-List		00.C0.29.25.6F.EC	192 168 0.91			NEXANS- 00C029256FEC	not defined	GigaSwitch V3 TP SFP-I 48V ES3	62	HW3-F21-P06 OFFICE-V7.01
	* Move to Device-List		00 C0 29 24 FA 86	192 168 0 90	-		NEXANS- 00C02924FA86	not defined	GigaSwitch V3 TP SX GI(SC) 48V	60	HW3-F21-P05 OFFICE-V7.01

The Database-Management includes functionalities to add Switches by entering a specific IP Address or using Layer 3 Autodiscovery, to add Switches to any Device-List or to remove them from database.

18.10.3. Log-Messages

On this page the controllers Log-Messages can be viewed or removed from database.

ne	1 Hermon	Page Size: 10	\$							
rice-List	Drag a col	Drag a column header and drop it here to group by that column								
abase Management		Sender IP Address	Time-Stamp	Message Type	Message					
		T	аа мм. уууу 📋 🝸	-Select value-						
Messages		Controller	08.11.2021 09.35.50	ControllerSettingsChanged	Setting changed by user admin: Zero Touch Configuration = Truel					
Management		Controller	06.11.2021 09:40:58	ControllerSettingsChanged	Setting changed by user admin: Zero Touch Configuration = Falsel					
		Controller	08.11.2021 09:40:59	ControllerSettingsChanged	Setting changed by user admin: Zero Touch Configuration = Trust					
		Controller	08,11,2021 09:48:04	ControllerSettingsChanged	Setting changed by user admin: Zero Touch Configuration = Fatset					
		Controller	08.11.2021 09.48.26	ControllerSettingsChanged	Setting changed by user admin. Zero Touch Configuration = True?					
		Controller	08 11 2021 09:49 25	ControllerSettingsChanged	Setting changed by user admin: Zero Touch Configuration = Falset					
		Controller	06.11.2021.09.49.57	ControllerSettingsChanged	Setting changed by user admin: Zero Touch Configuration = Truet					
		Controller	08.11.2021 09:50.42	ControllerSettingsChanged	Setting changed by user admin: Zero Touch Configuration = Failsel					
		Controller	08.11.2021.09:51:27	ControllerSettingsChanged	Setting changed by user admin: Zero Touch Configuration = Truet					
		Controller	08 11 2021 10 12 34	ControllerSettingsChanged	Setting changed by user admin: Zero Touch Configuration = Falsel					

18.10.4. File-Management

To copy configuration or firmware files to any Device, the files must be stored on the controllers server. On page File-Management, new files can be uploaded or obsolete files can be removed.

LANactive Manager Web App	Hello admin! I+ Logout		About
A Home	○ Config Files [●] Firmware Files		
	Files on server:		
E Device-List	tw3-t21-p06-afl-v6-048.img		盦 Delete
Database-Management	tw/3-f21-p06-off-v6.04E.img		II Deete
Log Messages	tw3-f21-p06-aff-v6.04P.img		n Delete
E File-Management	hw3-f21-p05-off-v7.01db.img		🏦 Deten
	.tw3-f22-p10-ind-v7.01db.img		書 Delete
	Inv3-f30-p16-ind-v6.04P.ing		盦 Dekte
	. hw3-f30-p16-ind-v7,01db.img		意 Delete
	hw5-140-p07-office-debug-v7.01bu swu		篇 Delete
	ftw5-f40-p07-office-v6.048.swu		â Delete
	trw5-f40-p07-office-v7.01bc.swu		章 Delete
	Upload new files.	Select files	
			Accepted files: .img, .swu
	H + 1 2 3 4 H		1 - 10 of 33 items

18.11. Controller Settings

To open and configure the Controller Settings click on the **Settings** button in the **Database Management** (see Chapter *12.4 Database Management in Client/Controller-Version*).

