SCREEN BUILDER PRO

User Guide

Version: 1.00

Note to reader

This document may change without notice. Please verify with PRAN to obtain the latest version or for support.

REVISION FOLLOW UP

REVISION	DESCRIPTION	RELEASE
1.00	First Release	PFlores September 14th, 2022

TABLE OF CONTENTS

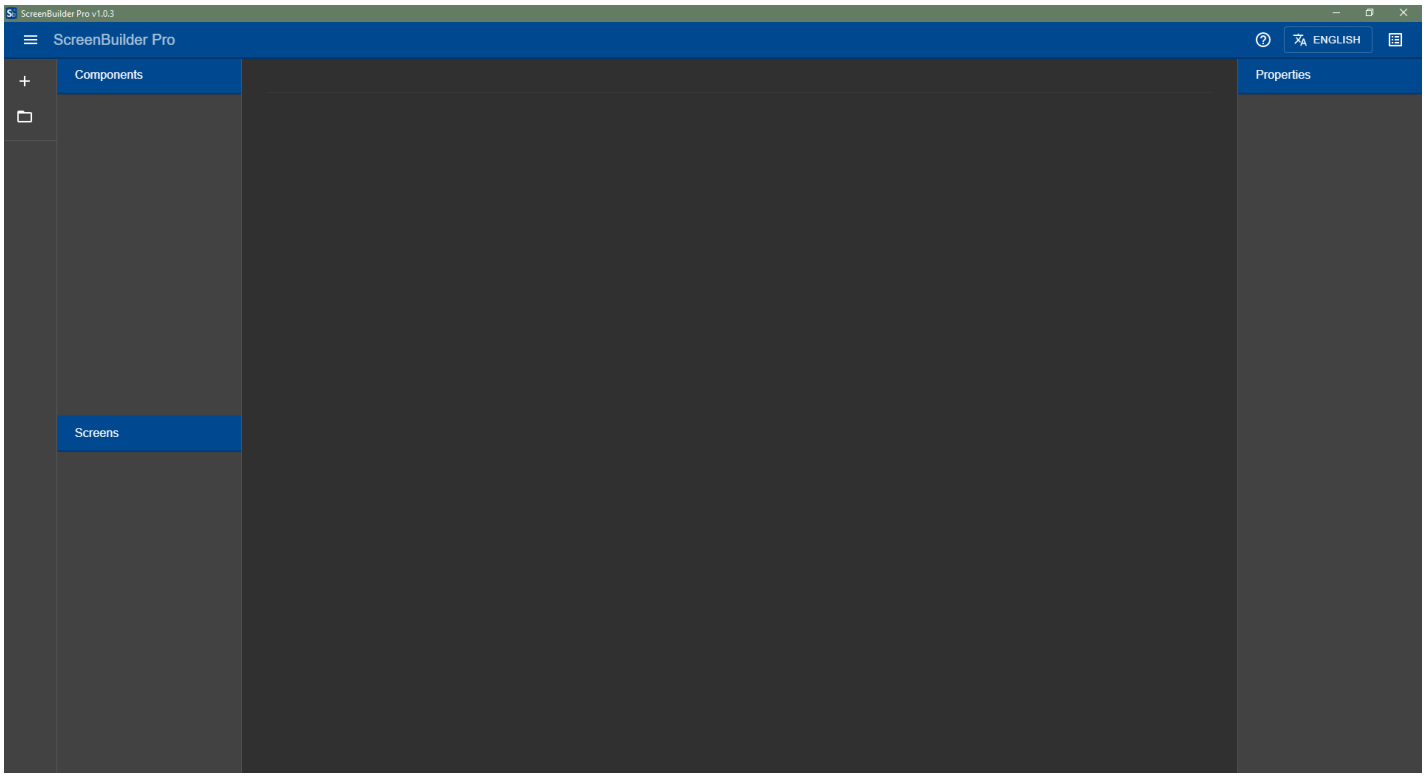
1 Project Description 4
2 Interface 4
3 Application settings 7
4 Utilities Bar 9
4.1 Screen Ratio Dialog 9
4.2 Internal Variables Dialog 10
4.3 Can Message Dialog 12
4.4 Output Control Dialog 18
4.5 Module Configuration Dialog 20
4.5.1 PRAN Menu Access table, Menu Settings section 21
4.6 Language Translations Dialog 23
5 Creating a new Project 25
5.1 Image Editor 28
5.1.1 Using Resource Images 31
5.2 Text Editor 38
5.2.1 Using Resource Texts 41
5.3 Zone Editor 42
5.4 Using Layouts 45
5.5 Adding a new screen 47
6 Libraries 48
7 Exporting a Project 53
8 Handling a VEH File 55

1 Project Description

The ScreenBuilder Pro software is an application developed to create ScreenBuilder XML files visually, rather than manually. This simplifies production time and prevents common errors.

2 Interface

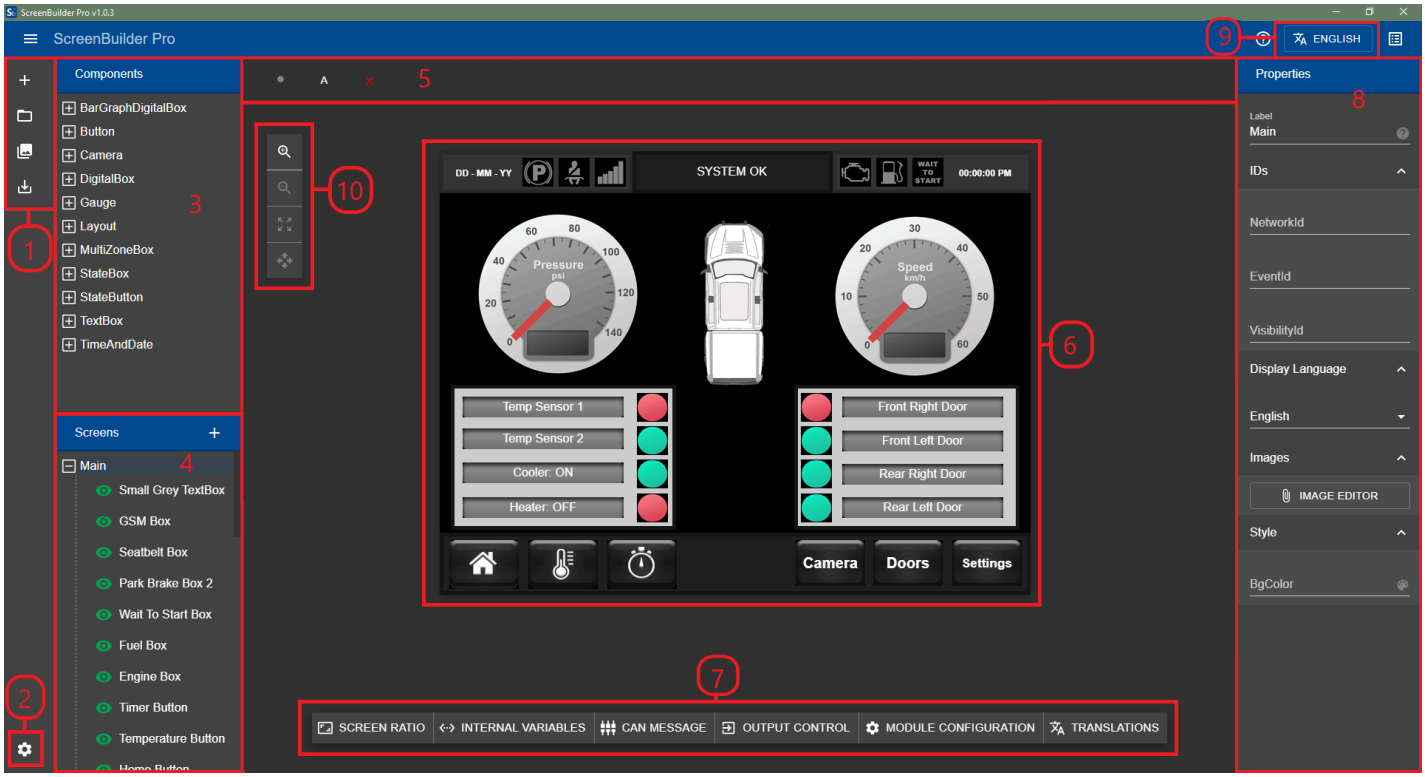
The main screen upon opening the application is an empty canvas with only the left sidebar present.



The icons on the sidebar have the following functionality:

1. **New Project:** Creates a new project from scratch
2. **Open Project:** Open an existing project to continue working with it (extensions allowed are .xml, .pkg)

Upon importing or creating a project, the interface will change and add more icons and functionality to the application. An example of the application's changed appearance while hosting several opened projects will look like this:



1. **Primary menu sidebar.** The previous two icons remain, but when a new project has been opened, two new icons are added:
   - **Export:** Converts the application into an .xml file. The user may specify where to save this new file. When the application originates from a .pkg file, this icon changes to and exports as a .pkg file.
   - **Libraries:** This button opens a new dialog that displays the available libraries to the user. By default, the PRAN library is the only one available, but the user can add new libraries and elements to it by customizing the default elements. More information on this in section 6.
2. **The settings button,** displayed as , whereupon the user may change the application's name, version, language, and other such details. Adding a splash and/or loading image to the project may also be done here.
3. **The components list**[1], where all available components from any library added to the application are displayed. The user can see a preview of the component on hover and may drag and drop any from this list into the drawing board to add new elements.

4. **The Screens List**[1], display all screens and components added in the current project, with a button to add a new Screen at any given time. There is also a green eye at the left of each component which indicates it is currently visible on the canvas. To hide it, simply click the eye to change it to a greyed, crossed out icon that will indicate the component is now invisible. Note that the hidden item remains on the xml code and will be displayed on the screen device. Finally, a right-click on any component or screen listed here will bring up a context menu to delete, move, or edit the component or screen.
5. **The project tabs** display all currently opened projects. The user may switch between each project by clicking the respective tab any time. A visual cue next to the project name (●) shows when a project has changed and hasn't been saved.
6. **The Drawing Board**, where the user can drag and drop any components to fit them into a design. The components, once dropped here, are still draggable and can be moved, edited, or deleted from the board. The size of the board is associated with the "SCREEN RATIO" button on the Utilities Bar. Any selected component can also be moved on the board using the arrow keys on the keyboard.
7. **The Utilities Bar**, with buttons representing different dialogs with more advanced configurations available. Further information on each of these can be found in sections below.
8. **The Properties List**, which contains all the properties associated to a selected component or screen.
9. **The Language Button**,

which allows the user to change the software language.
10. **Zoom toolbar,** contains 4 icons with their functions listed below:
    - **Zoom In,** which will zoom into the canvas depending on where the user has panned to. By default, the button will zoom in on a centralized position until the canvas is moved.
    - **Zoom Out,** which decreases the current view. It behaves much similarly to the Zoom In button, but with opposite results.
    - **Reset Zoom,** which will reset the zoom back to its original scale.
    - **Free Movement Mode,** which allows the user to move around a zoomed in canvas with the mouse without selecting any components on screen.

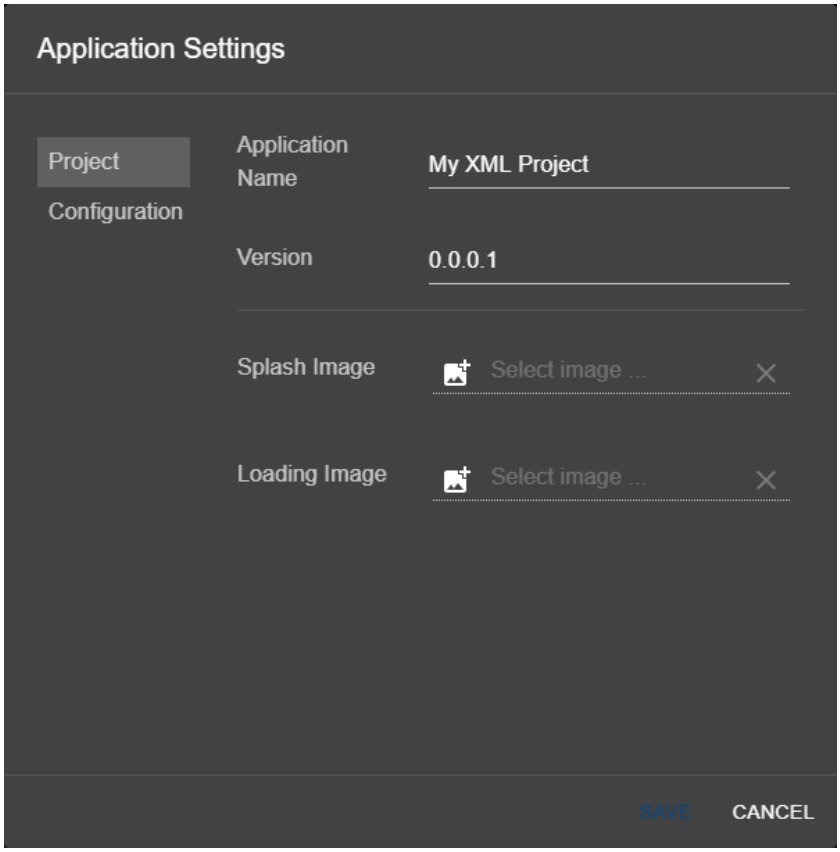
    Note that the user can also zoom in and out by using the command Crtl + the scroll of the mouse. This permits further control of where one wishes to zoom.

[1] To display **the components and the screens List** you must click the sandwich icon on the left of the screen , otherwise **menus 3 and 4** will be collapsed.

