Tebis TL131A application software

Radio media coupler TR131

Product reference	Description
TR131A	White media coupler
TR131B	Silver media coupler

KNX TP products

Media coupler

Gateway between the RF products and the TP products in a KNX installation

Configuration and parameter setting of radio products by ETS

Transmission of radio controls

Diagnosis

Unidirectional radio products

Quicklink radio products

Bidirectional radio products
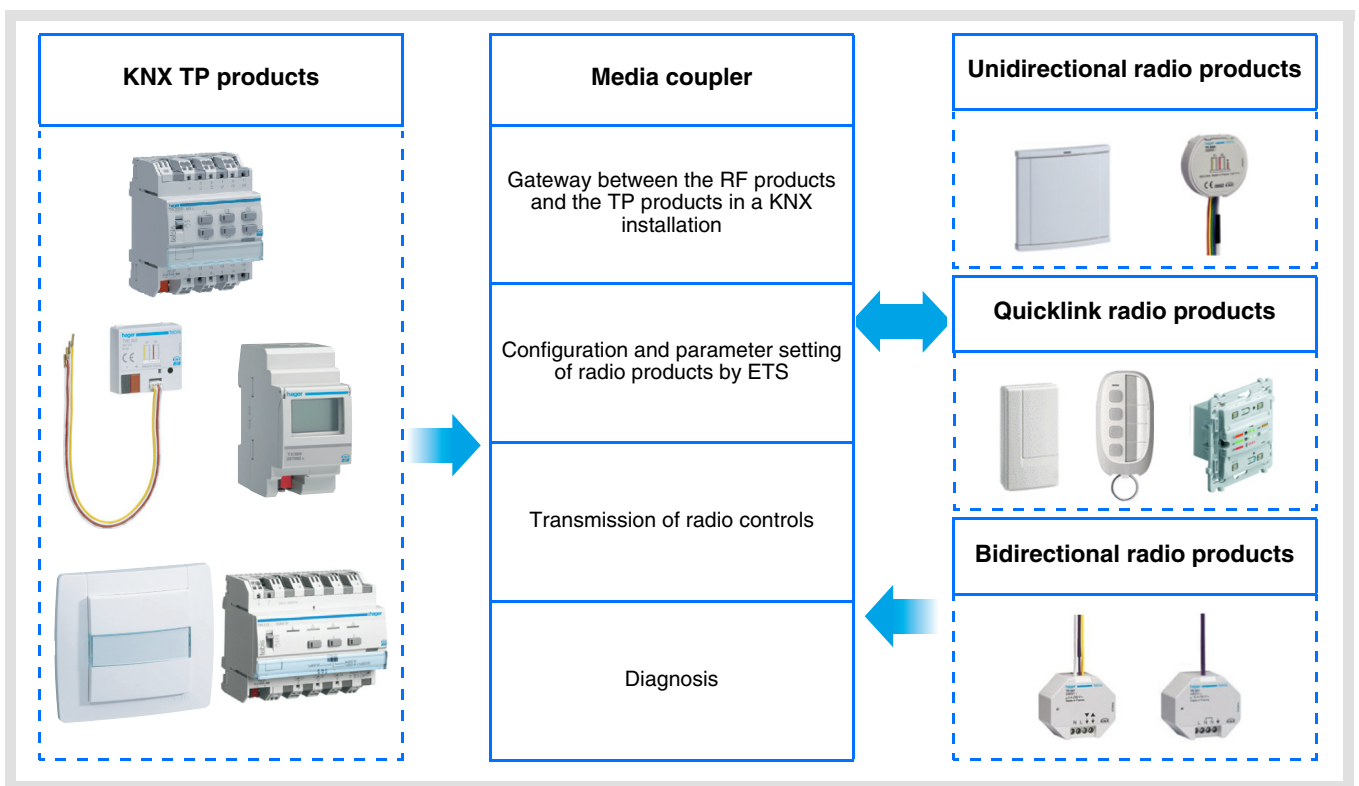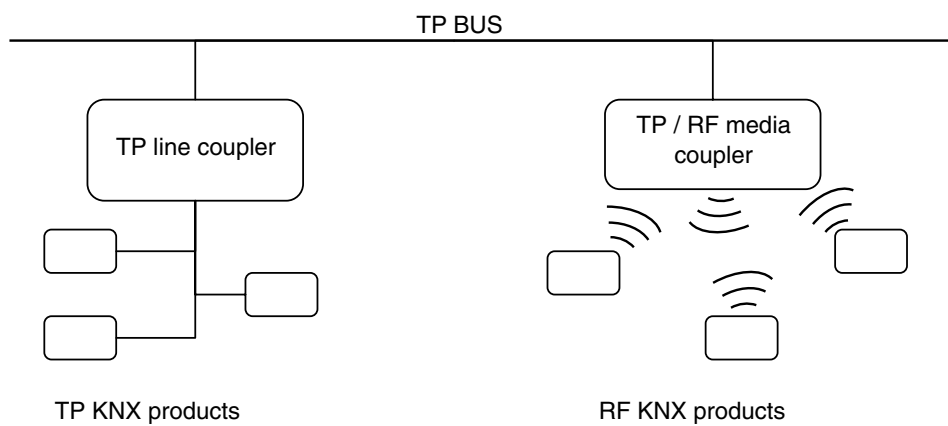
Summary

1. Description of the media coupler

1.1 The diffent types of KNX installations

A KNX installation can be:

Entirely RF: All the products in the installation are interconnected by radio media (unidirectional or bidirectional transmission).
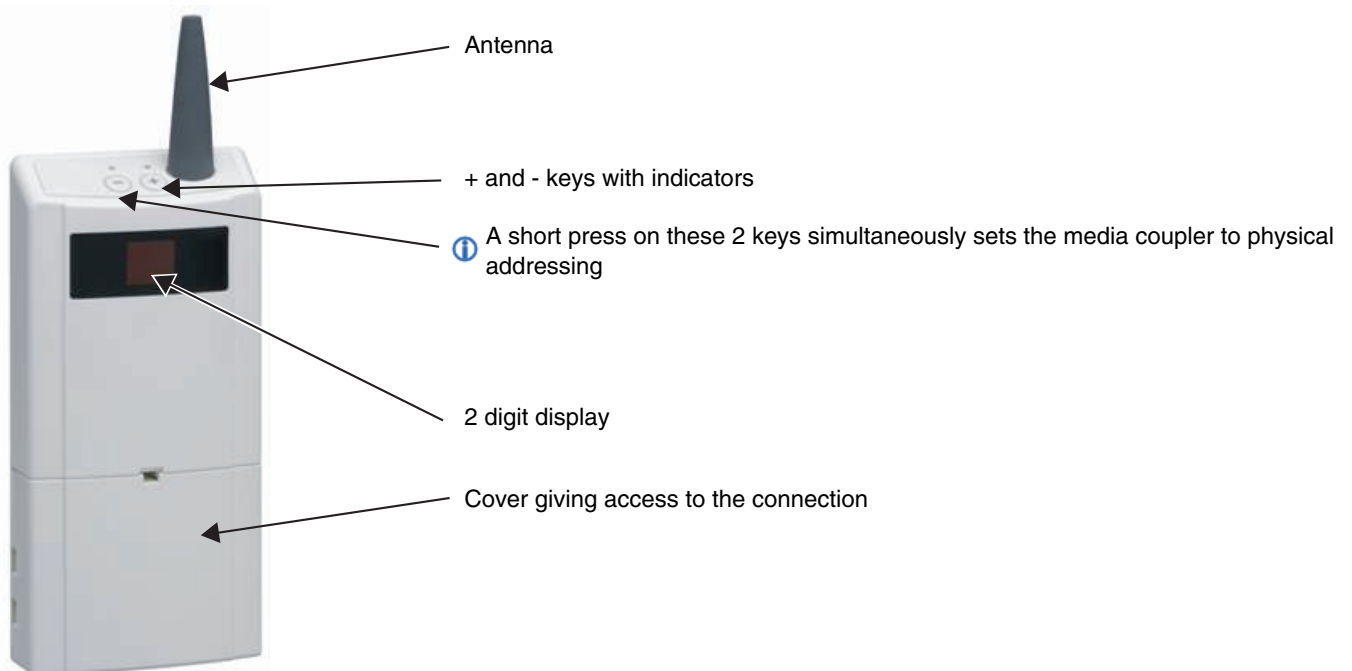
Entirely TP: All the products in the installation are connected to the bus by TP cable.

