

# UE410 Flexi Configurator – Operating Instructions

## Table of Contents

- 1. About the UE410 Flexi Konfigurator ..... 2**
- 2. Select Inputs and Outputs..... 2**
  - 2.1. Select Input and Output Icons ..... 2
  - 2.2. Select Flexi Main Unit ..... 2
  - 2.3. Setting the Rotary Switches ..... 3
  - 2.4. Select Logic View ..... 3
  - 2.5. Connect Inputs and Outputs ..... 3
- 3. Adding Inputs ..... 4**
- 4. Adding Outputs..... 5**
  - 4.1. Cascading Systems..... 5
- 5. Editing the Configuration ..... 6**
- 6. Printing the Configuration..... 6**
- 7. Saving the Configuration..... 7**
- 8. Additional Flexi Modules..... 7**
  - 8.1. Relay Modules..... 7
  - 8.2. Gateways..... 7
- 9. Additional Settings ..... 7**
  - 9.1. Off-Delay and Retriggering ..... 7
  - 9.2. Reset and EDM ..... 8
- 10. Special Connection Features..... 9**
  - 10.1. Connecting an Input Icon to Multiple Locations ..... 9
  - 10.2. Output Icons: Connection type..... 9
- 11. Overview of Configurator Functions..... 10**

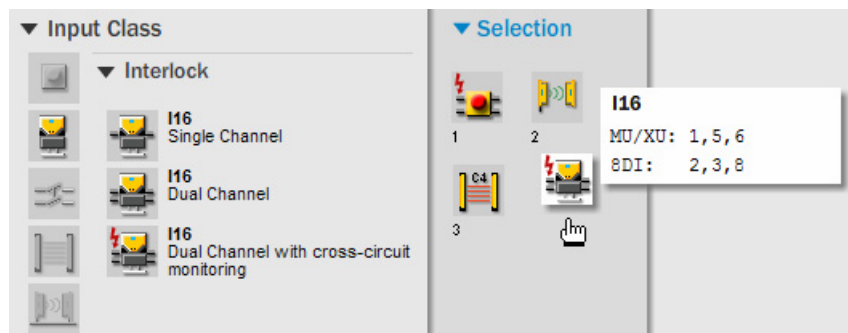
## 1. About the UE410 Flexi Konfigurator

The UE410 Flexi Configurator is a tool that is designed to help in the planning of a UE410 Flexi application. The software allows users to select modules and then visualize the logic configuration based on the rotary switch settings.

The UE410 Flexi Configurator does not test the functional safety of a particular application and does not replace the user`s manual.

## 2. Select Inputs and Outputs

### 2.1. Select Input and Output Icons



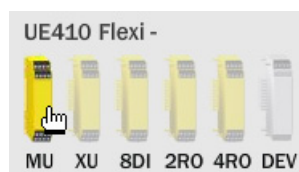
Select the types of safety inputs you would like to use from the list provided under Input Class and drag them onto the selection field. As you are dragging the icon, a notes field appears. The numbers listed represent the rotary switch settings that can be selected for this particular component.

The output icons are listed under Output Class and are selected in the same ways as the inputs.



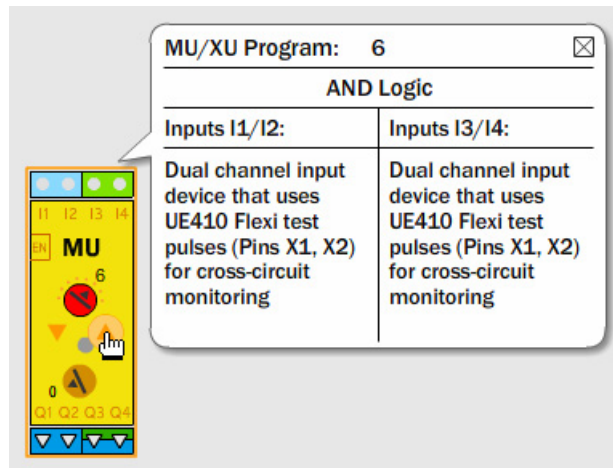
All icons can be assigned their own description by typing over the automatically generated number found underneath the icon.

### 2.2. Select Flexi Main Unit




Begin by choosing the Main Unit (MU) on the lower left hand side of the screen. The UE410-MU can only be selected once and is always the left-most module. The UE410-MU stores the settings of the entire UE410 Flexi system through use of the round ENTER button.

