

Program gateway iRidium Gate provides the following advantages when working with the KNX equipment:

- **Connection of several iRidium Apps (control panels) to one KNX IP router.**

A standard KNX IP router often supports only one connection at a time. iRidium Gate allows you to control your KNX IP router from several device at a time (the number of devices is limited only by the volume of data the router can process)

- **Stable work via the Internet.**

When connecting to the router directly via KNXnet/IP (UDP) the connection is often unstable. Gate solves this problem as it receives data via TCP, converts them and then sends them to the router in the same network using standard UDP transport protocol.

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Principles of iRidium Gate Operation

iRidium Gate enables receipt and further sending of data to the controlled equipment. The conversion is performed on the level of transport protocol. iRidium Gate received a telegram from iRidium App via the TCP protocol, converts the telegram into the UDP format and send it to the equipment. There is no additional data conversion .

Thus, iRidium App connects to iRidium Gate, and Gate in its turn connects to the controlled KNX IP router.



iRidium App TCP port of connection to iRidium Gate can be selected at random. The main condition is to indicate the same port in the settings of iRidium project and Gate.

Setting up iRidium Gate for KNX

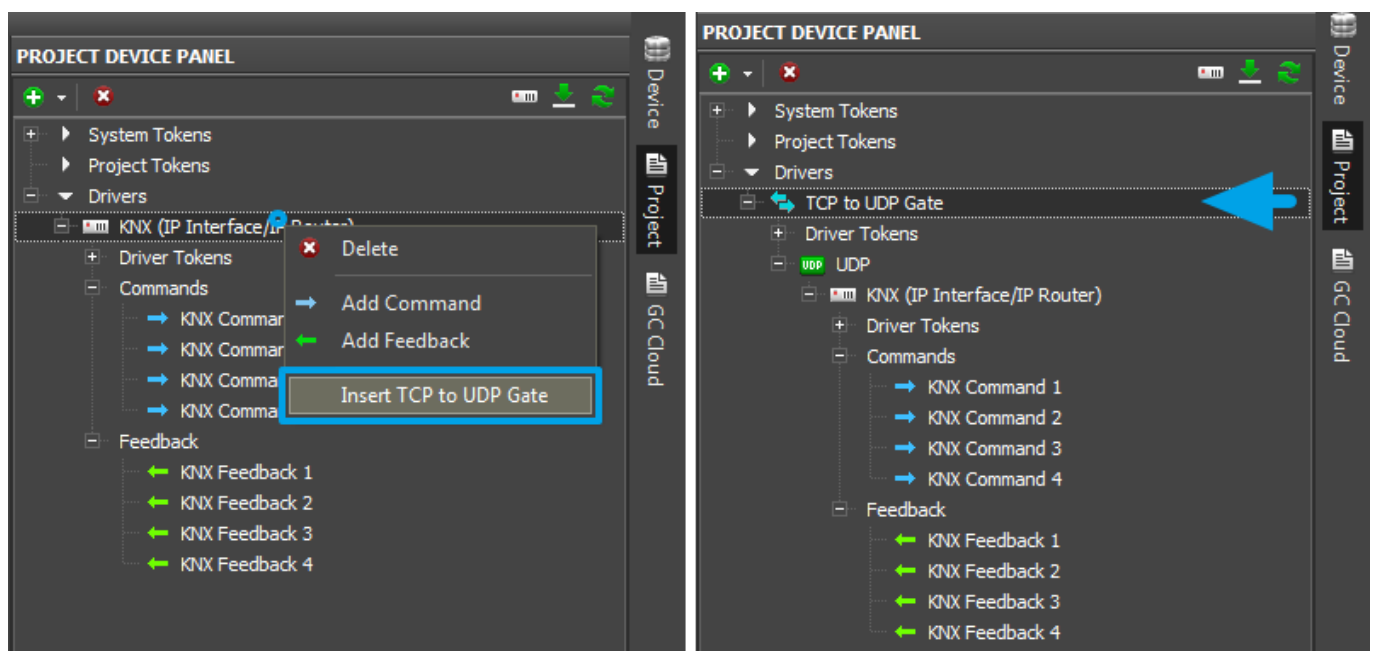
Setting up of iRidium project and iRidium Gate for working with KNX includes the following stages:

- Setting up referral to iRidium Gate from your iRidium project: forming the "TCP to UDP Gate" level in iRidium GUI Editor
- Setting up connection to PC with running iRidium Gate in the parameters of the "TCP to UDP Gate" level.
- Setting up the iRidium Gate application: indicate the port which iRidium Apps can use for connection, the IP-address and connection port to KNX IP router
- Adding iRidium Gate to the list of applications which are launched together with Windows (Autorun)