RF / TP mixed: The installation includes both RF and TP products. In a KNX ETS mixed installation, a media coupler is essential.

TP BUS

TP line coupler

TP / RF media coupler

TP KNX products

RF KNX products

1.2 Media coupler

1.2.1 Overview

Antenna

+ and - keys with indicators

ⓘ A short press on these 2 keys simultaneously sets the media coupler to physical addressing

2 digit display

Cover giving access to the connection

■ Application

■ Hardware and software required depending on the type of KNX installation

Installation type KNX ETS	Hardware and software required for configuration
TP installation	ETS3 0.f or higher / ETS4 0.7 or higher + USB modular data interface
RF installation	ETS3 0.f or higher / ETS4 0.7 or higher + Media coupler + USB modular data interface
Mixed installation	ETS3 0.f or higher / ETS4 0.7 or higher + Media coupler + USB modular data interface

The RF products and the media coupler are in the ETS databases. A plug-in for the configuration of RF products is automatically installed when the media coupler parameters are set after an import into the project.

■ Connection of the media coupler to the KNX bus
Remove the cover and connect the product to the bus with the KNX connector. No other connection is required:

BUS KNX ±
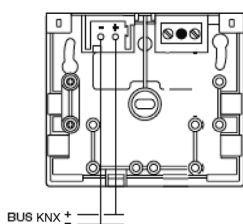
2. Configuration of a KNX ETS radio installation

2.1 Checks to be performed prior to configuration

⚠ Before starting a configuration, check the following points:

- The ETS version required is 3.0f or higher or 4.0.7 or higher. Download and install the update if necessary,
- Check that you have administrator rights under Windows. If not you will not be able to install the media coupler plug-in.

2.2 Configuration steps

Steps	Comments
Launch ETS then open or create a project.	A version 3.0f or higher or 4.0.7 or higher is required.
Create an **RF line** in the ETS project	Follow the usual ETS procedure.
Add the media coupler and the other participants in the RF line	Follow the usual ETS procedure: - Import the application software from the ETS database and add the desired participants in the RF line (VD5 for ETS3 / ETS4, KNXPROD for ETS4), - ⚠ All the RF products must be on the same line as the media coupler or it will not be possible to configure or control them.
Program and edit the parameters and links of all the installation's RF products (other than the media coupler)	Follow the usual ETS procedure: - For the parameters: Right-click on the product in the ETS tree structure and click on **Edit parameters**, - For group addresses: Right-click on the object to connect and click on **Link with**.

Give a physical address to the media coupler and download the address	Follow the usual ETS procedure:
	- Right-click on the media coupler in the ETS tree structure,
	  - Click on **Download** (ETS3)
	    OR
	  - Click on **Download**, then **Download application** (ETS4)
	- ⚠ The physical address can be modified but must always end in 0, e.g. 3.2.0.

Launch the media coupler plug-in to configure the RF products	The plug-in is used to detect and configure the radio products. - To launch the program: Right-click on the media coupler in the ETS tree structure and click on **Edit parameters**. The plug-in is launched, - ⚠ When it is launched for the first time, the plug-in is installed first. This operation requires that the Windows session has administrator rights to authorise installation.
Give the physical addresses of the radio products and download the addresses into the products	This procedure is performed from the plug-in's **Physical addressing** screen: - Click on the **Addressing** button in the screen's upper bar. The plug-in guides the user according to the type of radio product (unidirectional or bidirectional).
Download the parameters and links into the RF products	This procedure is performed from the plug-in's **Download** screen. The unidirectional RF products must be brought close to the media coupler.

2.3 Detailed description of the different configuration steps

■ Start ETS

The version must be 3.0f or higher or 4.0.7 or higher. Download the latest version if necessary.

■ Create an RF line in the ETS project and add all the radio devices

Use the usual procedures to create the RF line and add the devices.

⚠ Group the media coupler and all the RF products in the same line. Do not add TP products in this line.
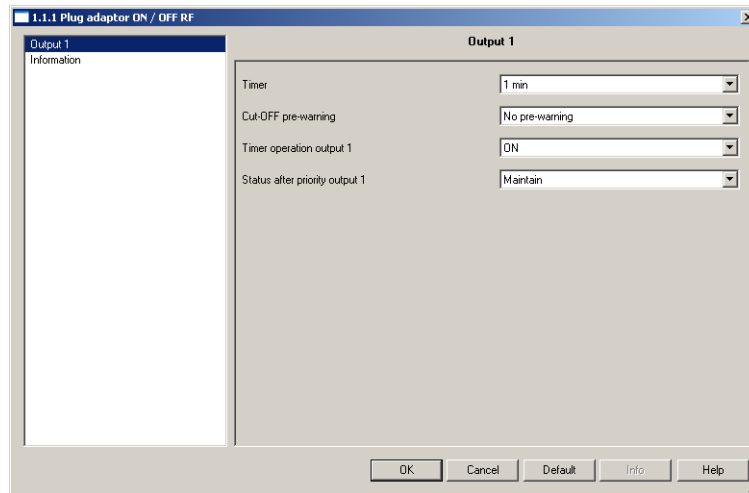
■ Edit the parameters of RF products other than the media coupler

Right-click in the ETS product tree structure on the RF product to be configured and click on **Edit parameters**.

