Nikobus

Manual software version 3.0

LICENCE AGREEMENT

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The Nikobus home automation system is growing. Not only as a result of the introduction of a number of new modules and components, but also because of the more extensive possibilities to tailor this home automation system fully to the desires of the customer. The flexibility of the system is increased even further by the possibility of configuring the Nikobus home automation system through the computer. The Nikobus software offers the installer more possibilities for taking the wishes of the customer into account. In addition, the use of software saves time and offers extensive documentation possibilities for each project.

How to use this manual

In this manual, we have assumed that you are familiar with the basics of the Nikobus home automation system and with the functions of the different output modules. If you are not familiar with the basic characteristics of the Nikobus system, we would refer you to the **basic Nikobus manual**. This manual is also included on the Nikobus CD-ROM.

This Nikobus software manual has been structured in two sections.

First, you will find several chapters explaining the different functionalities of the software and its possibilities by means of practice-based examples, progressing step-by-step. These chapters can be used as study material or as a support to master a particular item of the software and the programming. This relates to chapters 1 up to and including 14.

Then comes the reference section (chapter 15) in which every detail of every screen is explained. Every part of every menu, every icon and every button is clarified.

If you are taking your first steps with the Nikobus software, we suggest that you read through chapters 1 up to and including 14. For most of these chapters, one or several practical examples have been provided. The files of these examples are included on the Nikobus CD-ROM under the **Examples** directory. For each example, an empty file also exists in the same directory. In these empty files, all the necessary inputs and outputs of the example have been included, but no programming has yet been added. This will save the new user a good deal of typing work, and will offer the option of using this empty file as a practice file. It is best to go through the step-by-step chapters while you are sitting at a computer. The practical examples can then be rehearsed immediately by using the empty files.

If you already have more experience with the use of the Nikobus software, the **Reference** section (chapter 15) will prove an excellent means for looking up detailed information in connection with all components and possibilities of the Nikobus software.

On paper or on the computer

The Nikobus software manual can be used in two ways. On the one hand, it can be printed out as a paper manual. In certain circumstances it will be easier to use the manual in this way.

On the other hand, the manual can also be used directly on the computer. This offers a number of advantages, as the manual is laid-out with built-in hyperlinks. On every page, there are certain buttons that can be used for navigating through the manual. Furthermore, there are also a number of hyperlinks inside the text. These are always printed in **Bold** and **Underlined**. When you click on such a link with the mouse pointer, you will jump to the related section of a chapter or the beginning of a chapter.

System requirements for the computer configuration

In order to be able to work with the program (Nikobus software 05-202-03), certain minimum requirements apply to your computer configuration:

Pentium 100MHz processor:
Internal memory: 32Mb RAM
Video card: SVGA 800 x 600
CD-ROM drive: 4x
Mouse or mouse pad (portable)
Minimal 15Mb free space on the hard disk
Windows 95, 98, 2000, NT, Millennium, XP or Vista must be installed on the computer.

Obviously, a configuration with higher speeds will result in a better performance.

System requirements for the Nikobus installation

In order to be able to download the program to a Nikobus installation, the latter must, as a minimum, be fitted with a logic module (PC-Logic 05-201), a calendar module (PC-Link 05-200) or a feedback module (05-207). For technical details concerning these modules, please refer to the Nikobus manual.

In addition, an RS-232 cable must be provided to establish the link between the PC and the installation. This cable is supplied together with the PC-Link 05-200 or the PC-Logic 05-201.
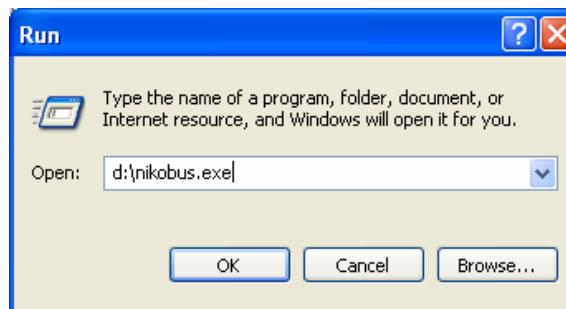
The reference of the output modules in the installation (switching modules, shutter modules and dim controllers) must finish in at least xx-xxx-02 (or a higher number). These modules have been provided with the option of transferring their addresses to the computer. If you wish to upgrade an installation that is using older modules, this is possible by returning the older modules to your wholesaler and replacing them by modules of this version. Please consult your wholesaler or your local Niko representative for more information.

Installation of the software on the PC

The Nikobus software is delivered on a CD-ROM. Place the CD-ROM in the relevant drive of the computer. Click the Windows® **Start** button in the left bottom corner of the screen. Then click **Run**. The window shown below will open.

Type **d:\nikobus.exe** in the field **Open**. It is possible that the character **d** will have to be replaced by the character that defines the correct path of the CD-ROM drive of your computer. Click the **OK** button to continue.

In the next window, you can select the language that will be used during the installation. There is a choice between English, Dutch, French, German, Spanish or Slovak. Click the language to be used and then the **OK** button.
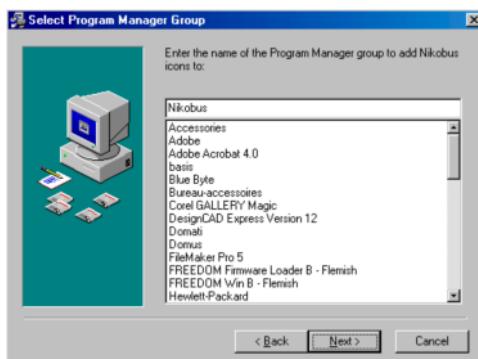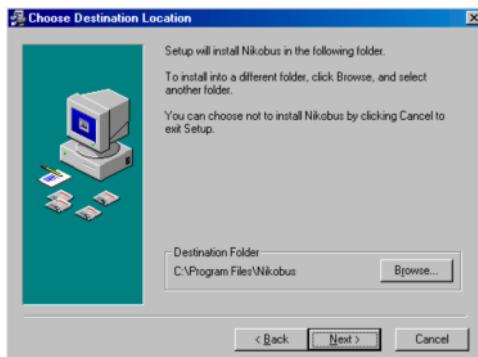
It is recommended to close all other computer programs before continuing with the installation procedure. If you have not done this yet, click the **Cancel** button on the following screen, close all other programs, and then start again with de installation procedure. If all programs have already been closed, click the **Next** button.

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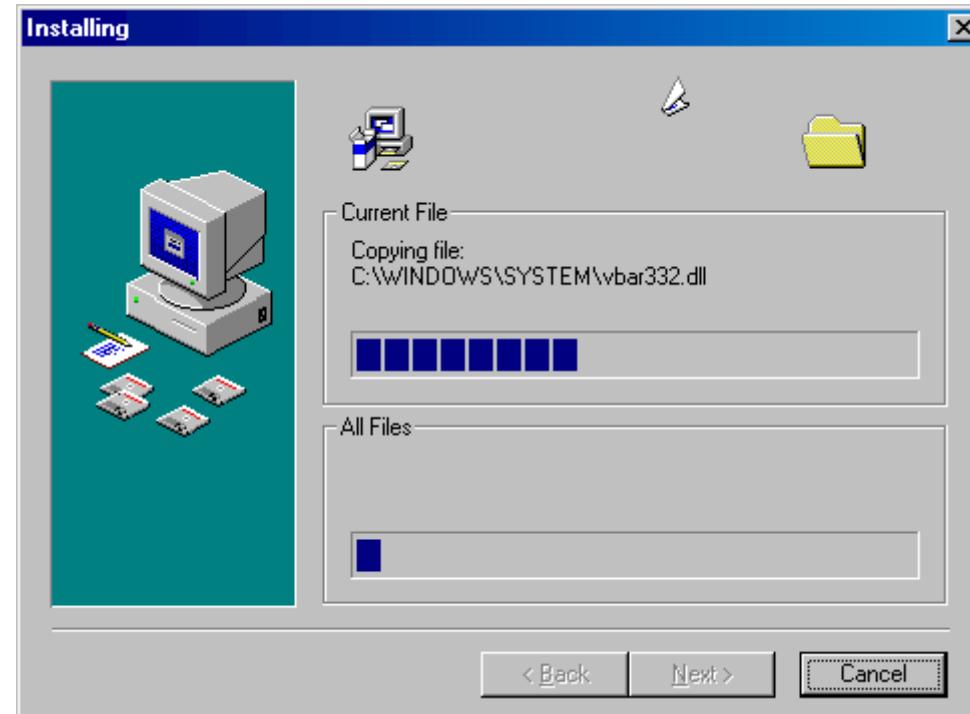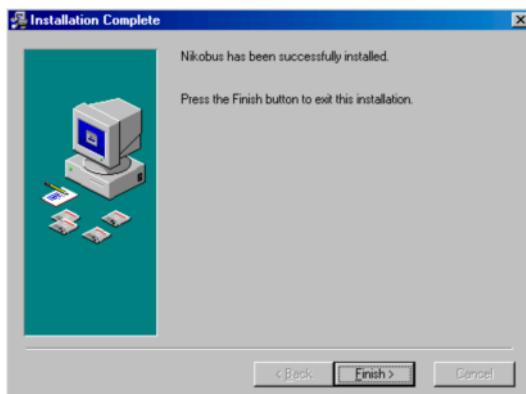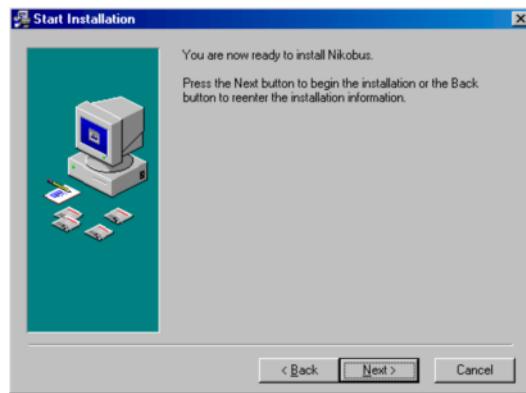
In the following screen, the installation program suggests a directory on the hard disk into which the program data can be copied. In most cases, this is a good choice. It can be confirmed by clicking the **Next** button.

Should you prefer to use another location on your computer hard disk, you can do this by clicking the **Browse** button and then selecting another location.

Following this, the installation program suggests using the name **Nikobus** for the new program group. Confirm this choice by clicking the **Next** button.

All the data required for the installation is now known. Click the **Next** button to continue the installation. Data will now be copied to the hard disk. If you wish to make modifications, this can be done by using the **Back** button, which will allow you to return to previous screens.

The last screen indicates that the installation has been successful. Leave the installation procedure by clicking the **Finish** button.

The installation program will now be closed. You will see that a shortcut to the Nikobus software has been installed on the computer desktop. The icon shown below can be found on the desktop.

The Nikobus software can be started in several ways. On the one hand, the Windows® **Start** button can be used, while, on the other, the program can be started conveniently using the shortcut on the desktop.

Starting by means of the start button

Once Windows® has started, click the **Start** button on the bottom left of the screen using the left mouse button. Subsequently, select and click **Programs**, **Niko**, **Nikobus**. The **Project info** window will be opened.

Starting using the shortcut on the desktop
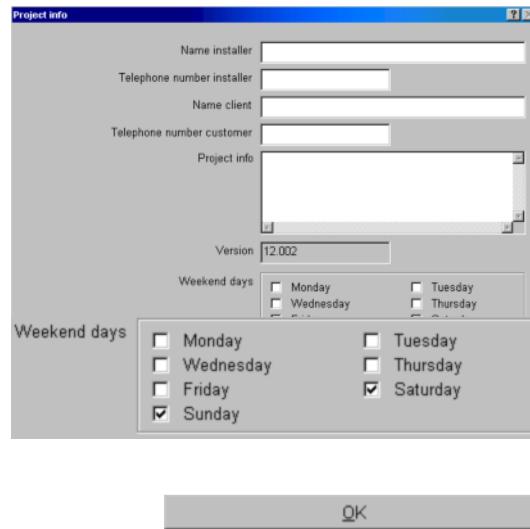
A shortcut was placed on the desktop during the installation. Double-click the Nikobus icon to start the program. The **Project info** window will be opened.

When starting the program, the **Project info** screen will always be the first to be activated. If you wish to start a new project, please follow the description in **Starting a new project**. If you wish to open a project that already exists, please follow the instructions in **Opening an existing project**.

Creating a new project

When creating a new project, it is important to first complete the **Project info** window. This data is used, among others, in the print-outs and when working with clocks.

The following data can be entered:
- name of the installer
- telephone number of the installer
- name of the customer
- telephone number of the customer

Below this, there is a **Project info** field where additional information concerning the project can be entered.

At the bottom of the screen, you will find the **Weekend days** field. If the customer has fixed weekend days, these should be marked here. The PC-Link module (05-200) makes use of this data to only carry out certain clock functions on weekend days or only on working days. As a standard, Saturday and Sunday are selected as weekend days.
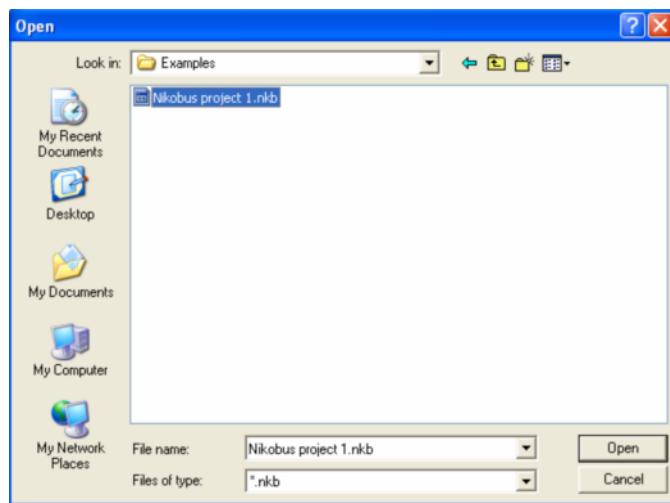
Complete all the data and then click the **OK** button. The basic Nikobus software screen will be opened.
All data in the **Project info** window can be modified or completed at a later stage.

Opening an existing project

OK
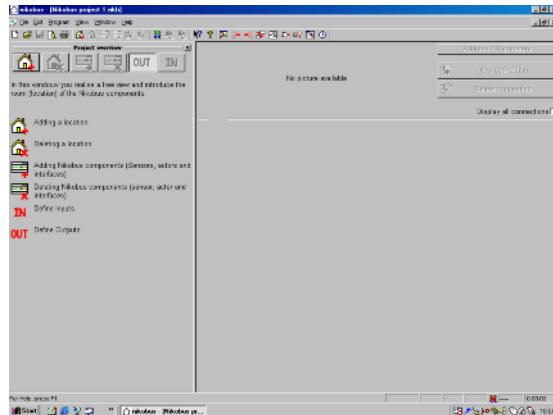
If you wish to edit a project that has already been created, you can directly click the **OK** button in the **Project info** screen. The basic Nikobus software screen will be opened. Click on **File** and **Open...** in the menu bar. Find the directory and the file you wish to open and click on the **Open** button.

Working with directories and files is explained later in this manual.

The basic Nikobus software screen consists of several components.

Title bar: Similar to other Windows® programs, the title bar has been placed at the top of the screen.
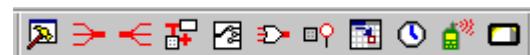
Menu bar: The menu bar is located just below the title bar. This contains the menus **File, Edit, Program, View, Window** and **Help.**
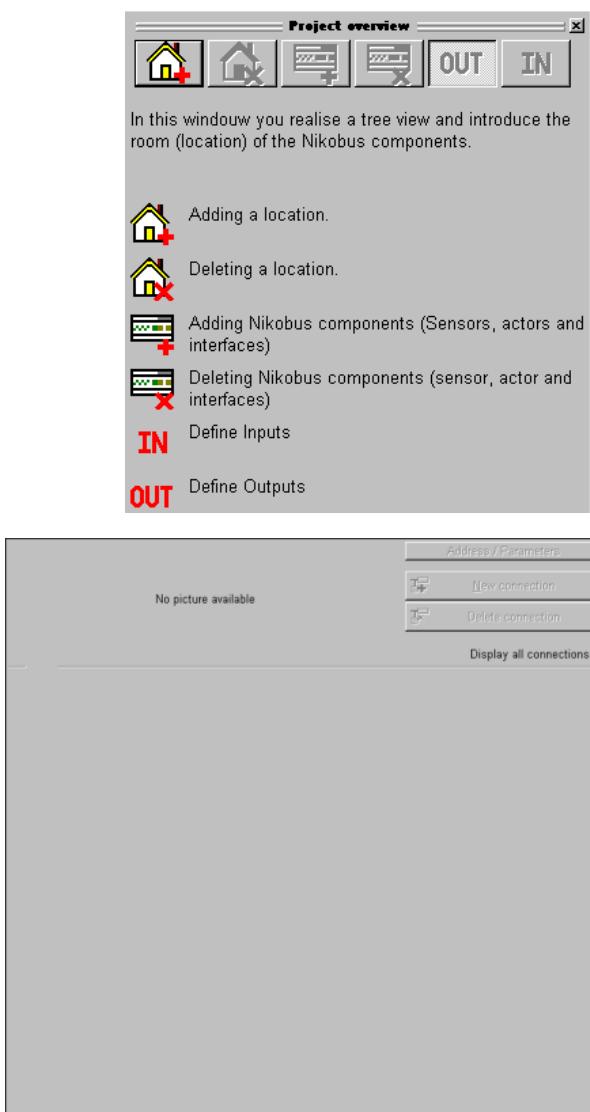
Standard toolbar: Different icons enabling you to directly access the most common menu items without having to open the menu structure are located on the standard toolbar (below the menu bar).

Function bar: The icons of this bar (located next to the standard toolbar) allow direct access to most of the Nikobus functions.

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Project overview

In this windouw you realise a tree view and introduce the room (location) of the Nikobus components.

Adding a location.

Deleting a location.

Adding Nikobus components (Sensors, actors and interfaces)

Deleting Nikobus components (sensor, actor and interfaces)

IN Define Inputs

OUT Define Outputs

Address / Parameters

New connection

Delete connection

No picture available

Display all connections ☐

In addition, the basic screen has been divided into two large sections. The first section is the **Project overview** window. This is located on the left of the screen. At the moment, you will see the **Project toolbar** with large icons. In the opening screen, a brief explanation of the different **Project icons** is given under the **Project toolbar**.

In the **Project overview** window you will be able to draw up a project tree structure. Here, all output modules and input components will be entered per room. Rooms or locations can be added or deleted. In addition, Nikobus components (sensors or actors) can also be added or deleted.

The connection list: The info window **Connection list** can be found on the right hand side of the **Project overview** window. It will provide you with detailed information on the different components of your project and their programming.

Status bar: On the left hand side, the status bar offers you context-related information. On the right hand side of the status bar, icons and information relating to your project are displayed. Again, these are dependent on the screens in which you are situated. More details on this will be provided later in the manual.

For Help, press F1   ---- 0:00:00
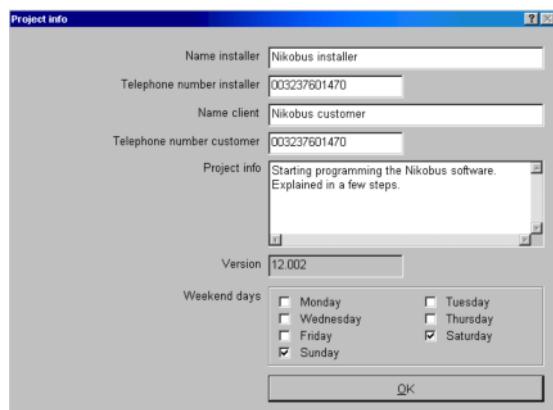
In this section of the manual, you will be introduced to some initial, simple programming with de Nikobus software. The best way is to carry out these steps yourself. If you would like to see the end result, you can open the file Nikobus-project 1.nkb. This file is delivered as part of the CD-ROM and can be found in the directory **\Examples**.

Starting the program

Start the Nikobus software.

Completing the project data

Complete all items of the **Project info** window: Name and telephone number of the installer and name and telephone number of the customer. If desired, additional information concerning the project can be entered in the **Project info** field.

If it is intended to be able to call up the customer's installation by means of a modem, the telephone number of the customer must be entered in the **Telephone number customer** field. Only figures may be used in this field. You must write, for example, **037601470** and not 03/760.14.70. Obviously, the area code of the customer must also be included. If the installer's modem is connected to an analogue internal switchboard line, it may be necessary to insert another number (usually **0**) to precede the area code so that an outside line can be selected for the connection. Consult the switchboard manual for more information on this.
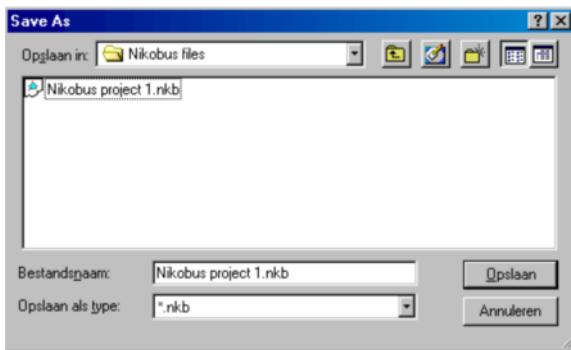
In the lower part of the screen, put a tick next to the weekend days that are applicable for your customer. For most people, the standard setting (Saturday and Sunday) will be sufficient. If, however, your customer owns a hairdresser business, it may be quite possible that his weekend days will be fixed on Sundays and Mondays. It is very important to complete this information at this point in time. When you are working with the calendar functions of the PC-Link module (05-200), this information will be used to differentiate between clock actions that must take place on weekend days or on working days.
For this first project, you may retain the weekend days as Saturday and Sunday.

Click the **OK** button in order to store the data in the **Project info** window and to close the window.

Naming your first project

It is advisable to give each new project its own name. If you do not do this yourself, the program will automatically assign a name to a new project. For the first project, the name **Nikobu1.nkb** will be used. For all subsequent projects, the number in the name will be increased by one unit.

If you program several projects, it will be easier if the name of the file tells you something about the project. For example, the name of the customer could be used as the file name.
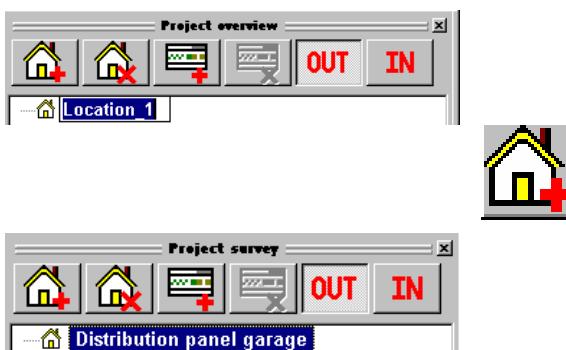
Open the menu item **File** and click on **Save as**. The **Save as** window will be opened. In **Save as,** select the directory in which you would like to save the new file. If required, you can create a new, separate directory in which to save your projects. You could, for example, create a directory **Nikobus projects**. In this directory, you could create another separate sub-directory for each customer (for example Customer X). In each customer directory, you could then create the directories **Nikobus files** and **Nikobus drawings**. In this way, all the data can be stored in an identical, well-organized structure.

Under **File name** type Nikobus Project 1. Click on the **Save** button. The program will add the extension "nkb" behind each new file name. The window will disappear and the name of the new file will appear in the title bar.

nikobus - [Nikobus project 1.nkb]

Adding a location or a place

You will find the icon with the house and the plus symbol (add location) In both the standard toolbar and in the **Project overview** window toolbar. Click on this icon. A small house with the name **Location_1** will appear In the **Project overview** window, below the **Project overview toolbar**.
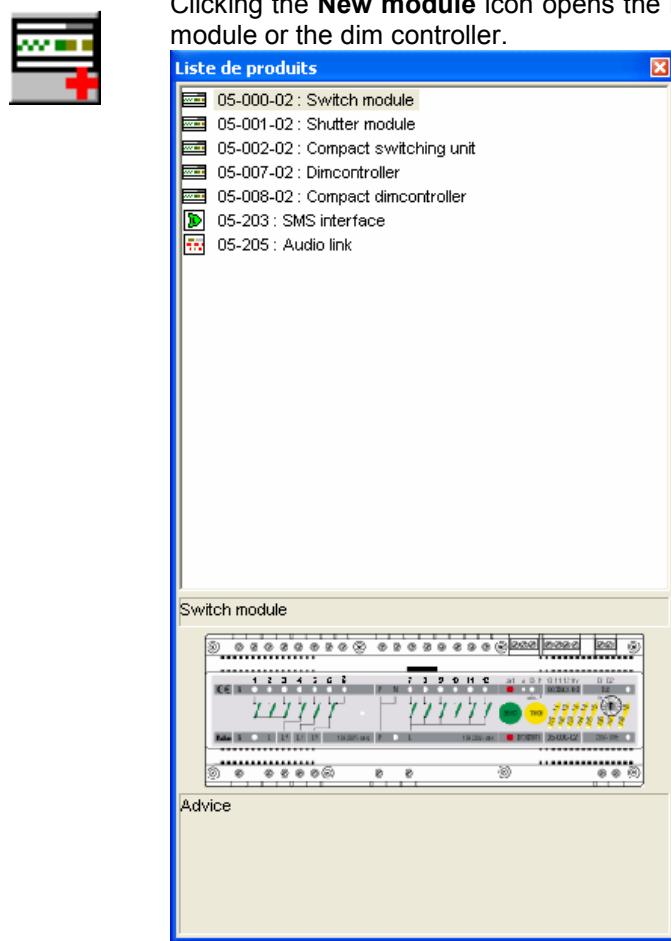
Type the name **Distribution panel garage** and close with the Enter or Return key. You have thereby indicated that a distribution panel has been mounted in the garage for your project.

Adding an output module
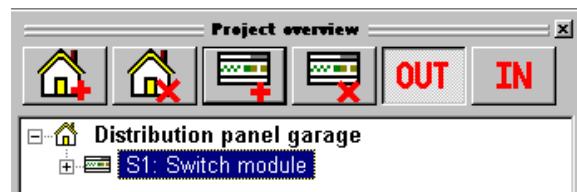
Please ensure that the **OUT** toolbar button on the **Project overview** toolbar is activated (pressed in), as you wish to install a switch module in the distribution panel in the garage. Switch modules, shutter modules and dim controllers belong to the output components (output units) of the Nikobus home automation system.

Clicking the **New module** icon opens the **Product list** window. Here, you can select the switch module, the shutter module or the dim controller.
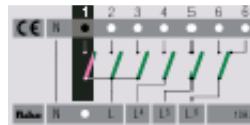
Double-click **Switch module**.

By doing this, the new switch module will be listed under **Distribution panel garage** in the window **Project overview**. You will see that code **S1** has been assigned to this module.

You can open the switch module S1 by clicking the box with the plus symbol in front of the name. This will give you an overview of all switch outputs of this module. The name of each switch output starts with a number. For example, you wish to connect the lighting of the garage to switch output O01. You will therefore adapt the name of this switch output. Using the right mouse button, click **O01: Switch output**. A pop-up menu will appear with, among others, the option **Change output name**. Click this menu item with the left mouse button. Type **LP garage** and confirm with the Return key. You will see that the name of output 1 has been changed to **O01: LP garage**. Any desired name can be used. The abbreviation LP stands for light point, and can save you quite some typing work when introducing alliance names.

You will see that the program retains the numbering **O01** for the new name.

You will further notice that there is a drawing of the switch module on top of the screen in the info window. As you have currently selected output O01, a small black box can be seen on output 1 of the drawing.

Add a new location and a push button
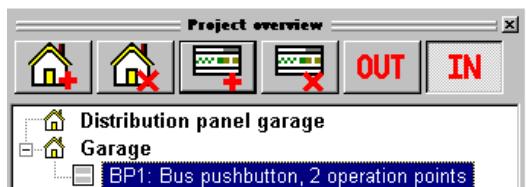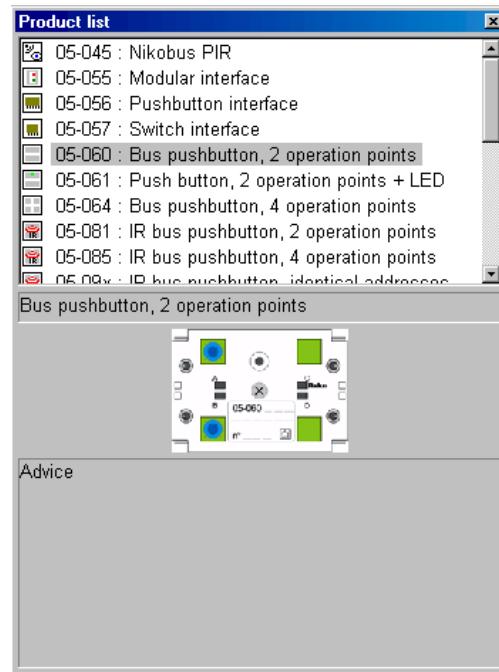
You will consider the distribution panel in the garage as a separate location; the garage itself is a different location. You create the location **Garage** by clicking the **New location** icon. Now, change the name suggested by the program to **Garage**. Then enter this name by clicking the Return key.

IN

As you wish to add a push button, click on the **IN** icon in the toolbar of the **Project overview** window. Push buttons are part of the input components of the Nikobus home automation system.
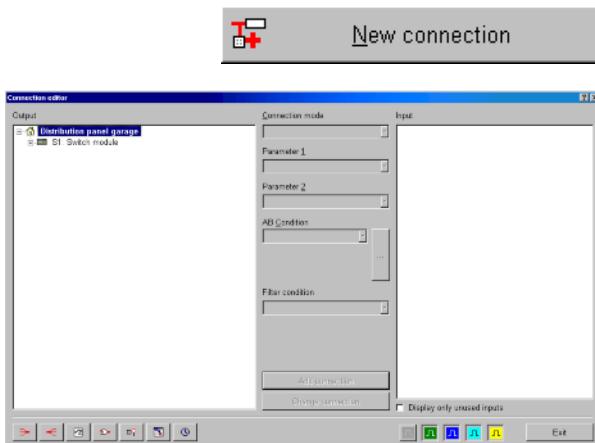
Select the location **Garage** and click the **New module** icon. The content of the **Product list** will now be modified. In this list, you can now only select input components. Assume you would like to install a Nikobus push button with 2 operating buttons in a particular place in the garage. Double-click the name **05-060: Bus push button, 2 operating points**.

As a result, the name **BP1: Bus push button, 2 operating points** will appear under **Garage** in the **Project overview**. At the same time, the bus push button will be pictured in the info window.

Programming the push button

You now wish to program the installed push button. With this push button, you want to switch the light point in the garage on and off. Pressing the upper part of the push button should result in switching the light point on, while pressing the lower part will result in switching the light point off.
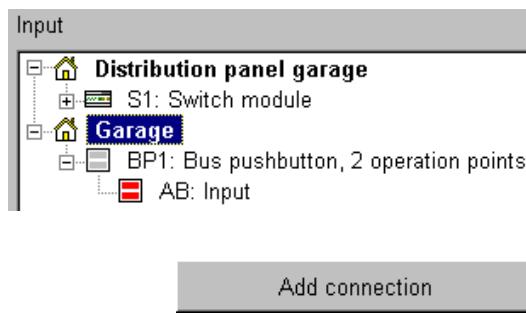
You add a link or connection (between an output and an input) by clicking the **New connection** icon in the info window or on the toolbar. The icon will only be displayed if you select a new component in the project overview.

As a result of this, the window **Create connections** will be opened, as pictured here on the left.

In this window, you will always work from left to right. This means that, for the programming, you will start from an output, then you will select the connection mode or function, and only then will you select the push button that will carry out this function.

The output to be programmed can be selected by clicking **S1: Switch module**. When doing this, all outputs of the first switch module will be shown. As you wish to do something with the light point in the garage, you now select the first output of this switch module by clicking **001: LP garage**.

When clicking the arrow in the white, upper window in **Connection mode**, all possible functions of the selected module will be displayed. You wish to use mode M1, which is a dual button operation. You will therefore click **M01 (on/off)**.

In the **Input** window (on the right of the **Create connections** window) all inputs will now be displayed. And, indeed, push button **BP1** is listed under **Garage**. Clicking on **BP1: Bus push button, 2 operating points**, will result in the visualisation of the operating points of this bus push button. Now click **AB: Input**.

For mode M1, no parameters exist. You therefore cannot enter any. In this case, you also do not wish to introduce any condition that is dependent on the status of 230V A and/or B inputs of this switch module. Do not, therefore, touch the small window **AB condition**.

Finalise your programming for this push button and output by clicking the **Add connection** button. If you wish to stop programming, click the **Close** button as well. This will close the **Create connections** window.

You will see that the **Connection list** window has been updated. The **Connection list** for **BP1** is displayed. From this list, it is clear which operating points are involved, which output of which module is involved, which mode has been programmed, and possibly the status of the setting wheels T1 and T2, whether there is a condition programmed with the 230V inputs A and/or B of the module concerned, and possible filter functions. But more about this later on.

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Connection list BP1: Bus pushbutton, 2 operation points
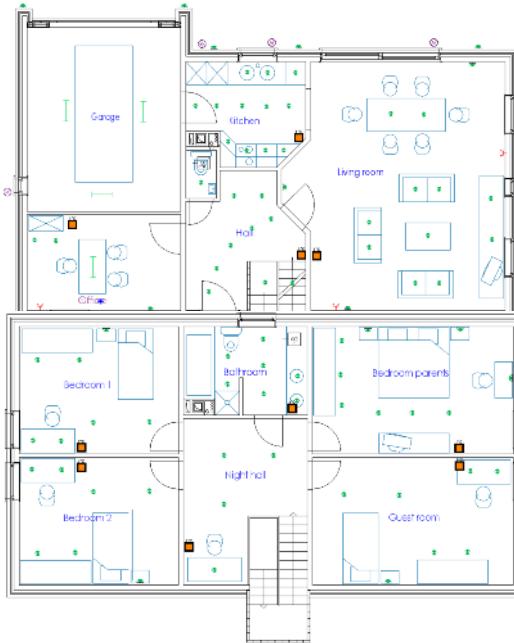
Input Description	Output Description	Connection Mode	T1	T2	AB C...	Filter condition
AB: Input	O01: LP garage (S1: Switch...	M01 (On / off)			None	

This was your first programming session. The next step will be downloading the program to the installation. This will be discussed in chapter 10. In chapter 5, the development of a larger project will be discussed.

In this chapter, you will develop a simple project. For the moment, we will not yet make use of the clock module or the logical functions module. You will, however, make use of the 230V inputs of the modules as an input. In addition, you will create groups in order to be able to carry out group controls, and will also try to use different functions, the programming of which will serve as an example for your projects. For some of the functions, you may be inspired by the practical **Nikobus examples,** as described in the **Nikobus Manual**. The practical examples described below can be found in the **Nikobus project 2.nkb** file, fully developed. This file is located on the CD-ROM under the **Examples** directory. In the same directory, you will also find the empty file **Nikobus project 2 empty.nkb**. This file consists of a project structure, but does not include programming. You can use this file for practice.

For the development of this project, you will base yourself on certain parts of a one-family-house. The ground floor contains an entrance hall with a cloakroom and toilet, an office, a garage, a kitchen and a dining room/lounge. In addition, there is a terrace at the back of the house, which is fitted with a sunblind. Every window on the ground floor is fitted with a shutter. The garage door is operated electrically by means of pulses. In the lounge, two wall sockets have been fitted for the control of standard lamps. The office is also equipped with a wall socket of this kind. The ground floor has 4 separate heating circuits (central heating with gas).

On the first floor, there are two children's bedrooms (bedrooms 1 and 2). There is also the parent bedroom, a play and guest room and a bathroom. All rooms and the bathroom have a separate heating circuit (central heating with gas).
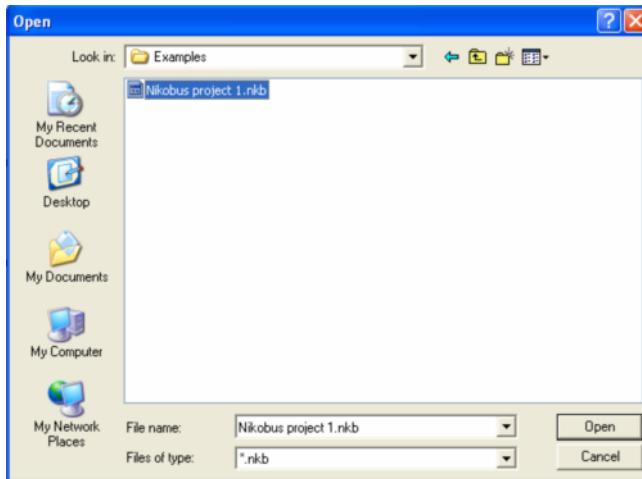
One electrical distribution panel will be installed in both the garage and the attic. The toilet on the ground floor and the bathroom are both fitted with a ventilator.

Clicking on the drawings on the left will enlarge them.

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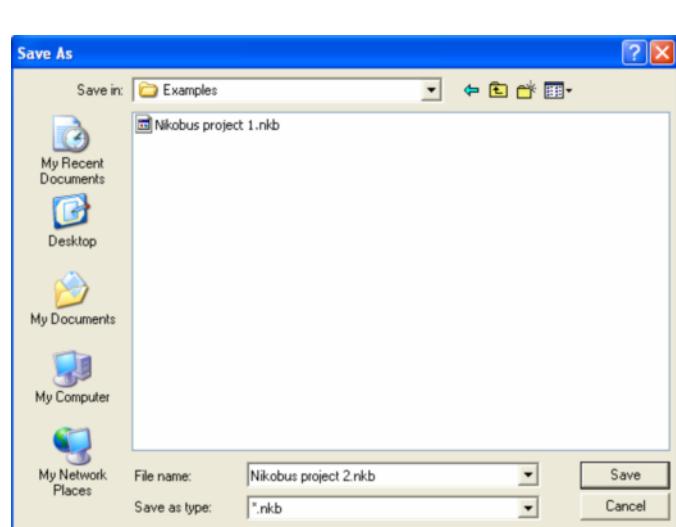
In chapter 4, you created your first Nikobus project. In order not to waste this preliminary work, you will now use this existing project to create a new project.

You open the previous project by clicking **File** and **Open** on the menu bar. In the window that is now opened, you first select the directory in which you have saved your previous project. You then select **Nikobus-project 1.nkb** and click the **Open** button. Your previous project will now be opened.

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You now wish to give your project a new name. To do this, click on **File** and **Save as** in the menu bar. In the field **File name** fill in the new name for your project: **Nikobus-project 2.nkb** and click the button **Save**.
The new name will appear in the title bar.
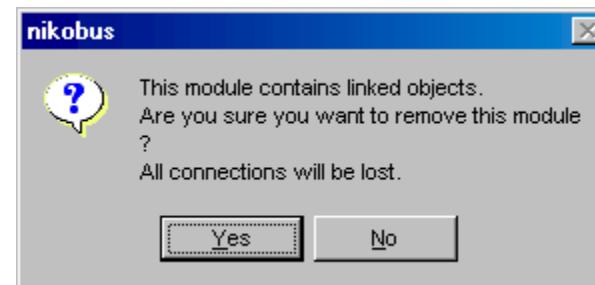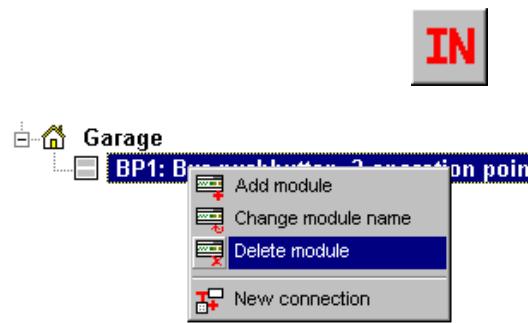
In your previous project, you installed a switch module in the distribution panel in the garage. This first switch input was named **LP garage**. You would like to retain these items.

In addition, you created the room **Garage** and installed a push button there. You would temporarily like to delete both these items from your new project. To achieve this, proceed as follows.

Ensure that the **IN** icon is selected.

Select the push button that is to be deleted from the garage by clicking on it. Using the right mouse button, click **BP1: Bus push button, 2 operating points**. Now click the field **Delete module**.

Click on the **OK** button in the confirmation screen. The bus push button will be deleted.
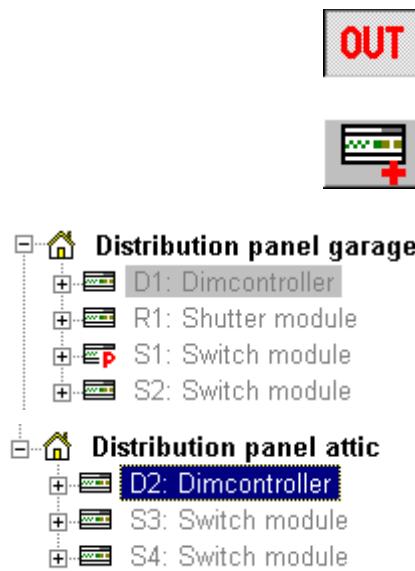
In the same way, you can now delete the room garage. Using the right mouse button, click **Garage** and then **Delete location**. The room **Garage** will be deleted.

Distribution panel garage
Distribution panel attic
Garage
Office
Entrance hall
Toilet ground floor
Staircase
Kitchen
Living room
Front door outside
Night hall
Bathroom
Bedroom 1
Bedroom 2
Guest room
Bedroom parents
Terrace

You can now enter all the rooms of the house into the software. To do this, always click the relevant icon first (house with plus symbol), type in the name and close with the **Return** button. First of all, create a new distribution box. Name it **Distribution panel attic**. Only after this has been done will you enter every actual room of the house. The result will look like the illustration on the left.

It is now time to place and name all alliances of the house in the distribution panels. Make sure the **OUT** icon on the **Project overview** window toolbar is activated. In this way, only the output modules will be displayed in the **Product list**.

In **Project overview,** select **Distribution panel garage**. Now click the **New module** icon. If the **Product list** had not been opened yet, it will now become visible. In this list, you can either select the dim controller, the shutter module or the switch module.

Double-click **Switch module** and a second switch module will be added to the distribution panel in the garage. In this distribution panel, you will also require a shutter module and a dim controller. Double-clicking these modules in the **Product list** will result in placing these modules in the first distribution panel.

Now you wish to add a few modules to the second distribution panel. To achieve this, select **Distribution panel attic** and proceed in the same way as when adding the output modules in the first distribution panel.
Add a dim controller and two switch modules.

The moment has now come to assign a place on the output modules to each alliance in your project and to assign each of them an unambiguous name. This will simplify matters later when you will start programming and you will need to select particular alliances.

OUT

You must ensure that the **OUT** toolbar button is activated.

Adding alliances to switch module 1

In the **Project overview** window, you first double-click **Distribution panel garage** and then **S1: Switch module**. You will see that the first output of this module has been assigned the name **O01: LP garage,** as this was already done in your first project.

With the right mouse button, click **O02: Switch output**. Then click on the new field with the message **Modify output name** with the left mouse button. Now type the name of the alliance that will be connected to the second output of the first switch module. In this case, this will be **LP kitchen central**. This indicates that the central light point of the kitchen is linked to this output. Close this operation by pressing the **Enter** key.

With the right mouse button, click on output **O03: Switch output**. Click on **Modify output name** and enter the name **LP kitchen cooking area**. Close by pressing the **Enter** key.

All other alliances of switch module 1 are entered in the same manner. This will result in the screen below.

For the time being, we have left output O06 of switch module 1 alone. This output will be used later for special programming.

S1: Switch module
- O01: LP garage
- O02: LPkitchen central
- O03: LP kitchen cooking area
- O04: LP kitchen washing up
- O05: LP cloakroom
- O06: Switch output
- O07: LP entrance hall
- O08: LP office wall
- O09: Ventilator toilet
- O10: LP toilet
- O11: LED Master-off
- O12: LED Staircase
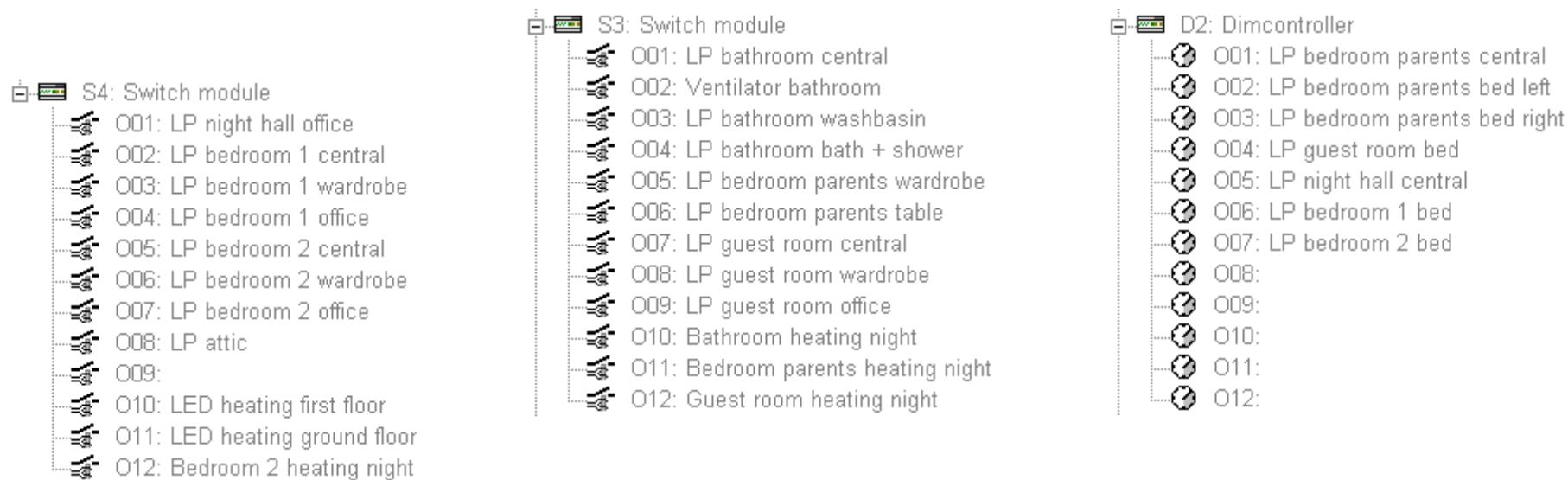
It is recommended to delete the name **Switch output** next to unused outputs. In this way, it becomes quickly visually clear which outputs have already been used, and which outputs are still free. In order to do so, select the free output, click the right mouse button and select **Modify output name**. Subsequently, press the **Backspace** key of the keyboard and the **Enter** key. As you will see from the picture on the left, it is clear at a glance which outputs are in use, and which outputs are still free.

Adding alliances to the other modules

You included a second switch module in distribution panel 1 of the garage. In addition, a shutter module and a dim controller were also installed. You must also add and name the alliances for these modules. This will take place in the same way as described above. For your second project, the result will appear as follows:

Adding the alliances to distribution panel 2

You can now place and name all alliances that will be connected to the modules of the second distribution panel (attic) in exactly the same way. The result is shown below.

S4: Switch module
- O01: LP night hall office
- O02: LP bedroom 1 central
- O03: LP bedroom 1 wardrobe
- O04: LP bedroom 1 office
- O05: LP bedroom 2 central
- O06: LP bedroom 2 wardrobe
- O07: LP bedroom 2 office
- O08: LP attic
- O09:
- O10: LED heating first floor
- O11: LED heating ground floor
- O12: Bedroom 2 heating night

S3: Switch module
- O01: LP bathroom central
- O02: Ventilator bathroom
- O03: LP bathroom washbasin
- O04: LP bathroom bath + shower
- O05: LP bedroom parents wardrobe
- O06: LP bedroom parents table
- O07: LP guest room central
- O08: LP guest room wardrobe
- O09: LP guest room office
- O10: Bathroom heating night
- O11: Bedroom parents heating night
- O12: Guest room heating night

D2: Dimcontroller
- O01: LP bedroom parents central
- O02: LP bedroom parents bed left
- O03: LP bedroom parents bed right
- O04: LP guest room bed
- O05: LP night hall central
- O06: LP bedroom 1 bed
- O07: LP bedroom 2 bed
- O08:
- O09:
- O10:
- O11:
- O12:

Here also, you will immediately spot the unused outputs if you delete the standard name.
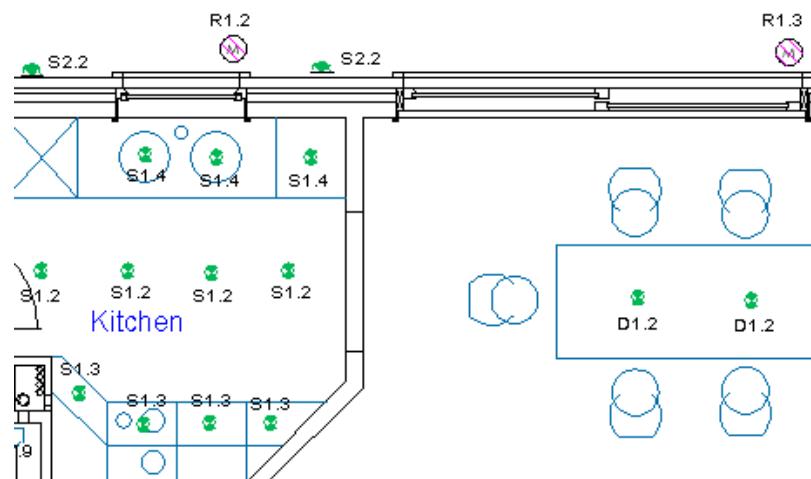
In order to be able to work easily, quickly and clearly, it is of vital importance to enter a code on the alliance symbols in the drawings. This code can be found in the software program.

Example: The light point in the garage will be connected with output 1 of switch module 1. The code you will use here will therefore be **S1.1**. The central light point in bedroom 2, which is connected to output 5 of switch module 4, will be **S4.5**.

If a alliance has been connected to a dimmer, and the latter is controlled by a dim controller, you will start the code with the letter **D**. For alliances connected to the shutter module, you will use the letter **R**.

In this way, it is not only clear from the floor plan which alliances are connected to what type of module, but also to which output they are connected. Please also provide each module that is placed in the distribution panel with a sticker with its code name (**S1, S2, S3, S4, D1, D2, R1, …**).

The moment has come to indicate the location where one or several operating elements (push buttons) must be placed on the drawings. For a traditional electrical installation, you would tend to show every switch and push button on the drawings. For a Nikobus home automation installation, however, this is not the case. One reason is that this is not required for the inspection report, as a very low safety voltage is used. The push buttons that are supplied by this very low safety voltage need not be indicated on the inspection circuit drawings. But there is more.
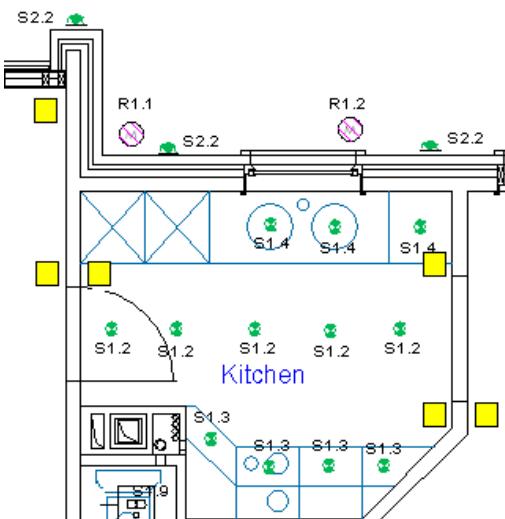
A home automation system has a flexible set-up. Today, for example, three push buttons will be placed in one particular operating location, tomorrow, however, it could be four or two. This would mean that, for each change, your plans must be adapted accordingly. You prefer not to do this, and have opted for a different, timesaving method.

On each location where one or several push buttons must be placed under the same cover plate, you mark a coloured square on the plans. This will make you already aware that a flush mounting box will be installed in these locations.

The exact number of push buttons to be placed in one specific operating location is not yet clear at this point in time. The Nikobus software will show you how to solve this. At a later stage, all these operating locations will also be assigned a code on the floor plans.
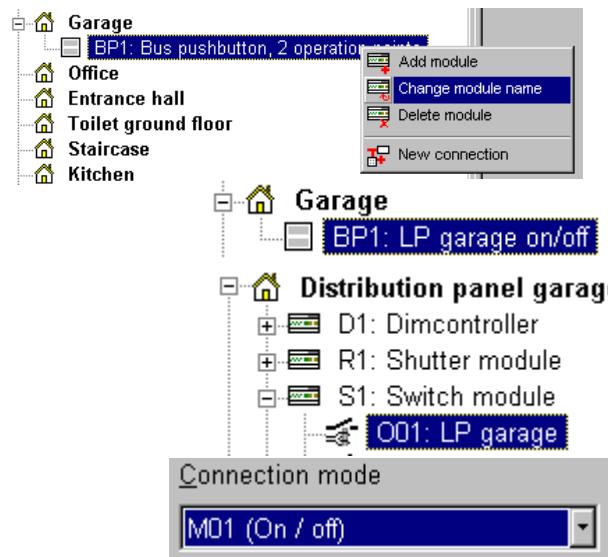
This methodology also favours a clear overview of the drawings. Assume you have to draw four push buttons with their accompanying codes. It would not take long before your drawings would become unclear. As a result, mistakes could be made on the building site. You will try to avoid this by keeping the drawings simple and, at the same time, clear.

On the drawing on the left, the operating locations are marked with a yellow square.

Placing and programming the first push button

In the Nikobus software, you will now place and program push buttons in a first room. Make sure that the toolbar button **IN** is activated. As a result, the **Product list** will list all the push buttons that could possibly be used, one after the other.

Your starting point is a first operating location in the garage, by the door to the kitchen. In the **Project overview** window, select the room **Garage**. For all operating locations, the agreement is that the push buttons (if several push buttons must be installed) will be placed horizontally next to each other.

Start by placing a first push button for the operation of the lighting in the garage. In the **Product list**, double-click **05-060: Bus push button, 2 operating points**. This bus push button is now visible under **Garage** in the window **Project overview**.
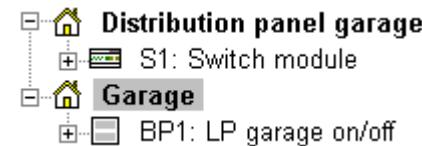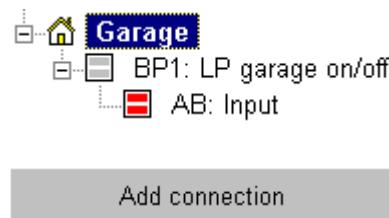
On clicking **BP1: Bus push button, 2 operating points**, with the right mouse button, a short drop-down menu will appear. Here, click **Modify module name**. As a result, you can now modify the name **BP1** in **LP garage on/off**. You close the text entry by pressing the **Enter** key.

The name of this bus push button is now **BP1: LP garage on/off**. This indicates what the function of this push button will be. The result is shown in the picture on the left.

Select this bus push button and click in the **Info window** on the **New connection** button. The window **Create connections** will be opened as a result. Search for and select the light point in the garage in the output list. This can be found under switch module 1, first output.

Here, you wish to have the light point in the "on" position when you press on the upper part of the push button and in the "off" position when pressing on the lower part of the push button. Click on the arrow under **Connection mode** and select **M01 (on/off)**.

Only now you will see the relevant bus push button appear in the input list under **Garage**.

Click on **BP1: LP garage on/off** and subsequently on **AB: Input**.

As you do not wish to add any parameters or conditions to this programming, close by clicking the field **Add connection**. Exit the window by clicking the **Close** button.
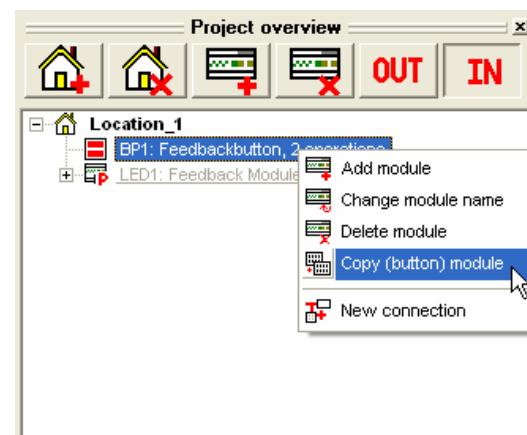
The programming of your first push button has now been completed.

Copying a push button
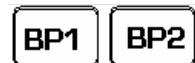
- Copying between touch screens is possible
If a touch screen is selected in the project overview (feedback link with activated touch screen), you can copy this module entirely (right mouse button, menu, icon). Add the new hardware and copy all connections (keys + LEDs)
Only the unique address is canceled.
- Cpying the functions for controls is carried out in the same way.

A second push button next to the first one
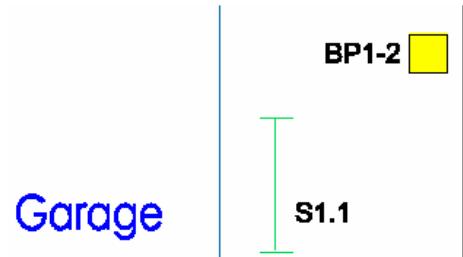
At the same operating location, you wish to place a second push button for the operation of the shutter in the garage. You proceed largely in the same way as described above.

In the **Project overview** window, select the room **Garage**. Double-click **05-060: Bus push button, 2 operating points** in the **Product list**. Modify the name of this bus push button into **BP2: shutter garage up/down**.

Add a connection to this push button and select as output **O06: Garage shutter** under the shutter module in the distribution panel of the garage. As mode, select M1 (open – stop – close). In the input window, select **BP2: shutter garage up/down** and subsequently **AB: Input**. For **T1 Run time,** set the time for this shutter. In this case, choose 20 seconds. Click **Add connection** and subsequently the **Close** button.

Transferring the codes to the floor plan

On the floor plan, you place the code BP1-2 next to the yellow square (operating location) in the garage by the door to the kitchen. This will indicate that BP1 and BP2, the two push buttons you have programmed in the software, have actually been placed here.

Placing the other push buttons

You also wish to place a few bus push buttons at the operating location by the garage door. First of all, you would like to have a push button for operating the garage lighting and for the exterior lighting. The push button for the garage lighting has the same functionality as BP1. Refer to section 5.10 of this manual for the programming. The functionality of the push button for the exterior lighting, however, is different. Pressing the upper part of the push button must result in switching on the exterior lighting at the terrace and the garage door for a time period of 5 minutes. When pressing the lower part of the push button, the same light point should alternately switch on and off.