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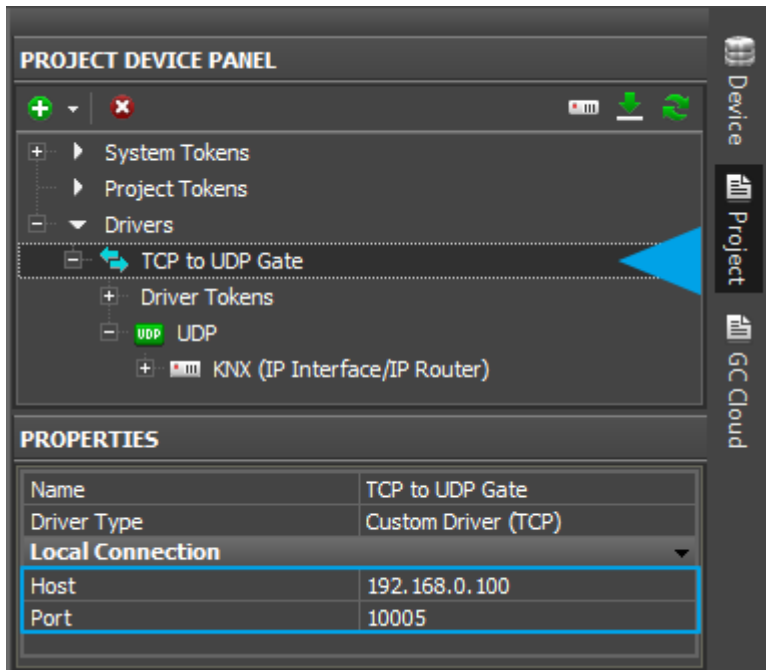
Setting up Connection of iRidium Project to the iRidium Gate Application

Select [the preset KNX IP Router](#) you will connect through [iRidium Gate](#) in the iRidium project opened in [iRidium GUI Editor](#). Select "Insert TCP to UDP Gate" in the right click menu after clicking on the router.



Select "TCP to UDP Gate" in the project device tree and indicate the properties of connection to the PC where iRidium Gate will run in the Properties window.

Indicate the IP-address of the PC with running iRidium Gate (you can learn it in the network settings. It is recommended to use a static IP-address) and TCP port for connection to the PC. The TCP port can be selected at random but make sure it is not used by some other application.



Host - IP-address of PC with running Gate
Port - TCP port of connection to the PC with running Gate
 (it can be selected at random but make sure it is not used by some other application)

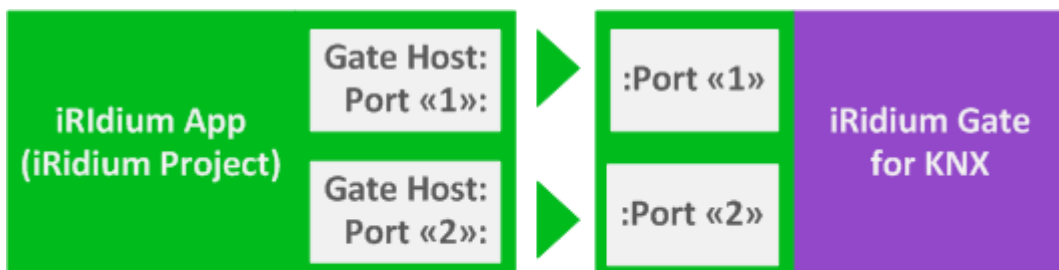
Save the project in iRidium GUI Editor and go to iRidium Gate.

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Setting up iRidium Gate

In iRidium Gate you can create an unlimited number of gateways providing data transfer to various controlled equipment. At that several iRidium Apps can connect to one gateway (using one port) for simultaneous control of the equipment.

If you create SEVERAL gateways (for example, for controlling several KNX IP routers), the ports of connection to iRidium Gate, which are set up in the iRidium project should be different for each KNX router. It enables correct data routing:



IMPORTANT: Port «1» should NOT be the same as Port «2»

To create a new gateway in iRidium Gate press the **"Add Gate"** button:

| Name | Type | State | Client |
|---------|---------|-------|--------|
| GC-1:IR | Direct | Run | 0 |
| KNX | EIB/KNX | Run | 0 |

You will see the window for setting properties of connection to the gateway where it is required to indicate:

Gate New

Gate

Name: KNX Gate

Comment: connection to KNX IP Router from iRidium

Autostart

Server

Type: EIB/KNX

Transport: Tcp

Port: 10005

Max Connection: 5

Device

Type: EIB/KNX

Transport: Udp

Host: 192.168.0.155

Port: 3671

Idle: 120000 ms

OK Cancel

The "Gate" section of the gateway settings:

General information about the gateway

- **Name:** the gateway name (at random)
- **Comment:** the gateway description (at random)
- **Autostart** - activation of automatic start of the gateway at the start of the Gate application Gate (it is recommended to activate this setting)

The "Server" section of the gateway settings:

Settings of the server part (receiving data from iRidium control panels)

- **Type:** the type of the driver the gateway will receive data from
- **Transport:** the transport protocol of data transfer from iRidium Apps to the gateway (TCP)
- **Port:** the port for connection of iRidium Apps to the gateway (the same you selected in the iRidium project)
- **Max Connections:** the maximum number of iRidium Apps for simultaneous connection to the gateway

The "Device" section of the gateway settings:

Properties of connection to the controlled KNX IP router

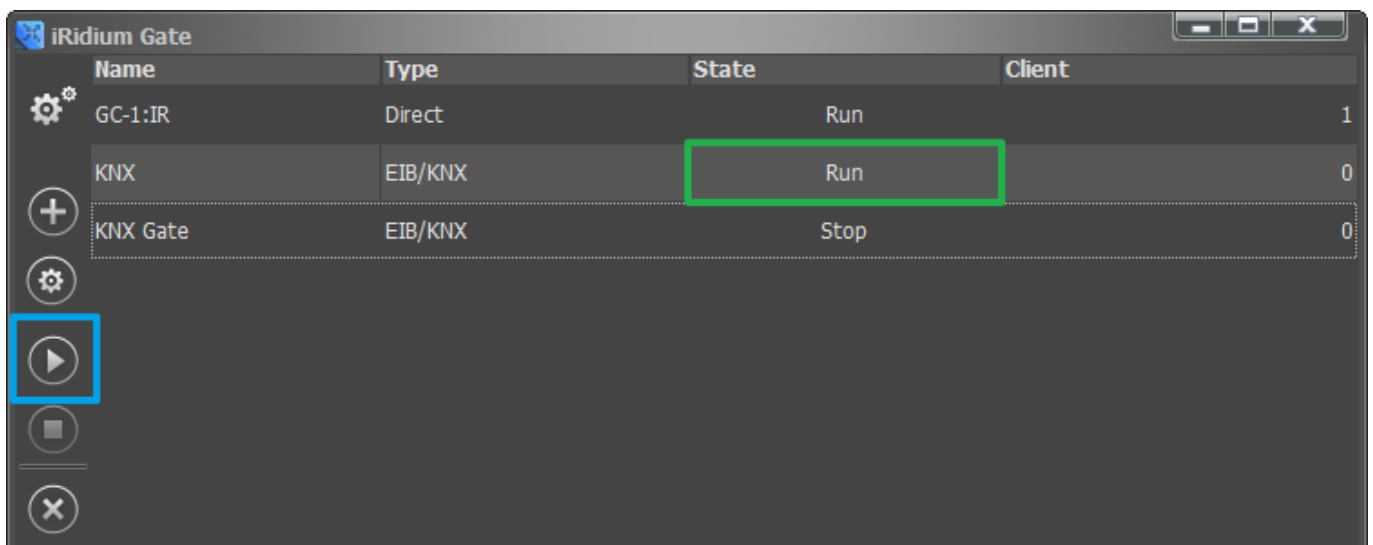
- **Type:** the type of the equipment controlled through the gateway (KNX)
- **Transport:** the transport protocol used by the equipment for receiving data (UDP)
- **Host:** the IP-address of the KNX IP router in the local network (it has to be in the same network as the PC with running Gate)
- **Port:** the port of connection to the KNX IP router (it is always 3671)
- **Idle:** the time until the repeated attempt of connection when disconnecting with the router (120000 ms is recommended)

After filling in all settings press the OK button. Then you can launch the gateway and finish setting up the Gate application on PC.

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Launching iRidium Gate on PC

To launch the set up gateway select it in iRidium Gate and press the "**Start**" button on the side panel of the application. When the gateway status changes to "**Run**", it will be ready to receiving and redirecting data.



The number in the "**Client**" column shows the list of control panels (iRidium Apps) which are connected to the gateway at the moment.

Launching iRidium Gate with Windows

To launch iRidium Gate automatically when starting Windows drag the application icon to the Startup folder (in the Start menu) on your PC.

At that, please make sure that "Autostart" is ACTIVE in the settings of each of the configured gateways. Otherwise the Gate application will launch but the gateways in it will be turned off.

