

MBeg+ Layout Editor User Manual

Version: 1.0

07.09.2023

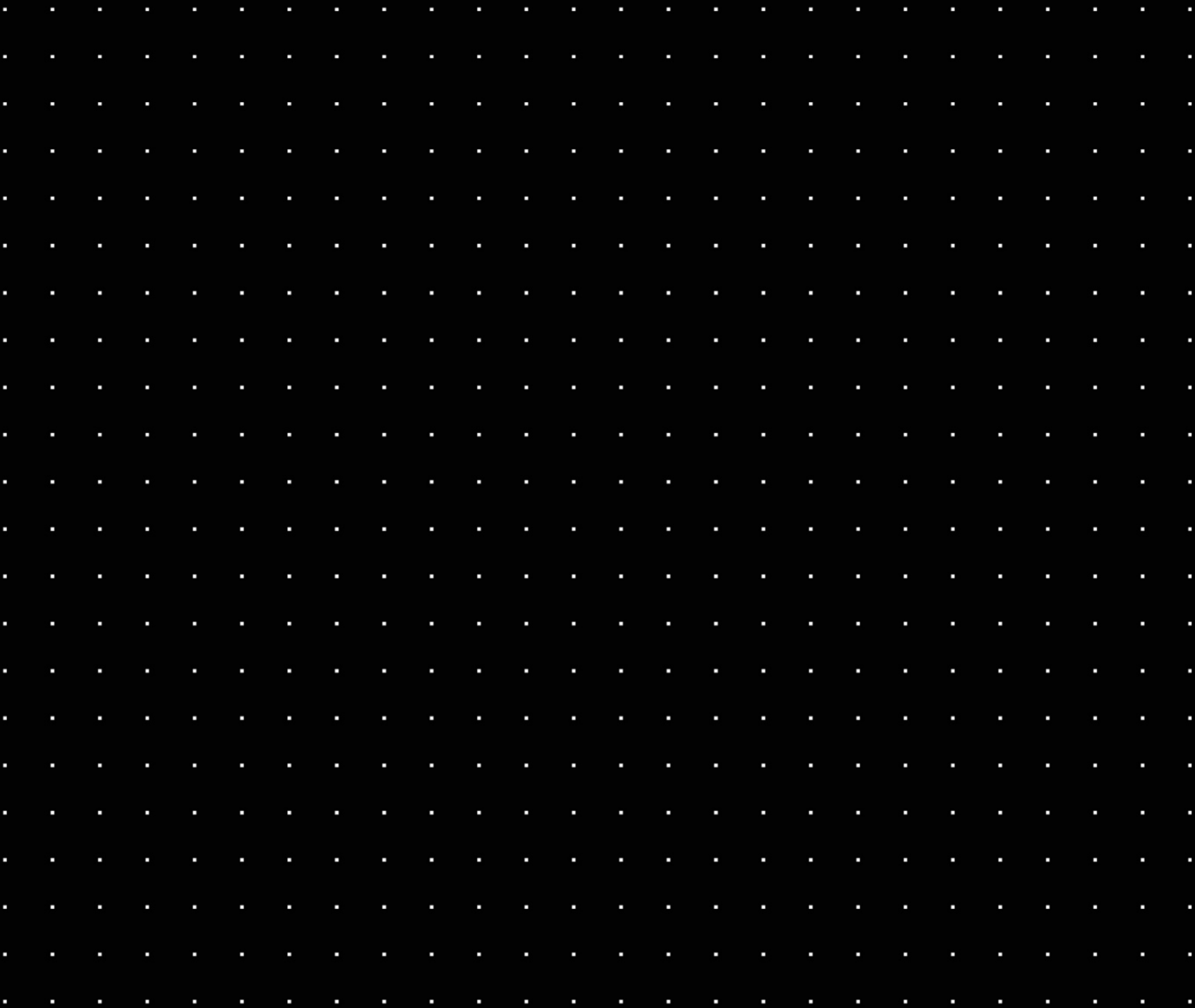


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About This Documentation

Current software version: MBeg+ Layout Editor 1.0.

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MBeg+ Layout Editor

The MBeg+ Layout Editor is the tool with which the MBeg+ can be customized to the user's preferences and needs.

It allows the creation of own configurations and the editing of already existing configurations. Each operating element and button can be mapped to a specific action. To ensure that the MBeg+ can be completely adapted to the user's needs, the tool provides a wide range of possible actions.

Installation

System Requirements

- Before installing the MBeg+ Layout Editor ensure that Microsoft .NET 6.0 is already installed.
- Because the MBeg+ Layout Editor is an offline tool, no connection to MBeg+ or G-Core is necessary.