In addition, you require a push button for operating the garage door. Pressing the upper part will make the garage door go up. Pressing the lower part will close the garage door. Pressing either the upper or the lower part while the garage door is moving will make it stop.

A last bus push button in this location in the garage will be used as a simple master-off button. At this point in time, you do not yet make use of the special bus push button for switching between presence simulation, week or weekend schedule. You must create an output group for the master-off function.

You will use a four-way bus push button (05-064) for the lighting, a two-way bus push button (05-060) for the garage door and you will install a bus push button with LED (05-061) for the master-off function.

In the **Project overview** window, select the room **Garage**. Add the different bus push buttons by double-clicking in the **Product list** window.

Programming the exterior lighting

Program the AB section of the first push button (BP3) for the lighting of the garage as described in section 5.10 of this manual.

Now program part C and D of BP3 for the lighting of the rear outer wall. Modify the name of the push button to **BP3: LP garage / rear outer wall**.
Click **New connection,** which will open the **Create connections** screen. Among the outputs, select **O02: LP rear outer wall** for switch module 2 in the distribution panel in the garage. Select **M6 (delayed-off)** as the connection mode and set the parameter **T1: Long time frames (up to 2 h)** for 5 minutes. In the input list, select **BP3: LP garage / rear outer wall** and subsequently **C: Input**. Close this programming by clicking the **Add connection** button.

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Now modify the **Connection mode** to **M5 (impulse)** and click **D: Input** in the input list of **BP3: LP garage / rear outer wall**. Close this also to add the connection.

When exiting the **Create connections** window (by means of the **Close** button), you will see the programming for bus push button **BP3** displayed in the **Connection list** window.

Connection list BP3: LP garage / rear outer wall

Input Description	Output Description	Connection Mode	T1	T2	AB C...	Filter condition
AB: Input	O01: LP garage (S1: Switch...	M01 (On / off)			None	
C: Input	O02: LP rear outer wall (S2:...	M06 (Delayed ...	5 m		None	
D: Input	O02: LP rear outer wall (S2:...	M05 (Impulse)			None	

Programming the garage door

For the garage door, it is recommended to work with a system that uses two separate pulses for raising or lowering the garage door. **BP4** has been renamed to **BP4: Garage door**. Activate the screen **Create connections** and select output **O07: Garage door pulse open** of switch module 2. Select **M11 (delayed-off short)**. **T1: Short time frames (up to 50 s)** as the mode, and set to 1 s. In the input list, select **A: Input** of **BP4: Garage door**. Add the connection.
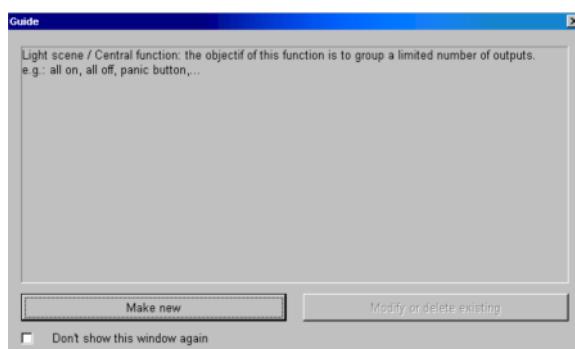
Select output **008: Garage door pulse close** of switch module 2. Select the same mode and time settings, but now select **B: Input** of **BP4: Garage door**. Again, close by adding the connection. Exit the **Create connections** screen, and you will see the following in the connection list:

Connection list BP4: Garage door

Input Description	Output Description	Connection Mode	T1	T2	AB C...	Filter condition
A: Input	O07: Garagedoor pulse ope...	M11 (Delayed ...	1 s		None	
B: Input	O08: Garagedoor pulse clos...	M11 (Delayed ...	1 s		None	

Creating an output group

You want to program your master-off button. Up to now, you have always programmed for one single alliance. The master-off function, however, must affect most alliances. You will therefore create an output group first.
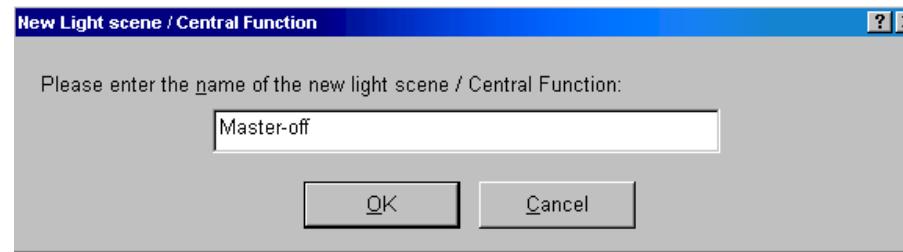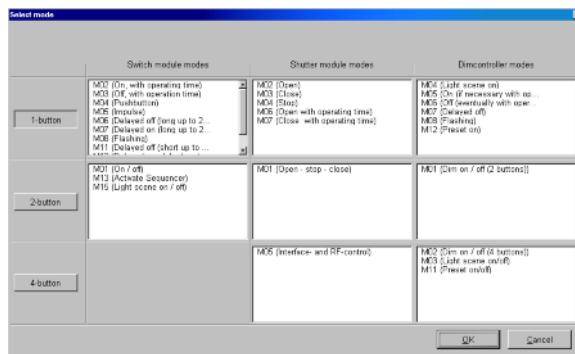
Click on the **Light scene / Central functions** icon in the **Function toolbar**, as pictured on the left.
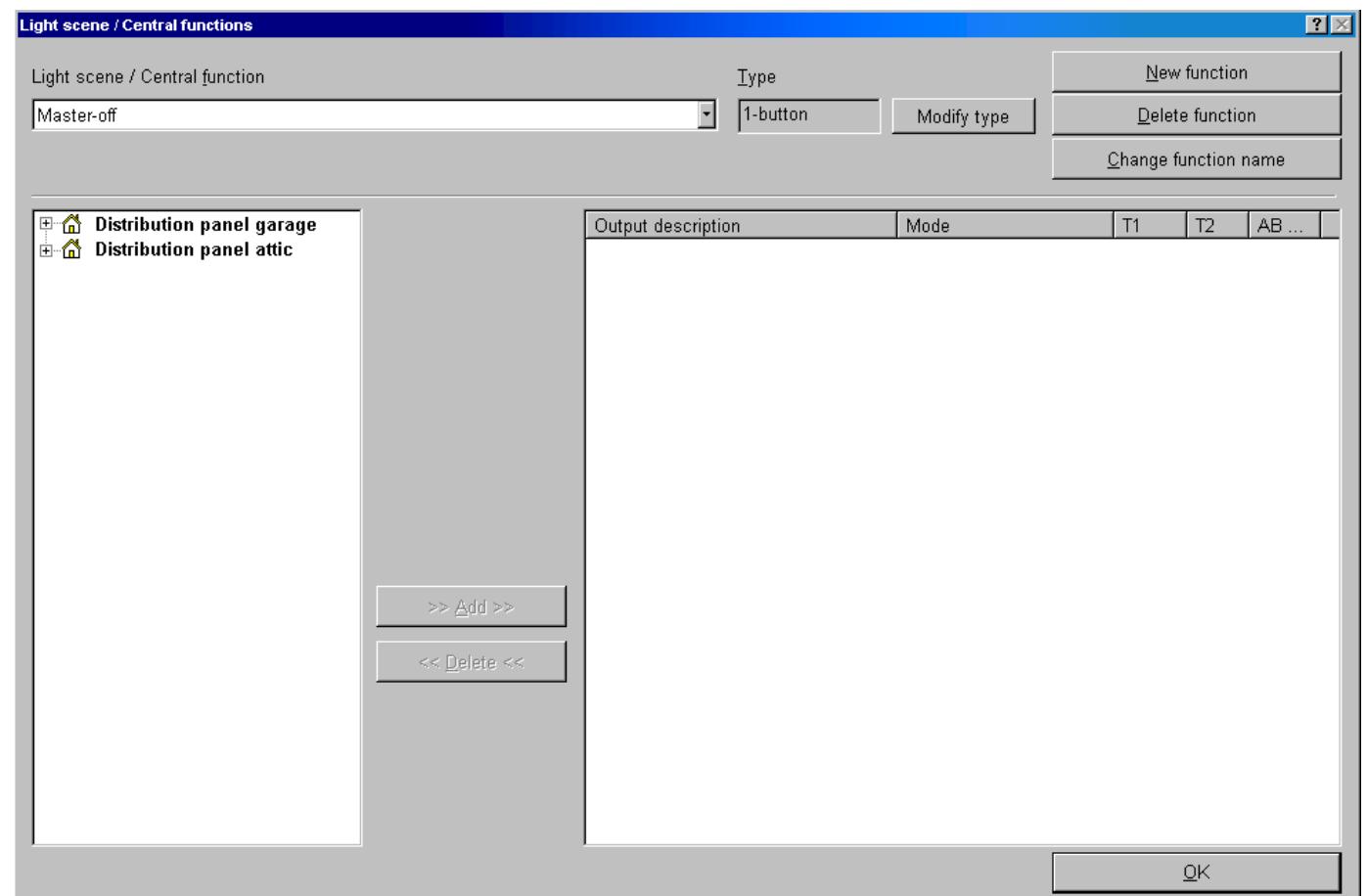
The **Guide** window will be opened. Click the field **Create new**.

Make new

In the newly opened window, enter the name of your output group. Type the name **Master-off** in the intro window and click the **OK** button.

In the next window, select either a 1-button, 2-button or 4-button operation with which to carry out this central function. In this case, we wish to use a 1-button function. Therefore click the **1 Button** and then **OK**, by which you will exit this screen, and the **Light scene / Central functions** screen will be opened.

Click **Distribution panel garage,** which will display the contents of this distribution panel. Then click **D1: Dim controller** and all the outputs of this dim controller will become visible.

Now add an output to our new group **Master-off** by selecting it in the left window and then clicking the **Add** button. Now do this for all used outputs of the dim controller **D1**, which will result in the following picture.

Output description	Mode	T1	T2	AB conditi...
O01: LP staircase (D1: Di...	**M04 (Light scene on)**		1 s	None
O02: LP dining table (D1: ...	**M04 (Light scene on)**		1 s	None
O03: LP couches (D1: Di...	**M04 (Light scene on)**		1 s	None
O04: LP coffee table (D1: ...	**M04 (Light scene on)**		1 s	None
O05: LP television cabinet...	**M04 (Light scene on)**		1 s	None
O06: Standing lamp dinin...	**M04 (Light scene on)**		1 s	None
O07: Standing lamp loung...	**M04 (Light scene on)**		1 s	None
O08: Standing lamp office...	**M04 (Light scene on)**		1 s	None

All these outputs can be included in the **Master-off function**. To do so, click next to each alliance in the **Mode** column. A list will then be displayed with all the possible functions. In this case, select mode **M6** (off). As you only wish to carry out the **Master-off function** after you have pressed the relevant button for 2 seconds, select **2 s** in the column **T1**. If required, it is possible to set a switch-off time for each dimmer in column **T2**. These time frames range from 1 s up to a maximum of 5 minutes. For reasons of safety, set the switch-off time for the staircase lighting to 30 seconds. All other dimmers are assigned a switch-off time of 10 seconds. The result will look as follows:

Output description	Mode	T1	T2	AB conditi...
O01: LP staircase (D1: Di...	**M06 (Off (eventually...**	2 s	30 s	None
O02: LP dining table (D1: ...	**M06 (Off (eventually...**	2 s	10 s	None
O03: LP couches (D1: Di...	**M06 (Off (eventually...**	2 s	10 s	None
O04: LP coffee table (D1: ...	**M06 (Off (eventually...**	2 s	10 s	None
O05: LP television cabinet...	**M06 (Off (eventually...**	2 s	10 s	None
O06: Standing lamp dinin...	**M06 (Off (eventually...**	2 s	10 s	None
O07: Standing lamp loung...	**M06 (Off (eventually...**	2 s	10 s	None
O08: Standing lamp office...	**M06 (Off (eventually...**	2 s	10 s	None

Then add the output **001: Terrace sunblind** for the shutter module in the right window in the same manner. Here, select mode **M3 (close)**. Set the run time in **T1** to 20 seconds.

Output description	Mode	T1	T2	AB conditi...
O01: Terrace sunblind (R1...	**M03 (Close)**	20 s		None
O01: LP staircase (D1: Di...	**M06 (Off (eventually...**	2 s	30 s	None
O02: LP dining table (D1: ...	**M06 (Off (eventually...**	2 s	10 s	None
O03: LP couches (D1: Di...	**M06 (Off (eventually...**	2 s	10 s	None
O04: LP coffee table (D1: ...	**M06 (Off (eventually...**	2 s	10 s	None
O05: LP television cabinet...	**M06 (Off (eventually...**	2 s	10 s	None
O06: Standing lamp dinin...	**M06 (Off (eventually...**	2 s	10 s	None
O07: Standing lamp loung...	**M06 (Off (eventually...**	2 s	10 s	None
O08: Standing lamp office...	**M06 (Off (eventually...**	2 s	10 s	None

Add the outputs 1 to 5, as well as the outputs 7, 8, 10, 11 and 12, for switch module 1. Leave output 9 (ventilator toilet) untouched. If this output is in the "on" position, you will later ensure that it will automatically switch to the "off" position. Select **M3 (off)** as mode for each output, with the exception of outputs 11 and 12, and set the parameter **T1** to 2 seconds. This means that you will have to press the push button for 2 seconds in order to activate the **Master-off function**. This function does indeed have to be carried out in a conscious manner.

Output description	Mode	T1	T2	AB co...
O01: LP garage (S1: Switch mo...	M03 (Off, with opera...	2 s		None
O02: LPkitchen central (S1: Sw...	M03 (Off, with opera...	2 s		None
O03: LP kitchen cooking area (...	M03 (Off, with opera...	2 s		None
O04: LP kitchen washing up (S...	M03 (Off, with opera...	2 s		None
O05: LP cloakroom (S1: Switch...	M03 (Off, with opera...	2 s		None
O07: LP entrance hall (S1: Swit...	M03 (Off, with opera...	2 s		None
O08: LP office wall (S1: Switch ...	M03 (Off, with opera...	2 s		None
O10: LP toilet (S1: Switch mod...	M03 (Off, with opera...	2 s		None
O11: LED Master-off (S1: Switc...	M02 (On, with opera...	2 s		None
O12: LED Staircase (S1: Switc...	M02 (On, with opera...	2 s		None
O01: Terrace sunblind (R1: Shu...	M03 (Close)	20 s		None
O01: LP staircase (D1: Dimcon...	M06 (Off (eventually ...	2 s	30 s	None
O02: LP dining table (D1: Dimc...	M06 (Off (eventually ...	2 s	10 s	None
O03: LP couches (D1: Dimcont...	M06 (Off (eventually ...	2 s	10 s	None
O04: LP coffee table (D1: Dimc...	M06 (Off (eventually ...	2 s	10 s	None
O05: LP television cabinet (D1: ...	M06 (Off (eventually ...	2 s	10 s	None
O06: Standing lamp dining roo...	M06 (Off (eventually ...	2 s	10 s	None
O07: Standing lamp lounge (D1...	M06 (Off (eventually ...	2 s	10 s	None
O08: Standing lamp office (D1: ...	M06 (Off (eventually ...	2 s	10 s	None
O01: LP front outer wall (S2: S...	M03 (Off, with opera...	2 s		None
O02: LP rear outer wall (S2: Sw...	M03 (Off, with opera...	2 s		None
O03: LP office (S2: Switch mod...	M03 (Off, with opera...	2 s		None
O04: LP office cabinet (S2: Swi...	M03 (Off, with opera...	2 s		None
O05: LP living room wall (S2: S...	M03 (Off, with opera...	2 s		None
O10: Office heating nicht (S2: S...	M02 (On, with opera...	2 s		None
O11: Living rooms heating night...	M02 (On, with opera...	2 s		None
O12: Bedroom 1 heating night (...	M02 (On, with opera...	2 s		None

In order to indicate that your **Master-off function** is activated, arrange for the LED on the relevant push button to light up. Do this by linking mode **M2** to output 11 of switch module 1 with an operating time of 2 seconds.

In addition, you want to arrange for the LEDs of the push buttons for the staircase lighting to light up (as the staircase lighting is off). To do this, select mode **M2** for output 12 of switch module 1. The operating time should also be set to 2 seconds.

Enter the outputs 1 to 5 and 10 to 12 for switch module 2. The first 5 outputs are also set to the "off" position by selecting mode **M3** (off). The outputs 10, 11 and 12 will, however, control the night contact of the thermostat. You will activate this night position when leaving the house. To do this, use mode **M2** for these outputs.

Furthermore, also enter the connected alliances of dim controller 2 and switch modules 3 and 4. Here also, set everything to the "off" position, except the night control for the thermostats, which will be set to the "on" position.

The creation of the group **Master-off** is now finished. Exit the current window by pressing **OK**. This output group can be viewed in detail, as it is part of the **Nikobus-project 2.nkb**, which is included on the Nikobus CD-ROM. See directory **Examples**.
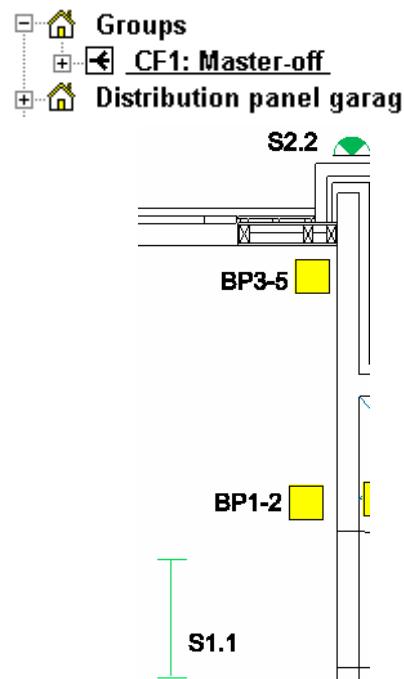

Connecting the master-off output group to a push button

Click the **OUT** button in the **Project overview** window. You will see that the **Groups** directory has been added and that the output group **CF1: Master-off** is listed underneath. Select this group and click the **New connection** button.

In the **Create connections** window**,** you will see that your output group has been placed in the split window **Output**. Now select this group. For **Connection mode,** click **MCF (Activate light scene / Central function)**. In the split window **Input**, and then select **B: Input** of **BP5: Master-off**. By doing this, you allocate the function **Master-off** to the lower part of the push button. Finish the programming by clicking **Add connection** and then the **Close** button.
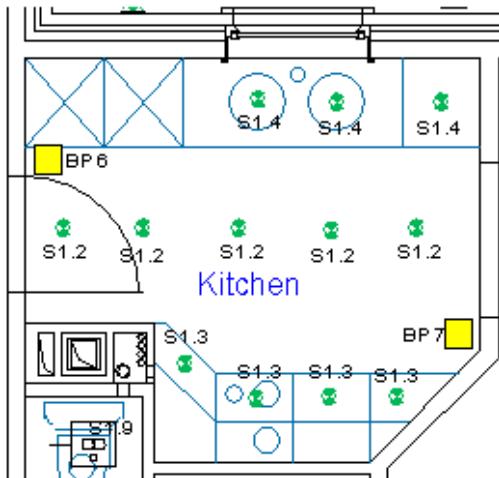
You can create a new group for the upper part of this push button, with which, according to your requirements, you can arrange for some light points to be in the "on" position and through which, for example, the heating on the ground floor and the bathroom can be returned to the comfort position.

On your floor plan, indicate **BP3-5** next to the operating location in the garage by the garage door.

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Creating an input group

In the kitchen, enter operating locations 6 and 7. Operating location BP6 is a push button with 2 operating points. BP7, on the other hand, is a push button with 4 operating points. Install these push buttons in the room **Kitchen** by first double-clicking on **05-060: Bus push button, 2 operating points** in the **Product list,** and then on **05-064: Bus push button, 4 operating points**. Rename these push buttons **Lighting kitchen**.
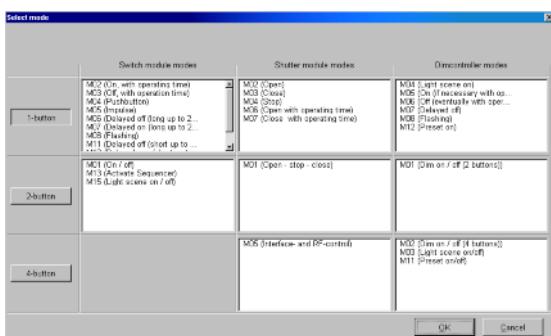
Two operating points of both operating locations will perform the same function, as you wish to operate the central lighting for the kitchen (S1.2) from both kitchen door openings, as well as creating a master-off kitchen. Let's start with the first.

In the **Function toolbar,** click the **Input groups** icon.
The **Guide** screen will now be opened. Here, click on the **Create new** button.
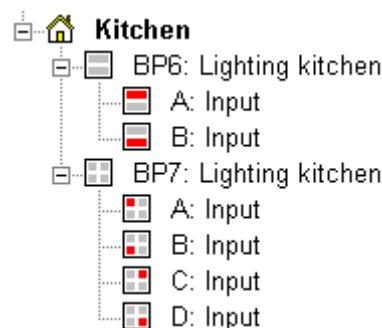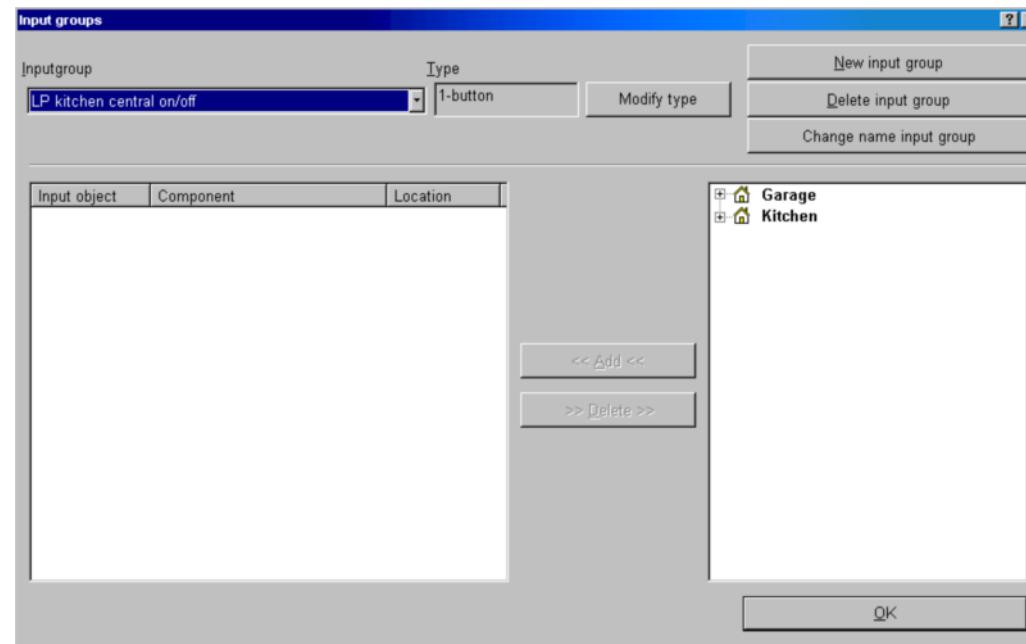
The **New input group** screen will be opened, and you can now enter the name for the new input group. Type **LP kitchen central on/off** in the intro field and then press the **OK** button.

In the following window, select either a 1-button, 2-button or 4-button operation. As you wish to make use of the **Impulse** function, click the **1-button** field. Close this window by clicking the **OK** button.

The **Input groups** screen will be opened.

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By clicking the plus symbol next to **Kitchen**, you will see your two bus push buttons in the kitchen. In the same way, open **BP6** and **BP7**. The result can be seen in the picture on the left.

Select **A: Input** of **BP6**. Then click **Add**. You can do the same for **A: Input** of **BP7**.

The added push button elements will be displayed In the left split window of the **Input groups** screen.

Input object	Component	Location
A: Input	BP6: Lighting kitchen	Kitchen
A: Input	BP7: Lighting kitchen	Kitchen

We have now created our first input group. Create a second one straight away by clicking the **New input group** button in this screen. This group will be named **Master-off kitchen**. Here also, select a 1-button operation.

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The buttons you wish to add in this group are: **B: Input** of **BP6** and **B: Input** of **BP7**. The result can be seen in screen below.

Inputgroup		Type
Master-off kitchen ▾		1 Button

Input object	Component	Location
▬ B: Input	BP6: Lighting kitchen	Kitchen
▪ B: Input	BP7: Lighting kitchen	Kitchen

Exit the screen **Input groups** by clicking **OK**.

Programming the new input groups

⊟ 🏠 **Groups**
　　🔡 **IG1: LP kitchen central on/off**
　　🔡 **IG2: Master-off kitchen**

In the **Project overview** window, you will find the two new input groups listed under the **Groups** directory. This is, of course, only the case if the **IN** icon has been activated.

You want to assign programming to both groups. To do so, click the **New connection** button.

For our first input group, select output **O02: LP kitchen central** of switch module S1.

⊟ ▦ S1: Switch module
　　🔌 O01: LP garage
　　🔌 O02: LPkitchen central
　　🔌 O03: LP kitchen cooking area

For the **Connection mode,** choose **M05 (Impulse)**.
In the split window **Input,** select our input group **IG1: LP kitchen central on/off**, and click the **Add connection** button.

⊟ 🏠 **Groups**
　　🔲 IG1: LP kitchen central on/off
　　🔲 IG2: Master-off kitchen

With this, the first input group has been programmed.

Tackle the second input group straight away. Start by selecting output **002: LP kitchen central** of switch module S1. Choose **M03 (Off, with operating time)** as the function, and select **IG2: Master-off kitchen** as the input group.

Once again, exit the programming by adding the connection. You also wish to switch O03 and O04 off with the same button.

Following this, use the same procedure for the outputs **O03: LP kitchen cooking area** and **O04: LP kitchen washing up**.
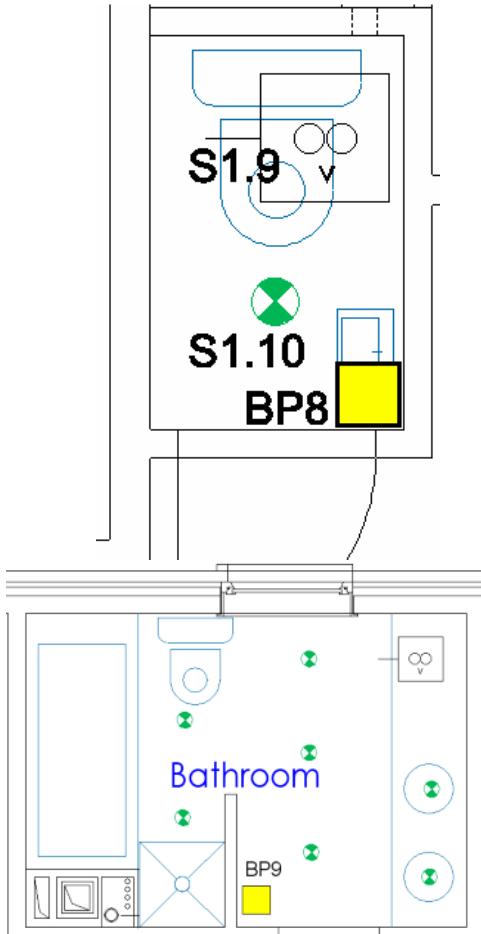
Exit the **Create connections** screen.

If you consecutively click on the groups **IG1** and **IG2** in the **Project overview** window, the related connection lists for these input groups will be displayed.

Input Description	Output Description	Connection Mode	T1	T2	AB C...	Filter condition
IG1: LP kitc...	O02: LPkitchen central (S1:...	M05 (Impulse)			None	

Input Description	Output Description	Connection Mode	T1	T2	AB C...	Filter condition
IG2: Master-...	O02: LPkitchen central (S1:...	M03 (Off, with ...	0 s		None	
IG2: Master-...	O03: LP kitchen cooking ar...	M03 (Off, with ...	0 s		None	
IG2: Master-...	O04: LP kitchen washing u...	M03 (Off, with ...	0 s		None	

Toilet, ground floor

In the ground floor toilet, there is a light point, a ventilator and a bus push button. Pressing the upper or the lower part of the push button should result in switching the light point on or off. In addition, the ventilator should come on for 2 minutes as soon as the light point is switched off.

Place a two-way bus push button in the toilet and call it **BP8: LP toilet**. Open the **Create connections** screen and select output **O10: LP toilet** of **S1**. Select the connection mode **M01 (On/off)** and assign this programming to **AB: Input** of **BP8: LP toilet**. Adding the connection will complete the programming for the light point.

Now select output **O09: Ventilator toilet** and select **M06 (delayed-off)** as a function with a timing of 2 minutes. Connect this programming with **B: Input** of **BP8**.

This example is also described in the **Nikobus manual** under **Nikobus-example 5**.

The ventilator in the bathroom

The bathroom is also fitted with a ventilator. You want to switch the central light point on and off with this bus push button. As soon as the light point is switched off, the ventilator should come on for 5 minutes. If, however, the light point remains on for longer than 9 minutes, the ventilator should automatically start working from the ninth minute onwards.

Place **BP9: LP bathroom central** in the room **Bathroom**.
In the **Create connections** screen, select output **O01: LP bathroom central** of switch module S3 in the distribution panel located in the attic. The function to be used is **M01 (On/off)** and the programming should be assigned to **AB: Input** of **BP9**.
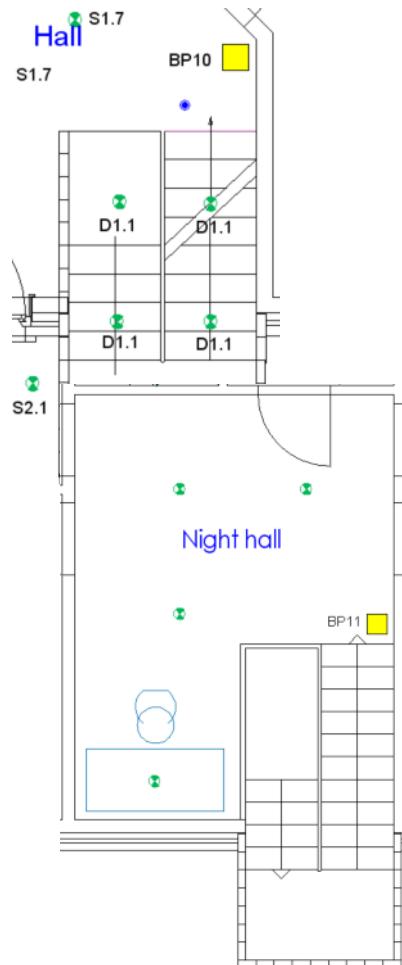
Now select the ventilator output **O02: Ventilator bathroom** on the same switch module. Select function **M07 (Delayed switch on)** with a time of 9 minutes and assign the programming to **A: Input** of **BP9**.

Finally, select the ventilator output once again, but now with **M06 (Delayed-off)** as connection mode with a time of 5 minutes. Place this programming under the push button in **B: Input** of **BP9**. The following is displayed in the **Connection list**.

Input Description	Output Description	Connection Mode	T1	T2	AB C...	Filter condition
AB: Input	O01: LP bathroom central (...	M01 (On / off)			None	
A: Input	O02: Ventilator bathroom (S...	M07 (Delayed ...	9 m		None	
B: Input	O02: Ventilator bathroom (S...	M06 (Delayed ...	5 m		None	

This example is also described in the **Manual Nikobus** under **Nikobus-example 7**.

Objective

Nothing is more annoying than staircase lighting that suddenly and automatically switches to the "off" position. Try to avoid such a situation by installing a staircase lighting system with a delayed-off light point and a blinking LED.

Placing push buttons and creating input groups

You installed bus push buttons with LEDs in the staircase. Name them **BP10** and **BP11**. In the software, place them in the **Entrance hall** and in the **Night hall** respectively. Both push buttons will now be renamed as **LP staircase**.
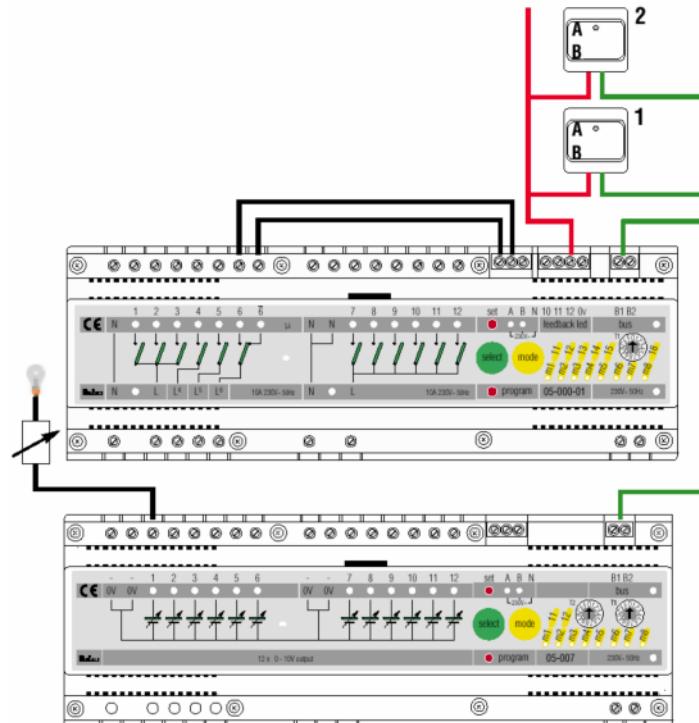
First, create two input groups for both push buttons. To do this, click the **Input groups** icon in the **Function** toolbar. The first input group will be named **LP staircase on,** and a 1-button operation will be selected. Place **A: Input** of **BP10** and **BP11** together in the group.
Then create an input group **LP staircase switching** and also select a 1-button operation here. Here, however, you add the lower part of the push buttons. This is always the **B: Input** of the push buttons concerned. Our input groups will now appear as follows.
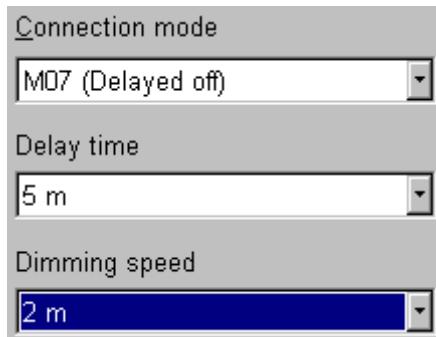
Diagram

The diagram shown below will be used.
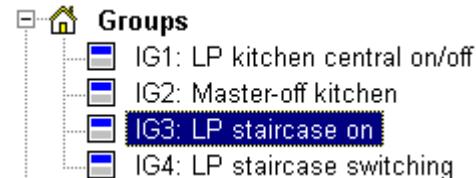
Notice that the contacts **6** and **6'** of the two-way contact are connected to the 230V inputs **B** and **A** respectively of the switch module. The staircase lighting is connected with a dimmer, which, in turn, is connected with the first output of a dim controller. For your example, make use of switch module S1 and dim controller D1.

Programming

Connection mode

M07 (Delayed off)

Delay time

5 m

Dimming speed

2 m

Open the screen **Create connections** and select output **O01: LP staircase** of dim controller **D1**. As function, choose **M07 (Delayed-off)**. The delay time will be set to 5 minutes, and the dim speed to 2 minutes.

Connect these settings with **IG3: LP staircase on**.

🏠 **Groups**
 ▪ IG1: LP kitchen central on/off
  ▪ IG2: Master-off kitchen
  ▪ **IG3: LP staircase on**
  ▪ IG4: LP staircase switching

Then select output **O06** of switch module **S1**. Here, choose the connection mode **M06 (Delayed-off)** with a time of 7 minutes. This normally represents the total time that the light point of the staircase is in operation. Also connect this programming to **IG3: LP staircase on**.

🏠 **Distribution panel garage**
  ▪ S1: Switch module
    ▪ LOCA: Local input A
    ▪ **LOCB: Local input B**

If output **6** is high, the 230V input **B** is high. Select output **O12: LED staircase** of switch module **S1**. Then select connection mode **M8 (Blinking)** and connect this programming to **LOCB: Local input B** of the same switch module.

Program the same output **O12: LED staircase,** with **M02 (On, with operating time)** for **LOCA: Local input A** of **S1**. As a result, the LED will switch on as soon as the light point is off.

You still have to program the lower part of the push button. When the lower part of the push button is pressed, you want the staircase lighting to remain on. The LED must then be off. This function is handy when you need light on the staircase for a longer period (for example, when cleaning).

Select output **O01: LP staircase** of dim controller **D1**. Then select function **M05 (On)** and assign this programming to **IG4: LP staircase switching**.

Now select output **O12: LED staircase** of switch module **S1**. As connection mode, select **M03 (Off)** and assign the programming to **IG4: LP staircase switching**.

You will now find the programming for input group **LP staircase switching** in the connection list.

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Connection list IG4: LP staircase switching

Input Description	Output Description	Connection Mode	T1	T2	AB C...	Filter condition
IG4: LP stair...	O12: LED Staircase (S1: S...	M03 (Off, with ...	0 s		None	
IG4: LP stair...	O01: LP staircase (D1: Dim...	M05 (On (if ne...	0 s	1 s	None	

This example is also described in the **Nikobus Manual** under **Nikobus-example 4**.

Description

The sequencer is available as a function (or mode) on the switch module of the Nikobus home automation system. In order to program this special function within the Nikobus software, separate screens have been developed. The working methodology is explained below.
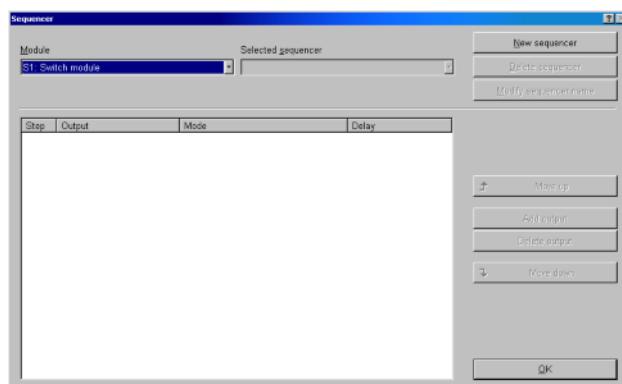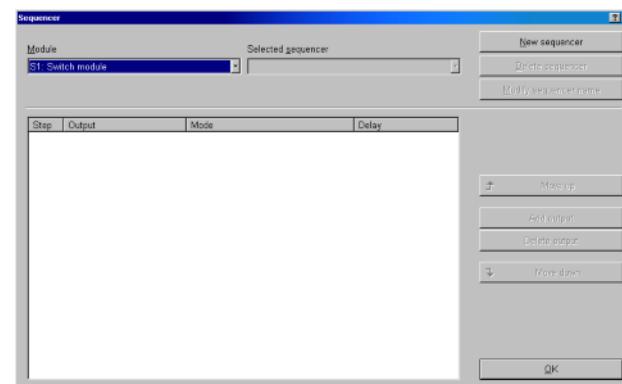
Starting the sequencer

Open the Nikobus software and start a new project, in which you will enter a switch module. This example can be found on the CD-ROM under the name **Nikobus-project 3.nkb** in the **Examples** directory. You can practice your own programming using the **Nikobus-project 3 empty.nkb** file (without programming).
The programming of the sequencer can be started in two ways.

a. First option
Open the **Edit** menu and click **Sequencer**. In order to be able to create a sequencer, the project must at least contain 1 switch module.

The **Sequencer** screen will now be opened.
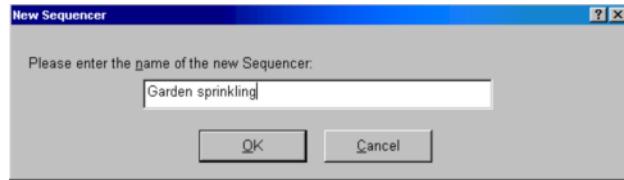
b. Second option

If the **Function toolbar** is not visible, open the **View** menu and tick **Function bar**. The **Function toolbar** can be found next to the **Standard toolbar**.
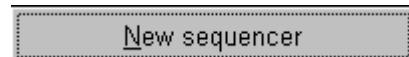
Click the icon ![icon] in order to open the sequencer.
The **Sequencer** screen will be opened.

Creating and naming a new sequencer

Click the field **New sequencer** in the **Sequencer** window.
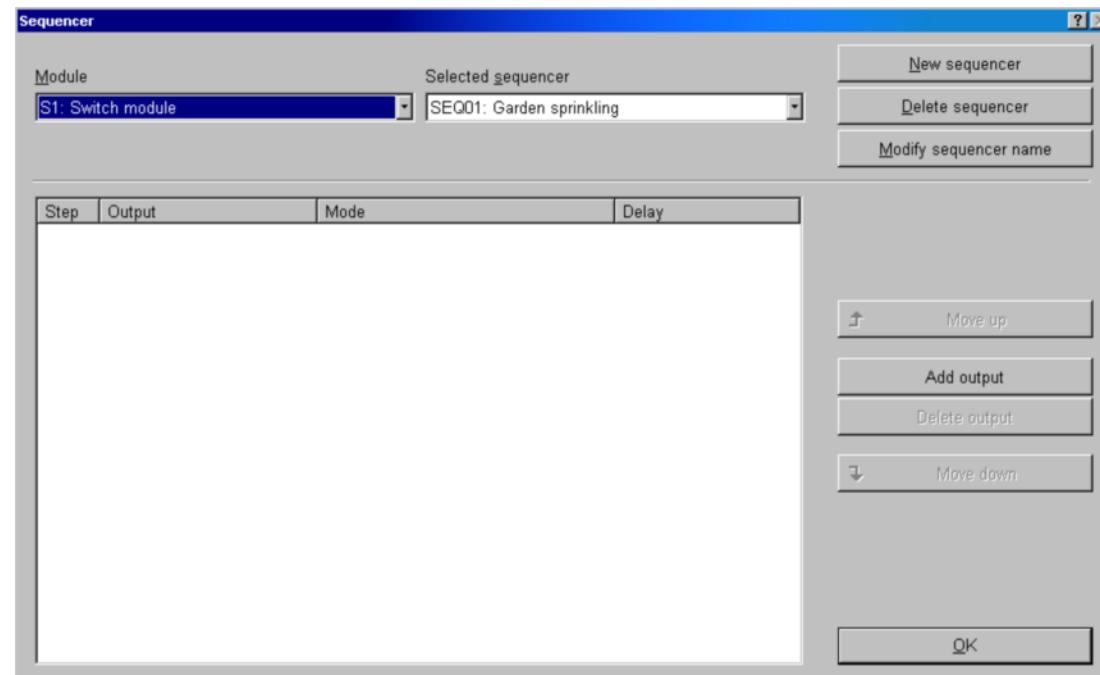
New sequencer

In the newly opened window **New sequencer,** enter a name for the sequencer. For this example, use the name **Garden sprinkling**. Exit this screen by clicking the **OK** button.

New Sequencer

Please enter the name of the new Sequencer:

Garden sprinkling

OK   Cancel
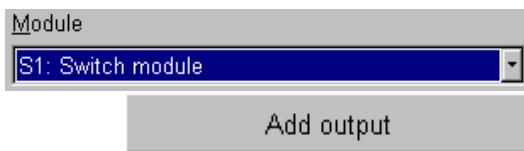
In the **Sequencer** window, you will find the following under **Selected sequencer**:

Selected sequencer
SEQ01: Garden sprinkling

In this example, we will assume that your project involves a switch module, the first three outputs of which are linked to three sprinkling installations for a large garden. Due to a limitation of the water supply, the three sprinkling installations should not be in operation at the same time. With the sequencer, you will switch the three groups on and off consecutively. Certain areas of the garden are more humid than other areas. The sprinkling time will be reduced for these more humid areas.

□ 🏠 **Distribution panel garage**
    白 🖻P S1: Switch module
       ᛋ᷇ O01: Sprinkling group 1
       ᛋ᷇ O02: Sprinkling group 2
       ᛋ᷇ **O03: Sprinkling group 3**

Module

S1: Switch module
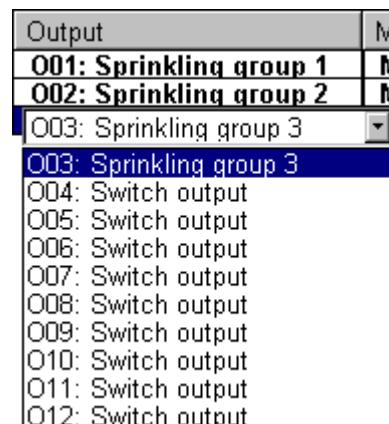
Add output

In the **Sequencer** window, choose **S1: Switch module** as **Module** (upper left of the screen), as the outputs you wish to use for the sequencer are part of this module.

Click the **Add output** button. As a result, a program line will be added in the info window of the **Sequencer** screen. At the moment, we are not worried about its content. As you wish to add three outputs of switch module S1, click the button **Add output** twice again.
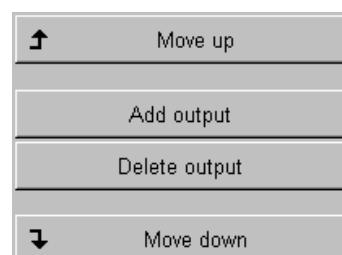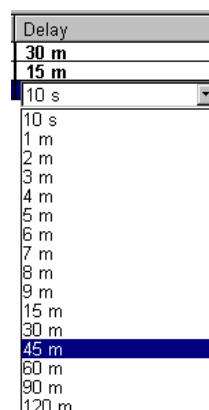
The info window now contains three program lines.

Step	Output	Mode	Delay
1	O01: Sprinkling group 1	M13 (Sequencer on / off)	10 s
2	O02: Sprinkling group 2	M13 (Sequencer on / off)	10 s
3	O03: Sprinkling group 3	M13 (Sequencer on / off)	10 s

Observe that the correct outputs have been selected under the **Output** column. This is, however, pure luck, because you connected the first three outputs of the switch module to the three sprinkling groups. You are able to select any desired switch module output by clicking a row in the **Output** column.

Output

Output	M
O01: Sprinkling group 1	M
O02: Sprinkling group 2	M
O03: Sprinkling group 3	

O03: Sprinkling group 3
O04: Switch output
O05: Switch output
O06: Switch output
O07: Switch output
O08: Switch output
O09: Switch output
O10: Switch output
O11: Switch output
O12: Switch output
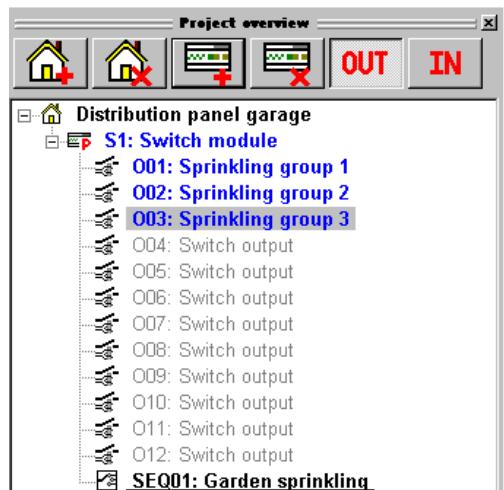
You still have to set the time for each output. To do this, click in the **Delay** column in each output row and select the time for which the respective output should be active.

Delay

Delay
30 m
15 m
10 s

10 s
1 m
2 m
3 m
4 m
5 m
6 m
7 m
8 m
9 m
15 m
30 m
45 m
60 m
90 m
120 m

↑ Move up

Add output

Delete output

↓ Move down

The sequencer you created will function according to the sequence of the rows. If a certain output must be activated first, it must be placed in the first row. You can adapt the order of the rows by using the buttons **Move up** or **Move down**.

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Exit this screen by clicking the **OK** button.

In the **Project overview** window**,** the created sequencer will be added to **S1: Switch module**. Obviously, this will only be visible when the **OUT** toolbar button has been activated.

Assigning the sequencer to a push button

In order for the sequencer to function, it must be assigned to a push button. To do so, click the **New connection** button in the basic screen. The **Create connections** window will be opened as a result. In this window, select **Output SEQ01: Garden sprinkling**.

Under **Connection mode,** you are only able to click **M13 (Activate sequencer)**. You will select the desired bus push button subsequently in the **Input** window. Close the programming by clicking the **Add connection** button and then the **Close** button.
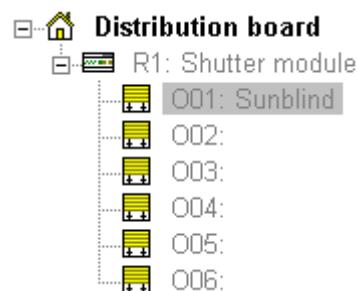
Description

When a **PC-Logic** module (05-201) is included in the installation, you will have powerful logic functions available. You will work through a simple example below. This example is included on the CD-ROM as **Nikobus-project 4.nkb** under the **Examples** directory. With the **Nikobus-project 4 empty.nkb** file (without programming), you can start practicing by yourself.

A simple sunblind control

Assume a sunblind has been installed on the terrace of the house. You want to control this sunblind automatically. If there is too much sunlight on the terrace, the sunblind must slide open. In case of little sunlight, it must be up. If the shutter is opened, and a strong wind comes up, it must automatically close again. If the shutter is up, and there is too much wind, and at the same time there is also too much sunlight, it must stay up, because the wind could damage the sunblind.

We will create a small project in which we include a shutter module and a **PC-Logic** module. When you click on the **OUT** and **IN** buttons in the **Project overview** window, the following will result.
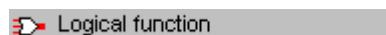
You will also see that the sunblind is connected with the first output on the shutter module. The anemometer will be connected with input **LM01: Logic input 1** of the **PC-Logic** module. You will connect the sun sensor with the **LM02: Logic input 2** of the **PC-Logic**.
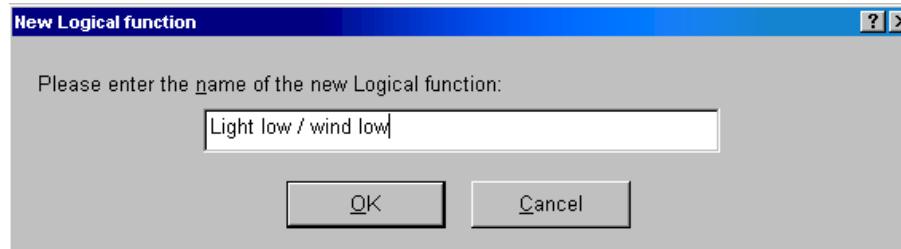
Creating two logic functions

a. Little sunlight and little wind
Open the **Logic functions** screen by clicking the command **Logic function** in the **Edit** menu.
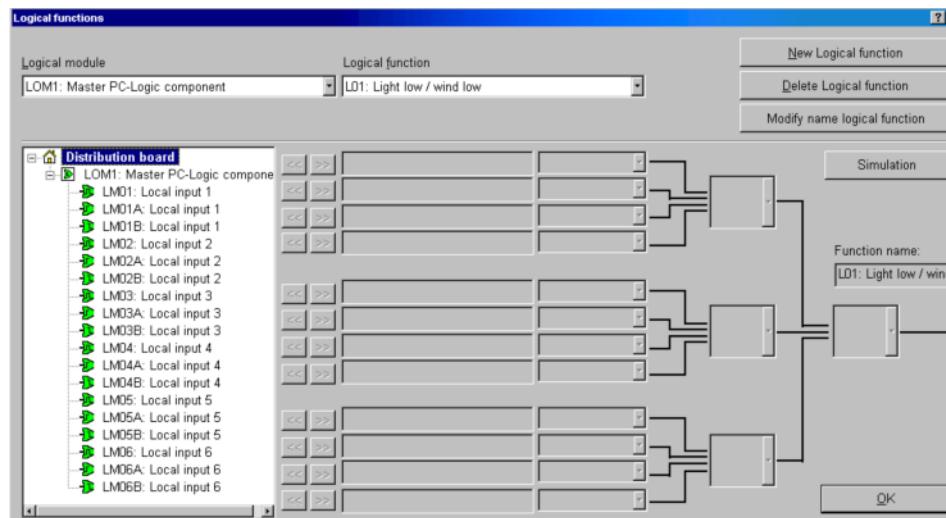
Via the **Guide** screen, click on **Create new**. Enter a name for the logic function you wish to create. As you wish to create a logic function for which the output is high when there is little sunlight and wind, name it **Light low / wind low**.
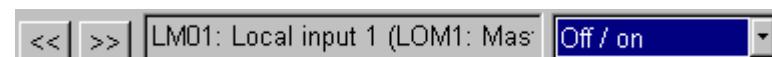
After clicking the **OK** button, you will enter the **Logic functions** screen. You will see the name of your first logic function already displayed in the **Logic function** selection window.
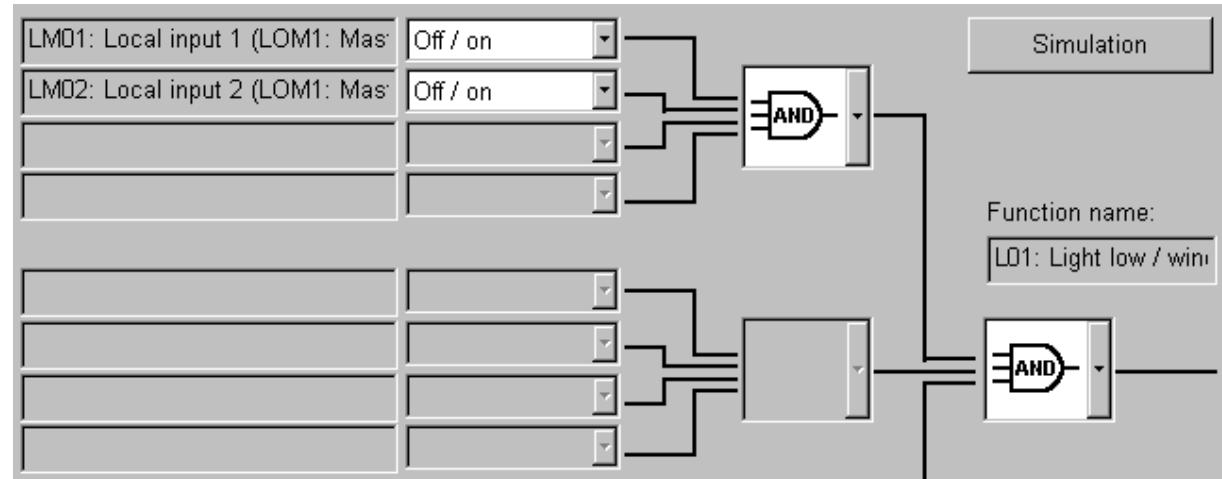
In the left split window, you will see an overview of all the inputs of the installation. The logic inputs of the PC-Logic module are included.

In this list, select **LM01: Logic input 1**. By clicking the first arrow key (with the arrows pointing to the right), enter this input into the logic grid. In the selection field, click the option **Off / on**, as you want to create a function when the wind is low.
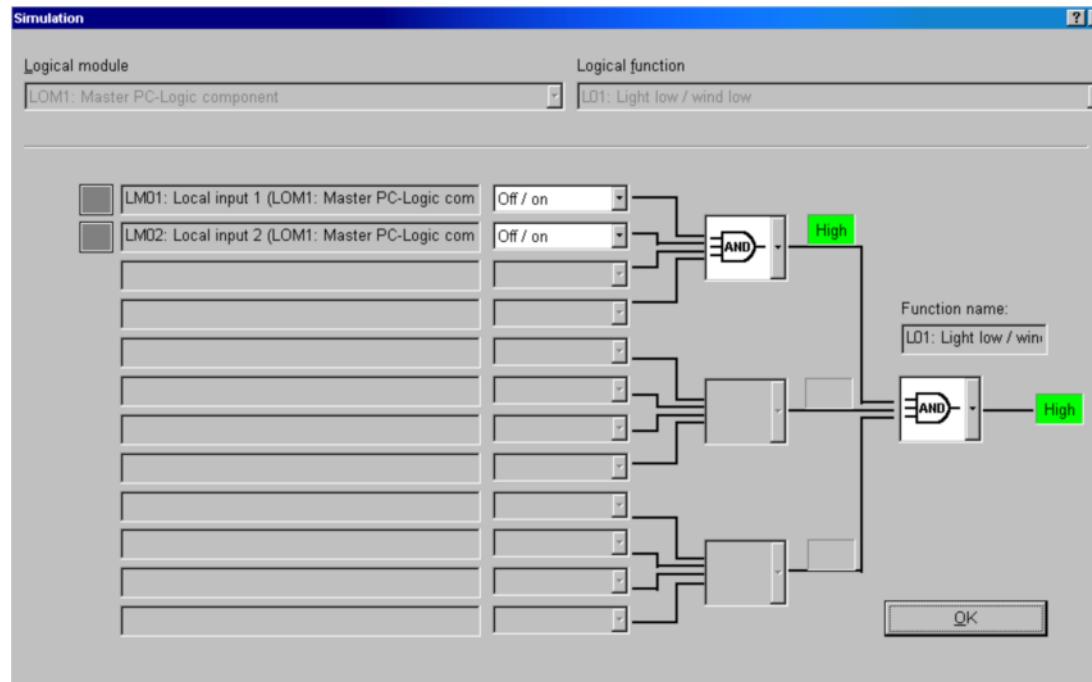
In the same way, enter the input **LM02: Logic input 2** into the second line of the logic grid. Here also, select **Off / on**. This will result in the following picture.
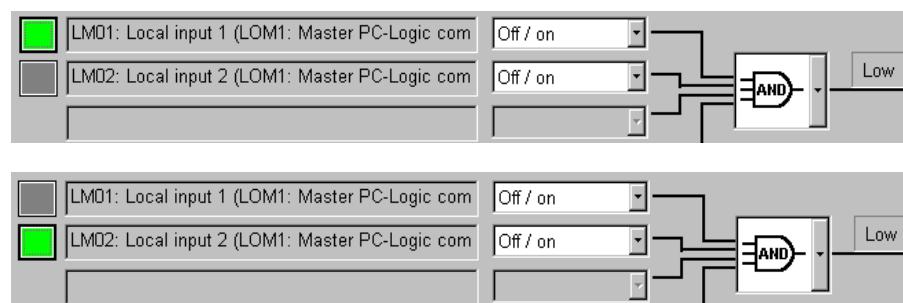
Do not change anything on the **AND** functions, which are standard for the screen. In order to check whether your function works as it should, carry out a simulation. To do this, click on the **Simulation** button.