### 2.3. Setting the Rotary Switches

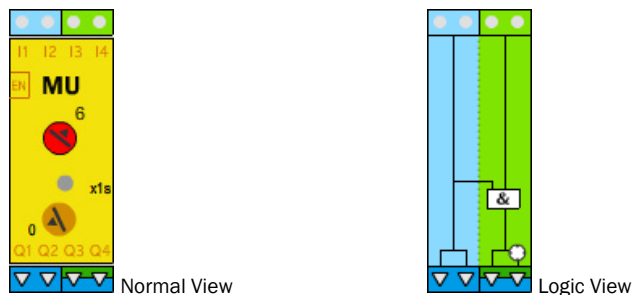



The UE410 Flexi modules are configured using the red rotary switches on the devices. By clicking on the rotary switch, you can adjust the program by moving the up and down arrows.

If you click on the  Symbol, a description of the program currently selected is provided.

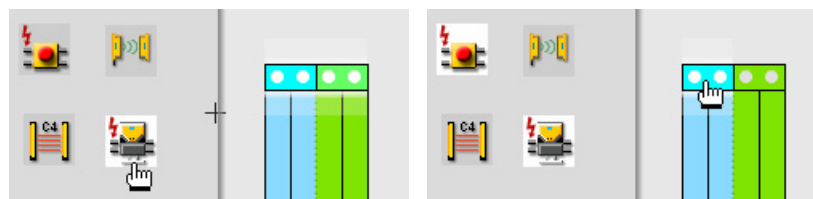
As you change the program setting, the background associated with the input icons will change colors. Input icons that have a white background can be connected to the device. Inputs that have a gray background cannot be connected.

### 2.4. Select Logic View

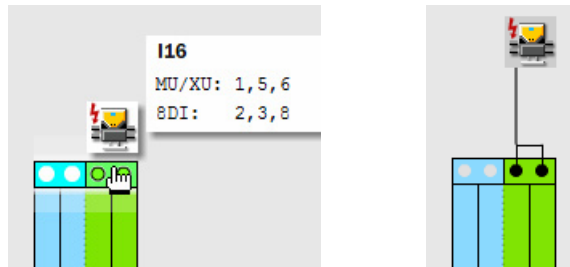


With the Icon  you can switch between the normal view and logic view. In the logic view, the logical connection between inputs (top circles) and outputs (bottom triangles) is shown.

### 2.5. Connect Inputs and Outputs




When the mouse pointer is positioned over one of the input icons, all possible connection points in the flexi system are highlighted.



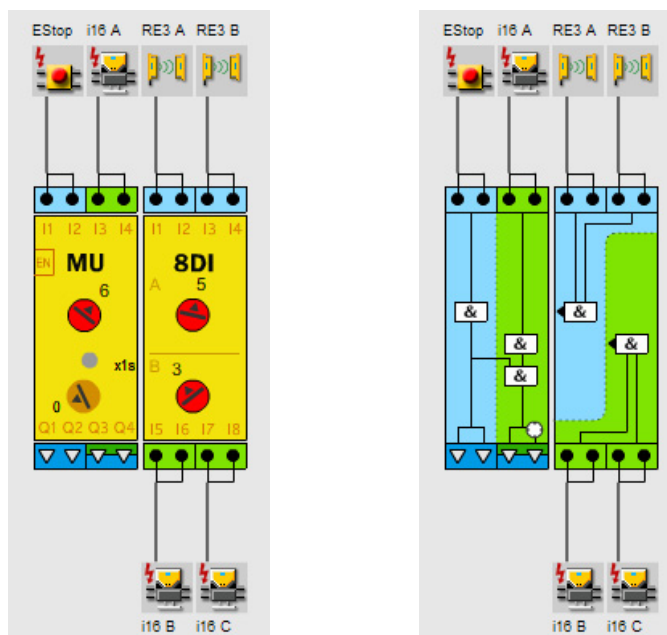
When positioning an input element on the flexi system, the input circles blink to indicate that the input can be connected.

### Deleting an Icon

To delete an icon, simply drag it and drop it onto the trash can symbol .