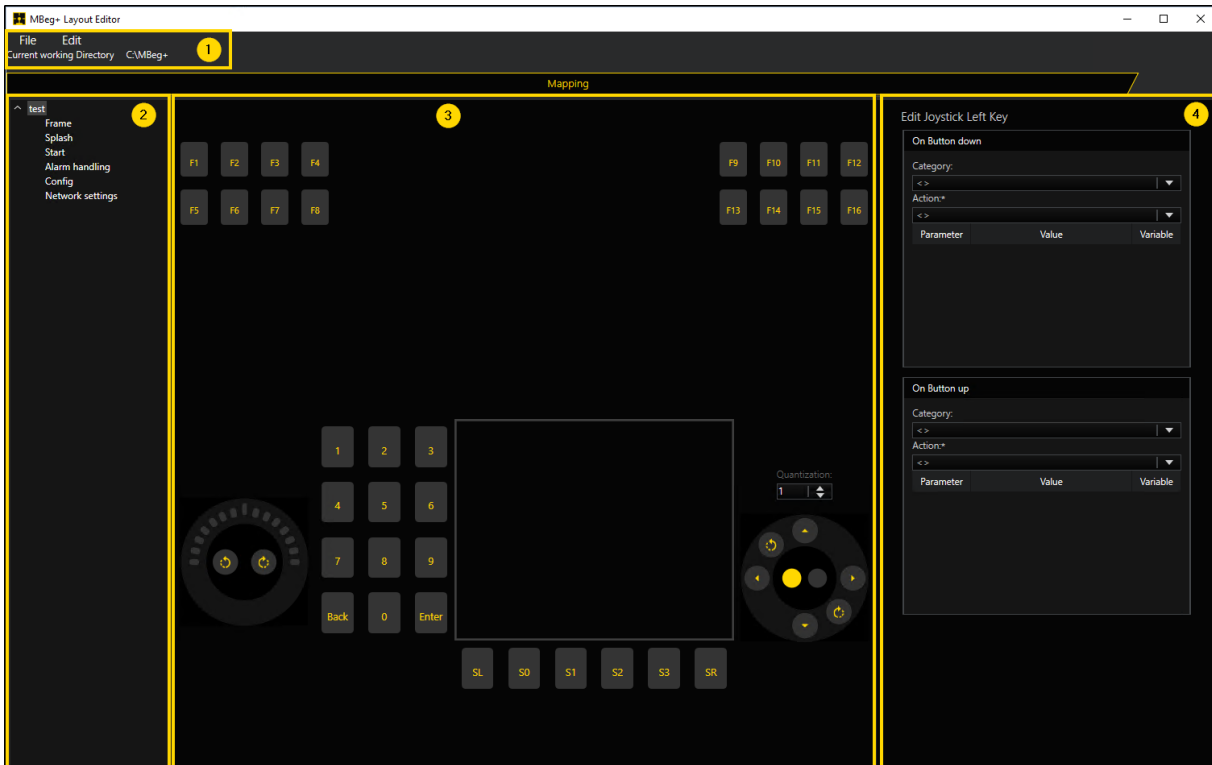
Install the Tool

1. Open the installer by double clicking on the `MBegPlusEditorTool_Installer1.0.1.0.exe` file. The dialog window **Setup – MBegPlusEditorTool** with the **License Agreement** will pop up.
2. Read the license agreement and accept its terms by clicking on the **I accept the agreement** button.
3. To continue with the installation, click **Next**. The dialog window **Select Destination Location** opens.
4. To install the MBeg+ Layout Editor in the indicated folder, click **Next**. If you want to install it in another folder, click **Browse** and click **Next** after your selection. The dialog window **Select Start Menu Folder** opens.
5. To place the program's shortcuts in the indicated folder, click **Next**. If you want to place them in another folder, click **Browse** and click **Next** after your selection. The dialog window **Select Additional Tasks** opens.
6. Select the additional tasks you would like to be installed.
7. To continue with the installation, click **Next**. The dialog window **Ready to Install** opens, where all components selected before will be shown.
8. Check the selected components and click **Install** to start the installation. The installation program will now install the MBeg+ Layout Editor software. At the end of the installation the dialog window **Completing the MBegPlusEditorTool Setup Wizard** will open.
9. To complete the installation process, click **Finish**.

 **After the installation is completed, a notification window may appear indicating that no working directory is available yet. This is not a bug. It is just a reminder to create a working directory first.**


User Interface

The user interface of the MBeg+ Layout Editor is divided into four areas:



| | Area | Description |
|---|----------------------------|--|
| 1 | Menu Bar | Provides quick access to commands. |
| 2 | Sidebar | Contains a tree view with a list of each custom configuration and the available forms. |
| 3 | Operating Elements Display | Displays the MBeg+ operating elements to which an action can be assigned. |
| 4 | Editing Area | Allows mapping actions to each available method for a specific button. |

Menu Bar

This section provides an overview of the functionality of the menu bar shown in  1. The menu bar contains the two menu items **File** and **Edit** as well as the indication of the current working directory.