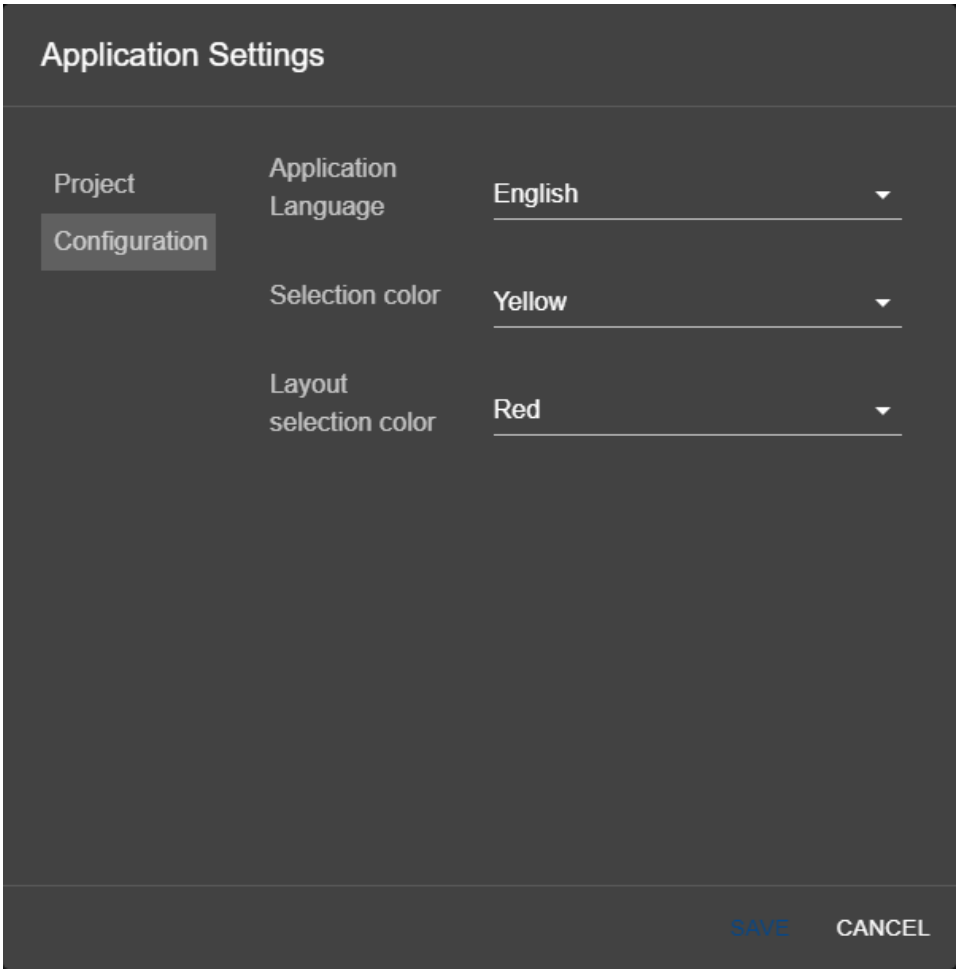
3 Application settings

The application settings display a menu with two different options:

- **Project:** Here the user can modify the application name and the version of the xml file to export, in accordance to your veh project. The user can add also add a *bmp splash* and *loading image* of their choice--a click on each item will open dialog box with the default path being the project's folder, but the user may select any other image from any other location.

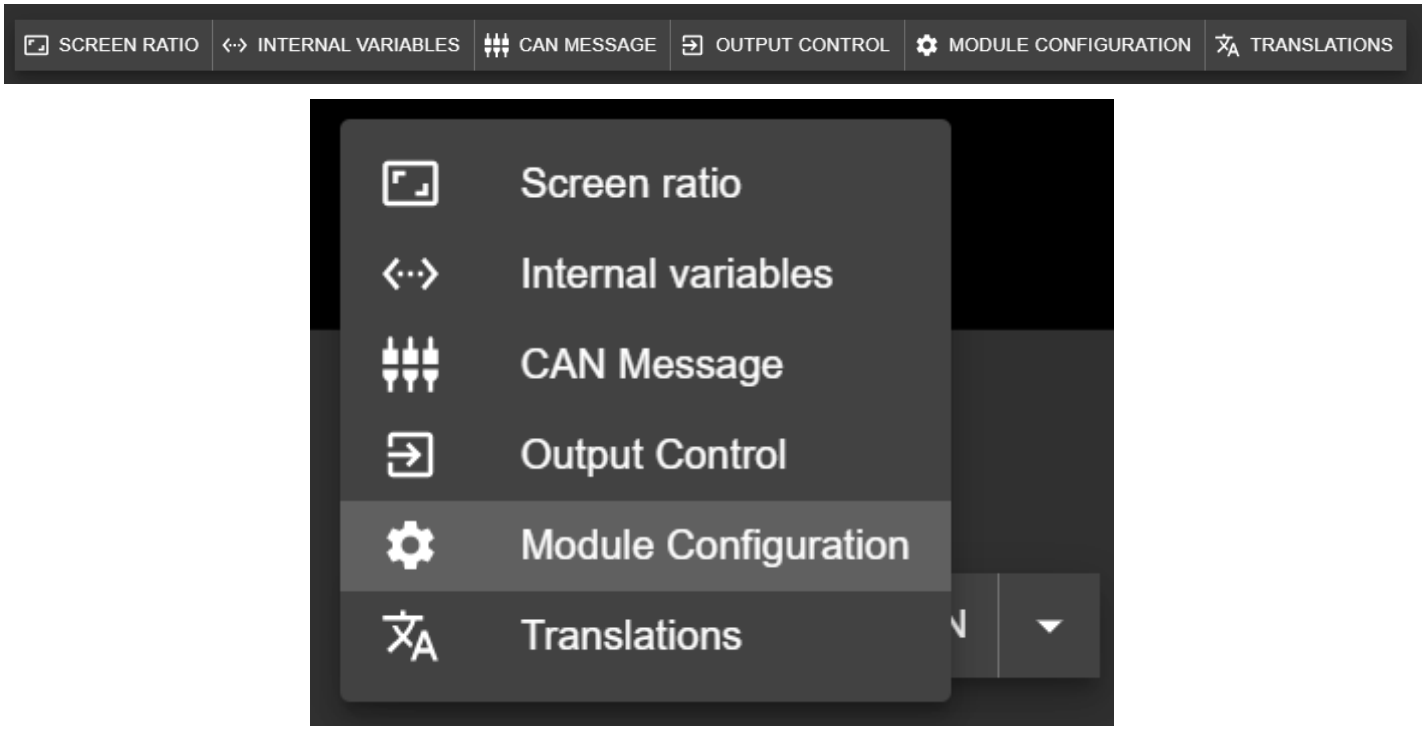


- **Configuration:** Allows the user to change the application display language and selection color for both the GraphElements and a Layout's GraphElement's, which are by default yellow and red respectively but can be changed between red, yellow, blue, black, and white. As for the display language, currently ScreenBuilder pro is configurable in 3 languages: English, Spanish, and French.



4 Utilities Bar

The Utilities Bar contains six different sub-sections related to mostly non-visual parts of the project. These include the Screen Ratio, Internal Variables, CAN Messages, Output Control, the Module Configuration, and any language Translations for the project. In smaller screen resolutions, this menu appears collapsed into a dropdown menu in the same position that the non-collapsed menu is.



4.1 Screen Ratio Dialog

To edit the size of the Drawing Board's canvas, click the first button from the left, Screen Ratio

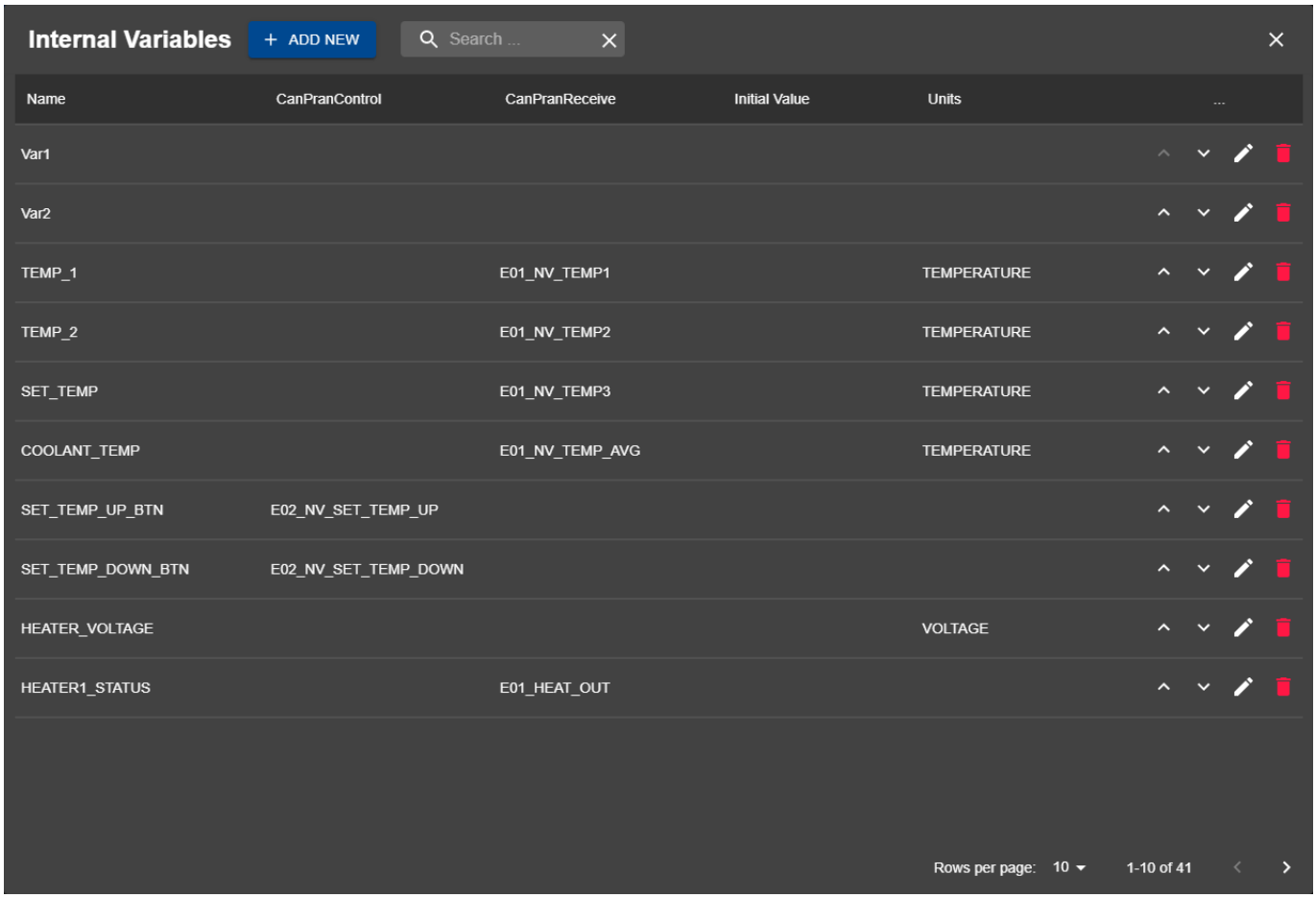
. This will bring up a dialog with illustrations of all currently available screens accompanied by their names and resolution. The default size is 800 x 600 (PR3845) but selecting any screen will automatically change the size of the canvas and close the dialog.

4.2 Internal Variables Dialog

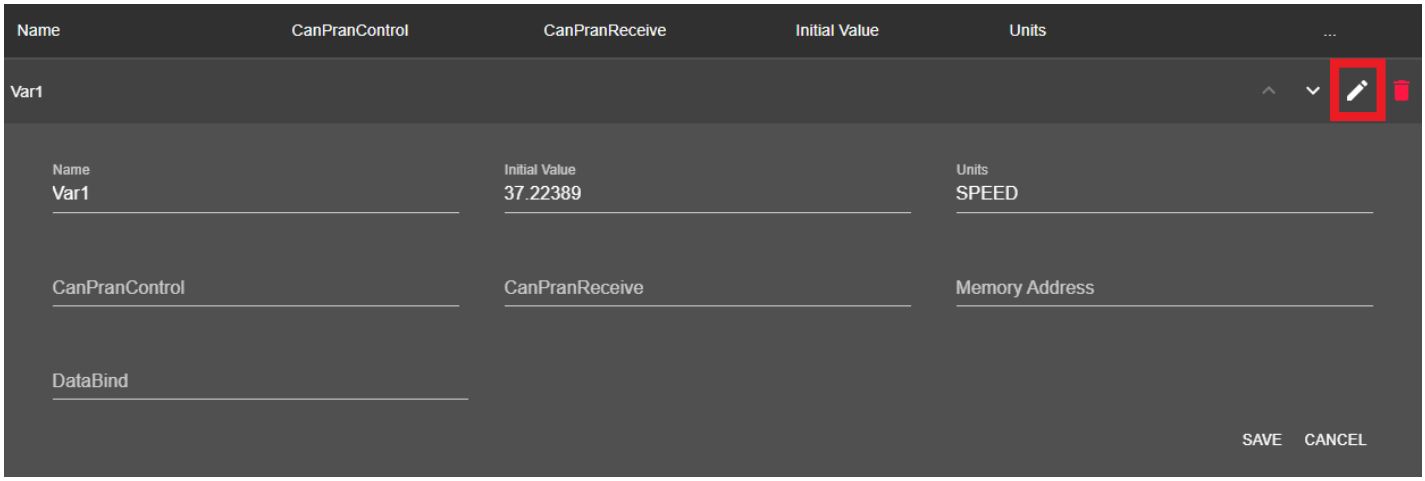
To edit the Internal Variables of the project, click the second button from the left,

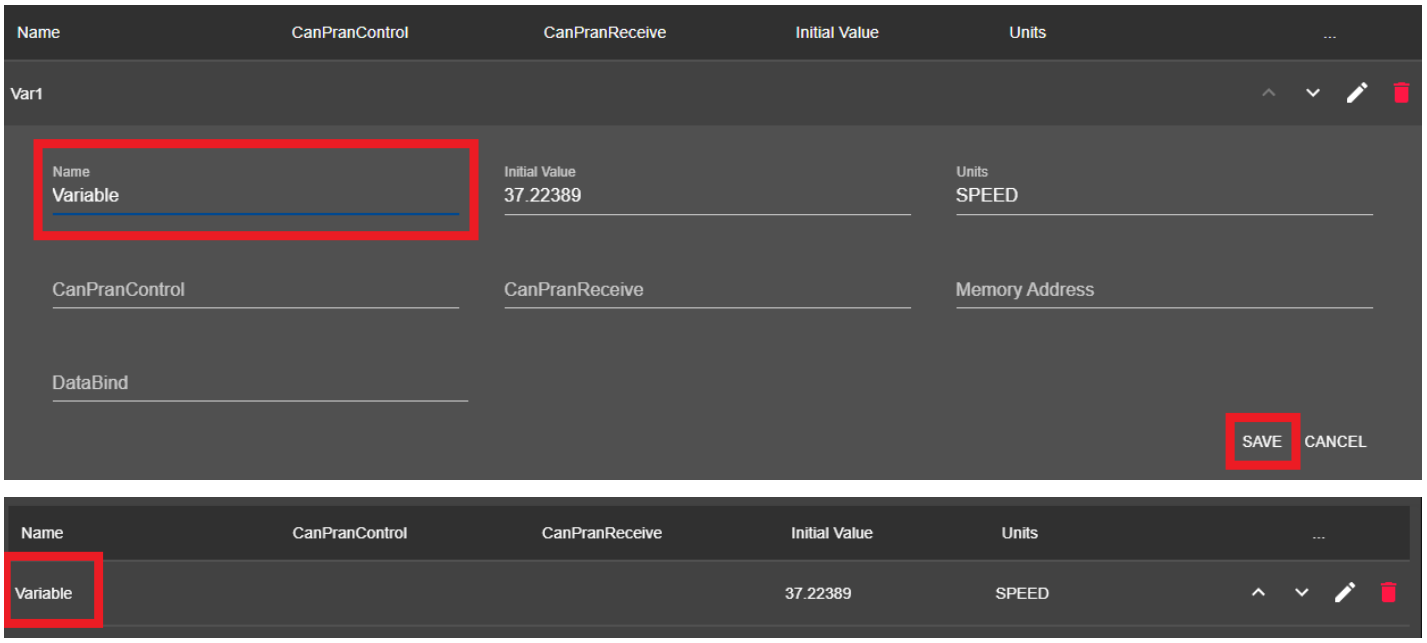
. This will bring up a dialog with a table for creating, editing, moving, and deleting internal variables. These are known as “Network Variables” in the ScreenBuilder XML document proper and may or may not be associated with a PranID from a .veh file depending on the .veh file’s availability. These also display the CanPranControl and CanPranReceive sections as each variable may be associated with either.