In the screen below, you will see that the output of your logic function **L01: Light low / wind low** will be high when there is no wind (LM01 low) and there is too little sunlight (LM02 low).

By clicking the squares to the left of the inputs, you can see what your output will do. The different options are listed below.

| LM01: Local input 1 (LOM1: Master PC-Logic com | Off / on ▼ |
| LM02: Local input 2 (LOM1: Master PC-Logic com | Off / on ▼ |
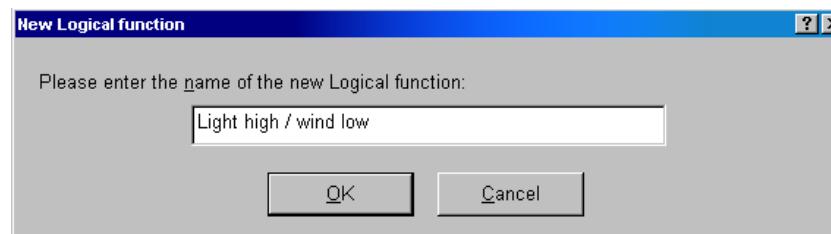
The output of the logic function remains low as long as one or both inputs are high (green square). On the other hand, your output will be high when both inputs are low. Exit the **Simulation** screen by clicking the **OK** button.
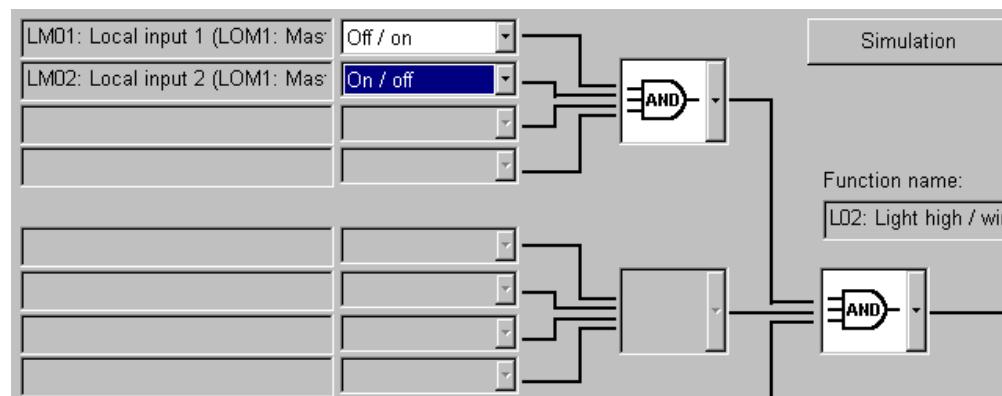
b.   Sunlight high and wind low

New Logical function
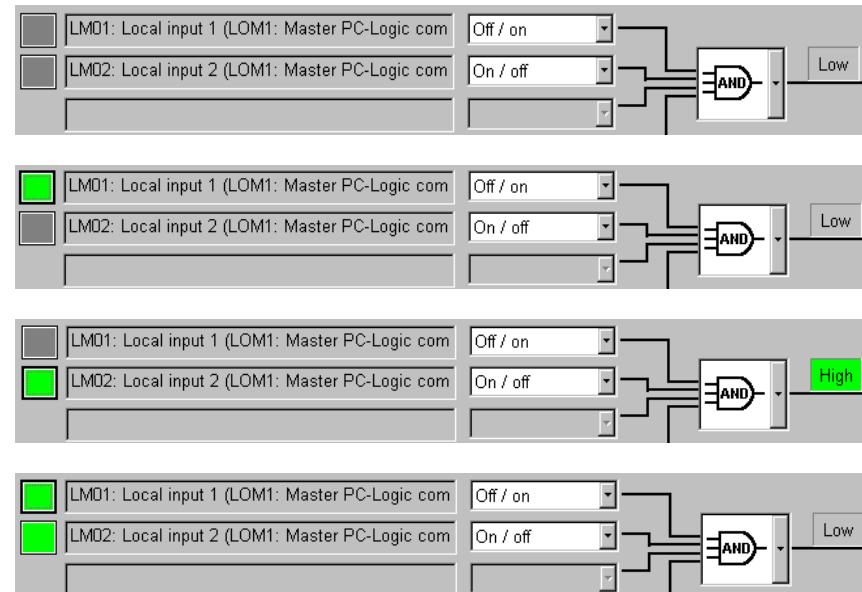
If there is little wind, but a lot of sunlight, you want the sunblind to slide open. In the **Logic functions** screen, create a new logic function by clicking the **New logic function** button in the right upper corner of the screen. Enter the name **Light high / wind low** in the **New logic function** screen.

New Logical function

Please enter the name of the new Logical function:

Light high / wind low

OK   Cancel

Exit this screen by clicking **OK**, and you will see that your new function has already been selected in the **Logic function** selection window in the **Logic functions** screen. Place the same inputs (LM01 and LM02) in the logic grid. For **LM01**, again select the **Off / On** function. For **LM02** (the sun sensor) you will now, however, select the **On / off** position. Once again, leave the two **AND** functions as they are. The logic grid will now look as follows:
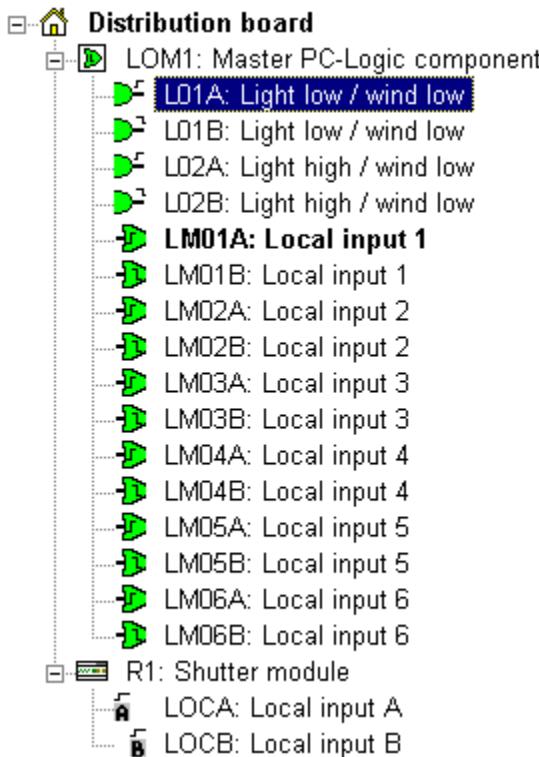
If you go to the **Simulation** screen, you can view the different options.

You will find that the output of our logic function **L02: Light high / wind low** will only be high when the wind (LM01) is low and the sunlight (LM02) is high at the same moment. Exit the **Simulation** screen and also the **Logic functions** screen. You will see the two newly created logic functions In the **Project overview** window.

Distribution board
- LOM1: Master PC-Logic component
  - L01A: Light low / wind low
  - L01B: Light low / wind low
  - L02A: Light high / wind low
  - L02B: Light high / wind low
  - **LM01A: Local input 1**
  - LM01B: Local input 1
  - LM02A: Local input 2
  - LM02B: Local input 2
  - LM03A: Local input 3
  - LM03B: Local input 3
  - LM04A: Local input 4
  - LM04B: Local input 4
  - LM05A: Local input 5
  - LM05B: Local input 5
  - LM06A: Local input 6
  - LM06B: Local input 6
- R1: Shutter module
  - LOCA: Local input A
  - LOCB: Local input B

Creating connections with the logic functions

You are now ready to connect the created logic functions to the output for the sunblind. Open the **Create connections** screen. In the left split window **Output,** select **001: Sunblind** under shutter module. Then select connection mode **M03 (Close)**. Enter a run time of, for example, 20 seconds. In the right split window **Input,** select **L01A: Light low / wind low**, and confirm the programming by clicking the **Add connection** button.
Your objective for this programming is quite simple. If the sunblind is opened, and this only when there is little wind, and the sun light then disappears (e.g. when it becomes evening), it will be closed automatically.

Also make a connection to our second logic function. To do this, select output **001: Sunblind** again. Now, however, select **M02 (Open)** as the connection mode. Here also, enter a run time of 20 seconds. As input, select **L02A: Light high / wind low**, and confirm with the **Add connection** button.
If more and more sunlight appears, and only in cases of low wind, the sunblind will be opened.

You still need a solution for a situation in which the sunblind is open, and a strong wind is rising. In order to protect the sunblind, it must slide up. You must therefore select the sunblind output again and **M03 (Close)** as connection mode. Here also, set the run time for 20 seconds. This time, however, select input **LM01A: Logic input 1**. Add this connection.
When the sunblind is rolled out, and wind rises, the logic input 1 of the **PC-Logic** module will be high. As a result, the sliding-up of the sunblind will be activated.

If you now select the **PC-Logic** module in the **Project overview** screen, you will see the following display on the **Connection list** screen.

Input Description	Output Description	Connection Mode	T1	T2	AB C...	Filter condition
L01A: Light I...	O01: Sunblind (R1: Shutter ...	M03 (Close)	20 s		None	
L02A: Light ...	O01: Sunblind (R1: Shutter ...	M02 (Open)	20 s		None	
LM01A: Loc...	O01: Sunblind (R1: Shutter ...	M03 (Close)	20 s		None	
LM01: Local...	L01: Light low / wind low	Off / on				
LM02: Local...	L01: Light low / wind low	Off / on				
LM01: Local...	L02: Light high / wind low	Off / on				
LM02: Local...	L02: Light high / wind low	On / off				

The first four lines add the logic inputs **LM01** and **LM02** to the two logic functions that you have created. In lines five and six, you will see programming for the logic functions at the moment that these become high. The last line indicates that when logic input **LM01A** becomes high, the sunblind will be closed.

We will conclude the development of this simple example at this point. The **PC-Logic** module obviously offers many more possibilities. Find out more in the **Reference** section, and, in particular, in section **15.9. Screen Logic functions**.

Description

You are already familiar with filters from working with the local 230V inputs A and B of the output modules. With these, it is possible to either carry out or not carry out a bus push button function, depending on the position of the 230V input.
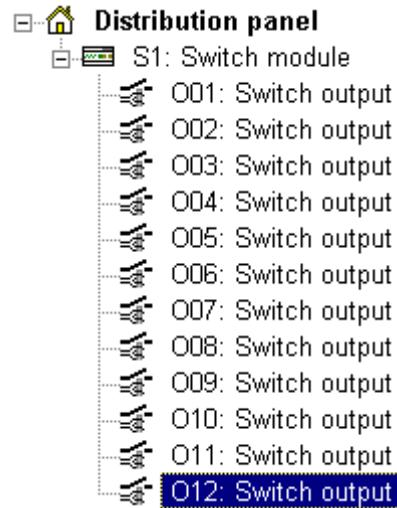
In the basic Nikobus manual, the example of the **Shift key** is described (Nikobus-example 1). Here, you will design such a **Shift key** in the software. To do this, you will create a new project in which you include a **switch module**, a **PC-Logic as master**, a **Bus push button with two operating buttons and LED** and a **Bus push button with four operating buttons**. This example is included on the CD-ROM under file **Nikobus-project 5.nkb**. If you wish to practice by yourself, use the file **Nikobus-project 5 empty.nkb**. Both files can be found in the **Examples** directory.

Rename the bus push button **BP1** as **BP1: Shift key**. For **BP2**, select the name **BP2: Interior and exterior lighting**. Using the four buttons of **BP2,** you want to operate the first four outputs of the switch module by means of the impulse function **M05** if the **Shift key** is not on. If the **Shift key** is in the "on" position, the four buttons of **BP2** will
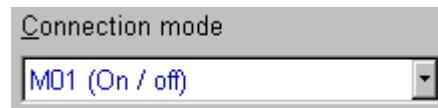
then operate outputs 7 to 10 with the impulse function. The first four outputs of the switch module are, for example, lighting points in the lounge. The outputs 7 to 10 are connected to 4 light fittings in the garden.

Creating the shift key

Distribution panel
- S1: Switch module
  - O01: Switch output
  - O02: Switch output
  - O03: Switch output
  - O04: Switch output
  - O05: Switch output
  - O06: Switch output
  - O07: Switch output
  - O08: Switch output
  - O09: Switch output
  - O10: Switch output
  - O11: Switch output
  - O12: Switch output
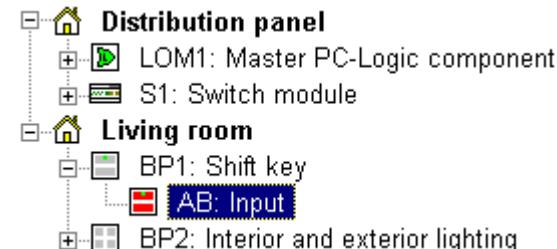
In the **Project overview** window, select our **BP1: Shift key**. Click the **New connection** button through which the screen **Create connections** will be opened. On the left side, select **012: Switch output** of the switch module, as you wish to use LED output 12 for switching the LED of the Shift key. When pressing the upper part of the Shift key, the LED should be on. Pressing the lower part will switch the LED off. This is all the Shift key must do.

As **Connection mode**, select **M01 (On / off)**.

Connection mode

M01 (On / off)

Then select the **AB: Input** of **BP1: Shift key** in the split window **Input**.

Distribution panel
- LOM1: Master PC-Logic component
- S1: Switch module

Living room
- BP1: Shift key
  - AB: Input
- BP2: Interior and exterior lighting

Add the connection by clicking the relative button. With this, the **Shift key** has been programmed.

Setting a filter function for BP2

Before programming **BP2**, you must add a filter function. To do this, click on the **Filter function** icon. This icon can be found on the bottom left of the **Create connections** screen. The screen **Filter** will be opened.
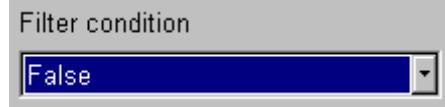
Click in the first row in the column **Input to be filtered** and, from there, select **ABCD: Input (BP2: Interior and exterior lighting – Lounge)**, as this is the bus push button for which you want to make the function to be performed dependent on the position of the **Shift key**. Then select the push button that will be used as **Shift key** in the same row in the **Filter conditions** column. You thereby select **AB: Input (BP1: Shift key - Lounge)**. This will result in the following screen.

Exit this screen by clicking **OK**.
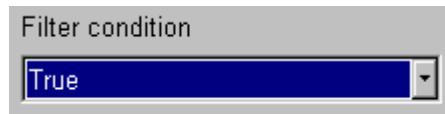
Programming bus push button BP2

Filter condition

| False | ▾ |

Filter condition

| True | ▾ |

In the **Create connections** screen, select the first output of the switch module. Then select connection mode **M05** and the **A: Input** of **BP2**. In the **Filter condition** field, select **False**. You want to carry out the programmed function for the upper left side of this bus push button only when the **Shift key** is in the off-position. Finally, add this connection by clicking the button **Add connection**.

The same procedure is repeated for the outputs 2, 3 and 4 of the switch module. They will be linked to the inputs B, C and D of **BP2**, respectively. The **Filter condition** is placed on **False** for all these cases.

You will then separately program the outputs 7 to 10 of the switch module with connection mode **M05** for the inputs A, B, C and D of **BP2**. For all these cases, the **Filter condition** is, however, now set to **True**.

When all the programming for **BP2** has been finished, exit the **Create connections** screen by clicking the **Close** button. When you now select bus push button **BP2** in **Project overview**, you will see the connection list pictured below.

Input Description	Output Description	Connection Mode	T1	T2	AB C...	Filter condition
A: Input	O01: Switch output (S1: Sw...	M05 (Impulse)			None	False
B: Input	O02: Switch output (S1: Sw...	M05 (Impulse)			None	False
C: Input	O03: Switch output (S1: Sw...	M05 (Impulse)			None	False
D: Input	O04: Switch output (S1: Sw...	M05 (Impulse)			None	False
A: Input	O07: Switch output (S1: Sw...	M05 (Impulse)			None	True
B: Input	O08: Switch output (S1: Sw...	M05 (Impulse)			None	True
C: Input	O09: Switch output (S1: Sw...	M05 (Impulse)			None	True
D: Input	O10: Switch output (S1: Sw...	M05 (Impulse)			None	True
ABCD: Input	F01: Filter condition (LOM1:...	input to be filte...				

In the first four lines, you will see that inputs A, B, C and D of the bus push button operate outputs 1, 2, 3 and 4 with the impulse function if the filter condition is false.
The next four lines show that the same inputs operate the outputs 7, 8, 9 and 10 with the impulse function if the filter function is true.
Finally, you can see on the last line that the inputs A, B, C and D of the bus push button have a filter condition.

This is as far as we wish to go with the development of this simple example. There are obviously many more possibilities with the **PC-Logic** module.

Description

When a Link module (05-200) is included and connected in a Nikobus installation, time control can be carried out. This means that controls (the switching on or switching off of a alliance or a group of alliances) can be carried out automatically at pre-determined moments in time.
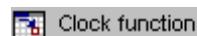
As an application possibility, you could, for example, consider switching on the wall socket of the coffee maker, so that the coffee is ready when you get up in the morning. But it is also possible to switch on heavy alliances. In this way, you could take advantage of the less expensive night tariffs for, e.g., the washing machine, tumbler, dishwasher and the hot water boiler. This could represent quite a saving on your energy bill.

Clocks can also be introduced as user-friendly and energy-saving devices for heating control. Heating blocks can be created for each day. It is even possible for these blocks to have a different setting every day, depending on the requirements of the family members. The heating control on a working day will look different from the heating control on a weekend day. The clock program of the Link module offers extensive possibilities.
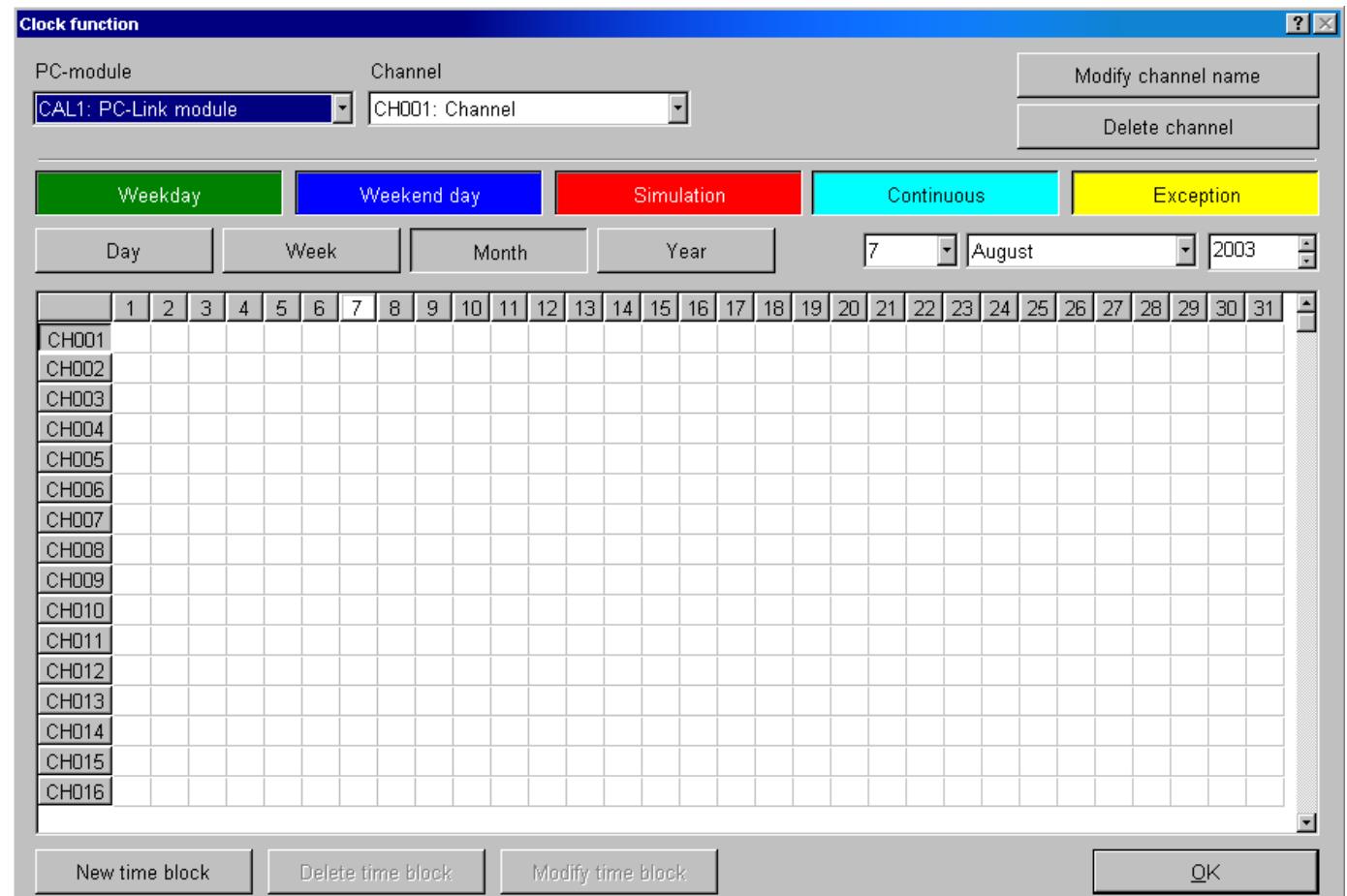
General methodology

Time channels and time blocks are created in separate screens. Several time blocks can be programmed in each channel, if this is required. A total of 100 time channels and over 500 time blocks are available. After programming the time blocks and channels, a new connection can be made between each channel and one or several alliances. The mode can thereby be freely selected. If required, conditions can be added by means of the A and/or B 230V inputs of an output module.

Opening the clock function screen
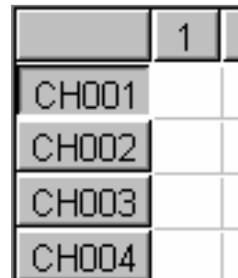
Clock function

Open the **Clock function** screen by clicking the **Clock function** command in the **Edit** menu. A PC-Link module must obviously be included in the project to achieve this. The screen shown below will be opened.

We will work with an example below. The **Nikobus-project 6.nkb** file is included in the Nikobus CD-ROM. If you prefer to practice by yourself, you may use the file **Nikobus-project 6 empty.nkb**. Both files can be found in the **Examples** directory.

Creating a new clock channel for the bathroom heating
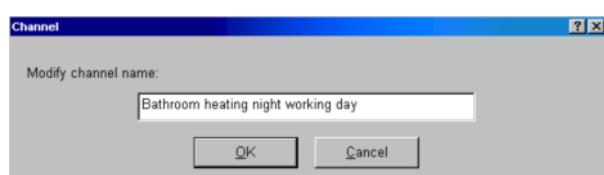
In this screen, it is possible to create up to 100 clock channels or clock lines. Every line or channel can contain several time blocks. Select an empty channel by clicking, in this case for example, the **CH001** button, on the left of the screen.

With this clock channel, you would like to set the bathroom heating on working days between comfort temperature and night temperature. You will operate a thermostat's pilot contact with an output contact of a switch module. When the pilot contact is closed, the set comfort temperature on the thermostat will be decreased by 5 °C. The contact will be closed if you wish to change to night position.

You will find that output **010: Bathroom heating night** of **Switch module S3** has been foreseen for this function in your project.

Click the button **Modify channel name**. By doing this, the screen opposite will be opened. Write the name for the channel: **"Bathroom heating night working day"** here.
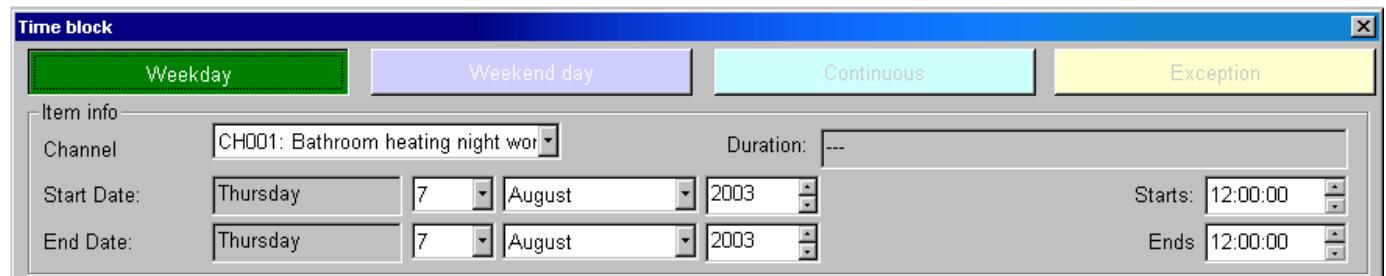
Creating a new time block

New time block

Within the newly created clock channel, you can now enter one or more time blocks. To do so, click the **New time block** button at the bottom left of the screen. The **Time block** window will be opened.

As you wish to create a control for the working days, click on the coloured button with the caption **Weekday**. The screen below will be displayed.

Time block				⊠
Weekday	Weekend day	Continuous	Exception	

Item info

Channel	CH001: Bathroom heating night wor ▾			Duration:	---
Start Date:	Thursday	7 ▾	August ▾	2003 ⬍	Starts: 12:00:00 ⬍
End Date:	Thursday	7 ▾	August ▾	2003 ⬍	Ends 12:00:00 ⬍

Starts: 0:00:00
Ends 6:00:00
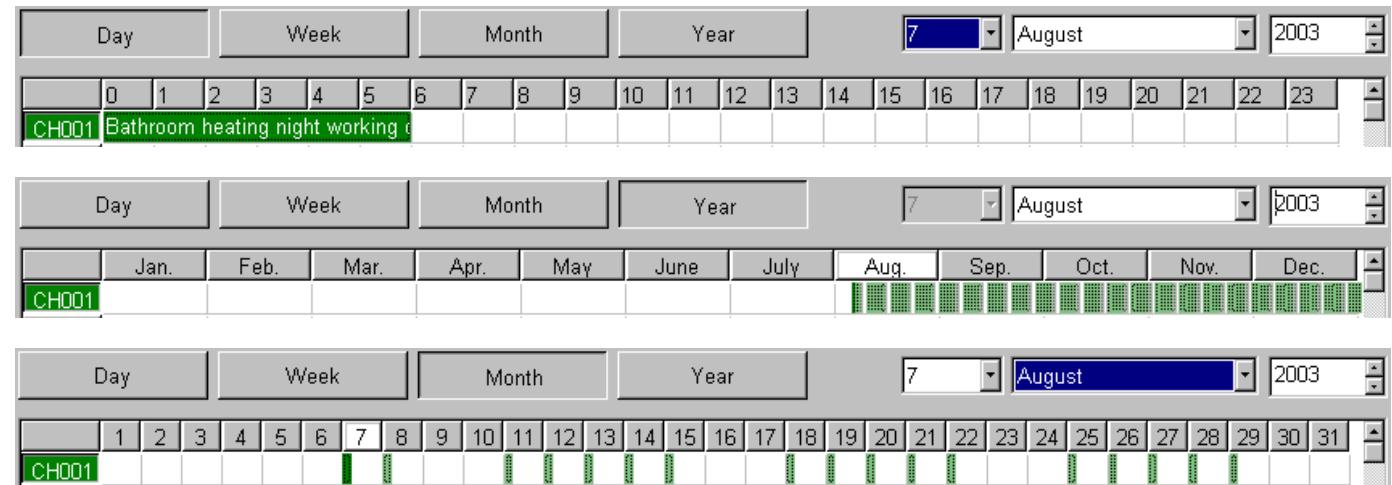
In this screen, the correct channel has already been selected. Furthermore, you will find that the current day has been selected for the start date and the end date. You wish to start our night position for the bathroom at midnight. You therefore set the start time to **00:00:00**. The comfort temperature must start at 6:00 a.m. on working days. You therefore set **06:00:00** as the end time.

Then tick **Repetition use** and click the **Daily** button. After this setting, click the **OK** button in order to return to our **Clock function** screen.

As you will see, green squares have been placed on the first clock line starting with the current date and for all the following working days. You will note that the program is aware of the working days, because you entered the weekend days of the end user in the **Project info** window (see **Edit/Project info** menu).

Clicking the buttons **Week**, **Day**, **Year** or **Month** consecutively will give an idea of the time block on a weekly, daily, annual or monthly basis. You will obtain the following screens respectively.

Day	Week	Month	Year	7 ▾	August ▾	2003 ⬍

	Monday - 4	Tuesday - 5	Wednesday - 6	Thursday - 7	Friday - 8	Saturday - 9	Sunday - 10
CH001				Bath	Bath		

| Day | Week | Month | Year | 7 | August | 2003 |

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| CH001 | Bathroom heating night working | | | | | | | | | | | | | | | | | | | | | | | |

| Day | Week | Month | Year | 7 | August | 2003 |

| | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sep. | Oct. | Nov. | Dec. |
| CH001 | | | | | | | | | | | | |

| Day | Week | Month | Year | 7 | August | 2003 |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| CH001 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Creating several time blocks in the same clock channel

On a working day, of course, the bathroom heating does not need to operate from 6:00 to 24:00. You must include a few additional time blocks in the same clock channel. To do so, select channel **CH001,** and click the **New time block** button. The **Time block** screen will open again. Now fill in **07:30:00** as the start time, and **18:00:00** as the end time. Tick **Repetition use** again and click the **Daily** button. Exit the screen by clicking **OK**.

Back in the **Clock function** screen, perform the same procedure again with, for example, **22:30:00** as the start time. The end time will be **23:59:55**. On returning to the **Clock function** screen, your first line, in **Day** mode, will now appear as follows.

| Day | Week | Month | Year | 7 | August | 2003 |

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| CH001 | Bathroom heating night working | | | | | | Bathroom heating night working day | | | | | | | | | | | | | | | Bathroo |

Connecting a alliance to the clock channel

You have now created a clock channel with three time blocks. Use this clock channel as follows:
During the times of the green bars, the thermostat will be switched to the night position. During the time frames in which there is no control (white sections), the heating in the bathroom will be in the comfort position.

You now must make the connection between this clock channel and the output that will control the pilot contact of the thermostat. To do so, exit the **Clock function** screen by clicking the **OK** button.

You can then activate the **Create connections** screen. In the split window **Output,** select output **010: Bathroom heating night** of **Switch module S3**.

As **Connection mode,** choose **M01 (On / off)**. Do not set a condition. Within the split window **Input**, now select **CH001: Bathr. heating night working day**.

Now click the **Add connection** button and exit the screen by clicking the **Close** button. When selecting output 010 of S3 in the **Project overview** window, you will now find the programming for this output in the connection list. The output will only be controlled by the newly created clock channel on working days.

Output Descript...	Input Description	Connection Mode	T1	T2	AB C...	Filter condition
O10: Bathro...	CH001: Bathroom heating n...	M01 (On / off)			None	

Connection list S3: Switch module(6.3 %) - O10: Bathroom heating night

Description
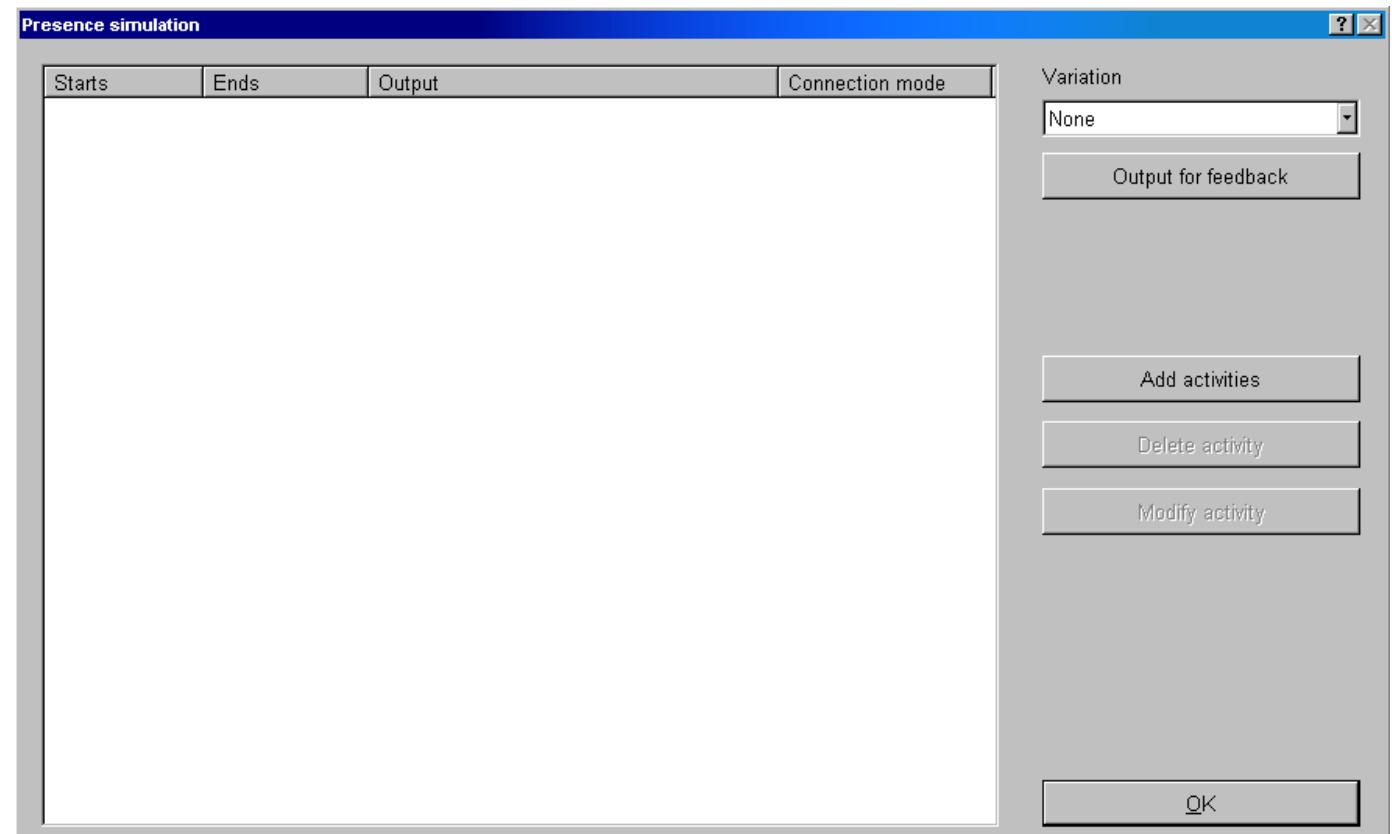
In order to preventatively combat theft, a reliable presence simulation is very important when the family members are not at home. With the **Presence simulation** function, the Nikobus software, together with the Link module, is able to provide extensive applications in this area.

You will work on a practical example below. This example can be found on the CD-ROM under the name **Nikobus-project 6.nkb**. If you wish to practice by yourself, use the file **Nikobus-project 6 empty.nkb** (not programmed). Both files can be found in the **Examples** directory.

Creating a presence simulation

To create a presence simulation, click the **Presence simulation** command in the **Edit** menu, or click the presence simulation icon in the **Function toolbar** or in the **Create connections** screen. The screen below will be opened.

![niko - Illuminating ideas.]

Presence simulation

Starts	Ends	Output	Connection mode

Variation

None

Output for feedback

Add activities

Delete activity

Modify activity

OK
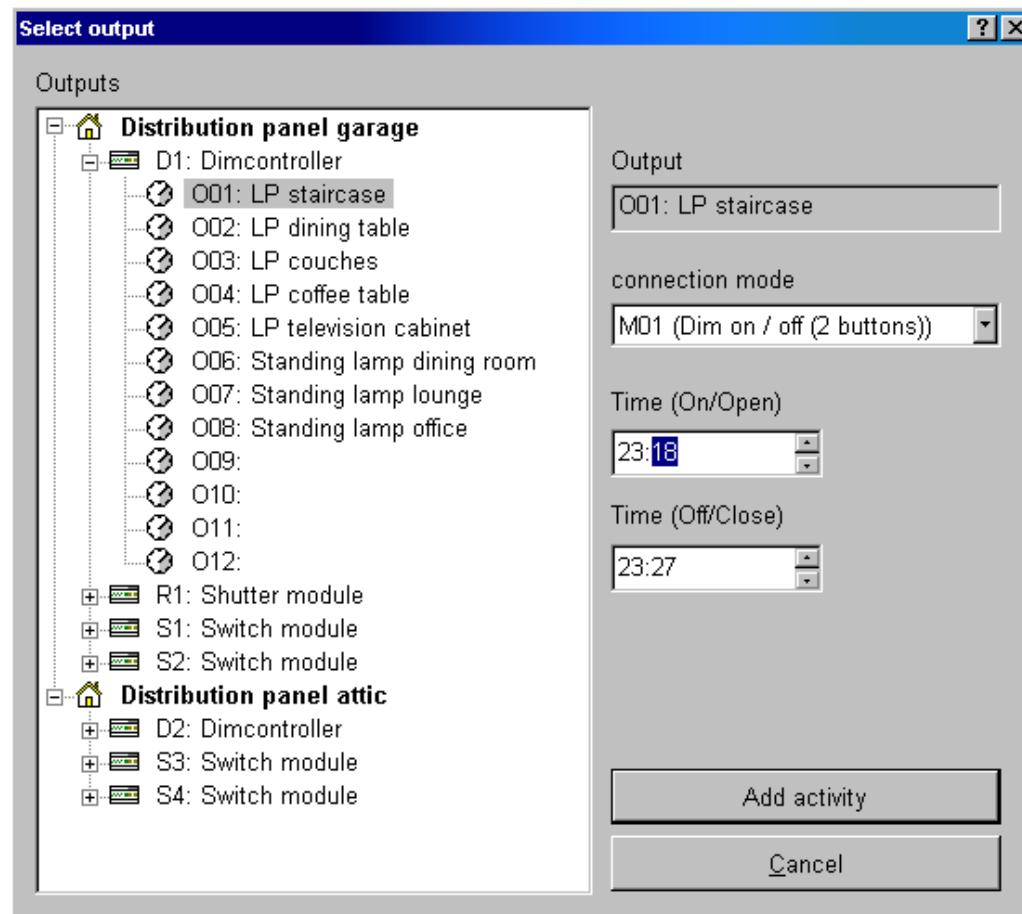
Adding an action to the simulation

Add activities

In a simulation, you will arrange for several actions to be carried out when the simulation is activated. To do this, click the **Add actions** button. This results in the opening of the **Select an output** screen.

In the split window **Outputs**, select output **001: LP Staircase** of dim controller **D1**. Set **23:18** as the start time, and **23:27** as the end time. Exit the screen by clicking the **Add action** button.
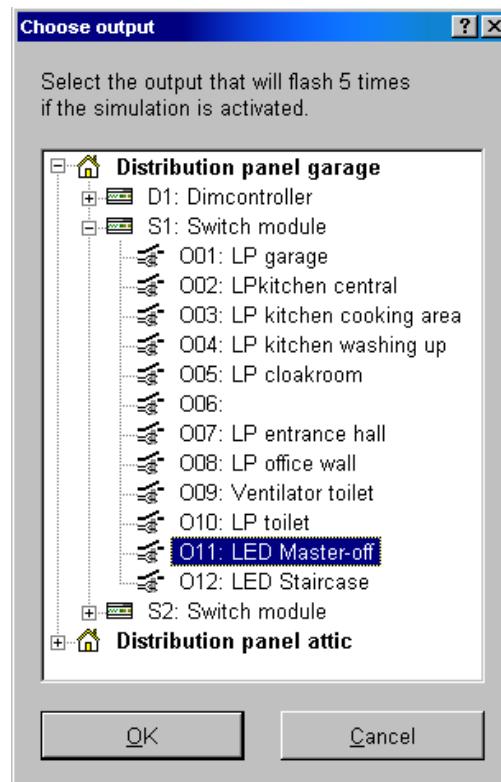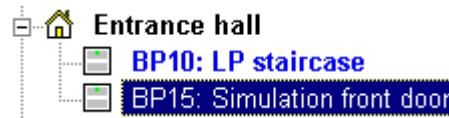
Add a further action for the central light point of the bathroom and for the central light point of the parents' bedroom. Following this, exit the **Select an output** screen by clicking the **Cancel** button.

The result of these activities can be seen in the **Presence simulation** screen.

Starts	Ends	Output	Connection mode
23:18	23:27	O01: LP staircase (D1: Dimcontroller)	M01 (Dim on / off (2 buttons))
23:26	23:43	O01: LP bathroom central (S3: Switch m...	M01 (On / off)
23:27	23:51	O01: LP bedroom parents central (D2: D...	M01 (Dim on / off (2 buttons))
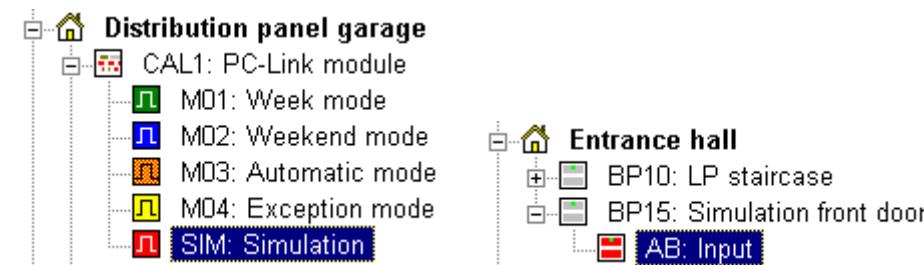
Selecting a feedback output and connecting a push button

When a presence simulation is activated, it is useful to be aware of this. Normally, you will use the special **Feedback bus push button** to select particular clock schedules. Now, however, you would like to activate the simulation by means of a two-way bus push button with LED. When the LED lights up, the simulation is active. You therefore place a bus push button with two operating points and LED in the **Entrance hall** and rename it **BP15: Simulation front door**.

In the **Presence simulation** screen, click the button **Output for feedback.** In the **Select output** screen, select output **011: LED Master-off** of switch module **S1**. Exit this screen by clicking the **OK** button. You also exit the **Presence simulation** screen the same way.

In the **Project overview** window, select input **BP15: Simulation front door** and click the button **New connection**. Here, you select **SIM: Simulation** as the output. The **Connection mode** is to be set for **MSM (Activate presence simulation)**. Among the inputs, select **AB: Input** of **BP15** in the **Entrance hall**. This connection is then added by clicking the relevant button, and you can exit the screen using the **Close** button.
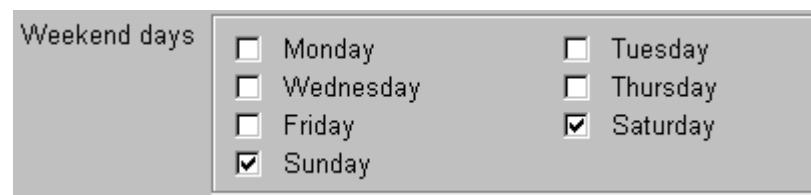
Description

Within the Nikobus software, clock channels can be assigned to clock schedules. You will distinguish between 5 clock schedules, with the following names: weekday, weekend day, simulation, continuous and exception.

In the **Project info** screen, you have already entered the weekend days for the end user.
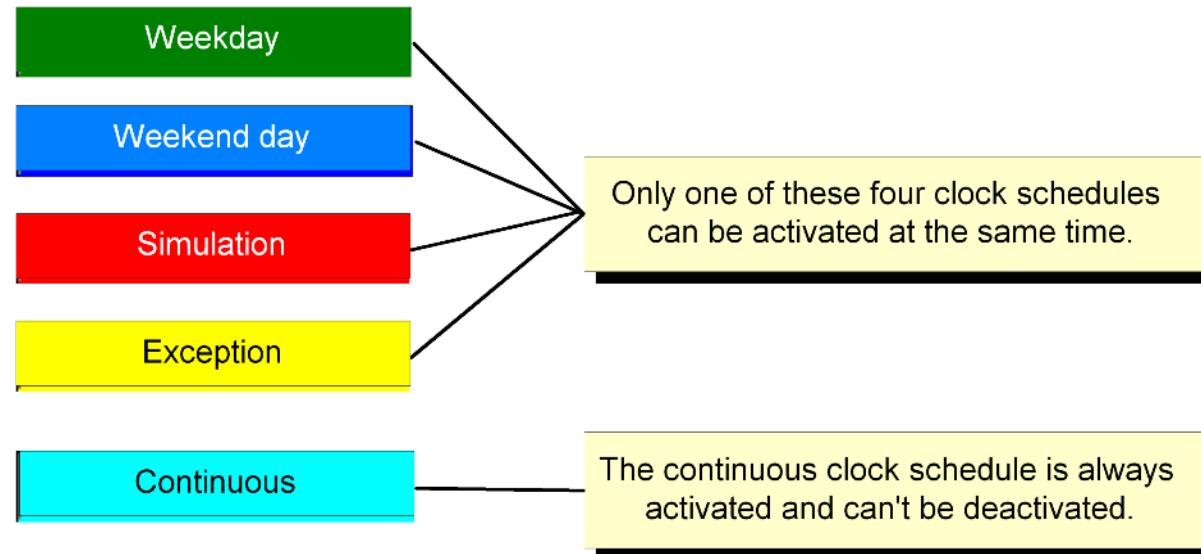
For most people, the standard setting (Saturday and Sunday) will agree with their time schedule for work and leisure time. The hairdresser at the corner of the street, however, works from Tuesdays up to and including Saturdays. For him, the weekend days are therefore Sunday and Monday. For other people, it is possible that their leisure days are on other days. The weekend days in above screen will be ticked depending on the living pattern of the user.

By means of this indication, the program will be aware of the normal weekend days and working days. Events that must be carried out at a specific time will be dependent on whether it concerns a working day or a weekend day.

In section **8.1. Using clocks,** you created a clock channel for the heating control of the bathroom on weekdays. These time settings may of course be different for the weekend days. For that reason, you will create an additional clock channel for the heating control of the bathroom that will be carried out on weekend days.

During the times that you are away from home, it does not make sense to carry out clock channels for the heating control. It is not necessary to generate a comfort temperature when nobody is at home. When the presence simulation is switched on, nobody is at home, and the clock schedules **Weekday**, **Weekend day** or **Exception** must then be switched off. When you are at home again, the simulation must be switched off and the correct clock channels must be carried out (weekend or weekday), depending on whether or not it is weekend.

| Weekday |
| Weekend day |
| Simulation |
| Exception |

Only one of these four clock schedules can be activated at the same time.

| Continuous |

The continuous clock schedule is always activated and can't be deactivated.

In addition, you will distinguish the **Continuous** clock schedule. This is always active and cannot be placed in the "off" position. Time blocks in clock channels that are part of this schedule are always carried out. For time blocks and clock channels that are part of the **Exception** schedule, however, the user is able to put them in the active or non-active position (by means of a bus push button).

The Nikobus regime bus push button

Niko has developed a special feedback bus push button in order to allow the user to set and select schedules in an easy manner. This bus push button is designed with four push buttons and four LEDs.

When pressing on the upper left, the weekday schedule will be selected. All clock lines that have been programmed under **Weekday** in the software will be carried out. The weekend, exception and simulation schedules are switched off. The relevant LED will light up.

When pressing on the lower left, the weekend day schedule will be switched on. The weekday, exception and simulation schedules are switched off. All clock lines that have been programmed under **Weekend day** in the software will be carried out. The relevant LED will light up.

Pressing on the upper right will switch on the exception schedule. The weekday, weekend day and simulation schedules are switched off. All clock lines that have been programmed under the button **Exception** in the software will be carried out. The relevant LED will light up when the schedule is active.

By pressing on the lower right of the feedback bus push button, the simulation schedule can be activated. The weekday, weekend day and exception schedules are switched off. The relevant LED will light up.

If the LEDs for the weekday, weekend day, exception or simulation schedule do not light up, the installation is in automatic mode. This means that the PC-Link module will carry out those clock channels that correspond with the type of day it is. If it is a weekend day, the weekend schedule will be active. If it is a weekday, the weekday schedule will be active.

This chapter is a continuation of the options that were described in relation to the standard switch module with 12 output contacts. Please familiarise yourself with the chapter on the switch module first (**chapter 4.1. of the Nikobus basic manual**), as well as with the general approach to working with the Nikobus software (**from chapter 3 of the above-mentioned manual**) if you are not familiar with the Nikobus home automation system, the Nikobus switch module or the Nikobus software.

Hardware

The compact switching unit has 4 outputs (230V/10A). It is possible to protect each output separately if need be. In addition, a 230V power supply is required for the operation of the unit. Finally, there is a Nikobus connection, for which the polarity (B1 and B2) must be respected when other components are connected to the bus.

The compact switching unit does not have the outputs necessary to control LED's. In addition, it does not have 230V inputs A and B either. As a result, there is no SET button, unlike the standard switch module.

Each output still has its own LED, which indicates whether the output is "on" or "off". LED indications are no longer used for the different modes, however. These are now indicated digitally.
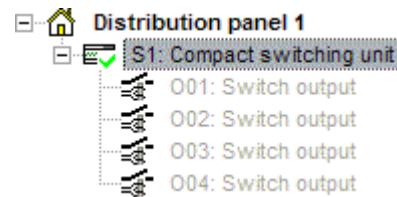
The memory

The compact switching unit uses the same memory as its larger brother. In practice, this means that with the compact switching unit, in comparison to the standard switch module, it is possible to program three times as much per output before the memory is full. On the other hand, it is not possible to replace the EEPROM here, as is possible for the standard switch module.

Programming with the Nikobus software
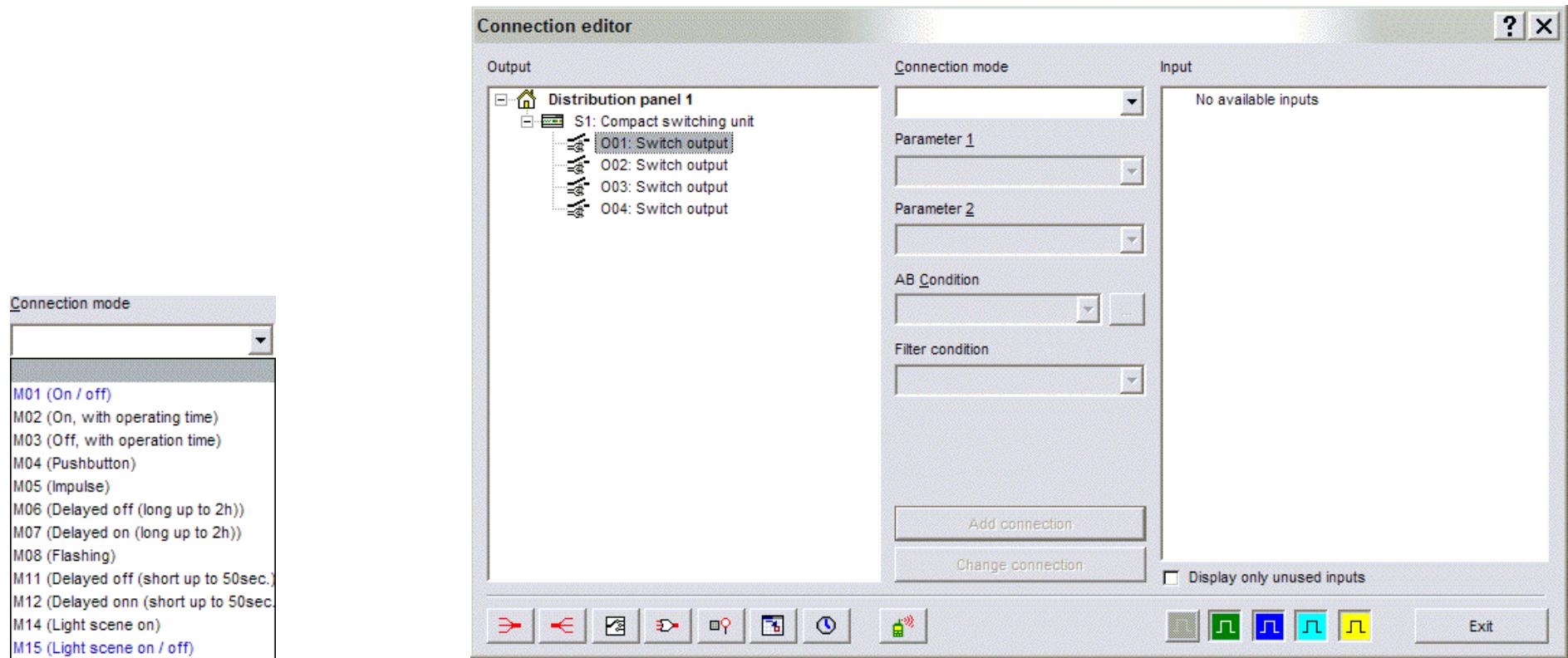
It is also possible to program the compact switching unit with the Nikobus software. Please ensure that you are working with Nikobus version 2.00 or later. You can check the version of your Nikobus software by clicking **About Nikobus…** in the **Help** menu.

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Place a **compact switching unit** in the fuse box by selecting **Distribution panel 1** and pressing the **OUT** button.
Following this, press the **Add module** button. This will open the product list.
From this list, select **05-002-02 Compact switching unit** and double-click this selection.
The new module will be added to the fuse box in the software.
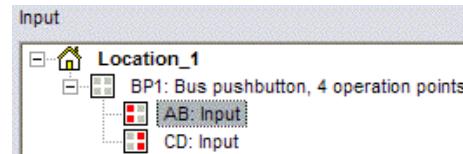
The outputs can be re-named by clicking on them with the right mouse button and then selecting the item **Modify output name**.

If bus push buttons have already been added to the project, click the **New connection** button. As a result, the **Connection editor** screen will be opened.

Select the output of the compact switching unit that is to be programmed. Then, select the function that is to be carried out in the **Connection mode** field. In this field, the one-key modes are indicated in black and the two-key modes in blue.

Finally select the bus push button that will carry out the function in the split window **Input**. End the programming by clicking the **Add connection** button. Continue with a new program, or leave the screen by clicking the **Exit** button.

All functions and options of the compact switching unit correspond to those of the standard switch module.

This chapter is a continuation of the options that were described in relation to the standard dim controller with 12 outputs. Please familiarise yourself first with the chapter on the dim controller (**Chapter 4.3. of the Nikobus basic manual**), as well as with the general approach to working with the Nikobus software (**from chapter 3 in the above-mentioned manual**) if you are not familiar with the Nikobus home automation system, the Nikobus dim controller or the Nikobus software.

Hardware

The compact dim controller has 4 outputs (0-10V controls). A 230V power supply is required for the operation of the module. Finally, there is a Nikobus connection, for which the polarity (B1 and B2) must be respected when other components are connected to the bus.

The compact dim controller does not have 230V inputs A and B. As a result, there is no SET button, unlike the standard dim controller.

Every output still has its own LED, which indicates whether the output is "on" or "off". LED indications are no longer used for the different modes, however. These are now indicated digitally.

The memory

The compact dim controller uses the same memory as its larger brother. In practice, this means that, with the compact dim controller, it is possible to program three times as much per output before the memory is full, compared to the standard dim controller. On the other hand, it is not possible to replace the EEPROM here, unlike the standard dim controller.

Two new functions

All functions or modes of the compact dim controller are exactly the same as those of its larger brother. The compact dim controller, however, has two additional functions or modes available (M13 and M14).

a. Mode M13 Dim on/off (1-key)

Mode M13 is a one-key function. Briefly pressing the bus push button will switch the connected lamp "on" to the D-max value. Briefly pressing the bus push button again will switch the consumer to the "off" position (0%). If the dimmer is switched "on", pressing the bus push button for a longer time (longer than 0.3 sec.) will increase or decrease the dimming, depending on the previous dim direction. The dim direction is reversed each time the bus push button is pressed for a longer time. Full dimming upwards or downwards takes place at a dim speed of 4 s. A specific particular curve can be selected for switching the dimmer "on" or "off" (pressing the bus push button briefly) by means of setting wheel T1. The time for dimming upwards and/or dimming downwards can be adjusted using setting wheel T2. This is fully comparably to, for example, mode M1 of the dim controller.

b. Mode M14 Dim on/of memory (1-key)
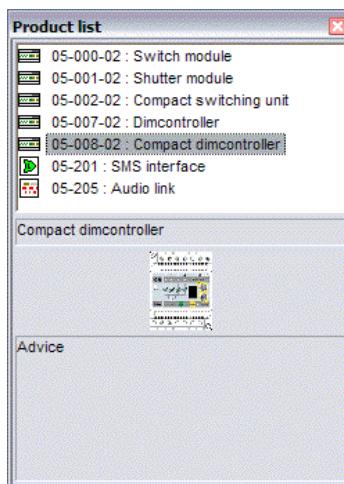
Mode M14 is very similar to mode M13. In the case of mode M14, however, the dimmer will not be switched to the D-max value when it is switched "on", but to the value the dimmer was on the last time it was switched "off". In other words, this mode operates with a memory function.

M14 is also a one-key function. Briefly pressing the bus push button will switch the connected lamp "on" at its memorized value (the value the dimmer was at when switched "off" the previous time). Pressing the bus push button briefly once again will place the consumer in the "off" position (0%). If the dimmer is switched "on", pressing the bus push button for a longer time (longer than 0.3 sec.) will increase or decrease the dimming, depending on the previous dim direction. The dim direction is reversed each time the bus push button is pressed for a longer time. Full dimming upwards or downwards takes place at a dim speed of 4s. A specific curve can be selected for switching the dimmer "on" or "off" of (pressing the bus push button briefly) by means of setting wheel T1. The time for dimming upwards and/or dimming downwards can be adjusted by means of setting wheel T2. This is fully comparably to, for example, mode M1 of the dim controller.

Programming with the Nikobus software

The compact dim controller can also be programmed by means of the Nikobus software. Ensure that you are working with Nikobus version 2.00 or later. You can check which Nikobus software version you have by clicking **About Nikobus…** in the **Help** menu.

