



# SSH Interface manual

Version	Forfatter	Ændringer	Dato
1.0	Christian Tyllesen	1. udgave	xx.xx.2020
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## SSH Interface, konfiguration

NOX SSH Interface skal tilvælges i NOX Config og der skal aktiveres adgang via Brugernavn/Password (Certifikat eller Public/Private Key exchange er også muligt)

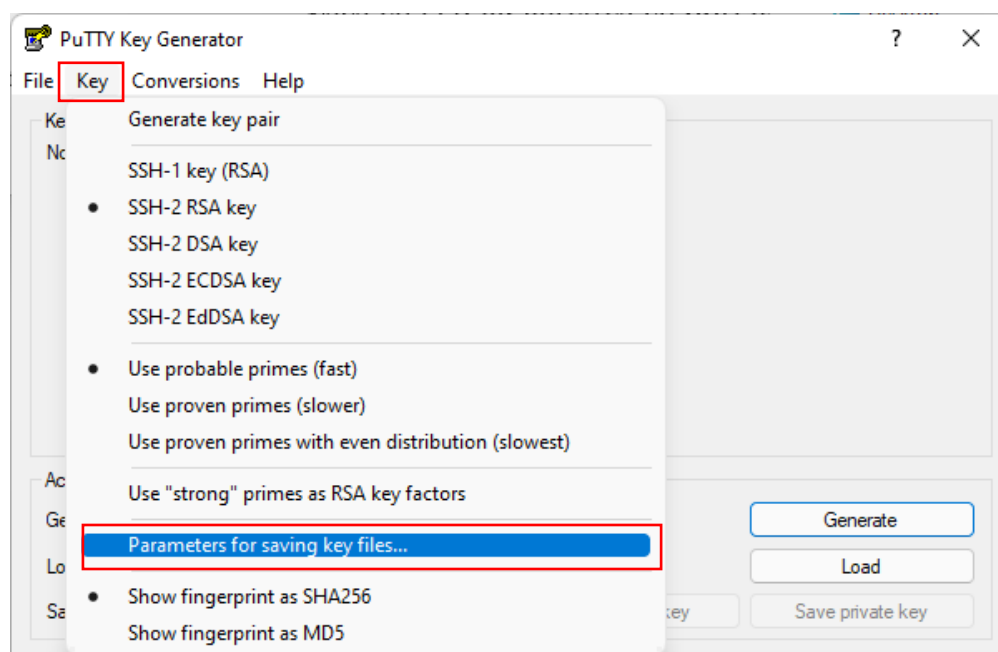
Der skal indlæses en PPK og oprettes en SSH bruger før det kan tages i brug.

PPK/Certifikat kan genereres med Putty Key Generator, og bør laves i 1024 bit

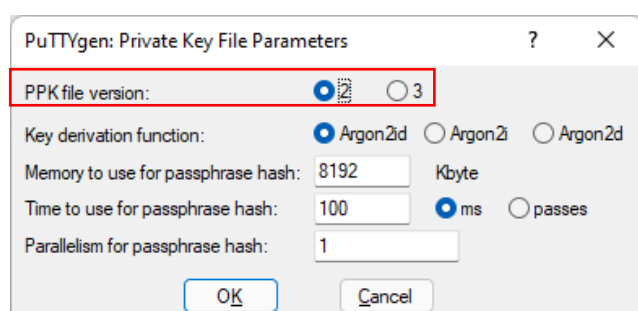
Putty Key Generator (puttygen.exe) kan hentes her:

<https://www.chiark.greenend.org.uk/~sgtatham/putty/latest.html>

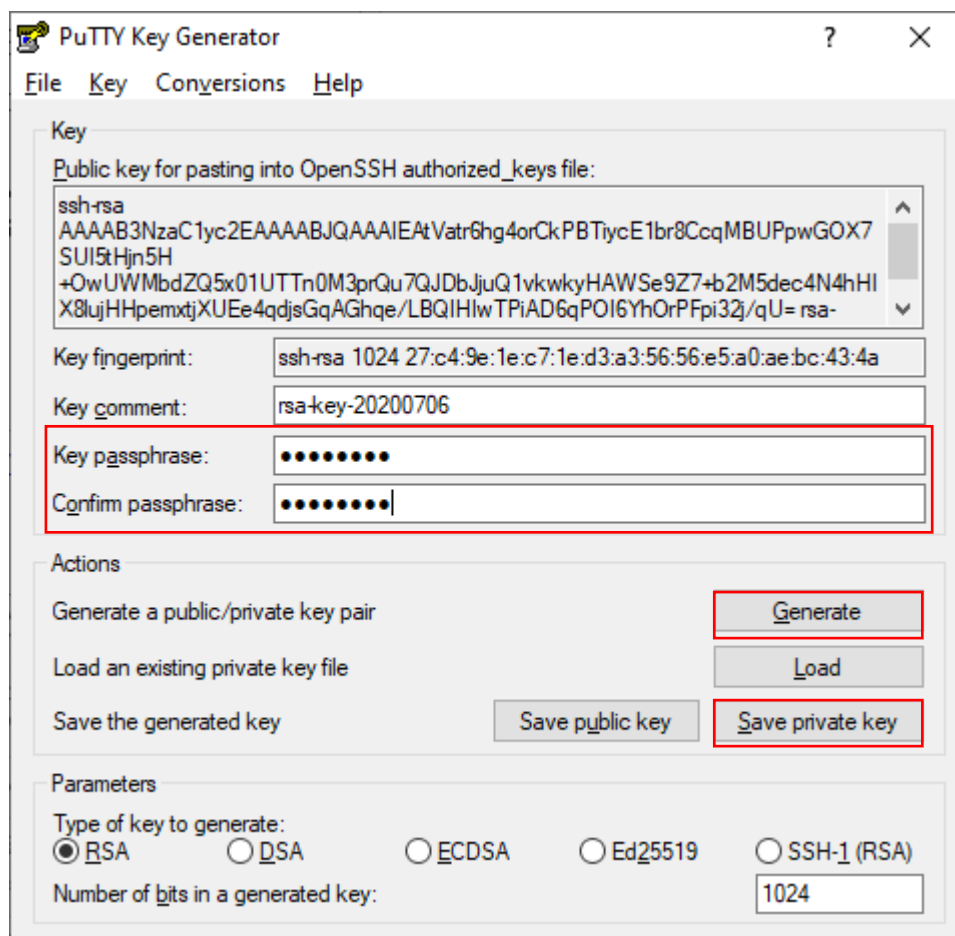
Start Puttygen og klik på "Key" -> "Parameters for saving key files..."



Sæt parameteren, "PKK file version:" til 2



Generér PPK filen, skab en kode, og gem den til brug i NOX.