For example:
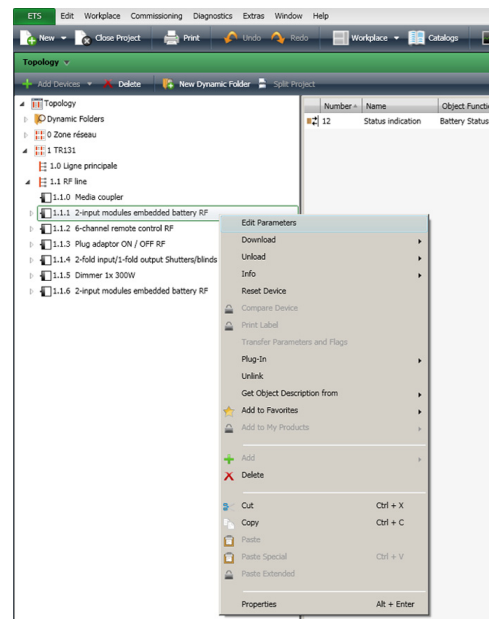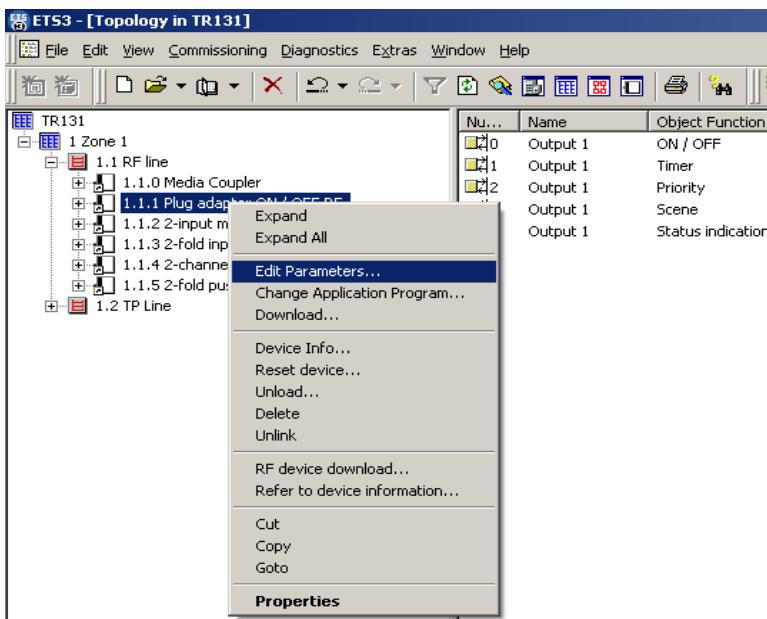
The product parameter setting window opens. For example:

Follow the usual ETS procedure to set the parameters of the product.

ⓘ The documentation for the product to be configured can be consulted directly.

Right-click in the ETS products tree structure on the RF product for which the parameters are to be set:
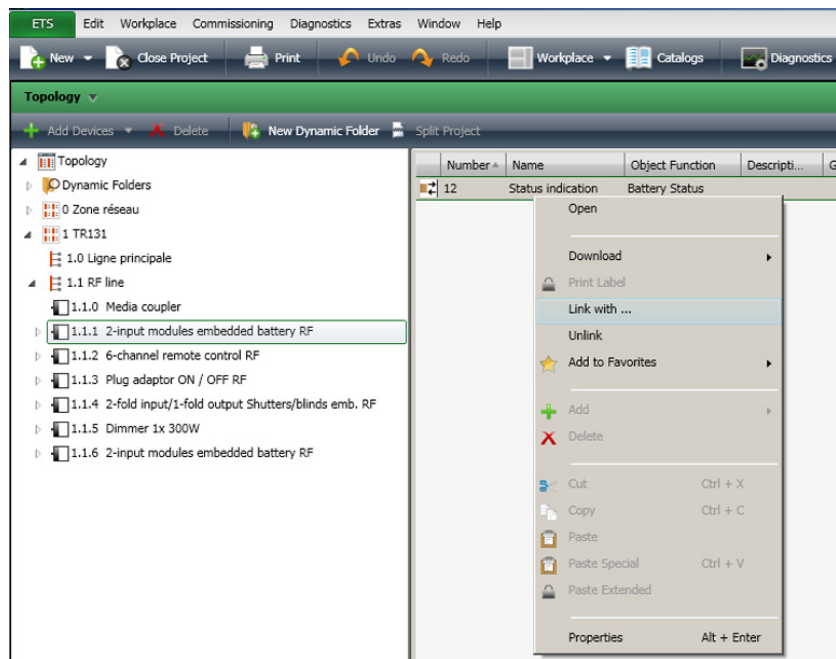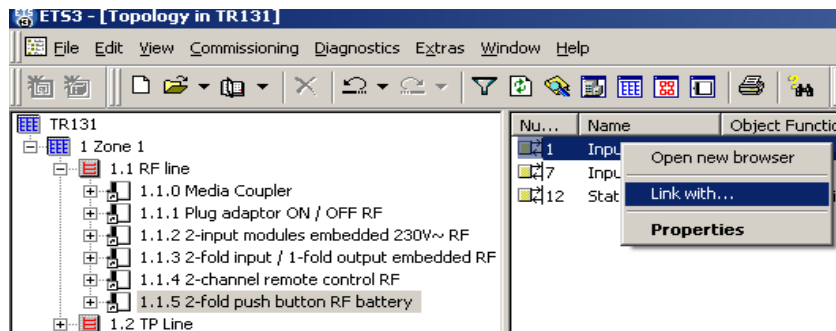- Click on **Consult product documentation** (ETS3),
  OR
- Click on **Plug-In**, then **Consult product documentation** (ETS4).
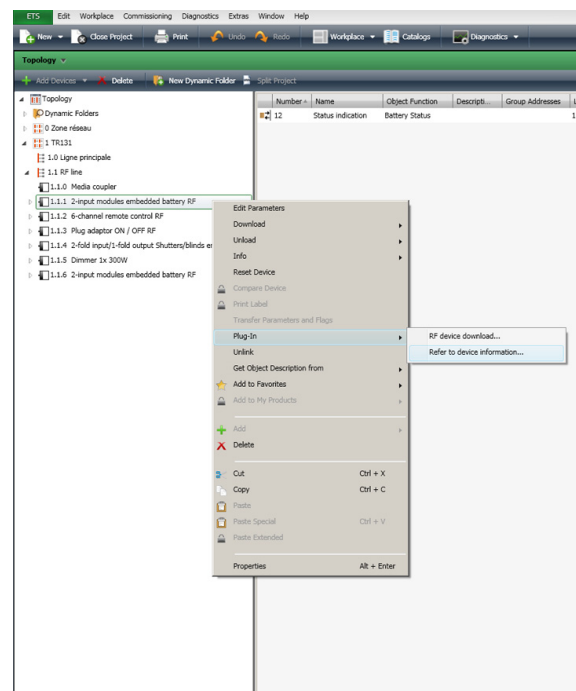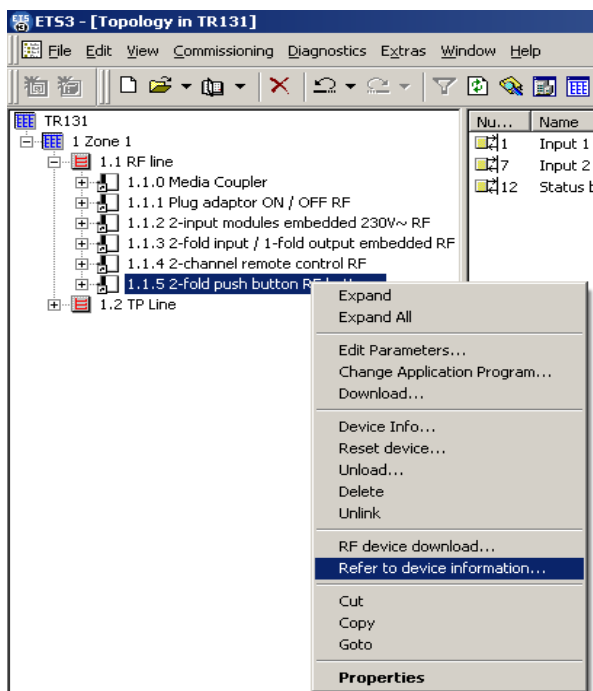
The device information is displayed in pdf format.