Place a **compact dim controller** in the fuse box by selecting **Fuse box** and pressing the **OUT** button. Then press the **Add module** button. The product list will now be opened.
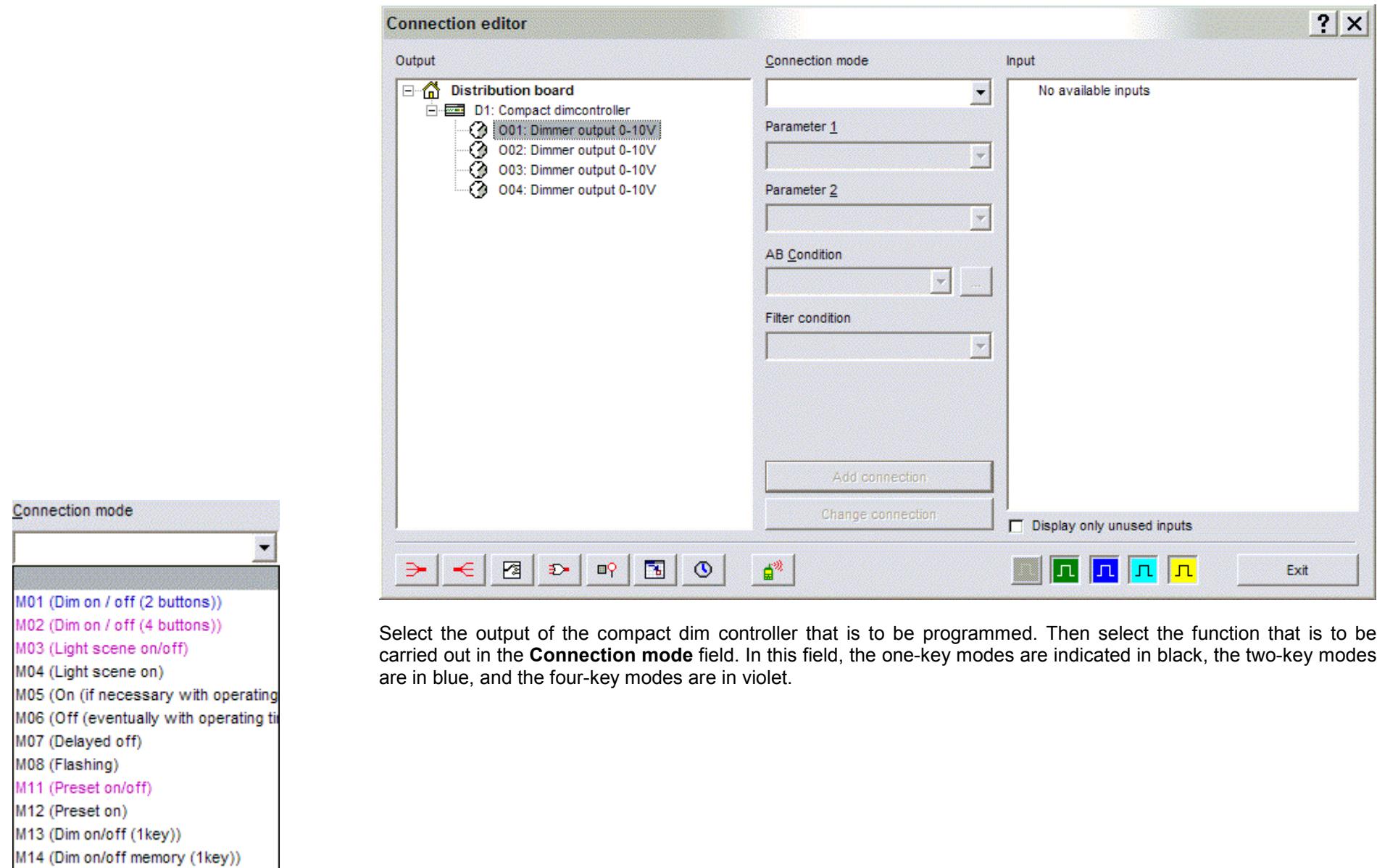
Select **05-008-02 Compact dim controller** in this list and double-click this selection.

The new module will be added to the fuse box in the software.
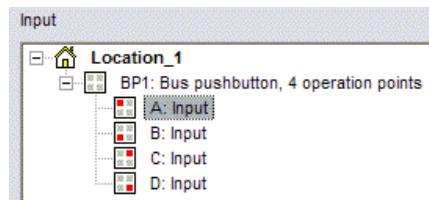
The outputs can be renamed by clicking them with the right mouse button, and then selecting the item **Modify output name**.

If bus push buttons have already been added to the project, click the **New connection** button. The **Connection editor** screen will then be opened.

Connection editor

Output

- ⌂ **Distribution board**
  - ▭ D1: Compact dimcontroller
    - ⊘ O01: Dimmer output 0-10V
    - ⊘ O02: Dimmer output 0-10V
    - ⊘ O03: Dimmer output 0-10V
    - ⊘ O04: Dimmer output 0-10V

Connection mode

Parameter 1

Parameter 2

AB Condition

Filter condition

Add connection

Change connection

Input

No available inputs

☐ Display only unused inputs

Exit

Connection mode

M01 (Dim on / off (2 buttons))
M02 (Dim on / off (4 buttons))
M03 (Light scene on/off)
M04 (Light scene on)
M05 (On (if necessary with operating
M06 (Off (eventually with operating ti
M07 (Delayed off)
M08 (Flashing)
M11 (Preset on/off)
M12 (Preset on)
M13 (Dim on/off (1key))
M14 (Dim on/off memory (1key))

Select the output of the compact dim controller that is to be programmed. Then select the function that is to be carried out in the **Connection mode** field. In this field, the one-key modes are indicated in black, the two-key modes are in blue, and the four-key modes are in violet.

Finally, select the bus push button that should carry out this function in the **Input** split window. Finish the programming by clicking the **Add connection** button. Continue with a new program, or leave the screen by clicking the **Exit** button.

All functions and options of the compact dim controller correspond to those of the standard dim controller. The compact dim controller has two additional one-key functions (M13 and M14) available.

The Audio Link module (05-205) can either be used on a stand-alone basis or can be installed in a Nikobus installation. With this module, functions on the Allegretto multi-room, multi-source audio system can be carried out, if desired, from any bus push button, clock function or logic function.

Hardware

The Audio-Link (05/205) requires a 230V power supply for operation. In addition, it requires a B1 and B2 bus connection. Polarity must be respected if other Nikobus components (e.g., output modules) are included in the system.

Connections for 6 voltage-free contacts have been provided at the bottom of the module. Audio functions can also be carried out using these contacts. Finally, there is an RJ connector, which is connected to the Allegretto A44 or A88 audio system.
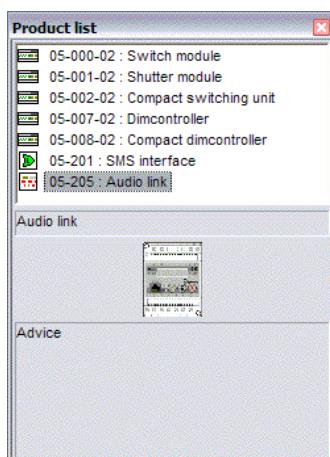
Programming with the Nikobus software
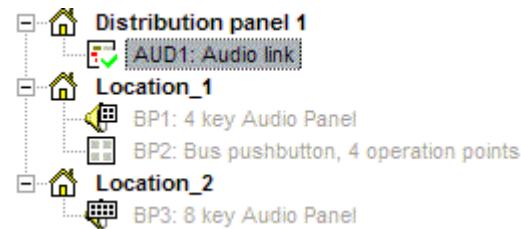
The easiest way of programming your Audio Link module is with the Nikobus software. Ensure that you are working with Nikobus version 2.00 or later. You can check which Nikobus software version you have by clicking **About Nikobus…** in the **Help** menu.

In your project, define a fuse box as a location, and select it by clicking it with the left mouse button. Ensure that the **OUT** button of the **Project overview** window is pressed in. Click the **New module** icon. The **Product list** screen will be opened. In this list, double-click **05-205: Audio link**. The Audio Link will then be added to the **Distribution panel 1** location.
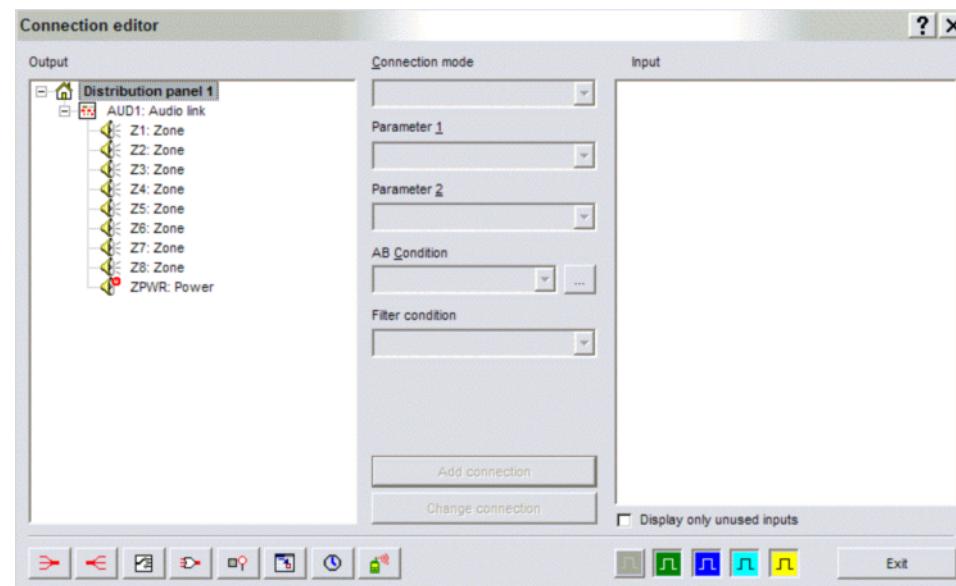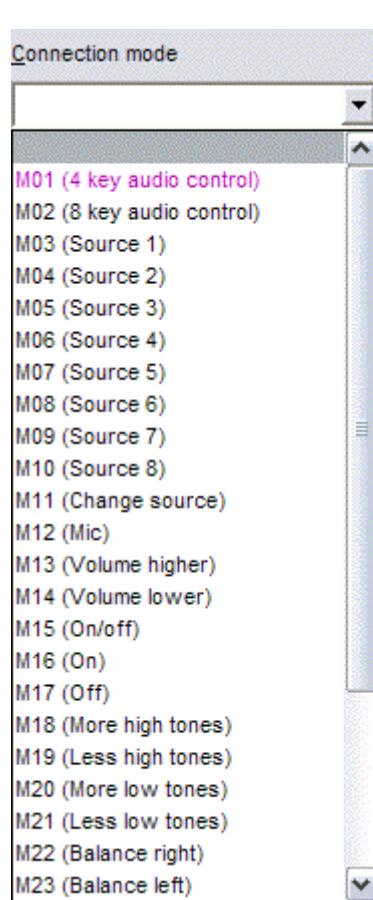
Next, add two locations to your project: **Location 1** and **Location 2**. Ensure that the **IN** button has been activated. Select **Location 1** and click the **New module** icon. You will now find all the input components of the Nikobus home automation system in the product list. Find and double-click component **05-064: 4-key Audio Panel**. Then double-click **05-064: Bus push button, 4 operation points**.
In the project, you now select **Location 2** and double-click item **4*-078: 8-key Audio Panel** in the product list. Your project should now look like the picture below.

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As you now have your inputs and outputs, you can start programming. Click the **New connection** button. The **Connection editor** screen will be opened.
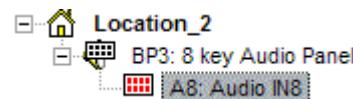
The Audio Link with its 8 zones and its power-off function is now displayed in the left **Output** split window. Only the first 4 zones can be programmed with an Allegretto A44 system.
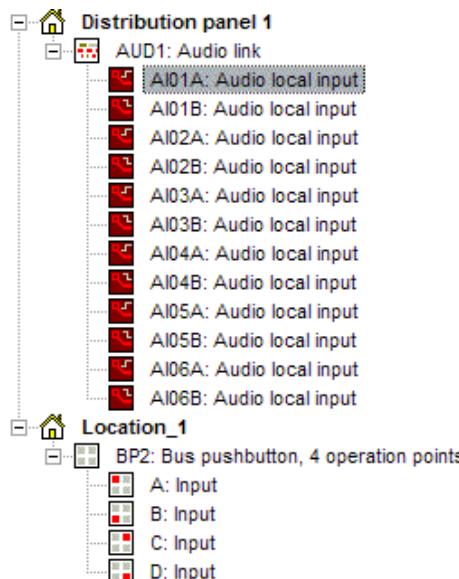
You want to program zone 1 first. To do this, select **Z1: Zone**. Then open the **Connection mode** window by clicking the arrow. It is possible to make a selection from 31 different audio functions. In this case, select **M01: 4-key audio control** as a first function.

The inputs we will be able to use for this function will now be displayed in the right split window. The only item listed is the special 4-key Audio Panel. Click **A4: Audio IN4** and confirm this program by clicking the **Add connection** button.

Select zone 2 by clicking **Z2: Zone**. In the connection mode, now select function **M02: 8-key Audio control**. The 8-key audio bus push button appears in the right split window. Select it and add the connection.

```
□ ⌂ Location_2
    □ ▦ BP3: 8 key Audio Panel
        ▦ A8: Audio IN8
```

Finally, select zone 3 by clicking **Z3: Zone**. Select **M15: On/off** as the connection mode. Using this function, you will now be able to switch Audio Zone 3 "on" or "off". Let's see which inputs you can now use.

First of all, you can make use of the 6 voltage-free contacts of the Audio Link itself (Audio local input) for carrying out this toggle function. Please be aware that the function can be carried out both when the contact is made, and when it is broken.

In addition, you can see that all parts of the bus push button BP2 can be used to carry out the programmed function. If, however, you have programmed a clock function or a logic function, these would also be able to carry out the programmed audio function, if required.

In this case, though, select input A of bus push button BP2. Select this item, click on the **Add connection** button and close the **Connection editor** screen by pressing the **Exit** button.

Your connection list for the Audio Link module now looks as follows:

```
□ ⌂ Distribution panel 1
    □ ▦ AUD1: Audio link
        ▪ AI01A: Audio local input
        ▪ AI01B: Audio local input
        ▪ AI02A: Audio local input
        ▪ AI02B: Audio local input
        ▪ AI03A: Audio local input
        ▪ AI03B: Audio local input
        ▪ AI04A: Audio local input
        ▪ AI04B: Audio local input
        ▪ AI05A: Audio local input
        ▪ AI05B: Audio local input
        ▪ AI06A: Audio local input
        ▪ AI06B: Audio local input
□ ⌂ Location_1
    □ ▦ BP2: Bus pushbutton, 4 operation points
        ▪ A: Input
        ▪ B: Input
        ▪ C: Input
        ▪ D: Input
```

Output Description	Input Description	Connection Mode	T1	T2	AB Condition	Filter condition
Z1: Zone	A4: Audio IN4 (BP1: 4 key Audio Panel - Location_1)	M01 (4 key audio control)				
Z3: Zone	A: Input (BP2: Bus pushbutton, 4 operation points - Location_1)	M15 (On/off)				
Z2: Zone	A8: Audio IN8 (BP3: 8 key Audio Panel - Location_2)	M02 (8 key audio control)				

The different functions

M01 is a 4-key function. M02 is an 8-key function. All other functions are 1-key functions.

M01: 4-key Audio control: this function is intended for a four-way bus push button. The functions of all operation points are pre-determined.
Pressing the bottom left will switch the audio zone "on" or "off".

Each time you press the top left section, you will go to the next source.
Pressing the top or bottom right will respectively increase or reduce the volume of the zone in question.

M02: 8-key Audio control: This function is intended for an eight-way bus push button. The functions of all operation points are pre-determined.
The functions of the upper left, bottom left, upper right, bottom right correspond to those of the 4-key audio control. The middle buttons, labelled 1, 2, 3 and 4, can be used to activate the first 4 sources.

M03 to M10 incl.: Selection of sources 1 to 8 incl.: Select one of the connected music sources. M03, for example, will select the music source on the first input of the A44 or the A88 Allegretto installation.

M11: Change source: When the button programmed with this function is pressed, the next connected source to the A44 or the A88 will be selected.

M12: Mic: Selecting or de-selecting the microphone as sound source.

M13: Increase volume: The volume is increased.

M14: Decrease volume: The volume is decreased.

M15: On/off: This function toggles between switching the audio zone on and off.

M16: On: Switching on an audio zone.

M17: Off: Switching off an audio zone.

M18: More high tones: Strengthens the high tones in the music.

M19: Less high tones: Reduces the portion of high tones in the music.

M20: More low tones: Strengthens the low tones (basses) in the music.

M21: Less low tones: Reduces the portion of the low tones in the music.

M22: Balance right: Amplifies the balance of the right stereo channel.

M23: Balance left: Amplifies the balance of the left stereo channel.

M24 to M31 incl.: Audio scene 1 to 8 incl. (Preset): Selection of a preset or audio scene. Presets are pre-programmed sound settings in an audio zone. When choosing a preset, a particular source is immediately selected, as well as a particular volume and sound setting. It is easy for the user to store a new preset by adjusting the sound settings for a particular zone as desired and then pressing the **Audio scene** button for this particular zone for longer than 2s. The function is similar to the light scene function of the dim controller.
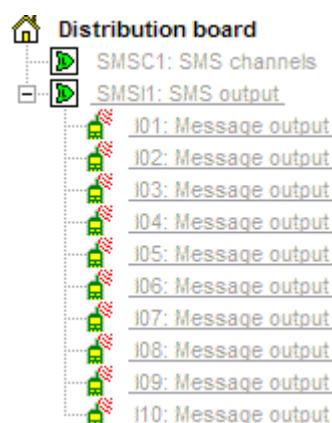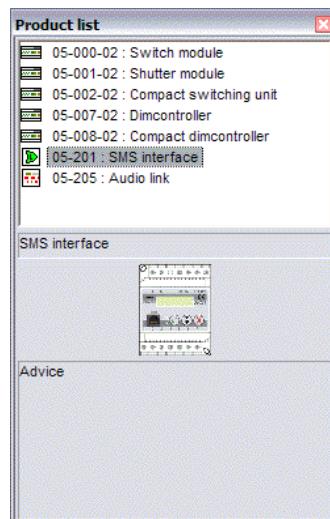
Remote communication with the home automation system may be important for a number of people. For example, consider the situation of a general practitioner who, during his final house call for the day, may wish to already open the door to his practice and switch the lights on in the entrance hall and the waiting room, and perhaps also set the heating to comfort temperature in the waiting and practice rooms.

All these operations can be carried out by remote control by means of the SMS interface. On the other hand, it is also possible to transfer technical alarms to one or several GSM devices by means of an SMS message. This makes the SMS interface a powerful means of communication with the home automation system.

Hardware

The SMS interface (05-203) is connected to a PC Logic module (05-201), that in it's turn is connected to the installation as master. Making use of filters and logic screens is possible via the same PC Logic module.

About Nikobus...

Nikobus Version 2.00
Database version 16.006

OK

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Website : http://www.niko.be

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Product list

- 05-000-02 : Switch module
- 05-001-02 : Shutter module
- 05-002-02 : Compact switching unit
- 05-007-02 : Dimcontroller
- 05-008-02 : Compact dimcontroller
- 05-201 : SMS interface
- 05-205 : Audio link

SMS interface

Advice

Distribution board

SMSC1: SMS channels

SMSI1: SMS output
- I01: Message output
- I02: Message output
- I03: Message output
- I04: Message output
- I05: Message output
- I06: Message output
- I07: Message output
- I08: Message output
- I09: Message output
- I10: Message output

SMS message from the home automation system to a GSM

The SMS interface can only be programmed with the Nikobus software. Ensure that you are working with Nikobus version 2.00 or later. You can check your Nikobus software version by clicking **About Nikobus…** in the **Help** menu.

In your project, define a fuse box as a location and select it by clicking it with the left mouse button. Ensure that the **OUT** button of the **Project overview** window is pressed in. Click the **New module** icon. The **Product list** screen will now be opened. In this list, double-click **05-201: SMS interface**. The SMS interface will now be added to the location fuse box. Also add a switch module to this project.

With the **OUT** button pressed in, your project will now look as shown below.

Distribution board

S1: Switch module

SMSO1: SMS interface
- O01: Message
- O02: Message
- O03: Message
- O04: Message
- O05: Message
- O06: Message
- O07: Message
- O08: Message
- O09: Message
- O10: Message

Location_1

Here, you can see that it is possible to send 10 SMS messages to GSM telephones.
If you activate the **IN** button, the picture shown alongside will be displayed. You will also see that up to 10 SMS output messages can be transmitted from any GSM to the home automation system. In addition, the SMS interface also has 90 channels available with two operation points. If desired, these can be used to carry out remote control activities.

We will also install a few bus push buttons in this project.
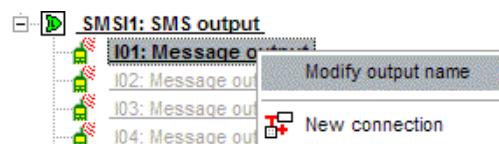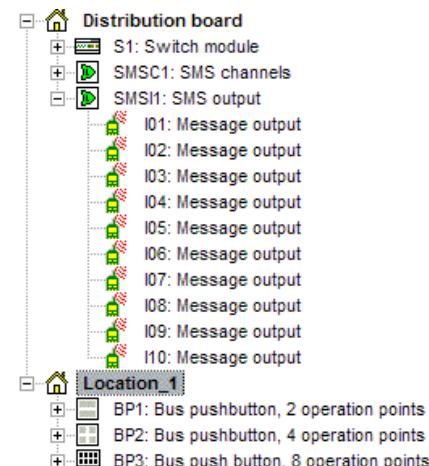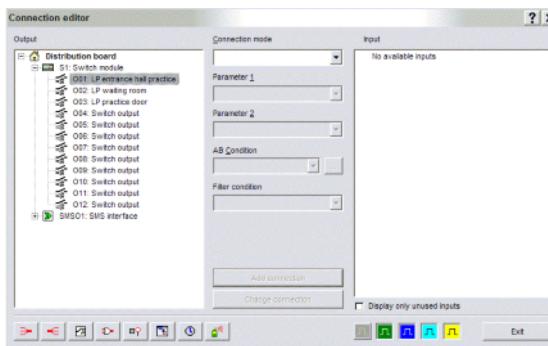
SMS messages from a GSM to the home automation system

Using the Nikobus software, we will make it possible for an incoming SMS to carry out a function.

a. Working with output messages
The most obvious method is using the 10 output messages. These messages can be considered as the inputs to the home automation system, similar to a bus push button.

We would, for example, like to switch on the light in the hall of a medical practice. We thereby click on the **New connection** button. The **Connection editor** screen is opened. In this screen, we click **LP entrance hall practice**. As connection mode, select M02 (the "on" function). In the split window **inputs,** the picture below will be displayed.
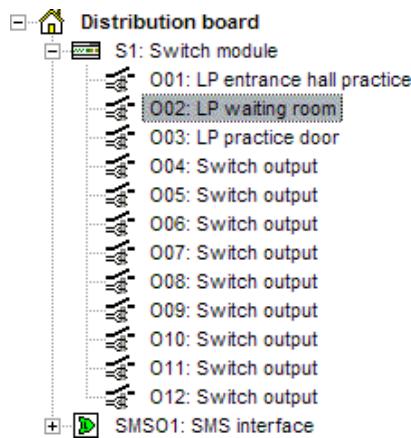
Here, you will see the 10 lines with output messages that can be used as inputs. Click on **I01: Message output** and confirm this program by clicking the **Add connection** button. For clarity's sake, you can improve the name of this input. In the project overview, select this input, click it with the right mouse button and then click **Modify output name**. In this way, you can change the name of this input to, for example, switch on **LP entrance hall practice**.
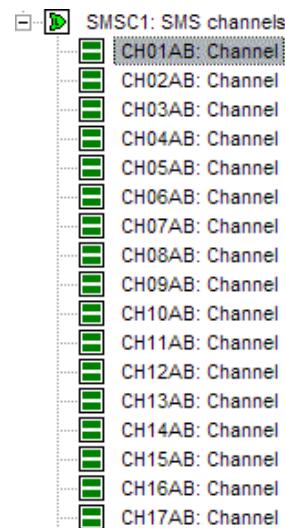
Attention: It is only possible to carry out one-key functions with the **Output messages** lines.

b. Working with SMS channels
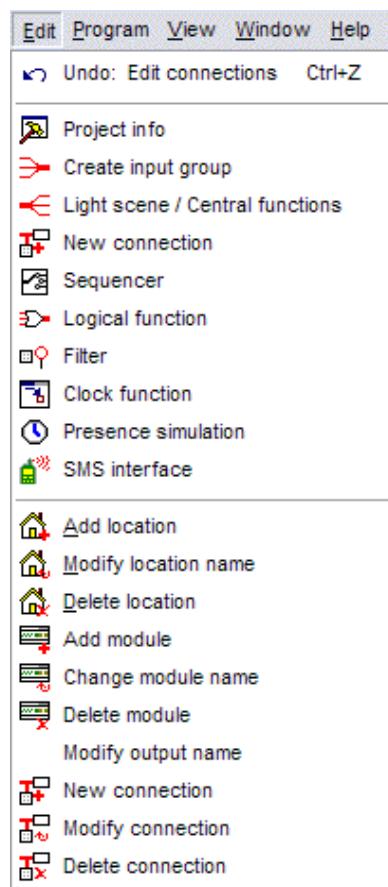
The **Output messages** are primarily used to carry out certain functions by means of SMS messages. This is the easiest method for the user. If all 10 of the **Output messages** have already been used, it is, however, possible to use 90 SMS channels to carry out home automation functions. Each SMS channel can be compared to a bus push button with two operation points. It is therefore possible to carry out both one-key and two-key functions.

As an example, we would like to be able to switch the light point in the waiting room of a medical practice. Open the **New connection** screen and select **O02: LP Waiting room** from among the outputs. As connection mode, select **M01: On/off**. Under inputs, you will now find the 90 channels. As you have selected a two-key mode, both operation points of each channel will be displayed. Select **CH01AB: Channel** and confirm this program by clicking the **Add connection** button.
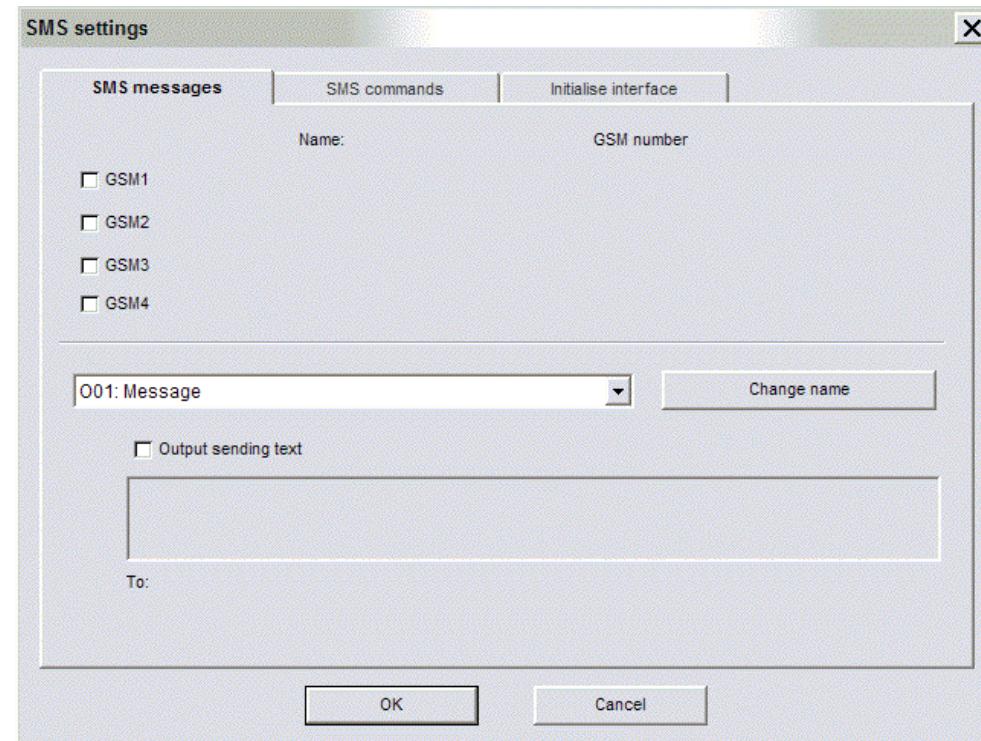
The name of a channel cannot be modified.

The SMS settings

You are now able to send SMS messages and carry out activities, but must obviously still indicate how these messages should look and to which GSM telephones they should be sent.

The item **SMS interface** is listed In the **Edit** menu. This function can also be activated by clicking the similar icon in the function toolbar. The function will open the screen below.

This screen contains three tab-sheets: **SMS messages, SMS commands** and **Initialise interface**. We will discuss each of them separately.
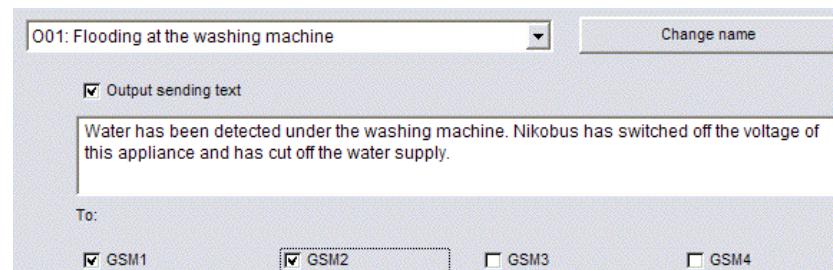
a. Tab-sheet SMS messages

On this sheet, we will define the outgoing messages and indicate to which GSM telephones these messages must be sent.

First of all, enter the names and GSM numbers for those GSM telephones to which a message may be sent. When entering the GSM numbers, however, ensure that you always start with a **+** sign, followed by the country code (32 for Belgium). This is followed by the GSM number (omitting the first **0**). Except for the + sign and figures, no other signs or letters may be used. Spaces are also not accepted.

Following this, select a message that you can work with. The name of the message can still be changed into an understandable text here. Tick the **Output sending text** field. As a result, you will now be able to enter a text in the field below. This could, for example, be the reporting of a technical alarm, as shown in the picture below. Finally, tick those GSM telephones to which this specific message must be sent. Other messages can be sent to only one or to all GSM telephones, as the case may be. The text must not be longer than a maximum of 150 characters.
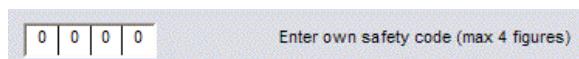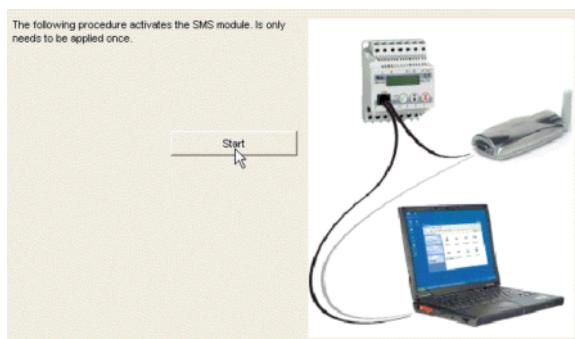
b. Tab-sheet SMS commands

In the **Commands** tab-sheet, you can first enter a four-digit code. This code is, as it were, an access code to the home automation system. In this way, only certain persons are able to activate the home automation functions with their GSM telephone. Someone sending the same output message without this code will not be able to activate any devices.
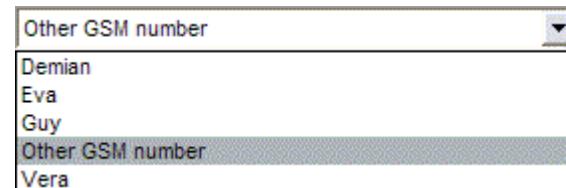
Then select an **Output message,** whereby you can modify the name by clicking the **Change name** button. Tick **Input sending text**. You can now enter the text to be sent in the fields underneath it. A maximum of 25 characters is available.

Assume that you would like only two of the four persons defined in the previous tab-sheet to be able to send this command to the home automation system. Click on the **Send** button. The adjacent screen will be opened. In this screen, you can select a name (see previous tab-sheet), or have this SMS Output message sent to another GSM number.
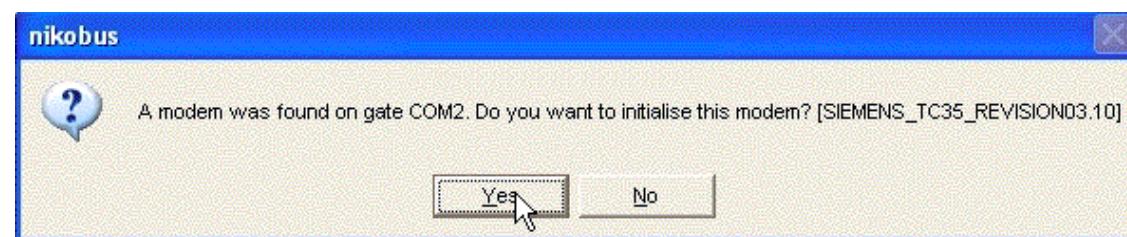
If you select **Other GSM number**, you will be able to enter this number. Then click the **Send** button. The message, including the access code, will now be sent to the person in question. It is therefore not necessary to enter these GSM-output messages manually for each GSM.

c. Tab-sheet Initialise interface
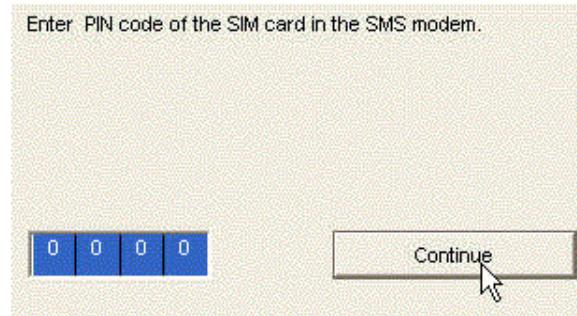
Finally, the SMS interface must be initialised. This can be done in the third tab-sheet of the window **SMS settings**. You must go through a few steps. This procedure must only be carried out once. To start, click the **Start** button.

Connect the SMS interface by means of the supplied cable to a computer COM-port. Then click the **Continue** button.

The computer will detect the modem and ask whether it should initialise it. Click the **Yes** button and then the **Continue** button.

In the next screen, enter the PIN code of the SIM card installed in the SMS interface.

Enter PIN code of the SIM card in the SMS modem.

| 0 | 0 | 0 | 0 |

Continue

Click the **Continue** button again. The SMS interface has now been initialised. Clicking **OK** will close the **SMS settings** screen.

The **feedback module 05-207** makes a connection between the **bus** of the Nikobus home automation system and the touchscreen 05-096 and/or the Nikobus **push buttons with LEDs**. Via this module, a clear status indication of you installation is displayed on the touchscreen or via the bus push buttons.
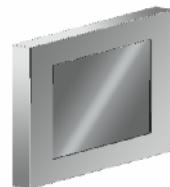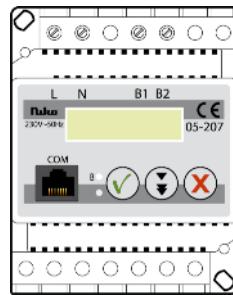
Programming by means of the Nikobus software

The feedback module can only be programmed by means of the Nikobus software. Make sure you are working with software version 2.3. You can check the version of your software by clicking the 'About Nikobus' in the Help menu.

Feedback rules

Only 1- and 2-button modes are supported. The feedback of a 2-button mode is always given on the upper LED. The bottom LED is not changed. No feedback is given on sensors that are directly connected to the A or B input of the switch or dim module. No feedback can be given on the functions of the Audio-Link or SMS module.

After a power interruption, the LEDs return to their previous value (on or off).
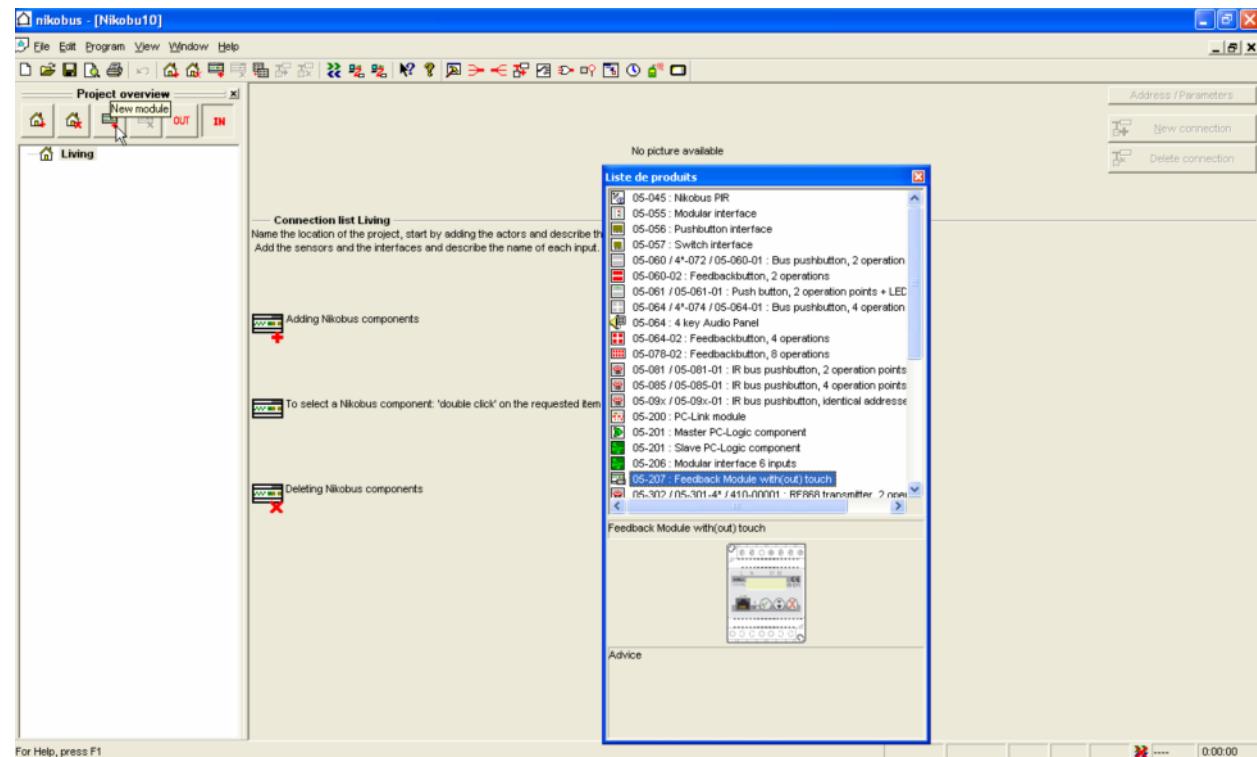
Adding a feedback module

Define a room for your project and select it by clicking on it. Make sure the IN button of the project overview window is clicked.
- Click on the New module. icon. The product list window is opened.
- Double click on 05-207: feedback module. The feedback module is added.
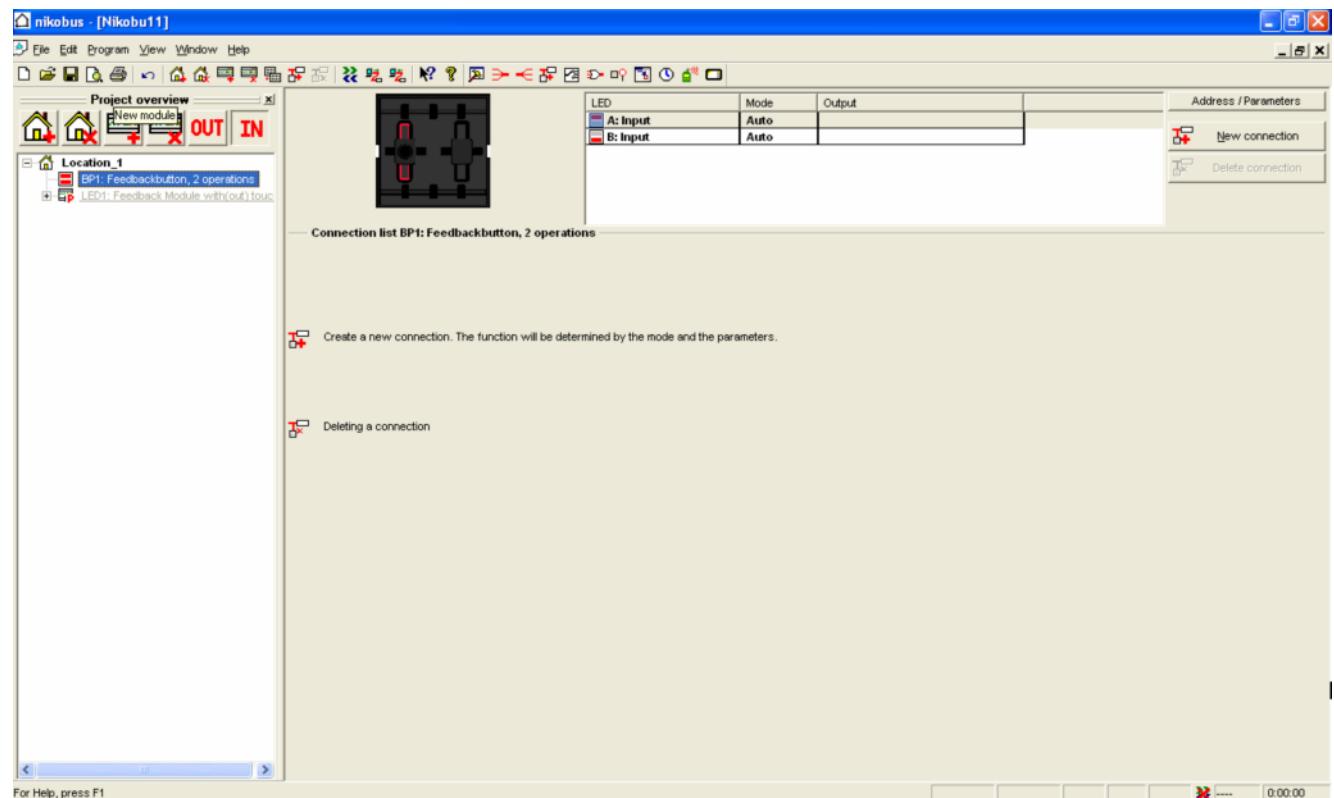
You can add max. 5 feedback modules.

Adding feedback bus push buttons

You can only add feedback bus push buttons if your installation is provided with a feedback module. You can simultaneously add a bus push button with 2 control keys and accompanying feedback LEDs by double clicking on 05-060-02: 2 control keys with 2 LEDs.
If the bus push button has been added, you can choose which feedback has to be given per key in the window next to the product image.

Possible selections are:
- o Auto: the key gives the predefined feedback according to the table below
- o Auto-inv: opposite of the previous function
- o Permanently off
- o Permanently on
- o Direct: in the 2nd column, you select the output whose LED you wish to exactly follow the function of the output.
- o Direct-inv: in the 2nd column, you select the output whose LED you wish to exactly follow the opposite function of the output.
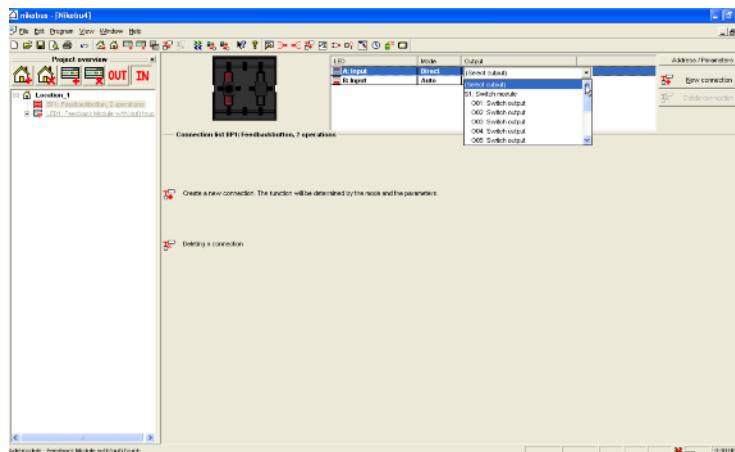
(COMPACT) SWITCH MODULE	When does the LED light?	When does the LED blink?
M01: on/off	upper LED lights if the output is on	
M02: on with control time	LED lights if the output is on	
M03: off with control time	LED lights if the output is out	
M04: push button	LED lights for as long it is pressed	
M05: impulse	LED lights if the output is on	
M06: delayed off, long times	LED lights for as long as the output is on	LED blinks during transit time
M07: delayed on, long times	LED lights if the delay time is started	LED blinks during transit time
M08: blinking		LED blinks if blinking mode is activated
M11: delayed off, short times	LED lights for as long as the output is on	LED blinks during transit time
M12: delayed on, short times	LED lights if the delay time is started	LED blinks during transit time
M14: atmosphere on	LED lights if the most recent adaptation of the output that is connected to the atmosphere button is carried out	

M15: atmosphere on/off	LED lights if the most recent adaptation of the output that is connected to the atmosphere button is carried out	

SHUTTER MODULE	When does the LED light?	When does the LED blink?
M01: open stop close	upper LED lights if shutter is completely opened	during transit time
M02: open	LED lights if shutter is completely opened	during transit time
M03: close	LED lights if shutter is completely closed	during transit time
M04: stop	no feedback	
M05: RF and interface (4-button)	no feedback	
M06: open with control time	LED lights if shutter is completely opened	during transit time
M07: close with control time	LED lights if shutter is completely closed	during transit time

(COMPACT) DIM CONTROLLER	When does the LED light?	When does the LED blink?
M01 dim on/off 2-button	upper LED lights if output is between min. and max.	
M02 dim on/off 4-button	no feedback	
M03 atmosphere on/off	no feedback	
M04 atmosphere on	LED lights if the most recent adaptation of the output that is connected to the atmosphere button has been carried out	
M05 on, possibly with control time	LED lights if the output is between min. and max.	
M06 off, possibly with control time	LED lights if the output is out	
M07 delayed off	LED lights for as long as the output is on	during transit time
M08 blinking		LED blinks if blinking mode is activated
M11 preset on/off	no feedback	

M12 preset	LED lights if the most recent adaptation of the output that is connected to the preset button has been carried out	
M13 dim on/off, 1-button	LED lights if output is on	
M14 dim on/off 1-button with memory	LED lights if output is between min. and max.	

In the connection list, you can easily detect the exceptions:
   'red': the function of the key is not supported by the feedback
   'orange': the function of the key is only partially supported by the feedback
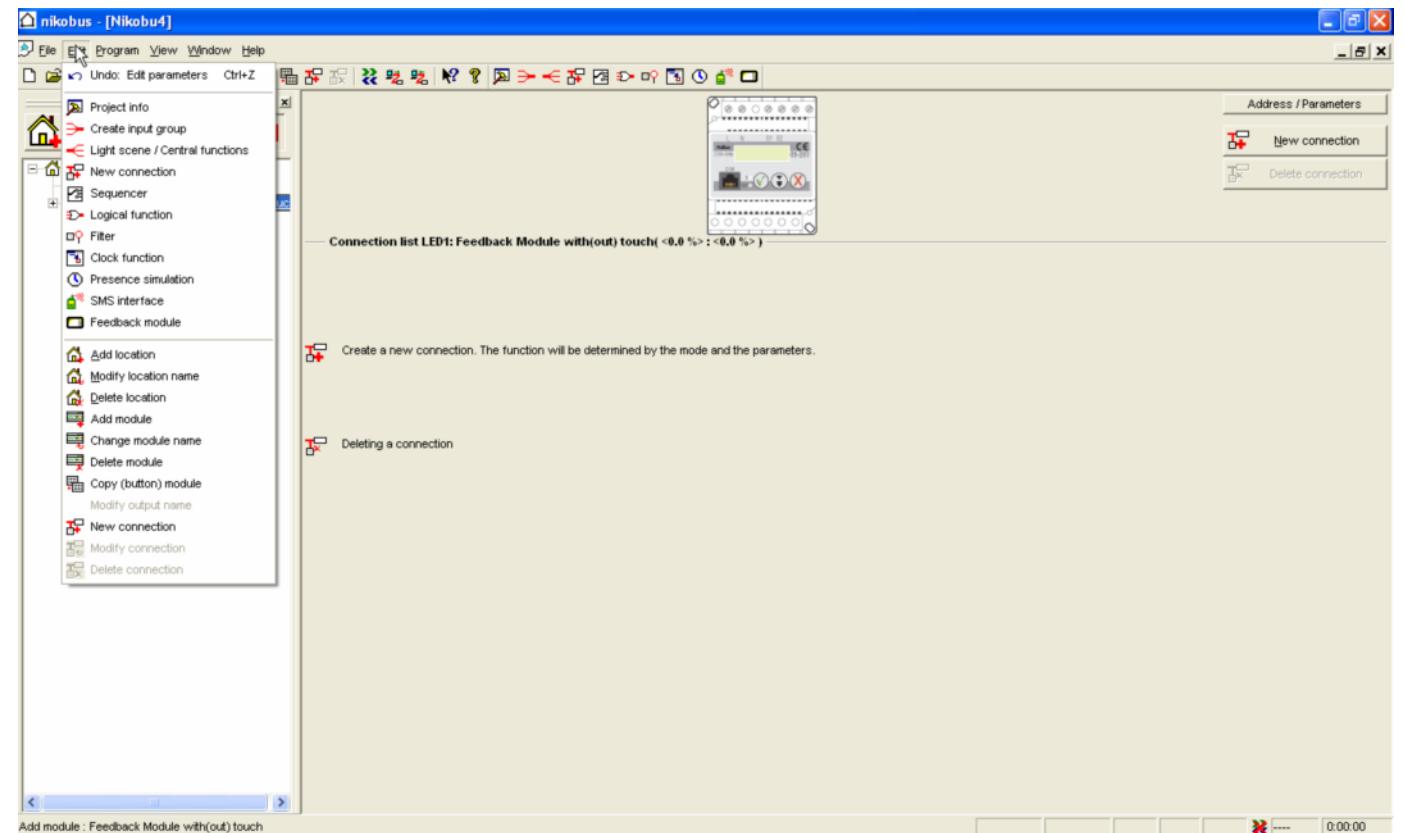
Configuration of the touchscreen

The configuration of the touchscreen can be carried out without it being part of an installation. If it is connected afterwards, it immediately takes on the preprogrammed functions.

You can start the configuration in 3 different ways:
1. First way:
Open the Edit menu and click on 'Configuration touchscreen'.
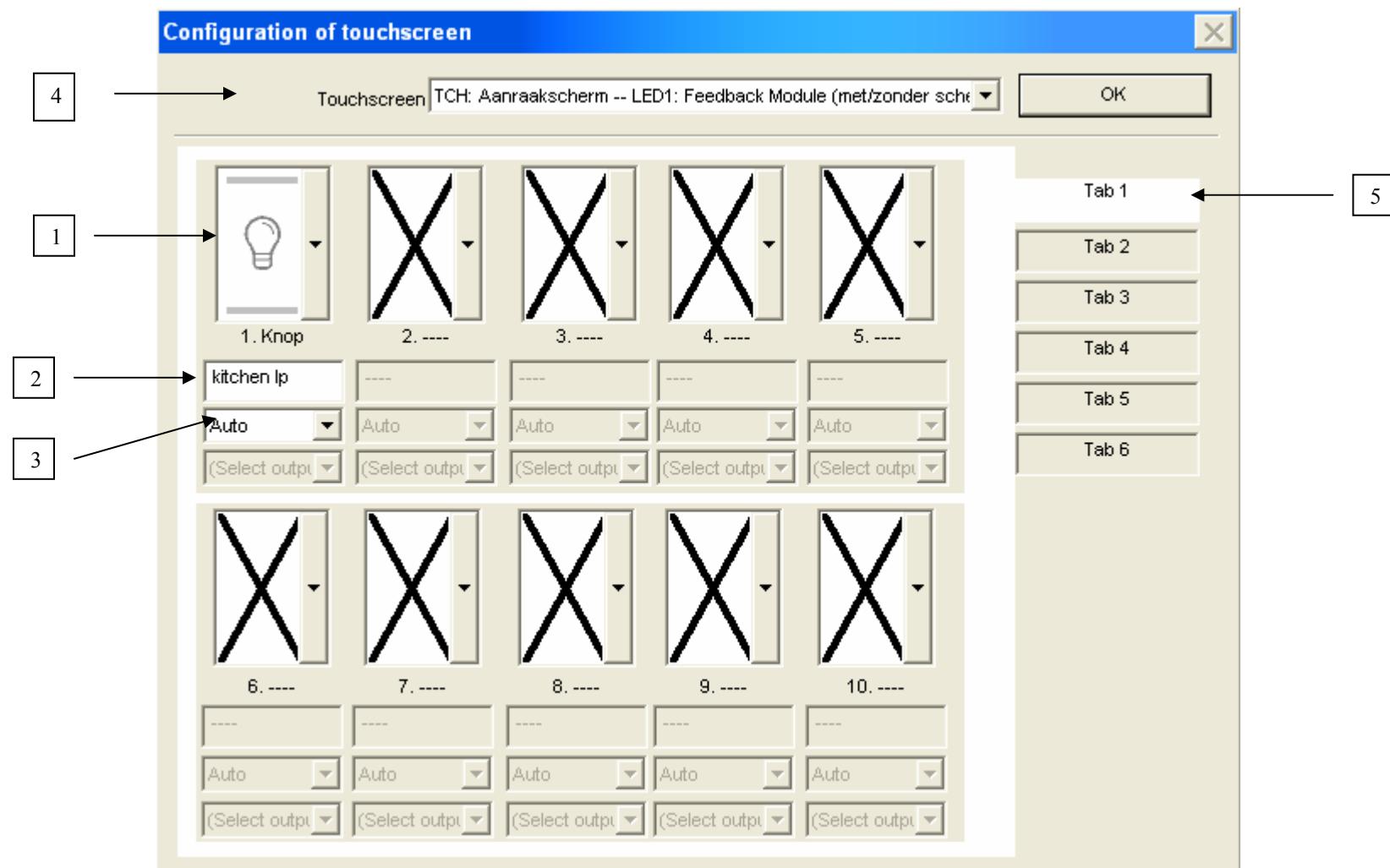
2. Second way:
Click on the icon in the toolbar. The window 'configuration touchscreen' is opened.

3. Third way: Double click on the touchscreen in the window project overview'.

Configuration of touchscreen

4 → Touchscreen TCH: Aanraakscherm -- LED1: Feedback Module (met/zonder sche ▼   OK

1 → 1. Knop

2 → kitchen lp

3 → Auto ▼   (Select outp ▼)

2. ----   (----)   Auto ▼   (Select outp ▼)
3. ----   (----)   Auto ▼   (Select outp ▼)
4. ----   (----)   Auto ▼   (Select outp ▼)
5. ----   (----)   Auto ▼   (Select outp ▼)

6. ----   (----)   Auto ▼   (Select outp ▼)
7. ----   (----)   Auto ▼   (Select outp ▼)
8. ----   (----)   Auto ▼   (Select outp ▼)
9. ----   (----)   Auto ▼   (Select outp ▼)
10. ---- (----)   Auto ▼   (Select outp ▼)

Tab 1 ← 5
Tab 2
Tab 3
Tab 4
Tab 5
Tab 6

1

Choice of the icon:
If you click on the arrow, a drop-down list with all possible icons is displayed (= combination of key and feedback). There are icons with an up/down key + lamp, an up/down key + shutter, an icon with only a lamp (no control) or only the symbol for all off.

2

You can assign a text to every location. The PC-software also automatically mentiones the unique number of the location. This number and accompanying text are also displayed in the 'make connection' and 'feedback connection' editor. The number is not displayed on the touch screen.

3

Choose which feedback has to be given.

4

In this dialog, choose which touch screen you wish to configurate. (name: TOUCH x : <text entered by the user>).

5

Click here to choose the sheet you wish to show/modify. You can modify the name of the sheet.

You can max. add 60 2-button bus push buttons. There are 6 sheets with each 10 buttons. Every button corresponds to max. 1 feedback indication. The touch screen has a fixed layout that is identical to the touch panel editor. Only the buttons that are configured in this touch panel editor will be visible on the touch screen afterwards.

First of all, select an appropriate icon from the list.
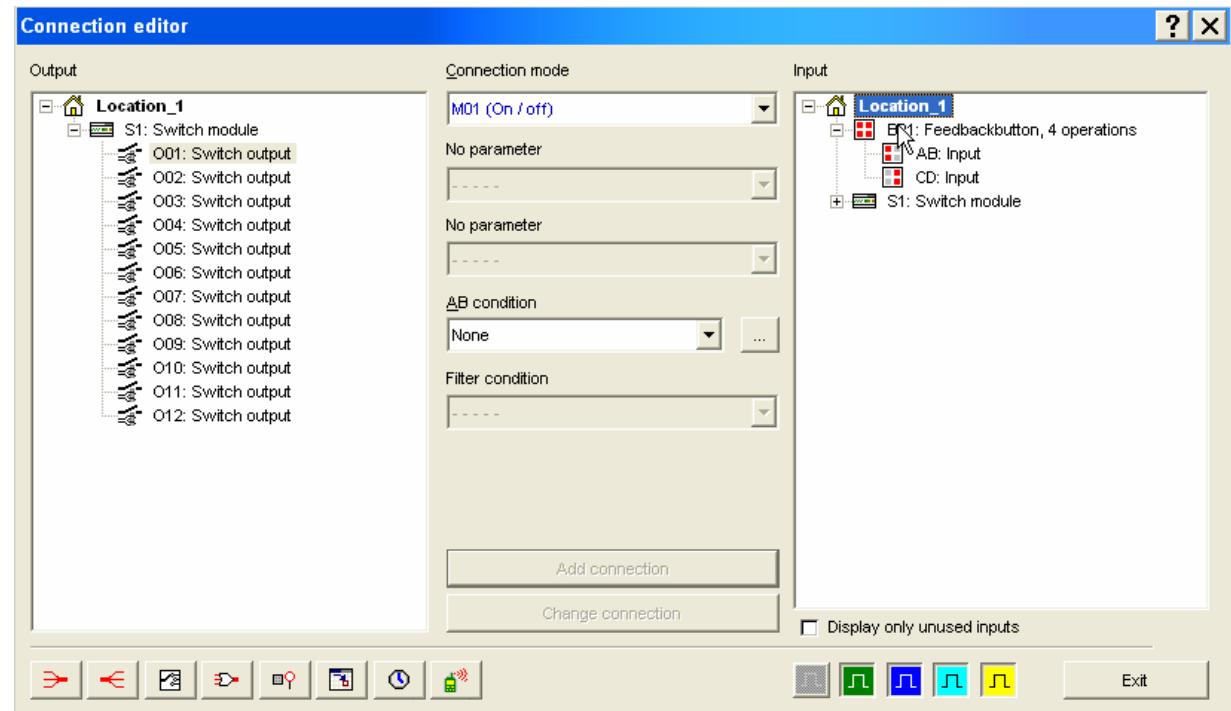
Provide a clear description of the function for the user that will be visible on the touchscreen, e.g. kitchen lamp
Define the action of feedback LED. You can choose from:
- o Auto: the key gives the predefined feedback according to p.112-114
- o Auto-inv: opposite of the previous function
- o Permanently off
- o Direct: in the 2nd column, you select the output whose LED you wish to exactly follow the function of the output.
- o Direct-inv: in the 2nd column, you select the output whose LED you wish to exactly follow the opposite function of the output.