File

| Option | Description |
|------------------------|---|
| Set Working Directory | Opens a file explorer window to select the aimed working directory. |
| Open Working Directory | Opens a file explorer window at the working directory. |
| Save current settings | Saves current settings. |


Edit

| Option | Description |
|--------------------------------|---|
| Create new configuration | Creates a new custom configuration. |
| Delete current selected Config | Deletes the current selected configuration. |

Current working directory

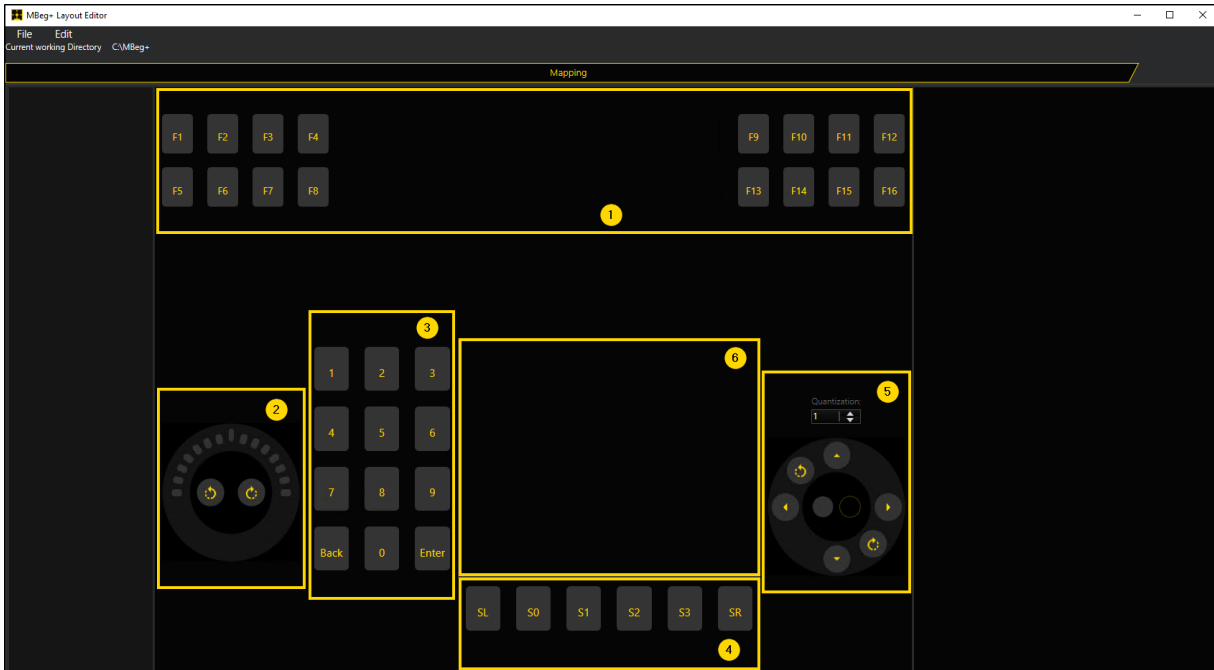
The current selected working directory is displayed below the menu items **File** and **Edit**.

Sidebar

This section provides an overview of the functionality of the sidebar shown in  2. The sidebar consists of a tree view containing a list of custom configurations. Every custom configuration includes a drop-down menu. When opened, all available forms are listed: Frame, Splash, Start, Alarm handling, Config and Network settings. Mappings can be created for each form independently.

Operating Elements Display

The operating elements display shown in **3** displays the different operating elements of the MBeg+.



| | Operating Elements | Description |
|----------|--------------------|--|
| 1 | Function Keys | Includes the keys F1-F16. Each key can be mapped to an action. |
| 2 | Jog and Shuttle | Includes the jog and the shuttle. The jog consists of two buttons – one for the movement counterclockwise and one for the movement clockwise. The shuttle consists of 15 positions: there is a starting point (Shuttle Position Zero) and seven positions each for turning the shuttle counterclockwise and clockwise. Each button and each position can be mapped to an action. |
| 3 | Numpad Keys | Includes the keys 0-9 and the keys Back and Enter. |

| | Operating Elements | Description |
|---|--------------------|--|
| 4 | Soft Keys | Includes the keys SL, SO, S1, S2, S3 and SR. |
| 5 | Joystick | Includes two keys in the middle and movements on the X-, Y- and Z-axis. Each axis is indicated by two buttons that can only be selected together. Additionally, there is the option to configure the quantization of the joystick. |
| 6 | Display | This is a placeholder for the MBeg+ display content and does not represent a functionality yet. |

More about the mapping process under **Create Mappings**.