■ Create the links and edit the groups' addresses

Select a product from the RF line and then a communication object in the list. Right-click on the object to connect and click on **Link with**. For example:

> Important:
> Should a group address be translated from RF line to TP line or vice versa, configure the group address as follows:
> 1. Activate the "Group address" view,
> 2. Double-click the group address to be configured,
> 3. Enable the option "Passthrough (don't filter)" (ETS3) OR "Non-filtered line coupler" (ETS4),
> 4. Close the Properties window.
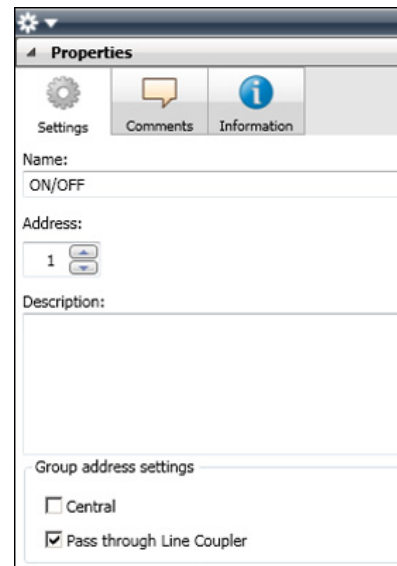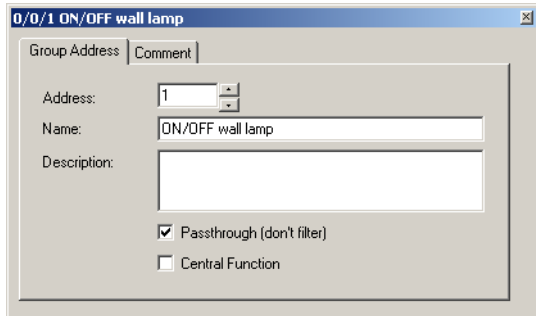
■ Assign and download a physical address in the media coupler

Set the media coupler to **Physical addressing** mode with a short press on the product's 2 upper + and - buttons.
Right-click on the coupler in the ETS product tree structure:

- Click on **Download** (ETS3),
  OR
- Click on **Download**, then **Download the individual address** (ETS4).
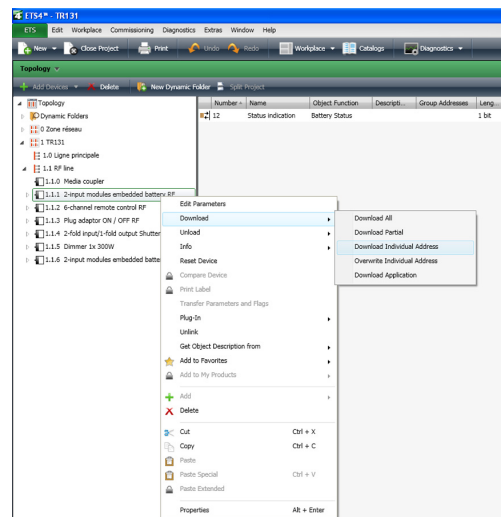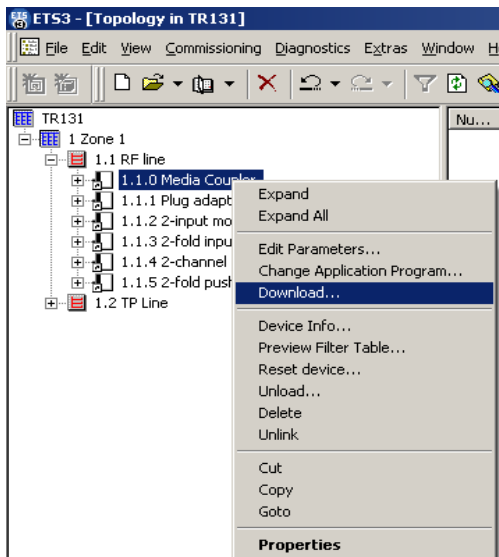
⚠ The physical address of the media coupler may be modified using the usual procedure but **must always end in 0**, i.e. it must be of the x.y.0 type. For example: 1.2.0.

■ Launch the media coupler plug-in

The plug-in is a program specific to the media coupler, used to configure RF devices in ETS mode.
Right-click in the RF line products tree structure on the media coupler (here 1.1.0 Media Coupler) and click on **Edit parameters** to launch the plug-in.
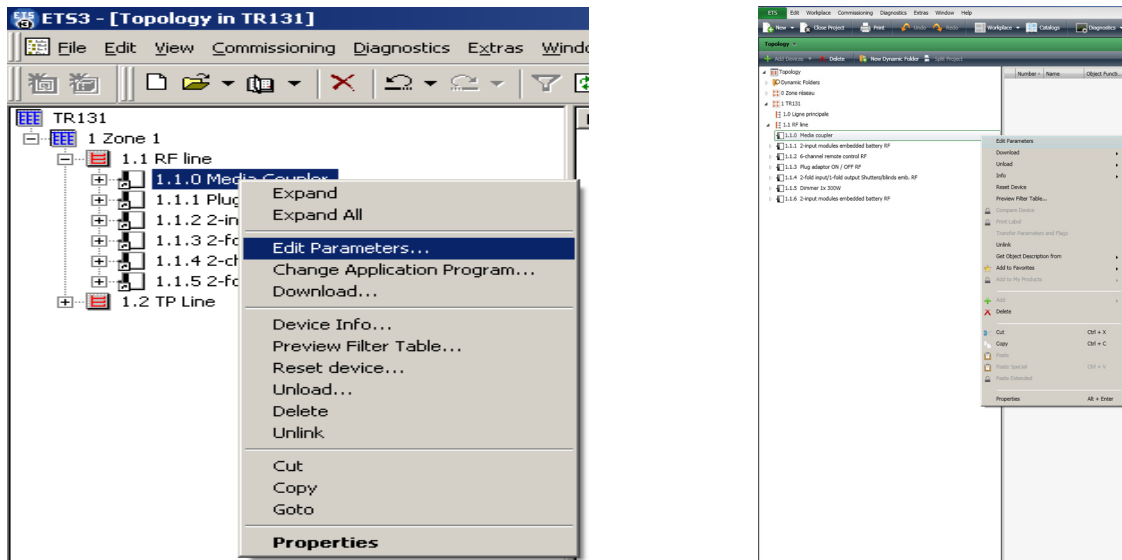
⚠ When it is started up for the first time, the plug-in installation programme is launched. This operation requires that the Windows session has administrator rights to authorise installation.
After launching, the following window opens:
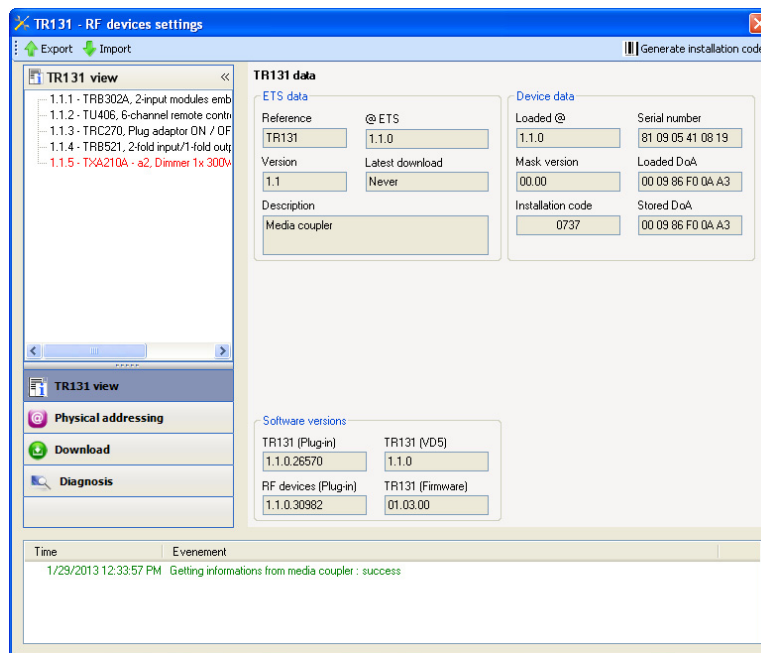
The ETS tree structure of the RF line products managed by the media coupler appears in the left-hand window:

- • The radio products in black,
- • The TP products in red.

The menu located at the bottom left of the window allows you to:

- Display the TR131 parameters (enabled by default): Click on **TR131 view**,
- Give a physical address to the radio products: Click on **Physical addressing**,
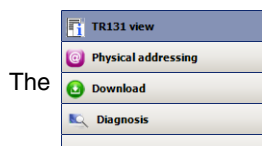- Download the parameters and links into the RF products: Click on **Download**,
- Perform diagnosis: Click on **Diagnosis**,
- The Export button at the top left allows you to export data from the installation,
- The Import button at the top left allows you to import data from an installation, function used during coupler replacement for example.

■ TR131 view screen

Click on **TR131 view**. The following screen is displayed:
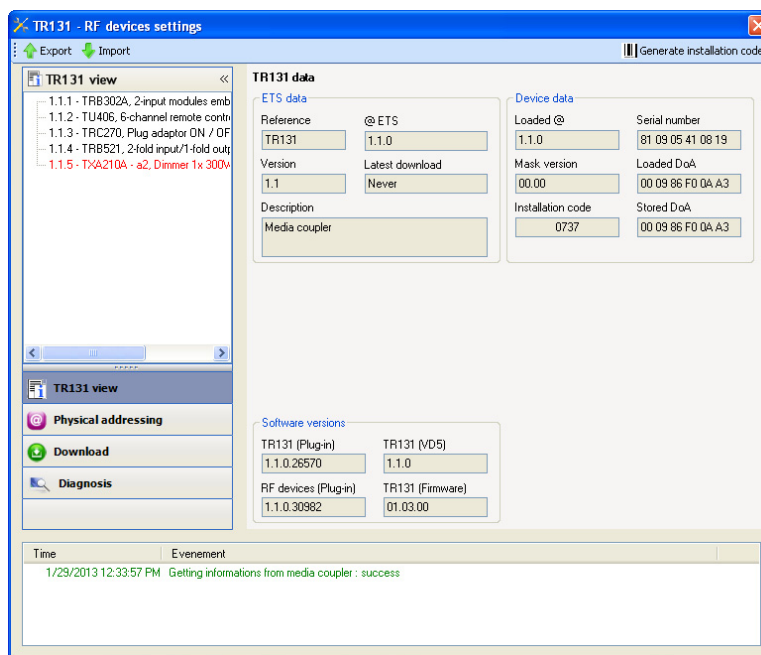
The left-hand window displays the RF line tree structure. It is identical to that displayed in ETS.
The right-hand part gives information concerning the media coupler and its configuration.

■ Generate an installation code

A new installation code must be generated for each new installation so that the installation is disconnected from any other installation.
Warning, pressing this button and then validating the installation code will prevent the products already configured from being further programmed.

■ Radio product physical addressing screen

This screen launches the detection of the installation's radio products and gives them a physical address.

Click on the **Physical addressing** button in the menu. The following screen is displayed:
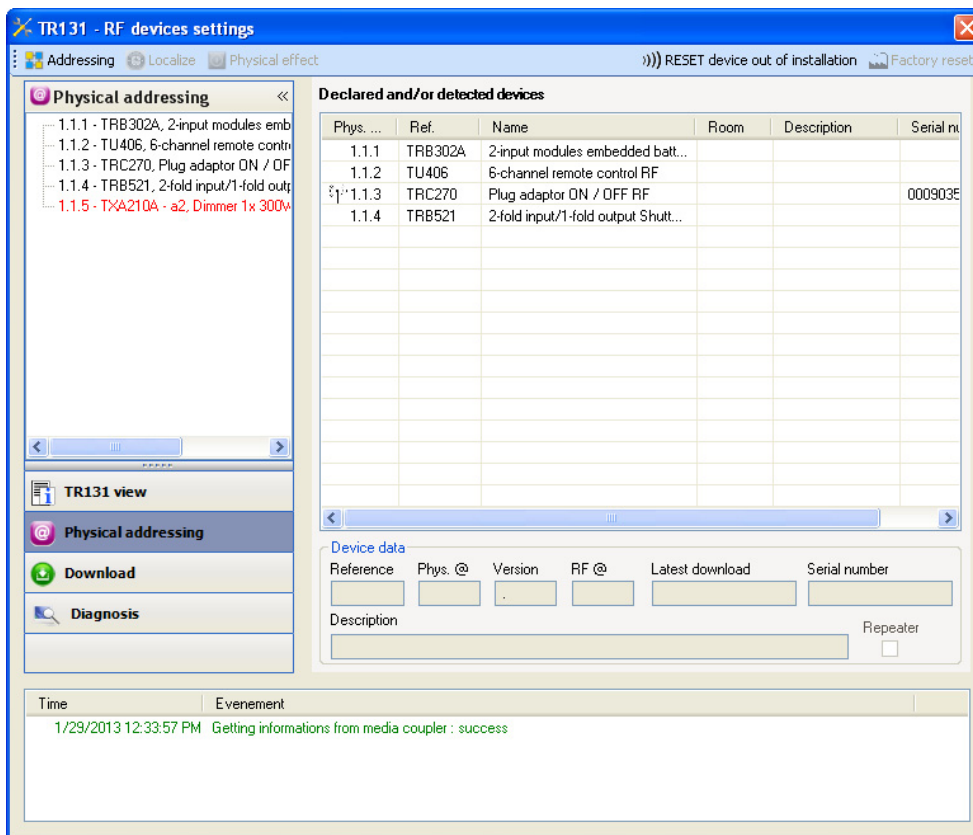
The left-hand window displays the RF line tree structure (the TXA210A is a TP product. It is displayed in red). It is identical to that displayed in ETS.

The right-hand window displays:

- a list of compatible radio products which can be programmed by the plug-in,
- detailed information and a description of the selected product.

→ *NB: if the physical address of a product is preceded by the ⦆⦆ symbol, this means that the product is recognised by the media coupler and that a physical address has been assigned to it.*

■ Localise

This function is used to localise a product which transmits.
Follow the instructions displayed on the screen to localise the product in the list.

