Summary

- R-ION Utilities is an upper version of Sox-to-Serial Utilities and developed by Ontrol.
 This utilities bring new feature different from to Sox-To-Serial Utilities.
- This utilities includes the following enhancements:
 - Download new application
 - Download new Firmware
 - Automatically Com PORT detection
- This features benefits are:
 - Easy Commissioning
 - Save Engineering Time
 - Quick and Easy Maintenance
 - Less Knowledge Require

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Contents

Page

1	Installing R-ION Utilities
2	Running R-ION Utilities
3	R-ION Utilities: Sox-to-Serial
4	R-ION Utilities: Application Files Download
5	R-ION Utilities: Firmware Files Download



Installing R-ION Utilities

• R-ION Utilities can be download on www.ontrol.com website.

You can find this software on page of R-ION product (https://www.ontrol.com/rion)

• After Downloading, unzip the file and keep folder on your hard disk. Prefer location **{niagara-install-folder}/sedona/ontrol/**.



CAUTION

 The path should not contain any spaces or non-english characters (illegal path example : C:\Users\John Doe\Documents\Desktop\R-ION_Firmware)

• Requires Java 32-bit or 64-bit to be installed on your machine.

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	Open		*				
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	Edit with Notepad++						
	Scan with Windows Defender						
	🖻 Share						

STEP

Installing R-ION

Utilities



Running R-ION Utilities

Running R-ION Utilities

STEP

2

- Double click to RionUtilities file and right click to *i* rionutilities.exe
- Select Run as administrator only for first running

NOTE: If you work with Windows 10; opens "Windows protected your PC" warning window, first click "More info" text, after click Run anyway button.

This PC → W	indows (C:) > Niagara > Niagara	1-3.8.401 > sedona > ontrol > Ric	onUtilities	Windows 10	Windows 10
	Name ^	Date modified 15.04.2019 10:28	Type File folder	Windows protected your PC	Windows protected your PC
* * * *	files lib rion fionutilities.exe rionUtilities.properties	15.04.2019 10:28 15.04.2019 10:28 15.04.2019 10:28 15.04.2019 10:28 0pen	File folder File folder File folder Application	Windows Defender SmartScreen prevented an unrecognized app from starting Running this app might put your PC at risk. <u>More info</u>	Windows Defender SmartScreen prevented an unrecognized app from starting. Running this app might put your PC at risk. App: rionutilities.exe Publisher. Unknown publisher
Å	1	 Run as administrator Troubleshoot compatibility Grafik işlemciyle çalıştır Pin to Start Move to OneDrive Edit with Notepad++ Scan with Windows Defender Ehre Pin to taskbar Restore previous versions 		Don't run	3 Run anyway Don't run



STEP 3

Tools of R-ION Utilities:

Sox-to-Serial

R-ION Utilities

Sox-to-Serial

- Small program to connect R-ION to Niagara AX via USB
- Start Tunnel; start to connection
- Stop Tunnel; stop to connection
- **COM Port**; R-ION-USB connection port to computer. USB COM Port number is automatically detected. Manuel COM selection is possible.
- **UDP Port**; SOX port number. Default sox port is 1876. The device may have been set to use a different port, but this would be rare





Tools of R-ION Utilities:

Sox-to-Serial

R-ION Utilities

STEP

3

Sox-to-Serial

USB Port

File Options
Sox-To-Serial
Start Tunnel
Stop Tunnel
COM Port COM3 👻
UDP Port 1876
Firmware
Firmware
Firmware Applicatio
Firmware Applicatio R-ION UTILITIES v.01.00
Firmware Applicatio R-ION UTILITIES v.01.00
Firmware Applicatio R-ION UTILITIES v.01.00 R-ION has found on COM3, connecting
Firmware Applicatio R-ION UTILITIES v.01.00 R-ION has found on COM3, connecting Opened serial port COM3 UDP port 1876

NOTE: For use R-ION Utilities must connect to R-ION with Standard Micro USB cable. If you get any error message on R-ION Utilities console window, check to cable connection between R-ION to PC

• Starting sox to serial runs in the background to tunneling Sox IP message to



STEP

Tools of R-ION Utilities: Application Files Download

R-ION Utilities

Application download

- This process deletes current application and files in the R-ION
- Load Application; loads to application folder in the selected folder.