## 3. Adding Inputs

If more than 4 inputs are needed in the application, select one or more UE410-8DI modules. A UE410-8DI has four dual channel inputs and up to 12 modules can exist within a single UE410 Flexi system. All of the UE410-8DI's inputs effect the UE410-MU or first UE410-XU that is immediately located to the left of the UE410-8DI module.



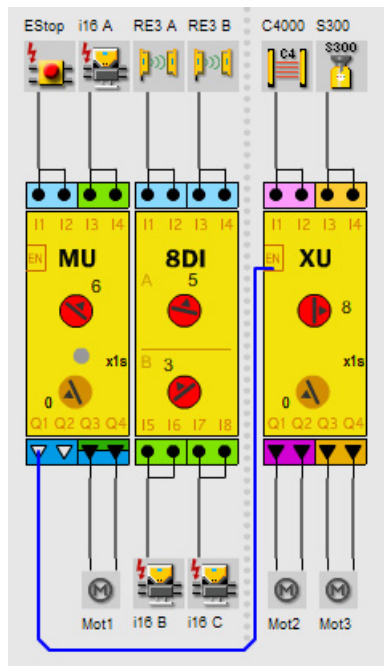
The colors and the logic blocks indicate which outputs are controlled by a particular input(s). All logic blocks in the UE410-8DI point to the respective logic block in the UE410-MU (or UE410-XU).

## 4. Adding Outputs

Additional outputs or logic functions are implemented using a UE410-XU module. Like the UE410-8DI, the UE410-XU may appear up to 12 times in a single UE410 Flexi system. The UE410-XU module has the same function as an UE410-MU module, except that it has no ENTER button.

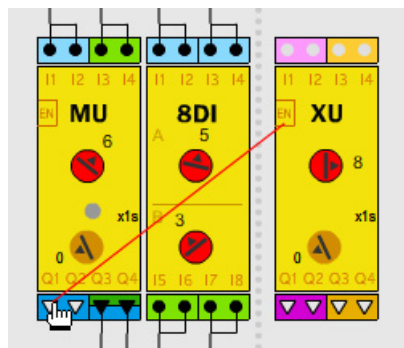
### 4.1. Cascading Systems

The enable input (EN) on the UE410-MU and UE410-XU modules allows you to cascade logic within a UE410 Flexi system. When the signal to the enable input (EN) is HIGH (24 V DC), the outputs are active and are controlled by the logic configured in the module. When the signal to the enable input is LOW (0 V DC) the outputs are inactive, regardless of the logic configured in the module.



For example, when the E-Stop in the above picture is pressed, the Purple and Orange outputs switch off. Note that when Q1 on the UE410-MU is LOW, all outputs on the UE410-XU will switch off.

This functionality is configured in the following manner:

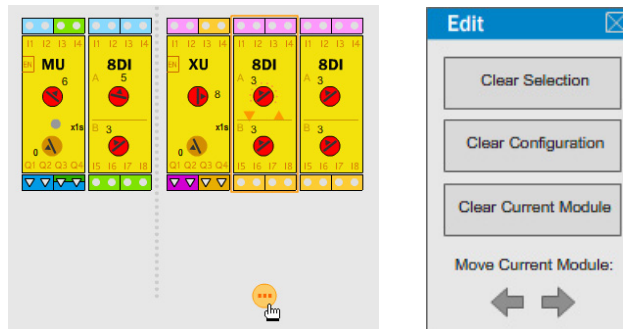


Switch out of Logic mode and click on the EN input above. While the mouse button is pressed, drag the red line to the output which you want to connect the EN input to.

To remove this connection, click on the EN Input and drag the red line outside of the EN Input and let go.

## 5. Editing the Configuration

Moving or deleting a module.




Choose the module that you wish to move or delete by clicking on it. Then Click on the orange circle which appears beneath it. An Edit window will open with 3 selections. You can either delete the selected module, the entire configuration or all icons in the selection field. This edit window can be opened by clicking on the trash can symbol as well.

### Deleting Icons

In order to delete individual inputs and outputs, drag them onto the trash can symbol. In order to delete all icons in the selection field, use the Edit window shown above.


## 6. Printing the Configuration

The Icon  opens a pop-up which lists out all UE410 Flexi units in your configuration, including part numbers, model designations and a short description.

▼ Setup Print
✕

Project:		
Customer:		

Screw Terminals                       Print List  
 Dual Level Spring Clamp Terminals                       Print "Nice to Know!"