ſ	💦 Database Manager	ment									
			⊞ @₿								
l	Drag a column header and drop it here to group by that column										
l	Move to Device-List	Active MAC Address	IPv4 Address	IPv6 Address	IPv6 Link Local Address	Name					
l		V	ि । र	T	T						

18.11.1. General Settings

N Controller Settings	
General Settings	General Settings
Poll Settings	Global
UDP Settings	Internet Protocol Version: IPv4 only *
Zero Touch Configuration Settings	Database Path: \.SQLEXPRESS User Session Timeout (min)[160]: 10
E-Mail Notification Settings	File Path: CASVN\branches\V7.02\03_Source\LANN
Log-Messages Server Settings	Retries reading/writing actions [110]: 1 Sleep between retries (sec)[1600]: 1
Authentication Settings	Timeout reading/writing config (ser/130, 120): 30 Timeout writing Firmware (min13, 100): 5
web interface settings	Scheduled Configuration download time: 0000 Frable Multi-User Device Access:
	Import Devices From File
	Enable Scheduled Import: 🔲 Run now
	Time To Import: 00:00 Repeat Interval (hours): 0
	Import File: Target Device-List: Office *
	Category Level [010]: 0 Category Separator: \
	File Value Separator: ; Delete Other Devices/Categories In List:
	Offline Switch Timeout (days):
	Time Scheduled Configuration
	Enable Time Scheduled Configuration:
	Switch Username: Switch Password:
L	Save Close

18.11.1.1. Internet Protocol Version

Defines which protocol version should be used to access the switch. Possible values are

- IPv4
- IPv6
- Both (IPv6 will be preferred)

18.11.1.2. User Session timeout

User will be automatically logged out if the controller does not receive any messages from the client for this amount of time. This setting works together with the one described in chapter 18.2.2 Poll Controller interval (seconds).

18.11.1.3. File Path

This directory will be used by the controller to store all of its files, like configuration or firmware files.

18.11.1.4. Database path

Changes the path to the LANactive Manager Controller Database. The Controller must be restarted if this setting is changed. Ensure that this path is correct and that the database already exists. Otherwise the Controller is not able to start anymore.

18.11.1.5. Number of retries for simultaneous reading/writing actions

This value defines how often the LANactive Manager Controller retries to connect to the switch during any simultaneous action if any connection error occurs.

18.11.1.6. Sleep between retries (seconds)

This value sets the time to wait before retrying any reading/writing action after the previous one has failed.

18.11.1.7. Timeout for reading or writing Config (seconds)

While reading or writing a configuration to the device, LANactive Manager Controller is waiting for the indicated period of time, until the device activates the configuration. The default value is 30 seconds. This default value should be changed in exceptional cases only (e. g. if after a reboot of the device and the related link loss a very long dead time would be added by the core device).

18.11.1.8. Timeout for writing Firmware (minutes)

While updating the firmware, LANactive Manager Controller is waiting for the indicated period of time, until the device has booted with the new firmware. The default value is 3 minutes. This default value should be changed in exceptional cases only (e. g. if after a reboot of the device and the related link loss a very long dead time would be added by the core device).

18.11.1.9. Scheduled Configuration Download Time

Set the time for frequent configuration download. See chapter 12.9.2 Enable Scheduled Configuration Download for details.

18.11.1.10. Enable Multi-User Device Access

By enabling Multi-User Device Access, a warning is shown while opening a Device-Editor from a Device which is already in use by another user, but this warning can be ignored. Writing Config-Files or updating the firmware is still possible. When this setting is disabled, an error message is shown while opening the Device-Editor and the access is blocked. Also no writing action can be performed as long as the other user is editing this device.

18.11.1.11. Enable scheduled import

Enable/Disable the time scheduled import of Devices from a csv-file.

18.11.1.12. Run now...

This button starts the file import immediately.

18.11.1.13. Time To Import

The time at which the Devices should be imported daily.

18.11.1.14. Repeat interval

If this value is greater than zero, the file import will be repeated after the given amount of hours. If set to zero, the import will be processed only at the 'Time To Import'.

18.11.1.15. Import File

The full path and name of the csv file which should be used for import. This file must be accessible by the Controller. Use the '**Select**' button to browse inside the directories. Note, that this will happen from Client side.