Selected Folders

Firmware File = C:\Users\erays\Desktop\RION_Utilities\rion\firmware\rion_V173.bin

Application Folder = C:\Users\erays\Desktop\RION_Utilities\rion\applications\default

Default application folder





STEP

Tools of R-ION Utilities: Application Files Download

R-ION Utilities

Application download

Download Success

Background color of console pane goes to green from black and write "...APP FILE DOWNLOAD IS SUCCESSFUL...".

💕 R-ION UTILITIES v.02.04		- 🗆 ×
File Options		
Sox-To-Serial	Firmware Update	Application Download
Start Tunnel	Firmware Update	Load Application
	Load app after firmware update	Change Application Folder
COM Port AUTO 👻		
UDP Port 1876	Selected Firmware V1.93 V	
5 5 6 M	Selected Folders	
Firmware File = C:\Niaga	ara\Niagara-3.8.401\sedona\ontrol\RionUtilities(v_2.04)\RionUtiliti	es\rion\tirmware\rion_V195.bin
Application Folder = C:\N	liagara\Niagara-3.8.401\sedona\ontrol\RionUtilities(v_2.04)\RionU	tilities\rion\applications\default
opying : \app.sab.stage		
opying : \kits.scode.stage		
eleting images,fonts,apps folders in the de	vice	
opying : apps\FCU_Modbus_V1.sab		
opying : apps\Minimal_V1.sab		
opying : system\logo.bin		
opying : fonts\16pt Tahoma.bin		
opying : fonts\72pt Tahoma.bin		
opying : fonts\96pt Tahoma.bin		
opying : images\fan-0.bin		
opying : images\fan-1.bin		
opying : images\fan-2.bin		
opying : images\fan-3.bin		
opying : images\Main-0.bin		
opying : images\Main-1.bin		
opying : images\Set-0.bin		
opying : images\Set-1.bin		
Copying : m\m.zip		
I-ION is being restarted.		
5/06/2020 15:01:48		

APP FILE DOWNLOAD IS S	UCCESSEUI	
+++++++++++++++++++++++++++++++++++++++	++++++	

Download Failed

Background color of console pane goes to red from black and write "APP FILE DOWNLOAD IS FAILED!!!".





STEP Tools of R-ION Utilities:

How to choose different application folder?

- R-ION Utilities
- Application download
- Click to Option menu and uncheck to Load Default Application





STEP 5

Tools of R-ION Utilities:

Firmware Update



Firmware files Download Able to download update firmware to the R-ION. Before start to Firmware download process, must be;

-installed SAM-BA -R-ION have to be firmware programming mode (see page 14) -installed R-ION Serial Port Driver (see page 4)

- Install SAM-BA; Install to SAM-BA
- After Install SAM-BA close and re-run as administrator the R-ION Utilities
- Install Serial Port Driver; Generally driver installs automatically. If It doesn't, you must install driver manually.







STEP 5

Tools of R-ION Utilities:

Firmware Update

R-ION Utilities

Firmware files Download

- **Firmware Download**; loads to firmware file in the selected folder.
- Load Application After Programming; enables to load application after firmware download.



Selected Folders

Firmware File = C:\Users\erays\Desktop\RION_Utilities\rion\firmware\rion_V173.bin

 $\label{eq:application} Application \ Folder = C: \ Users \ erays \ Desktop \ RION_Utilities \ ion \ applications \ default$



STEP 5

Tools of R-ION Utilities:

Firmware Update

R-ION Utilities

Firmware files Download

Download Success

Background color of console pane goes to green from black and write "FIRMWARE UPDATE IS SUCCESSFUL...".