In case of Auto, it will be determined later on if a 1-button or 2-button icon is used, depending on the connection that is made. In case of Direct, you can choose an output in the bottom 'square'. If all keys have been defined, you can close the editor.

Adding connections

You can add connections via the button 'new connection'. Use the same editor as for any other control. The list with inputs contains all touchscreens (if different touchscreens are added) and ONLY the controls that have been defined in the editor 'configuration touchscreen'.

If connections are made that give no feedback, this will be indicated in the overview list:
- 'red': The functions of the key are not supported by feedback
- 'orange': The functions of the key are only partially supported by feedback

Programming the touch screen
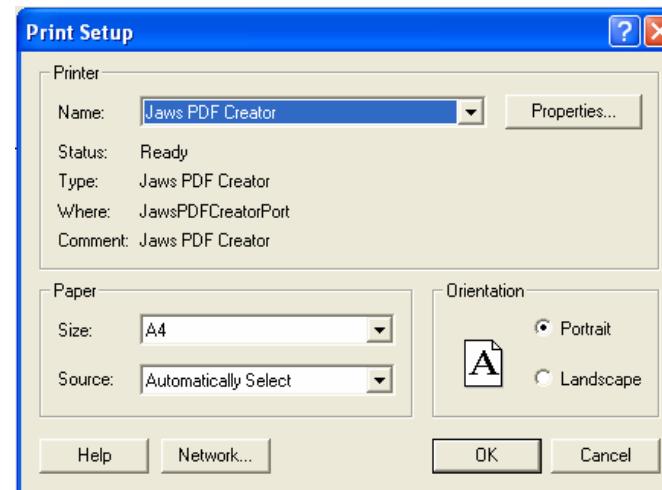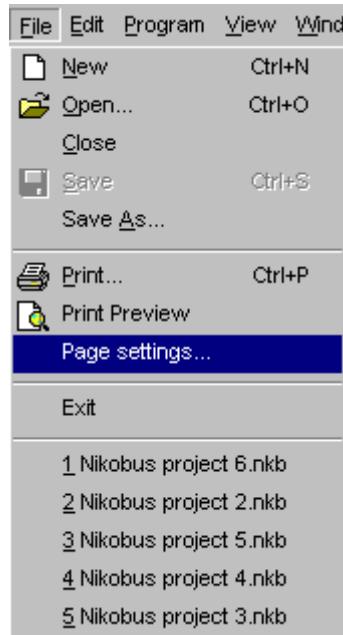
Finally, program your Nikobus installation using the PC software. This is identical to programming other push buttons in the Nikobus installation.

Description
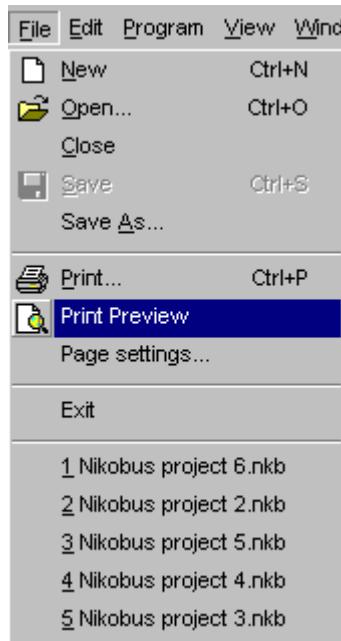
Working and programming with the computer is very convenient due to the fact that you can always maintain an overview. A paper print-out of your project data is certainly a part of this.

If you wish to obtain a paper print-out, you must first check the printer settings. To do so, click on the item **Page settings** in the **File** menu.
As a result, the **Printer settings** screen will be opened.

Here, you can select the printer on which you want the data to be printed and, if required, you can adjust the parameters of this printer by pressing the **Parameters** button.
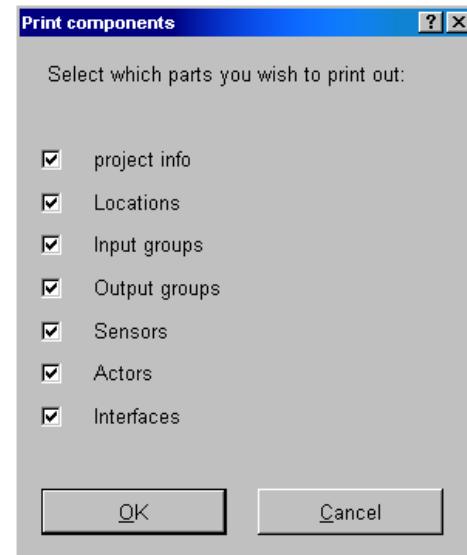
In addition, you can enter the paper format to be used and select how the paper should be inserted into the printer. Finally, select the printing position **Portrait** in the split window **Paper orientation**. Exit the window by clicking the **OK** button.

Viewing an example on the screen
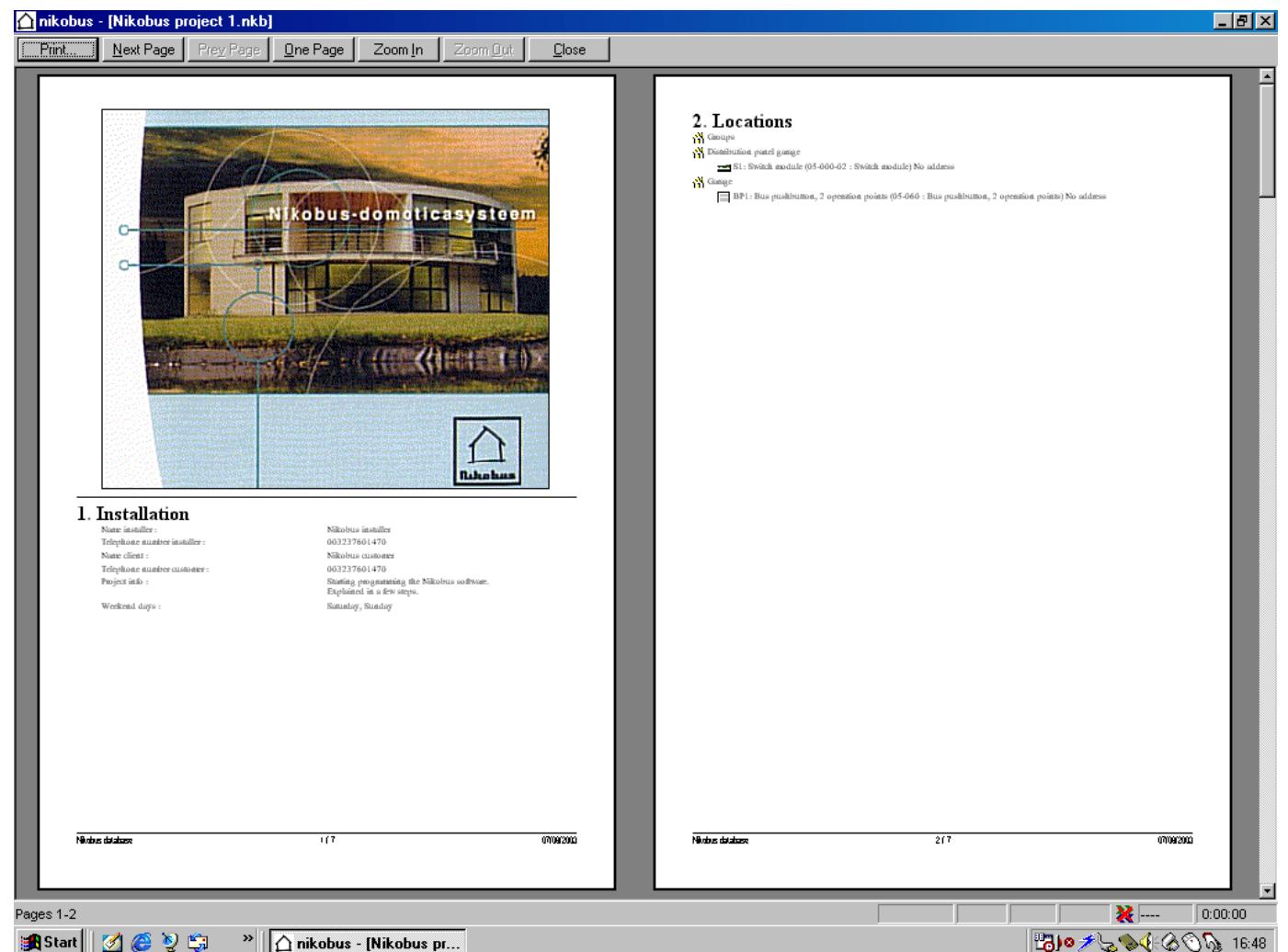
The Nikobus software offers you the option of viewing an example of the print-out on the screen prior to printing. Depending on the size of your project, the print-out can take several pages.

Start the Print preview by clicking the **Print preview** item in the **File** menu or on the **Print preview** icon in the **Standard toolbar**. The **Print-out components** screen will be opened.

In this screen, you can select the components you wish to print out. You have a choice of seven components: installation data or project info, the different locations, the input and output groups, the sensors, the actors and, finally, the interfaces. For all these components, very detailed information is included on the print-out.

When you have made our suggested selection, click on **OK**. The picture below will be the result.
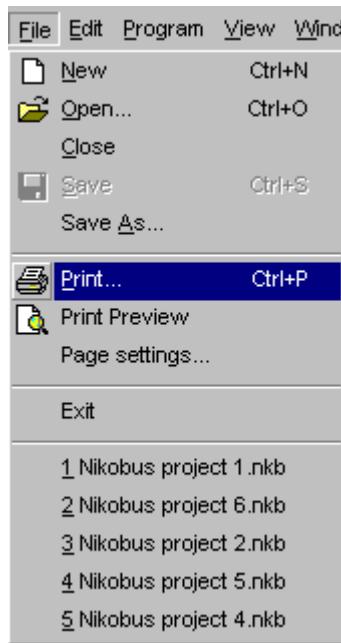
With the sliding bar at the right side of the screen, you can view the following pages.

You can, however, also use the **Next Page** or **Previous Page** buttons to browse through the document. Buttons are also provided for zooming in or out on a page. With the toggle button **One Page** or **Two Pages,** you can select whether to have one or two pages on the screen at the same time. The **Print** button allows you to print the example out on paper.

Exit the screen by clicking **Close**.
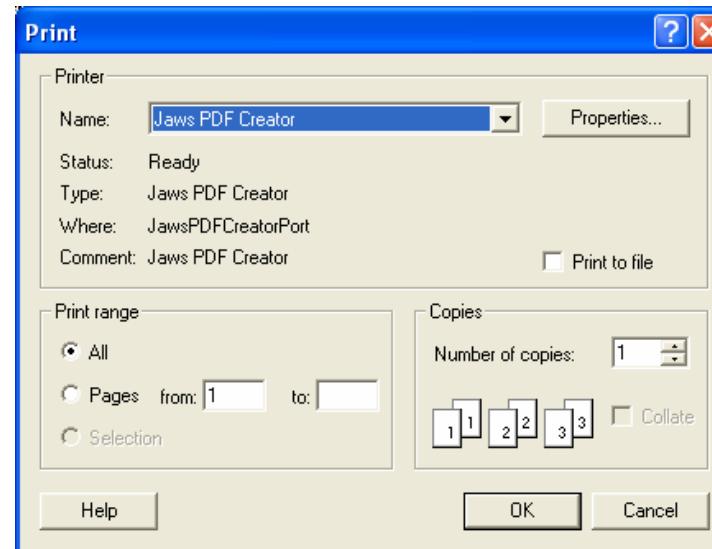
Print...	Next Page	Prev Page	One Page	Zoom In	Zoom Out	Close

The project on paper

In order to print out on paper, click the **Print** item in the **File** menu, or use the print icon 🖨 in the **Standard toolbar**. This will open the **Print** screen.

You must click **OK** to start the printing.
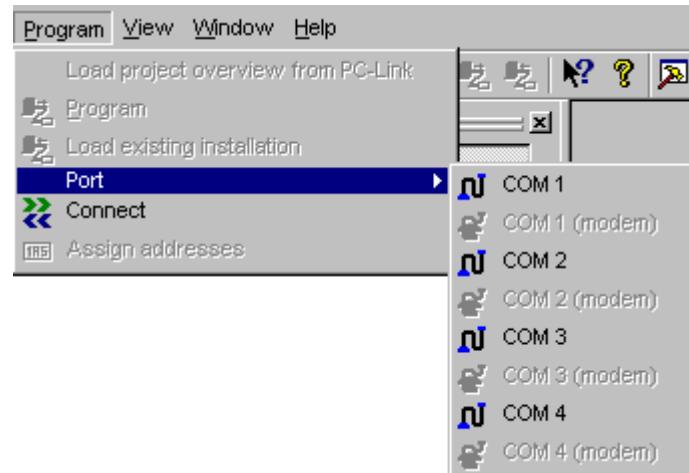
The physical connection

If you wish to download the created program to the installation, you must first establish a physical connection between the computer and the installation. This is done by connecting one end of the RS-232 cable to a **COM port** of the computer, while plugging the other side, (fitted with an RJ connector) into the **PC-Link** module of the **PC-Logic** module.

Setting the correct COM port

A computer usually has several COM ports. By means of the **Programming** menu and the menu item **Port**, the correct COM port can be set.
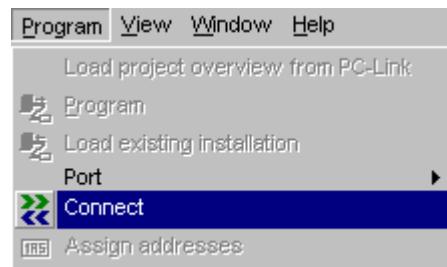
The data link

Once the physical connection has been established, you will be able to set up a data link for the communication between the computer and the installation. Ensure that the installation is under voltage.

In the Nikobus software toolbar, click on the **Connect** icon. Establishing a data link is also possible, however, by clicking the **Connect** command in the **Programming** menu.

As a result of this action, the **Connect** icon will appear on the status bar at the bottom of the screen, together with the used **COM port**.

If no data link has been established, the status bar will appear as shown on the left.

Introduction

Every Nikobus component (switch module, dim controller, shutter module, push buttons, PC-Link, PC-Logic, RF-receiver…) has a unique address. This address is assigned to the components at the factory.

In the traditional Nikobus way of programming, a push button must be pressed in order to indicate that this particular push button will carry out the established programming for the selected output(s). By this action, the address of the push button is assigned to the output module concerned and will be used by it.

In the software, you must do something similar. You have included several input and output components in the **Project overview** window. All these components must be assigned a physical address corresponding to the physical component of the installation.

Assigning addresses can be done in two different ways.
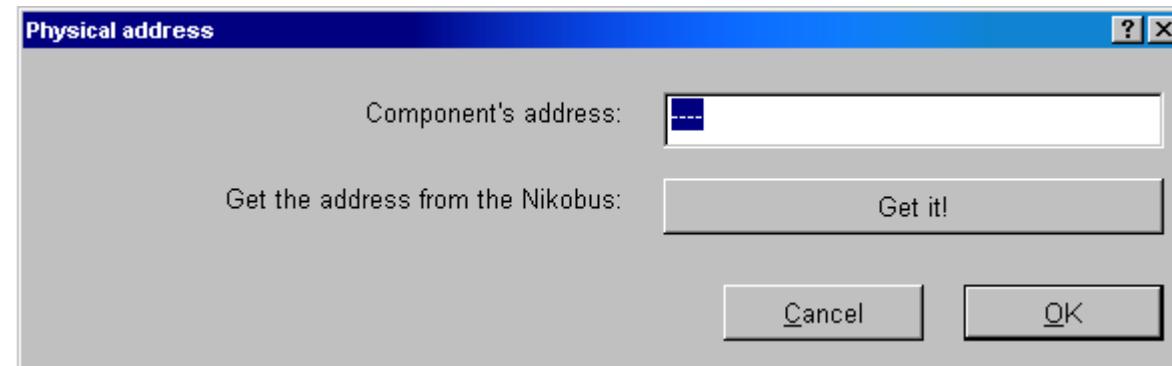
First method: individual assignation

Select a component in the **Project overview** window; for example, a switch module.
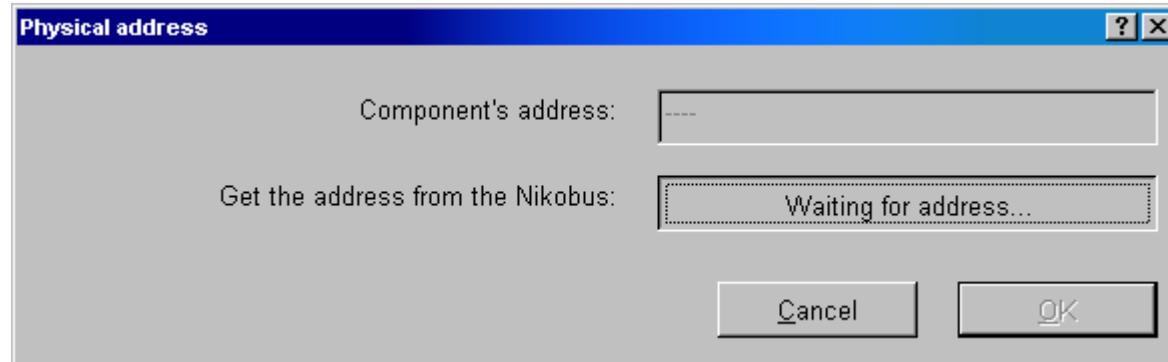
Then click the **Address / Parameters** button in the **Info** window, in the upper right of the computer screen. The screen below will be opened.
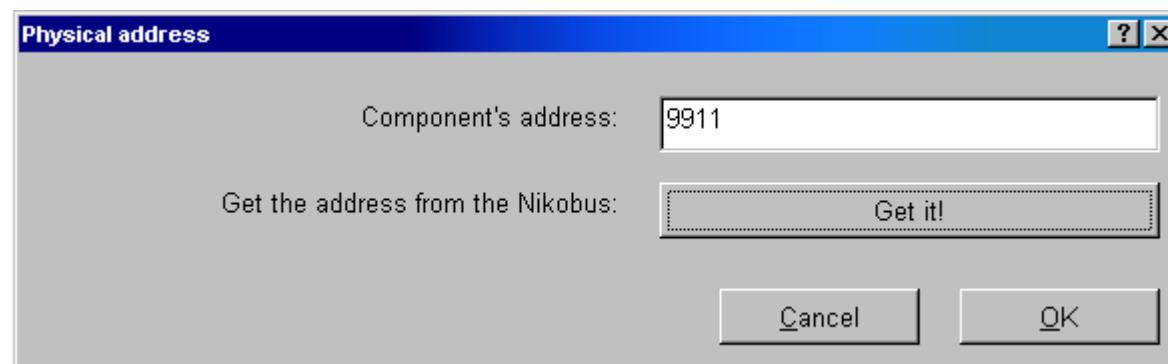
Get it!

Ensure that the data connection is active, as described in section 10.1.
Click the **Get it!** button.

In your screen, you will see that the **Get it!** button makes way for the message **Waiting for an address…**

Physical address

Component's address: ----

Get the address from the Nikobus: Waiting for address…

Cancel   OK
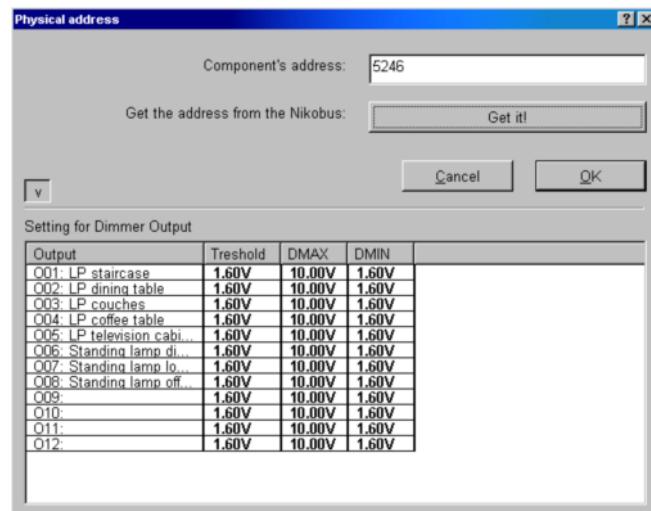
The address of the selected switch module must now be transferred to the computer. In order to do this, briefly press the yellow **Mode** key of the relevant switch module until you hear a beep. At that moment, the address of this component will be displayed on the screen (see picture below).

Physical address

Component's address: 9911

Get the address from the Nikobus: Get it!

Cancel   OK
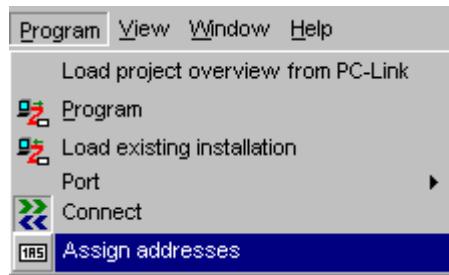
Exit the **Physical address** screen by clicking the **OK** button.

In the same way, you can now, for example, assign the address of a push button. Follow the same procedure, but now briefly press the relevant push button in order to assign its address and transfer it to the computer program.
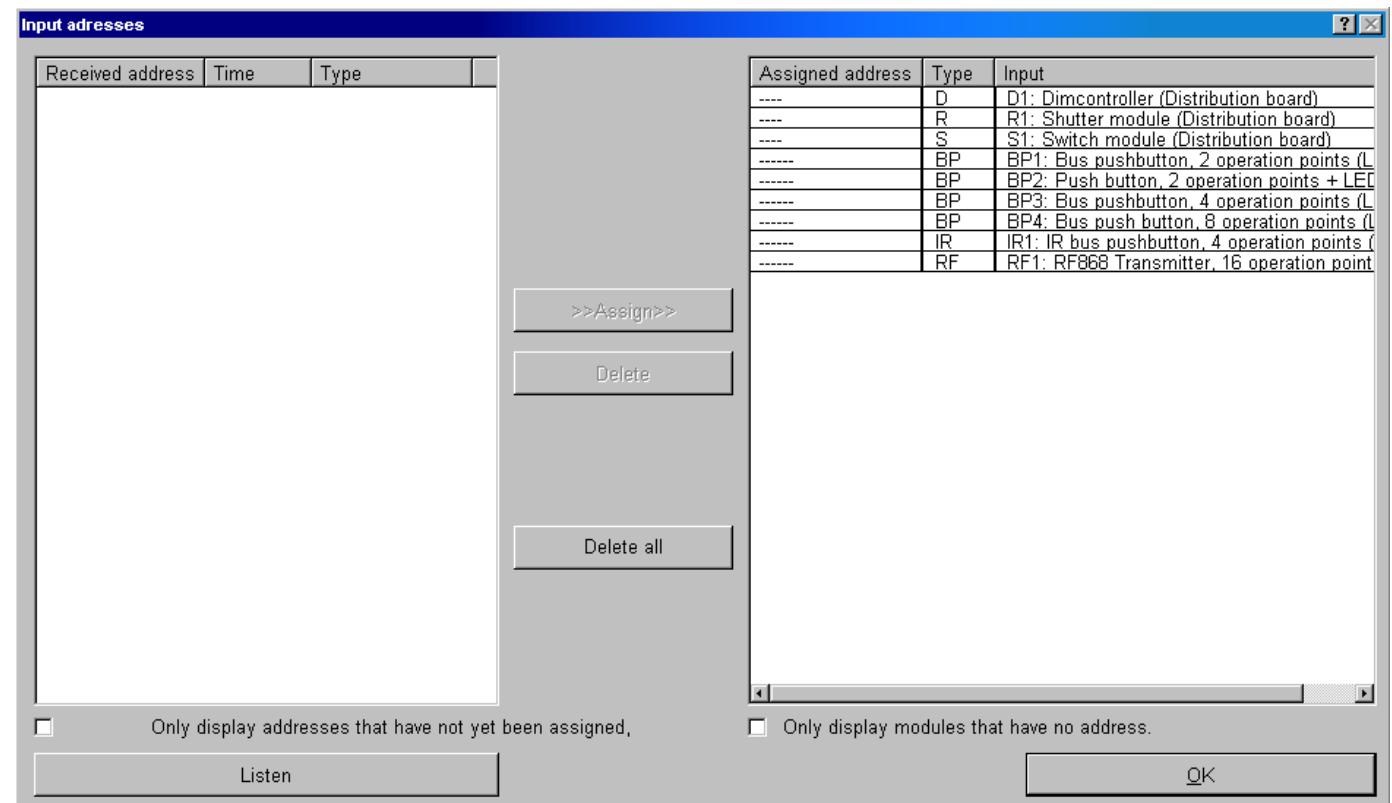
Depending on the type of component, the screens may slightly differ from each other. In case of the dim controller, for example, you will also see a list of the set parameters per dim channel.

Physical address

Component's address: 5246

Get the address from the Nikobus: Get it!

Cancel   OK

v

Setting for Dimmer Output

Output	Treshold	DMAX	DMIN
O01: LP staircase	1.60V	10.00V	1.60V
O02: LP dining table	1.60V	10.00V	1.60V
O03: LP couches	1.60V	10.00V	1.60V
O04: LP coffee table	1.60V	10.00V	1.60V
O05: LP television cabi...	1.60V	10.00V	1.60V
O06: Standing lamp di...	1.60V	10.00V	1.60V
O07: Standing lamp lo...	1.60V	10.00V	1.60V
O08: Standing lamp off...	1.60V	10.00V	1.60V
O09:	1.60V	10.00V	1.60V
O10:	1.60V	10.00V	1.60V
O11:	1.60V	10.00V	1.60V
O12:	1.60V	10.00V	1.60V

Second method: through the "Assign addresses" command

In order to start the second assignation method, click the command **Assign addresses** in the **Programming** menu. The screen shown below, **Input addresses,** will be opened. The command **Assign addresses** is only accessible if data communication between the computer and the installation has been set up previously, as described in section 10.1.

Program View Window Help

    Load project overview from PC-Link
    Program
    Load existing installation
    Port   ▶
    Connect
    Assign addresses

Input adresses

Received address	Time	Type

Assigned address	Type	Input
----	D	D1: Dimcontroller (Distribution board)
----	R	R1: Shutter module (Distribution board)
----	S	S1: Switch module (Distribution board)
------	BP	BP1: Bus pushbutton, 2 operation points (L
------	BP	BP2: Push button, 2 operation points + LED
------	BP	BP3: Bus pushbutton, 4 operation points (L
------	BP	BP4: Bus push button, 8 operation points (L
------	IR	IR1: IR bus pushbutton, 4 operation points (
------	RF	RF1: RF868 Transmitter, 16 operation point

>>Assign>>

Delete

Delete all

☐ Only display addresses that have not yet been assigned,   ☐ Only display modules that have no address.

Listen   OK

Listen

Now click the **Listen** button at the bottom left of the screen.
The computer is now ready to receive the address data of any component.
As an example, press push button BP2 of the installation. As a result of this, three columns will appear in the left split window. In the first column, the hexadecimal address of the component - in this case a push button – is indicated.

In the second column, the time when the push button was pressed is indicated. The third column indicates the type of component.

Received address	Time	Type
105676	07:22:34	BP/IG/CF/IR/...

>>Assign>>

Click this line with the mouse pointer. Then select the corresponding component in the right split window using the mouse pointer. In this case, this is **BP2**. Only now can the **Assign** button be clicked.

By doing this, the address is assigned to the bus push button BP2 of our project. In the **Assigned** column of the right split window, you will find the address next to the name of the push button.

Assigned address	Type	Input
----	D	D1: Dimcontroller (Distribution board)
----	R	R1: Shutter module (Distribution board)
----	S	S1: Switch module (Distribution board)
------	BP	BP1: Bus pushbutton, 2 operation points (L
105676	BP	BP2: Push button, 2 operation points + LED
------	BP	BP3: Bus pushbutton, 4 operation points (L
------	BP	BP4: Bus push button, 8 operation points (L
------	IR	IR1: IR bus pushbutton, 4 operation points (
------	RF	RF1: RF868 Transmitter, 16 operation point

Provide all other components of our project with an address in the same way.

When finished, exit the **Input addresses** screen by clicking the **OK** button.

Description
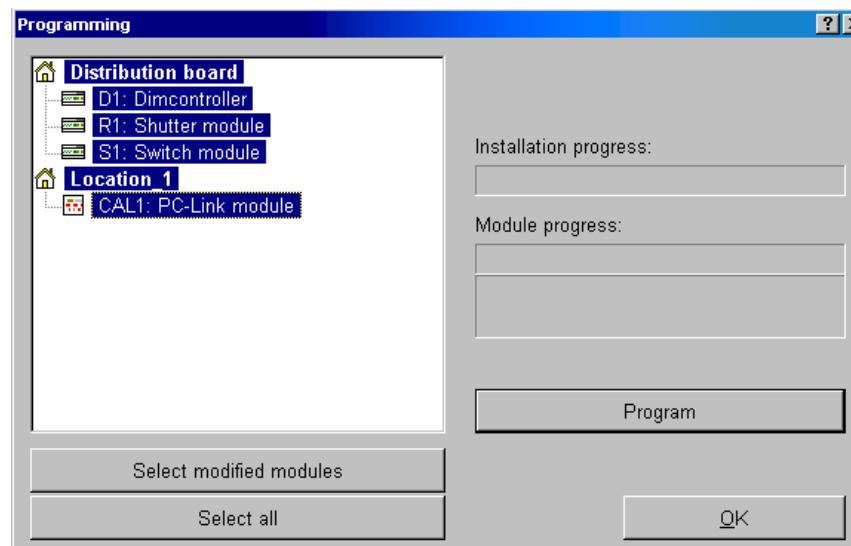
Now that the addresses of the installation components have been assigned to the corresponding components in your programming, you can download the programming of the various components to the installation.

First, establish the data communication link between the computer and the installation. To do this, click the **Connect** icon in the toolbar or the **Connect** command in the **Programming** menu. You should see the following in the status bar at the bottom of the screen:
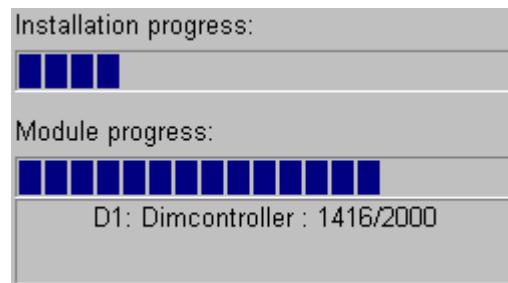
Open the **Programming** window by clicking the relevant icon on the toolbar or by clicking the **Programming** command in the **Programming** menu. You will obtain the screen shown below.

The modules that are displayed inversed (blue background colour and white letters) are those modules to which modifications have been made. If you want to download a completely new programming, then select all the modules by clicking the **Select all** button.

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If, however, you do not wish to reprogram certain modules, you can de-select them by clicking them. In this case, they will not be displayed inversed.

Click the **Program** button. The download of the program to the installation is starting.

Installation progress:

Module progress:

D1: Dimcontroller : 1416/2000

When the programming of all modules has been read into the installation, exit the window by clicking the **OK** button.
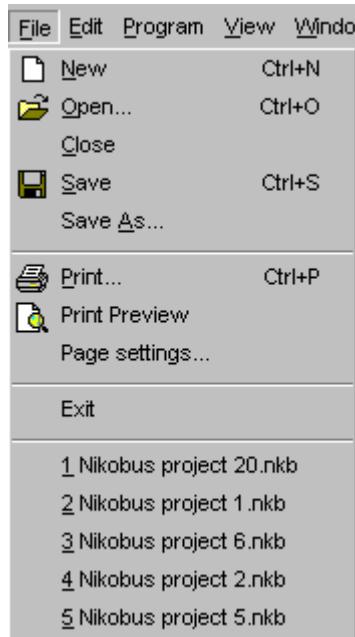
Important: If several sets of programming are transferred to the installation consecutively, it is desirable to carry out a new initialisation of the installation by briefly (minimum 5 seconds) cutting the power supply of the installation.

File Edit Program View Window Help

The Nikobus software contains a menu bar in which the following items are included:

File
Edit
**Program**
View
Window
Help
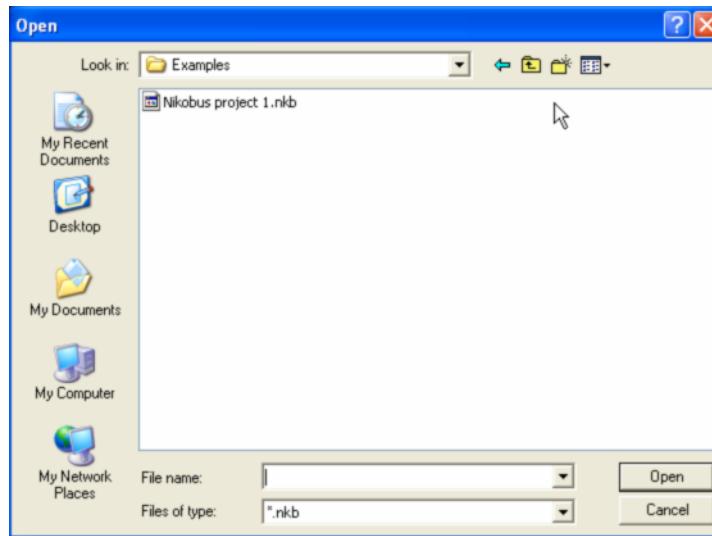
File Menu

The **File** menu is used to carry out different actions with files, for main printing files and for closing the program. It contains the following items:

File	Edit	Program	View	Windo

☐ New   Ctrl+N
📂 Open...   Ctrl+O
Close
💾 Save   Ctrl+S
Save As...
🖨 Print...   Ctrl+P
📄 Print Preview
Page settings...
Exit
1 Nikobus project 20.nkb
2 Nikobus project 1.nkb
3 Nikobus project 6.nkb
4 Nikobus project 2.nkb
5 Nikobus project 5.nkb
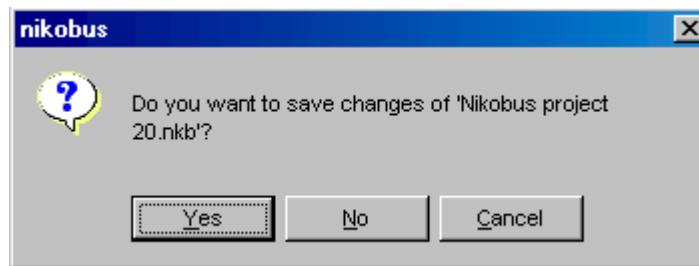
☐ New   Ctrl+N   The **New** command is used for starting a new Nikobus project. It can also be activated by clicking the relevant icon in the **main toolbar** or by typing the combination **Ctrl+N** (keep the key **Ctrl** pressed in while typing the **N** key) on the keyboard. A new project will be opened. The software will give a name to this new project. It is, however, recommended that you name your projects yourself. This will make it easier to find projects on the hard disk. To do this, see the **Save as** command.

📂 Open...   Ctrl+O   Use the **Open** command to open a project that already exists. The command can also be activated by clicking the relevant icon on the **main toolbar** or by typing the combination **Ctrl+O** (keep the key **Ctrl** pressed in while typing the **O** key) on the keyboard. The **Open** window will come up.
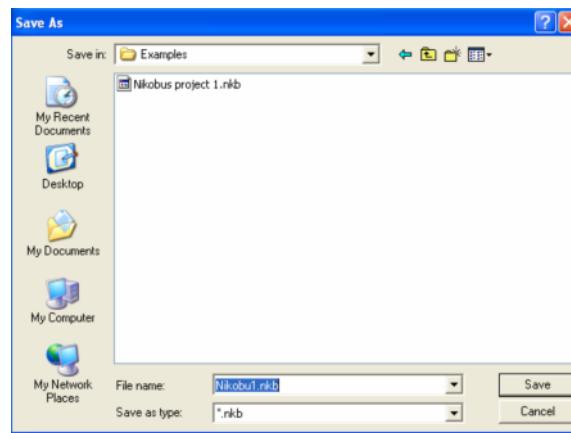
Select a project in the relevant folder and click the **Open** button.

Use the **Close** command to close the current project. If any modifications have been made to the current project, the screen below will be opened automatically.

If you want to save the modifications, click the **Yes** button. If the project has not yet been given a name, the **Save as** screen will be opened, with which the project can be assigned a name. In addition, the folder or directory in which the file should be saved can also be selected.

If you do not wish the modifications to be saved, simply click the **No** button. All modifications to the project will then be lost.
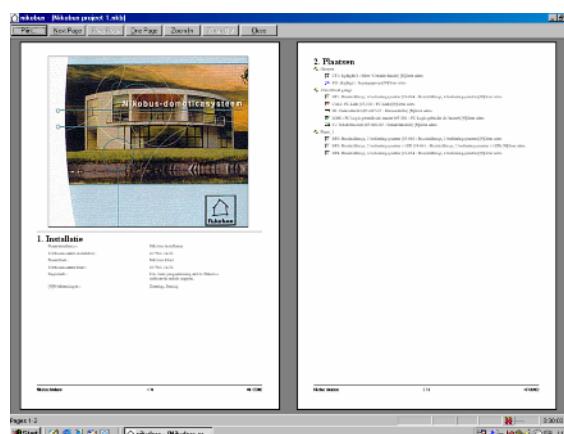
Should you now decide to continue working with the current project after all, click the **Cancel** button. You can achieve the same result by pressing the **Esc** key on the keyboard (top left of the keyboard).
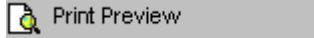
Save   Ctrl+S   The **Save** command is used to save the modifications that have been made to the current Nikobus project, without renaming the project. This command can also be activated by clicking the relevant icon in the toolbar. It is recommended to use this command regularly while working with the software, in order not to lose too much data in case, for example, a power cut should occur while you are working with the software.

Save As...   The **Save as** command is used to save the Nikobus project under a different name. It is recommended to use this command after you have used the command **New**. In this way, you can select a suitable name for your projects yourself, so that they can easily be retrieved from the hard disk.

In the **Save as** screen, you can create a suitable directory in which to save your projects. In addition, a name can be assigned to the project.
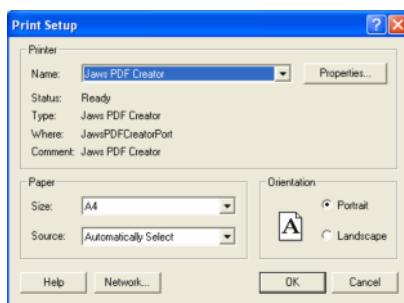
Print...   Ctrl+P   The **Print** command is used to obtain a paper printout of your project's program. It can also be activated by clicking the relevant icon on the **main toolbar** or by typing in the combination **Ctrl+P** (keep the **Ctrl** key pressed in while typing the **P** key) on the computer keyboard. The **Print components** screen will be opened. In this screen, you can tick which components you wish to print.
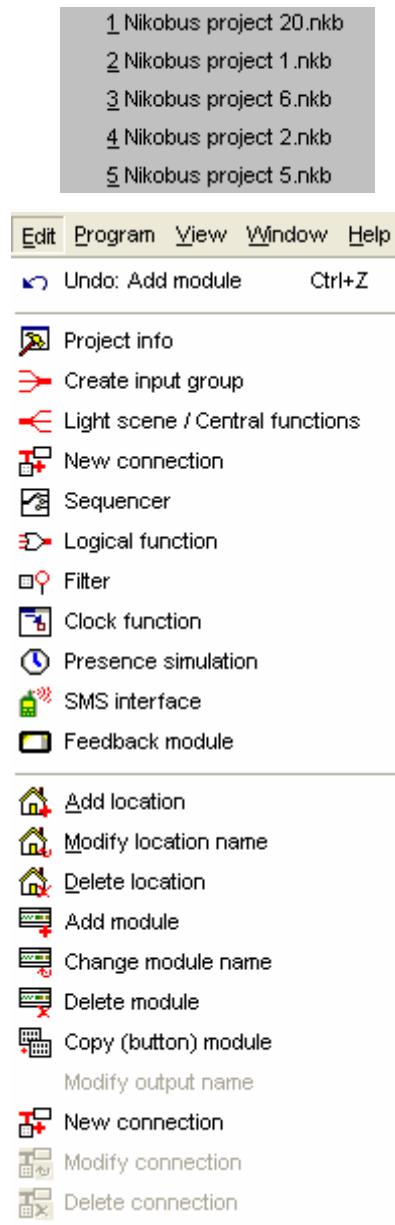
Print Preview   With the **Print preview** command, an example of a printout will be displayed on the computer screen. The **Print components** screen will be opened first. In this screen, you can select what you would like to include in the printout example.

All print preview pages can be viewed using the scrollbar on the right hand side of the screen. This command can also be activated by means of the **main toolbar** by clicking the relevant icon.

It is also possible to zoom in on the pages, and you also have the choice as to whether you would like to view one or two pages on the screen.

Page settings...   The **Page settings** command allows you to select the printer and to set up the correct settings for this printer. This command opens the Windows® screen **Printer properties**.

 Exit   The Nikobus software can be exited using the **Exit** command.

Most recently opened files: At the bottom of the **File** pull-down menu, you will find the names of the 5 files that where opened most recently. Clicking one of the names will open the corresponding file directly. This is a quick way to open those projects on which you have been working most recently.

1 Nikobus project 20.nkb

2 Nikobus project 1.nkb

3 Nikobus project 6.nkb

4 Nikobus project 2.nkb

5 Nikobus project 5.nkb

Edit Menu

The **Edit** menu provides all the tools necessary to carry out the required programming of Nikobus projects. The items and functions listed below are available in this menu.

Edit Program View Window Help

- Undo: Add module   Ctrl+Z
- Project info
- Create input group
- Light scene / Central functions
- New connection
- Sequencer
- Logical function
- Filter
- Clock function
- Presence simulation
- SMS interface
- Feedback module
- Add location
- Modify location name
- Delete location
- Add module
- Change module name
- Delete module
- Copy (button) module
- Modify output name
- New connection
- Modify connection
- Delete connection

Project info   With the **Project info** command, every project can be supplied with the necessary project data. This data is included in the printouts. The command can also be activated by clicking the relevant icon in the **function toolbar**.

Create input group   The **Create input group** command enables several sensors (inputs) to be placed in the same group. In this way, push buttons that will perform the same function need only be programmed once. The command can also be activated by clicking the relevant icon in the toolbar.

Light scene / Central functions   By means of the **Light scene / Central functions** command, several outputs can be placed in a group. The command can also be activated by clicking the relevant icon in the toolbar.

New connection   By means of the **New connection** function, outputs and output groups will be connected with sensors or inputs through a mode or function. The command can also be activated by clicking the relevant icon in the toolbar.

Sequencer   By means of the **Sequencer** command, it is possible to create the program for a sequencer function. The command can also be activated by clicking the relevant icon in the toolbar.

Logical function   This function opens the **Logical functions** screen. With this function, logical functions can be created from the inputs. The command can also be activated by clicking the relevant icon in the toolbar.
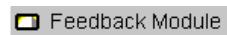
Filter   This function opens the **Filter** screen. With this function, any input can be used as a filter function for another input. The command can also be activated by clicking the relevant icon in the toolbar.
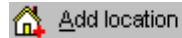
Clock function This function opens the **Clock function** screen. With this function, various clock channels can be created. Using a clock line, it is possible to activate or de-activate any function. The command can also be activated by clicking the relevant icon in the toolbar.
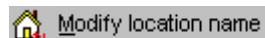
Presence simulation This function opens the **Presence simulation** screen. In the simulation, activities are recorded that will be carried out when the family members are absent. This command can also be activated by clicking the relevant icon in the toolbar.

Feedback Module The **feedback module** makes a connection between the **bus** of the Nikobus home automation system and the touchscreen 05-096 and/or the Nikobus **push buttons with LEDs**. Via this module, a clear status indication of you installation is displayed on the touchscreen or via the bus push buttons.

Add location With the **Add location** command, it is possible to add a room or a distribution panel to the project. The command can also be activated by clicking the relevant icon in the toolbar.

Modify location name By clicking **Modify location name,** the name of a room can be changed.

Delete location With **Delete location**, an room that has already been created can be deleted from the locations tree structure. The command can also be activated by clicking the relevant icon in the toolbar.
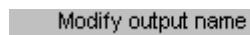
Add module The **Add module** command is used to add a Nikobus component to the locations tree structure. The operation of the command is dependent on the buttons **OUT** and **IN**. If the **OUT** button is activated, only output modules can be added. If, on the other hand, the **IN** button is activated, all other Nikobus components (sensors) can be added. The command can also be activated by clicking the relevant icon in the toolbar.

Change module name If a Nikobus component (output module or sensor) has been selected, the name of the module can be adapted to your individual requirements using the **Modify module name** command.

Delete module If a module has to be deleted, this can be done by using the **Delete module** command. The command can also be activated by clicking the relevant icon in the toolbar.

Modify output name The **Modify output name** command is used to adapt the output names of the output modules to your individual requirements.
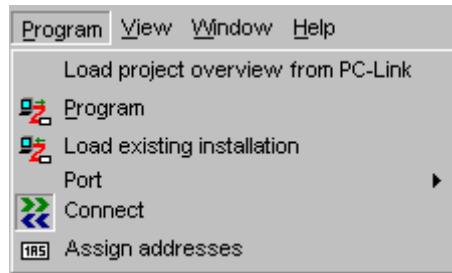
New connection By means of the **New connection** function, outputs and output groups are connected with sensors or inputs through a mode or function. The command can also be activated by clicking the relevant icon in the toolbar.

Modify connection   With the **Modify connection** command, it is possible to modify an already existing connection between an output or output group and an input or input group.

Delete connection   By means of the **Delete connection** command, an already existing connection can be deleted. The command can also be activated by clicking the relevant icon in the toolbar or by clicking the button **Delete connection**.

Programming Menu

By means of the **Programming** menu, all kind of activities can be carried out that are related to transferring the computer program to the installation, or the other way round. This menu must also be used for the assignment of addresses.

Load project overview from PC-Link   Use this menu item to read the configuration of an installation into the computer. This then causes all Nikobus components to be placed in a new file. This command can only be activated if an RS-232 connection between the computer and the installation has been previously set up.

Program   The **Programming** command is used to channel programs from the computer to the installation. The command can only be activated if an RS-232 connection between the computer and the installation has been previously set up. The command can also be activated by clicking the relevant icon in the **main toolbar**.
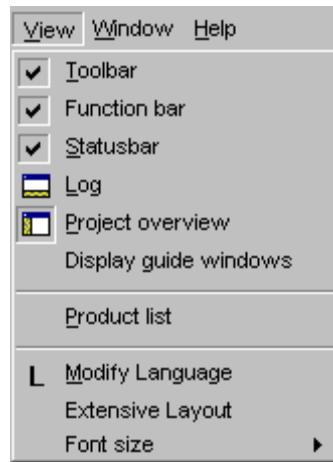
Load existing installation   By means of the **Load existing installation** command, the programming of an installation can be transferred to a computer. The command can only be activated if an RS-232 connection has first been set up between the computer and the installation, and after the command **Load project overview from PC-LINK** has been carried out.

Port   By means of the **Port** command, the COM port that will be used for the RS-232 connection to the installation can be selected on the computer.

Connect   With the **Connect** command, a data connection is established between the computer and the installation.

Assign addresses   The addresses of the various Nikobus installation components can be assigned to the corresponding software components using this menu item. This command can only be activated if an RS-232 connection has been previously set up between the computer and the installation.

View Menu

With the **View** menu, a number of screen layout parameters can be set. It is possible to choose whether or not certain windows and toolbars should be displayed and/or adapted. Other languages can also be selected here.

Clicking the **Toolbar** command several times will turn the main toolbar alternately visible or invisible on the screen. If **Toolbar** has been ticked, it will be visible.
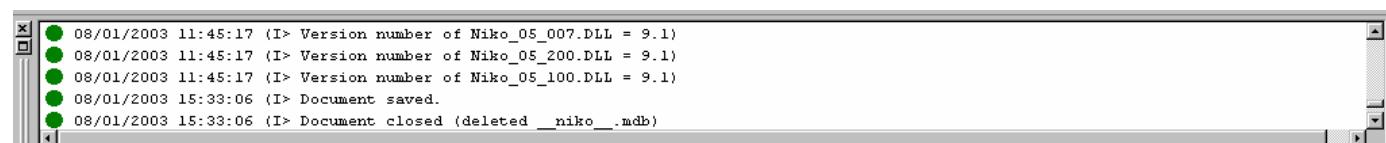
Similarly, an additional toolbar will be alternately displayed or not displayed on the screen by clicking the **Function bar** command several times. If **Function bar** has been ticked, it will be visible. Various icons that allow access to separate dialog windows can be found on this toolbar. All these functions can also be found in the **Edit** menu.

By clicking the **Status bar** command several times, the status bar will be alternately displayed or not displayed at the bottom of the screen. If **Status bar** has been ticked, it will be visible. This bar provides the user with context-sensitive information.

For Help, press F1

🏁 Start | 📝 🌐 🔵 🎴 » | 🏠 nikobus - [Nikobus pr...
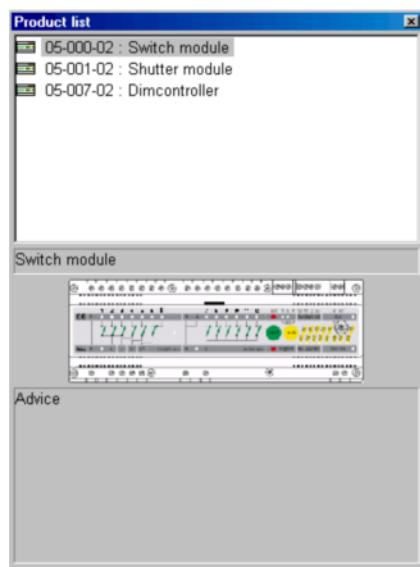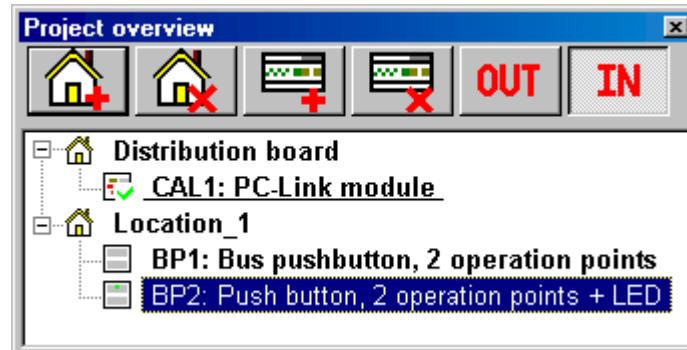
By clicking the **Log** command several times, the **Log** window will be alternately visible or invisible at the bottom of the screen. If **Log** has been ticked, it will be displayed. In the **Log** window, information regarding the operation of the program can be found. Possible errors in the program or in the communication can be traced here.

```
● 08/01/2003 11:45:17 (I> Version number of Niko_05_007.DLL = 9.1)
● 08/01/2003 11:45:17 (I> Version number of Niko_05_200.DLL = 9.1)
● 08/01/2003 11:45:17 (I> Version number of Niko_05_100.DLL = 9.1)
● 08/01/2003 15:33:06 (I> Document saved.
● 08/01/2003 15:33:06 (I> Document closed (deleted __niko__.mdb)
```

![niko - Illuminating ideas.]

Project overview   With the **Project overview** command, it is possible to select whether the **Project overview** window should be displayed on the screen or not. This window shows the project as a tree structure.

Display guide windows   In the **Guide** windows, you can indicate whether these windows should be displayed again or not. When opening a new logical function or clock function in the future, these windows can be displayed again by activating the **Display guide windows** command.

Product list   By means of the **Product list** command, the **Product list** window can either be shown on the screen or not.
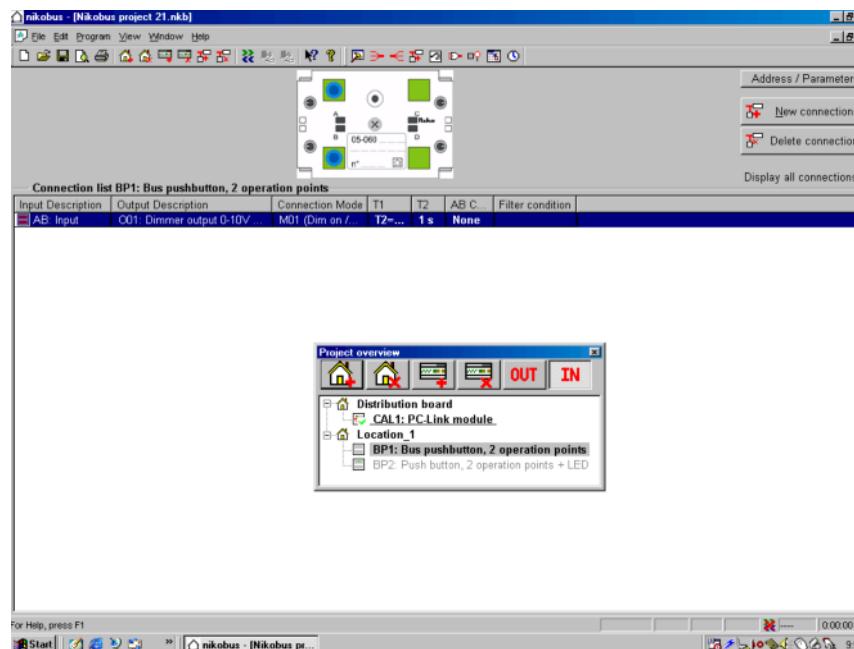
The **Modify language** command makes it possible to use the program in other languages. Select the desired language and click the **OK** button. Obviously, only the language of the program will change, and not the names that you have possibly already entered yourself for rooms, distribution panels, output or input modules.

By clicking the **Extensive layout** command, a choice between two screen visualisations of the basic screen can be made. If no tick has been placed, a fixed screen for the **Project overview** can be found next to the **Info** window. In the other case, the **Info** window takes up the entire screen, with the **Project overview** window on top of it. The latter window can be dragged anywhere on the screen by means of the screen's title bar. Its size can also be adapted to your individual requirements.
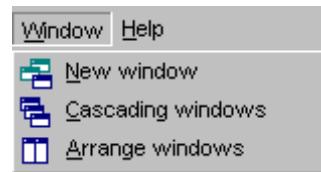
By means of the **Font size** command, the size of the used font can be set. It is possible to choose a font size from 10 to 18.
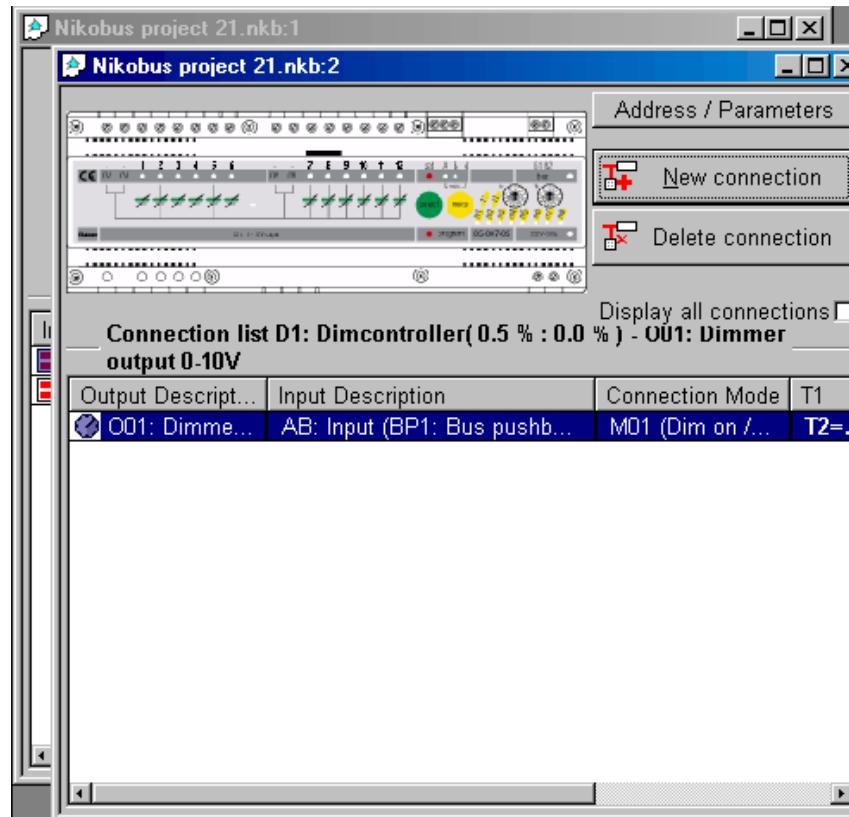
Window Menu
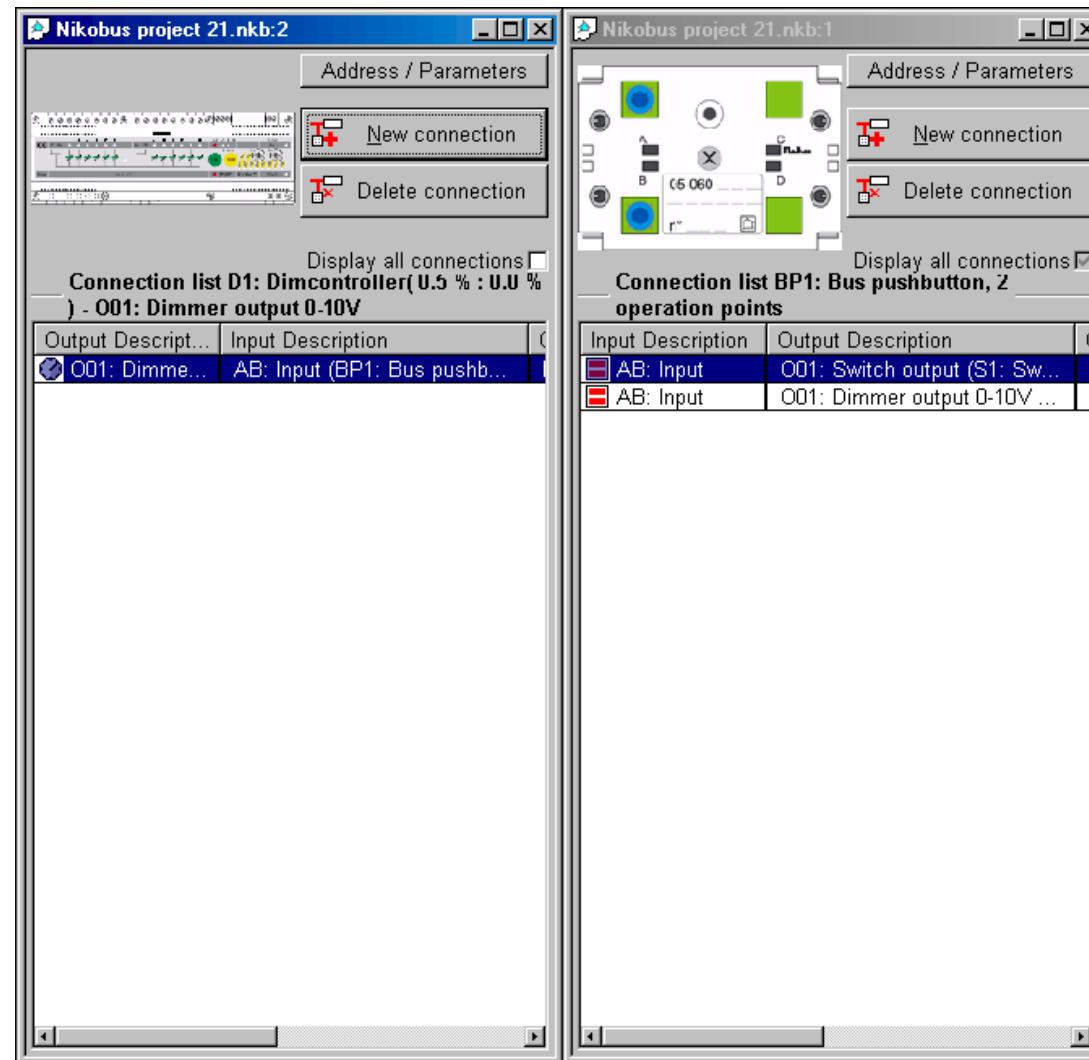
If desired, several info windows can be used. The commands in the **Window** menu can only be clicked if the **Extensive layout** command of the **View** menu is activated.

