

1.1 General description

A standard automatic fire system has multiple devices connected to the panel controller. Frequently after physically installing the complete system with its peripheral devices, the installer of the system integrator (further called “installer”) needs to update this devices in FSP-5000-RPS (further called “RPS”).

By having now the export and import function for LSN devices in RPS, the installer can export the devices existing in the loops to a XML file and then start adding or removing devices on it. Devices can also be copied from one loop to another, or several devices can be deleted at a time. This manipulation of the XML file should not be made manually, in fact, this file should act as a machine interface for other applications.

The feature is available for accounts greater or equal than panel FW3.1 (of any fire panel) under the operations menu.

All the existing devices can be added to a loop, however the existing limitations as the number of devices by module must be respected.

HINT: To automate the process of adding devices to a new loop, the target LSN module needs to be created before the export operation. This will reduce errors and facilitate the process.

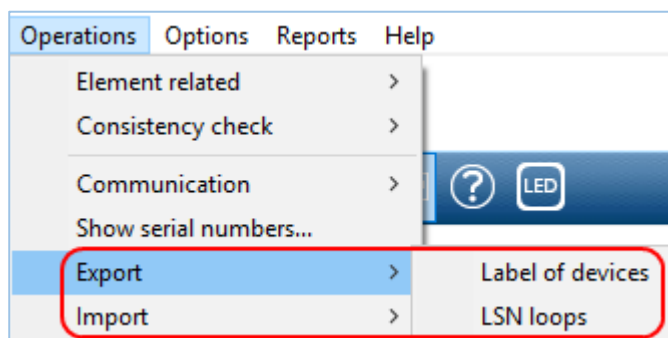


Figure 1 – Access menu

All the devices that doesn't have logical address at root level, will be set with 0 in the group address and sub address. In the others situations, as expected, the same device can't exist several times in a loop with the same logical address (except if 0).

1.2 Export LSN loops

General description

The export LSN loop can be selection in the operations menu and then select “Export” followed by “LSN devices”.

Before starting to export the configuration file, the installer must setup the LSN modules. The topology can be defined as loop or stub, however T-tap configuration is not supported.

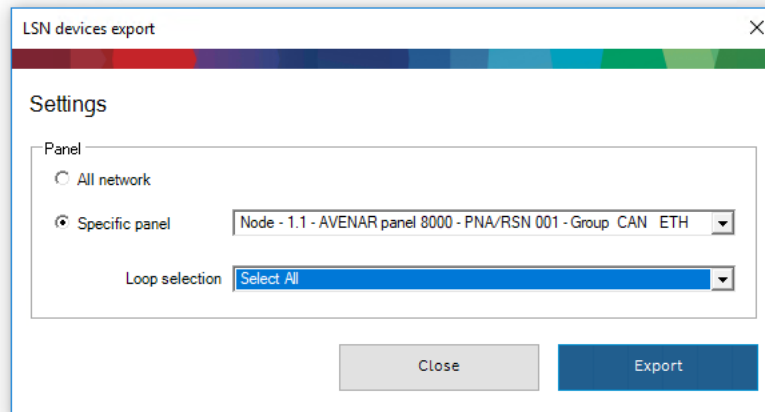


Figure 2 – Export label of devices

After selecting the export option, a dialog appears where it is possible to choose between a specific loop of panel, all the loops of a panel or all the loops existing in a configuration (All network). Additionally, when clicking the Export button, a save dialog pops up asking for the file name, its location and format. Currently, only XML format is available.

Once the task is completed, a message appears giving feedback to the installer.

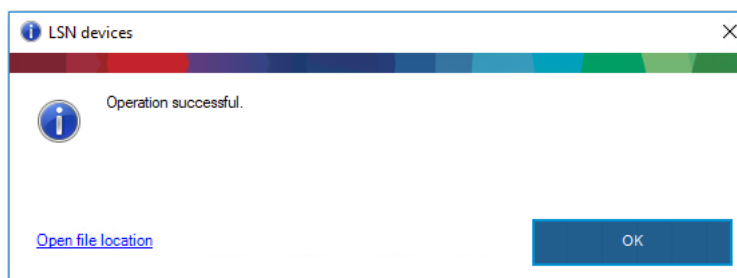


Figure 3 – Message after exporting

When clicking in the “Open file location” link, the folder containing the generated file is opened.