2.4 Downloading the physical address

2.4.1 In a bi-directional product:

- Select a bidirectional product from the list of products declared and / or detected.
- Click on the **Addressing** button in the upper bar. The following screen opens:
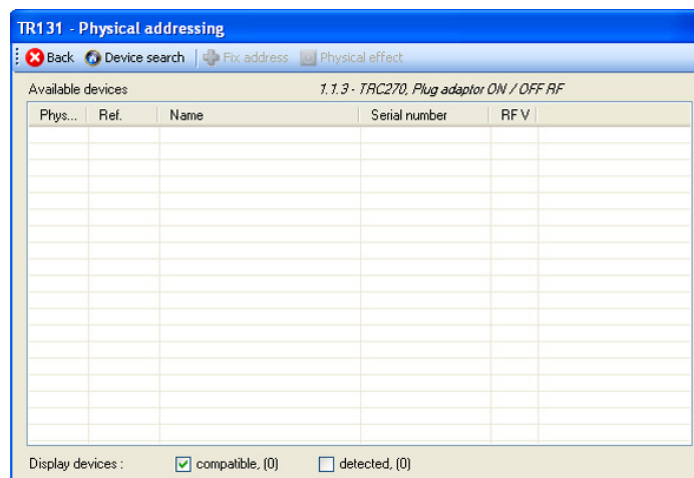
➜ *NB: Pressing the **Back** button returns you to the previous screen.*

Pressing the **Device search** button detects all the bidirectional radio products within range in factory reset mode.

The **Display devices compatible** option filters the list of products so that only products with the same reference as the selected product are displayed.

- Click on the **Device search** button. The following search screen opens:
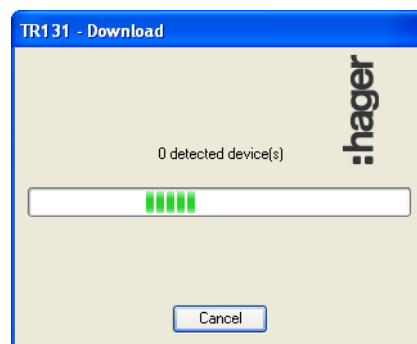
At the end of the procedure, the search screen closes.

- The list of compatible products within range is displayed,
- Use the **Physical effect** button to localise the desired product,
- Select the desired product,
- Click on the **Fix address** button. The physical addressing of the product is performed. The product is now part of the installation.

2.4.2 In a uni-directional product

- Select a unidirectional product in the list of products declared and / or detected,
- Click on the **Addressing** button in the upper bar. The following screen opens. The plug-in invites the user to press a key on the product to be configured:
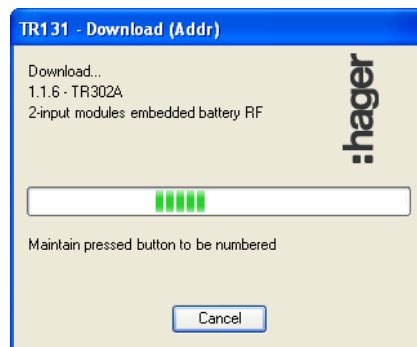

- The following screen is displayed. The plug-in now prompts the user to hold down the button until a sound sound is heard,
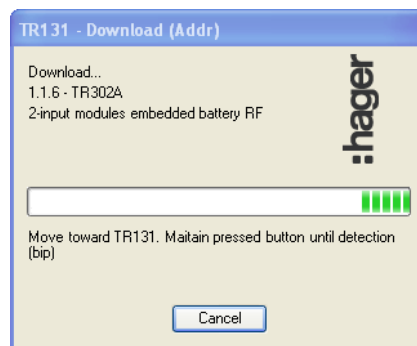
- The physical addressing of the product is performed. The product is now part of the installation,
- After downloading the physical address, the ⟨ symbol appears in front of the product.

2.4.3 In a product with an addressing button

- Select a product with addressing button in the list of products declared and/or detected,
- Click on the **Addressing** button in the upper bar. The following screen opens:
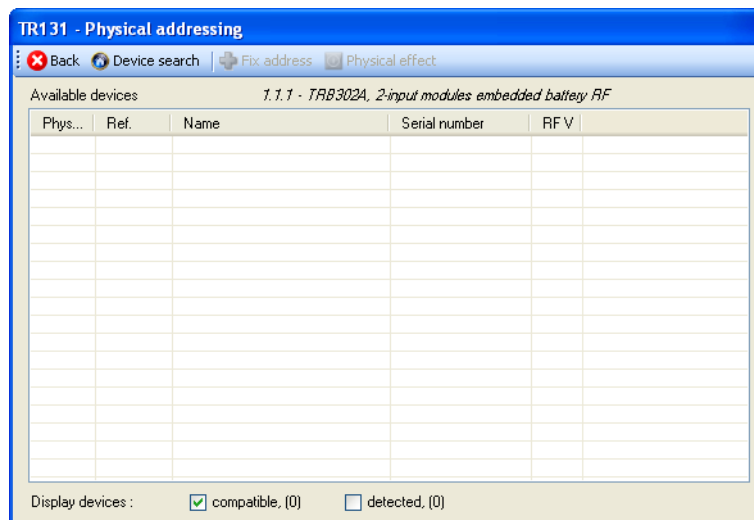
➜   *NB: Pressing the **Back** button returns you to the previous screen.*

Pressing the **Device search** button detects all the RF products with addressing button within range in factory reset mode.

The **Display devices compatible** option filters the list of products so that only products with the same reference as the selected product are displayed.

- Click on the **Device search** button. The following search screen opens:
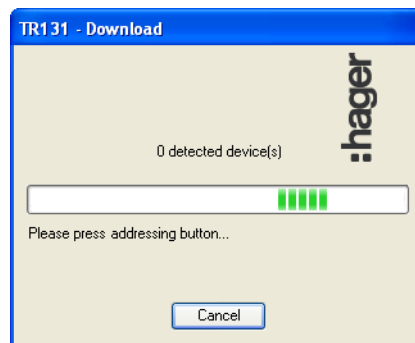
Press the programming button on the product to be addressed.

At the end of the procedure, the search screen closes:

- The list of compatible products within range is displayed,
- Select the desired product,
- Click on the **Fix address** button. The physical addressing of the product is performed. The product is now part of the installation.

2.5 Factory reset by ETS via the media coupler

This function enables the product to be returned to its initial configuration (factory reset). After a device reset, the device can be re-used in a new installation.

Factory rest of RF products is performed from the media coupler plug-in.

- For a product which is part of the installation (known by the media coupler): In the **Physical addressing** menu, select **Factory reset** and then follow the instructions which appear on the screen,
- For a product which is not part of the installation (unknown by the media coupler): In the **Physical addressing** menu, select **Product outside installation**, then select the type of product.