Editing Area

The editing area shown in 4 provides possible actions that can be mapped to the buttons. The actions can be filtered by category first. To some actions parameters can be added. On the one hand there are input fields to enter constant values, on the other hand there are check-boxes and corresponding drop-down menus to add variables.

More about the mapping process under **Create Mappings**.

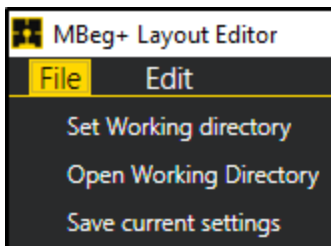
Working Directories

In the working directories the settings are saved.

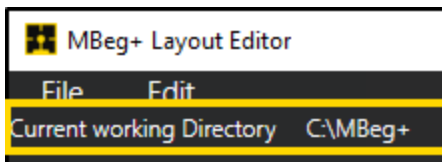
Set Working Directory

The working directory that contains the configuration files of the MBeg+ must be selected to load the setup into the tool. If there are no configuration files in the folder yet, the standard configurations will be written to the working directory.

1. Click on **File**. A dialog window opens.

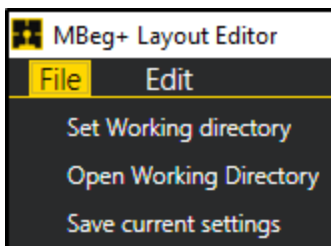


2. Click on **Set Working directory**. The file explorer window **Open** opens.
3. Navigate to the folder that contains the configuration files and press **Open**. The current selected working directory is now displayed in the menu bar.



Open Working Directory

1. To navigate to the working directory of the selected configuration files, click on **File**. A dialog window opens.

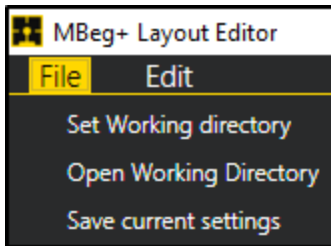


WORKING DIRECTORIES

2. Click on **Open Working Directory**. The file explorer window shows up at the selected working directory.

Save Current Settings

1. To save current settings, click on **File**. A dialog window opens.



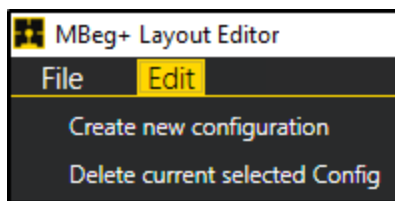
2. Click on **Save current settings**. Each file of each custom configuration will be overwritten with the current configuration.

Configurations

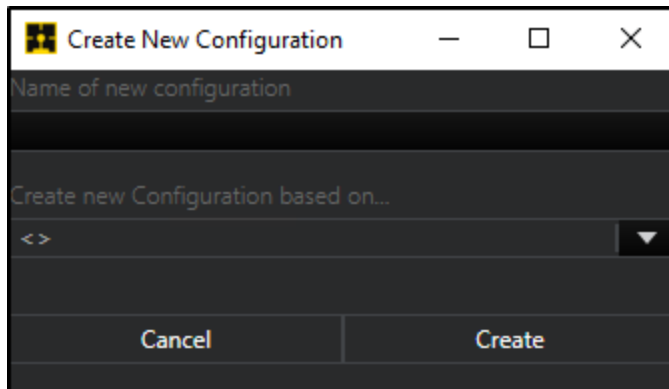
- i** GCT and MV are standard configurations which cannot be changed. They can only be used as a basis for new custom configurations. Therefore, they are not displayed in the tree view.

Create New Configuration

1. To create a new custom configuration, click on **Edit**. A dialog window opens.



2. Click on **Create new configuration**. The dialog window **Create New Configuration** opens.



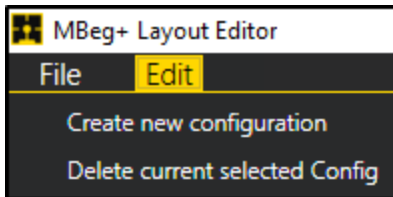
3. Enter a unique name in the input field.
4. Select an existing configuration by using the drop-down menu.

- i** A new configuration is always based on an existing.

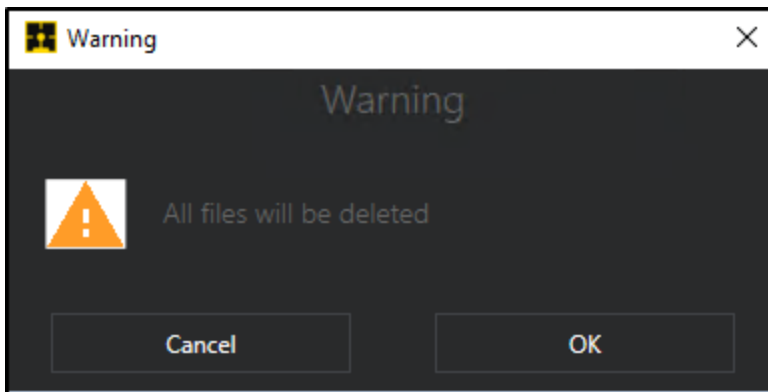
5. To finish the creation, press **Create**. The new configuration is now listed in the sidebar.