18.11.1.16. Target Device List

The Device-List the switches will be imported into.

18.11.1.17. Category Level

The maximum number of subcategories created out of the location given by the csv-file.

18.11.1.18. Category Separator

The character used to separate different categories inside the csv-file.

18.11.1.19. File Value Separator:

The character used to separate different values (IP Address | Location) inside the csv-file.

18.11.1.20. Delete Other Devices/Categories In List

When checked, all devices and categories which exist in the target Device-List, but not in the csv-file will be deleted.

18.11.1.21. Offline Switches Timeout (days):

If a Device inside the target device list is offline for than the given amount of days, it will be deleted from this list. If this value is equal to '0', this function is deactivated.

18.11.1.22. Enable Time Scheduled Configuration

Enable/Disable time scheduled configuration if Devices.

18.11.1.23. Switch Username

The username to access the devices which should be configured.

18.11.1.24. Switch Password

The password to access the devices which should be configured.

18.11.2. Poll Settings

N Controller Settings				×
General Settings	Poll Settings			
Poll Settings	Poll Interval (sec):	1	Ping Interval (sec)[13]:	1
UDP Settings Zero Touch Configuration Settings	Poll Threads Count [016]:	16	Ping Timeout (sec)[110]:	2
E-Mail Notification Settings	Ping Retries [010]:	2		
Log-Messages Server Settings				
		Save	Close	
<u> </u>				

18.11.2.1. Poll Interval

Time to wait until the Poll Engine restarts polling known switches. If it takes more time to poll all switches in database, the Poll Engine will restart immediately.

18.11.2.2. Ping Threads Count

Number of simultaneous poll threads.

18.11.2.3. Ping Retries

Number of retries if a poll fails, for example if device is offline.

18.11.2.4. Ping Interval

Time to wait before retrying to poll a device.

18.11.2.5. Ping Timeout

Timeout for a poll action.

18.11.3. UDP Settings

N Controller Settings				x
General Settings	UDP Settings			
Poll Settings	AutoDiscovery Interval (sec):	10	UDP Request Retries [010]:	2
UDP Settings	UDP Request Timeout (sec)[110]:	3	UDP Request Interval (sec)[13]:	3
Zero Touch Configuration Settings				
E-Mail Notification Settings				
Log-Messages Server Settings				
		Caus	Close	
]	Save	Close	

18.11.3.1. Autodiscovery Interval

Time to send a discovery broadcast message in Discovery Mode.

18.11.3.2. UDP Request Timeout

Timeout to cancel the receiving of any UDP message.

18.11.3.3. UDP Request Retries

Number of retries if any UDP request fails.

18.11.3.4. UDP Request Interval

Time to wait before retrying a UDP request.

18.11.4. Zero Touch Configuration Settings

N Controller Settings			₩ @ 4 Ø <		- 0	×
General Settings	Zero Touch Configuration Settings					
Poll Settings	Firmware					
UDP Settings	Enable Firmware Update:	1	Allow Firmware Downgrades:			
Zero Touch Configuration Settings	Firmware File F40:		🐌 🔞 Firmware File F46:		, 😣	
E-Mail Notification Settings	Firmware File F47:		Firmware File F48:			
Log-Messages Server Settings Authentication Settings	Firmware File F50:					
Web Interface Settings	Configuration					
	Enable Config Update:	1				
	Default Config File F40:		Default Config File F46:		, 😣	
	Default Config File F47:		🐌 🔕 Default Config File F48:		, 😣	
	Default Config File F50:					
	General					
	Number Of Retries [010]:		Simultaneous Configurations [130]:	30		
	Note: Firmware Family F40: HWS P07 OFFI Firmware Family F46: HWS P10 INDU Firmware Family F47: HWS P12/P16 Firmware Family F48: HWS P10 OFFI Firmware Family F50: HW5.2 P07 OF	CE JSTRIAL INDUSTRIAL CE FICE				
			Save Close			

18.11.4.1. Enable Firmware Update

Allows the controller to update the firmware of new devices automatically if Zero Touch Configuration is active.