  - Uni-directional products,
  - Bi-directional products,
  - Products with addressing button.
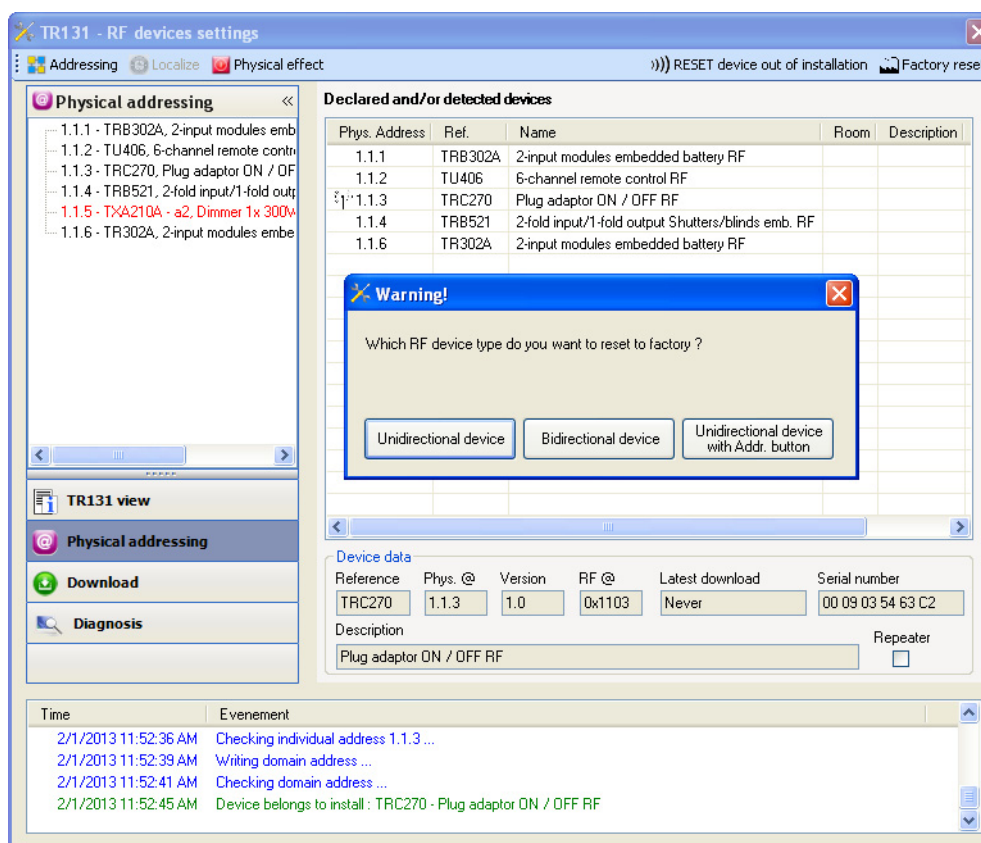
2.6 Downloading the parameters and links
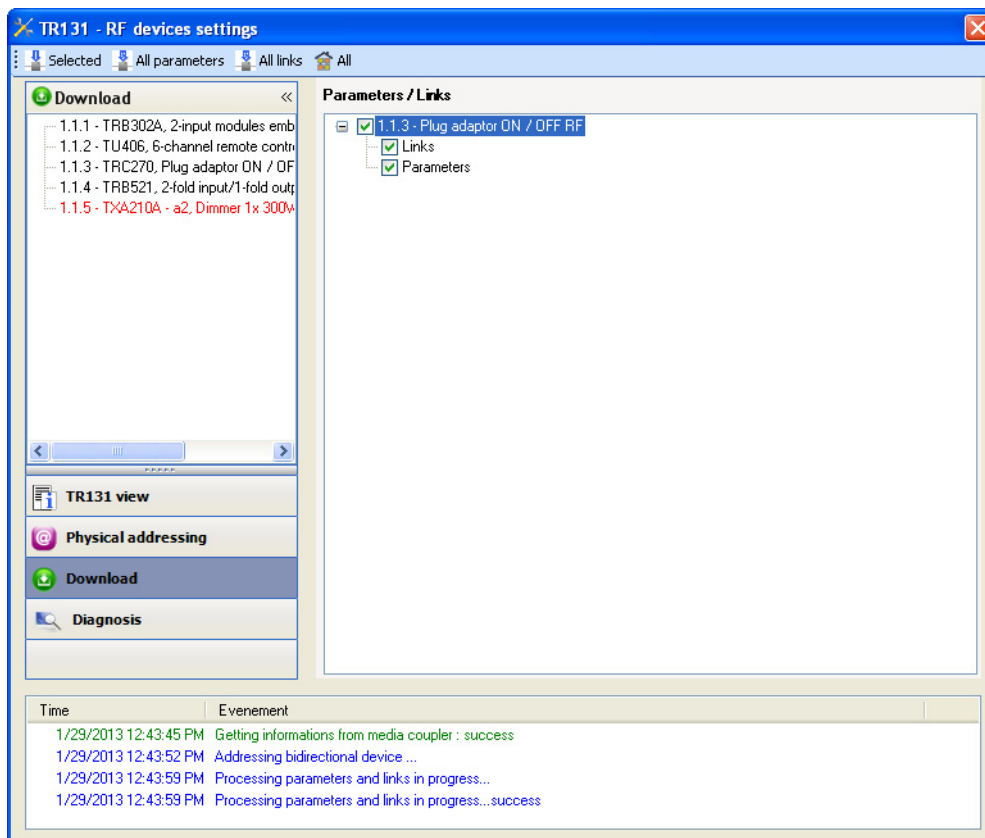
There are two ways to access the **Download parameters** and links into the RF products screen:

- In the products tree structure:
  - Right-click on the product,
  - Click on **Download RF product** (ETS3)
    OR
  - Click on **Plug-in**, then **Download RF product** (ETS4).
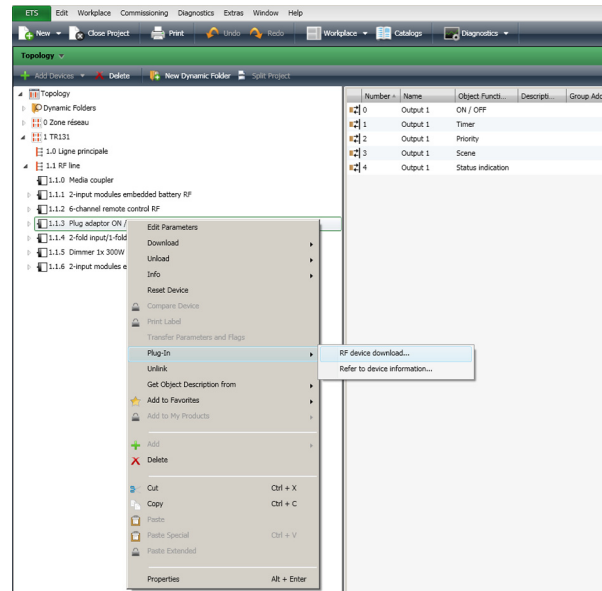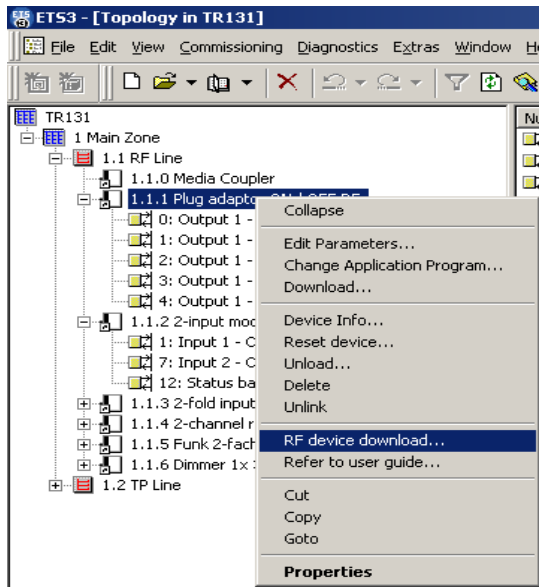
- From the plug-in: Click on the **Download** button in the menu.