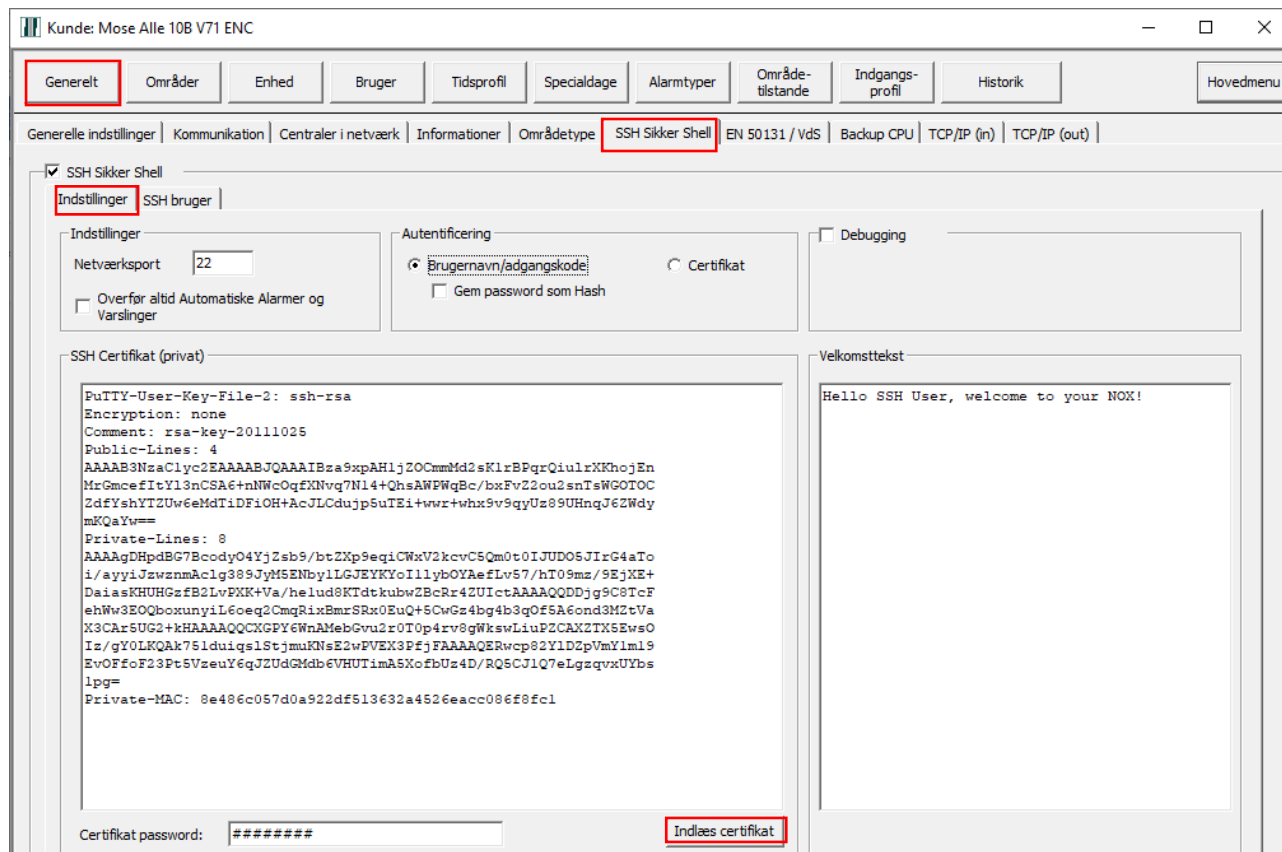
The screenshot shows the PuTTY Key Generator application window. The window title is "PuTTY Key Generator". The menu bar includes "File", "Key", "Conversions", and "Help".

The "Key" section contains a text area for the public key, a "Key fingerprint" field showing "ssh-rsa 1024 27:c4:9e:1e:c7:1e:d3:a3:56:56:e5:a0:ae:bc:43:4a", a "Key comment" field with "rsa-key-20200706", and two "Key passphrase" fields, both containing masked characters. The passphrase fields are highlighted with a red border.

The "Actions" section includes three buttons: "Generate" (highlighted with a red border), "Load", and "Save private key" (highlighted with a red border). There is also a "Save public key" button.

The "Parameters" section shows "Type of key to generate:" with radio buttons for "RSA" (selected), "DSA", "ECDSA", "Ed25519", and "SSH-1 (RSA)". The "Number of bits in a generated key:" is set to "1024".

Indlæs den gemte PPK fil i NOX under SSH fanen i Config, indtast koden for PPK filen og husk at oprette en bruger.



Kunde: Mose Alle 10B V71 ENC

Generelt | Områder | Enhed | Bruger | Tidsprofil | Specialdage | Alarmtyper | Område-tilstande | Indgangsprofil | Historik | Hovedmenu

Generelle indstillinger | Kommunikation | Centraler i netværk | Informationer | Områdetype | **SSH Sikker Shell** | EN 50131 / Vds | Backup CPU | TCP/IP (in) | TCP/IP (out)

SSH Sikker Shell

Indstillinger | SSH bruger

Indstillinger

Netværksport: 22

Overfør altid Automatiske Alarmer og Varslinger

Autentificering

Brugernavn/adgangskode  Certifikat

Gem password som Hash

Debugging

SSH Certifikat (privat)

```
PuTTY-User-Key-File-2: ssh-rsa
Encryption: none
Comment: rsa-key-20111025
Public-Lines: 4
AAAA3NzaC1yc2EAAAABJQAAAIBza8xpAH1jZOCmmMd2sK1rBPqrQiulrXKhojEn
MrGmcefiTyl3nCSA6+nNwcoQfXNvq7N14+QhsANFWqBc/bxFvZ2ou2snTsWGOtOC
ZdfYshYTZUw6eMdTiDF1OH+AcJLCdujpsuTEi+wwr+whx9v9qyUz89UHnqJ6ZWdy
mKQaYv==
Private-Lines: 8
AAAAgDHpdBG7BcoodyO4Yj2sb9/btZXP9eqiCWxV2kvcC5Qm0t0IJUD05JirG4aTo
i/ayyiJzwzmAclg389JyM5ENby1LGJEYKYoI1lybOYAefLv57/hT09mz/9EjXE+
DaiaSKHUHGzFB2LvPKK+Va/helud8KTdtkubw2BcRr4ZUIctAAAAQQDDjg9C8TcF
ehWw3EOQboxunyiL6oeq2CmqRixBmrSRx0EuQ+5CwGz4bg4b3qOf5A6ond3MZtVa
X3CAR5UG2+kHRAAAQCGPY6WnAMebGru2r0T0p4rv8gWksLiuPZCAXZTK5EvsO
Iz/gY0LKQak751duiqs1StjmuKNsE2wPVEK3PffjFAAAQERwcp82Y1DZpVnYlml9
EvOfFoF23Pt5VzeuY6qJZUdGmdb6VHUtImASXofbUz4D/RQ5CJ1Q7eLgzqvxUYbs
lpg=
Private-MAC: 8e486c057d0a522df513632a4526eacc086f8fcl
```