Delete Current Selected Configuration

1. To delete a custom configuration, click on the corresponding configuration in the sidebar. It is marked in yellow now.
2. Click on **Edit**. A dialog window opens.



3. Click on **Delete current selected Config**. A dialog window opens.



4. To delete the configuration, click on **OK**. The configuration is now deleted and disappears from the sidebar.

Create Mappings

The following chapters provide the necessary information and steps to map an action to the various operating elements of the MBeg+ Layout Editor.

Create Mappings for Keys

This chapter provides the necessary information and steps to map an action to the various keys: Function keys, Numpad keys, Soft keys and the Joystick keys. For keys the MBeg+ Layout Editor offers two methods: **On Button down** and **On Button up**.

On Button Down Actions

 **If an action in the On Button down section is selected, the action will be executed when the button is pushed.**

1. Open a custom configuration in the sidebar by using the drop-down menu.
2. Select a form of the corresponding custom configuration in the sidebar by clicking on it.
3. Select a button that shall be assigned to an action and click on it. The selected button is now marked in yellow and a dialog field appears in the editing area.

CREATE MAPPINGS

Edit F1

On Button down

Category:

< > ▼

Action:*

< > ▼

| Parameter | Value | Variable |
|-----------|-------|----------|
|-----------|-------|----------|

On Button up

Category:

< > ▼

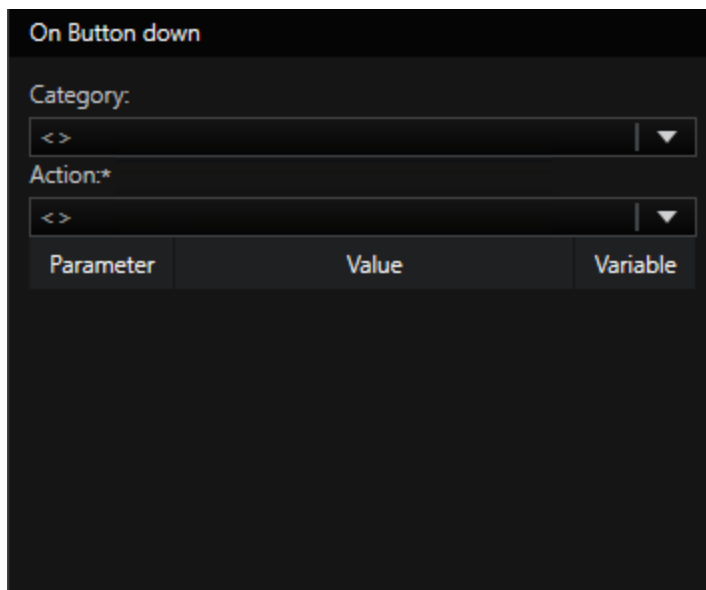
Action:*

< > ▼

| Parameter | Value | Variable |
|-----------|-------|----------|
|-----------|-------|----------|

4. To select an On Button down action, go to the section **On Button down**.

CREATE MAPPINGS



On Button down

Category:

< >

Action:*

< >

| Parameter | Value | Variable |
|-----------|-------|----------|
|-----------|-------|----------|

5. To filter the actions by category, go to the section **Category** and use the drop-down menu.
6. To apply a category, click on it.
7. To see a list of possible actions, go to the section **Action** and use the drop-down menu.
8. To select an action, click on it. Now the key is mapped to an action.

i When mapped to an action, the button is marked in a dark yellow.

i An arrow on the button indicates whether an action is mapped to the On Button down or On Button up method or both.

Example The function key F1 is now mapped to an On Button down action.



If you want to add parameters, see **Adding Parameters**.

On Button Up Actions



If an action in the On Button up section is selected, the action will be executed when the button is released.

1. Open a custom configuration in the sidebar by using the drop-down menu.
2. Select a form of the corresponding custom configuration in the sidebar by clicking on it.
3. Select a button that shall be assigned to an action and click on it. The selected button is now marked in yellow and a dialog field appears in the editing area.