18.11.4.2. Allow Firmware Downgrades

Allows the controller to downgrade the firmware of new devices.

18.11.4.3. Firmware File F40

The firmware file to be taken by the controller to update devices of family F40 in Zero Touch Configuration mode (HW5 P07 Office Switch).

18.11.4.4. Firmware File F46

The firmware file to be taken by the controller to update devices of family F46 in Zero Touch Configuration mode (HW5 P10 Industrial Switch).

18.11.4.5. Firmware File F47

The firmware file to be taken by the controller to update devices of family F47 in Zero Touch Configuration mode (HW5 P12/P16 Industrial Switch).

18.11.4.6. Firmware File F48

The firmware file to be taken by the controller to update devices of family F48 in Zero Touch Configuration mode (HW5 P10 Office Switch).

18.11.4.7. Firmware File F50

The firmware file to be taken by the controller to update devices of family F50 in Zero Touch Configuration mode (HW5.2 P07 Office Switch).

18.11.4.8. Enable Config Update

Allows the Controller to copy a configuration file (default config or from predefined list) to new devices if Zero Touch Configuration is active.

18.11.4.9. Default Config File F40

The config file to be copied to devices of family F40 in Zero Touch Configuration mode if device is not specified in Predefined List (HW5 P07 Office Switch).

18.11.4.10. Default Config File F46

The config file to be copied to devices of family F46 in Zero Touch Configuration mode if device is not specified in Predefined List (HW5 P10 Industrial Switch).

18.11.4.11. Default Config File F47

The config file to be copied to devices of family F47 in Zero Touch Configuration mode if device is not specified in Predefined List (HW5 P12/P16 Industrial Switch).

18.11.4.12. Default Config File F48

The config file to be copied to devices of family F48 in Zero Touch Configuration mode if device is not specified in Predefined List (HW5 P10 Office Switch).

18.11.4.13. Default Config File F50

The config file to be copied to devices of family F50 in Zero Touch Configuration mode if device is not specified in Predefined List (HW5.2 P07 Office Switch).

18.11.4.14. Number of Retries

Number of retries if firmware update or configuration failed.

18.11.4.15. Simultaneous Configurations

Number of simultaneously updated or configured devices.

18.11.5. E-Mail Notification Settings

N Controller Settings						- 🗆	×
General Settings	E-Mail Notification Settings						
Poll Settings	E-Mail Server						
UDP Settings	Send From E-Mail Address:		Password:				
Zero Touch Configuration Settings	Recipient E-Mail Address 1:		Recipient E-Mail	Address 2:			
E-Mail Notification Settings	Pariniant E Mail Address 2		SMTD Sopror				
Log-Messages Server Settings	Recipient L-Mail Address 3.		Sivite Server.				
Authentication Settings	SMTP Server Port Number [165535]:	25	Use SSL:				
					Send Test-E-Mail		
	Syslog / SNMP Trap Messages						
	Send Syslog / SNMP Trap Notifications:						
	Syslog Notifications Severity Level [07]:	1					
	Zero Touch Configuration						
	Send Zero Touch Configuration Notifications:						
	Controller Notifications						
	Send Switch Is Offline Notifications:		Send Settings Cl	hanged Notifications:			
	General Settings						
	Send Notifications Every x Minutes:	1					
	L						
			Save Close				

18.11.5.1. Send From E-Mail Address

This E-Mail address is used to send notifications to the recipients.

18.11.5.2. Password

The password of the 'Send From' E-Mail account.

18.11.5.3. Recipient E-Mail Address 1

First E-Mail address which should receive any kind of notification.

18.11.5.4. Recipient E-Mail Address 2

Second E-Mail address which should receive any kind of notification.

18.11.5.5. Recipient E-Mail Address 3

Third E-Mail address which should receive any kind of notification.

18.11.5.6. SMTP Server

The name or IP Address of the SMTP Server which should be used to send E-Mail notifications.