UE410 Flexi Modules			
Qty	Part Number	Model Designation	Description
1	6026136	UE410-MU3T5	Main Unit, 4 Inputs/4 Outputs: Output Delay Possible: 0-5s, Screw Terminals
3	6026139	UE410-8DI3	Input Expansion Module: 4 Dual Channel Inputs Screw Terminals
1	6032470	UE410-XU3T5	Extension Unit, 4 Inputs/4 Outputs: Output Delay Possible: 0-5s, Screw Terminals

Enter additional information in the „Project:“, and „Customer:“ fields. With the printer symbol in this pop-up, you can print out the current view (logic view or standard), with or without the addition wiring help found in Expert mode.

Note: The order numbers are dependant on the type of terminal blocks selected (Screw Terminals or Dual Level Spring Clamp Terminals). **Additionally**, the order numbers for the UE410-MU and UE410-XU are dependent on the delay time selected (See Below).

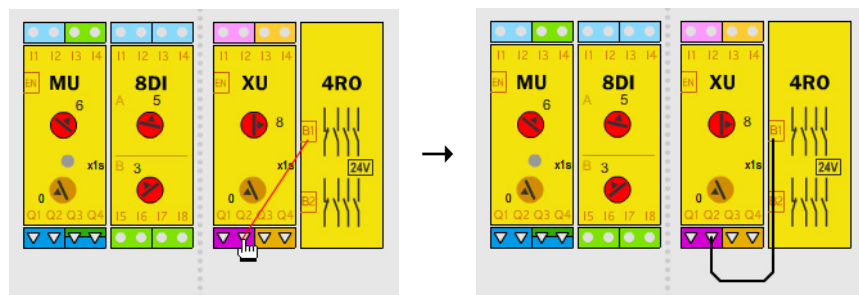
## 7. Saving the Configuration

It is possible to save the configuration for later editing. This functionality is only available in the executable (.exe) version of the Configurator which can be downloaded from [www.ue410flexi.com](http://www.ue410flexi.com).

## 8. Additional Flexi Modules

### 8.1. Relay Modules

The inputs (B1, B2) of the UE410-2RO and UE410-4RO relay modules can be connected similarly to the EN Inputs described above.



Click on input B1 or B2 and drag the mouse to the output which will be used for control.


To remove this connection, click on the B1 or B2 Input and drag the red line outside of the Input and let go.


### 8.2. Gateways


If a gateway module (DEV, PRO, CAN) is needed, it is always positioned as the last module on the right. When a gateway module is used, no additional UE410 Flexi modules can be specified. To add additional modules, delete the gateway module, add the additional modules and then add the gateway module back into the system.

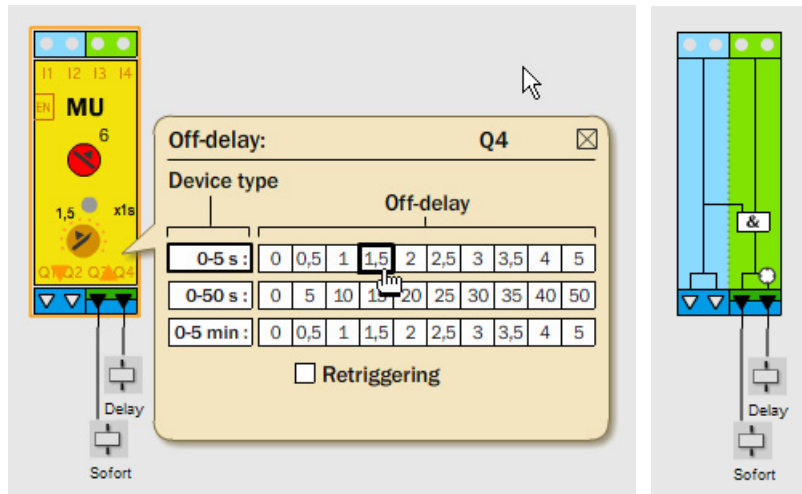
## 9. Additional Settings

### 9.1. Off-Delay and Retriggerring

On the UE410-MU and UE410-XU, the brown rotary switch is used to select the delay time of particular outputs on the module. The outputs affected by this switch setting are dependent on the configuration of the module. Additional information is found by switching to the Logic View and looking for the clock symbol .