At the bottom of the dialog, the user may select how many variables are shown per page, with a maximum number of 100 rows per page at a time.



To edit a variable the user must click the edit button to the right. This will show a drop-down row with all the editable information. The user may edit this information as desired. Once done, click the SAVE button to apply the changes. Adding a new variable is done by clicking the Add New + ADD NEW button but otherwise works much in the same way.





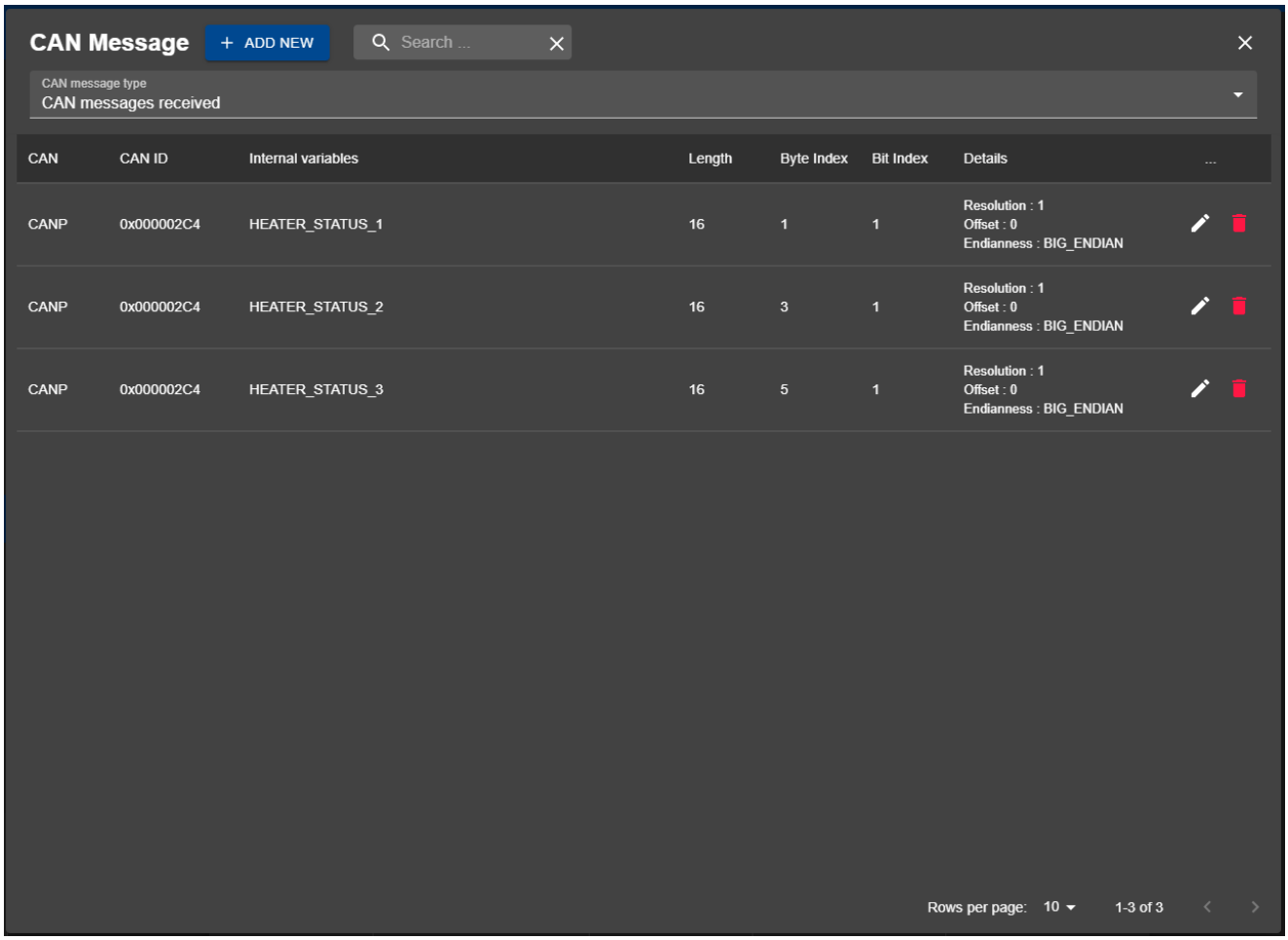
Any whitespaces in the variable's new name will automatically be replaced with underscores. Variable names cannot contain symbols or numbers at the start, and any attempt to save one with these characteristics will not be allowed. The CanPranReceive and CanPranControl sections will not be given or allowed if there is no .veh file associated with the project, either.

4.3 Can Message Dialog

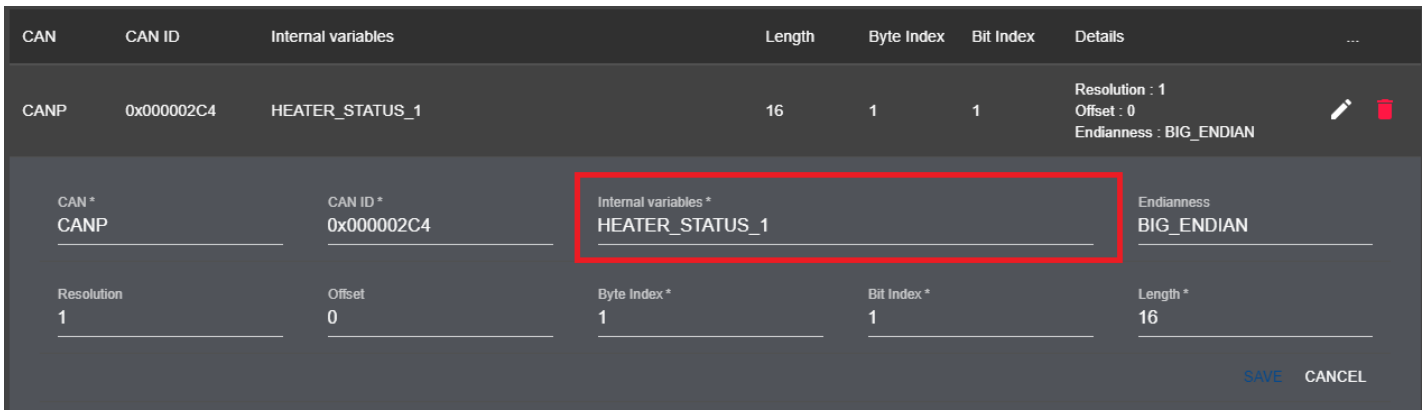
To edit the CAN messages of the project, click the third button from the left, Can Message

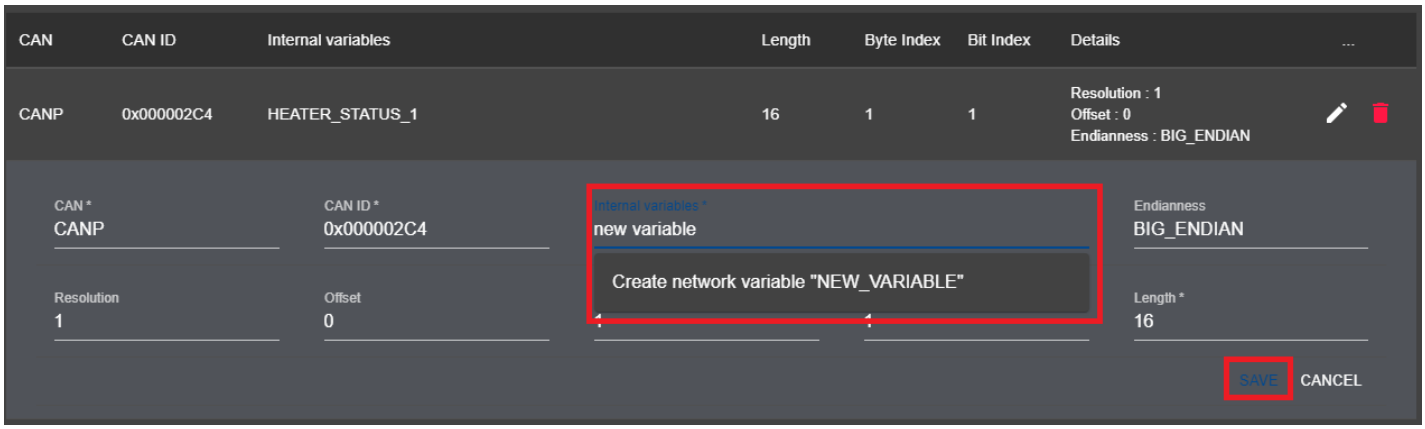
. This will bring up a dialog with a table for creating, editing, and deleting any CAN messages sent and received.

At the bottom of the dialog, the user may select how many variables are shown per page, with a maximum number of 100 rows per page at a time.



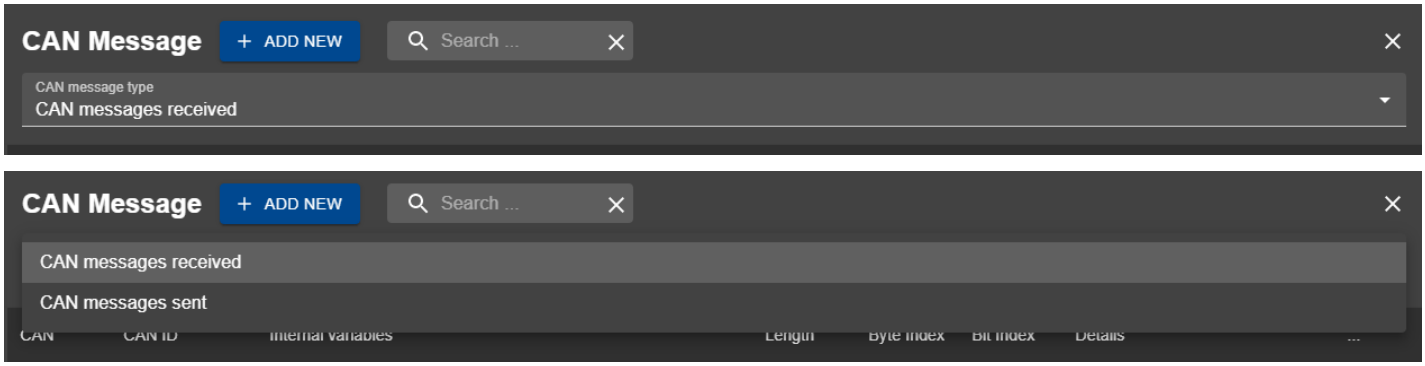
To edit a **CAN Receive variable** the user must click the edit button to the right. This will show a drop-down row with all the editable information. The user may edit this information as desired. Once done, click the save SAVE button to apply the changes. Adding a new message is done by clicking the Add New + ADD NEW button but otherwise works much in the same way.