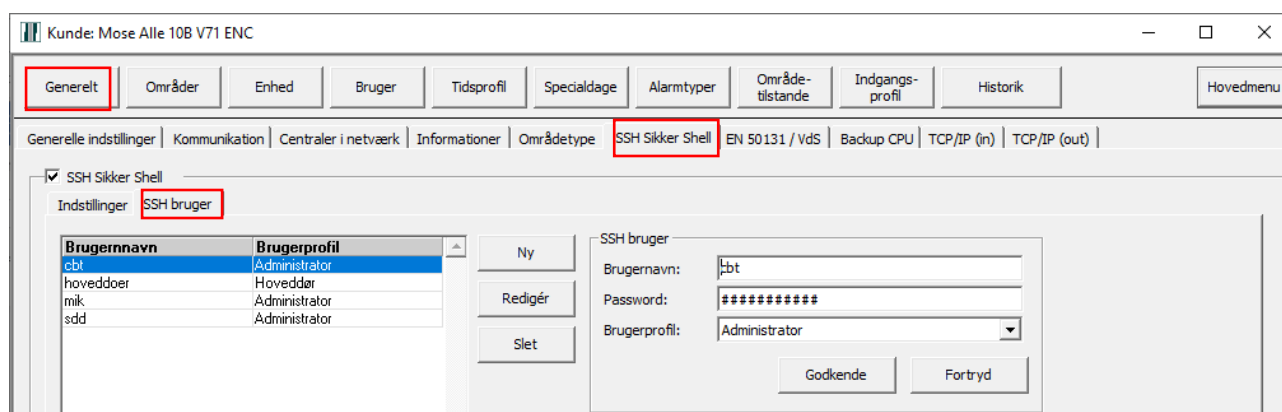
Velkomsttekst

Hello SSH User, welcome to your NOX!

Certifikat password: #####

**Indlæs certifikat**

Opret en SSH bruger/kode:



Kunde: Mose Alle 10B V71 ENC

Generelt | Områder | Enhed | Bruger | Tidsprofil | Specialdage | Alarmtyper | Område-tilstande | Indgangsprofil | Historik | Hovedmenu

Generelle indstillinger | Kommunikation | Centraler i netværk | Informationer | Områdetype | **SSH Sikker Shell** | EN 50131 / Vds | Backup CPU | TCP/IP (in) | TCP/IP (out)

SSH Sikker Shell

Indstillinger | **SSH bruger**

Brugernavn	Brugerprofil
cbt	Administrator
hoveddoer	Hoveddoer
mik	Administrator
sdd	Administrator

Ny

Redigér

Slet

SSH bruger

Brugernavn: cbt

Password: #####

Brugerprofil: Administrator

Godkende

Fortryd

Gem og send til NOX Centralen.

## SSH Fejl koder

### **Add/change user errors (Opret/ændre bruger fejl)**

- 1 = user name exists (Navnet er allerede i brug)
- 2 = code length to small (NOX Koden er for kort)
- 4 = user code already used (NOX Koden er allerede i brug)
- 8 = user code used as duress code (NOX Koden er i brug som trusselskode)
- 16 = card code already used (Kort Nr. er allerede i brug)
- 32 = user profile illegal (Ugyldig bruger profil)
- 64 = code length to big (NOX Koden er for lang)
- 128 = code can not start with 999 (NOX Koden må ikke begynde med 999)
- 256 = usercode used as card code (NOX Koden er i brug som Kortnummer)
- 512 = card code used as user code (Kort Nr. er i brug som NOX Kode)
- 1024 = card code used as duress code (Kort Nr. bruges som trusselskode)

### **Area settings errors (Koblingsfejl)**

- 1 = No Access in area (Ingen adgang til området)
- 2 = No Access in a slave of the area (Ingen adgang til slaveområde)
- 4 = There are active alarms in the area (Aktive alarmer i området)
- 8 = There are active alarms in a slave area (Aktive alarmer i slaveområdet)
- 16 = There are open inputs the area (Åbne indgange I området)
- 32 = There are open inputs in a slave area (Åbne indgange I slaveområde)
- 64 = The area is in blocking time (Området er I spærretid)
- 128 = A slave area is in blocking time (Slaveområde er I spærretid)
- 256 = A slave area is in blocking time (Slaveområde er I spærretid)
- 512 = A area state is not allowed (Områdetilstand ikke tilladt)

## SSH Kommandosæt

(klik på en kommando for yderligere detaljer)

#HE

HELP

he shows this help text

he command shows detail help for the command

GENERAL

[au](#) auto update

[gl](#) get log

[gc](#) get config

[gi](#) get info

[cp](#) get user profile of currently logged in user

[ms](#) set/get service level

AREAS

[sa](#) set area

[al](#) list areas (available for user)

[vl](#) list area types

[sl](#) list area states

[fl](#) list area groups

USERS

[ul](#) list users

[ua](#) user add

[uu](#) user update

[ud](#) user delete

USER PROFILES

[pa](#) user profile add

[pu](#) user profile update

[pd](#) user profile delete

[pl](#) list user profiles

TIME PROFILES

[tl](#) time profiles list

[ta](#) time profile add

[td](#) time profile delete

[tu](#) time profile update

#### SPECIAL DAYS

- [wl](#) special days list
- [wa](#) special day add (with time range)
- [wu](#) special day update (with time range)
- [wr](#) special day add (repeating special day)
- [we](#) special day update (repeating special day)
- [wd](#) special day delete

#### INPUTS

- [il](#) input list
- [id](#) input activate/deactivate
- [is](#) set input to state (only on inputs from NOX TIO)

#### INPUT PROFILES

- [il](#) input profile list

#### OUTPUTS

- [ol](#) output list
- [os](#) set output to state (only on outputs from NOX TIO)

#### UNITS

- [cl](#) unit list

#### ALARM TYPES

- [hl](#) alarm types list

#### ALARMS

- [xl](#) alarms list
- [xx](#) alarms acknowledge

#### WARNINGS

- [bl](#) warnings list

#### SSH USERS

- [ya](#) add SSH user
- [yd](#) delete SSH user
- [yl](#) list SSH users



#### SPECIAL COMMANDS

cmd\_doreset trigger a reset (/f = do not ask to do it)  
showdebug shows debug information

## Ordforklaring (NOX termer)

#### PARAMETERS

Parameters with [...] are optional.

Parameters with # are numeric.

Parameters with \$ are alphanumeric (if spaces are used in the parameter, the parameter must be surrounded by doublequotes "...")

Parameters with % are date/time in NOX format

#### INPUT STATES

0 = closed

1 = open

2 = sabotage open

3 = sabotage closed

4 = open 2

9 = unknown

#### OUTPUT STATES

0 = off

1 = on

2 = blink

9 = unknown

#### TIMESTAMP IN NOX FORMAT

All time stamps are in seconds since 1. January 2000 at 00:00:00.