18.11.5.7. SMTP Server Port Number

The Remote TCP/IP Port number of the SMTP Server.

18.11.5.8. Use SSL

Use SSL for sending E-Mails.

18.11.5.9. Send Test-E-Mail...

Send a test Email using the current settings to validate them.

18.11.5.10. Send Syslog / SNMP Trap Notifications

Enable sending of Syslog and SNMP Trap notifications via E-Mail.

18.11.5.11. Syslog Notifications Severity Level

Syslog notifications will only be sent immediately if their severity level is lower or equal to this number.

18.11.5.12. Send Zero Touch Configuration Notifications

Enable sending of notifications about new devices which have been automatically configured and added to the database by Zero Touch Configuration.

18.11.5.13. Send Switch Is Offline Notifications

Enable sending of notifications if the controller recognizes that a switch went offline.

18.11.5.1. Send Settings Changed Notifications

Enable sending of notifications if the settings like starting Zero Touch Configuration or listening to SYSLOG messages have changed.

18.11.5.1. Send Notifications Every x Minutes

If this value is greater than zero, the notifications of Zero Touch Configuration or offline switches will be collected for this timespan and send in one E-Mail altogether. If this value is equal to zero, E-Mails are sent immediately.

18.11.6. Log-Messages Server Settings

N Controller Settings				X
General Settings	Log-Messages Server Settings			
Poll Settings	SNMP Trap Settings			
UDP Settings	SNMPv3 Trap Account Username:	testuser	SNMPv3 Trap Account Authentication Password:	•••••
Zero Touch Configuration Settings			SNMPv3 Trap Account Privacy Password:	•••••
E-Mail Notification Settings				
Log-Messages Server Settings				
		Save	Close	

18.11.6.1. SNMPv3 Trap Account Username

The username to decrypt SNMPv3 Trap messages. (SNMPv3 [Auth.-SHA] [Priv.-AES-128] only)

18.11.6.2. SNMPv3 Trap Account Authentication Password

The authentication password to decrypt SNMPv3 Trap messages. (SNMPv3 [Auth.-SHA] [Priv.-AES-128] only)

18.11.6.3. SNMPv3 Trap Account Privacy Password

The privacy password to decrypt SNMPv3 Trap messages. (SNMPv3 [Auth.-SHA] [Priv.-AES-128] only)

18.11.7. Authentication Settings

Controller Settings		🛃 🗔 🖓 🔲 🐺 👹 4 🥑 <	1	- 0	
General Settings	Authentication Settings				
Poll Settings	General				
UDP Settings	Authentication Mode:	Local Accounts *			
Zero Touch Configuration Settings					
E-Mail Notification Settings	RADIUS Authentication			 	_
Log-Messages Server Settings	Server IP Address 1:		Server IP Address 2:		
Authentication Settings	Server IP Address 3:		Server IP Address 4:]
Web Interface Settings	Server Port Number [065535]:	1812	Shared Secret:		1
	Active Directory Authentication				
	AD Server Address:		AD Domain Name:		1
	Ried DNI:		Rind Deserves de		1
	Bina Din:		bind Password:		
	I	Sma	Clara		

18.11.7.1. Authentication Mode

Sets the mode used to authenticate users while logging in with their client. Possible options are:

- Local Accounts: Build-In user management
- RADIUS: Use RADIUS Server to authenticate users
- RAIDUS first, then local accounts: Use Build-In user management if RADIUS authentication fails
- Active Directory: Use Microsoft Active Directory to authenticate users
- Active Directory first, then local accounts: Use Build-In user management if AD authentication fails Instead of Microsoft Active Directory, other LDAP Services can be used, too.

18.11.7.2. RADIUS Server IP Address 1

IP Address of first RADIUS server.

18.11.7.3. RADIUS Server IP Address 2

IP Address of second RADIUS server.

18.11.7.4. RADIUS Server IP Address 3

IP Address of third RADIUS server.

18.11.7.5. RADIUS Server IP Address 4

IP Address of fourth RADIUS server.