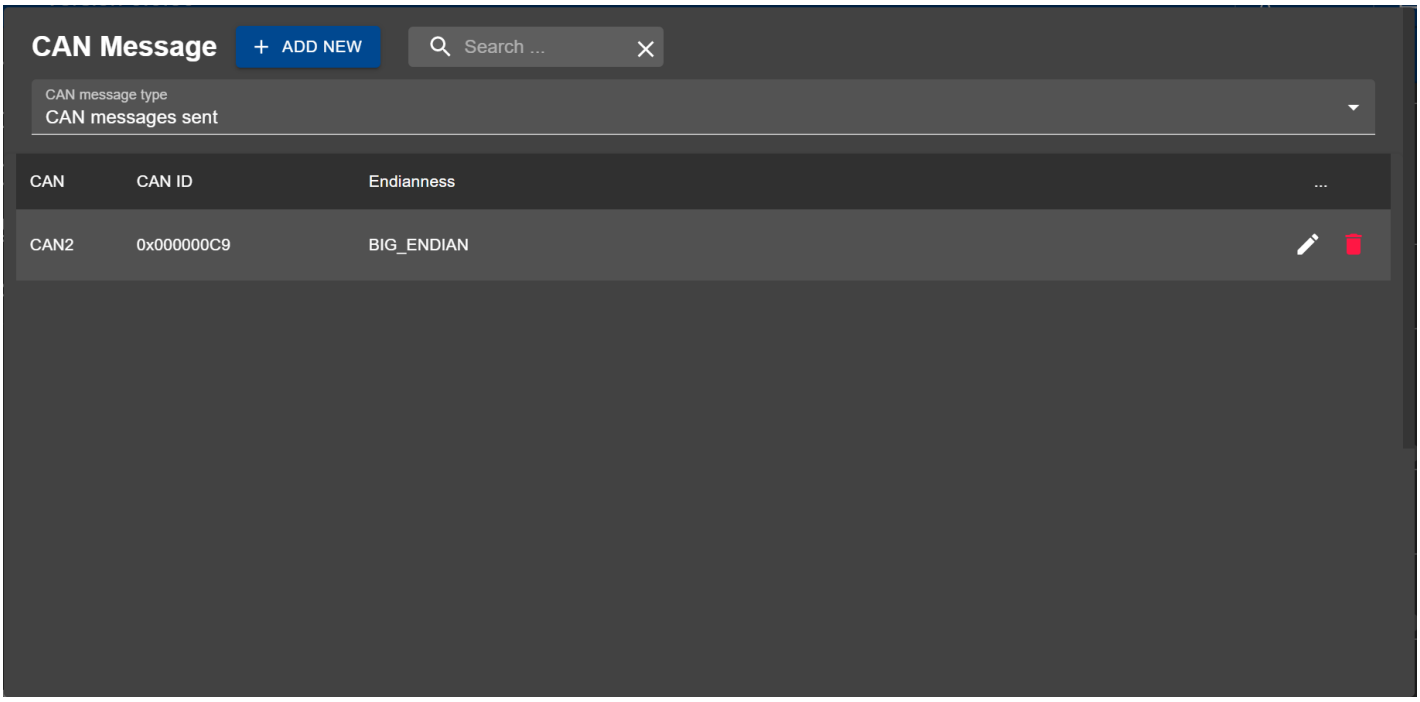




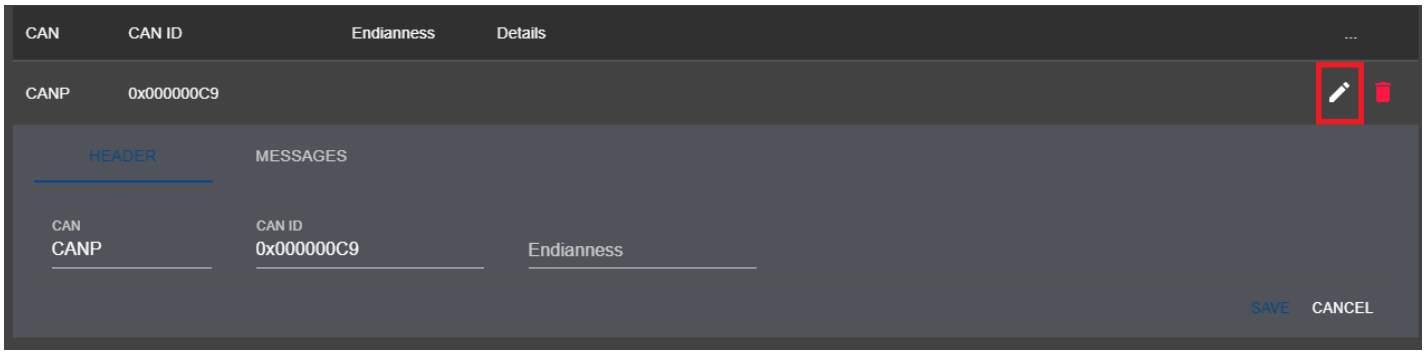
The “Internal Variables” section will display all variables available to the project in the “Internal Variables” dialog. If none have been created, the user is free to create a new one here by selecting the option *“Create network variable ‘[variable name]’”* from the drop-down menu. This will create a new, empty variable without any properties associated with it beyond the name—if the user wishes to edit it further, they will have to go back to the “Internal Variables” Dialog.

To edit the **CAN Send messages**, the user must click the selection at the top of the table and select “CAN messages sent” from the list. This will display a new table with different properties.





To edit a CAN Send variable the user must click the edit button to the right. This will show a drop-down row with all the editable information divided into two sections: the “Header”, and the “Messages”. The user may edit the information in the Header section as desired. Once done, click the save SAVE button to apply the changes. Adding a new message requires the user to click the add new + ADD NEW button at the top of the dialog, but otherwise functions much in the same way.

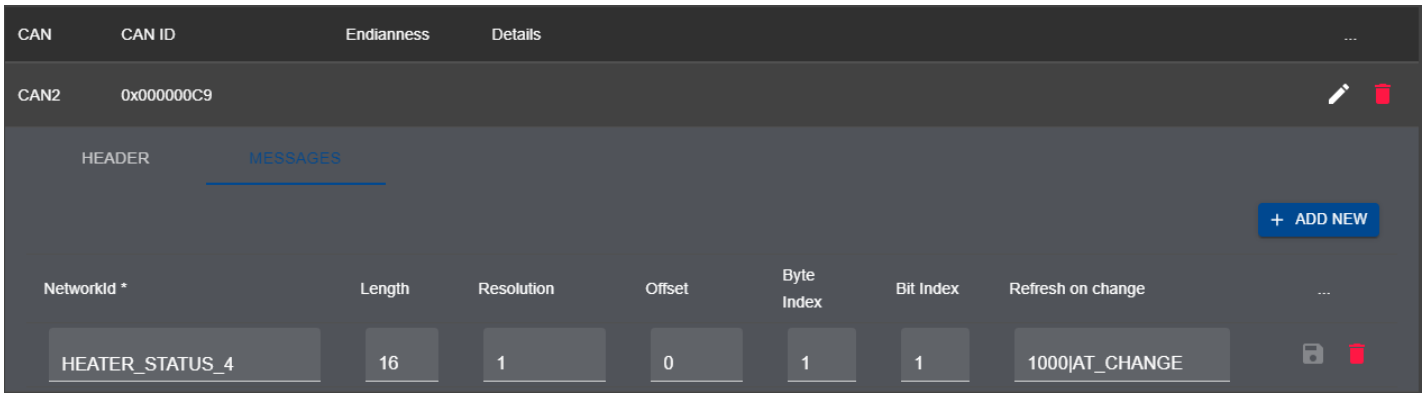


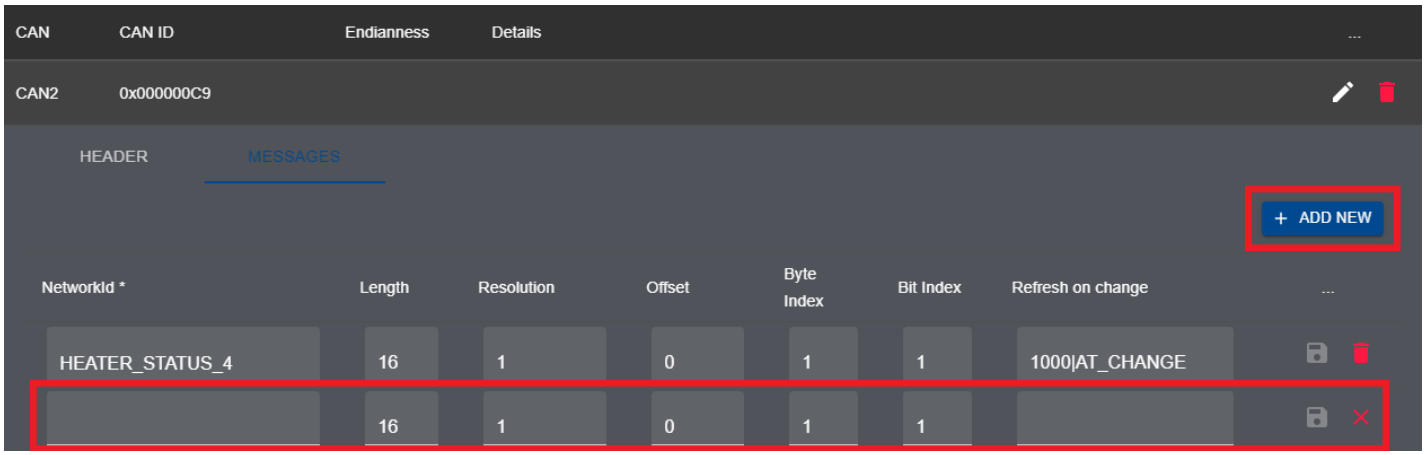
To work in the Messages section, the user must click the tab labelled as such. The “Messages” tab will be disabled if the message header hasn’t been previously saved.

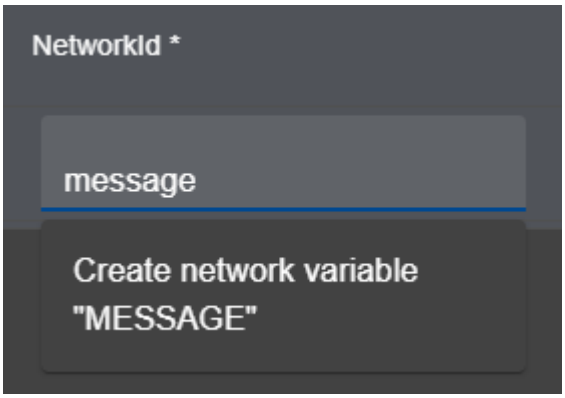
Previously existing messages will be accompanied by a disabled save button and a delete button. To enable the save button, changes to the current message must be made, and any changes unsaved will be lost on exiting. Clicking the delete button will remove the current message from the CAN Send Header.

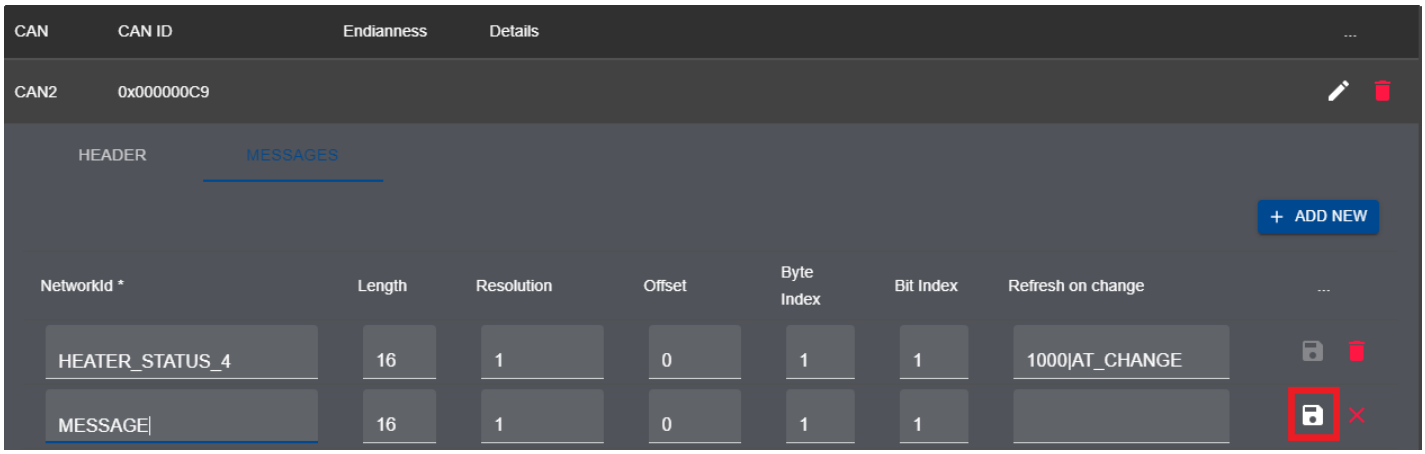
Clicking the smaller Add New + ADD NEW button within the dialog will add another, empty message for the user to work on, accompanied by a disabled save button and a cancel button. To enable the save button, changes to the currently new, empty message must be made, and any changes unsaved will be lost on exiting. Clicking the cancel button will remove the current, empty message from the list.

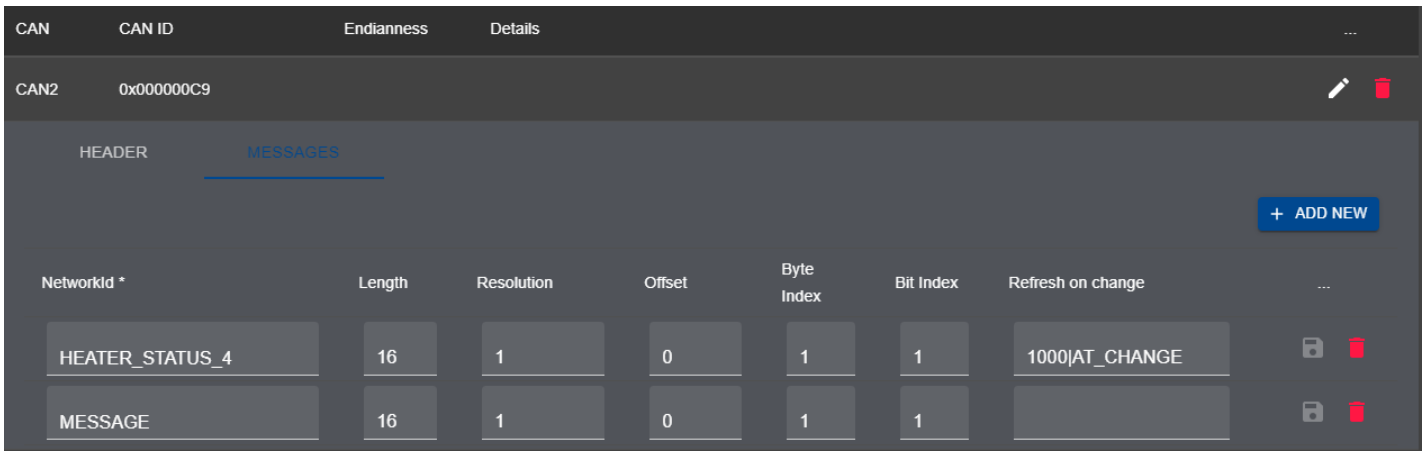
The “NetworkId” property will display a list of all Internal Variables available in the project, but the user can add a new, basic one from the drop-down by typing a new name and selecting the option to add it.