#SA

sa / Set Areas

sa -a<#area number> -s<#area state number> [-t<#area state time>] [-f] [-o]

-a = area number to change state

-s = new area state

-t = (optional) area state time. If temporary area state is used

-f = (optional) force to new state (even if there are open inputs or alarms)

-o = (optional) only test area if it can be set to the new state

Example:

SA -a5 -s1 will set area 5 to state 1 (disarmed)

SA -a6 -s4 -t30 will set area 6 to state 4 (disarmed-entry) for 30 seconds

SA -a5 -s5 -f will set area 5 to state 5 (armed) even if there are active inputs or alarms in the area which will normally prevent the area from arming

Result values:

Errors are shown in the result value. Each different error set's its error bit. If multiple problems are present, multiple bits are set.

bit 0 = no access to area

bit 1 = no access to slave area

bit 2 = active alarm in area

bit 3 = active alarm in slave area

bit 4 = open input in area

bit 5 = open input in slave area

bit 6 = area in blocking time

bit 7 = slave area in blocking time

bit 8 = active warning

bit 9 = area state not allowed

bit 10 = attached area not in target state

bit 11 = central area not in target state

bit 12 = active warning in slave area

for every problem, a line with detailed information is sent:

+FAIL sa res=x more information

x=bit error (only one)

more information depend on the error:

bit 0...1: "area=x"

bit 2...3: "area=x uniqueID=y"

bit 4...5: "input=x state=y"  
bit 6...7: "area=x"  
bit 9...11: "area=x"  
bit 8, 12: "area=x warningID=y"

Example:

SA -a1 -s5

+FAIL sa:result=24

+FAIL sa res=8 area=3 uniqueID=1-513966465

+FAIL sa res=16 input=35 state=1

+FAIL sa res=16 input=37 state=1

-#SA ([Tilbage til toppen](#))

#GL

gl / Get Log entries

gl -t<\$log type:A|U|I|X> -n<#number of entries> [-s#start date] [-e#start date] [-f#text in log]

-t = alarm log type (A=Alarm log, U=User log, I=Internal log, X=All logs)

-n = number of log entries (sorted backwards by date/time)

-s = (optional) limit entries to start date/time

-e = (optional) limit entries to end date/time

-f = (optional) limit entries to search in text

Example:

GL -tA -n10 will show the last 10 log entries from the alarm log

-#GL ([Tilbage til toppen](#))

#AU

au / Turn on/off automatic status updates from the system

au -t<\$whichInfo:A|I|O|S|L><0|1>

-t = which info:

A: all supported commands

I: input state changes

O: output state changes

S: area state changes

L: log entries

X: alarms and acknowledgement (only if global function is not enabled)

B: new warnings and removal of warnings (only if global function is not enabled)

W: change if service level

0/1 = 0: turn off

1: turn on

Example:

AU -tA1 turn on all status updates

AU -tI0 turn off input state change updates

Any state change will be transmitted to all active SSH channels if function is turned on.

Format:

#time#type:message

time is in NOX format.

type is:

"LOGALARM" for alarm log messages

"LOGUSER" for user log messages

"LOGININTERNAL" for intern log messages

"INPUT" for input change messages

"OUTPUT" for output change messages

"AREA" for area state change messages

Format for INPUT:

"#timestamp#INPUT:xxxx:State=y:Deactivated=z:StateName=n"

xxxx=input number

y=input state

z=0/1 if input is deactivated

n=name if input state

Format for OUTPUT:

"#timestamp#OUTPUT:xxxx:State=y"

xxxx=output number

y=output state

Format for AREA:

"#timestamp#AREA:xxxx:State=y"

xxxx=area number

y=area state number

Special format for alarms:

New alarm or change of alarm:

"#XL;message identical to XL command"

e.g.

"#XL;0;19;2;4;514563442;0-514563442;;Burglar alarm;Main entrance;Main entrance door open;"

Alarm acknowledgement:

"#XX ID=x uniqueID=y"

x=AlarmID

y=UniqueID of alarm

e.g. "#XX ID=1 uniqueID=1-513966465"

Special format for warnings:

New warning generated:

"#BL;message identical to BL command"

e.g.

"#BL;0;514563959;1;29;;3;3"

Warning removed:

"#BX ID=x warningID=y"

e.g.

"#BX ID=0 warningID=4"

Service level changed:

"#MS ServiceLevel=x"

x=new service level (0,1,2,3)

-#AU ([Tilbage til toppen](#))

## #UA

ua / Add a user to the NOX user database

```
ua -n<$user name> [-u<#user profile> -v[$user profile name]] [-p<#user code>] [-c<#card code>] [-i<#pin code>] [-l<#language>] [-s<%start date>] [-e<%end date>] [-a<$add. areas>] [-o<#code once number>] [-f<$info>] [-d] [-x] [-m] [-y<$cardcoderaw>] [-b1]
```

-n = user name

-u = user profile number\*

-v = user profile name\*

-p = (optional) user code (numeric)

-c = (optional) card code (numeric)

-i = (optional) pin code (only valid if card code is provided. pin code is 4 digits)

-l = (optional) language (if not provided, standard language will be applied)

-s = (optional) start date/time

-e = (optional) end date/time

-a = (optional) additional areas (list of area number seperated by commans (e.g. -a1,5,7))

-o = (optional) code once (number of logins allowed until the user is disabled)

-f = (optional) info field

-d = (optional) uses duress code

-x = (optional) uses scambled code

-m = (optional) must enter day

-y = (optional) card code raw information

format:

```
<#card code1>/[<#pin1>]/[<#start date>]/[<#end date>]/[<$rawcode>]E<#card code2>/[<#pin2>]/[<#start date>]/[<#end date>]/[<$rawcode>]E...
```

card code must be unique (is not checked by NOX!)

-g = (optional) login username/password (delimited by character '/')

-b = (optional) user is allowed to change configuration

\*either user profile number or user profile name must be provided.

Example:

-#UA ([Tilbage til toppen](#))

#UU

ua / Change a user in the NOX user database

uu -z<#user id> [-n<\$user name>] [-u<#user profile>] [-v<\$user profile name>] [-p<#user code>] [-c<#card code>] [-i<#pin code>] [-l<#language>] [-s<%start date>] [-e<%end date>] [-a<\$add. areas>] [-o<#code once number>] [-f<\$info>] [-d<#0|1>] [-x<#0|1>] [-m<#0|1>] [-y<\$cardcoderaw>] [-b<#0|1>]

-z = user ID to change

-n = (optional) new user name

-u = (optional) new user profile number

-v = (optional) new user profile name

-p = (optional) new user code (numeric)

-c = (optional) new card code (numeric)

-i = (optional) new pin code (only valid if card code is provided. pin code is 4 digits)

-l = (optional) new language (if not provided, standard language will be applied)

-s = (optional) new start date/time

-e = (optional) new end date/time

-a = (optional) new additional areas (list of area number seperated by commas (e.g. -a1,5,7))

-o = (optional) new code once (number of logins allowed until the user is disabled)

-f = (optional) new info field

-d = (optional) new uses duress code

-x = (optional) new uses scambled code

-m = (optional) new must enter day

-y = (optional) card code raw information

format:

<#card code1>/[<#pin1>]/[<#start date>]/[<#end date>]/[<\$rawcode>]E<#card code2>/[<#pin2>]/[<#start date>]/[<#end date>]/[<\$rawcode>]E...

card code must be unique (is not checked by NOX!)