18.11.7.6. RADIUS Server Port Number

Port number of RADIUS service.

18.11.7.7. Shared Secret

RADIUS Server Shared Secret.

18.11.7.8. AD Server Address

IP Address, Domain or DNS name of Active Directory server. Used to contact a specific Domain Controller. If this parameter is not set, the Controller will use the domain associated with the computer account on the server to contact any possible DC.

18.11.7.9. AD Domain Name

Used Active Directory Domain name. If this parameter is not set the Controller will try to find the current Domain by reading the Root Directory Server Agent Service Entry (RootDSE).

18.11.7.10. Bind DN

Default Distinguished Name to authenticate against the LDAP Server. Must be empty when using Microsoft Active Direcotry.

18.11.7.11. Bind Password

Password to authenticate against the LDAP Server. Must be empty when using Microsoft Active Direcotry.

18.11.8. Web Interface settings

				×
General Settings	Web Interface Settings			
Poll Settings	Global			
UDP Settings	Enable Web Interface:	(Requires reboot of Controller Service)		
Zero Touch Configuration Settings				
E-Mail Notification Settings				
Log-Messages Server Settings				
Authentication Settings				
Web Interface Settings				
		Save Close		

18.11.8.1. Enable Web Interface

Enables or disables the Controller Web Interface. Changes require a reboot of the Controller service.
19. FAQ

19.1. "Cannot connect to server" error message during login

1. Check if the LANactive Manager Controller Service is running

 Genvices File Action View Help 						
Services (Local)						
	LANactive Manager - Controller 7.2.79.97	Name	Description Statu	is Startup Type	Log On As	
		🕰 LANactive Manager - Controller 7.2.79.97	The Control Run	ning Automatic	Network Service	
Stop the service Restart the service	Stop the service	🥋 Link-Layer Topology Discovery Mapper	Creates a N	Manual	Local Service	
	Restart the service	🖏 Local Session Manager	Core Windo Runn	ning Automatic	Local System	
		🐘 Microsoft (R) Diagnostics Hub Standard Collector Service	Diagnostics	Manual	Local System	

If the services is not running, just start it manually and see chapter 19.2 Controller service is not starting automatically.

2. Check the URL

The new Default in LANactive Manager V7 is the usage of https. If https is not configured so far, use the http URL (<u>http://localhsot:9090</u>). Read more about https in chapter *1.2.6: Using https*.

3. Check the Firewall

Ensure that TCP connection on Port 9090 is not blocked by the Firewall on Client and Controller. Read more about Firewall settings in chapter *3: Firewall*.

4. Check the log files

When the mentioned points are not helping, the Log files can be viewed at C:\Temp\Logs\LANactive Manager\[Current Date]

If there is any Error.log file existing, please contact the Nexans ANS support.

19.2. Controller service is not starting automatically

1. Check that the service startup type is set to "automatic".

Services							
File Action View	Help						
🦛 🔿 🔚 🖬 🧔) 🗟 🛛 📷 🕨 🔲 II 🕪						
Services (Local)	 Services (Local) 						
LANactive 7.2.79.97	LANactive Manager - Controller 7.2.79.97	Name	Description	Status	Startup Type	Log On As	
		LANactive Manager - Controller 7.2.79.97	The Control	Running	Automatic	Network Service	
	Stop the service	🤹 Link-Layer Topology Discovery Mapper	Creates a N		Manual	Local Service	
	Restart the service	🥋 Local Session Manager	Core Windo	Running	Automatic	Local System	
		🦓 Microsoft (R) Diagnostics Hub Standard Collector Service	Diagnostics		Manual	Local System	
		When the second se	- · · ·				

2. Set the startup type to "automatic (delayed)"

Since the service takes some time to load all necessary dlls and setup the URL listeners and so on it could happen that the service runs into a timeout while starting right after reboot. This depends on operating system, hardware and other services that needs to be started. Setting the Controller service to "automatic delayed" will move it to the end of the service list, meaning it will only start when all other services which are set to "automatic" are running.