Note: The notes icon must be activated (  ).


To configure a delayed output, open the selection field Delay Time by selecting the desired module and then the clock icon  shown near the brown rotary switch. Select the delay time needed as well as retriggering function. (see user`s manual).

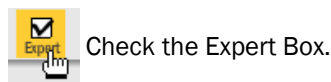



The three rows of times represent the three different UE410-MU and UE410-XU variants. Delay times cannot be set in Program 4 and 5. You may also select a particular variant by clicking on one of the three „device type“ fields.

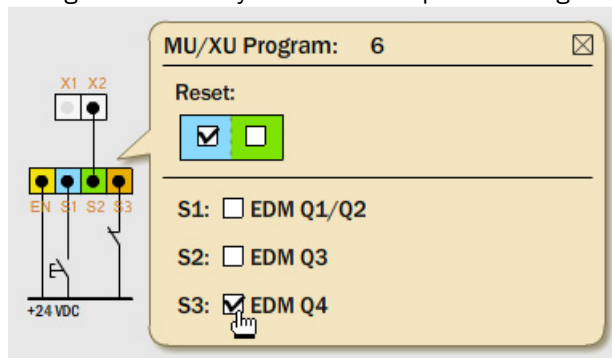
**9.2. Reset and EDM**

Through activating expert mode  additional terminals for the UE410-MU and UE410-XU are shown underneath the modules. The wiring to these terminals depends on the Reset and EDM (Feedback) configuration.

The notes icon must be activated (  ).



Click on the desired module and then click on the reset button icon  to open up the selection window. Click on the checkbox to select manual reset for a specific logical path (e.g. blue or green channel). Leave the checkbox unchecked for automatic reset. The wiring of terminals S1, S2, S3, X1 and X2 change automatically to meet the required setting.



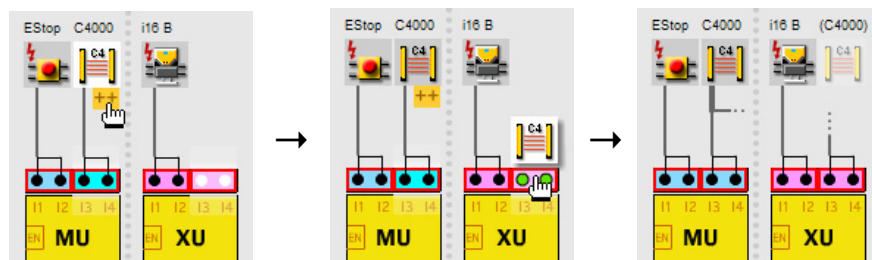
**Note:** The option Retriggering in the Delay Time selection window has an effect on these terminals as well.

## 10. Special Connection Features

### 10.1. Connecting an Input Icon to Multiple Locations

In order to connect an input icon to multiple inputs on the Flexi system, you can use the ++ (clone symbol) which appears when you move the mouse over a particular input. Multiple connections of input signals may only be implemented in inputs that do not use test output signals (e.g. safety light curtains). First click on the clone symbol and drag it to an OSSD capable input. After release the mouse, a clone will appear, representing that at this input, the input icon is attached as well.

In order to move a clone, select and drag the icon as you would a normal input icon. In this case, do not use the orange clone symbol.

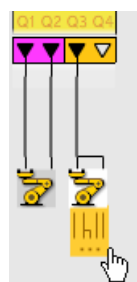


In order to delete a clone, select the clone as normal (not the ++ symbol) and drag it into the selection field.