-g = (optional) login username/password (delimited by character '/')

-b = (optional) is user is allowed to change configuration

Example:

-#UU ([Tilbage til toppen](#))



#UD

ud / Delete a user from the NOX user database

ud [-z<#user id>] [-n<\$user name>] [-c<#user code>] [-p<#user profile>] [-v<\$user profile name>]

-z = user ID to delete

-n = user name to delete (will respond with user id deleted if user name is found)

-c = user with card code to delete (will respond with user id deleted if card code is found)

-p = delete all users with this profile. If user profile=999999 then all users will be deleted

-v = delete all users with this user profile name

Example:

-#UD ([Tilbage til toppen](#))

#UL

ul / List user(s)

ul [-z<#user id>] [-n<\$user name>] [-u<#user profile>] [-v<\$user profile name>] [-p<#user code>] [-c<#card code>] [-i<#pin code>] [-l<#language>] [-s<%start date/time>] [-e<%end date/time>] [-f<\$info>]

-z = (optional) user ID to show  
-n = (optional) user name  
-u = (optional) user profile number  
-v = (optional) user profile name  
-p = (optional) user code (numeric)  
-c = (optional) card code (numeric)  
-i = (optional) pin code (numeric)  
-l = (optional) language (numeric)  
-s = (optional) start date/time  
-e = (optional) end date/time  
-f = (optional) info field

Will show a list of one or all users in semikolon separated format showing the following fields:

1. UserID
2. User name
3. User profile
4. User code
5. Card code
6. Card code PIN
7. User language
8. Start date
9. End date
10. Plus areas
11. Code once
12. Info
13. Use duress
14. Use scrambled code
15. Must enter day
16. Card code raw
17. Login username

Example:

-#UL ([Tilbage til toppen](#))

#GC

gc / Get config

gc -t<\$config type> [-n<#number>]

-t = config type:  
a=areas

-n = Record number (if omitted: all records are shown)

Areas:

A<areanumber>;current state;last state change;in access time

Example:

-#GC ([Tilbage til toppen](#))

#PA

pa / Add a user profile to the NOX user profile database

pa -n<\$user profile name> -c<\$commands> [-a] [-t<#time profile id>] [-o<\$area OPs>] [-q<\$alarm types>] [-d<\$input profiles>] [-u<\$user profiles>] [-s<\$service levels>] [-b<\$area list>] [-g<\$area group list>] [-w<\$visible NOX area list>] [-e<\$visible PC control panel area list>] [-f<\$visible TPA area list>] [-i<\$visible IOS area list>] [-h<\$visible SSH area list>]

-n = user name

-c = List of commands the user is allowed to execute. This is a string consisting only of 0 and 1. It is allowed to omit any trailing zeroes.

Position Description

- |    |                        |
|----|------------------------|
| 1  | menu alarms            |
| 2  | menu warnings          |
| 3  | menu areas             |
| 4  | menu logs              |
| 5  | menu users             |
| 6  | menu service           |
| 7  | menu time profiles     |
| 8  | menu special days      |
| 9  | menu user profiles     |
| 10 | acknowledge alarms     |
| 11 | acknowledge all alarms |
| 12 | set/unser areas        |
| 13 | test area              |
| 14 | detector reset         |
| 15 | disable inputs at set  |
| 16 | disable inputs always  |
| 17 | show log alarms        |
| 18 | show log users         |
| 19 | show log internal      |
| 20 | edit users             |
| 21 | add users              |
| 22 | delete users           |
| 23 | set date/time          |
| 24 | change unit address    |
| 25 | set to service 1       |
| 26 | set to service 2       |
| 27 | set to service 3       |
| 28 | set to service off     |
| 29 | system info            |
| 30 | not used               |

- 31 test inputs
- 32 test outputs
- 33 change time profiles
- 34 add time profiles
- 35 delete time profiles
- 36 change special days
- 37 add special day
- 38 delete special day
- 39 change user profiles
- 40 add user profile
- 41 delete user profile
- 42 add free time
- 43 hide user codes
- 44 change own code
- 45 break time profile
- 46 deactivate detectot in alarm
- 47 show only user log from areas with access
- 48 NOT siemens alarm seen
- 49 show active inputs
- 50 show show alarms which user is allowed to acknowledge
- 51 THS: do not allow to change alarm levels

-a = users have always access (also in blocking time)

-t = time profile ID

-o = List of area operations

"all" = user has full access to all areas (if there is no limitation by visible SSH areas  
or

"A-F-T"

A=Area number

F=From area state (if all, set from area state to 0)

T=To area state (if all, set to area state to 0)

e.g. "5-0-0" means area 5 has full access. "6-1-5" means area 6 is only allowed to set  
from disarmed (1) to armed (5)

Multiple areas are divided by "\_" (underscore) e.g. "5-0-0\_6-1-5"

-q = List of alarm types the user is allowed to acknowledge

"9999" means all alarm types

or

List of alarm types separated by "\_" (underscore) e.g. "1\_2\_3" for alarm types 1 or 2

or 3.

-d = List of input profiles the user is allowed to disable

"9999" means all input profiles

or

List of input profiles separated by "\_" (underscore) e.g. "1\_2\_3" for input profiles 1

or 2 or 3.

- u = List of user profiles the user is allowed to manage
  - "9999" means all user profiles
  - or
  - List of user profiles separated by "\_" (underscore) e.g. "1\_2\_3" for user profiles 1 or 2 or 3.
- s = List of service levels the user is allowed to login
  - if argument is not provided, the user is allowed to login in all service levels
  - "9" means all service levels
  - or
  - List of service levels separated by "\_" (underscore) e.g. "1\_2\_3" for service level 1 or 2 or 3 (but now when 0 (off)).
- b = List of areas the user is allowed to user even when the areas are in blocking time
  - Separated by "\_" (underscore) e.g. "1\_2\_3" for areas 1 or 2 or 3.
- g = (optional) List of area groups the user has access to
  - Separated by "\_" (underscore) e.g. "1\_2\_3" for area groups 1 or 2 or 3.
- w = (optional) List of areas visible for NOX CPA
  - Separated by "\_" (underscore) e.g. "1\_2\_3" for areas 1, 2 and 3.
- e = (optional) List of areas visible for NOX PC Control Panel
  - Separated by "\_" (underscore) e.g. "1\_2\_3" for areas 1, 2 and 3.
- f = (optional) List of areas visible for NOX TPA
  - Separated by "\_" (underscore) e.g. "1\_2\_3" for areas 1, 2 and 3.
- i = (optional) List of areas visible for NOX IOS
  - Separated by "\_" (underscore) e.g. "1\_2\_3" for areas 1, 2 and 3.
- h = (optional) List of areas visible for NOX SSH
  - Separated by "\_" (underscore) e.g. "1\_2\_3" for areas 1, 2 and 3.