The Address: - It correspond to the loop identifier. This element should remain untouched, it allows to identify the loop when the file is imported back to RPS.

The Identifier: It correspond to the external device name, the relation with the official name is presented in section 1.4.

The GroupAddress: It correspond to the device group, for devices that doesn't have a logical address at root level it must be zero.

The SubAddress: It correspond to the device sub address, for devices that doesn't have a logical address at root level it must be zero.

The Label: – As the name implies, it correspond to the device label that can be filled accordingly. For devices that doesn't have this property at root level, it will be ignored.

Export via XML

```

<?xml version="1.0" encoding="utf-8"?>
<Configuration>
  <Loop Address="1-3-LOOP-3-2">
    <Device>
      <Identifier>DOTC420</Identifier>
      <GroupAddress>65</GroupAddress>
      <SubAddress>1</SubAddress>
      <Label />
    </Device>
    <Device>
      <Identifier>DOTC420</Identifier>
      <GroupAddress>65</GroupAddress>
      <SubAddress>2</SubAddress>
      <Label>Label1</Label>
    </Device>
    <Device>
      <Identifier>DOTC420</Identifier>
      <GroupAddress>65</GroupAddress>
      <SubAddress>3</SubAddress>
      <Label />
    </Device>
  </Loop>
</Configuration>

```

```

<?xml version="1.0" encoding="utf-8"?>
<Configuration>
  <Loop Address="1-3-LOOP-3-2">
    <Device>
      <Identifier>DOTC420</Identifier>
      <GroupAddress>65</GroupAddress>
      <SubAddress>1</SubAddress>
      <Label />
    </Device>
    <Device>
      <Identifier>DOTC420</Identifier>
      <GroupAddress>65</GroupAddress>
      <SubAddress>3</SubAddress>
      <Label />
    </Device>
    <Device>
      <Identifier>DOTC420</Identifier>
      <GroupAddress>65</GroupAddress>
      <SubAddress>4</SubAddress>
      <Label>New device</Label>
    </Device>
    <Device>
      <Identifier>FNX425U</Identifier>
      <GroupAddress>0</GroupAddress>
      <SubAddress>0</SubAddress>
      <Label>No logical address at root level</Label>
    </Device>
  </Loop>
</Configuration>

```

Figure 4 – Visualization after exporting in XML and after adding text

As an example, in the above image the device DOTC420 with the group **65** and the sub address **2** will be removed from the configuration. In the opposite direction, the device FNX425U and DOTC420 with the group **65** and the sub address **4**, will be added. As a reminder, the device FNX425U has the group and sub address set to 0 because it don't have logical address at the root level (non-zero values are ignored for these scenarios).

1.3 Import LSN loops

General description

The import LSN loops can be selection in the operations menu and then select “Import” followed by “LSN loops”.

Before starting to import, the file generated by the export LSN loops should be updated accordingly. During the update process, it is important to keep in mind that in order to maintain the correct representation of all the characters, the file encoding must not be changed (it must remain as UTF-8). If the file to be imported contains invalid data, it will be rejected by the system.

Only after correcting all reported issues, the import operation will start.

If the imported file contains classic elements and the LSN module is of type LSN improved, it will automatically be reverted to classic.



Figure 5 – Report of the performed operation

HINT: When issues are found in the file to be imported, all errors are presented to the user.

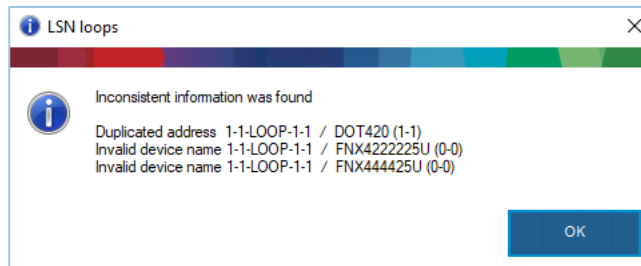


Figure 6 – Error report

The following errors can occur:

- Duplicated logical address in a loop
- Duplicated logical address for a device (0 is allowed)
- Invalid group address for particular security item type (NACs for example)
- Group address or sub address set for devices without Logical Address at root level
- Too many groups for a particular security item type in a LSN module
- Invalid device name introduced
- Maximum limit of a loop or device exceeded

Some of those errors are immediately detected by validating the xml file against a schema. This schema is available under the folder “...\\RAMV\\Schema\\LsnLoops.xsd” of RPS application.

