D+H

+ D+H SCS-SOFTWARE

Description ACB Modbus addressing

+ DESCRIPTION ACB MODBUS ADRESSING

Intro

Modbus addressing of D+H drives with ACB technology

The new Modbus addressing function extension of the SCS Service & Configuration Suite has been specially developed to simplify the commissioning of D+H drives with ACB technology, especially if they are to be controlled directly via Modbus RTU.

Normally, the D+H CPS-M operation automatically takes over the addressing of the ACB drives when they are used in conjunction with it. Assignment and naming is then also carried out using the SCS via the control panel or AdComNet.

However, if D+H drives with ACB technology are to be operated directly on a BMS or a Modbus gateway, for example, each drive previously had to be assigned a different Modbus ID individually via BSY+. On delivery, all drives have the same Modbus ID as standard (246 for BSY+ "Main" drives and 245 for BSY+ "Sub" drives).

The new tool simplifies this time-consuming process considerably. Instead of having to configure each drive individually before installation, they can now be installed and wired directly after delivery. Addressing, assignment and naming are carried out using the ACB bus lines directly, via Modbus RTU. This makes the installation process more efficient and time-saving, and avoids the need to configure each drive individually.

Instruction

Description

Using a BI-USB V3, the computer is connected to the ACB cables. The connected drives must be supplied with 24V.
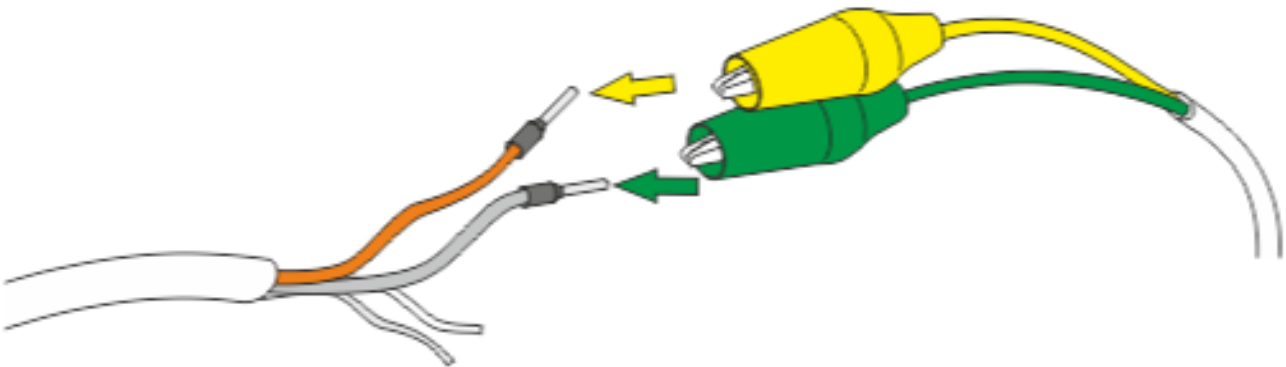
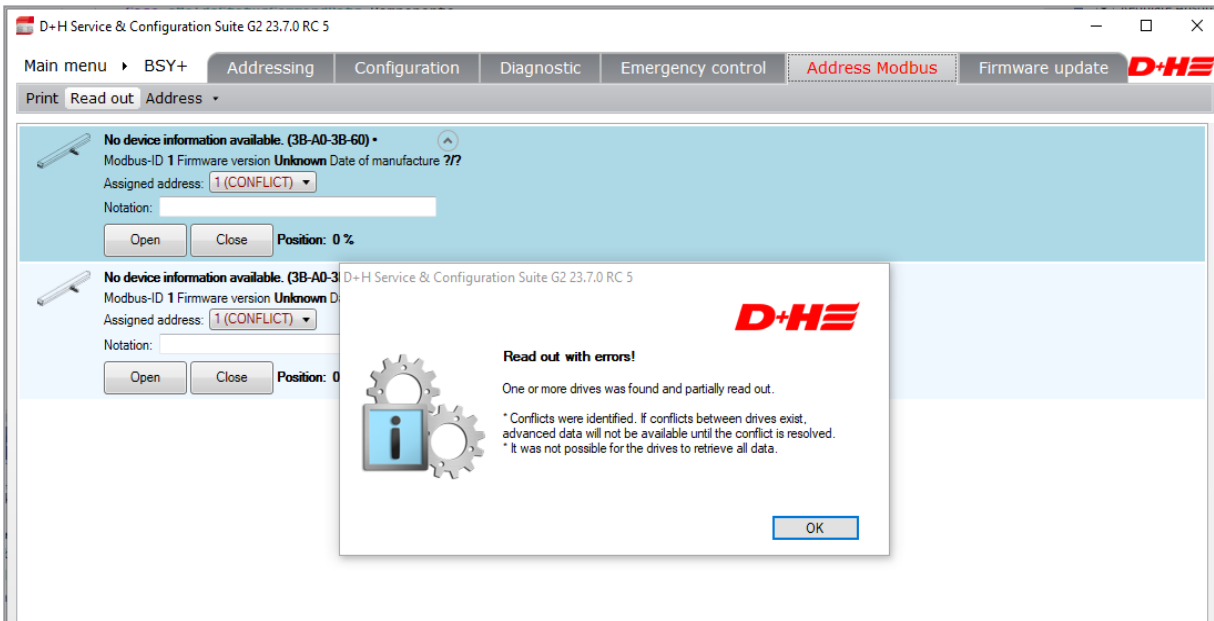Please use a BI-USB V3 and connect it to the ACB data lines ACB.a and ACB.b.

