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## iRidium Server for Raspberry Pi

Installing and setting up a server in a project i3 lite

**iRidium Sever for Raspberry Pi** is a program implementation of iRidium Server, which is launched as daemon or console application on a Raspberry Pi 3 controller

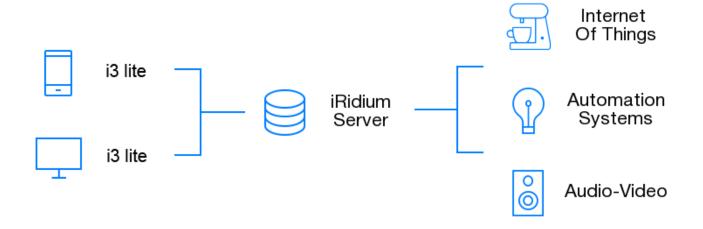
Download iRidium server for Raspberry Pi3



## **Technical characteristics:**

• raspberrypi.org

iridium server conects to a hardware and send commands from a control panel to it. The control panels connect to the server to control the hardware through it, receive feedback, upload logs and database.



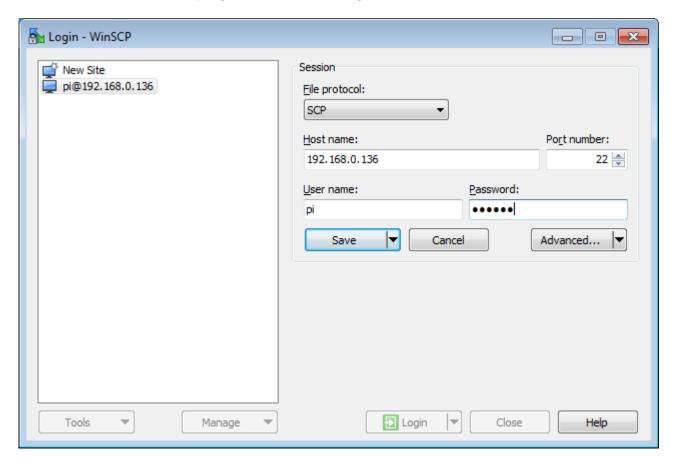
## **Installation and configuration**

To install iRidium server on Raspberry Pi download and install a required software:

- 1. <u>Download</u> (\*.deb) server file for Raspberry Pi
- 2. **Download** and install WinSCP
- 3. **Download** and install PuTTY

Connect and configure Raspberry Pi according to instructions from <u>raspberrypi.org</u>. Raspbian operating system must be installed on your device (officially supported operating system Raspberry Pi on the basis of Debian).

1 Launch **WinSCP**. In the program interface configure:



• File Protocol: SCP

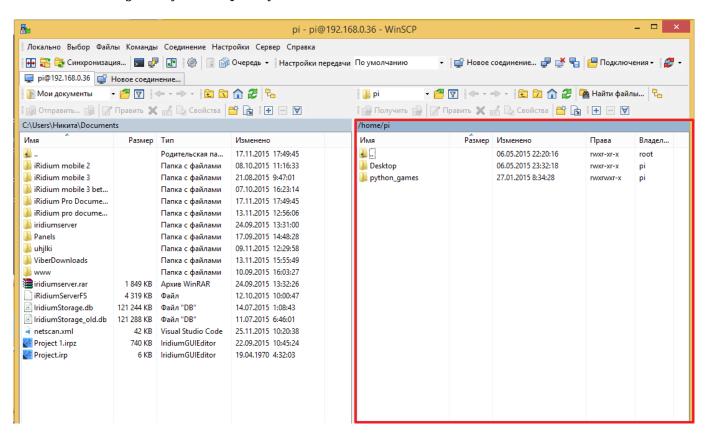
• Host name: Raspberry Pi IP-address (to find out your address enter ifconfig in the pi console)

• Port number: 22

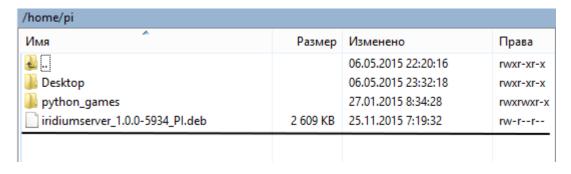
• User name: your login ("pi" by default)

• Password: your password ("raspberry" by default)

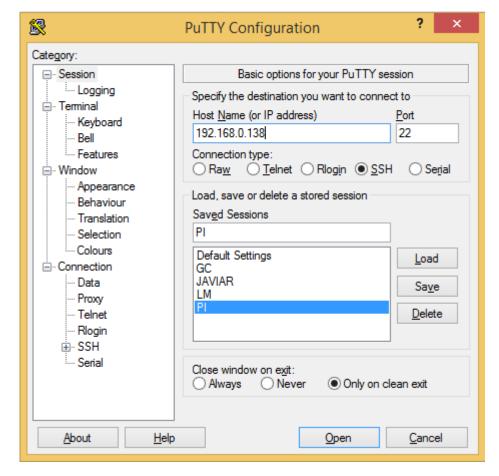
2 Save the settings with the Save key. Connect to Raspberry by pressing Login button. If the connection parameters are entered correctly, you will see a window on the right side of which is a menu for working with your Raspberry files:



3Copy a(\*.deb) file, which you downloaded by link #1, in /home/pi folder

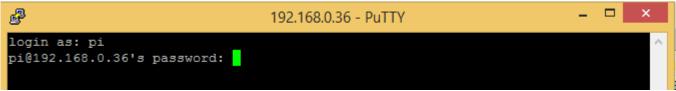


4 Launch **PuTTY**. In the program interface set up:



- Host Name (or IP address): IP-address of your Raspberry
- Port: 22 (default)
- Connection Type: SSH
- Saved Session: enter the name of the current setting and click Save
- Close window on exit: Only on clean exit

5 In the configured PuTTY click "Open" - the console will open. Enter login and password for connecting to the server.



entered password does NOT displayed in the console - it is normal. Press "Enter", when you finish to enter

6 If the login and password are correct, you will see a message about a successful connection to Raspberry

```
login as: pi
pi@192.168.0.36's password:
Linux raspberrypi 3.18.11+ #781 PREEMPT Tue Apr 21 18:02:18 BST 2015 armv61

The programs included with the Debian GNU/Linux system are free software; the exact distribution terms for each program are described in the individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent permitted by applicable law.

Last login: Wed Nov 25 05:35:45 2015 from unknowing.local
pi@raspberrypi ~ $
```

You can configure a static IP-address for Raspberry through Putty, by instruction

7 Install the package loaded into the Raspberry memory using the command:

```
sudo dpkg -i /<way_to the_package>/<package_name>.deb
```

For example:

sudo dpkg -i /home/pi/iridiumserver\_1.0.0-5934\_PI.deb

```
pi@raspberrypi ~ $ sudo dpkg -i /home/pi/iridiumserver_1.0.0-5934_PI.deb
```

Wait for the installation to complete. Do NOT turn off the power of the device. As a result, you will see:

After installation, the server runs as a daemon - the PuTTY log will NOT display any working

information, when you restart, the Raspberry Server will start automatically.

8 Launch the server from the iridiumserver directory. To do this, there are commands:

- sudo ./iridium launch the server. When you close the console, the server closes
- sudo ./iridium --hidden launch the server in the background (like a daemon). When the console is closed, the server does NOT close

Successful server startup:

```
pi@raspberrypi /iridiumserver $ sudo ./iridium
        ######
                                                         #
        ######
        #
                                                      #
                                                         #
        #
                                #
                                                  ##
                                                      #
                                                        #
#####
                                    #####
Server Version: 1.0.0:5934 (Nov 17 2015, 18:17:26)
Can't create ROOT DIR /var/lib/iRidium Server/
Get Serial From /proc/cpuinfo 00000000d116d375 size: 16
Name raspberrypi(Server) Os Linux Family armv61 Model Raspberry PI
Doc Dir /var/lib/iRidium Server/Documents/
Cache Dir /var/lib/iRidium Server/Documents/
Log Dir /var/lib/iRidium Server/Logs/
Res Dir /iridiumserver/
DB Dir /var/lib/iRidium Server/DataBase/
[02-12-2015 13:01:45.000] DEBUG
                                        CORE
                                                Core DoInit
[02-12-2015 13:01:45.000]
                                DEBUG
                                        CORE
                                                HWID Generation
```

An error may occur when you try to restart the server in the background:

In case of such an error, enter the command:

sudo rm /tmp/irdaemon.pid

```
pi@raspberrypi /iridiumserver $ sudo rm /tmp/irdaemon.pid
```

and restart the server (item 8).

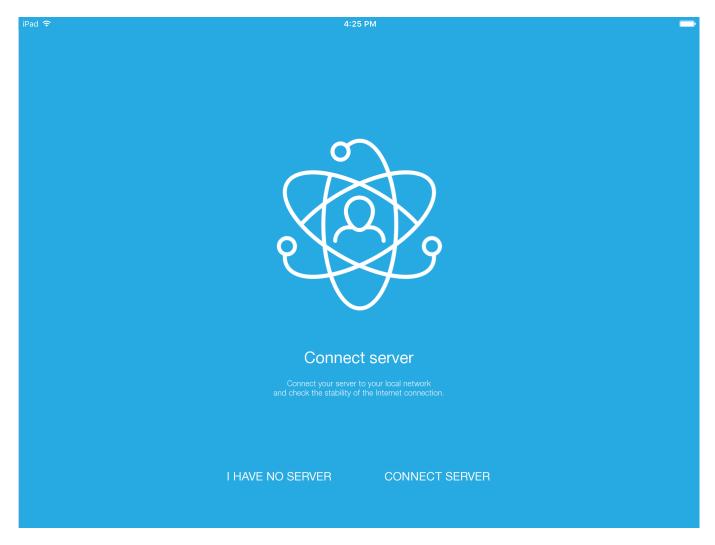
9 The server is ready to work with the project