Background color of console pane goes to red from black and write "FIRMWARE UPDATE IS FAILED!!!".

Start Turnel Firmware Update Load app after firmware update Start Turnel I Load app after firmware update Change Application COM Part Selected Firmware I Load app after firmware update UDP Part 1575 Selected Firmware I Load app after firmware Selected Firmware I Load app after firmware I Load app after firmware I Load app after firmware Selected Firmware I Load app after firmware Selected Firmware I Load app after firmware Application Folder Selected Findware I Load app after firmware I Load	· Can To Carial	Essenare Hadate	Application Doumland
Start Lunnel Immove Update Stop Tunnel I Load app After firmware Update COM Poet Selected Firmware Update UDP Poti 1730 Selected Firmware Update Selected Firmware Update Selected Firmware File C/Nagara/Nagara-33.40/Usedona/ontof/Nico/Uklifes/u/2.00/Nico/Uklifes/uion/Application/	30x-10-3ehai	Filmware opuate	Application Download
Steeted Firmware update Change Application Folder COM Port 1070 Selected Firmware Update UDP Port 1070 Selected Firmware (VIS) Firmware File = C/Nkagara/Nagara-38.40/Tucedona/onton/NiconUtilities/v2.00/NiconUtilities/vicon/seplications/default RION UTILITIES V 02.04 RION FIRMWARE UPDATER VERSION 10.06 loaded : 1.93 Yogramming RION FIRMWARE UPDATE IS SUCCESSEFUL VERSION: 1.93	Start lunnel	Firmware Update	Load Application
COM Port UTO UDP Port Selected Firmware [JS] Selected Firmware [JS] Selected Firmware [JS] Firmware File = CNNagara/Niagara-33.40%sedona/ontrof/RionUtilities/vion/Minivare/vion/VI93.bin Application/default Application Folder = CNNagara/Niagara-33.40%sedona/ontrof/RionUtilities/v2.04/(RionUtilities/vion/Application/default Selected Firmware [JS] RHON UTILITIES V 02:04 Selected Firmware [JS] Selected Firmware [JS] RHON UTILITIES V 02:04 Selected Firmware [JS] Selected Firmware [JS] RHON FIRMWARE UPDATER Selected Firmware [JS] Selected Firmware [JS] Programming Selected Firmware [JS] Selected Firmware [JS] VERSION 1: 1.93 Selected Firmware [JS] Selected Firmware [JS]	Stop Tunnel	load ann after firmware undate	Change Application Folder
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UDP Port 1578 Selected Folders Firmware File = C(Niagara/Niagara-33.401)sedonal/ontrol/Nion/Utilited/v_2.04)/Nion/Utilited/vion/firmware/vion, V193.bin Application Folder = C(Niagara/Niagara-33.401)sedonal/ontrol/Nion/Utilited/v_2.04)/Nion/Utilited/vion/application/ide/ault RION UTILITIES V 02 04 TRION FIRMWARE UPDATER RION FIRMWARE UPDATER Application to be loaded : 1 93 Programming VERSION 10 be loaded : 1 93 VERSION 10 be loaded : 1 93 VERSION 10 be loaded : 1 93 VERSION 11 be successeru VERSION 11 193		Selected Firmware V1.93 *	
Selected Folders Firmware File = Ci/Niagara/Niagara-33.40/Tscdona/ontrof/RionUtilites/v2.00/RionUtilites/vion/Amarelvion/V193.bin Application/Eddru = Ci/Niagara/Niagara-33.40/Tscdona/ontrof/RionUtilites/v2.00/RionUtilites/vion/application/default R+ON UTILITIES v 02.04 R+ON	UDP Port 1876		
Firmware IIIe - C(Niagara/Niagare-3.8.401/sedona).ontrol/Nicol/bilites(v_2.04)/Nicol/bilites(vian/Immware/inon,VI93.bin Application Folder - C(Niagara/Niagare-3.8.401/sedona).ontrol/Nicol/bilites(v_2.04)/Nicol/bilites(vian/iapplication/idefault ARION UTILITIES V 02.04 R-ION FIRMWARE UPDATER R-ION FIRMWARE UPDATER R-ION FIRMWARE UPDATER SUCCESSFUL VERSION 1.93		Selected Folders	
Application Folder = C:\Nagara:38.401\sedona\ontrolNiconUtilities(v.2.04)\RionUtilities(Firmware File = C:\Niaga	rra\Niagara-3.8.401\sedona\ontrol\RionUtilities(v_2.04)\RionUtili	ties\rion\firmware\rion_V193.bin
R-ION UTILITIES v 02.04 R-ION FIRAWVARE UPDATER The Firmware Version to be loaded : 1.93 Programming R-ION firmware is updated, restarting FIRAWVARE UPDATE IS SUCCESSFUL VERSION : 1.93	Application Folder = C:\N		
FIRAMWARE UPDATE IS SUCCESSFUL VERSION: 1 193	R-ION UTILITIES V.02.04	MTER	Utilities/non/applications/idefault
VERSION : 1.93	RION UTILITIES V 02.04 RION FIRMWARE UPD The Firmware Version to be loaded : 1.93 Yogramming RION firmware is updated, restarting	MTER *****	Utilities/non/applications/default
***************************************	R-ION UTILITIES v 02.04 R-ION FIRMWARE UPC The Firmware Version to be loaded : 1.93 Programming RIGN firmware is updated, restarting FIRMWARE UPDATE IS S	ATTER	Utilities (non) applications) default
	R-ION UTILITIES v 02.04 R-ION FIRMWARE UPD The Firmware Version to be loaded : 1.93 Programming R-ION firmware is updated, restarting FIRMWARE UPDATE IS 5 VERSION : 1.93		Utilitiet.non\applications\default
	R-ION UTILITIES v 02.04 R-ION FIRMWARE UPD The Firmware Version to be loaded : 1.93 Programming R-ION firmware is updated, restarting FIRMWARE UPDATE IS 3 VERSION : 1.93	ATTER	Utilitet.non\applications\default