     Creates a new **Info** window.
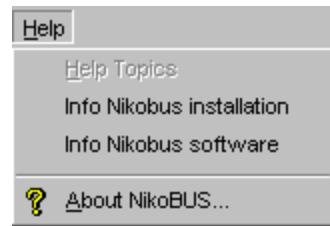
   (Cascading windows) Puts the different windows over each other in an overlapping manner.

Arrange windows (Arrange windows) Puts all open **Info** windows next to each other on the screen.

Help Menu

If help is required while using the program, the **Help topics** command can be used. Activating the command will result in the screen below. The help function is structured as in any other Windows® program. Consult your Windows® manual if you wish to make use of it.

The **About Nikobus...** command opens an info screen in which the version of the Nikobus program that is being used will be indicated.

Main toolbar

You can decide whether to display the main toolbar on the screen or not by clicking the **View / Toolbar** command

Create a new Nikobus project.

Open an existing project.

Save the opened project without renaming the file.

Print preview.

Print command.

Add a location or a room.

Delete a location or a room.

Add Nikobus components (sensors, actors).

Delete Nikobus components (sensors, actors).

Create a new connection.

Delete an existing connection.

Create an RS-232 connection with the installation.

Download the program from the computer to the installation.

![icon] Upload the program from the installation to the computer.

![icon] Context-sensitive help indicator.

![icon] Opens the **About Nikobus** info screen.

Function bar

![function bar icons]

The **Function toolbar** can either be displayed on the screen or not by clicking the **View / Function bar** command. This toolbar contains icons allowing the direct opening of various dialog windows.

![icon] Clicking this icon will display the **Project info** dialog window, in which the project coordinates can be stored.

![icon] Create new or edit existing **input groups**.

![icon] Create new or edit existing **output groups**.

![icon] Create a new connection.

![icon] Allows the creation of a new sequencer or the editing of an existing sequencer.

![icon] Allows the creation of new logical functions or the editing of existing logical functions.

![icon] Allows the creation or modification of filter functions.

![icon] Create or modify clocks.

![icon] Create or edit a presence simulation.

Illuminating ideas.

SMS interface

Feedback module

Some icons have also been placed in the **Project overview** window.

Add a location or room.

Delete a location or room.
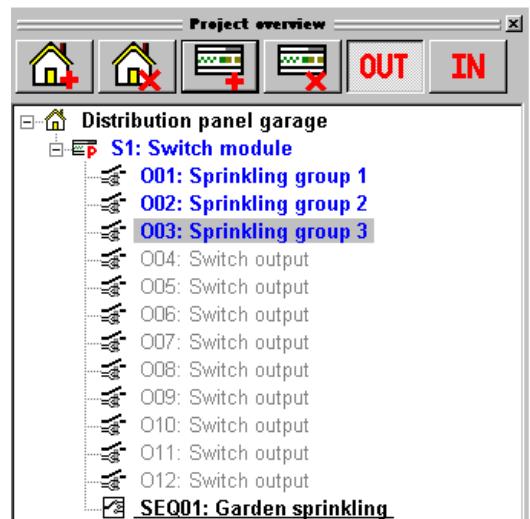
Add Nikobus components (sensors, actors).

Delete Nikobus components (sensors, actors).
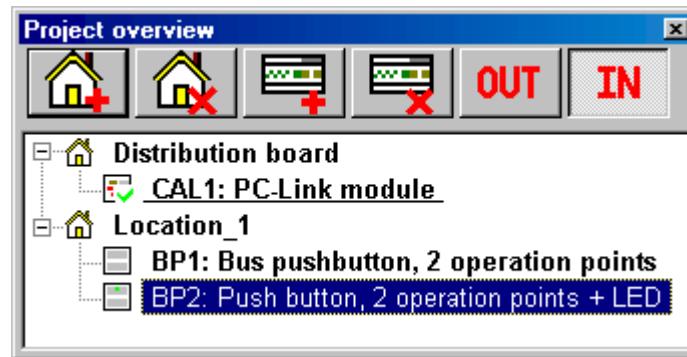
OUT Allows the viewing of only the outputs in the **Project overview** window. The output groups are also visible.
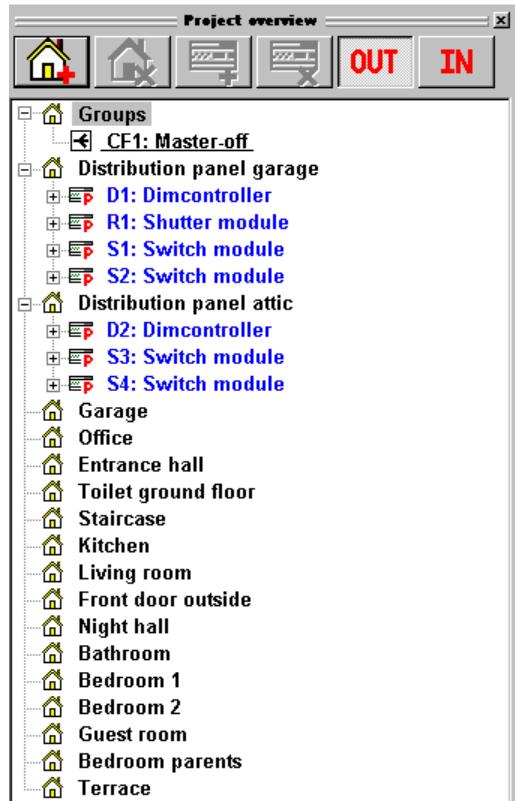
IN Allows the viewing of only the inputs in the **Project overview** window. The input groups are also visible. In addition, the PC-Link and PC-Logic modules are also displayed.

The basic Nikobus software screens include the **Project overview**, **Info** and **Connection list** windows.

| **Project overview window** |

In the **Project overview** window, a tree structure of the project is created. The items displayed in the window depend on the position of the **IN** and **OUT** buttons. If the **OUT** button is activated, the module outputs and the output groups will be shown in the tree structure. If the **IN** button is activated, the input modules, such as push buttons, interfaces and PC-Logic and PC-Link module, will be shown. In addition, you can also view the input groups here.
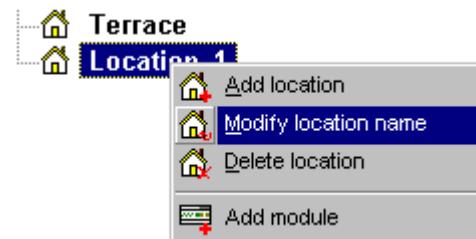
The **Project overview** window is always in one of the two positions, either **IN** or **OUT**.
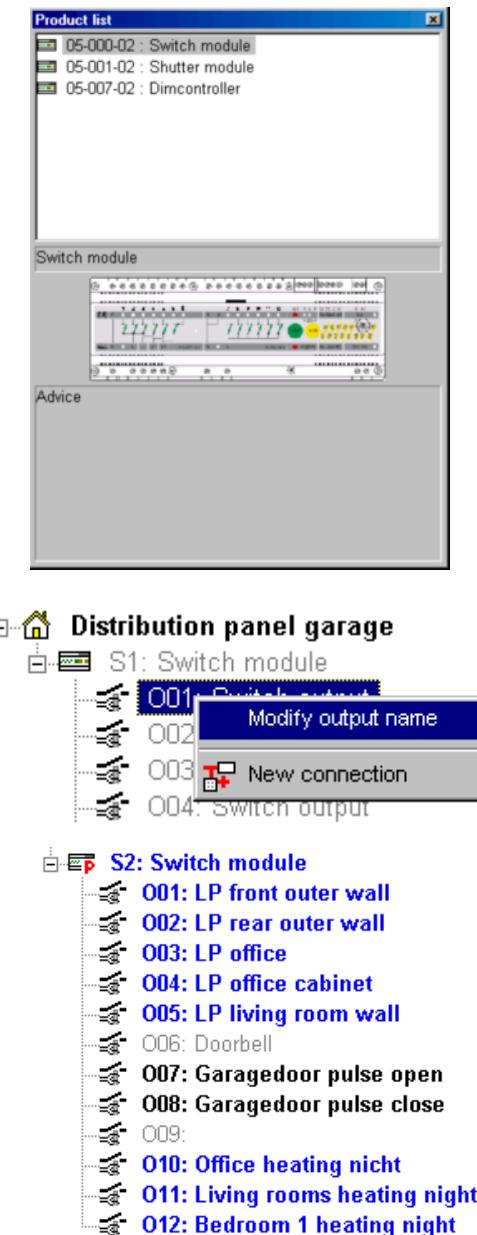
a.   Adding and deleting rooms and distribution panels

Rooms and distribution panels can be added to the tree structure In both the **OUT** and **IN** position. To do so, click the **New location** 🏠 icon. This icon can be found in both the **Project overview** window toolbar and in the main toolbar.

A new room/distribution box is thereby created. The standard name is **Location_1**. The new location can, however, be immediately renamed by typing in a new name and closing this action with the **Return** key. In this way, a list of distribution panels and rooms belonging to the project is obtained.

It is also possible to enter a different name after a room has been created. To do this, select the relevant room and click it with the right mouse button. A pop-up menu is thereby opened in which you can select **Modify location name**. Type in the new name and close the action by pressing either the **Return** or the **Enter** key. This command can also be found in the menu displayed under **Edit / Modify location name**.

Using the same method, a room or distribution box that has already been created can be deleted. To do this, click the above command window or the **Delete location** command in the **Edit** menu. A location can also be removed by selecting the location to be deleted and then clicking the **Delete location** icon in the various toolbars.

b. Adding and deleting output modules

Make sure the **OUT** button is activated by clicking it.
Once the different distribution panels and rooms have been created, the output modules can be placed and the outputs can be named. Select a distribution panel in which you want to place a module and click the **New module** icon. This command is also available under the **Edit / Add module** menu. If it was not already visible, the **Product list** window now appears. This window only lists the output modules of the Nikobus home automation system.

In the product list, double-click the module to be added. This will cause the module to be added to the previously selected distribution panel.

To rename or delete a placed module, select the module in question in the **Project overview** window and click the right mouse button. A pop-up menu will be opened in which the **Modify module name** and **Delete module** commands can be activated. Both commands can also be clicked in the **Edit** menu. To delete a module, the **Delete module** icon, which can be found in the toolbars, can also be used.
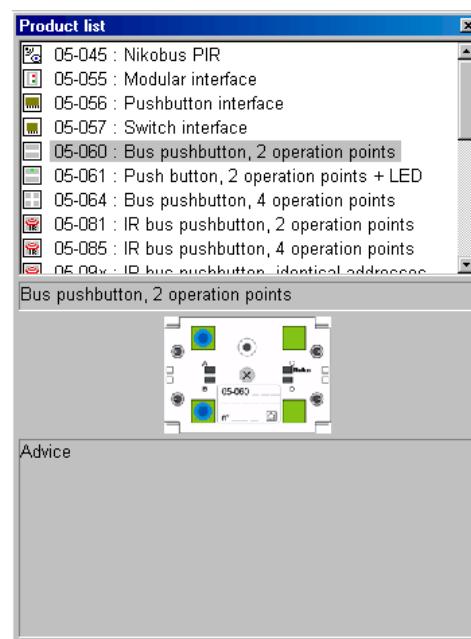
c. Naming and renaming outputs

Once an output module has been placed under a distribution panel in the **Project overview** window, the outputs of the installed module must be named. This is quite convenient, as it is possible to use normal, intelligible words in order to indicate which load will be connected to a particular output.

In order to view all the outputs of a particular module, click on the square with the plus symbol (on the left of the selected module). Now select an output, and click the right mouse button. The **Modify output name** command can now be clicked. Then type in the name of the load and close the action by pressing either the **Enter** or the **Return** key.

The **Modify output name** command can also be activated under the **Edit** menu or the F2 key.

If no programming has been assigned to an output yet, the output will be displayed in light grey in the **Project overview** window. If programming has been assigned, the output will be shown in black. If an output belongs to an output group, it will be displayed in blue in the **Project overview** window.

The same applies to the way in which the output modules are displayed. As soon as a module output has been programmed or has been added to an output group, the colour with which it is represented in the **Project overview** window will change.

d. Dragging output modules

If an output module has not been placed in the correct distribution panel, it can be moved to another distribution panel. To do this, select the module to be moved. Click the module and drag it to another distribution panel (by keeping the left mouse button pressed in). Once it has arrived at the correct distribution panel, let go of the left mouse button. The module has now been moved to the other distribution panel.

e. Adding and deleting input modules

Make sure the **IN** button is activated by clicking it.
Once the different components in the distribution panels have been created, the input modules will be placed and, if desired, named. To do this, select a room where you wish to place a module and click the **New module** icon. The **Product list** window now appears if it was not already visible. This window now only lists the input modules of the Nikobus home automation system.

In the product list, double-click the item to be added. This will add the item to the previously selected room.
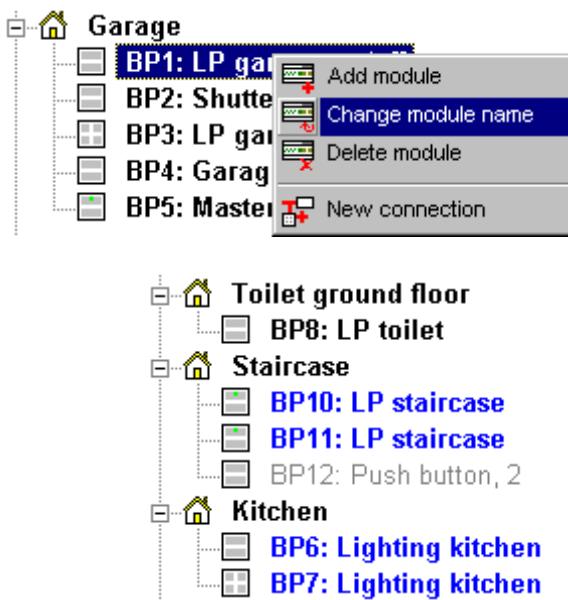
In order to delete an installed input module, select the module in question in the **Project overview** window and click with the right mouse button. A pop-up menu will be opened in which the **Delete module** command can be activated.

The command can also be clicked in the **Edit** menu, or can be activated by clicking the relevant icon in the various toolbars.

f. Naming or renaming inputs

Once an input module has been placed under a room in the **Project overview** window, it can be named. This is quite convenient, as it is possible to use normal, intelligible words to indicate the function that a particular input will operate. The name of a push button always starts with the letters **BP,** for Bus Push button Location, followed by a number. The program automatically increases the figure by one for every newly placed push button. The coded names of the push buttons can be transferred to the drawings of the floor plan. In this way, every push button in the Nikobus software can easily be found on the floor plans, and vice-versa.

To view all inputs of a particular room, click the small square with the plus symbol (on the left of the selected room). Now select an input, and click on the right mouse button. The **Modify module name** command can now be clicked. Then type the name of the input, and close this action by pressing either the **Enter** or **Return** key.

The **Modify module name** command can also be activated by means of the **Edit** menu or F2 key.

If no programming has been assigned to an installed push button yet, the push button will be displayed in light grey in the **Project overview** window. If programming has been assigned, the push button will be shown in black. If a push button belongs to an input group, it will be displayed in blue in the **Project overview** window.

g. Dragging input modules

If an input module has not been placed in the correct room, it can be moved to another room. To do this, select the module to be moved. Click the module and drag it (by keeping the left mouse button pressed in) to another room. Once it has arrived at the correct room, let go of the left mouse button. The module has now been moved to the other room.
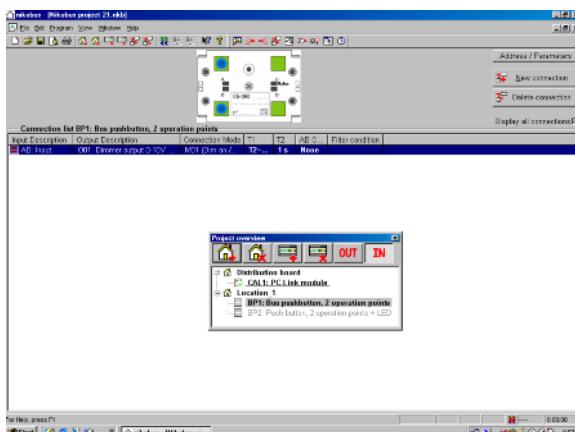
h. Adapting the Project overview window
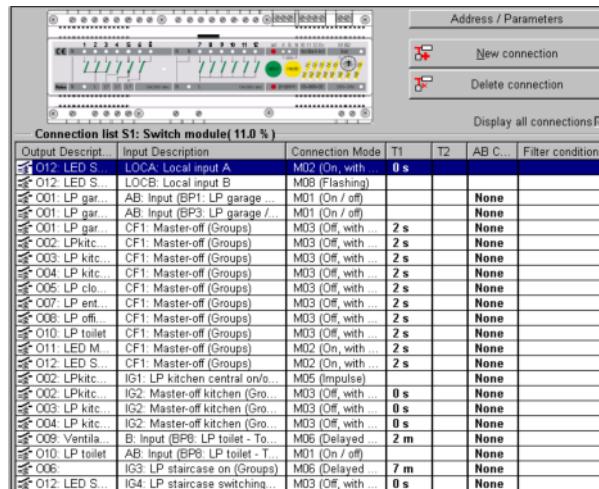
The **Project overview** window can be adapted to your personal requirements.
First of all, it can be switched on or off by means of the **Project overview** command in the **View** menu. It the window is visible, it can also be switched off by clicking the cross ☒ in the upper right corner of the screen.

If the **Extensive lay-out** command in the **View** menu has not been selected (i.e. if it has not been ticked), it will not be possible to move the **Project overview** window to another location on the screen. It is, however, possible to vary the width of the window by clicking the right hand side and dragging it left or right.

If the **Extensive lay-out** command in the **View** menu has been selected (i.e., if it has been ticked), the **Project overview** window is placed next to the **Info** window and the **Connection list**. The **Project overview** window can be moved, and its size can be reduced or increased. To do this, first click the square icon ⬛ located in the upper right of the window. The window can now be moved to another location by clicking and dragging. In addition, all the sides can be modified by clicking and dragging.

The info window

Output Descript...	Input Description	Connection Mode	T1	T2	AB C...	Filter condition
O12: LED S...	LOCA: Local input A	M02 (On, with ...	0 s			
O12: LED S...	LOCB: Local input B	M08 (Flashing)				
O01: LP gar...	AB: Input (BP1: LP garage ...	M01 (On / off)			None	
O01: LP gar...	AB: Input (BP3: LP garage /...	M01 (On / off)			None	
O01: LP gar...	CF1: Master-off (Groups)	M03 (Off, with ...	2 s		None	
O02: LPkitc...	CF1: Master-off (Groups)	M03 (Off, with ...	2 s		None	
O03: LP kitc...	CF1: Master-off (Groups)	M03 (Off, with ...	2 s		None	
O04: LP kitc...	CF1: Master-off (Groups)	M03 (Off, with ...	2 s		None	
O05: LP clo...	CF1: Master-off (Groups)	M03 (Off, with ...	2 s		None	
O07: LP ent...	CF1: Master-off (Groups)	M03 (Off, with ...	2 s		None	
O08: LP offi...	CF1: Master-off (Groups)	M03 (Off, with ...	2 s		None	
O10: LP toilet	CF1: Master-off (Groups)	M03 (Off, with ...	2 s		None	
O11: LED M...	CF1: Master-off (Groups)	M02 (On, with ...	2 s		None	
O12: LED S...	CF1: Master-off (Groups)	M02 (On, with ...	2 s		None	
O02: LPkitc...	IG1: LP kitchen central on/o...	M05 (Impulse)			None	
O02: LPkitc...	IG2: Master-off kitchen (Gro...	M03 (Off, with ...	0 s		None	
O03: LP kitc...	IG2: Master-off kitchen (Gro...	M03 (Off, with ...	0 s		None	
O04: LP kitc...	IG2: Master-off kitchen (Gro...	M03 (Off, with ...	0 s		None	
O09: Ventila...	B: Input (BP6: LP toilet - To...	M06 (Delayed ...	2 m		None	
O10: LP toilet	AB: Input (BP6: LP toilet - T...	M01 (On / off)			None	
O06:	IG3: LP staircase on (Groups)	M06 (Delayed ...	7 m		None	
O12: LED S...	IG4: LP staircase switching...	M03 (Off, with ...	0 s		None	

As indicated by the name, the **Info** window offers information concerning different items. The content of the **Info** window depends on the selected item in the **Project overview** window.

If, for example, the **OUT** button is activated, and, for example, a switch module has been selected in the tree structure, an illustration of a switch module will be displayed at the top of the **Info** window.

In addition, an indication of the amount of module memory that has already been used will be shown. This memory use depends on the number of programmed module outputs, the number of programs and the type of programming.

Connection list S1: Switch module(11.0 %)

The largest part of the **Info** window is taken up by the **Connection list**. In our example (**OUT** button activated and **Switch module S1** selected), you will obtain an overview of all programming carried out for every output of the selected switch module. You will, for example, find the output **001: LP garage** three times. This output has been programmed twice with the **M01 (on/off)** function for two different bus push buttons (**BP1** and **BP3**). Furthermore, you will see that the same output has also been included in the **Central function** group **Master-off**. There, the output **001: LP garage** is switched to the off-position by function **M03**. In column **T1,** you will see that you will have to press the push button in question for two seconds in order to carry out this "**Master-off**" function.

Output Description	Input Description	Connection Mode	T1	T2	A...	Filter
O12: LED Staircase	LOCA: Local input A	M02 (On, with ...	0 s			
O12: LED Staircase	LOCB: Local input B	M08 (Flashing)				
O01: LP garage	AB: Input (BP1: LP garage on/off...	M01 (On / off)			N...	
O01: LP garage	AB: Input (BP3: LP garage / rear...	M01 (On / off)			N...	
O01: LP garage	CF1: Master-off (Groups)	M03 (Off, with ...	2 s		N...	

If output 1 of switch module 1 is selected in the **Project overview** window (with the **OUT** button still activated), the content of the **Connection list** will be changed. You will now only see the programming for output 1 of switch module S1.
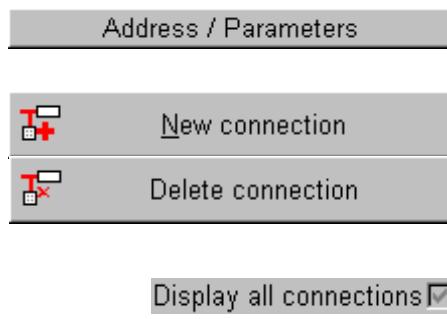
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Output Description	Input Description	Connection Mode	T1	T2	A...	Filter
O01: LP garage	AB: Input (BP1: LP garage on/off...	M01 (On / off)			**N...**	
O01: LP garage	AB: Input (BP3: LP garage / rear...	M01 (On / off)			**N...**	
O01: LP garage	CF1: Master-off (Groups)	M03 (Off, with ...	**2 s**		**N...**	

If the **IN** button is activated and an input has been selected in the **Project overview** window, the **Connection list** will show the programming of the selected input.

Input Description	Output Description	Connection Mode	T1	T2	A...	Filter
AB: Input	O01: LP garage (S1: Switch mo...	M01 (On / off)			**N...**	
C: Input	O02: LP rear outer wall (S2: Swit...	M06 (Delayed ...	**5 m**		**N...**	
D: Input	O02: LP rear outer wall (S2: Swit...	M05 (Impulse)			**N...**	

If you double-click a row in the **Connection list**, the **Create connections** window will be opened. Here, you can view the programming that has been carried out, and can modify it if desired.

The Info window buttons

Address / Parameters

Using the **Address / Parameters** button, you can assign an address to the currently selected module. Clicking the button will open the **Physical address** screen.

New connection

If the **New connection** button is clicked, the **Create connections** screen will be opened.
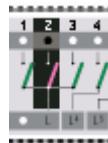
Delete connection

If a programmed output or an input has been selected in the **Project overview** window, the **Delete connection** button can be clicked. This will also open the **Create connections** window and will display the programming of the selected output or input. This programming can be modified if desired.

Display all connections ☑

If you have selected an output or an output module, you will only see the programming of the selected output in the **Connection list**. If you wish to see the full programming of the output module to which the selected output belongs, you can tick the option **Display all connections**.

The Info window illustrations
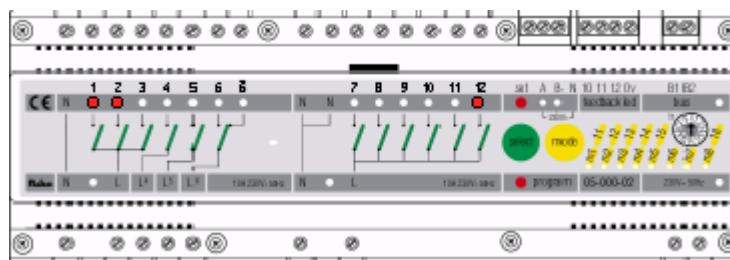
If a module (input or output) has been selected in the **Project overview** window, an illustration of it will be displayed in the **Info** window. If an output of an output module has been selected in the **Project overview** window, this output will be indicated on the illustration by means of an inverse bar.
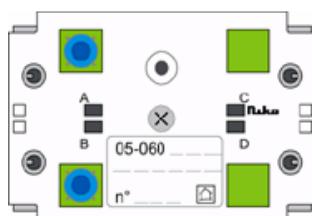
Clicking an output in the illustration with the left mouse button will select this output in the **Project overview** window.

When a communication (RS-232) has been established with the installation, the output LEDs of the illustration will also react in the same manner as the output LEDs of the relevant module in the installation. The illustration below indicates that outputs 1, 2 and 12 of this switch module are in the on-position.
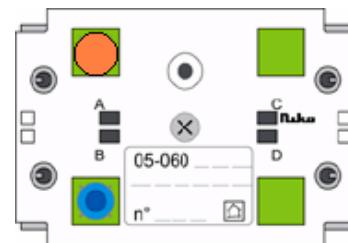
If a 230V power supply is connected to the local inputs A and B, the corresponding LEDs on the illustration will also light up.

If an output in the illustration is double-clicked while an RS-232 connection is active, the output in the installation will be switched over.

If a bus push button has been selected in the **Project overview** window, you will also find an illustration of this in the **Info** window. If an RS-232 connection to the installation is in place, and this bus push button is pressed in the installation, this will also be visible in the illustration of the bus push button. When inactive, the bus push button opposite, for example, will be pictured. If one of the buttons in the installation is pressed, the illustration below will be seen.

If the button is being pressed, it will be shown briefly as an orange circle.
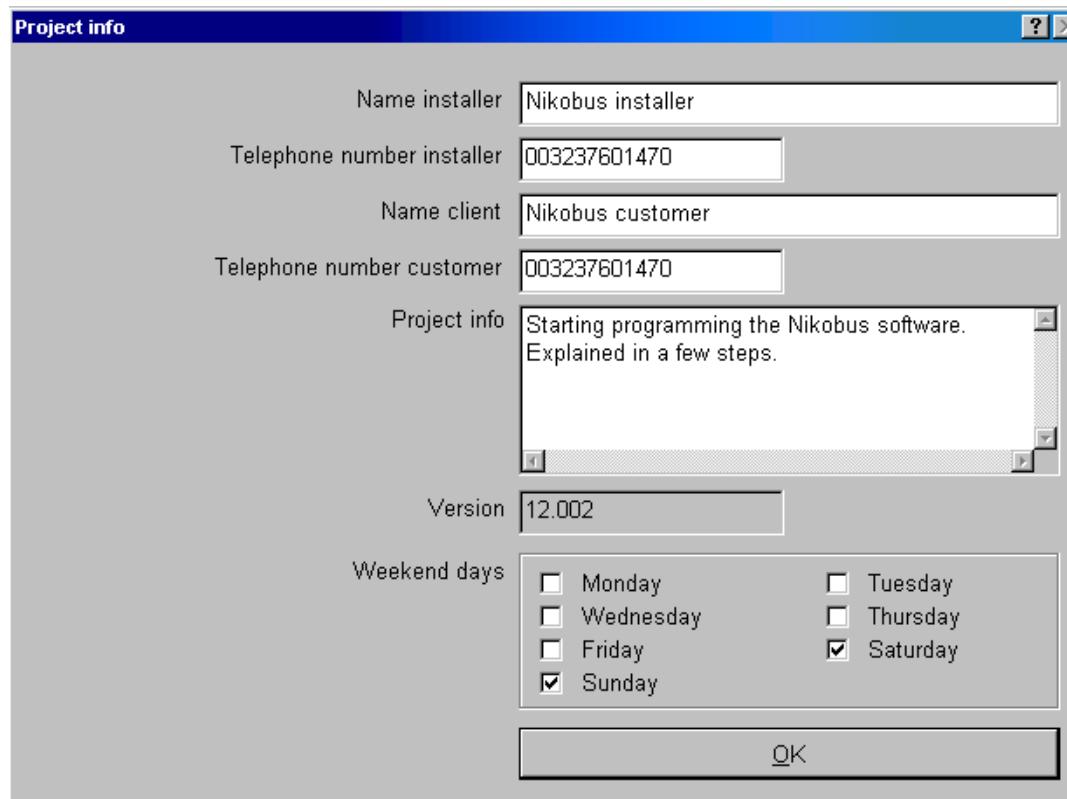
If a data connection has been established, it is, however, also possible to proceed in the opposite way. Clicking one of the buttons of a bus push button in the illustration of the **Info** window with the mouse will result in this command being carried out in the installation.

When creating a project, it is recommended to fill in the **Project info** screen. This data will also be used in the printouts and for the clock functions.

Project info

The screen can be called up by clicking the **Project info** command in the **Edit** menu. If the **Function toolbar** is visible, it is also possible to click the relevant icon in order to open the screen.

The required data has been entered into the screen.
In any case, place a tick next to each weekend day of the end user. For clock functions, this information is used if clock lines are only to be carried out on weekend days or on working days.
The window is closed again by clicking **OK**.
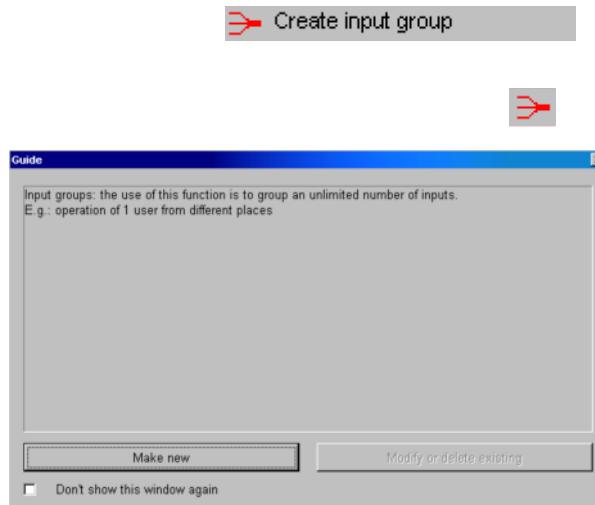
The telephone number of the customer must be indicated in the **Telephone number customer** field. If it is the intention to call up the installation of the end user by means of a modem, only figures may be used for this number. For example, you should type in **037601470** and not 03/760.14.70. The customer's area code must obviously also be included. If the modem of the installer is connected to an internal analogue line of a telephone switchboard, it is possible that another number (in most cases **0**) must be dialled prior to the area code in order to first select an outside line for the connection. For more details, please consult the switchboard manual.

The window is closed by clicking **OK**.

General

In every installation one can find several push buttons that are to carry out exactly the same function. In order to save time while programming, this type of push buttons can be placed in an input group. The input group will then be selected while programming instead of an individual push button.
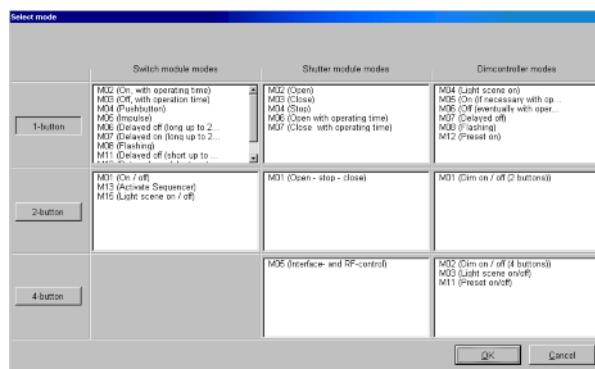
Opening the screens for the creation of input groups can be done in several ways. First of all, by selecting the **Create input group** command in the **Edit** menu.

If the **Function toolbar** is visible, the **Input groups** icon it contains can be clicked. The same symbol is also visible, and can also be clicked, in the **Create connections** screen.

If the command is activated, the **Guide** window will open. In this window, you can choose to either create a new input group or to modify or delete an already existing input group. If desired, it is possible to put a tick next to the text **Do not display this window again** at the bottom of this screen. If this field has been ticked, this screen will not be displayed the next time the **Create input group** command or the **Input groups** icon is activated. If, in the course of time, you would like to start the command again with the **Guide** screen, this can be done by clicking the **Display guide windows** command in the **View** menu.

Creating a new input group

Click the **Create new** button in the **Guide** screen. A new window will open, in which the name of the new input group must be entered. Enter a name here that is easily understood by everybody. The name **LP (light point) staircase 5 min on** indicates clearly what you wish to achieve with the push buttons that are part of this group.
Exit this screen with the **OK** button.
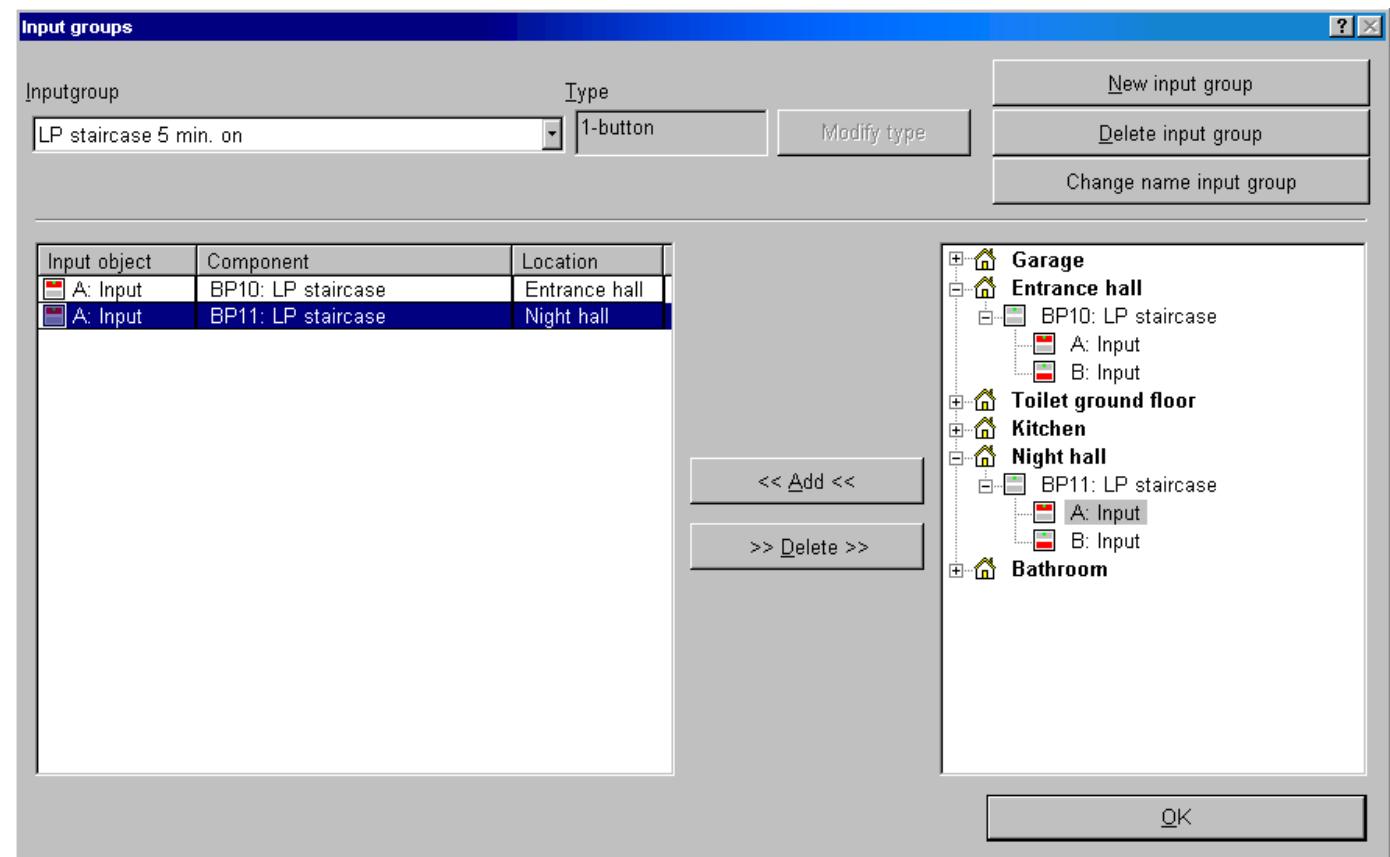
A new screen, **Select mode**, will then be opened. Contrary to what the name of this screen suggests, it is not the intention that you select a mode, but that you indicate here whether the function you wish to program for the input group can be carried out by a one-button operation, a two-button operation or a four-button operation. Depending on this decision, only certain functions will be available.

Click one of the **1-button**, **2-button** or **4-button** buttons and close the screen by clicking the **OK** button.

The **Input groups** screen will be opened. You will find the name you have just given to the input group in the top left of the window. To its right, you will find your selection for a **1-button**, a **2-button** or a **4-button** operation. In

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addition, the **Input groups** screen consists of two split-windows. In the split-window on the right, you will see the tree structure of all inputs, as can also be seen in the **Project overview** window. In this split-window, an input that belongs to the input group will be selected. By clicking the **Add** button, this input will be placed in the left split-window. The name and location of an installed input is also indicated in a column.
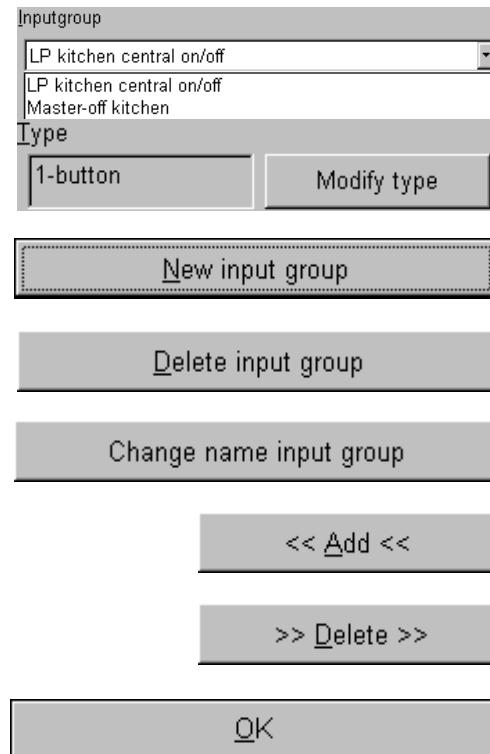
This procedure must be repeated for each input that is part of the group.

When all inputs for this input group have been added, exit the screen by clicking **OK**.

In the **Project overview** and **Create connections** windows, the new input group has now been included under the item **Groups**. By means of the latter screen, a program must now be connected to it.

Buttons and selection windows of the Input groups screen

In the **Input group** selection window, you can select the input group you wish to create, modify or delete.

The **Type** of input can only be modified if no program has yet been linked to the currently selected input group. In this case, the **Modify type** button is clicked. By doing this, the **Select mode** window will be opened again, and the choice of a 1-button, 2-button or 4-button operation can be made.

When the **Input groups** window has opened, a new input group can be created by clicking the **New input group** button on the upper right of the screen.

A selected input group can be deleted by clicking the **Delete input group** button. A confirmation window then appears in which the input group can be deleted or not.

The name of a selected input group can be modified by clicking the **Modify input group name** button. A window in which the new name can be entered will then be opened.

Adding a new input to a selected input group can be done by selecting the input in question and clicking the **Add** button.

An input can be deleted from a selected input group by selecting the input in question in the left split-window (where the inputs that already belong to the group are listed) and by clicking the **Delete** button.

The **Input groups** screen can be exited by clicking the **OK** button.

General

In an installation, it often happens that several outputs must be operated by the same push button. It would be possible to program each of these outputs in turn by means of the **Create connections** screen. In this case, every output would have to be selected separately and a mode would have to be added every time. In addition, the programming of every output belonging to a group would have to be assigned to the push button that operates this group. This working method would be rather cumbersome.

Using the **Light scene / Central functions** command, it is possible to place several alliances in a group and to program them all at the same time. This programming and the corresponding adjustments of the parameters can be different for every output that is part of the group.

The screens for the creation of output groups can be opened in several ways. First of all, this can be done by selecting the **Light scene / Central functions** command in the **Edit** menu.
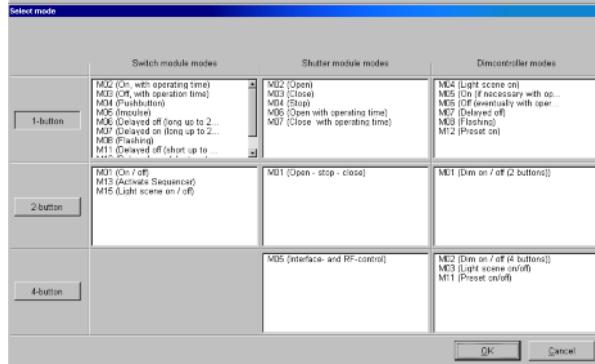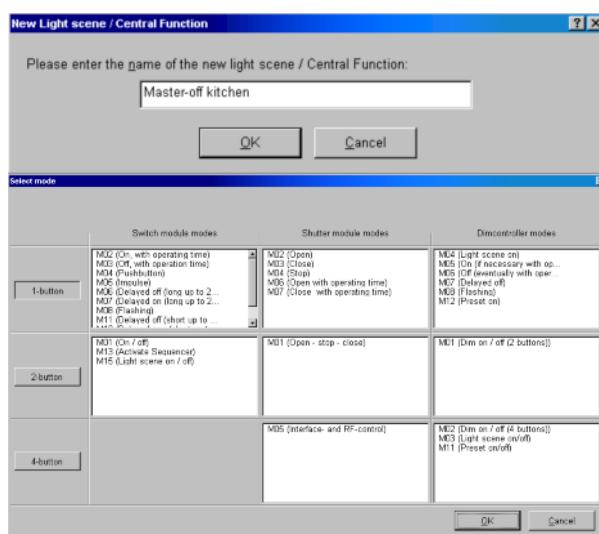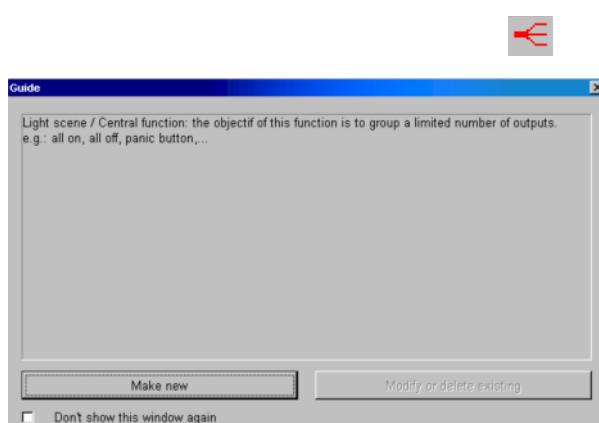
If the **Function toolbar** has been made visible, it is also possible to click the **Light scene / Central functions** icon here. The symbol is also visible and can be clicked in the **Create connections** screen.

If the command is activated, the **Guide** window will open, in which it is possible to create a new output group or to modify or delete an existing output group. At the bottom of the screen, a tick can be placed next to the text **Do not display this window again** if this is desired. If a tick has been placed, this screen will not be displayed the next time the command or the **Light scene / Central functions** icon is activated. If, in the course of time, you would like to start the command with the **Guide** screen again, this can be done by clicking the **Display guide windows** command in the **View** menu.

Creating a new output group

Click the **Create new** button in the **Guide** screen. A new window will be opened, in which the name of the output group must be entered. Enter a name here that is easily understood by everybody. The name **Master-off kitchen** clearly indicates what we wish to achieve with this group.
You exit this screen using the **OK** button.

A new **Select mode** screen will be opened. Contrary to what the name of this screen suggests, it is not the intention that you select a mode, but that you indicate here whether the function you wish to program for the output group can
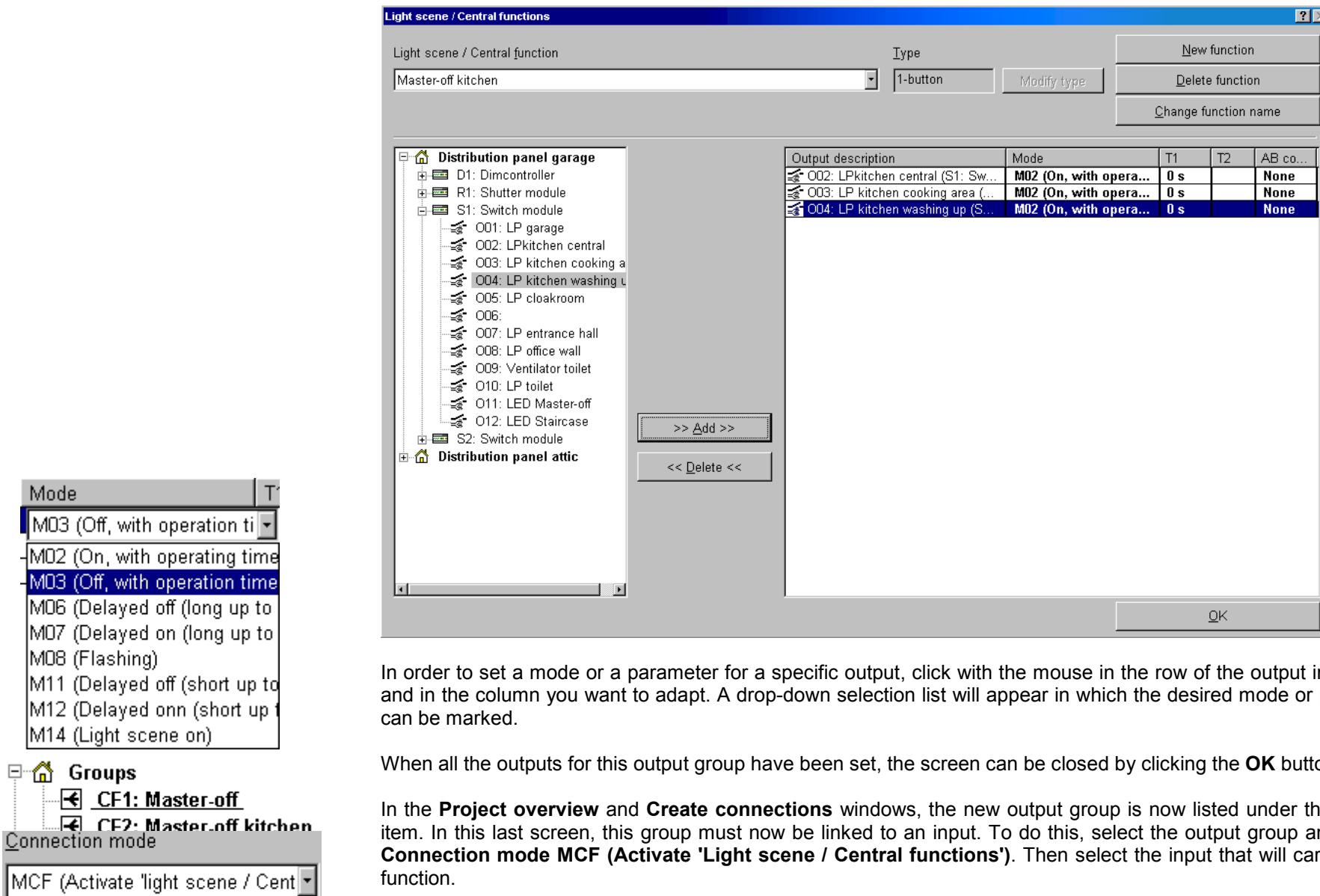
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be carried out by a one-button operation, a two-button operation or a four-button operation. Depending on this decision, only certain modes will be available.

Click one of the **1-Button**, **2-Button** or **4-Button** buttons and close the screen by clicking **OK**.

The **Light scene / Central functions** screen will now be opened. Here, you will find the name you have just given to the output group at the top left of the window. To its right, you will find your selection for a **1-button**, **2-button** or **4-button** operation. In addition, the **Light scene / Central functions** screen consists of two split-windows. In the split-window on the left, you will see the tree structure of all outputs, as can also be seen in the **Project overview** window. In this split-window, the output that should become a part of the output group will be selected. By clicking the **Add** button, this output is placed in the right split-window. This installed output can be assigned a mode and the corresponding parameters can be set up. In addition, a possible condition for the 230V inputs A and/or B can be chosen.

This procedure is repeated for each output that belongs to the group. It is possible to assign another mode, parameters or conditions to each individual output.
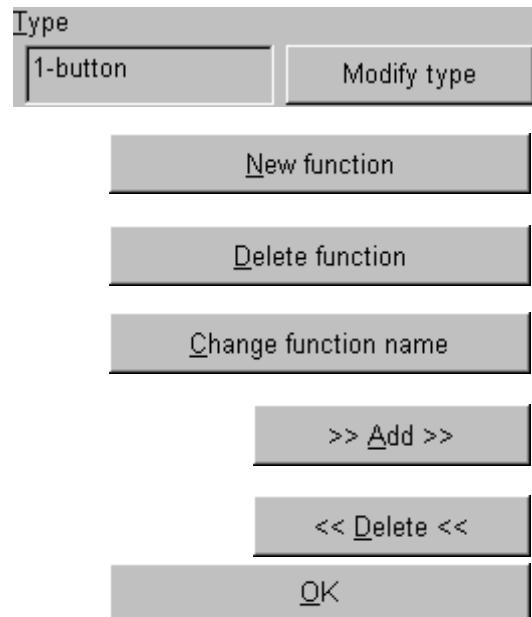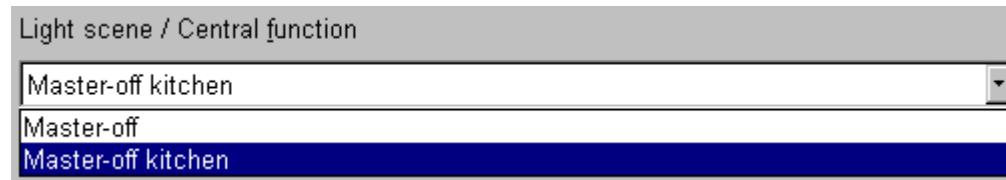
In order to set a mode or a parameter for a specific output, click with the mouse in the row of the output in question and in the column you want to adapt. A drop-down selection list will appear in which the desired mode or parameter can be marked.

When all the outputs for this output group have been set, the screen can be closed by clicking the **OK** button.

In the **Project overview** and **Create connections** windows, the new output group is now listed under the **Groups** item. In this last screen, this group must now be linked to an input. To do this, select the output group and choose **Connection mode MCF (Activate 'Light scene / Central functions')**. Then select the input that will carry out this function.

Buttons and selection windows of the Light scene / Central functions screen

In the **Light scene / Central function** selection window, you can select the output group you wish to create, adapt or delete.

Light scene / Central function

| Master-off kitchen | ▾ |

Master-off
Master-off kitchen

Type

| 1-button | Modify type |

As long as no outputs have been assigned to the output group, the **Type** of operation can still be modified by clicking the **Modify type** button. The **Select mode** window will then be opened again, and a 1-Button, 2-Button or 4-Button operation can be selected in this window.

New function

If the **Light scene / Central functions** screen has been opened, a new output group can be created by clicking the **New function** button in the top right corner of the screen.

Delete function

A selected output group can be deleted by clicking the **Delete function** button.

Change function name

The name of a selected output group can be modified by clicking the **Change function name** button. A window will be opened in which the new name can be entered.

>> Add >>
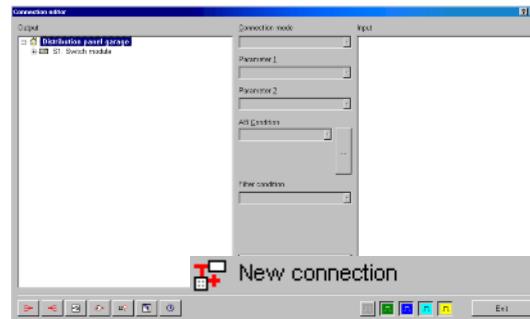
It is possible to add an output to an output group by selecting the respective output in the left split-window and clicking the **Add** button.

<< Delete <<

An output can be deleted from an output group by selecting it in the right split-window and clicking the **Delete** button.

OK

The **Light scene / Central functions** screen can be exited by clicking the **OK** button.

General

The **Create connections** window is used to link an output or output group to an input or input group by means of a function or mode. The window is split into a left and a right split-window. In the left split-window, all the outputs are displayed in a tree structure, as well as the created output groups. In the right split-window, inputs and input groups are displayed depending on the selected mode. The **Connection mode** and the corresponding parameters can be set in the space between the two split-windows. If one of the 230V inputs A or B is used as a condition for the performance of the function, this can also be displayed here.

The screen can be activated by clicking the **New connection** command in the **Edit** menu. It is also possible to use the button with the same name in the **Info** screen. If you wish, you can also open the screen by clicking the relevant icon in the **main toolbar** or in the **Function toolbar**.

Work sequence

In the **Create connections** screen, the quickest way of working is to enter all outputs and inputs in the **Project overview** window first.
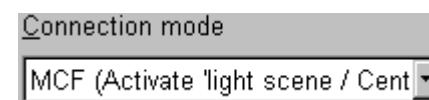
a. Select an output
Always work from left to right in the **Create connections** window. An output or an output group (central function) are therefore first selected in the left split-window **Output**.
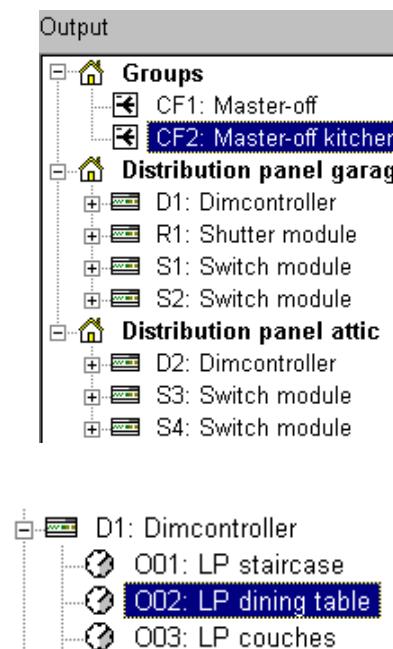
b. Select a mode and setting the parameters
The selection window **Connection mode** is then opened by clicking the arrow to the right of the empty field. The content of this selection window depends on the selected output.
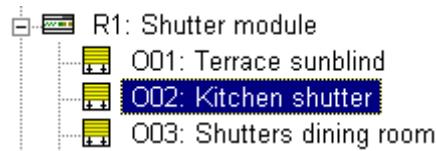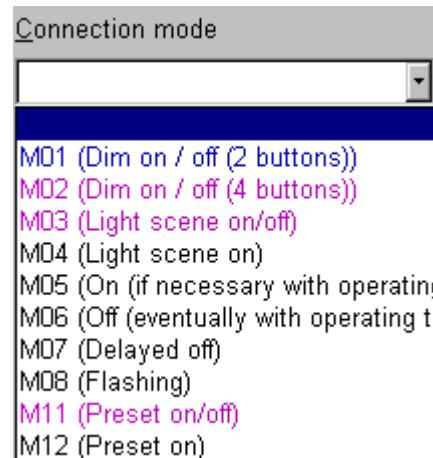
If the selected output is an output group, you will see the function shown below.
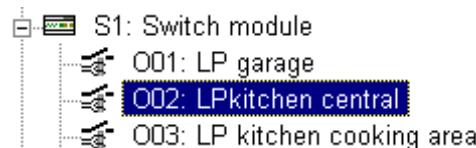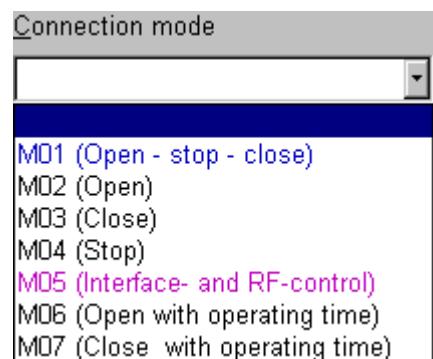
If the selected output belongs to a dim controller, you will see the functions of the dim controller in the list.