Yellow → Orange / ACB.a
Green → Grey / ACB.b

After clicking on "Read out", the tool scans the bus and lists all connected ACB drives. Potential address conflicts are shown.
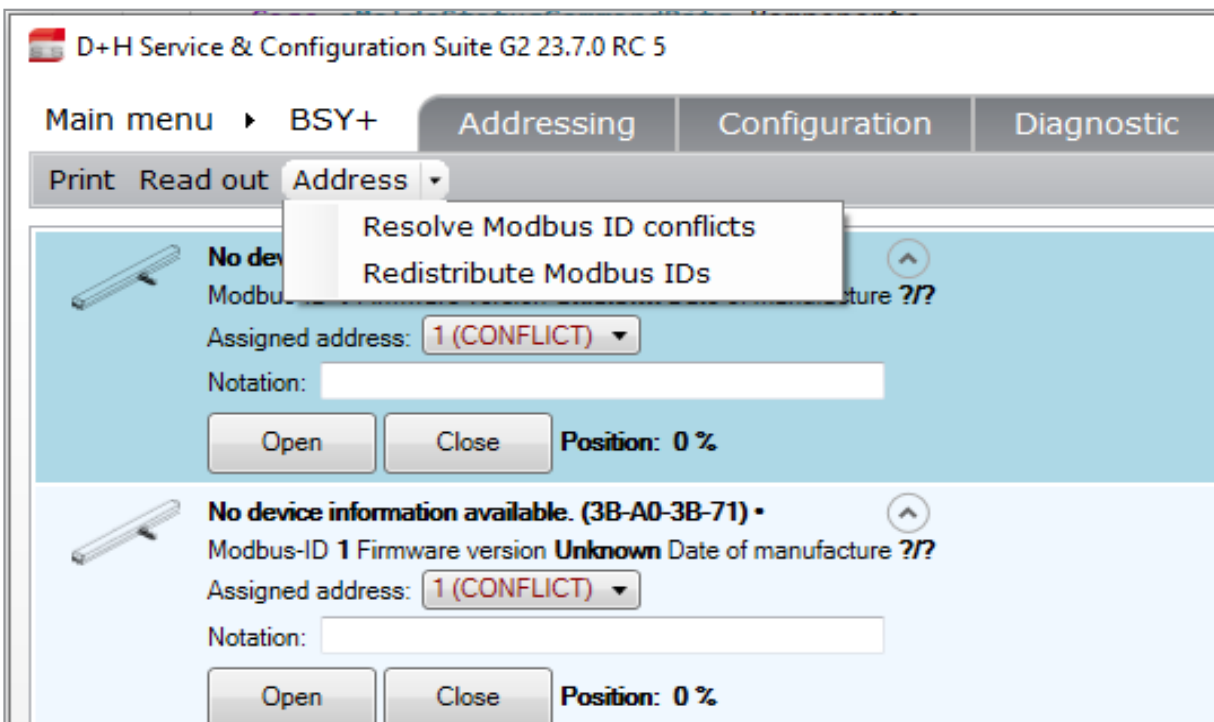
The tool offers two options for resolving address conflicts. The first option is the automatic reassignment of duplicate Modbus IDs. In order to do so, the user selects the submenu item "Resolve Modbus ID conflicts" under the menu item "Addressing". Alternatively, the user can redistribute all Modbus IDs by selecting the submenu item "Redistribute Modbus IDs".