CREATE MAPPINGS

Edit F1

On Button down

Category:

<> ▼

Action:*

<> ▼

| Parameter | Value | Variable |
|-----------|-------|----------|
|-----------|-------|----------|

On Button up

Category:

<> ▼

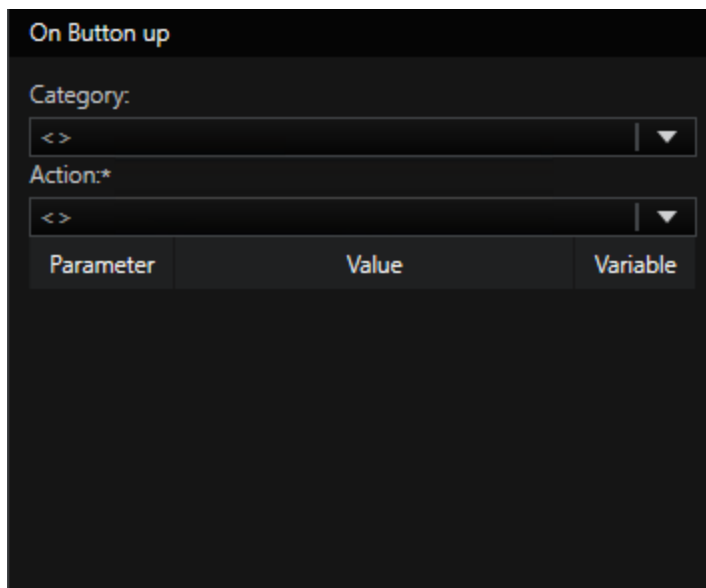
Action:*

<> ▼

| Parameter | Value | Variable |
|-----------|-------|----------|
|-----------|-------|----------|

4. To select an On Button up action, go to the section **On Button up**.

CREATE MAPPINGS



On Button up

Category:

< >

Action:*

< >

| Parameter | Value | Variable |
|-----------|-------|----------|
|-----------|-------|----------|

5. To filter the actions by category, go to the section **Category** and use the drop-down menu.
6. To apply a category, click on it.
7. To see a list of possible actions, go to the section **Action** and use the drop-down menu.
8. To select an action, click on it. Now the key is mapped to an action.

i When mapped to an action, the button is marked in a dark yellow.

i An arrow on the button indicates whether an action is mapped to the On Button down or On Button up method or both.

Example The function key F1 is now mapped to an On Button up action.



If you want to add parameters, see **Adding Parameters**.

On Button Down and On Button Up Actions

i If an action in the On Button down and in the On Button up section is selected, the On Button down action will be executed when the button is pushed. When releasing the button, the On Button up action will be executed.

1. Open a custom configuration in the sidebar by using the drop-down menu.
2. Select a form of the corresponding custom configuration in the sidebar by clicking on it.
3. Select a button that shall be assigned to an action and click on it. The selected button is now marked in yellow and a dialog field appears in the editing area.

CREATE MAPPINGS

Edit F1

On Button down

Category:

<> ▼

Action:*

<> ▼

| Parameter | Value | Variable |
|-----------|-------|----------|
|-----------|-------|----------|

On Button up

Category:

<> ▼

Action:*

<> ▼

| Parameter | Value | Variable |
|-----------|-------|----------|
|-----------|-------|----------|

4. To select an On Button down action, go to the section **On Button down**.
5. To filter the actions by category, go to the section **Category** and use the drop-down menu.
6. To apply a category, click on it.

CREATE MAPPINGS

7. To see a list of possible actions, go to the section **Action** and use the drop-down menu.
8. To select an action, click on it. Now the key is mapped to an action.
9. To select an On Button up action, go to the section **On Button up**.
10. To filter the actions by category, go to the section **Category** and use the drop-down menu.
11. To apply a category, click on it.
12. To see a list of possible actions, go to the section **Action** and use the drop-down menu.
13. To select an action, click on it. Now the key is mapped to another action.

i When mapped to an action, the button is marked in a dark yellow.

i An arrow on the button indicates whether an action is mapped to the On Button down or On Button up method or both.

Example The function key F1 is now mapped to an On Button down and to an On Button up action.



If you want to add parameters, see **Adding Parameters**.