STEP

Tools of R-ION Utilities:

How to choose different firmware files?



Firmware files Download

- Click to Option menu and uncheck to Use Latest Firmware

 R-ION UTILITIES v.0.0.3
- File Options File Options Firmware Update Use Latest Firmware Use Latest Firmware Firmware Download Load Default Application Load Default Application Change Firmware Directory Load Application After Programming Selected Firmware V1.73 -Change of Directory button appears in • Firmware Update tab Please Select The Firmware File X Click Change of Directory button and Look In: 🗀 firmware - 🗈 🏠 🍱 🔡 💳 show different firmware file path

Open Cancel

C:\Niagara\Niagara-3.8.401\sedona\ontrol\RionUtilities\rion\fi

Folder name:

Files of Type: All Files



STEP 5

R-ION Utilities

Firmware files Download

Tools of R-ION Utilities:

Switching to firmware programming mode

- Make sure power is off :
 - disconnect / turn-off power connection
 - <u>and</u> disconnect the USB cable
- Disengage R-ION display part (front) from the metal frame.
- Keep the small button (PROG) on the backside pressed for the next step .
- Connect the USB cable to PC for a few seconds. Disconnect again.
- Release the button.
- The R-ION is now "initialized" Memory has been erased and it will be waiting for a new firmware update.

Connect the USB cable to your PC.

R-ION may appear "Bossa Program" or "ATMEL" in the Device Manager. If this is the first time, Windows will recognize RION as a new device, and try to search for and install a driver. Interrupt this automatic installation by clicking No when prompted.



- This will erase the existing application and all image/font files on the device.
- If turn on power of R-ION after erase memory, display doesnt have any view.



Portable Devices
 Ports (COM & LPT)
 Bossa Program Port (COM5)
 Print queues
 Printers
 Processors