Once the address conflicts have been resolved, the user can apply the changes to the drives. For this, the user is asked whether the addressing should be transferred to the drives and answers "Yes".
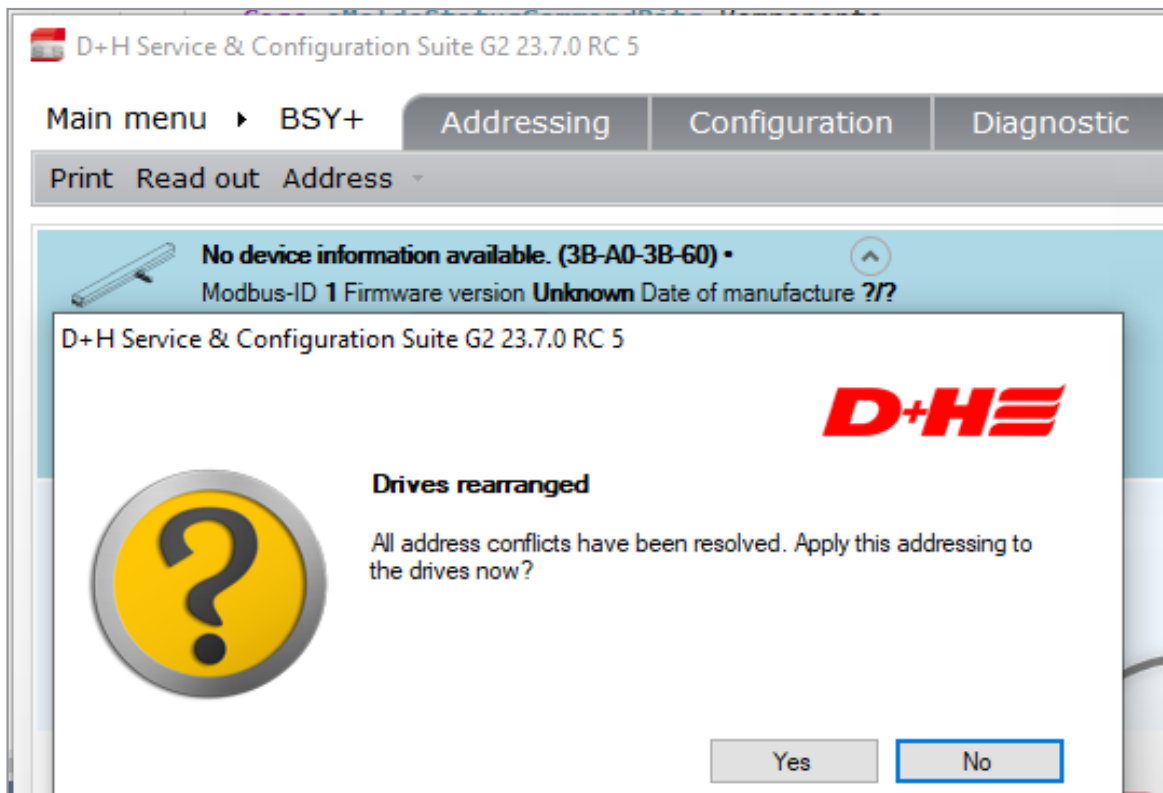
As a next step, the tool offers a test function to check the functionality of the drives. The drives can be opened and closed on a test basis to find out which drive is which. The current position of the drive is displayed live and the user is asked whether the addressing should be transferred to the drives and answers "Yes".
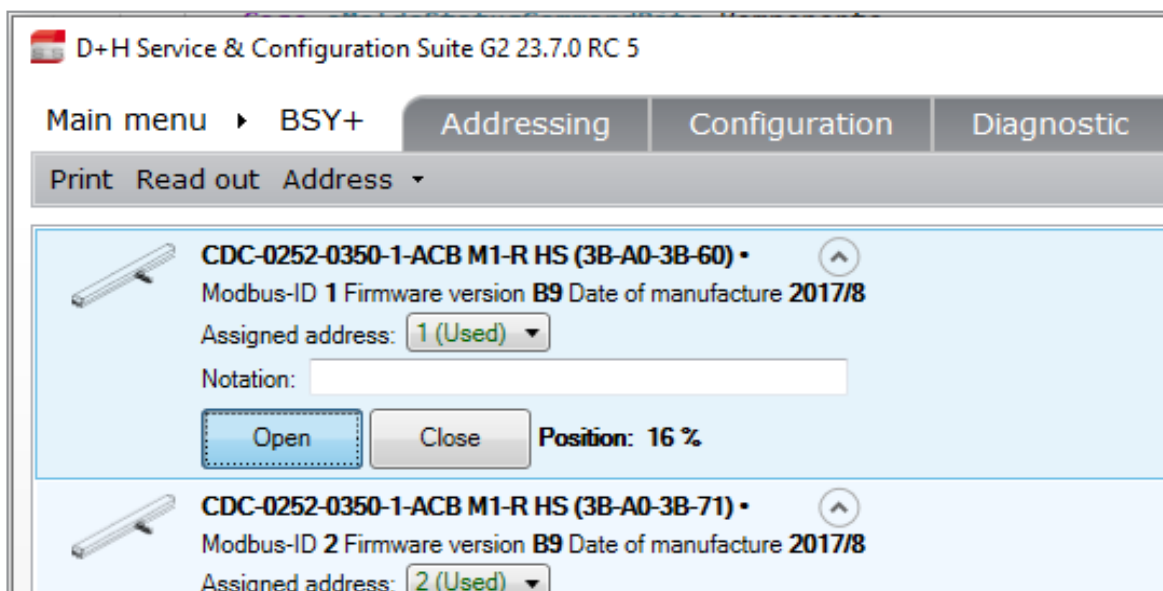
For a better overview, the drives can be assigned meaningful designations such as room numbers.
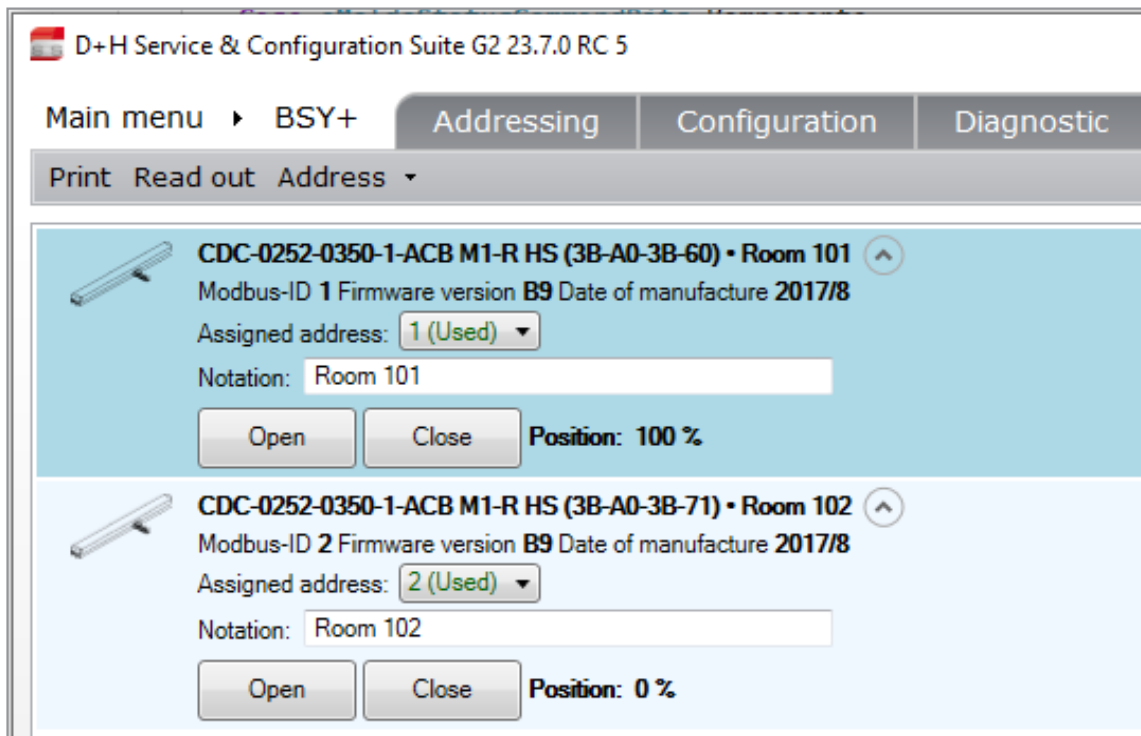
The tool also offers the option of changing the Modbus IDs manually if necessary. All changes can be applied to the drives by "Addressing" them again.

Additional Notice:

The tool is also suitable for testing purposes and commissioning if the drives are to be connected to a CPS-M in a later construction phase. The designations assigned by the tool are also displayed when the ACB group is read out via the CPS-M. This maintains the consistency of the designations and makes it easier to identify the drives for the entire process.

Further information on the direct operation of D+H drives with ACB technology via Modbus RTU can be found in the ACB planning manual. This can be downloaded here.

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