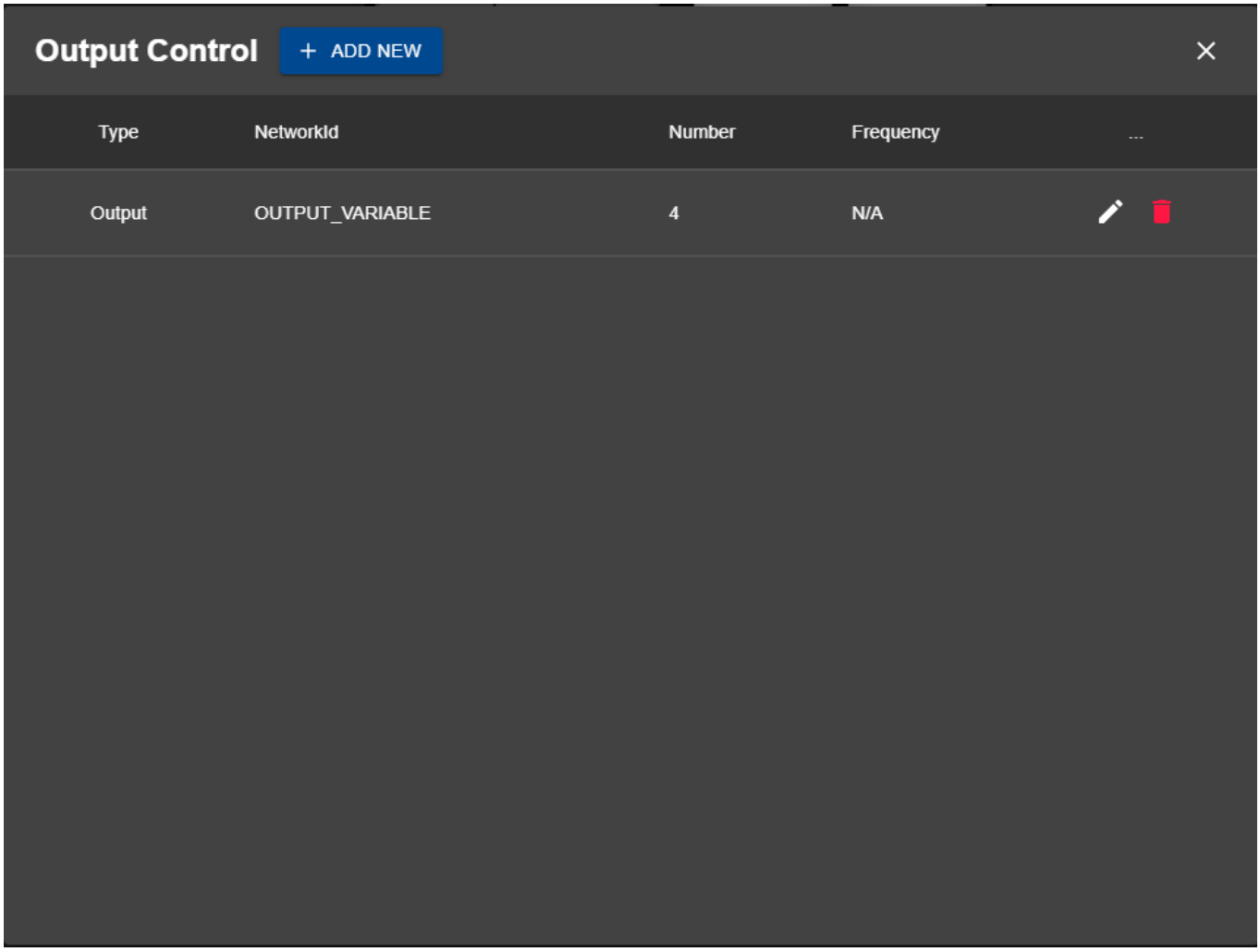

CAN
CAN ID
Endianness
Details
...
CAN2
0x000000C9
HEADER
MESSAGES
+ ADD NEW
NetworkId *
Length
Resolution
Offset
Byte Index
Bit Index
Refresh on change
...
HEATER_STATUS_4
16
1
0
1
1
1000|AT_CHANGE
MESSAGE
16
1
0
1
1


CAN
CAN ID
Endianness
Details
...
CAN2
0x000000C9
HEADER
MESSAGES
+ ADD NEW
NetworkId *
Length
Resolution
Offset
Byte Index
Bit Index
Refresh on change
...
HEATER_STATUS_4
16
1
0
1
1
1000|AT_CHANGE
MESSAGE
16
1
0
1
1

4.4 Output Control Dialog

To edit the Outputs of the display selected, click the fourth button from the left, Output Control

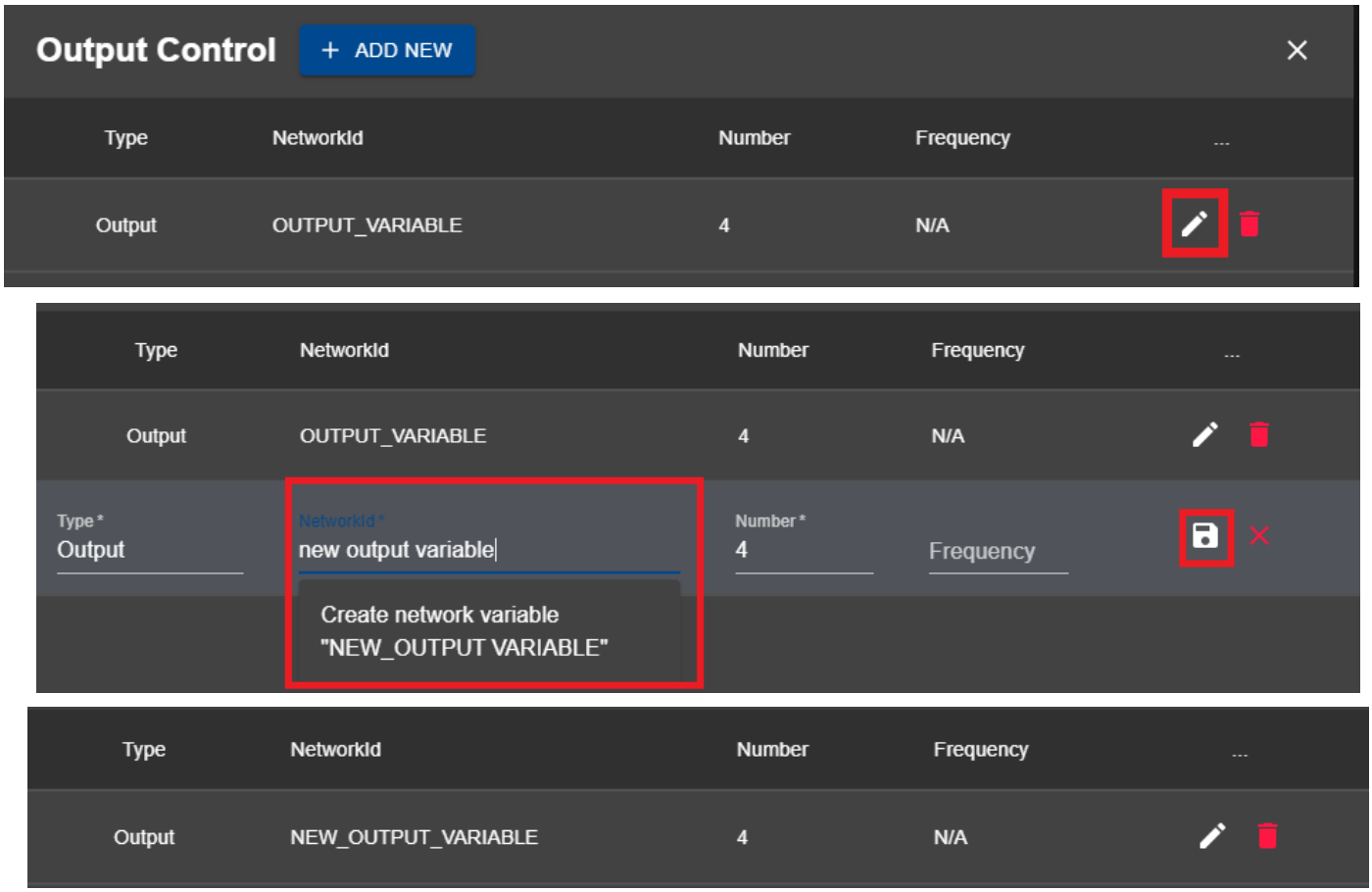
. This will bring up a dialog with a table for creating, editing, and deleting any Outputs.



Two kinds of outputs can be set; a digital output and a PWM output. The number of outputs allowed to a display depends on the display itself; PR3820 and PR3827 have a maximum of four, and PR3843 and PR3845 have a maximum of eight.

To edit an output the user must click the edit button to the right. This will show a drop-down row with all the editable information. The user may edit this information as desired. Only a “PWM output” can have a Frequency. Once done, click the save button to apply the changes. Adding a new output requires the user to click the Add New

button at the top of the dialog, but otherwise functions much in the same way.

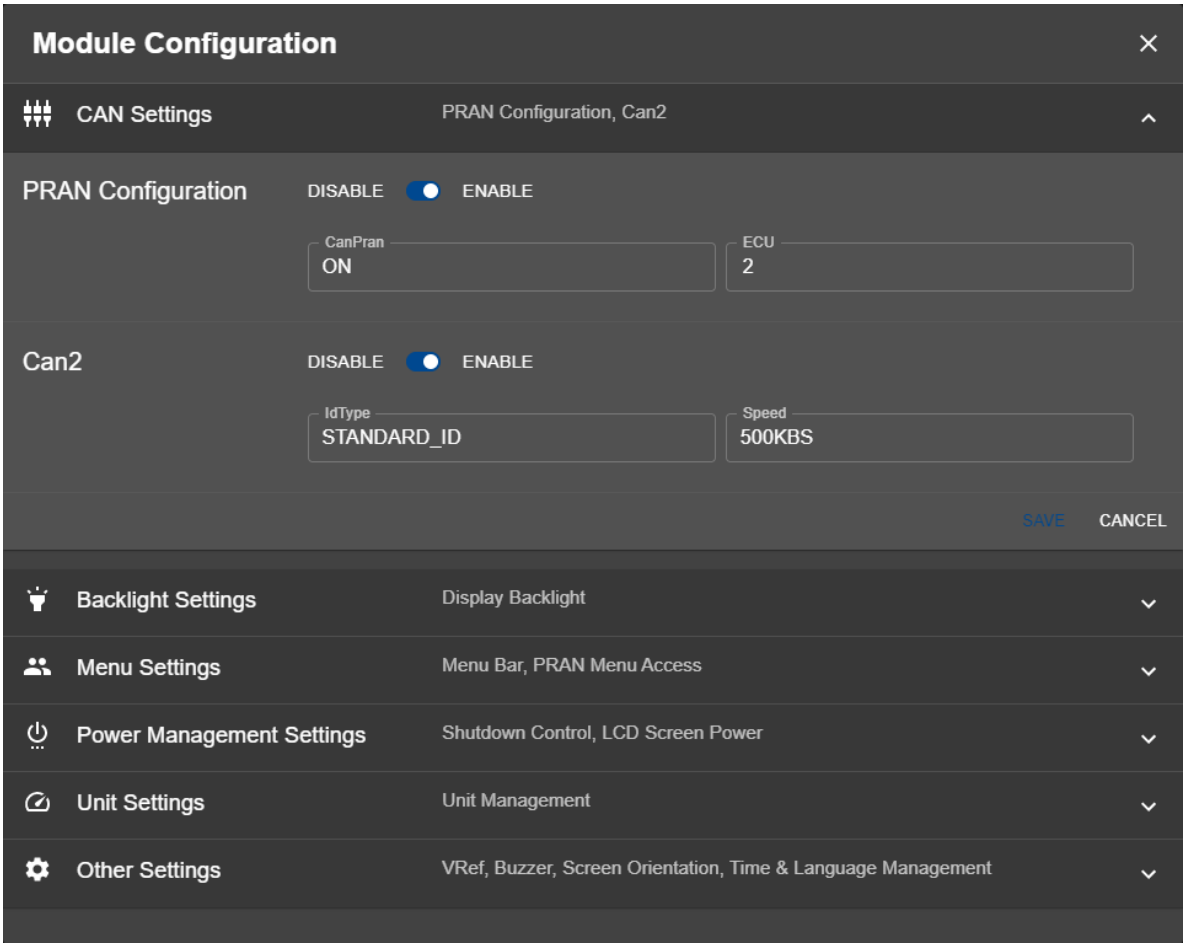

Output Control
+ ADD NEW
Type
NetworkId
Number
Frequency
...
Output
OUTPUT_VARIABLE
4
N/A
Type *
Output
NetworkId *
new output variable
Number *
4
Frequency
Create network variable
"NEW_OUTPUT VARIABLE"
Type
NetworkId
Number
Frequency
...
Output
NEW_OUTPUT_VARIABLE
4
N/A

4.5 Module Configuration Dialog

For every other configuration found in the ScreenBuilder “Module Configuration” section, click the fifth button from the left, Module Configuration

. This will bring up a dialog with every configuration available from the following list:

1. **CAN Settings:** PRAN Configuration, Can2
2. **Backlight Settings:** Display Backlight.
3. **Menu Settings:** Menu Bar, PRAN Menu Access
4. **Power Management Settings:** Shutdown Control, LCD Screen Power
5. **Other Settings:** VRef, Buzzer, Screen Orientation, Time & Language Management



Every option in each of the subsections contains an enable/disable switch

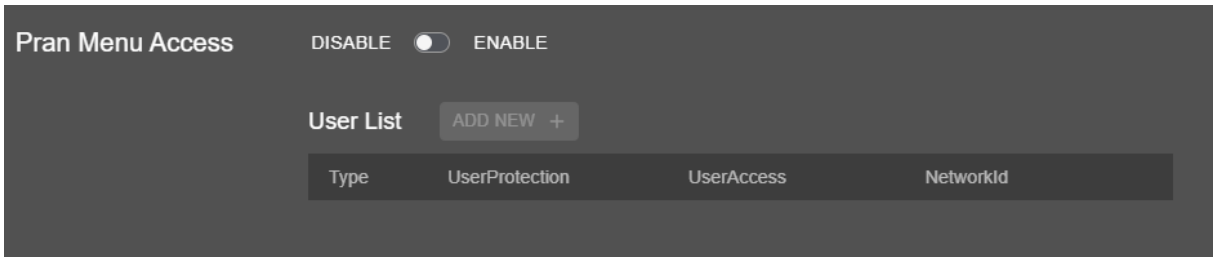
, which will add or remove the corresponding subtag from the XML’s “Module Configuration” tag. If the user were to flip the switch to its “ENABLE” position and save the change, the tag would become available in the XML, and it would be removed if flipped to the “DISABLE” position.

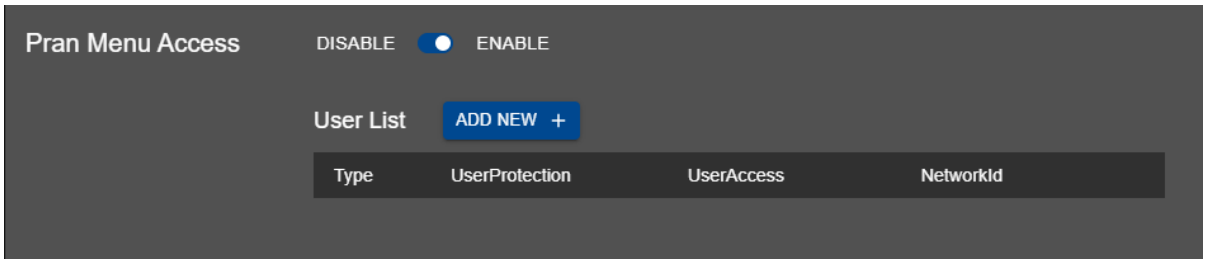
Most of the options associated with a subtag are dropdown menus for picking tag-specific options or an Internal Variable in every NetworkId field. In order to apply any changes made, the user must click the save SAVE button before exiting the Dialog.