When the operation is successfully performed, by clicking the “Show summary” link, a text file containing a detailed report will be presented.

```

Devices added: 2
Device          Group  Sub Address  Lsn Address  Label Value
420-A-B5        1      1            1-3-LOOP-3-2
I2-D            0      0            1-3-LOOP-3-2

Devices removed: 0

Devices updated: 1
Device          Group  Sub Address  Lsn Address  Old Label Value  New Label Value
DOTC420         65     1            1-3-LOOP-3-2  Empty            Updated

Devices unmodified: 2
Device          Group  Sub Address  Lsn Address
DOTC420         65     2            1-3-LOOP-3-2
DOTC420         65     3            1-3-LOOP-3-2

```

Figure 7 – Detailed report

WARNING: The purpose of the feature is not to reorder devices. The positions in which the devices are created in the external file will be respected, however, swapping devices inside the file will produce no effects when importing it back to RPS.

1.4 List of LSN devices

Official name	External name	Has root address	Visible in RPS Device List
ATB420	ATB420	No	ATB-420 - LED annunciator with 32 outputs
ATG420	ATG420	No	ATG-420 - LED annunciator with 32 LEDs
ATx100	ATx100	No	ATx100 - LED annunciator with 32 outputs
DM210/SM210/FMC-210/FMC-420RW	MCP	Yes	DM210/SM210/FMC-210/FMC-420RW Manual call point
FAH-420	FAH420	Yes	
FAH-T420	FAHT420	Yes	FAH-T420/425 – Heat detector
FAP-DO420	FAPDO420	Yes	FAP-DO420/425 – Dual optical smoke detector
FAP-DOT420	FAPDOT420	Yes	FAP-DOT420/425 – Dual multisensor detector optical/thermal
FAP-DOTC420	FAPDOTC420	Yes	FAP-DOTC420/425 – Dual multisensor detector optical/thermal/chemical
FAP-O420/FAD-O420	O420	Yes	FAP-O420/425, FAD-O420/425 - Optical smoke detector
FAP-O500	FAPO500	Yes	FAP-O500 Optical fire detector (invisible)
FAP-O520	FAPO520	Yes	FAP-O520 Optical fire detector (invisible)
FAP-OC500	FAPOC500	Yes	FAP-OC500 Optical/chemical fire detector (invisible)
FAP-OC520	FAPOC520	Yes	FAP-OC520 Optical/chemical fire detector (invisible)
FAP-OT420	FAPOT420	Yes	FAP-OT420/425 – Multisensor detector optical/thermal
FAP-OTC420	FAPOTC420	Yes	FAP-OTC420 Multisensor detector optical/thermal/chemical
FAS-420-TM	FAS420TM	No	FAS-420-TM Aspirating Smoke Detector (with 1 sensor)
FAS-420-TM-DB	FAS420TMDB	No	FAS-420-TM-DB Aspiration smoke detector (without fan)
FAS-420-TM-R/RVB	FAS420TMRRVB	No	FAS-420-TM-R/RVB Aspirating Smoke Detector (with ROOM IDENT)

