

This is a printout of the online documentation. Please check the online documentation on a regular basis for updates. Online documentation is found at "wiki.avisaro.com". This particular document has the link:

http://www.avisaro.com/tl/tl_files/Avisaro20/PDF/WR1_Manual_20.pdf



Date: May 16th, 2009

WR1: Wireless RS232 data transfer ("Device Server")

Description

This script transfers data from the RS232 port wirelessly to a computer or to another Avisaro 2.0 product. Data transfer is bi-directional. To set up a "wireless rs232 cable" with a Windows based PC there is only one Avisaro 2.0 product needed. A "virtual serial port" software runs on the PC to redirect all data going to the RS232 port over the LAN/WLAN to the Avisaro 2.0 product.



Download



[WR1 User Manual \(PDF, ENG, 0.5 MB\)](#) (print-out of the online manual)



[Download Script: WR1-14.txt \(1.3 kB\)](#) (right mouse-button and 'save under ...' to download)

Version history

Script name:	wr1-14.txt
Current version:	v 1.14 , dated from 10.04.2009
Firmware:	v3.28 or higher required
Hardware:	Logger wlan cube or logger wlan module
History:	v1.14: v1.13: fixed problem with port setting v1.8: changed IP adresse on website v1.0: Initial release

1. Initial Setup

1.1. Load Script (if necessary)

If purchased a WLAN "Box" or "Cube" product, the application script is usually preloaded. Check shipping documents to verify. If not, or the script should be changed or updated, load the script as described [here](#).

1.2. Connect and Power Up

Power Up and Connect to your device as described [here](#) in the User Manual section "First Steps".

Configure the RS232 port as described [here](#) using the Web interface.

1.3. Default settings

To summarize, the default settings of the data and WLAN / TCP interface are:

RS232 default settings

Baudrate: 9600
No of bits: 8
Parity bits: none
Stop bits: 1
Flow control: none

WLAN settings

SSID: avisaro
Channel: 11
Mode: adhoc
Encryption: none

TCP/IP settings for WLAN interface

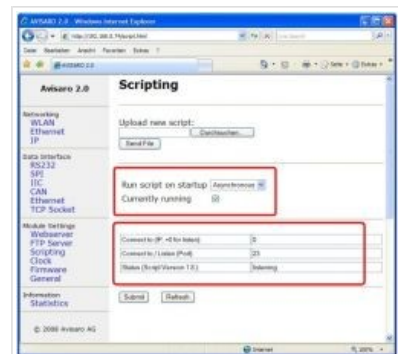
IP: 192.168.0.74
Subnet: 255.255.255.0
DHCP: off

2. Configure Avisaro device

2.1. Listen for incoming connection ("TCP Server")

The Avisaro 2.0 product can either wait (listen) to an incoming connection, or actively try to connect to a other device such as a PC. The later one is more common, but this decision depends on the application. Consult your network admin to get help on this decision.

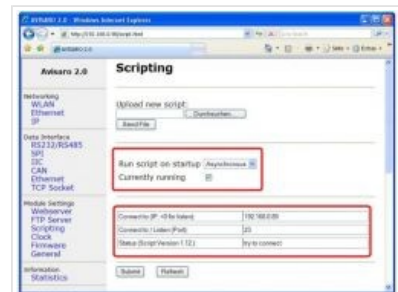
Set-up to have the module wait for an incoming connection: Enter a "0" in the field "Connect to (Ip, =0 for listen)". Enter the desired port number in the field "Connect to / Listen (Port)". Press the "Submit" button to store the changes. After reloading the page, the Status should state "listening". The green LED flashes to indicate ongoing listening.



Listen status - Click to enlarge

2.2. Initiate connection ("TCP Client")

Set-up to have the module actively connect to a PC: Enter the IP address of the target PC (or other device) in the field "Connect to (Ip, =0 for listen)". Instead of IP address, the internet name can be also entered (such as yourname.dyndns.org) Enter the port number of the target in the field "Connect to / Listen (Port)". Press the "Submit" button to store the changes. After reloading the page, the Status should state "try to connect". The green LED flashes to indicate connection trials.

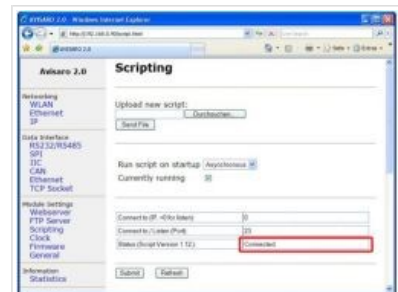


Setting "TCP Client" - click to enlarge

2.3. Connection established

Once configured, the Avisaro 2.0 tries to connect to a PC or listen to an incoming connection after start-up. As soon as the TCP/IP connection was established, the red and green LED light constantly. The status field with the scripting menu shows "connected".

When the connection was reset - i.e. due to a shut down of the PC - the module will try to connect again (flashing green light). The push button can be used to terminate the current IP connection. The module immediately tries to reconnect.



Connected status - click to enlarge

3. Connect to a Windows PC

3.1. Virtual Serial Port software

To create a wireless connection to a PC, a 'virtual serial port' can be used. This piece of software installs a serial port such as COM3. All data send to this COM port is redirected to the wireless connection and finally send out on the Avisaro device. All that works bidirectional.

Thus, there is no extra hardware required on the PC. The PC only needs a regular Wifi interface or needs access to the network the Avisaro device is associated with.

See [here](#) for download and a installation guide for this "Virtual Serial Port" software.

3.2. Any other TCP software

This application transports the data without any modifications over Wifi. Thus, any TCP client can be used on the PC to communicate with the Avisaro device. Examples are the 'good old' Hyperterminal available in Windows XP and older (use 'TCP Socket' instead of serial port during connection setup).

4. Connect to another Avisaro WLAN Device

To connect two Avisaro WLAN Devices, configure one as 'client' the other as 'server' as described above. At the 'client' configuration, enter the IP adress of the 'server'. That's it.

5. More details

5.1. LEDs and Key

Key:

Is used to stop a TCP connection.

Green LED:

Indicates power up. Flashing: Waiting for TCP connection to be established

Red LED:

Indicates a successfull established TCP connection



5.2. Reset to default values

If the module is configured in such a way that it can not be reached via web site or via RS232 connection, there is a back-door:

Power down the module. Press the push button and hold it pressed. Power up the module. Both LEDs will flicker for about 2 minutes and than light up solid. The module is set to above stated default values. Release the button and power down / up the module. If the module with no push button is used, the IO-pin tied to ground can be used.

There is a second way to recover a module [more](#)

5.3. Technical details

Data are transferred without any additional protocols over TCP/IP. Thus, a user can easily write his own host software by simply using direct socket communication.