The only sections that differ from this standard are the “PRAN Menu Access” table in the “Menu Settings” section, and the “Resource Settings” table.

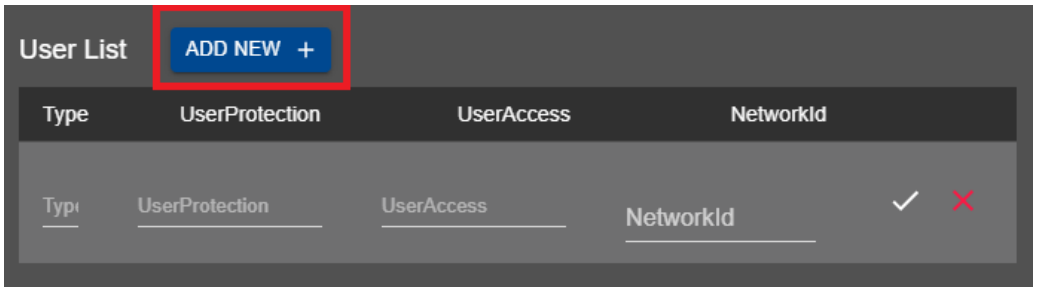
4.5.1 PRAN Menu Access table, Menu Settings section

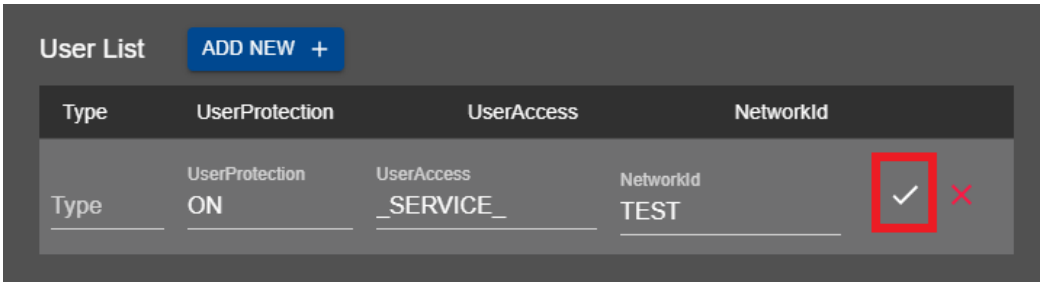
To activate the User List, the user must first flip the switch to its “ENABLE” position.

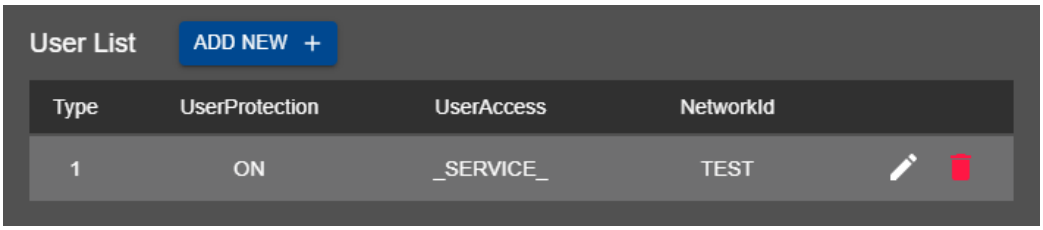




To add a new User to the table, the user must click the Add New + ADD NEW button. A drop-down row will appear that the user must fill in before pressing the checkmark button to the left.






User List
ADD NEW +
Type
UserProtection
UserAccess
NetworkId
1
ON
SERVICE
TEST

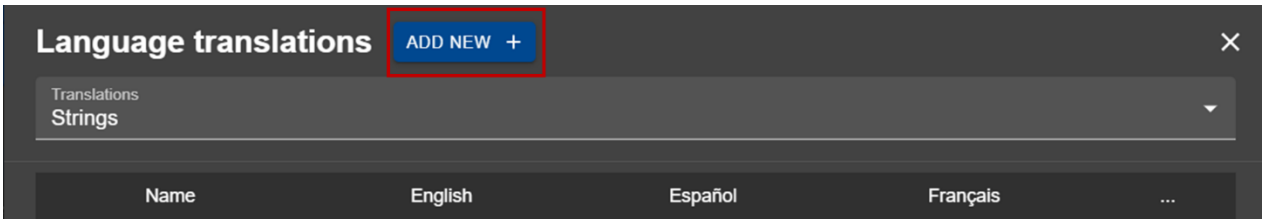
4.6 Language Translations Dialog

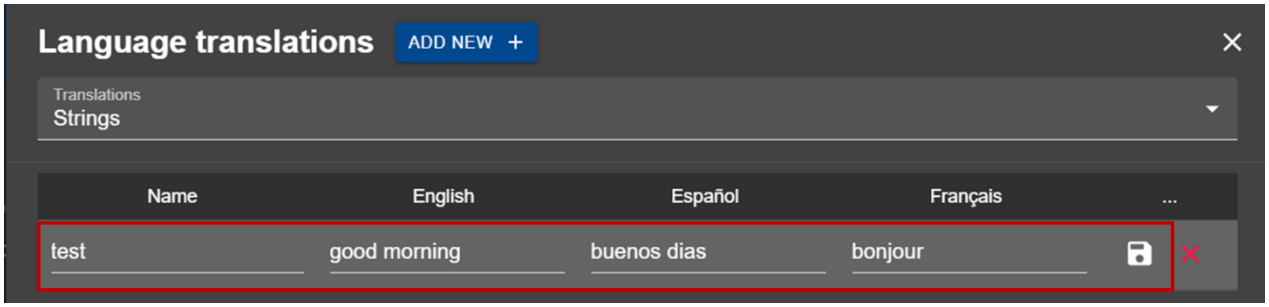
To handle the language translations for texts and images in the project that are displayed on the canvas, click the sixth button from the left, Translations

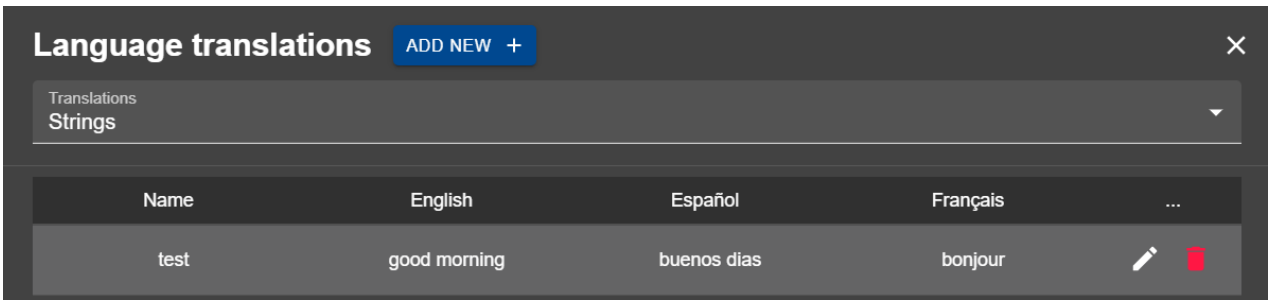
. This will bring up a dialog with two different subsections to edit: Strings and Images, which handle text and image translations respectively.

The first section is the Strings one, associated with TextBoxes and Buttons. To add a new textual translation to the table, the user must click the Add New

button at the top. A new row will drop down from the top of the table with four text fields: one for the name of this string that will be referenced on the canvas, and three for each language available. Fill each field as required and then click the save button to add this to the project.



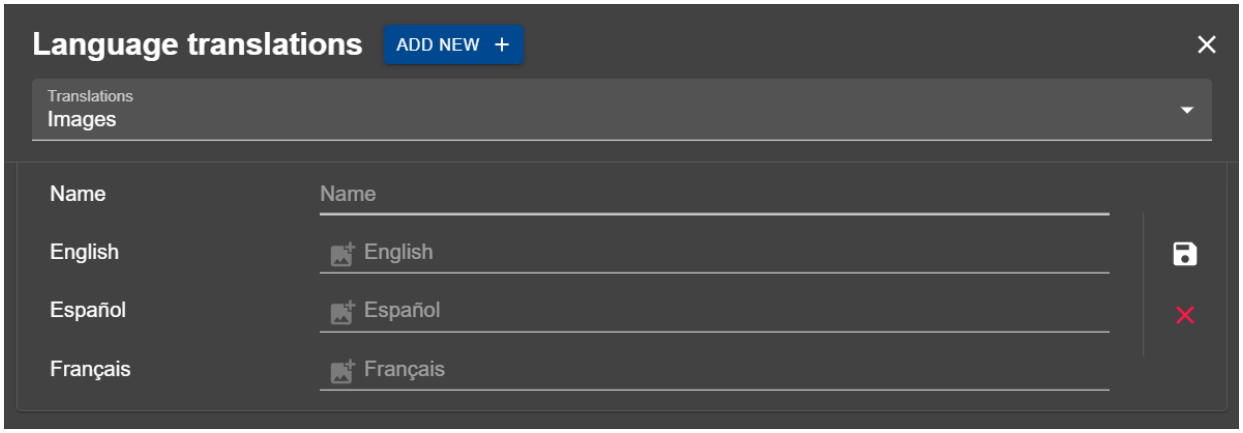


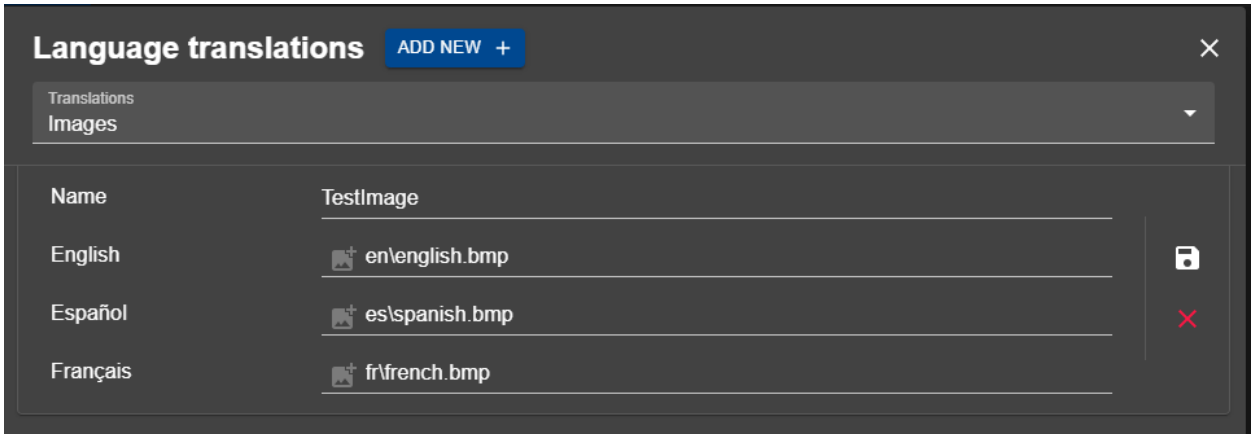


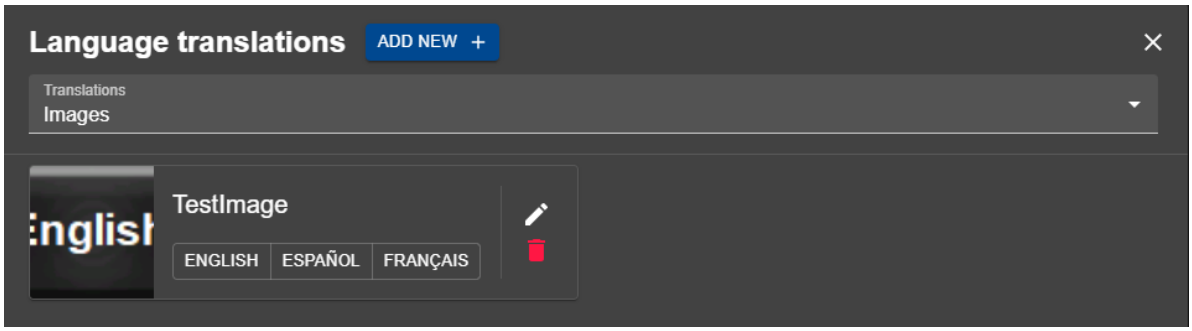
As for an image, we first select the option “Images” from the dropdown menu at the top of the dialog, under the title. Here, the user may once again click the Add New

button, which will drop a new row with fields like the Strings section, only this time each language’s field will require the upload of a translated image. To add an image, click

on the Add Image button on the text field. When selecting an image, the program will automatically create the corresponding language's folders inside of the bmp folder: "en" for English translations, "es" for Spanish ones, and "fr" for French. If these folders already exist, the images will be saved/copied to them without problem. Once every image the user needs is uploaded, click the save button to add this translation to the project.



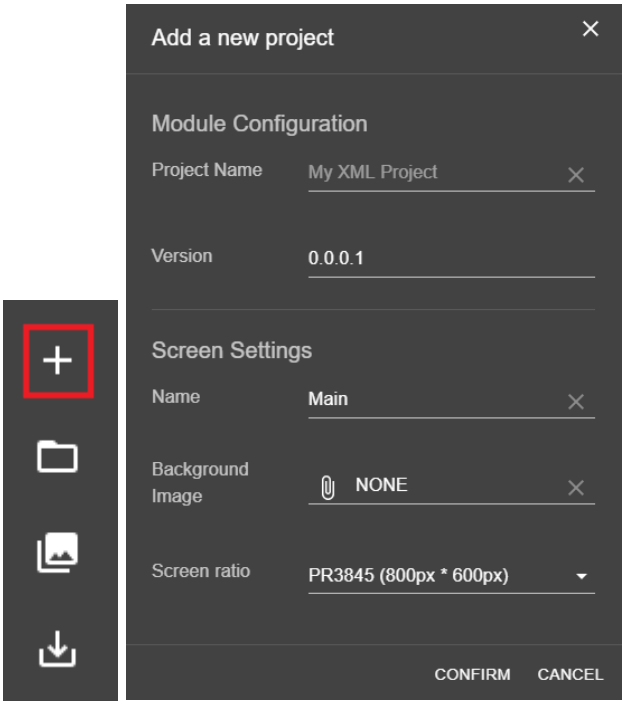




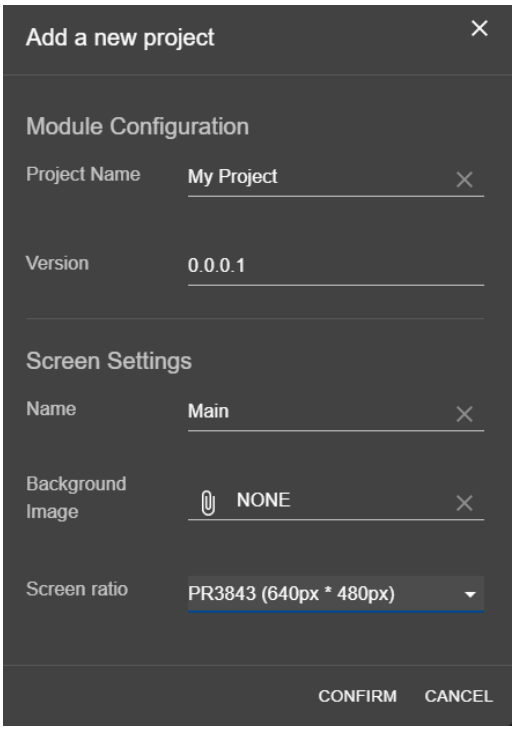
We will see the way these texts and images are applied to and seen on components in Section 6.