FAS-420-TP1	FAS420TP1	No	FAS-420-TP1 Aspirating Smoke Detector (with 1 sensor)
FAS-420-TP2	FAS420TP2	No	FAS-420-TP2 Aspirating Smoke Detector (with 2 sensors)
FAS-420-TT1	FAS420TT1	No	FAS-420-TT1 Aspirating Smoke Detector (with 1 sensor)
FAS-420-TT2	FAS420TT2	No	FAS-420-TT2 Aspirating Smoke Detector (with 2 sensors)
FBF100	FBF100	No	FBF100 – Fire brigade control panel
FK100	FK100	No	FK100 RF Interface module
FLM-420/4-CON-S/D	FLM4204CONSD	No	FLM-420/4-CON-S/D Conventional Interface module 4-wire LSN
FLM-420-EOL2W-W	FLM420EOL2W	No	
FLM-420-EOL4W-W	FLM420EOL4W	No	
FLM-420-I1-M	FLM420I1M	No	
FLM-420-I2-D	FLM420I2D	No	FLM-420-I2-D Input Interface Module
FLM-420-I2-W/E	FLM420I2WE	No	FLM-420-I2-W/E Input Interface Module
FLM-420-I8R1-S	FLM420I8R1S	No	FLM-420-I8R1-S Octo-Input Interface Module (with 1 relay)
FLM-420-NAC	FLM420NAC	No	FLM-420-NAC Signaling device interface module
FLM-420-O1I1-E/D	FLM420O1I1ED	No	FLM-420-O1I1-E/D Output-Input Interface Module
FLM-420-O2-D	FLM420O2D	No	FLM-420-O2-D Output Interface Module
FLM-420-O2-W/E	FLM420O2WE	No	FLM-420-O2-W/E Output Interface Module
FLM-420-O8I2-S	FLM420O8I2S	No	FLM-420-O8I2-S Octo-Output Interface Module (with 2 inputs)
FLM-420-RHV	FLM420RHV	No	FLM-420-RHV - Relay high voltage interface module
FLM-420-RLE-S	FLM420RLES	No	FLM-420-RLE-S Extinguishing Interface Module
FLM-420-RLV1-D	FLM420RLV1D	No	FLM-420-RLV1-D Relay Interface Module Low Voltage
FLM-420-RLV1-E	FLM420RLV1E	No	FLM-420-RLV1-E Relay Interface Module Low Voltage

FLM-420-RLV8-S	FLM420RLV8S	No	FLM-420-RLV8-S Octo-Relay Interface Module Low Voltage
FLM-I-420	FLMI420	No	FLM-I-420 Short circuit isolator
FNM-420-A/B	FNM420AB	Yes	FNM-420-A/B Stand-alone Sounder
FNM-420-A-BS	FNM420ABS	Yes	FNM-420-A-BS Base Sounder
FNM-420U-A/B	FNM420UAB	Yes	FNM-420U-A/B Stand-alone Sounder
FNM-420U-A-BS	FNM420UABS	Yes	FNM-420U-A-BS Base Sounder
FNM-420V	FNM420V	Yes	FNM-420V Stand-alone Sounder
FNS-420-R LSN	FNS420RLSN	Yes	FNS-420-R LSN Strobe
FNX425U	FNX425U	No	FNX-425U Sounder and Strobe
FPP-5000-TI13	FPP5000TI13	No	FPP-5000-TI13
FWI-270	FWI270	No	FWI-270 - Radio Gateway
KD55-1/KD200	KDx	No	KD55-1/KD200/FPP-5000-TI Zone expander
MSS400	MSS400	Yes	MSS400 - Detector Base Sounder (2 Wire)
MSS401	MSS401	Yes	MSS401 - Detector Base Sounder (4 Wire)
NAK100	NAK100	No	NAK100 Branch expansion module
NBK100	NBK100	No	NBK100 Fire interface
NBM110/DM200	MCPlegacy	Yes	NBM110/DM200 Manual call point
NEV300	NEV300	No	NEV300 Power supply
NIM100	NIM100	Yes	NIM100 - Ionization detector
NKK100	NKK100	No	NKK100 Contact expansion module
NOM100	NOM100	Yes	NOM100 - Optical smoke detector
NSB100	NSB100	No	NSB100 Control interface
NTK100	NTK100	No	NTK100 Output expansion module
NTM100	NTM100	Yes	NTM100 - Heat detector
O400	O400	Yes	O400 - Optical smoke detector
OC410	OC410	Yes	OC410 Optical/chemical multisensor detector
OM200	OM200	Yes	OM200 - Optical smoke detector
OT200	OT200	Yes	OT200 - Combined smoke and heat detector
OT400	OT400	Yes	OT400 Optical/thermal multisensor detector

OTC410	OTC410	Yes	OTC410 Optical/thermal/chemical multisensor detector
T400	T400	Yes	T400 Thermal differential/thermal maximum detector
TM200	TM200	Yes	TM200 - Heat detector