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Connection mode

```
M01 (Dim on / off (2 buttons))
M02 (Dim on / off (4 buttons))
M03 (Light scene on/off)
M04 (Light scene on)
M05 (On (if necessary with operating
M06 (Off (eventually with operating t
M07 (Delayed off)
M08 (Flashing)
M11 (Preset on/off)
M12 (Preset on)
```

R1: Shutter module
  - O01: Terrace sunblind
  - O02: Kitchen shutter
  - O03: Shutters dining room

If the selected output belongs to a blind module, you will obtain the view shown below.

Connection mode

```
M01 (Open - stop - close)
M02 (Open)
M03 (Close)
M04 (Stop)
M05 (Interface- and RF-control)
M06 (Open with operating time)
M07 (Close  with operating time)
```

S1: Switch module
  - O01: LP garage
  - O02: LPkitchen central
  - O03: LP kitchen cooking area
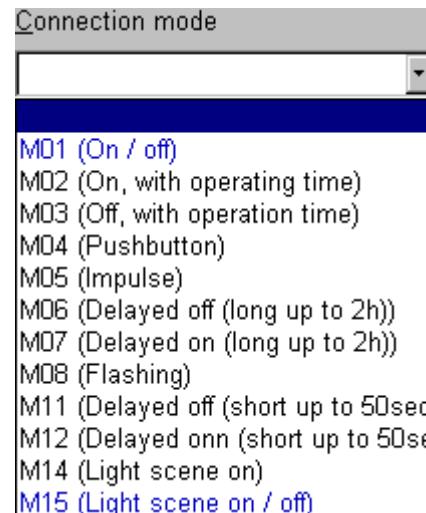
Finally, if the selected output belongs to a switch module, the selection menu will look as follows.

Connection mode

M01 (On / off)
M02 (On, with operating time)
M03 (Off, with operation time)
M04 (Pushbutton)
M05 (Impulse)
M06 (Delayed off (long up to 2h))
M07 (Delayed on (long up to 2h))
M08 (Flashing)
M11 (Delayed off (short up to 50sec
M12 (Delayed onn (short up to 50se
M14 (Light scene on)
M15 (Light scene on / off)

M01 (Dim on / off (2 buttons))
M02 (Dim on / off (4 buttons))
M03 (Light scene on/off)
M04 (Light scene on)
M05 (On (if necessary with operatin
M06 (Off (eventually with operating t
M07 (Delayed off)
M08 (Flashing)
M11 (Preset on/off)
M12 (Preset on)

Long Delay (upto 2h.)

10 s

AB condition

None

None
A
B
A*B
/A
/B
/(A*B)

…

You will notice that mode 13 of the switch module is missing. This is the sequencer. The sequencer must be programmed in a different way. **Chapter 6** and section **15.8** of this chapter have been fully dedicated to the sequencer.

In the above screens, certain modes are indicated in black, others in blue, and still others in purple.

For the modes indicated in **black**, a bus push button requires only one operating point (A, B, C or D).
For the modes indicated in **blue,** a bus push button requires two operating points. These operating points are fixed above and below each other. A choice can therefore only be made between the AB input and the CD input of a bus push button.
For the modes indicated in **purple,** a bus push button requires four operating points. A four-way bus push button is therefore required to operate this function. A, B, C and D of the bus push button will be programmed immediately.
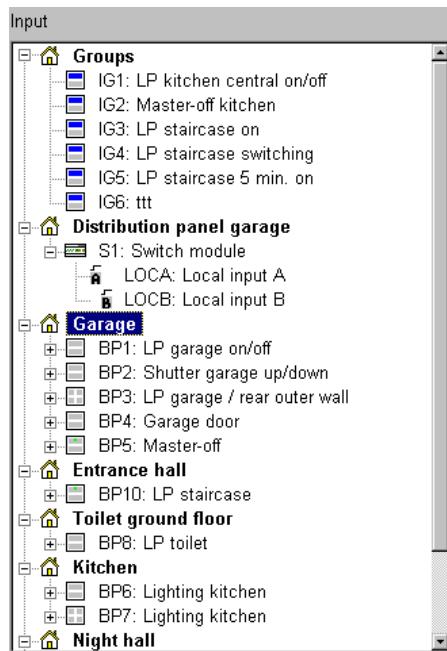
A specific connection mode is selected by clicking it in the selection list.

Depending on the selected module and the selected mode, a specific value may or may not be added for the two parameters. The relevant selection window is opened by clicking on the arrow at the right of the window. The value of the parameter is clicked in the list, which results in this value being selected and the window being closed.

c. A 230V condition on A and/or B

If a 230V input A and/or B of the selected module is to be used as a condition, this must be indicated in the **AB condition** field. Click the correct condition. By clicking the square at the right of the **AB condition** selection window, a screen opens in which every selection option is explained. Here also, a selection can be made by clicking on the corresponding button on the left.

Help window: AB - Condition

None	Don't impose a condition
A	A: Connection will be made if input A is equal to 230V.
/A	/A: Connection will be made if input A is equal to 0V.
B	B: Connection will be made if input B is equal to 230V.
/B	/B: Connection will be made if input B is equal to 0V.
A*B	A*B: Connection will be made if input A AND B are equal to 230V.
/(A*B)	/(A*B): Connection will be made if input A OR B are equal to 0V.

Input

- **Groups**
  - IG1: LP kitchen central on/off
  - IG2: Master-off kitchen
  - IG3: LP staircase on
  - IG4: LP staircase switching
  - IG5: LP staircase 5 min. on
  - IG6: ttt
- **Distribution panel garage**
  - S1: Switch module
    - LOCA: Local input A
    - LOCB: Local input B
- **Garage**
  - BP1: LP garage on/off
  - BP2: Shutter garage up/down
  - BP3: LP garage / rear outer wall
  - BP4: Garage door
  - BP5: Master-off
- **Entrance hall**
  - BP10: LP staircase
- **Toilet ground floor**
  - BP8: LP toilet
- **Kitchen**
  - BP6: Lighting kitchen
  - BP7: Lighting kitchen
- **Night hall**

d. Selecting an input or an input group

If a function has been selected in the **Connection mode** field, a tree structure of all inputs that would be suitable for this selected function appears in the right split-window **Input**, listed by room. This means, for example, that if a mode has been selected that makes use of 4 operating points, only bus push buttons with 4 operating points will be displayed. For modes that require two or only one operating point, all bus push buttons will be shown.
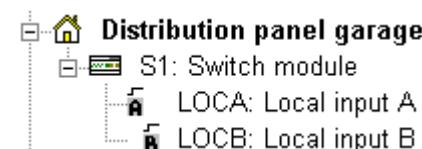
For the input groups, this means that only those input groups will be displayed in which the number of operating points corresponds with the selected function or mode.

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You will find a square with a plus symbol inside in front of every bus push button. If this is clicked, you will obtain a breakdown of the components of the bus push button, again depending on the selected mode. For a bus push button with two operating points, this will be A and B. For a four-way bus push button, this will be A, B, C and D. You will find three examples below, one for a 1-button, one for a 2-button and one for a 4-button mode.

Depending on particular modes, it is also possible to use the 230V inputs A and B of the selected module as inputs for the execution of a function.
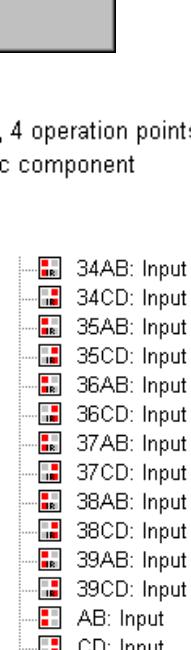

e.   Confirmation of the settings and programming
Every assignment of a program to an input must be confirmed by clicking the **Add connection** button.

IR channels in the Input split-window

If one or more IR bus push buttons have been included in the project, you will also be able to see this in the **Input** split-window. If you click on the small square with the plus symbol next to the IR bus push button, you will see the 39 channels plus the buttons of the bus push button itself. Now, which channels should be used for what?

The image you see in the **Input** split-window depends on the selected connection mode. Opposite, you will see an example for the case in which the mode **M01** has been selected for a switch module. This is a 2-button mode. For

34AB: Input
34CD: Input
35AB: Input
35CD: Input
36AB: Input
36CD: Input
37AB: Input
37CD: Input
38AB: Input
38CD: Input
39AB: Input
39CD: Input
AB: Input
CD: Input

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each channel, you will therefore see that the A and B inputs and the C and D inputs have been put together. If you have selected a 1-button mode, you would see four inputs (A, B, C and D) per channel.

At the very bottom of the list, you will find the following: **AB: Input** and **CD: Input**. These are the buttons of the IR bus push button.

It is possible to work with three different IR remote controls In the Nikobus range.

a. The Pronto remote control
When using the Pronto remote control, you have 39 channels available.
Niko delivers the Pronto together with a Nikobus application. By means of channels 1 to 30, the normal standard operations can be transferred to the IR bus push button. In addition, two screens are available for storing 4 light scenes each. Those two screens must be programmed in the Nikobus software under IR channels 38 and 39.
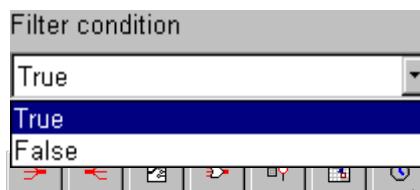
If you have the standard software of the Pronto remote control available, all 39 channels can be programmed according to your personal requirements. You must then obviously create all windows and the layout yourself.

| Other buttons and selection windows of the Add connection screen |

If it is found that the last programmed and added link was not entirely correct, the programming can be modified, and the modification can be confirmed by clicking the **Modify last added connection** button.

If you only want to see the bus push buttons and other inputs to which no programming has yet been linked, place a tick by **Display only unused inputs** under the **Input** split-window.

If a filter function has been programmed, this can be seen from the **Filter condition** window. Here, either a normal or an inverted filter can be selected by clicking either the **True** or **False** option.

Starting from the **Create connections** window, it is also possible to open the screens for creating input groups, output groups, sequencers, logical functions, filter functions, clocks or the presence simulation. This is done by clicking the corresponding icon.

If you are operating several clock tables for, e.g., working days, weekend days, continuous clocks, etc., one or several clock icons can be clicked in the **Input** split-window. By doing this, the corresponding clock tables will be displayed in the **Input** split-window or not. See **chapter 8** and **15.11** concerning working with clocks.

Exit

The **Create connections** screen can be exited by clicking **Exit**. The added programming will be displayed in the **Connection list** of the **Info** window.
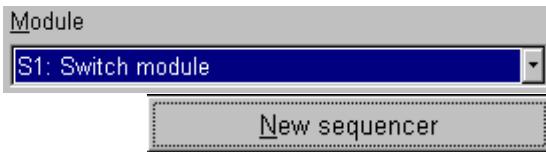
Sequencer

Description

The sequencer is available as a function (or mode) of the switch module belonging to the Nikobus home automation system. In order to program this special function within the Nikobus software, individual screens have been developed.
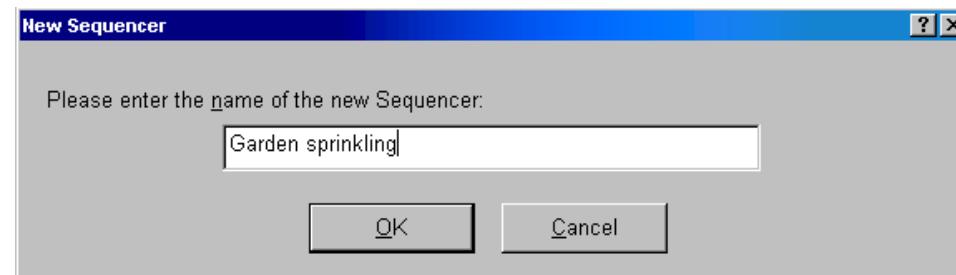
The **Sequencer** screen is activated by clicking the **Sequencer** command in the **Edit** menu. It is also possible to call up the screen by clicking the relevant icon in the **Function toolbar** or in the **Create connections** screen.

The buttons and selection windows of the Sequencer screen

Module

S1: Switch module
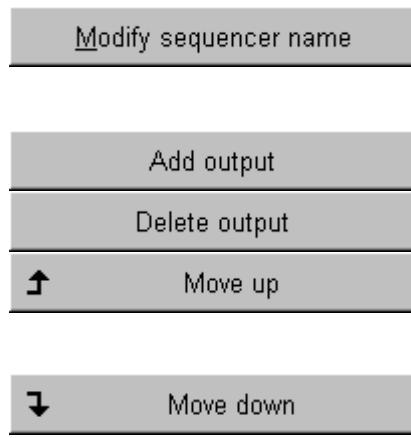
New sequencer

In the **Module** selection window, select the switch module with the outputs that will be used in the sequencer. If several switch modules are included in the installation, you will find a list of those modules here.

Create a new sequencer by clicking the **New sequencer** button. The **New sequencer** screen is opened, and a name can be given to the sequencer. Exit this screen by clicking the **OK** button.

New Sequencer

Please enter the name of the new Sequencer:

Garden sprinkling

OK   Cancel

Selected sequencer

SEQ01: Garden sprinkling

Delete sequencer

If several sequencers have been created, the correct sequencer can be chosen in the **Selected sequencer** selection window.

By means of the **Delete sequencer** button, a selected sequencer can be deleted.

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The name of a selected sequencer can be changed by means of the **Modify sequencer name** button. On clicking this button, the **New sequencer** window will be opened with the current name of the sequencer in the insertion field. This can now be modified. Click the **OK** button to exit this screen.

Add an output of the selected switch module to the selected sequencer using the **Add output** button.

If an output is selected in the list of added outputs, it can be deleted using the **Delete output** button.

The second to the last output included in the sequencer can be moved up in the list by selecting the respective output and using the **Move up** button. The sequence in which the outputs are shown in the list is also the sequence in which the outputs will be switched on or off when the sequencer is activated.

The first to the last-but-one outputs included in the sequencer can be moved down the list by selecting the output and using the **Move down** button. The sequence in which the outputs are shown in the list is also the sequence in which the outputs will be switched on or off when the sequencer is activated.
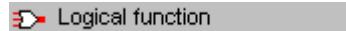
Step	Output	Mode	Delay
1	O01: Sprinkling group 1	M13 (Sequencer on / off)	10 s
2	O02: Sprinkling group 2	M13 (Sequencer on / off)	10 s
3	O03: Sprinkling group 3	M13 (Sequencer on / off)	10 s

In the large split-window of the **Sequencer** screen, all outputs that are part of the sequencer will be listed one below the other. Click a row in the **Output** column to select the switch module output. Click the **Delay** column to set the time frame during which the selected output should be in the "on" position.

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Description

With the **Logical function** command, it is possible to introduce powerful logical functions. A total of 64 logical functions can be created within the Nikobus software. In order to be able to use these logical functions, a **PC-Logic** module (05-201) must be part of the installation.
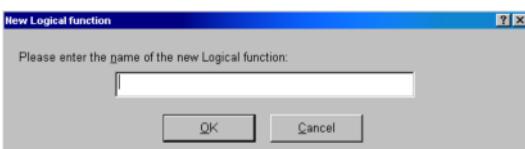
Calling up the screen

Logical function

The **Logical function** command can be opened from the **Edit** menu. In addition, you can also make use of the relevant icon. This icon can be found in the **Function toolbar** and in the icon bar at the bottom left of the **Create connections** screen.

In order to be able to use the command, a **LOM1: PC-Logic used as 'master'** module must be included in the project. Add this module by means of the **Product list**.
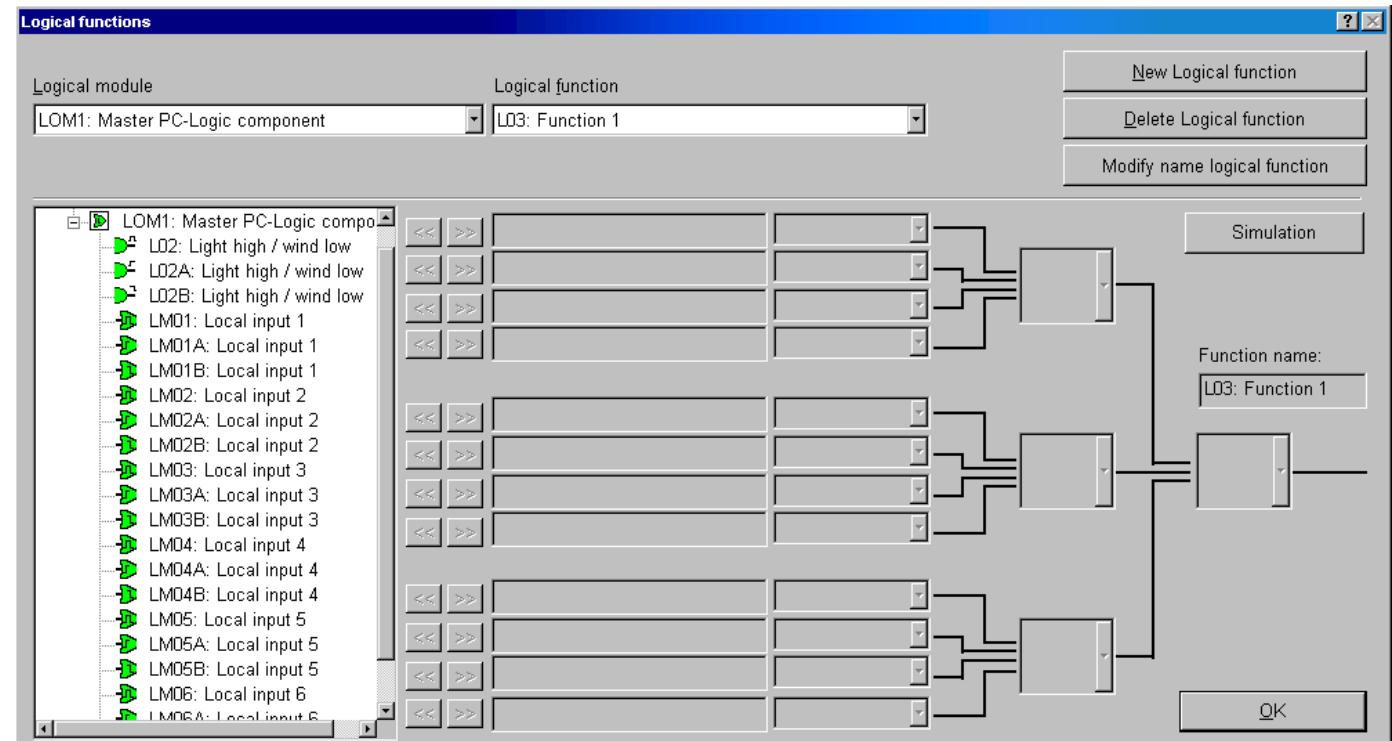
The logical function screen
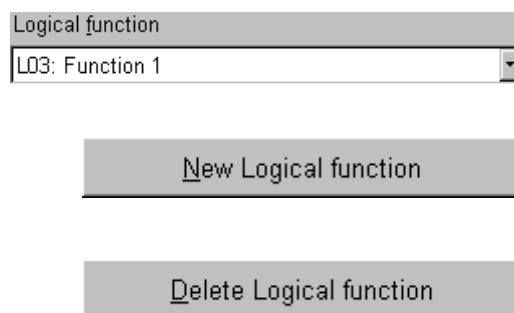
The **Guide** window is normally opened when the **Logical function** command is called up. Here, click on the **Create new** button if you want to create a new logical function. If, however, you wish to modify or delete an existing logical function, use the **Modify or delete existing** button.

If you select the **Create new** option, a name for the logical function you wish to create can be entered in the **New logical function** screen.

If the **Guide** windows have not been activated, you will jump directly to the **Logical functions** screen on activating the **Logical function** command.
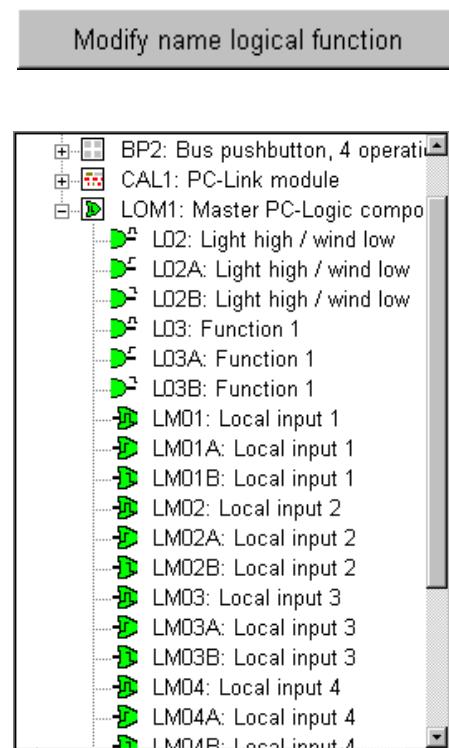
There is a lot to be seen in this screen. The different components are discussed below.

If a logical function has already been created, or if you have entered a name for a logical function that is still to be created in the **New logical function** screen, it is possible to select the function you wish to perform, modify or delete in the **Logical function** selection window.

From this screen, it is possible to create a new logical function by clicking the **New logical function** button. As a result, the **New logical function** screen will be opened, in which you will be able to enter a name for the new function.
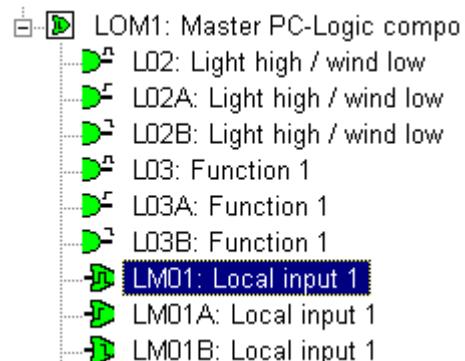
In order to delete an existing logical function, you must first select the function in the **Logical function** selection window. It is then sufficient to click the **Delete logical function** button to delete the selected logical function.

Modify name logical function

In order to modify the name of an existing logical function, first select the logical function to be modified in the **Logical function** selection window. Clicking the **Modify name logical function** button will open the **New logical function** screen, in which a new name can be entered for the selected logical function.

In the left split-window, all the inputs of the installation are listed, including the inputs of the **PC-Logic** module. In addition, any clock channels are also displayed.

With the mouse pointer, select an input from this list that should be added to the logical function you wish to create. The selected input is represented inversely.

```
BP2: Bus pushbutton, 4 operati
CAL1: PC-Link module
LOM1: Master PC-Logic compo
    L02: Light high / wind low
    L02A: Light high / wind low
    L02B: Light high / wind low
    L03: Function 1
    L03A: Function 1
    L03B: Function 1
    LM01: Local input 1
    LM01A: Local input 1
    LM01B: Local input 1
    LM02: Local input 2
    LM02A: Local input 2
    LM02B: Local input 2
    LM03: Local input 3
    LM03A: Local input 3
    LM03B: Local input 3
    LM04: Local input 4
    LM04A: Local input 4
    LM04B: Local input 4
```

```
LOM1: Master PC-Logic compo
    L02: Light high / wind low
    L02A: Light high / wind low
    L02B: Light high / wind low
    L03: Function 1
    L03A: Function 1
    L03B: Function 1
    LM01: Local input 1
    LM01A: Local input 1
    LM01B: Local input 1
```

Add the selected input to the logical grid by clicking the button with the arrows pointing to the right.

>>

As a result, the previously selected input will be included in a line in the logical grid.

LM01: Local input 1 (LOM1: Mas

At the right side of this newly introduced input, you can decide to either opt for a normal operation of the input or for an inversed operation of the input, depending on the type of input selected Have a look at the example below.

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| LM01: Local input 1 (LOM1: Mas' | On / off ▾ |
CH001A: Channel (CAL1: PC-Lin	Pulse / Toggle ▾
A: Input (BP2: Push button, 4 op)	Pulse / Toggle ▾
AB: Input (BP2: Push button, 4 o	Off / on ▾
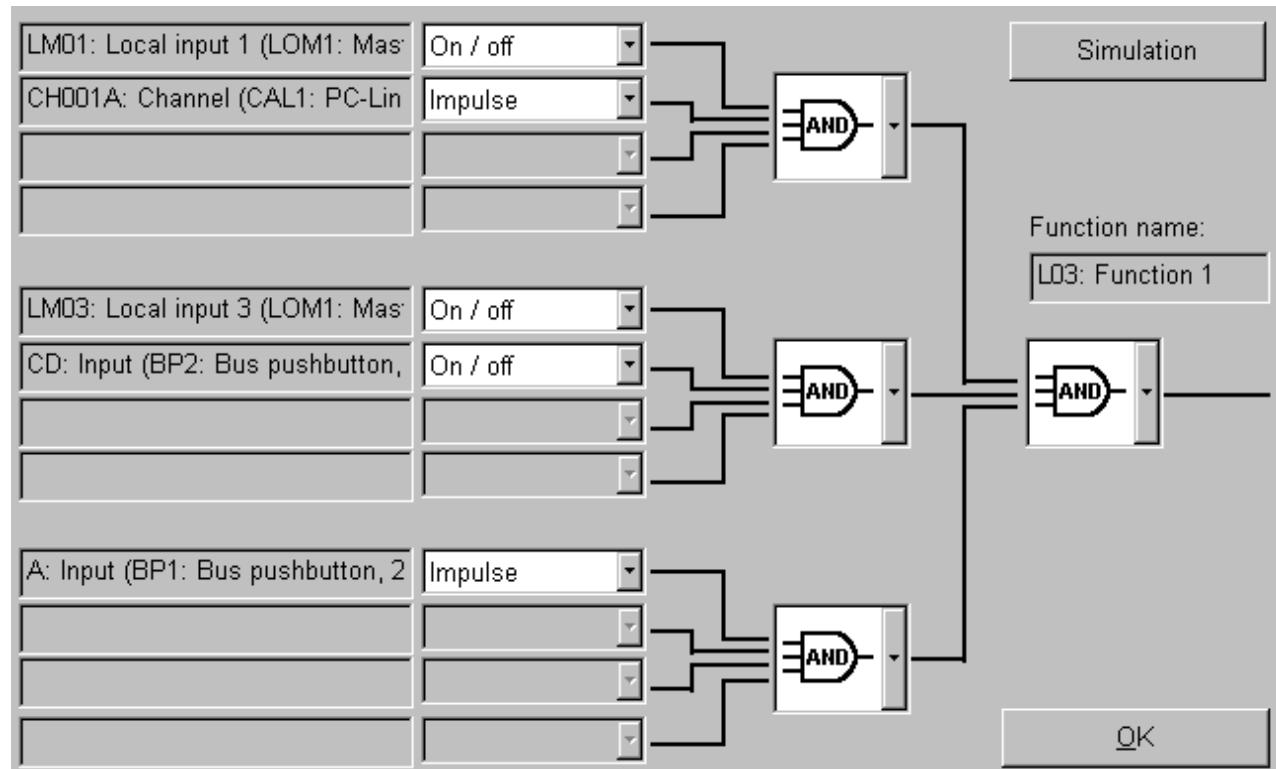
In the first line, the logical input 1 of the **PC-Logic** module is listed. This input can have two states, on or off. If you wish to generate a **True** logic for this input at the moment that the input is high, select the option **On / off** in the selection window.

A clock line is included in the second line of the logic grid. The complete clock channel has not been selected as the input here, however, but only the rising edges of the time blocks that are present in this clock channel. In the selection window, you will now find the word **Impulse**. It is not possible to modify this choice here.

You will also find the word **Impulse** in the third line. Here, you have, in fact, added only one operating location for a bus push button.

In the fourth line, however, you have included the **AB input** for a bus push button. Here, you again have the choice between normal or inverted operation. In this case, you have chosen an inverted operation here by selecting **Off / on** in the selection window.

A maximum of 12 inputs can be included in a logic grid, divided into three groups. A logical operator can be determined for each group of four inputs. In addition, another logical operator for the three groups can be chosen.
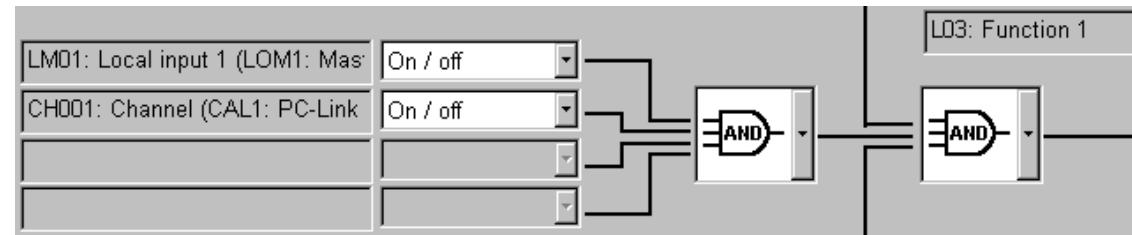
There is always a choice from 4 logical operators. In order to explain how this works, try the following: select one operator after the other and then click the **Simulation** button. This will bring you into the **Simulation** screen, in which you can test the reaction of the logical function output when the inputs are either on or off.

| The logical operators |
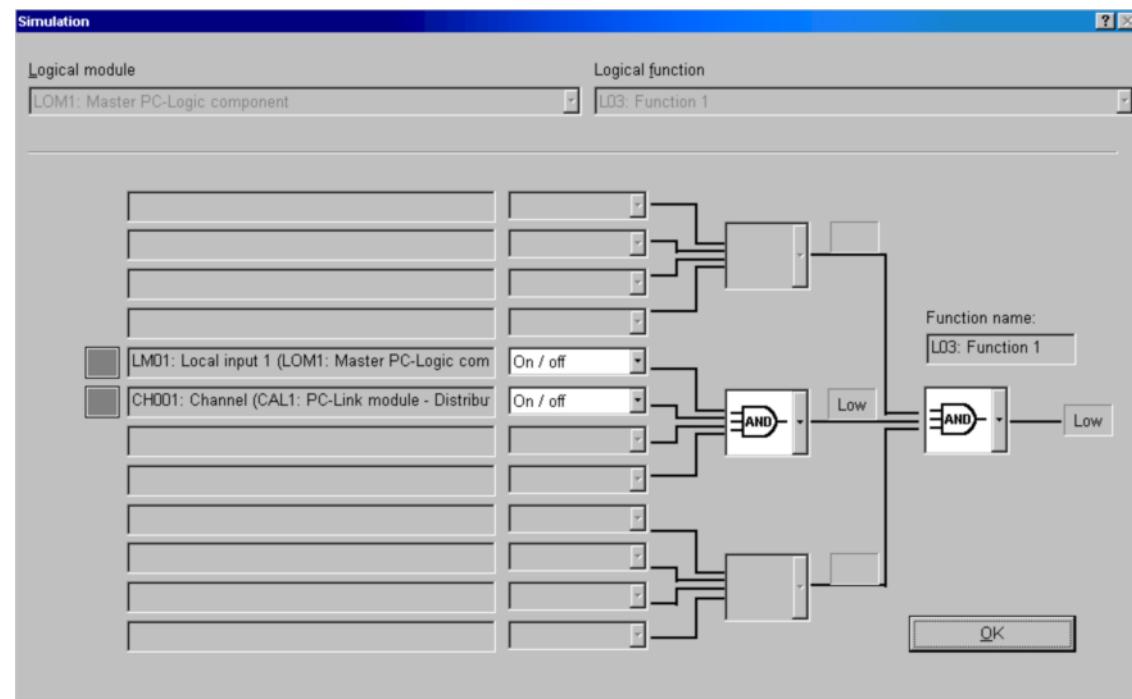
a. The AND function:
As inputs, use logical input 1 (rising and falling edges) of the **PC-Logic** module and **Clock channel CH001** (rising and falling edges). Start with the **AND** function.

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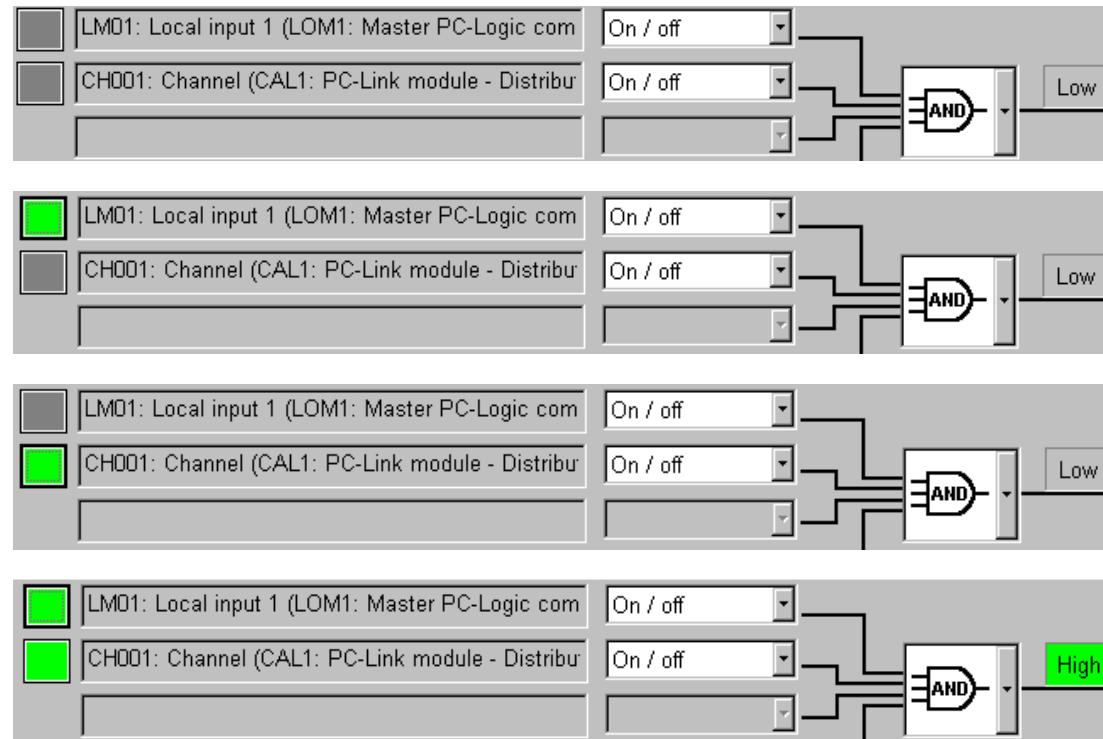
If you now click the **Simulation** button, the screen below will be opened.

Here, you will find two grey squares next to the inputs. This indicates that the inputs are low. By clicking one of the squares, the input will become high. The colour of the square will then turn to green.

The status of the output is indicated next to the logical operators (in this case, two **AND** functions). The current position is low. When the output is high, the output square will turn to green.

The different possibilities of the **AND** function are shown below.

The output of the logical function only becomes high when both inputs are high.

b.   The OR function:
Now select the **OR** function as the logical operator. This will result in the following possibilities.

LM01: Local input 1 (LOM1: Master PC-Logic com	On / off	
CH001: Channel (CAL1: PC-Link module - Distribu	On / off	OR → High

LM01: Local input 1 (LOM1: Master PC-Logic com	On / off	
CH001: Channel (CAL1: PC-Link module - Distribu	On / off	OR → High

LM01: Local input 1 (LOM1: Master PC-Logic com	On / off	
CH001: Channel (CAL1: PC-Link module - Distribu	On / off	OR → High

The output is high if one or both inputs are high.

c. The NAND function:
The third logical operator is the **NAND** function. This offers the following possibilities.

LM01: Local input 1 (LOM1: Master PC-Logic com	On / off	
CH001: Channel (CAL1: PC-Link module - Distribu	On / off	NAND → High

LM01: Local input 1 (LOM1: Master PC-Logic com	On / off	
CH001: Channel (CAL1: PC-Link module - Distribu	On / off	NAND → High

With the **NAND** function, the output is always high unless both inputs are high.

d. The NOR function:
Now select the last logical operator: the **NOR** function. Below possibilities are available.
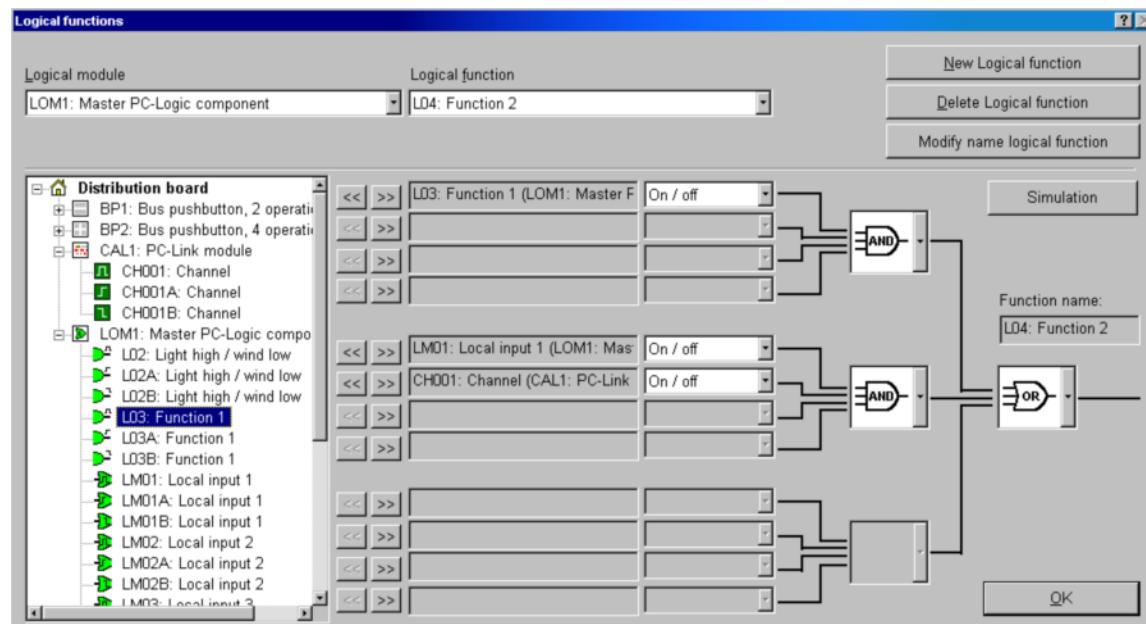
The output is now only high when all inputs are low.

Incorporating logical functions into other logical functions

One or more previously created logical functions can be incorporated into a logical function. The split-window with the inputs of the **Logical functions** screen is, however, only refreshed when it is re-opened. If you have just created a logical function, and you wish to incorporate it into another logical function, you must therefore first exit the **Logical functions** screen by clicking the **OK** button and then re-open it by activating the **Logical function** command.
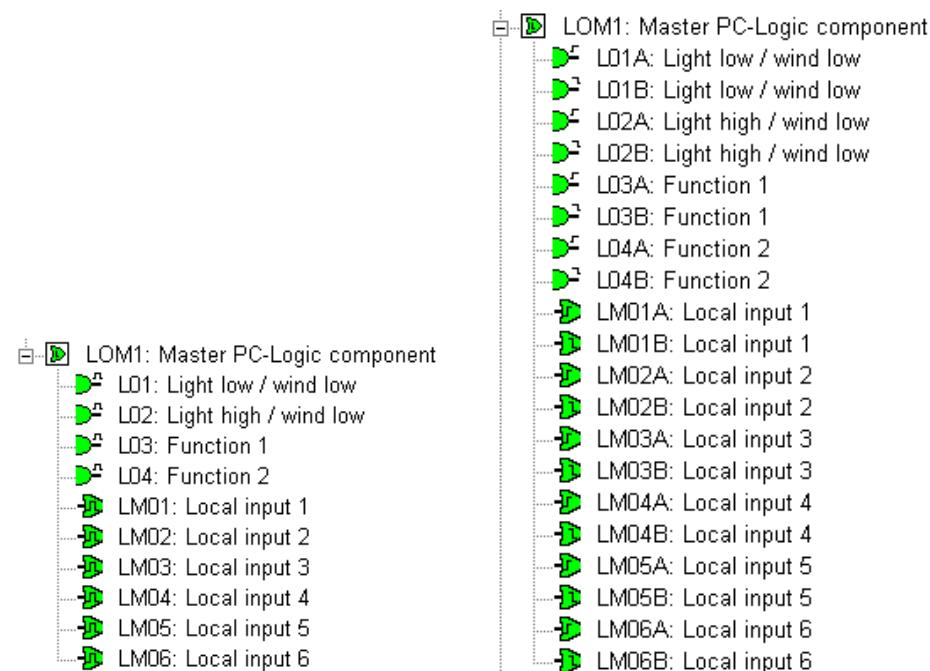
Powerful logical functions can be created in this way.

Creating connections with logical functions

Creating connections with logical functions takes place in the same way as making connections with bus push buttons. Here also, the created logical functions are selected in the split-window **Input** of the **Create connections** screen.

Depending on the connection mode chosen, the rising and falling edges of the entire function (rising and falling edges) can be selected as the inputs for a program.

Description

The **Filter function** command is used to create a filter or a flow function. The programming of an input will be carried out or not depending on the position of another input. The **Shift key** implemented in **chapter 7.2.** is an example of this.

Calling up the screen

Start the filter function by clicking the **Filter** command in the **Edit** menu. It is also possible to start the command by clicking the relevant icon in the **Function toolbar** or in the icon bar at the bottom left of the **Create connections** screen.

The Filter screen

The **Filter** screen mainly consists of three columns.
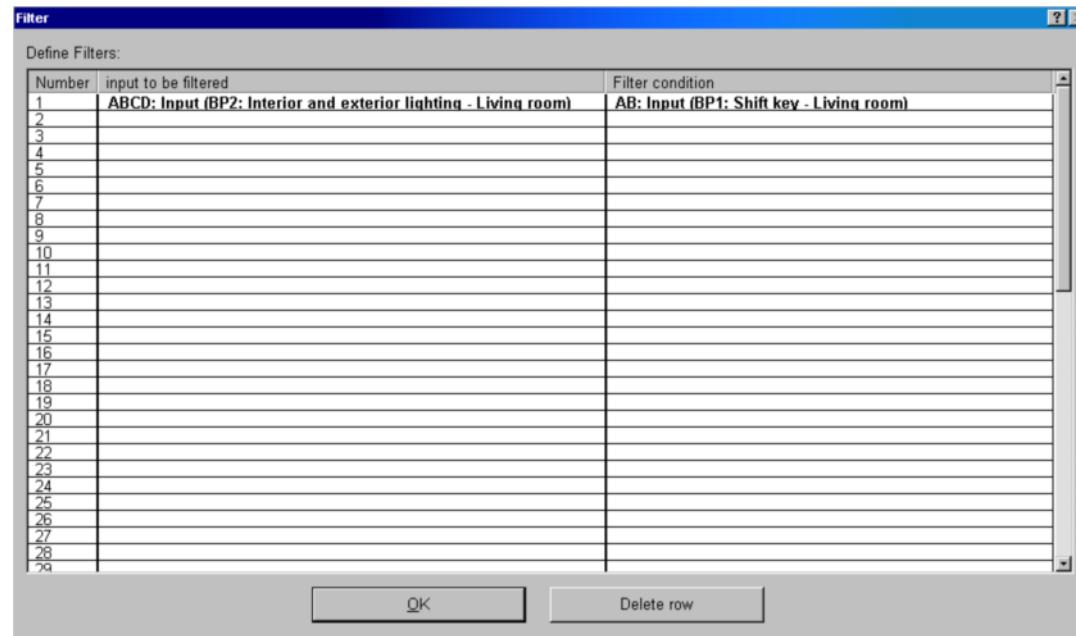
The first column indicates the number of the filter function. A maximum of 64 filter functions can be defined.

The input to be filtered must be selected In the second column (**Input to be filtered**). To do this, click an empty row inside this column. Select the input to be filtered by clicking it In the small drop-down screen.
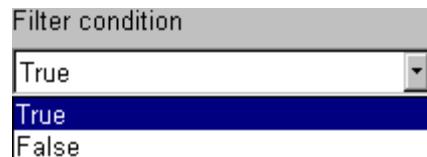
The last column (**Filter condition**) is used to select the particular input that will function as a condition for carrying out the input program selected in the second column or not. Here also, click the relevant row in the column and select the desired input by clicking it.

In the picture below, a first filter function has been defined.

Filter | ? ☒

Define Filters:

Number	input to be filtered	Filter condition
1	**ABCD: Input (BP2: Interior and exterior lighting - Living room)**	**AB: Input (BP1: Shift key - Living room)**
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		

[OK]   [Delete row]

In the above example, you can see that the program of bus push button **BP2** is dependent on the position of bus push button **BP1**.

A normal or an inverted condition

Filter condition

True	▾
True	
False	
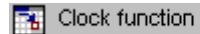
When making a connection to an input that is provided with a filter, you can indicate whether this is a **Normal** or an **Inverted** filter in the **Create connections** screen. In the same way as for the **Shift key** of **chapter 7.2.**, it is possible to link two different programs to the input with a filter, whereby one program will be performed if the condition input is **True** and the other program will only be carried out if the condition input is **False**.

General

By using the **PC-Link module** (05-200), powerful clock functions can be implemented in every Nikobus installation. We would refer you to **chapter 8**, **Working with clocks**, and in particular to section **8.1. Using Clocks**, for a practical example of working with clock functions.

Opening the clock function screen
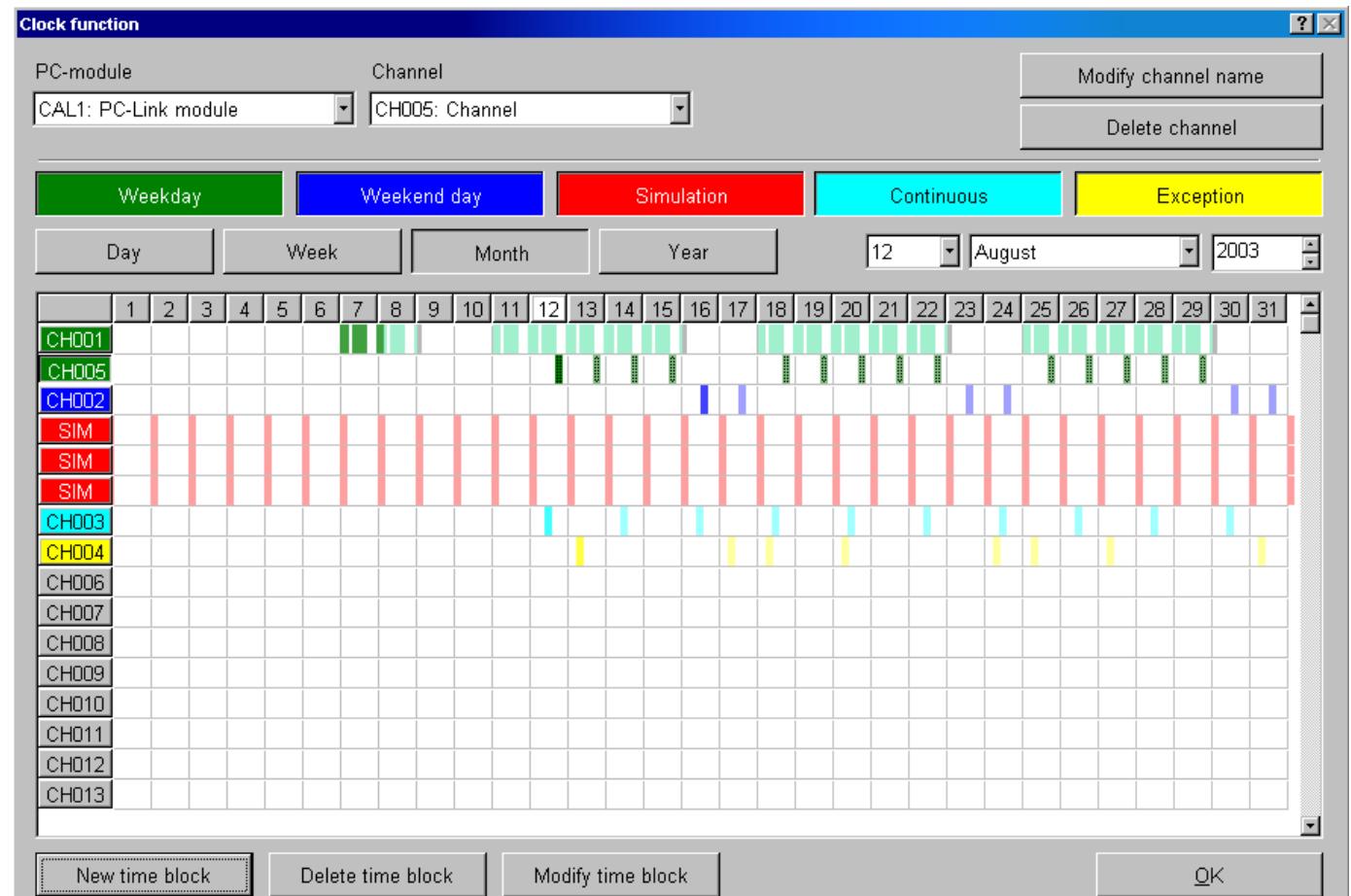
Clock function

The **Clock function** screen can be opened by clicking the **Clock function** command in the **Edit** menu. It can also be activated by clicking the relevant icon in the **Function toolbar** or in the icon bar at the bottom left of the **Create connections** screen.

The clock function screen and its components

Below, you will find an example of the **Clock function** screen in which eight clock channels have already been created. The screen that appears is always in the display mode **Month**, with the current day active.
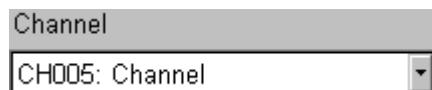
The largest part of the screen is taken up by the grid. Every row represents one clock channel, and a maximum of 100 clock channels can be created. Per clock channel, time blocks can be fixed, with 500 time blocks being available on the full clock function.

The different components of the screen are discussed below.

In most cases, only one **PC-Link module** (05-200) will be installed per Nikobus installation. It is, however, possible to implement several **PC-Link modules** within the same installation if this is required. For this reason, select the module you wish to program under the **PC-module** item.

Channel

CH005: Channel

Select a clock channel by clicking the channel in the **Channel** window. It is also possible to select a clock channel by clicking one of the buttons while the mouse pointer is on the left of the grid.

CH001
CH005
CH002

Modify channel name

The name of a selected channel can be modified. As a matter of fact, the name **Heating ground floor** reveals much more about what you wish to achieve with this clock channel than the standard name **CH005**. Select the channel and click the **Modify channel name** button. The **Channel** window will be opened, in which you can enter a new name.

Channel   ? X

Modify channel name:

Ground floor heating

OK   Cancel

Exit this window by clicking the **OK** button. The modifications will be saved.
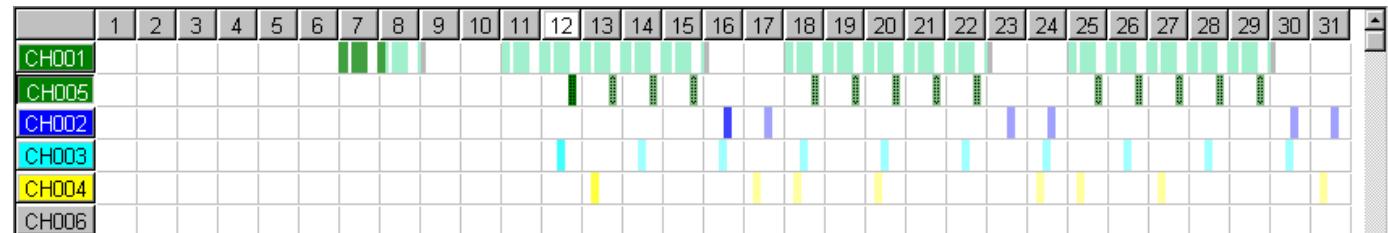
Delete channel

If you wish to delete a clock channel, first select the channel and then click the **Delete channel** button.

Every clock channel is related to a particular clock schedule. Five clock schedules can be used within the Nikobus home automation system: these are: **Weekday**, **Weekend day**, **Simulation**, **Continuous** and, finally, the **Exception** schedule. These five schedules are represented by different colours in various screens.

Weekday | Weekend day | Simulation | Continuous | Exception

In order to keep an overview, it is possible to make the clock channels that are linked to a certain schedule visible or invisible in the grid. To do this, you click the button with the colour that is relevant to the clock channels. Assuming you do not wish to see the simulation channels on the screen, the red button should be clicked. This then results in picture below.

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The buttons and drop-down windows shown below are all related to what is displayed in the time grid.

Whenever the **Clock function** screen first appears, the **Month** button is selected. A column is displayed in the time grid for each day of the month. It is, however, possible to look at the clock channels in more or less detail by using the **Day**, **Week** or **Year** buttons. These screens will be briefly discussed below.

Day

With the day overview, you will obtain the picture below.

There are now 24 columns, one for each hour of the day. This will give you a clearer view of exactly what will be carried out in terms of clock lines on certain days.

Week
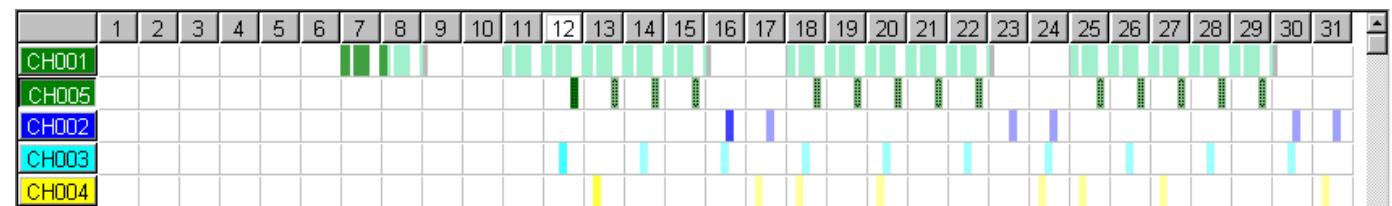
The overview for the week will produce the following picture.

There are now seven columns, one for every day of the week. The selected day is represented by the white background of the column header. Clicking one of the column headers will return you to the day display of the day you clicked.
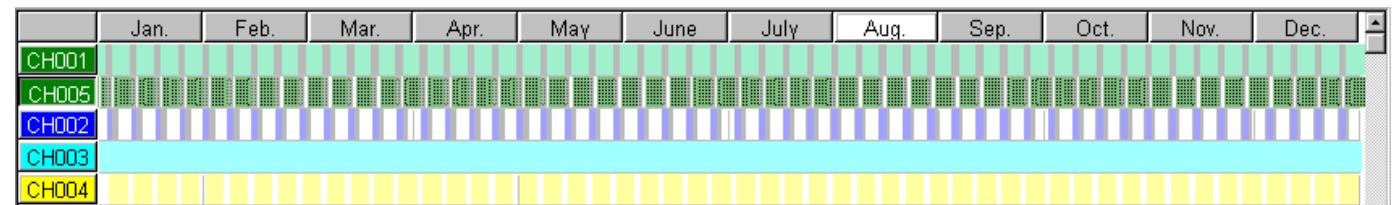
Month

The month overview will result in the following picture.

Depending on the month, there will be as many columns shown as there are days in the selected month. The selected day is indicated by the white background of the column header. By clicking on one of the column headers on a certain day, the day schedule for that day will appear.

Year

Finally, you will obtain the following as the picture for the overview of the year.

This picture represents a full overview for the year. There are now 12 columns, corresponding to the months of the year. The selected month is represented by the white background in the column header. If you click one of the column headers, the display for the month on which you clicked will appear.

It is also possible to select a date by means of the selection fields next to the display buttons.

New time block

In this screen, another four buttons are shown. The first one of these is **New time block**. After you have selected a clock channel, it is possible to add a new time block by using this button. This will open the **Time block** screen, which is discussed below.

Delete time block

Using the **Delete time block** button, it is possible to delete a selected time block from the grid. A time block is selected by clicking with the mouse pointer in the time block in question inside the clock channel in which it is located (one of the rows of the grid). When doing this, and where required, use the display buttons to provide yourself with more detail in order to make a correct selection where several time blocks have been assigned to the clock channel.