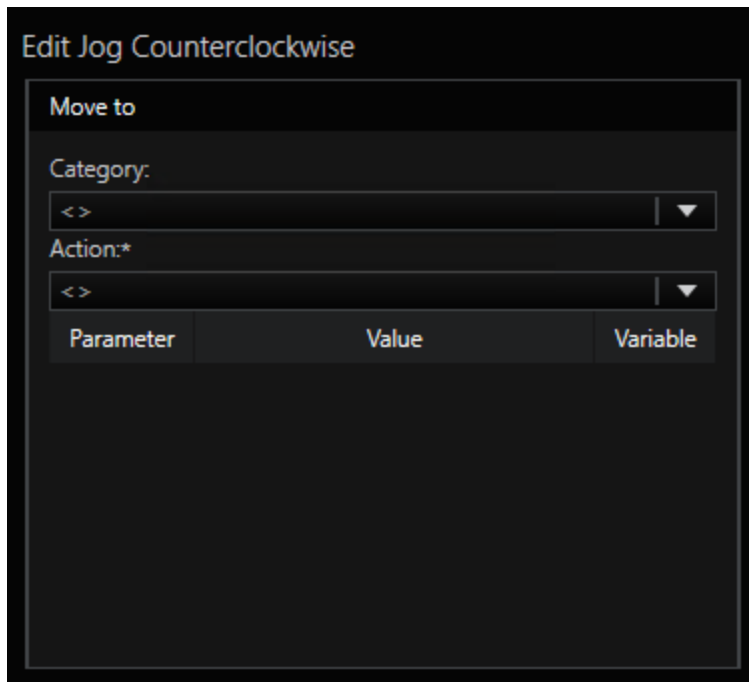
Create Mappings for Jog and Shuttle

Jog

It is possible to map two different actions for the jog. One action can be mapped to the movement clockwise and the other one to the movement counterclockwise.

CREATE MAPPINGS

1. Open a custom configuration in the sidebar by using the drop-down menu.
2. Select a form of the corresponding custom configuration in the sidebar by clicking on it.
3. Select a button of the jog that shall be assigned to an action and click on it. The selected button is now marked in yellow and a dialog field appears in the editing area.



Move to

Category:

<>

Action:*

<>

| Parameter | Value | Variable |
|-----------|-------|----------|
|-----------|-------|----------|

4. To filter the actions by category, go to the section **Category** and use the drop-down menu.
5. To apply a category, click on it.
6. To see a list of possible actions, go to the section **Action** and use the drop-down menu.
7. To select an action, click on it. Now the jog button is mapped to an action.

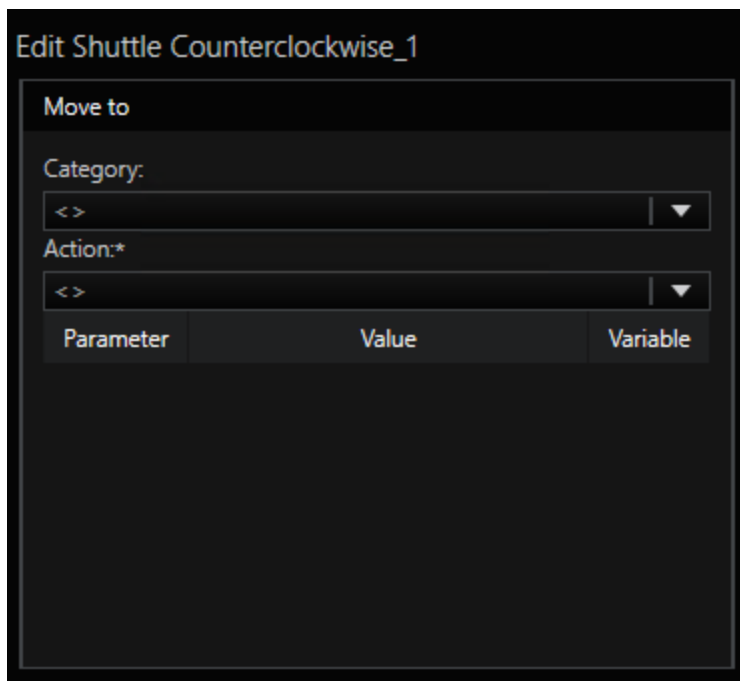
i **When mapped to an action, the button is marked in a dark yellow.**

If you want to add parameters, see **Adding Parameters**.

Shuttle

The shuttle is split into 15 positions. The starting point is Shuttle Position Zero, it is at the top in the middle. Additionally, there are seven positions each for the movement counterclockwise and clockwise. Each position can be mapped to an action.

1. Open a custom configuration in the sidebar by using the drop-down menu.
2. Select a form of the corresponding custom configuration in the sidebar by clicking on it.
3. Select a position of the shuttle that shall be assigned to an action and click on it. The selected position is now marked in yellow and a dialog field appears in the editing area.



Edit Shuttle Counterclockwise_1

Move to

Category:

<> ▼

Action:*

<> ▼

| Parameter | Value | Variable |
|-----------|-------|----------|
|-----------|-------|----------|

4. To filter the actions by category, go to the section **Category** and use the drop-down menu.
5. To apply a category, click on it.
6. To see a list of possible actions, go to the section **Action** and use the drop-down menu.
7. To select an action, click on it. Now the shuttle position is mapped to an action.

 **When mapped to an action, the position is marked in a dark yellow.**

If you want to add parameters, see **Adding Parameters**.

Create Mappings for the Joystick

The joystick offers two keys in the middle that can be mapped in the same way as the other keys. Also, mappings can be created for moving the joystick on the X-, Y- and Z-axis. Each axis is indicated by two buttons that can only be selected together. Additionally, the quantization of the joystick can be changed.