The following screen is displayed:

The right-hand window allows you to select the parameters and / or links to be downloaded for each product.

Finalise the download by selecting the type of download in the upper bar:
- **Selected** to download the selected parameters and links,
- **All parameters** to download all the parameters of all the products displayed,
- **All links** to download all the links for all the products displayed,
- **All** to download all the parameters and all the links of all the products displayed.

➔ NB: When this tab opens, the plug-in informs the user of the actions to be performed to update the installation the user (enabled by default).

2.7 Diagnosis screen

Click on **Diagnosis** to activate the screen.
The Diagnosis screen allows you to monitor the traffic on the radio media:
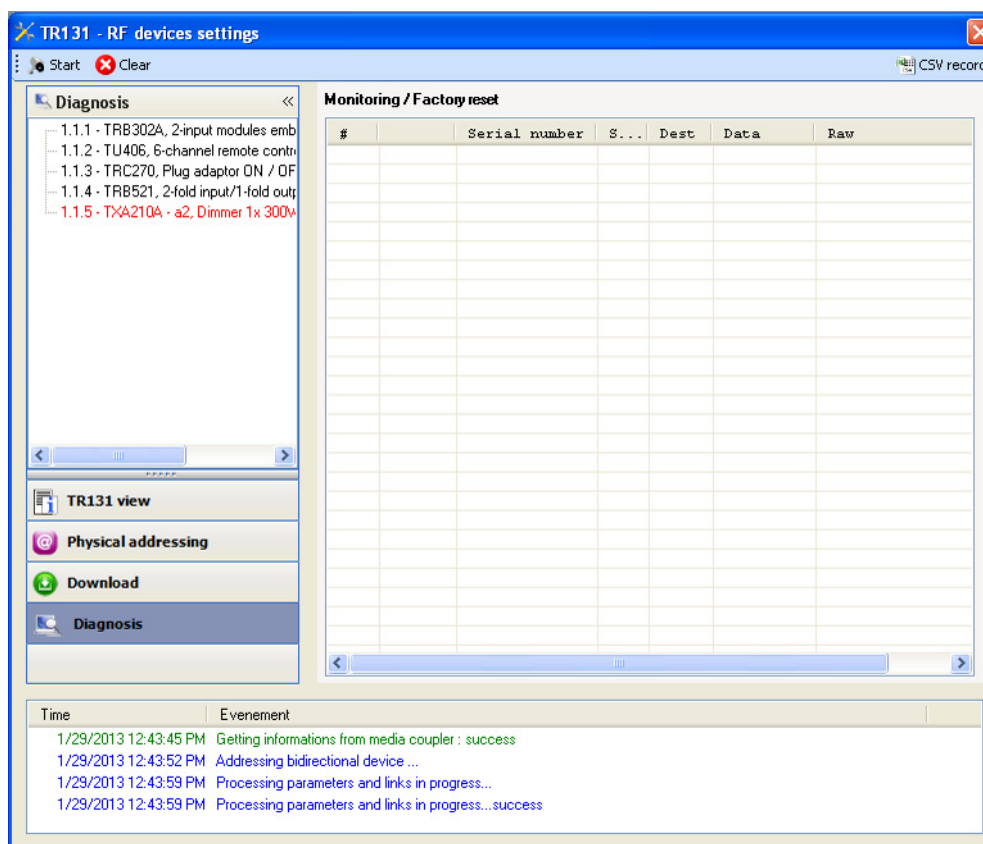
Click on **Start** to launch the diagnosis : the radio telegrams are listed in the right-hand window.

- Click on **Stop** to stop the recording,
- Click on **Clear** to delete the list,
- Click on **CSV record** to save the telegrams in a CSV file.

To save the radio telegrams in a CSV file, proceed as follows:

1. Click on **CSV record** and select the name and destination of the CSV file,
2. Click on **Start**,
3. Click on **Stop**,
4. Open the CSV file to view the radio telegrams.

3. Installation of a new version of the Plug-in
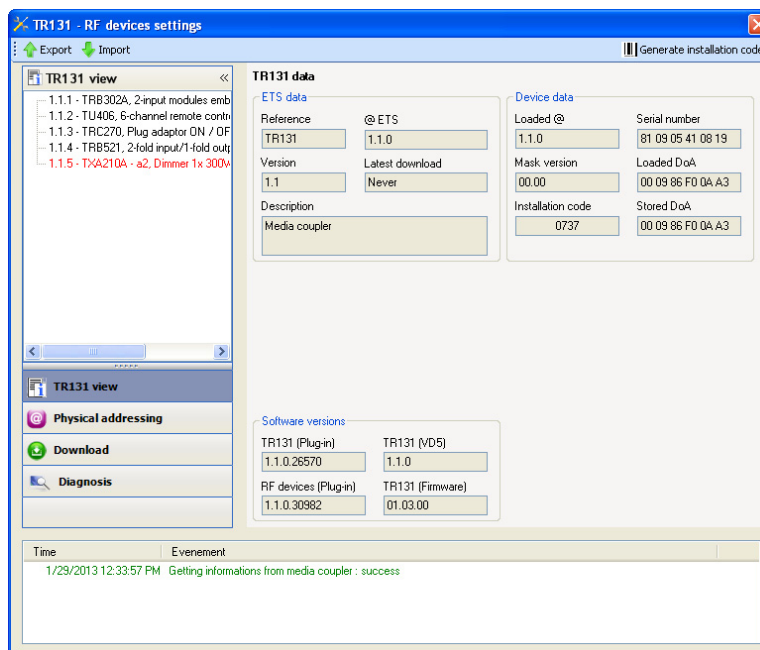
Before installing a new version of the plug-in, the current configuration stored in the media coupler application program must be saved.

- Click on **Export**,
- Enter the name of the file to be saved,
- Click on **Save**,
- Close the plug-in,
- Delete the media coupler from the project.

➜ *NB: These operations must be performed for all the media couplers in a project and in all the projects in a database.*

Uninstall the old version of the plug-in:
- Delete the TR131 from the catalogue (optional),
- Uninstall the media coupler in the Windows Add/Delete programs menu.

Install the new version of the plug-in:
- Import the new media coupler application program (VD5 for ETS3 or 4, KNXPROD for ETS4) into the database,
- Insert the media coupler from the catalogue into all the necessary projects and lines,
- Confirm installation of the plug-in the first time the media coupler parameters are accessed.

Install the saved configuration:
- Click on **Import**,
- Select the name of the file to be restored,
- Click on **Open**.

➜ *NB: These operations must be performed for all the media couplers in a project and in all the projects in a database.*

The new plug-in is installed.

4. Main characteristics

Max. number of TP / RF translations	2048
Max. number of group addresses	254

5. Appendix

Description	Product reference
Radio media coupler	TR131A / TR131B
USB modular data interface	TH101

:hager