Attention: The selected time block will be deleted immediately after clicking the **Delete time block** button; there is no subsequent confirmation screen. A deleted time block can only be recovered by creating a new time block and re-programming everything.
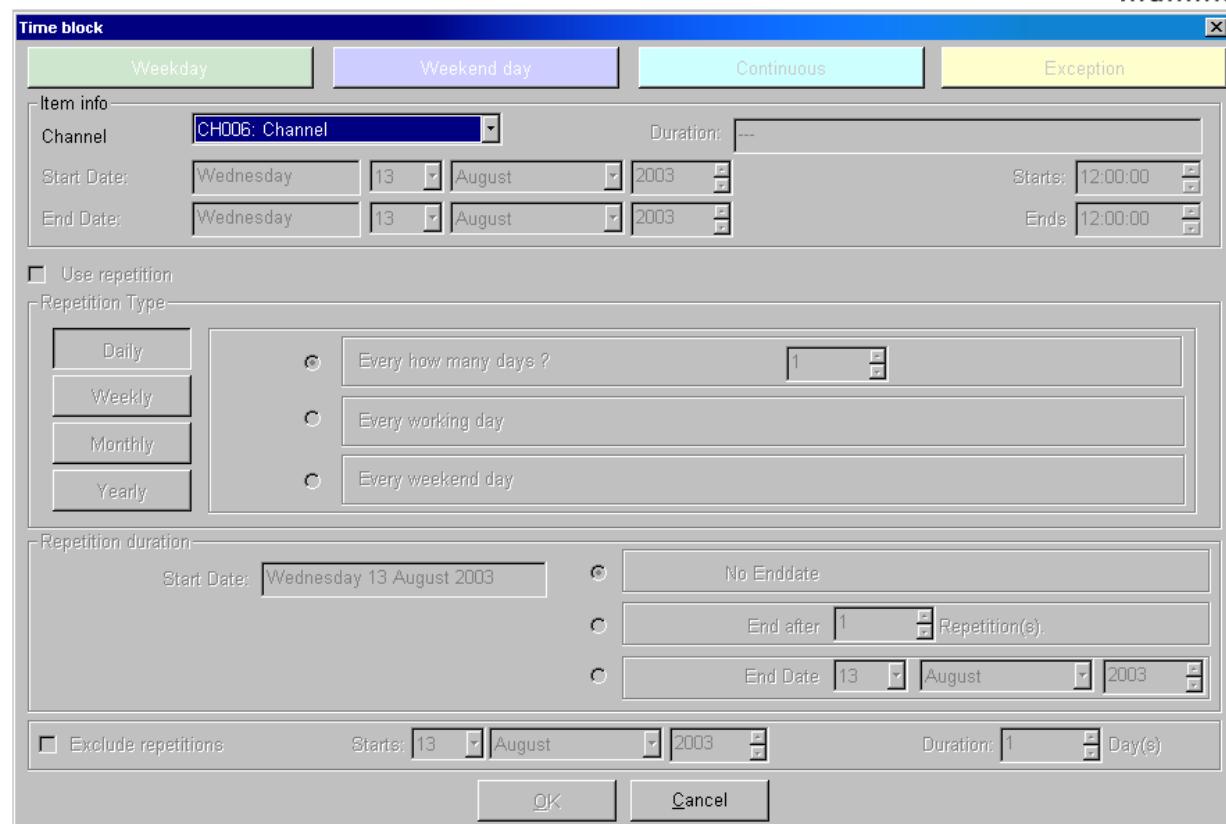
Modify time block

A selected time block can also be modified by clicking the **Modify time block** button. Here also, the **Time block** screen discussed below will be opened.

OK

Finally, there is the **OK** button, which allows you to exit the **Clock function** screen.

Creating a time block

New time block

One or more time blocks can be inserted into every clock channel, with a maximum of 500 time blocks per PC-Link module (05-200).
In the **Clock function** screen, first select the clock channel in which you wish to add a new time block. Clicking the **New time block** button will result in the screen below.
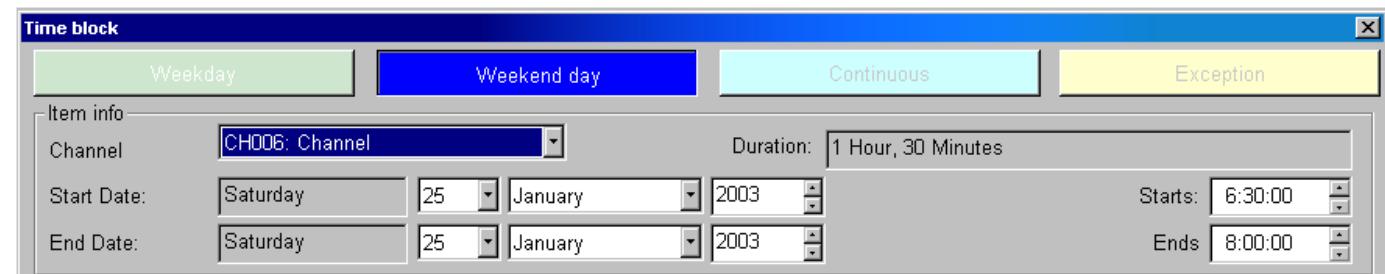
If you have already selected the correct clock channel in the **Clock function** screen, this screen will also display the selected clock channel. If this is not the case, you must first select a clock channel here, in the **Channel** selection field (see left).

You must then indicate the clock schedule in which you wish to create the time block by clicking one of the coloured buttons. You therefore click either the **Weekday**, **Weekend day**, **Continuous** or **Exception** button. At this stage, you are not able to create a **Simulation** schedule. A separate function and separate screens exist for this.

You will only be able to enter the start date and the end date in the relevant selection windows once a schedule button has been clicked.

You then indicate the times at which a time block should start and end. This will result in the following picture.
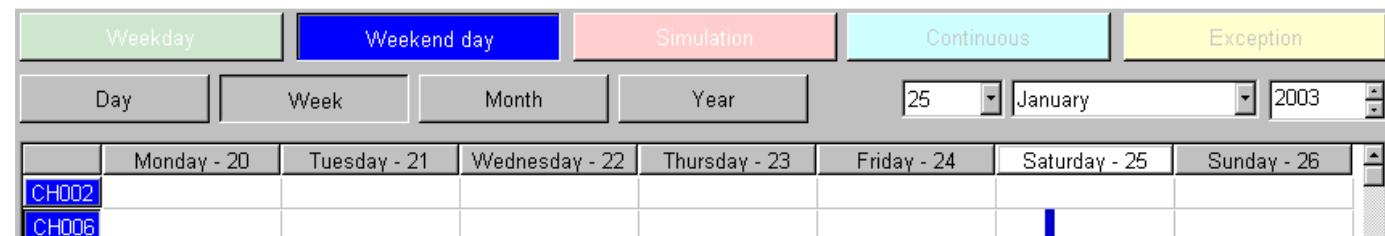
Saturday	25	January	2003
Saturday	25	January	2003

Starts: 6:30:00
Ends: 8:00:00

Time block

| Weekday | Weekend day | Continuous | Exception |

Item info

Channel CH006: Channel   Duration: 1 Hour, 30 Minutes

Start Date: Saturday 25 January 2003   Starts: 6:30:00

End Date: Saturday 25 January 2003   Ends: 8:00:00

Assuming you would like to have only this one time block carried out for clock channel **CH006**, you can return to the **Clock function** screen by clicking on the **OK** button at the bottom of the **Time block** screen. By putting the other schedules in the "invisible" position in this last screen, the picture below is obtained.

| Weekday | Weekend day | Simulation | Continuous | Exception |

| Day | Week | Month | Year | 25 | January | 2003 |

	Monday - 20	Tuesday - 21	Wednesday - 22	Thursday - 23	Friday - 24	Saturday - 25	Sunday - 26
CH002							
CH006							

On the channel **CH006** row, you will find the newly created time block in the **Saturday - 25** column. Clicking the column header **Saturday - 25** will take you to the day display. If you touch this time block with the mouse pointer, you will see the information concerning this time block in the small Tooltip window.

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```
Sa┌CH006: Channel
   │Starts: 25/1/2003  6:30:00
   │Ends: 25/1/2003  8:00:00
   │Duration: 1 Hour, 30 Minutes
   │Repetition: ---
```

Modifying a time block

Modify time block

If you wish to modify a time block, you can click the **Modify time block** button in the **Clock function** screen. Double-clicking on the time block itself will take you back to the **Time block** screen.

Using repetitions

☑ Use repetition

You want to program the created time block with a repetition, as it should not be carried out only once, but several times. Select the correct time block and return to the **Time block** screen. In this screen, tick the **Use repetition** option. By means of certain buttons, you can select a daily, weekly, monthly or annual repetition. All these options are discussed in detail for the **Continuous** clock schedule. Certain items may or may not be used, depending on the clock schedule selected.

Daily

Daily repetitions for the Continuous clock schedule
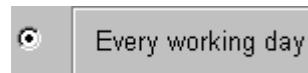
a. Every how many days?
Click the **Daily** button. Three options are offered. The first option is a repetition every x days. Should the repetition take place every day, you leave the number **1**. It is, however, also possible to select, for example, a repetition every three days by selecting **3** by means of the arrow buttons.

Repetition Type

Daily	⦿ Every how many days ?	1
Weekly	○ Every working day	
Monthly		
Yearly	○ Every weekend day	
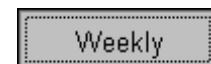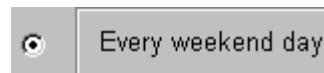
b. Every working day
By clicking the selection circle next to **Every working day**, the time block will only be repeated on working days. If you have ticked the weekend days in the **Project info** screen, the software will obviously "know" which days are working days.
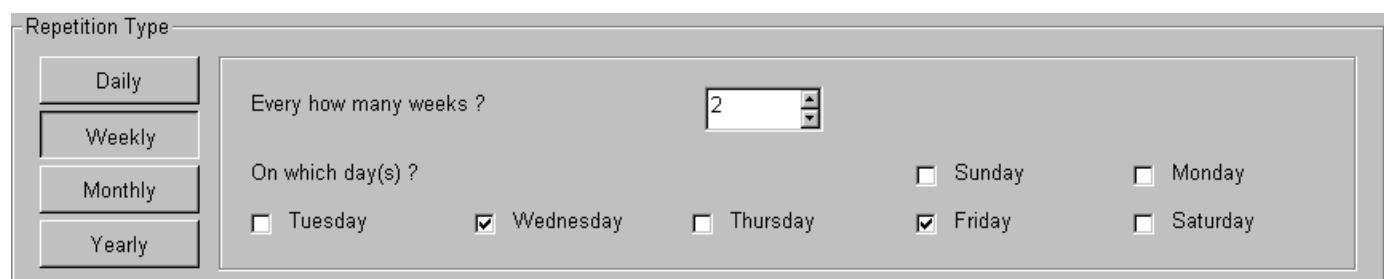
c. Every weekend day
By clicking the selection circle next to **Every weekend day**, the time block will only be repeated on weekend days. You indicated which days are the weekend days for the end user in the **Project info** screen.

Weekly repetitions for the clock schedule Continuous
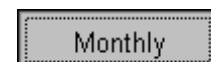
Click the **Weekly** button for repetitions every x weeks.

Here, you can indicate the number of weeks between each repetition, and the days on which is to take place. In the above example, the time block is repeated every two weeks on Wednesdays and Fridays.

Monthly

Monthly repetitions for the Continuous clock schedule

If the repetition should only take place on a monthly basis, click the **Monthly** button.

Repetition Type

Daily	Every how many months ?	1
Weekly		
Monthly	○ On which day ?	25
Yearly	○ Every	first	Monday

Every how many months ?   1

○ On which day ?   25

a. Every how many months?
By means of the arrow buttons, indicate in the number field every how many months the repetition must take place.
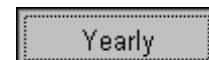
b. On which day?
Click in the **On which day** selection field to select a particular day for the monthly repetition. Select the day in the number field.

c. Every
If you do not wish to select a fixed date number for the repetition, you can also click the selection circle **Every**. In here, you can indicate on which day in which week of the month the repetition should be carried out.

○ Every   second   Thursday

Yearly		**Annual repetitions for the Continuous clock schedule**

For annual repetitions, will click the **Annual** button.

Repetition Type

Daily	In which month ?	January ▾
Weekly	⦿ On which day ?	25 ▾
Monthly		
Yearly	○ Every	first ▾ Monday ▾

a. In which month?
First, select the month in which the repetition should take place.

In which month ?	January ▾

b. On which day?
Click in the **On which day** selection field to select a particular day of the selected month for the annual repetition. Select the day itself in the number field.

⦿	On which day ?	25 ▾

c. Every
Or, click in the selection field next to **Every** if a fixed day of a fixed week in the selected month is required for the annual repetitions. Click on the week of the month In the first field, and on the day of the week in the second field.

⦿	Every	first ▾	Monday ▾

Indicating the repetition duration

The duration of the repetition must be determined for every programmed repetition. There are several possibilities. Whether a particular possibility can be used or not depends on the type of repetition.

It is necessary to indicate a start date. This is the date on which the original time block will be carried out for the first time.

a. No end date
If you click the **No end date** selection circle, the established repetition will never stop.

b. Stop after x repetitions
You can, however, also indicate that the repetition should only take place a few times.

In the above example, the number of repetitions is set for **3**. The time block in question will be carried out three times in total.

c. Using an end date
Finally, you can also choose to set an end date for the repetitions. On the determined end date, the time block will be repeated for the last time.

CAL1: PC-Link module
- CH001: Bathroom heating night workir
- CH002: Channel
- CH003: Channel
- CH004: Channel
- CH005: Channel
- CH006: Channel
- CH007: Channel
- SIM: Simulation
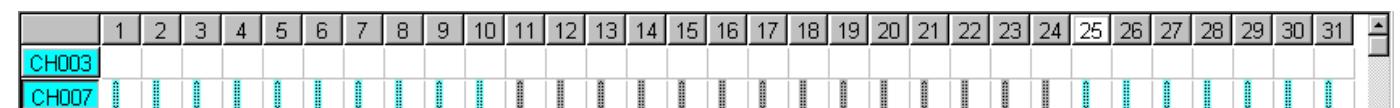
CAL1: PC-Link module
- CH001: Bathroom heating night working
- CH002: Channel
- CH003: Channel
- CH004: Channel
- CH005: Channel
- CH006: Channel
- CH007: Channel

CAL1: PC-Link module
- CH001A: Bathroom heating night workir
- CH001B: Bathroom heating night workir
- CH002A: Channel
- CH002B: Channel
- CH003A: Channel
- CH003B: Channel
- CH004A: Channel
- CH004B: Channel
- CH005A: Channel
- CH005B: Channel
- CH006A: Channel
- CH006B: Channel
- CH007A: Channel
- CH007B: Channel

Suspending repetitions

A programmed repetition can also be suspended for a certain period in time. This is, for example, handy if a holiday period has been planned. In order to arrange for this, put a tick next to **Exclude repetitions**. Subsequently, you enter the date on which you would like the exclusion to start, followed by the number of days the exclusion should be applied for.

☑ Exclude repetitions   Starts: 11 ▾ July ▾ 2003 ⬍   Duration: 14 ⬍ Day(s)

In the above example, the time block will not be carried out during the holidays.

Within the **Clock function** screen, the exclusion will be indicated by the colour grey.

|	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
CH003																															
CH007																															

Assigning a clock channel to a alliance

When exiting the **Clock function** screen with the **OK** button, you will find the programmed clock channels in the **Project overview** window together with the sensors (inputs). Creating a connection between a alliance (output) and a clock channel id carried out in the same way as programming a push button. The only difference is that you assign a clock channel in place of a push button. Every time a time block becomes active or inactive in the clock channel, the selected function (mode) will be carried out.

The view you will obtain in the **Input** split-window depends on the selected function.

If, for example, you select connection mode **M1 (on/off)** for an output of the switch module, the selected alliance will be switched on when a time block becomes active, and this alliance will be switched off when this time block is finished.

If, however, you select connection mode **M2 (on)**, the picture will look quite different. The selected alliance of the switch module can now be switched on according to your wish, either when the time block becomes active, or when the time block is finished.
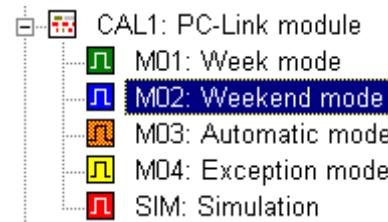
After assigning the input, the program must be confirmed by clicking the **Add connection** button.

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If a number of clock channels have been created, it is handy to use the coloured icons under the **Input** split-window in order to make certain clock schedules alternately visible or invisible. In the opposite example, you will only be able to see the clock schedules **Continuous** and **Exception**.

**Assigning a clock schedule to a push button**
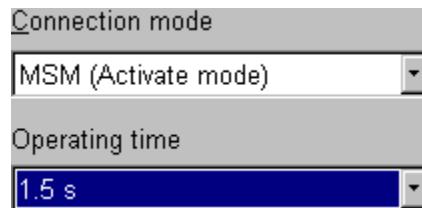
Normally, you can use the feedback bus push button to activate or de-activate clock schedules. The description of the clock schedules and the feedback bus push button can be found in section **8.3. The different clock schedules**.

You can, however, also activate a clock schedule by connecting it to an ordinary bus push button. To do this, open the **Create connections** screen. Select the clock schedule you wish to activate in the **Output** split-window. For example, **MO2: Weekend mode**.

Note that the **Continuous** schedule is not pictured here, and, as a result, cannot be selected. As a matter of fact, this schedule is always active and cannot be activated by a push button.

On the other hand, you will see **M03: Automatic mode**. You have not met this schedule before. If this schedule is activated, either the working day schedule or the weekend day schedule will be activated, depending on the point in time (working day or weekend day) at which this schedule is called up.

As **Connection mode,** select **MSM (Activate mode)** and then select an operating time for the push button. The program is finalised by selecting a bus push button in the **Input** split-window and then clicking the **Add connection** button.
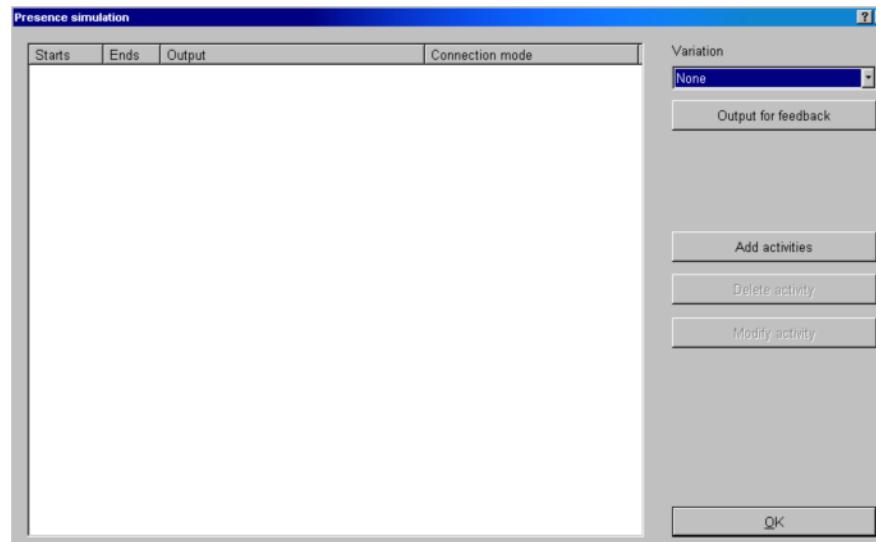
General

With the powerful presence simulation function of the Nikobus home automation system, burglary prevention can be actively practised. This function can only be carried out and programmed if a **PC-Link module** (05-200) has been included in the installation.

Opening the presence simulation screen
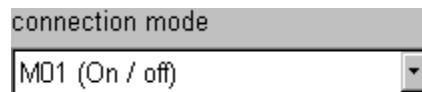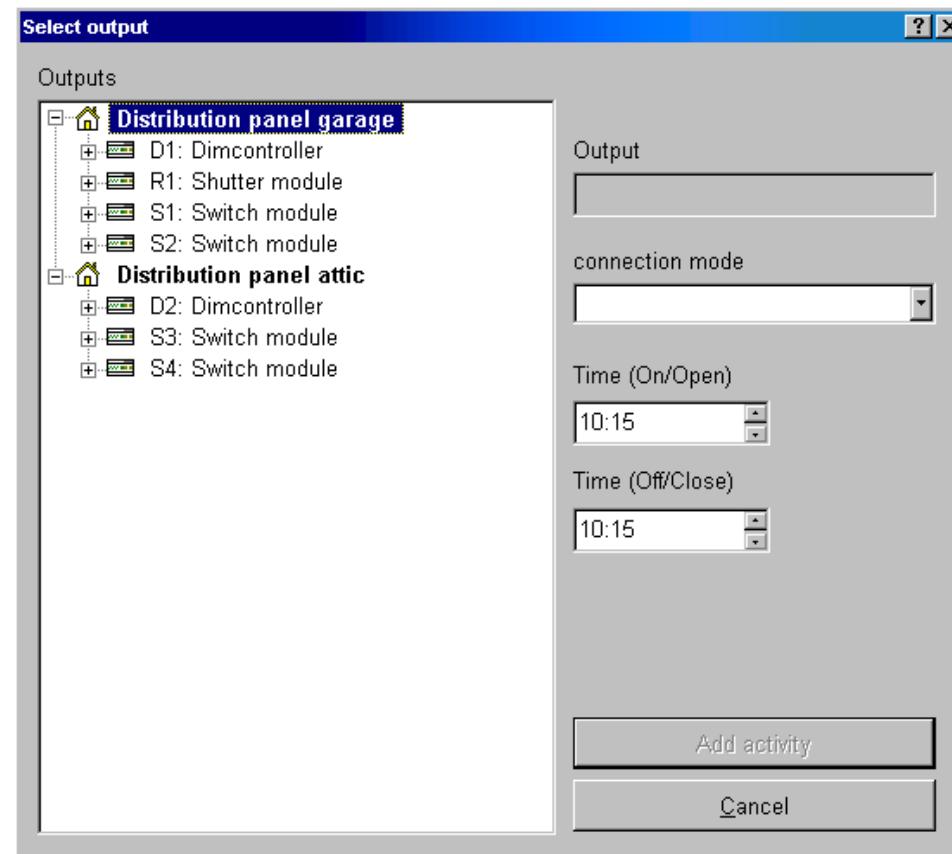
The presence simulation screen can be opened by clicking the **Presence simulation** command in the **Edit** menu. It

can also be opened by clicking the presence simulation icon ![icon]. This icon can be found in the **Function toolbar** and in the icon bar at the bottom left of the **Create connections** screen.

Adding activities to the simulation

Activities have to be added to the presence simulation. Each activity represents the performance of a function by a certain alliance at a certain point in time. Click the **Add activities** button. The screen below, **Select output,** will be opened.

In the left split-window, an output is selected by clicking it. The connection mode is also activated. The connection mode is limited to one possibility for every output module. For the dim controller, this is mode **M01 (Dim on/off 2-buttons)**. For the blind module, this is connection mode **M01 (Open-stop-close)**. And, finally, mode **M01 (On/off)** is used for the switch module.

Time (On/Open)

`23:22`

Time (Off/Close)

`23:41`

In addition, the points in time at which the alliance must be switched on and off must be indicated in this screen. This can be easily done by using the arrow keys next to the relevant fields. To change the minutes, first click the minutes with the cursor and then use the arrow buttons.

Click the **Add activity** button to add the newly created activity to the presence simulation. A new activity can be created and added to the simulation straight away. Once the last activity has been added to the simulation, leave the **Select an output** screen by clicking the **Cancel** button. You will now see the added activities in the **Presence simulation** screen.

Starts	Ends	Output	Connection mode
23:22	23:41	O01: LP garage (S1: Switch module)	M01 (On / off)
23:15	23:39	O07: LP entrance hall (S1: Switch module)	M01 (On / off)
21:15	07:30	O05: Office shutter (R1: Shutter module)	M01 (Open - stop - close)
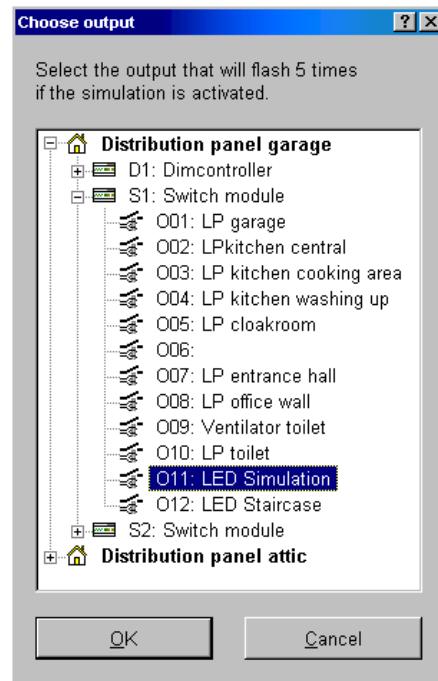
Determining an output for the feedback

When the presence simulation is active, it is possible to receive feedback, for example by means of a push button with LED. In this way, the user is aware of whether or not the simulation is "on".

Output for feedback
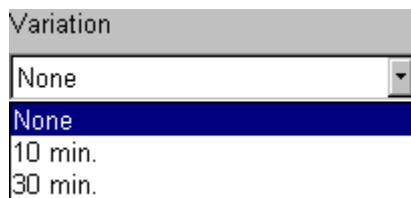
To arrange this, click the **Output for feedback** button.

The **Select output** screen will be opened. Here, click the desired feedback output in the tree structure with the outputs. In this case, this is output **011: LED Simulation** of switch module **S1**. Exit the screen with the **OK** button.
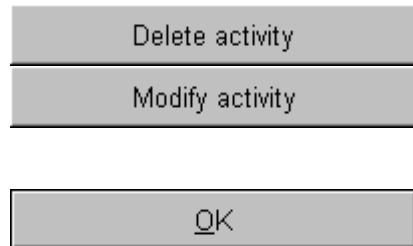
Working with variations in the presence simulation

If the inhabitants of the house have left for two weeks (holidays), it does not make much sense to perform the same activities every day at the same time. The pattern would appear too structured to the outside world. As a matter of fact, the presence simulation may thereby cause exactly the opposite effect.


With the Nikobus home automation system, a variation can be linked to the simulation. By means of the small **Variation** window, you have a choice between: no variation, 10 minutes or 30 minutes. If you select the "no variation" option, the activities will be carried out at the scheduled times.

If, however, you set the variation for 10 minutes or 30 minutes, every activity will start and stop within a time frame of 10 or 30 minutes before or after the scheduled time. Assume you have selected the setting of 10 minutes variation in a particular case, the activity that would normally start at 20:00 h, will, for example, start at 19:54 h on one day and, for example, at 20:08 h on the next day. Using this variation, the simulation becomes more realistic, which is exactly its purpose.

Other buttons in the Presence simulation screen

Some additional buttons can also be used in the **Presence simulations** screen.

Select an activity line and click the **Delete activity** button in order to delete the selected activity from the simulation.

Select an activity to be modified by clicking the corresponding activity line. Now click the **Modify activity** button in order to adapt the selected activity. The **Select an output** screen will be opened. Modify the activity in this screen and exit by clicking the **Modify activity** screen.

Use the **OK** button to exit the **Presence simulation** screen.

Connecting the simulation to a push button
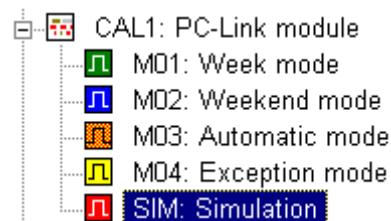
By making use of the **feedback** bus push button, the user can switch the presence simulation to the active or the non-active position. The **feedback** bus push button does not need to be programmed for this.

It is, however, also possible to have the simulation activated by making use of an ordinary bus push button. To arrange this, it is best to select a type with LED for the feedback. Connect the LED of the bus push button to the selected feedback output (by means of a bell ringing transformer).

Open the **Create connections** screen in order to do the programming. In the left split-window **Output**, select **SIM: Simulation** under **CAL1: PC-Link**.

As **Connection mode,** choose **MSM (Activate Presence simulation)**.

Then select the push button that will have to activate the simulation in the **Input** split-window. Close the program by clicking the **Add connection** button and exit the window by means of the **Close** button.

A project that has been configured in the computer can be transferred to the installation. This is called "downloading". The data that is present in an installation can also be transferred to the computer. This we refer to as "uploading". Both functions can be carried out if the computer is connected to the installation by means of a **PC-Link** (05-200) or a **PC-Logic** module (05-201). Furthermore, downloading, uploading and even remote operation of circuits is possible by making use of two modems. One modem is placed at the installer's premises, while the other has been installed at the customer's premise. For more information on this, see chapter **15.15. Remote log-in through a modem**.

Connection between computer and installation

From the computer, an RS-232 connection is made to the installation. Two Nikobus components can play a role in this. You can use the **PC-Link** module (05-200) or of the **PC-Logic** module (05-201). Once the physical connection has been established, it is possible to start the communication. To do so, first of all identify the correct **COM-port** in the **Program** menu by using the **Port** command.

The connection is then made by clicking the **Connect** command in the **Program** menu, or by clicking the icon for this command in the **Function toolbar**.
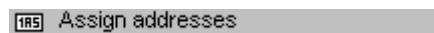
The connection status can be seen in the status bar at the bottom of the screen.

There is no communication between computer and installation.
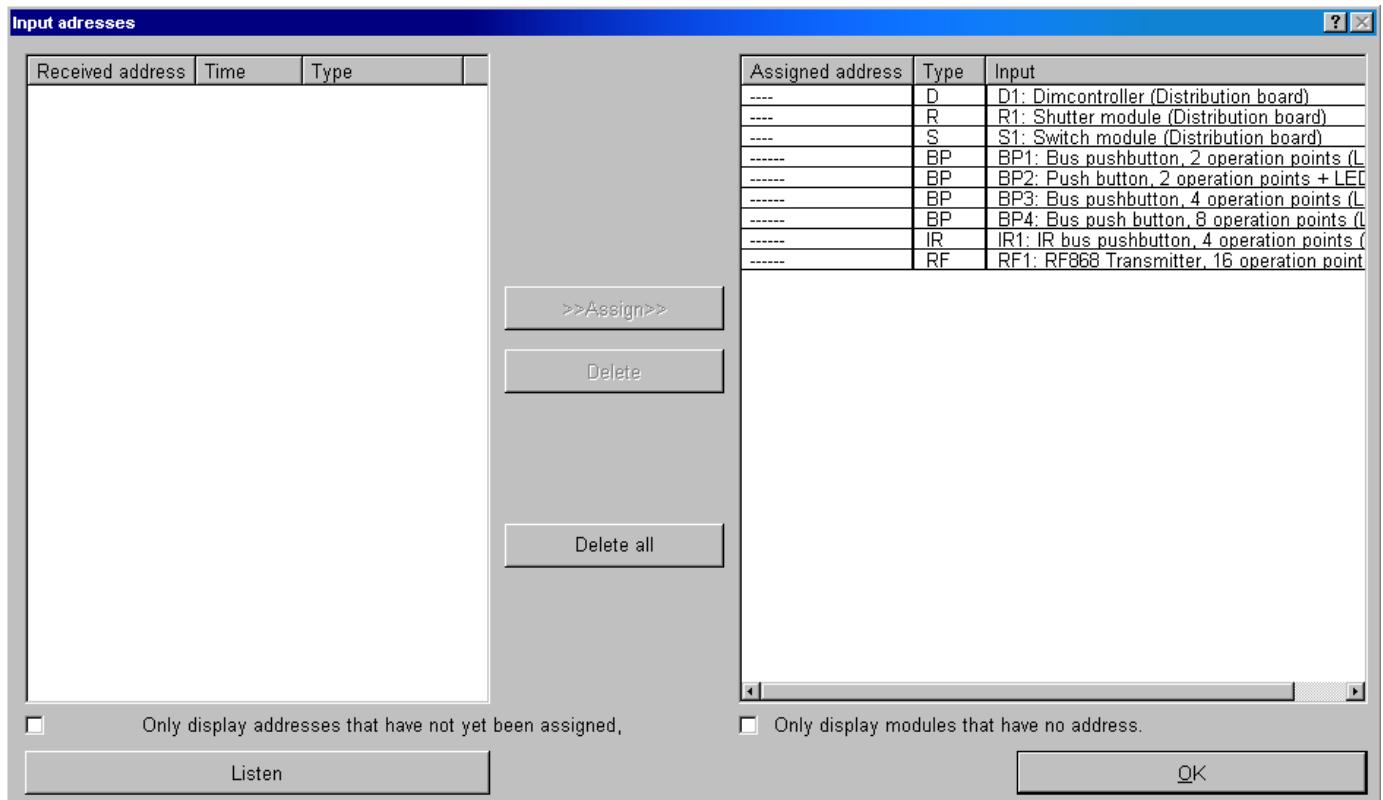
There is active communication between computer and installation.

The Input addresses screen

If the communication between computer and installation has been established, the addresses of the installation components must be assigned to the components in the software.

The screen is opened by using the **Assign addresses** command from the **Program** menu.

Input adresses

Received address	Time	Type	

Assigned address	Type	Input
----	D	D1: Dimcontroller (Distribution board)
----	R	R1: Shutter module (Distribution board)
----	S	S1: Switch module (Distribution board)
------	BP	BP1: Bus pushbutton, 2 operation points (L
------	BP	BP2: Push button, 2 operation points + LED
------	BP	BP3: Bus pushbutton, 4 operation points (L
------	BP	BP4: Bus push button, 8 operation points (L
------	IR	IR1: IR bus pushbutton, 4 operation points (
------	RF	RF1: RF868 Transmitter, 16 operation point

>>Assign>>

Delete

Delete all

☐ Only display addresses that have not yet been assigned,

☐ Only display modules that have no address.

Listen

OK

Listen

Click the **Listen** button to receive the addresses in the left split-window.

Transferring addresses of components

Every component has its own specific system for transferring its address to the computer.

a. **RF hand transmitter:** First, press one of the small keys (numbers 1 to 4) and immediately afterwards one of the large keys (A, B, C or D) to transfer the address.

b. **RF wall transmitter:** Press one of the operating locations of the push button in order to transfer the address. It does not matter whether the upper or lower part, or the left or right part are pressed.

c. **(Compact) switch module:** Press the **Mode** button until you hear the beep.

d. **Blind module:** Press the **Mode** button until you hear the beep.

e. **(Compact) Dim controller:** Press the **Mode** button until you hear the beep.

f. **PC-Link module:** Press the navigation button of the PC-Link module several times (the button in the middle of the module) until you see the message **SEND ID** at the top of the small LCD screen. Confirm this menu selection by pressing the confirmation button (with the green tick) once. Now press the confirmation button once again in order to actually transfer the address.

g. **PC-Logic module:** Press the navigation button of the PC-Logic module several times (the button in the middle of the module) until you see the message **SEND ID** at the top of the small LCD screen. Confirm this menu selection by pressing the confirmation button (with the green tick) once. Now press the confirmation button once again in order to actually transfer the address.

h. **Nikobus motion detector:** The flush mounting motion detector consists of a flush mounting socle (05-7X5 / 430-0050X) and a sensor (XX-784 / 1XX-78400) that is clicked onto the socle. Pressing long on the button at the top of the cover results in sending a Nikobus address. Data transmission security: in case there is a conflict on the bus, the telegram is automatically resent.

i. **Binary interface:** Activating one of the inputs of the binary interface results in sending a Nikobus address.

j. **Push buttons interface:** Press a connected push button of the push button interface (05-056) to transfer its address to the computer.

k. **Switch interface:** Put the switch that has been connected to the switch interface (05-057) briefly in the on or off position to transfer the address to the computer.

l. **IR bus push buttons:** Press one of the operating locations of the push button to transfer the address. It does not matter whether the upper or lower part, or the left or right part are pressed.

m. **Thermostat:** press the arrows to manually increase/decrease the temperature until the contact closes/opens. You hear a beep in confirmation.

n. **Feedback bus push buttons:** press one of the control spots of the push button to send the address. It does not matter whether you press on top or at the bottom, left or right.

o. **Feedback module:** Press the navigation button (middle button on the module) until SEND ID is displayed on the LCD display. Confirm your menu choice by pressing the confirmation button once. Press again to send the address.

Received address	Time	Type
105676	07:22:34	BP/IG/CF/IR/...

Transfer the address of the Nikobus component to the computer. This address can be seen in the left split-window, together with the time it was transferred and the type of component.

This line is selected by clicking it with the mouse cursor. The component is then selected in the right split-window of the **Input addresses** screen. Only now can you connect both the selected lines (in the left and right split-window) by clicking the **Assign** button.

Assigned address	Type	Input
----	D	D1: Dimcontroller (Distribution board)
----	R	R1: Shutter module (Distribution board)
----	S	S1: Switch module (Distribution board)
------	BP	BP1: Bus pushbutton, 2 operation points (L
105676	BP	BP2: Push button, 2 operation points + LED
------	BP	BP3: Bus pushbutton, 4 operation points (L
------	BP	BP4: Bus push button, 8 operation points (L
------	IR	IR1: IR bus pushbutton, 4 operation points (
------	RF	RF1: RF868 Transmitter, 16 operation point

>>Assign>>

The address will now appear next to the module in the right split-window.

Assigned address	Type	Input
----	D	D1: Dimcontroller (Distribution board)
----	R	R1: Shutter module (Distribution board)
----	S	S1: Switch module (Distribution board)
------	BP	BP1: Bus pushbutton, 2 operation points (L
105676	BP	BP2: Push button, 2 operation points + LED
------	BP	BP3: Bus pushbutton, 4 operation points (L
------	BP	BP4: Bus push button, 8 operation points (L
------	IR	IR1: IR bus pushbutton, 4 operation points (
------	RF	RF1: RF868 Transmitter, 16 operation point

The other buttons and fields to be ticked in the Input addresses screen

Delete

Delete all

☐ Only display addresses that have not yet been assigned,

☐ Only display modules that have no address.

OK

If a component has been selected in the right split-window to which an address has already been assigned, the **Delete** button will delete this address.

If all the assigned addresses should be deleted, use the **Delete all** button.

If several allocated addresses are already displayed in the left split-window, it may be more convenient to place a tick next to **Only display addresses that have not yet been assigned**.

In the same way, a tick can be placed next to the message under the right split-window: **Only display modules that have no address**.

Use the **OK** button to exit the **Input addresses** screen.
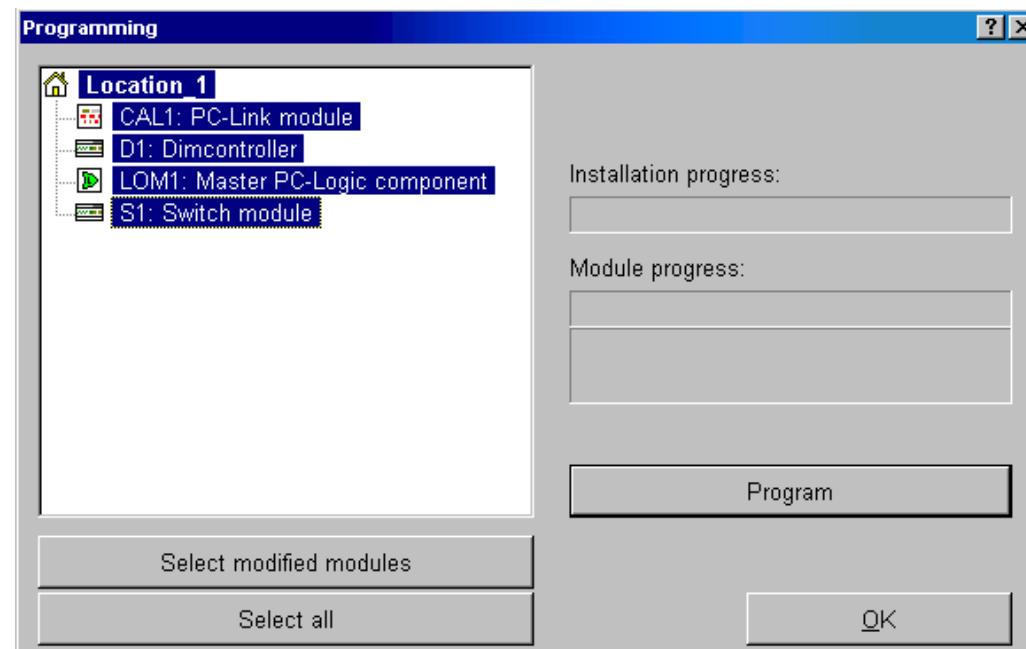
The program screen

If the components' addresses have been assigned, the computer program must be transferred to the installation. A communication link must obviously already be in place between the computer and the installation.

🔲 Program

The **Program** screen is opened by clicking the command with the same name in the **Program** menu, or by clicking the corresponding icon in the standard **toolbar**.

In the left split-window, all the programmable modules of the installation are listed. For the initial programming, all modules will be displayed inversely. This means that they must all be programmed. If programming has already taken place at an earlier stage, only those modules that must be programmed anew will be displayed inverse.


If required, all modules can be selected by using the **Select all** button.

Select all

Select modified modules

If only those modules must be programmed for which the software has been modified since the latest download, use the **Select modified modules** button.

212
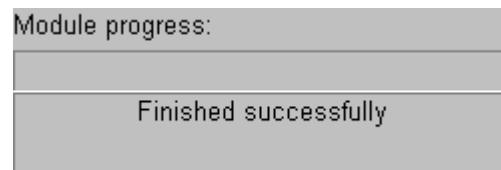
By clicking various modules with the mouse pointer, these can be selected or un-selected for program.

Program

Click the **Program** button to start the program. The downloading process can be followed on the screen.

Installation progress:

Module progress:

CAL1: PC-Link module : 336/576

If the downloading process has been completed, the following message will appear on the screen.

Module progress:

Finished successfully

OK

The **Program** screen is closed using the **OK** button.

Important: If several programs are transferred to the installation in succession, it is desirable to carry out a new initialisation of the installation by briefly (for a minimum of 5 seconds) interrupting the installation's power supply.

Uploading installations

It is a good habit to make a back-up of the software used, both while programming in the software and after downloading the data to the installation. In this way, you always has the latest version of an installation available. This back-up can be saved on a diskette or on a CD-ROM. Store these media in a safe and dust free environment.
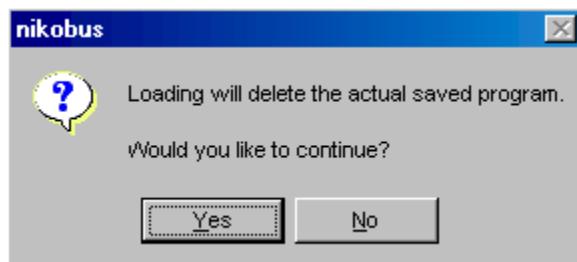
If you have to work with an installation for which no software file is available, you must work in a different way. The installation can be read out. To do this, two steps must be taken. First, the project overview must be loaded down from the **PC-Link** module. The program of the modules must then be read out.

Attention: When reading out from an installation, some information will always be lost. First of all, all output and input names are represented in standard values. In practice, this means that if a switch module output was named, for example, **001: light point staircase**, it will only be referred to as **001: Switch output** after an upload.
Furthermore, certain clock channel time blocks will no longer be represented as they have originally been programmed. In particular, this concerns those time blocks that originally had been programmed with a repetition including an end date for the repetition.
If it is necessary to carry out an upload, the time blocks of the clock channels must therefore be checked afterwards.

Reading out a project overview

Load project overview from PC-Link

The computer must be connected to a **PC-Link** module. A communication link must be established. Click the **Load project overview from PC-Link** command in the **Program** menu.

A confirmation screen will be opened. Here, the **Yes** button is used if one really want to channel the project overview from the installation to the computer. The current set-up of the software will be overwritten. Click the **No** button if you do not wish to do this. If required, open a new project and carry out an upload afterwards.
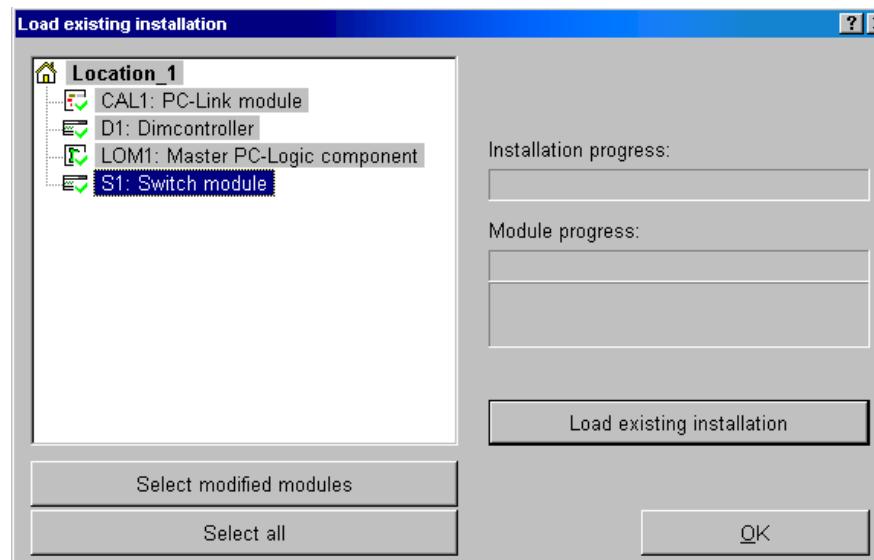
If the uploading continues, all modules of the installation (both outputs and inputs) will be displayed in the **Project overview** window after a brief waiting time.

## Reading out the program

Load existing installation

Once the project overview of an unfamiliar installation is available, the programming can be read out. Ensure that a communication link has been established between the computer and the installation.

The **Load existing installation** screen will be opened using the **Load existing installation** command from the **Program** menu. This screen is almost identical to the **Program** screen. The **Program** button, however, has been replaced here with the **Load existing installation** button.
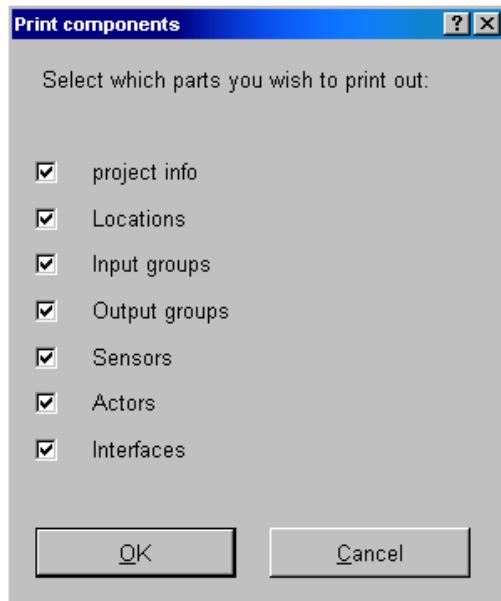

Use the **Select all** button to display all modules inversely. Then click the **Load existing installation** button to start the upload to the computer.

Exit the screen by using the **OK** button.

The Nikobus software is provided with the option to make an extensive print-out of your projects. This can be added to the home automation file in order to complete the information concerning a project.

Screen Print components
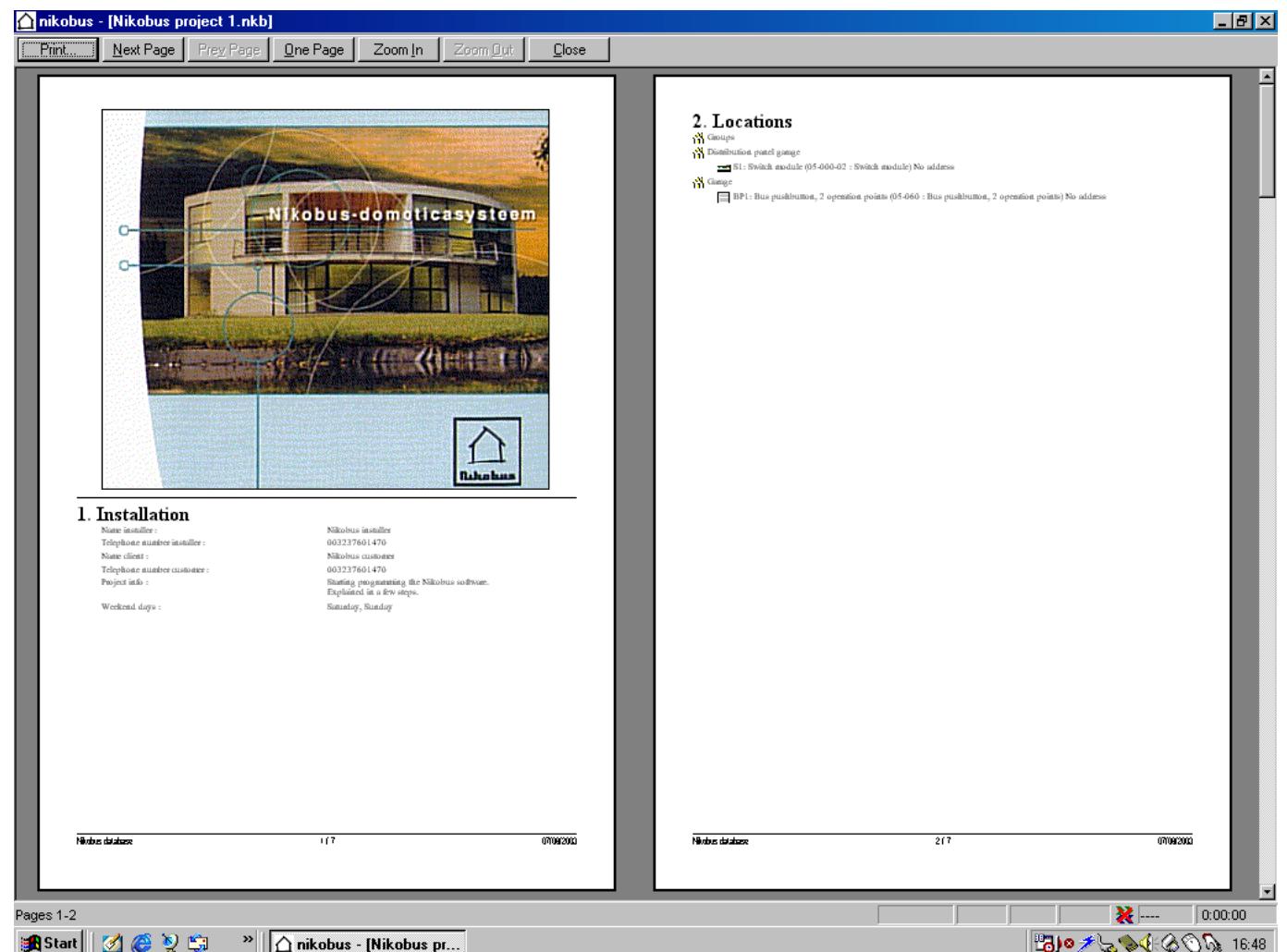
After clicking the **Print** or **Print preview** command, the **Print components** screen will be opened. Here, tick those items you wish to have printed on paper or displayed on the screen. You have a choice of one or more of the following components:
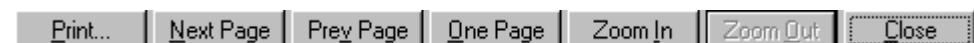
- Installation: The data you have completed in the **Project info** window will be printed out.

- Locations: A list of the various locations in the project. The installed Nikobus components are indicated and printed out per location

- Input groups: Provides an overview of the various input groups that have been created.

- Output groups: Provides an overview of the various output groups that have been created.

- Sensors: This list shows the sensors that have been used in the project.

- Actors: Provides a list with all output modules. Every programmed output is listed here. In addition, the connection mode, parameters and possible conditions and filters for every program have been included in the list.

- Interfaces: Prints a list of the interfaces that have been used and their programs. The PC-Link and the PC-Logic modules have been included here, among others.

Print preview screen

If the **Print preview** command has been activated in the **File** menu, the **Print components** screen will be opened and completed. Exit this screen by means of the **OK** button. The print preview will be opened.
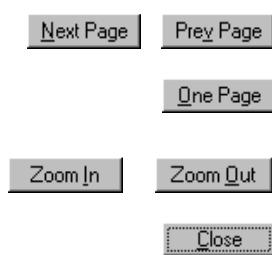
A button bar is included at the top of the screen.

Print...   You can go to the print order using the **Print** button.

The next page or the previous page can be viewed by clicking the **Next Page** or **Prev. Page** button respectively.
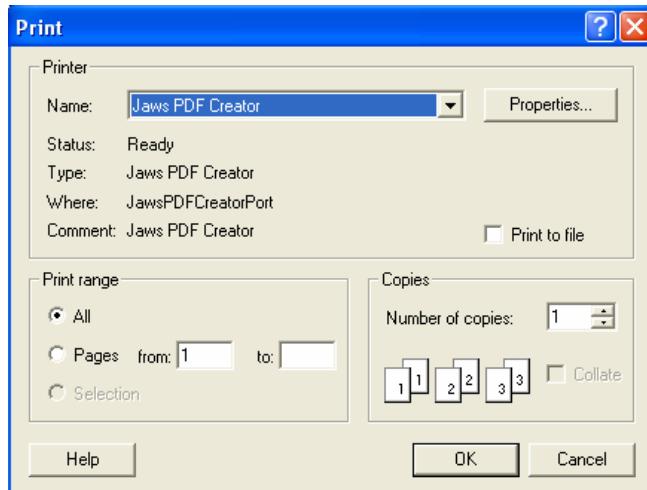
If there are 2 pages visible per screen, you can go to a print preview with 1 page per screen by clicking the **One Page** button.

Enlarge or reduce the details on the page by using the **Zoom In** and **Zoom Out** buttons.
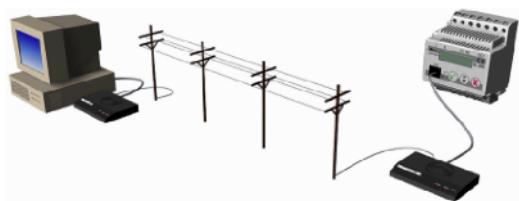
Use the **Close** button to exit the **Print preview** screen.

Printing

Select the **Print** command in the **File** menu. The **Print components** screen will be opened. Here, tick the items that must be printed and exit the screen by means of the **OK** button. The **Print** screen will be opened. Complete this screen according to your requirements and click the **OK** button to start printing.

In chapter **15.13. Download and upload screens**, you have seen that it is possible to transfer the program from the computer to the installation (downloading), but that you can also transport data from the installation to the computer (uploading) by means of a direct link between the computer and the installation. It is, however, also possible to carry out these functions from a distance. In this case, you must make use of two modems and a telephone connection.

System requirements for installations and modems

At least one **PC-Link** module (05-200) must be present in the installation.
Two modems must be available: one at the installer's and a second one at the customer's. Both modems must have been initialised previously (more about this later in this document). The modems must be **HAYES-**compatible and must have non-volatile memory. For example, a US Robotics 56K fax modem is recommended.

Initialising and connecting the modems

a. **The installer's modem**
First of all, the modem is connected to the installer's computer by means of the cables that are delivered with the modem. For an external modem, two cables are used. On the one hand, a connection with an analogue telephone line is made. On the other hand, the modem is connected with the computer's serial port (COM port). Initialise this modem by means of the modem's installation instructions.
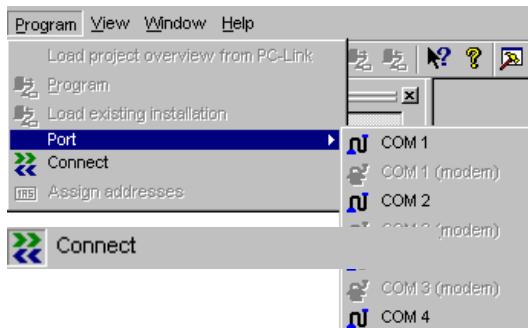
b. **The customer's modem**
First, initialise the customer's modem with the installer's computer. Connect this modem to a free COM-port of the installer's computer by means of the supplied PC cable (with DB9 connector).
Start up the Nikobus software and open the customer's project. There, first check that the customer's telephone number, which will be used to call his installation by means of the modem, has been correctly entered. To so this, open the **Project info** window. This window can be made visible by clicking the **Project info** command under the **Edit** menu or by clicking its icon in the **Function toolbar**.

The customer's telephone number must be indicated in the **Telephone number customer** field. Only figures may be used in entering this number. For example, type **037601470** and not 03/760.14.70. The area code of the customer must obviously also be entered. If the installer's modem is connected to an analogue internal switchboard line, it is possible that an additional number (usually **0**) must be dialled prior to the area code in order to obtain an external line for the connection. Please consult the switchboard manual for more details.

Name installer	Nikobus installer
Telephone number installer	003237601470
Name client	Nikobus customer
Telephone number customer	003237601470

If the customer's telephone number has been entered correctly, the **Project info** screen is closed by clicking the **OK** button.

Move the mouse pointer over the **Port** item in the **Program** menu. A selection menu will be opened in which all serial ports of the computer are listed. Here, click the COM-port to which the customer's modem has been connected. In most cases, this will be COM 1 or COM 2.

Then click the **Connect** command in the **Program** menu or the icon with the same name in the **Standard toolbar**.

The customer's modem is now being initialised. When the sounds (made by the modem) stop (this only lasts a few seconds), this task is finished. The customer's modem can now be disconnected and be taken to the customer's installation.

At the installation, the customer's modem will now be connected to an analogue telephone line. On the other side, the cable with a DB25 connector, which is part of the Niko delivery, is connected to the modem. The other end of this cable (with RJ12 connector) is connected to the **PC-Link** module.

Attention: If the customer's modem is only fitted with a DB9 connection, you must use an DB9-DB25 adapter. Under no circumstances should the connector that has been delivered by Niko be used for this purpose.

Calling in via the modem

Load the Nikobus software on the installer's PC. Open the customer project with which you wish to call in through the modem. Then select the correct serial port which is linked to the modem (of the installer). This is done by means of the **Port** item in the **Program** menu.
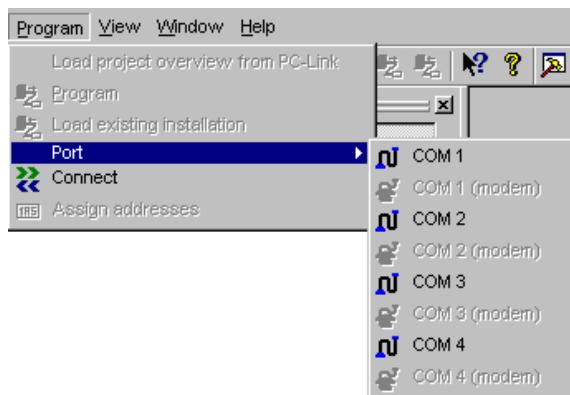
Following this, click the **Connect** command. This command can be also found in the **Program** menu. The **SET ACCESS** text will appear on the small LCD screen of the PC-Link module. If you do nothing now, this text will be displayed for approximately 30 seconds, after which the connection will be interrupted. To establish a connection

with the PC-Link, the user must now manually allow access by briefly pressing the confirmation key ✓ of the PC-Link module twice.

Downloading and uploading through the modem

The process for downloading or uploading by means of the modem is identical to the standard procedure for downloading or uploading. We therefore refer you here to **chapter 14: Downloading the program to the installation** and to **section 15.13. Download and Upload screens**.

Apart from downloading and uploading entire projects, it is obviously also possible to carry out operations from a distance and to receive feedback about, e.g., when a push button is pressed or concerning the position of the outputs of an output module.

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Documentation required? Catalogues and folders can be obtained from the Communication Department.

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