Joystick Keys

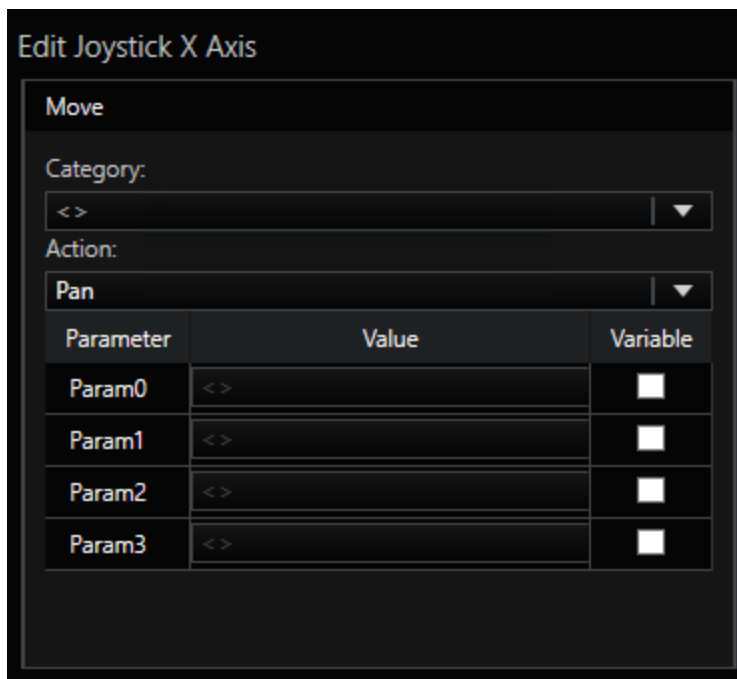
If you want to map an action to a joystick key, see **Create Mappings for Keys**.

Joystick Movements

If you want to map an action to an X-, Y- or Z-axis button, follow the steps:

1. Open a custom configuration in the sidebar by using the drop-down menu.
2. Select a form of the corresponding custom configuration in the sidebar by clicking on it.
3. Select a button of the joystick that shall be assigned to an action and click on it. The selected button as well as the other one of the same axis are now marked in yellow and a dialog field appears in the editing area.

CREATE MAPPINGS



4. To filter the actions by category, go to the section **Category** and use the drop-down menu.
5. To apply a category, click on it.
6. To see a list of possible actions, go to the section **Action** and use the drop-down menu.
7. To select an action, click on it. Now the two joystick buttons are mapped to an action.

i When mapped to an action, the button is marked in a dark yellow.

If you want to add parameters, see **Adding Parameters**.

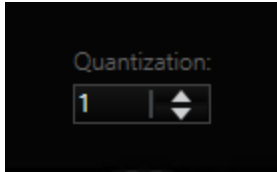
Joystick Quantization

The joystick quantization determines how fast a device reacts on pushing or pulling the joystick.

If you want to set a quantization, follow the steps:

CREATE MAPPINGS

1. Open a custom configuration in the sidebar by using the drop-down menu.
2. To change the quantization, enter a number in the corresponding input field or use the adjacent keys.



Adding Parameters

To some actions parameters, either constant values or variables, can be added. Constant values are determined in advance and later on they can be entered by the user. In contrast to constant values variables are values that can be set by the user himself.

Adding a Constant Value

1. Go to section **Parameter** in the editing area.
2. Enter a value in the appropriate input field.

CREATE MAPPINGS

Edit F1

On Button down

Category:
Camera notification ▼

Action:
Temperature detection ▼

| Parameter | Value | Variable |
|-----------------------|-------|--------------------------|
| channel | | <input type="checkbox"/> |
| temperature as string | <> | <input type="checkbox"/> |
| Temperature Unit | <> ▼ | <input type="checkbox"/> |
| area | <> | <input type="checkbox"/> |
| time | <> | <input type="checkbox"/> |
| temperature state | <> ▼ | <input type="checkbox"/> |
| temperature | <> | <input type="checkbox"/> |

i In the case of enumerable parameters, it is not possible to enter a constant value manually. An enumerable value must be chosen via the drop-down menu.

Adding a Variable

1. Go to section **Parameter** in the editing area.
2. Click on the appropriate checkbox. The adjacent input field turns into a drop-down menu.

CREATE MAPPINGS

3. Select a variable by using the drop-down menu.

Edit F1

On Button down

Category:

Camera notification | ▼

Action:

Temperature detection | ▼

| Parameter | Value | Variable |
|-----------------------|--------|-------------------------------------|
| channel | <> ▼ | <input checked="" type="checkbox"/> |
| temperature as string | <> | <input type="checkbox"/> |
| Temperature Unit | <> ▼ | <input type="checkbox"/> |
| area | <> | <input type="checkbox"/> |
| time | <> | <input type="checkbox"/> |
| temperature state | <> ▼ | <input type="checkbox"/> |
| temperature | <> | <input type="checkbox"/> |

Technical alterations reserved.

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