3. Create a task in the Windows Task Scheduler

The most effective solution is to use the Windows Task Scheduler and create a Task that starts the service after the server has booted.

First create Batch file, for example "StartController.bat", and add the following two lines:

net stop LANactiveManager_Controller

net start LANactiveManager_Controller

Then create a new Task in the Windows Task Scheduler like the following:

	🕒 Create Task	c	×						
	General Trig	ggers Actions Conditions Settings							
	Name:	Jame: Start LANactive Manager Controller							
	Location:	\							
1	Author:	ANS_Test_Domain\Test							
	Description:	Start LANactive Manager Controller							
ł	- Security opt	tions							
	When runn	ning the task, use the following user account:	_						
	ANS_Test_E	Domain\Test Change User or Group)						
	O Run only	ly when user is logged on							
	Run who	ether user is logged on or not							
	🗌 Do r	not store password. The task will only have access to local computer resources.							
	🗹 Run wit	h highest privileges							
	🗌 Hidden	Configure for: Windows Server 2019 Essentials	\sim						
		OK Can	cel						
l									
ſ	New Trigger	×	1						
	Pegin the task	At startun	L.						
	Settings	At startup	ŀ						
	No additiona	al settings required							
	No additiona	a sectings required.	Ļ						
	Advanced set	tings							
	🔽 Delay task	k for: 30 seconds 🗸							
	Repeat ta:	sk every: 1 hour v for a duration of: 1 day v							
	Stop	p all running tasks at end of repetition duration							
	Stop task	if it runs longer than: 3 days 🗸							
	Activate:	11.04.2022 💷 🛪 14:19:51							
	Expire:	11.04.2023 🖉 🗸 14:19:51							
1	C Enabled		1						

New Actio	n	×				
You must specify what action this task will perform.						
Action:	Start a program	/				
Setting	S					
Progra	am/script:					
"C:\LA	Nactive Manager\StartController.bat" Browse					
Add a	rguments (optional):					
Start i	n (optional):					
	OK Cancel					

19.3. Device-Editor Show Menus are freezing

1. Increase Refresh Interval

Since the Controller is now doing all the communication with the switch, the old default value could not be high enough. At Preferences \rightarrow Device-Editor set the "Refreh interval for Show buttons" for example to 5 seconds.

Global Device-List	Device-Editor	
Device-Editor Access Folders	Refresh interval for State tabs (seconds):	1 (0 for disable)
	Refresh interval for Show buttons (seconds):	5 (0 for disable)
	Maximum number of opened Device-Editors:	4 (110)[4]

19.4. Switches are offline after Update from V6 to V7

1. Check the Controllers used internet protocol version

Due to changes in the default values the Controller could be set to "IPv6 only". If you are not using IPv6, ensure it is set to "IPv4 only".

ſ	€ Controller Settings					-	×
	General Settings	General Settings					
Poll Settings		Global					
	UDP Settings	Internet Protocol Version:	IPv4 only				
	Zero Touch Configuration Settings	Database Path:	.\SQLEXPRESS	User Session Timeout (min)[160]:	10		
	E-Mail Notification Settings	File Path:	C:\LANactive Manager\LANactive Manag				
	Log-Messages Server Settings	Retries reading/writing actions [110]:	1	Timeout reading/writing config (sec)[30120]:	30		
	Web Interface Settings	Timeout writing Firmware (min)[3100]:	5	Scheduled Configuration download time:	00:00		

20. Release notes

From release V3.64 all release notes (switch manager, switch basic configurator and the switch firmware) are located in a separate manual called *Nexans Switch Management - Release Notes*.

Subject to modifications.



Nexans networking solutions are employed all over the world and have demonstrated their reliability in a variety of applications. Our references include leading companies of the world, universities, industrial enterprises, hospitals, government authorities and banks. A LAN system which can grow with the requirements of its users must be designed from the very beginning in such away that it is flexible enough to support frequent moves, adds and changes, in particular.

With more than 25 years of experience in the development and production of optical solutions, the systems from Nexans provide the reliability and the security you can expect from your network.



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