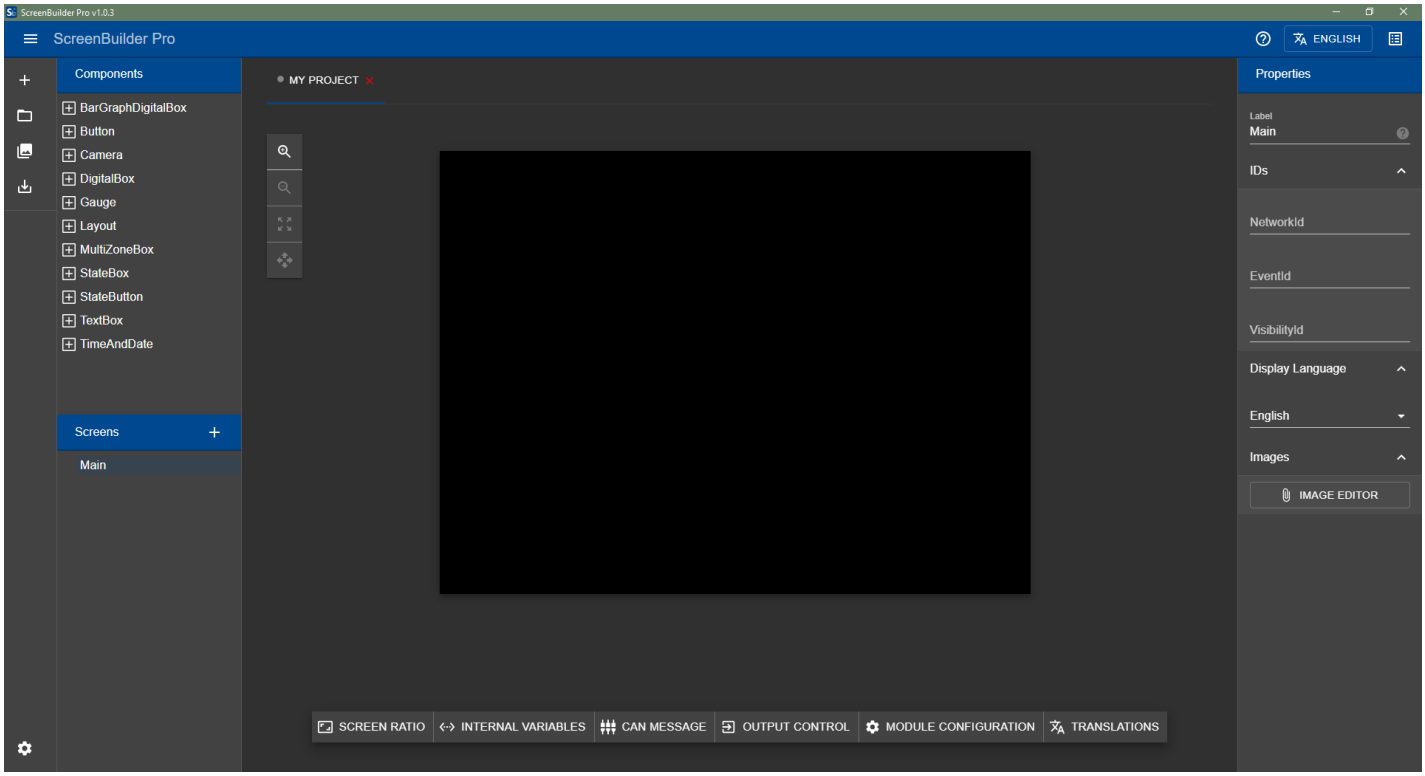
5 Creating a new Project

To create a new project, the user must click the first button on the Primary Menu Sidebar, Add New Project. This will bring up a new dialog with all the information needed for the new project.

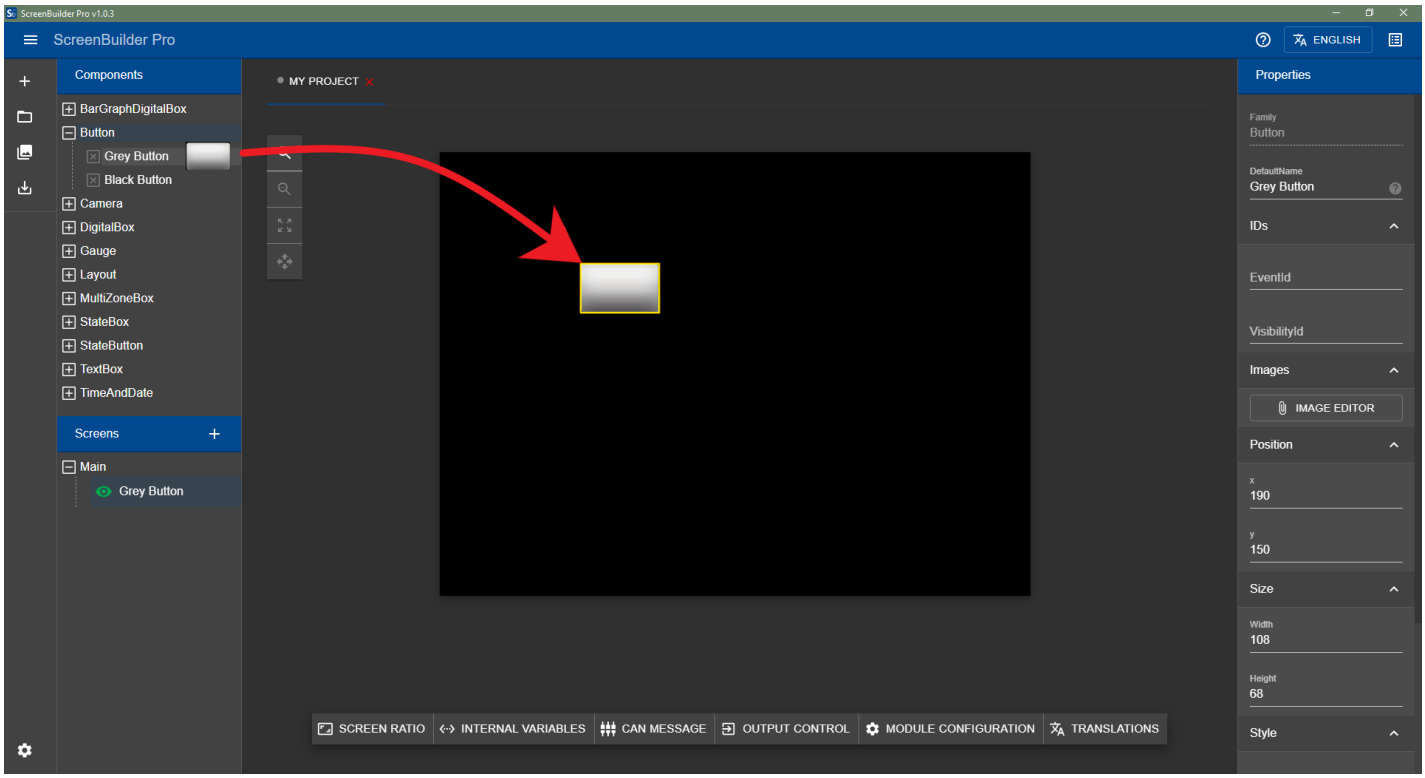


The project needs a name (required) and a version; the first version available will be “0.0.0.1”. The project will also be generated with an empty screen. The only things the screen needs are a name (required and already provided, but it can be changed by the user) and a background image, though this one isn’t required and can be added later. The user is also given the option of choosing a screen ratio to start from without needing to change it again later.





The empty project has only one screen that the user can drag components to, but more can be added as required. The default ratio, if unchanged in the opening dialog, matches that of the PR3845 screen (800 x 600). To add a component, simply click on the desired component Family, and drag and drop the one you want to the drawing board.

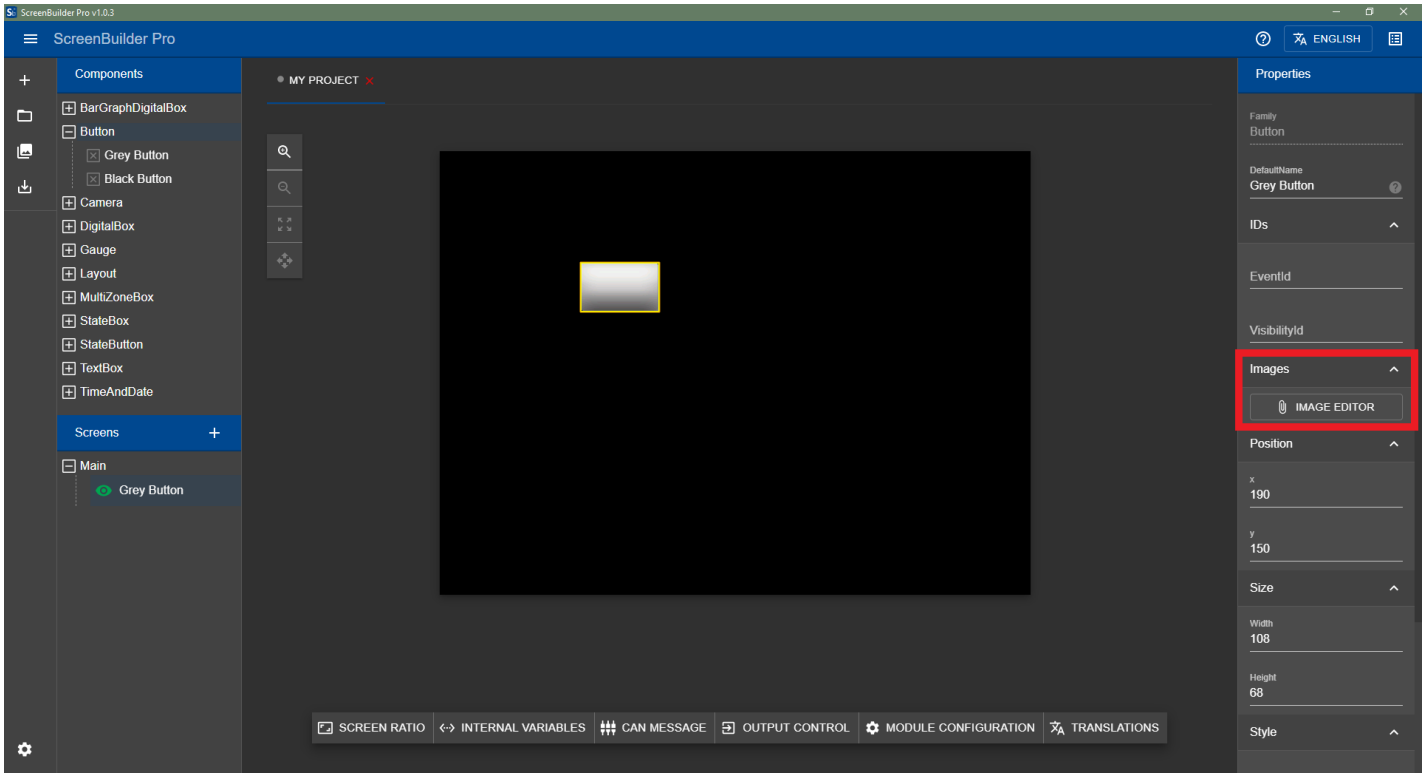


Once a component is in the drawing board, the **Properties List** to the right will show the component's properties. Things such as the component's position on the board's X and Y axis, the size of the component, IDs, Images, Styles in the case of a component having texts, etc. The user may also change the component's **DefaultName**, which will be the component's name in the application. The **Label** property inside Style will change the component's ScreenBuilder label as displayed on the drawing board.

There are a few special dialogs that will open depending on the property available. These are the Image, Text, and Zone Editor Dialogs.