Example:

-#PA ([Tilbage til toppen](#))

#PD

pd / Delete a user profile from the NOX user profile database

pd -z<#user profile id>

-z = user profile ID to delete

Example:

-#PD ([Tilbage til toppen](#))

#PL

pl / List user profile(s)

pl [-z<#user profile id>]

-z = user profile ID to show (if omitted: all user profiles are shown)

Will show a list of one or all user profiles in semikolon separated format showing the following fields:

1. User profile ID
2. User profile name
3. List of commands
4. Always access
5. Time profile
6. Area Operations
7. Alarmtypes to acknowledge
8. Input to disable
9. User profile list which is allowed to manage
10. In service level list
11. Area list which is allowed to disarm even when area is in blocking time
12. Area groups list

(for explanation of these fields, please refer to the pa command)

Example:

-#PL ([Tilbage til toppen](#))



#PU

pu / Update auser profile in the NOX user profile database

pu -z<#user profile id> [-n<\$user profile name>] [-c<\$commands>] [-a<#0|1>] [-t<#time profile id>] [-o<\$area OPs>] [-q<\$alarm types>] [-d<\$input profiles>] [-u<\$user profiles>] [-s<\$service levels>] [-b<\$area list>] [-g<\$area group list>] [-w<\$visible NOX area list>] [-e<\$visible PC control panel area list>] [-f<\$visible TPA area list>] [-i<\$visible IOS area list>] [-h<\$visible SSH area list>]

- z = user profile ID to change
- n = (optional) new user profile name
- c = (optional) commands
- a = (optional) always access (0=off, 1=on)
- t = (optional) time profile ID
- o = (optional) List of area operations
- q = (optional) List of alarm types the user is allowed to acknowledge
- d = (optional) List of input profiles the user is allowed to disable
- u = (optional) List of user profiles the user is allowed to manage
- s = (optional) List of service levels the user is allowed to login
- b = (optional) List of areas the user is allowed to unuser even when the areas are in blocking time
- g = (optional) List of area groups the user has access to
- w = (optional) List of areas visible for NOX CPA  
Separated by "\_" (underscore) e.g. "1\_2\_3" for areas 1, 2 and 3.
- e = (optional) List of areas visible for NOX PC Control Panel  
Separated by "\_" (underscore) e.g. "1\_2\_3" for areas 1, 2 and 3.
- f = (optional) List of areas visible for NOX TPA  
Separated by "\_" (underscore) e.g. "1\_2\_3" for areas 1, 2 and 3.
- i = (optional) List of areas visible for NOX IOS  
Separated by "\_" (underscore) e.g. "1\_2\_3" for areas 1, 2 and 3.
- h = (optional) List of areas visible for NOX SSH  
Separated by "\_" (underscore) e.g. "1\_2\_3" for areas 1, 2 and 3.

(for explanation of these parameters, please refer to the pa command)

-#PU ([Tilbage til toppen](#))

#GI

gi / get info

gi command

command list:

freeflash shows free memory in flash

freeram shows free ram

systemversion shows system version

kernelversion shows kernel version

-#GI ([Tilbage til toppen](#))

#AL

al / List area(s) available for the user

al [-z<#area id>] [-t<#area type id>] [-s<#area state id>] [-a<\$area in access time>] [-n<\$area name>] [-w<#time profile id>]

-z = area ID to show (if omitted: all areas are shown which the user has access to)

-t = area type to show (if omitted: all areas are shown which the user has access to)

-s = area(s) with specific state to show (if omitted: all areas are shown which the user has access to)

-a = area(s) in accesstime (if omitted: all areas are shown which the user has access to)

-n = area name to show (if omitted: all areas are shown which the user has access to)

-w = area(s) with time profile ID to show (if omitted: all areas are shown which the user has access to)

Will show a list of one or all areas in semikolon separated format showing the following fields:

1. Area ID
2. Area name
3. Current state of the area
4. Time of the last state change
5. If area is in access time
6. Time profile ID
7. Area type
8. List of inputs in area

Example:

-#AL ([Tilbage til toppen](#))

#VL

vl / List area type(s)

vl [-z<#area type id>]

-z = area type ID to show (if omitted: all area types are shown)

Will show a list of one or all area types in semikolon separated format showing the following fields:

1. Area type ID
2. Area type name
3. List of allowed area states
4. Default area state

Example:

-#VL ([Tilbage til toppen](#))

#SL

sl / List area states(s)

sl [-z<#area state id>]

-z = area state ID to show (if omitted: all area states are shown)

Will show a list of one or all area types in semikolon separated format showing the following fields:

1. Area state ID
2. Area state name
3. Area state allowed area states
4. is unset state
5. Temp. state time

Example:

-#SL ([Tilbage til toppen](#))

#FL

fl / List area group(s)

fl [-z<#area group id>]

-z = area group ID to show (if omitted: all area groups are shown)

Will show a list of one or all area groups in semikolon separated format showing the following fields:

1. Area group ID
2. Area group name
3. Area list

Example:

-#FL ([Tilbage til toppen](#))

#TL

tl / List time profile(s)

tl [-z<#time profile id>]

-z = time profile ID to show (if omitted: all time profiles are shown)

Will show a list of one or all time profiles in semikolon separated format showing the following fields:

1. Time profile ID
2. Time profile name
3. Access times Sunday
4. Access times Monday
5. Access times Tuesday
6. Access times Wednesday
7. Access times Thursday
8. Access times Friday
9. Access times Saturday
10. Time profile is in access time
11. List of special days

Example:

-#TL ([Tilbage til toppen](#))

#WA

wa / Add special day with time range

wa -n<\$special day name> -s<%start date/time> -e<%end date/time> [-t<#attach to time profile>]  
[-p<\$time profile name>] [-a<#deny/grant access in time span>]

-n = Name of special day

-s = Start time (NOX Time format)

-e = End time (NOX Time format)

-t = Add to time profile(s) (# seperated with "\_", if omitted add to all time profiles, 0=none )

-p = Add to time profile with name

-a = Access level in time span (0 = deny | 1 = grant, if omitted = deny)

-#WA ([Tilbage til toppen](#))



#WR

wr / Add repeating special day

wr -n<\$special day name> -s<%start date> -e<%end date> -e<%year> [-a<\$access times>] [-t<#attach to time profile>] [-p<\$time profile name>]

-n = Name of special day

-s = Start date (mmyy), eg. 326 is 26th of march

-e = End date (mmyy)

-y = Year (yyyy) (or 0 for a the same special day every year)

-a = List of access times. Format hhnn-hhmm\_hhmm-hhmm-... See below.

-t = Add to time profile(s) (# seperated with "\_", if omitted add to all time profiles, 0=none )

-p = Add to time profile with name

Details of the access times:

If access times field is empty, no access times on this specific date

Access time can consist of one or multiple time ranged. Every time range has the format hhmm-hhmm.

E.g. 0730-1015 will add an access time from 07:30 to 10:15.

If multiple time ranges are used, they are separated by an underscore character "\_"

E.g. 0730-1015\_1500-1711

-#WR ([Tilbage til toppen](#))

#WU

wu / Update special day with time range

wu -z<#special day id> -n<\$special day name> -s<%start date/time> -e<%end date/time> [-a<#deny/grant access in time span>]

-z = special day ID to update

-n = Name of special day

-s = Start time (NOX Time format)

-e = End time (NOX Time format)

-a = Access level (0 = deny | 1 = grant)

Note:

for editing -z or -n is required!

All parameters that are omitted will remain unchanged.