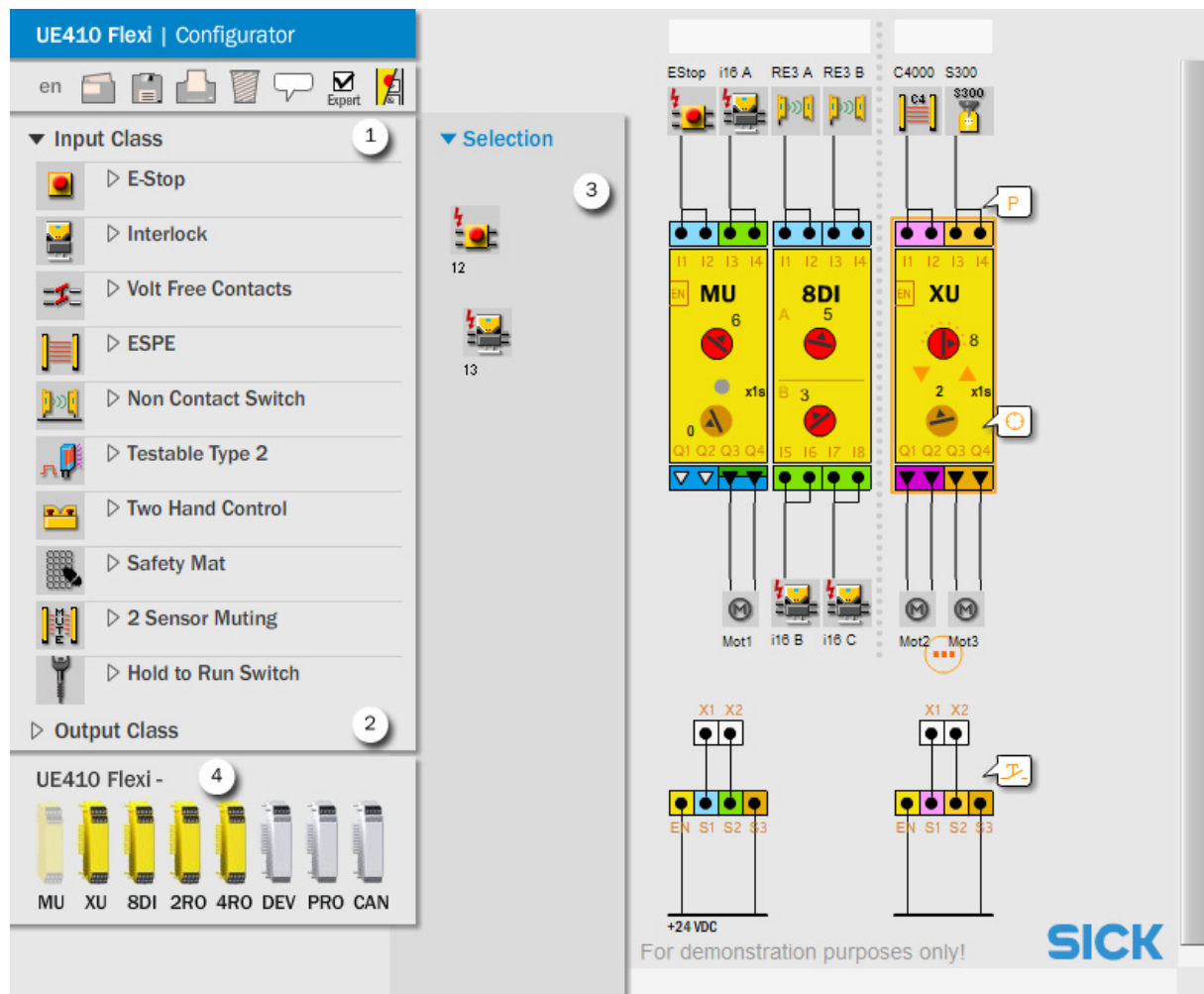
### 10.2. Output Icons: Connection type

Some output elements can be attached to the UE410 Flexi in 3 different ways (Single Channel, Dual Channel and Single Channel with parallel connection).

In order to scroll through these three possibilities, move your Mouse onto the symbol. Then, move the mouse onto the orange selection field which appears just underneath the output icon. Now click on this orange field until the desired connection appears:



## 11. Overview of Configurator Functions



en Select Language (when shown)

Open existing configuration (.ue410cfg)  
(only in the .exe version of the configurator)

Save configuration  
(only in the .exe version of the configurator)

Print out Flexi Configuration with including order list

Delete icon: Drag the icon to the trash can and release mouse button.

Notes on/off

Expert Mode (Showing Terminals EN, S1, S2 and S3 for Reset and EDM)

Switch between Normal and Logic View

**1** Choose from the list of input elements what type of sensor you wish and drag them to the Selection Field

**2** List of Output Icons

**3** Click on the blue arrow to show or hide the selection field

**4** Click on a module to insert it into the flexi configuration

Open the description of this program

Set the Delay Time and select Retriggerring if needed

Set the reset and EDM (Feedback) function

Option to move or delete a flexi module