## Adding a server to the i3 lite project

You may add the server to the project in two ways:

1 Adding the server during the creation of the project

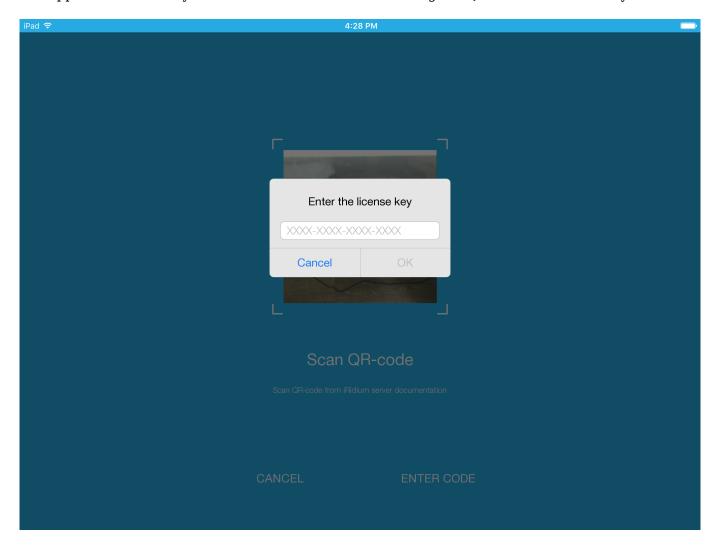
Launch the i3 lite application and start to create a project. The application will ask you to add a server. You need to agree.



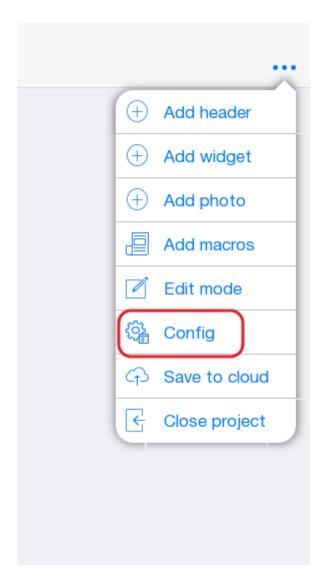
You will see a window with the servers available on the local network. You need to select your server

Cancel	Servers	Refresh
techruvb-VirtualBox(Server)		
IRIDIUMUSER-PC(Server) 192.168.0.42		
raspberrypi(Server) 192.168.1.185		
TMP(Server) 192.168.0.45		
DESKTOP-4SH2796(Server) 192.168.0.77		
CREATORPC(Server)		

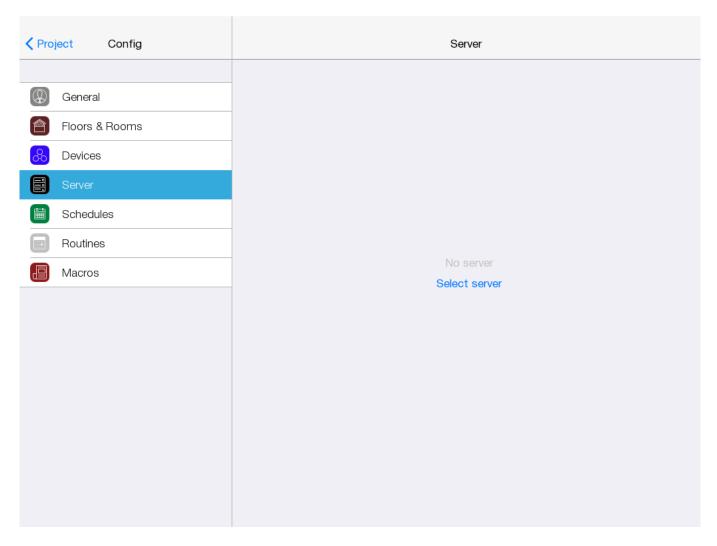
The application will ask you to enter the activation code using the QR scanner or manually



Now the server is added to the project. 2 Adding a server to the already created project Open the project and go to the Config



Click the "server" tab and click the "Select Server" button.



You will see a window with the servers available on the local network. You need to select your server. The application will ask you to enter the pin code from the server (pin code is default 2007). After entering the PIN code, the server must be activated by clicking on the corresponding button