-#WU ([Tilbage til toppen](#))

#WE

we / Update repeating special day

we -z<#special day id> -n<\$special day name> -s<%start date> -e<%end date> [-t<#attach to time profile>]

-z = special day ID to update

-n = Name of special day

-s = Start date (mmyy), eg. 326 is 26th of march

-e = End date (mmyy)

-y = Year (yyyy) (or 0 for a the same special day every year)

-a = List of access times. Format hhnn-hhmm\_hhmm-hhmm-... See below.

Note:

for editing -z or -n is required!

All parameters that are omitted will remain unchanged.

-#WE ([Tilbage til toppen](#))

#WD

wd / Delete special day

wd -z<#special day id> or -n<\$special day name> [-f]

-z = special day ID to delete

-n = Name of special day to delete

-f = force delete (delete also if the special day is in use in a time profile)

-#WD ([Tilbage til toppen](#))

#WL

wl / List special day(s)

wl [-z<#special day id>]

-z = special day ID to show (if omitted: all special days are shown)

Will show a list of one or all special days in semikolon separated format showing the following fields:

1. Special day ID
2. Special day name
3. Start day
4. End day
5. Year (0=every year)
6. Access times of this special day
7. Range start day (if time range is used)
8. Range end day
9. Access times in time range

Example:

-#WL ([Tilbage til toppen](#))

#IL

il / List input(s)

il [-z<#input id>] [-n<\$input name>] [-a<#area id>] [-p<#input profile id>] [-d]

- z = (optional) input ID to show
- n = (optional) input name (or part of it)
- a = (optional) inputs in area with area ID
- p = (optional) inputs with input profile ID
- d = (optional) only inputs which are deactivated

Will show a list of one or all inputs in semikolon separated format showing the following fields:

1. Input ID
2. Input name
3. Input ID number (e.g. 1000-1)
4. Input profile ID
5. Current state
6. Time of last input state change
7. Is input deactivated
8. List of areas of the input
9. Simple entry/exit time
10. Input value
11. Input state name if current state
12. List of all alarm types which can be triggered by this input (comma separated)
13. Device address / id when input is part of a gateway:
  - S8/Prisma: DASK address
  - SMB: ADI address
  - LSN: LSN device ID

Example:

-#IL ([Tilbage til toppen](#))

#ID

id / Input activate/deactivate

id -z<#input id>] -d0|1 [-f]

-z = input ID to activate/deactivate

-d = activate/deactivate

0/1 = 0: activate (normal)

1: deactivate input

-f = (optional) force function (also do it if it would normally fail)

Example:

id -z39 -d1 will deactivate input number 39

id -z39 -d0 will activate input number 39

if deactivation/activation succeeds, "+OK" will be answered.

if deactivation/activation fails, "+FAIL id: area=x" will be answered.

if user has no rights to deactivate/activate detectors, response code 99 will be transmitted.

-#ID ([Tilbage til toppen](#))

#TA

ta / time profile add

ta -n<\$time profile name> [-d<\$special days>] [-0<\$sunday access times>] [-1<\$monday access times>] [-2<\$thuesday access times>] [-3<\$wednesday access times>] [-4<\$thursday access times>] [-5<\$friday access times>] [-6<\$saturday access times>]

-n = name of the time profile

-d = List of special days separated by "\_" (underscore) e.g. "1\_2\_3" for special days 1, 2 and 3.

-0 = List of access times for Sunday (see below)

-1 = List of access times for Monday (see below)

-2 = List of access times for Tuesday (see below)

-3 = List of access times for Wednesday (see below)

-4 = List of access times for Thursday (see below)

-5 = List of access times for Friday (see below)

-6 = List of access times for Saturday (see below)

Format of list of access times:

"0700-1000\_1200-1330"

will add 2 access times: 07:00-10:00 and 12:00-13:30

if there is no start or end-time: use xxxx

e.g.

"2100-xxxx" will add a access time which will start at 21:00 with no end time.

Example:

-#TA ([Tilbage til toppen](#))



#TU

tu / time profile update

tu -z<#time profile number> -n<\$time profile name> [-d<\$special days>] [-0<\$sunday access times>] [-1<\$monday access times>] [-2<\$tuesday access times>] [-3<\$wednesday access times>] [-4<\$thursday access times>] [-5<\$friday access times>] [-6<\$saturday access times>]

-z = ID number of time profile

-n = name of the time profile

-d = List of special days separated by "\_" (underscore) e.g. "1\_2\_3" for special days 1, 2 and 3.

-0 = List of access times for Sunday (see note)

-1 = List of access times for Monday (see note)

-2 = List of access times for Tuesday (see note)

-3 = List of access times for Wednesday (see note)

-4 = List of access times for Thursday (see note)

-5 = List of access times for Friday (see note)

-6 = List of access times for Saturday (see note)

Note:

for editing -z or -n is required!

All parameters that are omitted will remain unchanged.

Further information on parameters is found under ta / Add time profile

-#TU ([Tilbage til toppen](#))

#TD

td / time profile add

td -z<\$time profile ID>

-z = time profile ID to delete

Example:

-#TD ([Tilbage til toppen](#))

#XL

xl / List alarms

xl [-i<#input ID>] [-a<#area ID>] [-t<#alarm type>]

-i = alarms from input ID to show (if omitted: all alarms are shown)

-a = alarms from area ID to show (if omitted: all alarms are shown)

-t = alarms with alarm type ID to show (if omitted: all alarms are shown)

-s = only alarms with alarm seen flag set

-x = only alarms with alarm seen flag NOT set

Will show a list of one or all alarms in semikolon separated format showing the following fields:

1. Alarm ID
2. Input ID
3. Areas ID
4. Alarm Type
5. Date/Time of alarm
6. Unique Alarm ID
7. Specific alarm text
8. Alarmtype name
9. Area name
10. Input name
11. Alarm seen information

Example:

NOX>xl

0;19;2;4;514563442;0-514563442;;Burglar alarm;Main entrance;Main entrance door open;

-#XL ([Tilbage til toppen](#))

#XX

xx / Acknowledge alarms

xx [-n<#alarm ID>] [-i<#input ID>] [-a<#area ID>] [-t<#alarm type>] [-u<#uniqueID>] [-s]

- n = acknowledge a specific alarm with alarm ID
- i = acknowledge all alarms of input ID
- a = acknowledge all alarms from area ID
- t = acknowledge all alarms of alarm type
- u = acknowledge a specific alarm with unique ID
- s = only mark alarm as seen ("ALSEEN")

Example:

- xx     acknowledge any alarm which is possible to be acknowledged
- xx -n0   acknowledge alarm ID 0 (if possible to acknowledge)
- xx -a1   acknowledge any alarm in area 1 (if possible to acknowledge)
- xx -a2 -t3 Acknowledge any alarm in area 2 of alarm type 3 (if possible to acknowledge)

Response:

Acknowledgement succeeded:

"+OK xx ID=x uniqueID=y"  
x=internal alarm number  
y=unique alarm ID

Acknowledgement failed:

"+FAIL xx ID=x res=y uniqueID=z additional Information"  
x=internal alarm number  
y=result code (see below)  
z=unique alarm ID  
additional alarm information=if result code=2: "input=x"  
                                  if result code=4: "area=x"

Acknowledgement failed due to no rights to acknowledge any alarm:

"+FAIL xx: no rights"  
resultcode = 99

if -n is supplied:

Acknowledgement failed due to alarm ID is > internal alarm structure  
"+FAIL xx: alarm ID out of bounds"  
resultcode = 98

At alarm ID position in structure there is no active alarm

"+FAIL xx: alarm ID has no active alarm"  
resultcode = 97

if -u is supplied:

If the uniqueID is not found, the following response will be generated:

"+FAIL xx: unique ID not found"  
resultcode = 96

-#XX ([Tilbage til toppen](#))

#CP

cp / get user profile of currently logged in user

Will show the user profiles in semikolon separated format showing the following fields for the currently logged in user:  
(identical to PL command)

1. User profile ID
2. User profile name
3. List of commands
4. Always access
5. Time profile
6. Area Operations
7. Alarmtypes to acknowledge
8. Input to disable
9. User profile list which is allowed to manage
10. In service level list
11. Area list which is allowed to disarm even when area is in blocking time
12. Area groups list

(for explanation of these fields, please refer to the pa command)

-#CP ([Tilbage til toppen](#))

#YA

ya / Add a SSH user to the SSH user database

ya -n<\$user name> -p<\$password> -u<#user profile>

-n = user name

-p = password

-u = user profile number

Example:

-#YA ([Tilbage til toppen](#))

#YL

yl / List SSH users

yl

Will show a list of all SSH users in semikolon separated format showing the following fields:

1. SSH user ID
2. user name
3. user profile ID
4. user profile name

Example:

-#YL ([Tilbage til toppen](#))



#YD

yd / Delete a SSH user from the SSH user database

yd [-z<#SSH user id>] [-n<\$SSH user name>]

-z = SSH user ID to delete

-n = SSH user name to delete (will respond with user id deleted if user name is found)

Example:

-#YD ([Tilbage til toppen](#))

#BL

bl / List warnings

bl [-t<#warning type>]

-t = only warnings from specified warning type (valid warning types: 1,2,3,4,10)

Will show a list of all warnings in semikolon separated format showing the following fields:

1. Warning Number
2. Date/Time of Warning
3. Warning Type (1...4, 10)
4. Warning Info
5. Username
6. Alarm Type
7. Warning ID

Description

1. Warning Number: Number in internal Warning structure (0...)

2. Date/Time: NOX Format

3.-5. Information Depending on Warning Type.

Warning Type 1: Normal warning of input.

Field Info: Input generated the warning

Warning Type 2: Deactivation of input.

Field Username: User who deactivated the input

Field Info: Input number

Warning Type 3: Area not armed. Field Info: area number

Warning Type 4: Output disabled.

Field Username: User who deactivated the output

Field Info: output number

Warning Type 10: System in Service.

Field Username: User who set system into service

Field Info: service level

6. Alarm Type: alarm type which generated this warning

7. Warning ID: Unique warning ID (0...32700). Incremented for every warning generated. Roll-over at 32700.

Example:

NOX>bl

0;514563959;1;29;;3;3

-#BL ([Tilbage til toppen](#))

#MS

ms / show or set service mode

ms [-l0|1|2|3]

no parameter: shows current service level

-l0 = Turn off service

-l1 = Set service level to 1

-l2 = Set service level to 2

-l3 = Set service level to 3

Will answer with current/new service level:

NOX>ms

+OK ServiceLevel=0

Set system to service level 1

NOX>ms -l1

+OK ServiceLevel=1

if user has no right to set to the new service level:

NOX>ms -l1

+FAIL no rights

If service level is illegal (>3)

NOX>ms -l4

+FAIL wrong service level

-#MS ([Tilbage til toppen](#))

#IS

is / set input to state (only on inputs from NOX TIO)

is -z<#input id>] -s0|1|2|3|4|9

-z = input ID to change state

-s = new input state

0 = closed

1 = open

2 = sab open

3 = sab closed

4 = open 2

9 = unknown

Example:

is -z39 -s0 will set input 39 to closed

is -z39 -s1 will set input 39 to open

if state change succeeds, "+OK" will be answered.

if state change fails, "+FAIL is:reason" will be answered.

possible reasons:

- "no rights" to change state

- "not a TIO input"

-#IS ([Tilbage til toppen](#))

#OL

ol / list outputs(s)

ol [-z<#output id>]

-z = (optional) output ID to show

Will show a list of one or all outputs in semikolon separated format showing the following fields:

1. Output ID
2. Output name
3. Output ID number (e.g. 1000-1)
4. Current state
5. Time of last output state change
6. Device address / id when input is part of a gateway:
  - S8/Prisma: DASK address
  - SMB: ADI address
  - LSN: LSN device ID

Example:

ol -z5

5;test output;1005-3;0;514563442

-#OL ([Tilbage til toppen](#))

#CL

cl / list unit(s)

cl [-z<#unit number>]

-z = (optional) unit number to show

Will show a list of one or all units in semikolon separated format showing the following fields:

1. Unit number
2. Unit name
3. Unit type (e.g. IO4)
4. Address
5. Bus number
6. ID number
7. List of inputs (space separated)
8. List of outputs (space separated)

Example:

-#CL ([Tilbage til toppen](#))

#JL

jl / list input profile(s)

jl [-z<#input profile number>]

-z = (optional) input profile number to show

Will show a list of one or all input profiles in semikolon separated format showing the following fields:

1. Input profile number
2. Input profile name
3. List of alarm types when input changes to open\*
4. List of alarm types when input changes to open2\*
5. List of alarm types when input changes to closed\*
6. List of alarm types when input changes to sabotage\*
7. Resistance treshold value for sabotage shortcut to closed (kOhm)
8. Resistance treshold value for closed to alarm (kOhm)
9. Resistance treshold value for alarm to alarm2 (kOhm)
10. Resistance treshold value for alarm to sabotage open (kOhm)
11. Delay time for alarm
12. Delay time for sabotage
13. Delay time for closed
14. Input state name for input open
15. Input state name for input open2
16. Input state name for input closed
17. Input state name for input sabotage closed
18. Input state name for input sabotage open

\* format: X-Y where

X=area state number (9999=in all area states)

Y=alarm type

Example:

-#JL ([Tilbage til toppen](#))

#HL

hl / list alarm type(s)

hl [-z<#alarmtype number>]

-z = (optional) alarm type number to show

Will show a list of one or all alarm types in semikolon separated format showing the following fields:

1. Alarmtype number
2. Alarmtype name
3. "No alarm" flag
4. "No alarm with set" flag
5. "is warning" flag
6. internal alarm delay time (s)
7. "show on main" flag
8. "is duress" flag

Example:

-#HL ([Tilbage til toppen](#))



#OS

os / set output to state (only on outputs from NOX TIO)

os -z<#output id>] -s0|1|2

-z = output ID to change state

-s = new output state

0 = off

1 = on

2 = blink

Example:

os -z20 -s0 will set output 20 to off

if state change succeeds, "+OK" will be answered.

if state change fails, "+FAIL is:reason" will be answered.

possible reasons:

- "no rights" to change state

- "not a TIO input"

-#OS ([Tilbage til toppen](#))