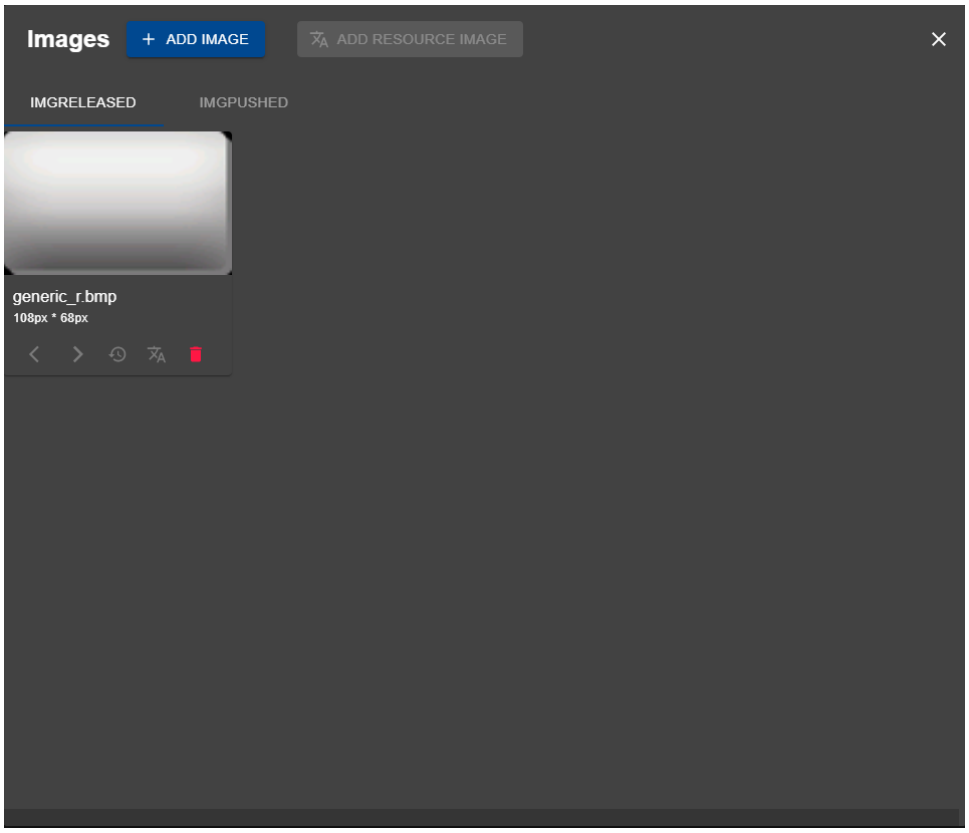
5.1 Image Editor

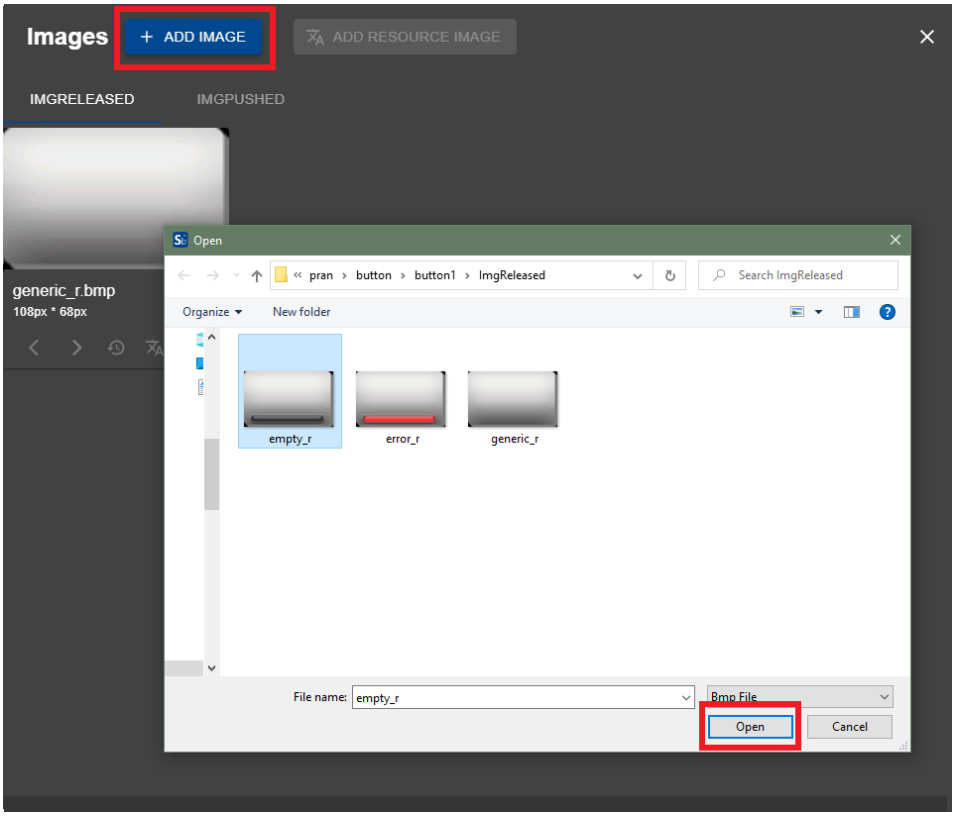
The most common property shared by all components. Each component has a different type of image property. For more information on component properties, check the ScreenBuilder User Manual.

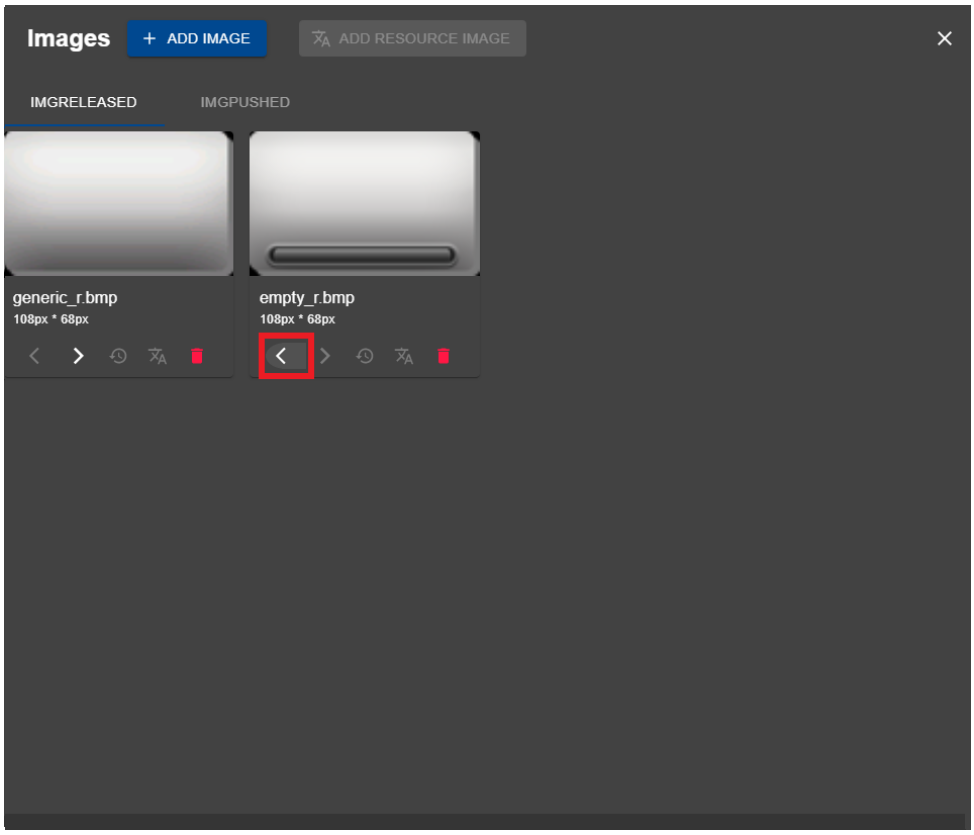


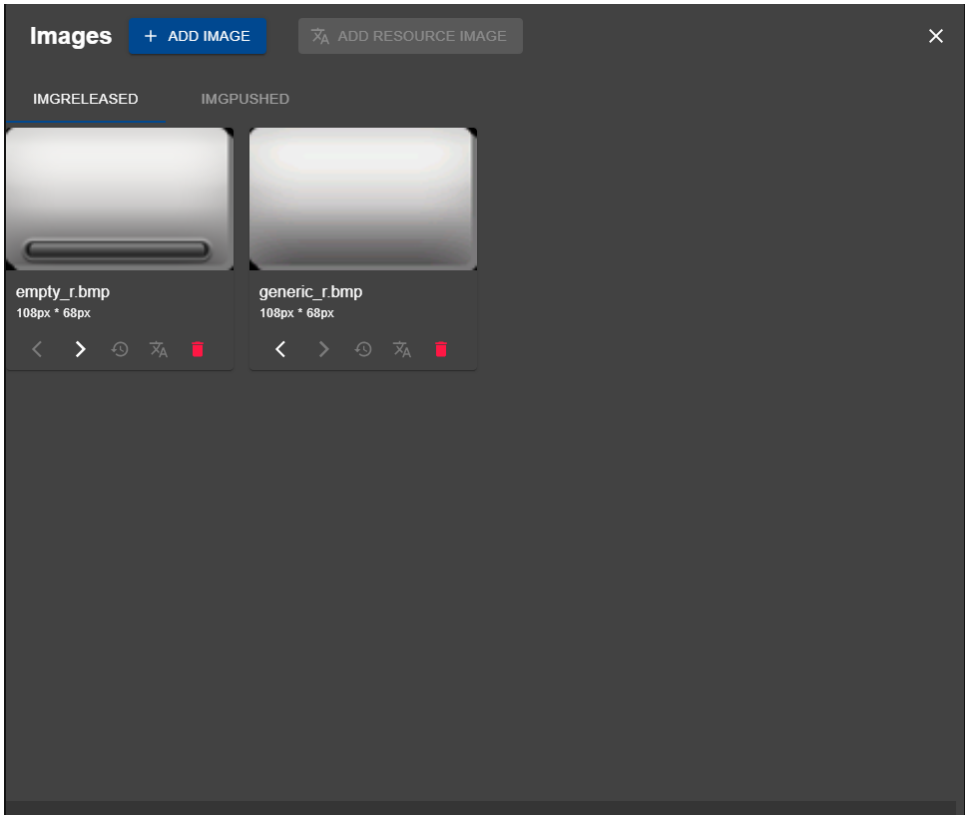
The Image Editor dialog will contain the component's image properties as tabs, and images in each tab. In case that there are no images selected, a blank placeholder with the title "NONE" will be shown instead.

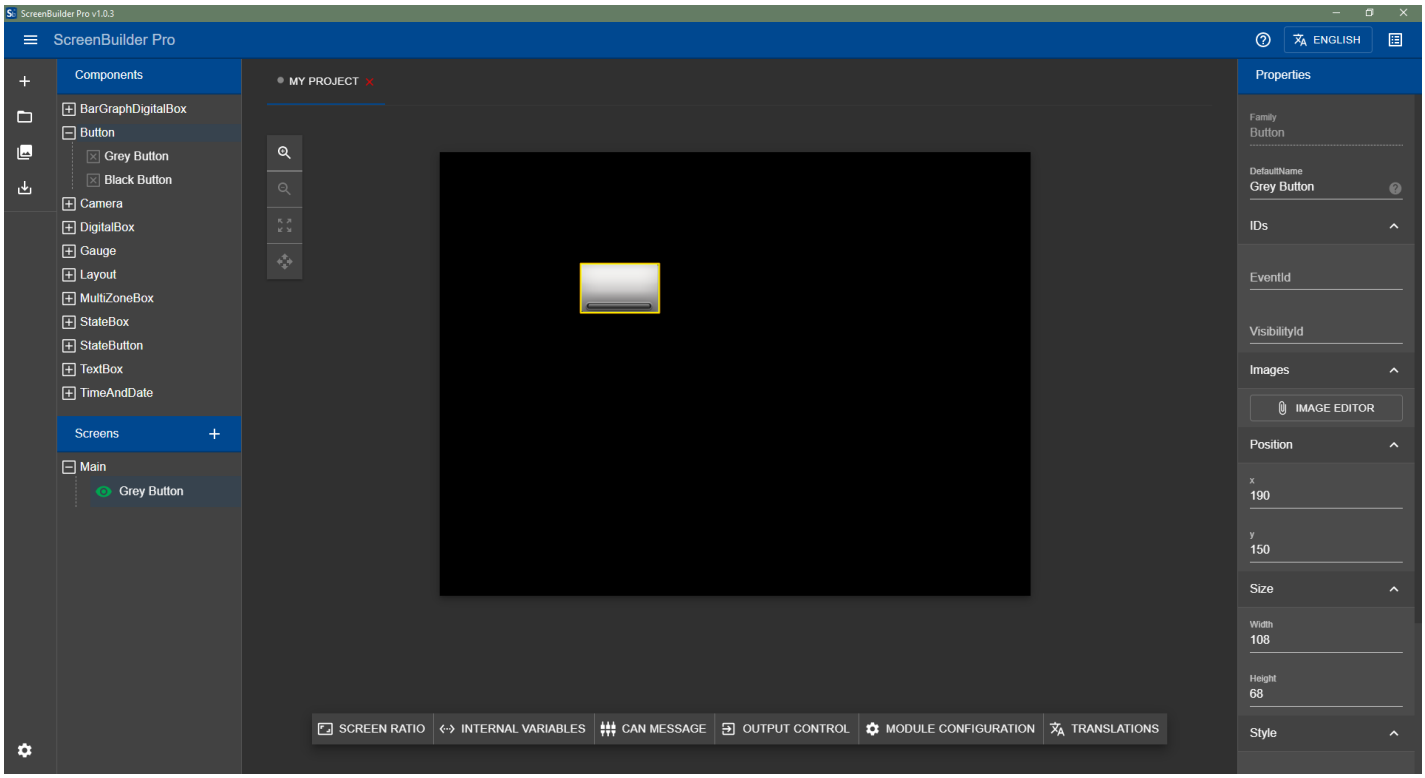
In other to add a new image, the user must click on the Add Image button at the top of the dialog. The user may select any bmp image of their choice from anywhere in their computer and add as many images as is needed. The first image in this collection will be the one shown on the drawing board. There are arrows under each image to allow the user to reorder these as they see fit.


Images
+ ADD IMAGE
ADD RESOURCE IMAGE
IMGRELEASED
IMGPUSHED
generic_r.bmp
108px * 68px


Images
+ ADD IMAGE
ADD RESOURCE IMAGE
IMGRELEASED
IMGPUSHED
generic_r.bmp
108px * 68px
Open
pran › button › button1 › ImgReleased
Search ImgReleased
Organize
New folder
empty_r
error_r
generic_r
File name: empty_r
Bmp File
Open
Cancel


Images
+ ADD IMAGE
ADD RESOURCE IMAGE
IMGRELEASED
IMGPUSHED
generic_r.bmp
108px * 68px
empty_r.bmp
108px * 68px


Images
+ ADD IMAGE
ADD RESOURCE IMAGE
IMGRELEASED
IMGPUSHED
empty_r.bmp
108px * 68px
generic_r.bmp
108px * 68px



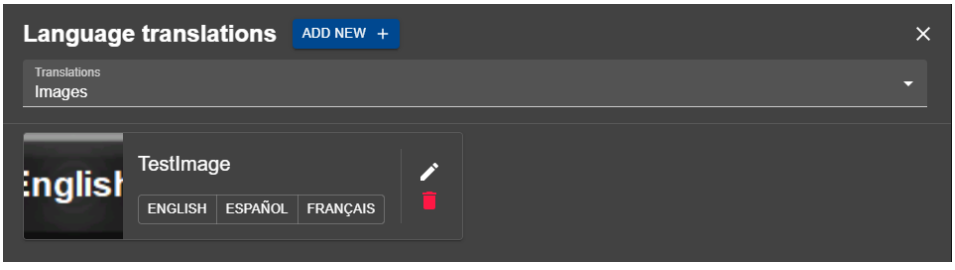
In this dialog, the user is also able to add a resource image to the board. Adding resource images is explained in the **Module Configuration** section above.

5.1.1 Using Resource Images

If the user has added a Resource Image on the Language Translations section, then the Image Editor

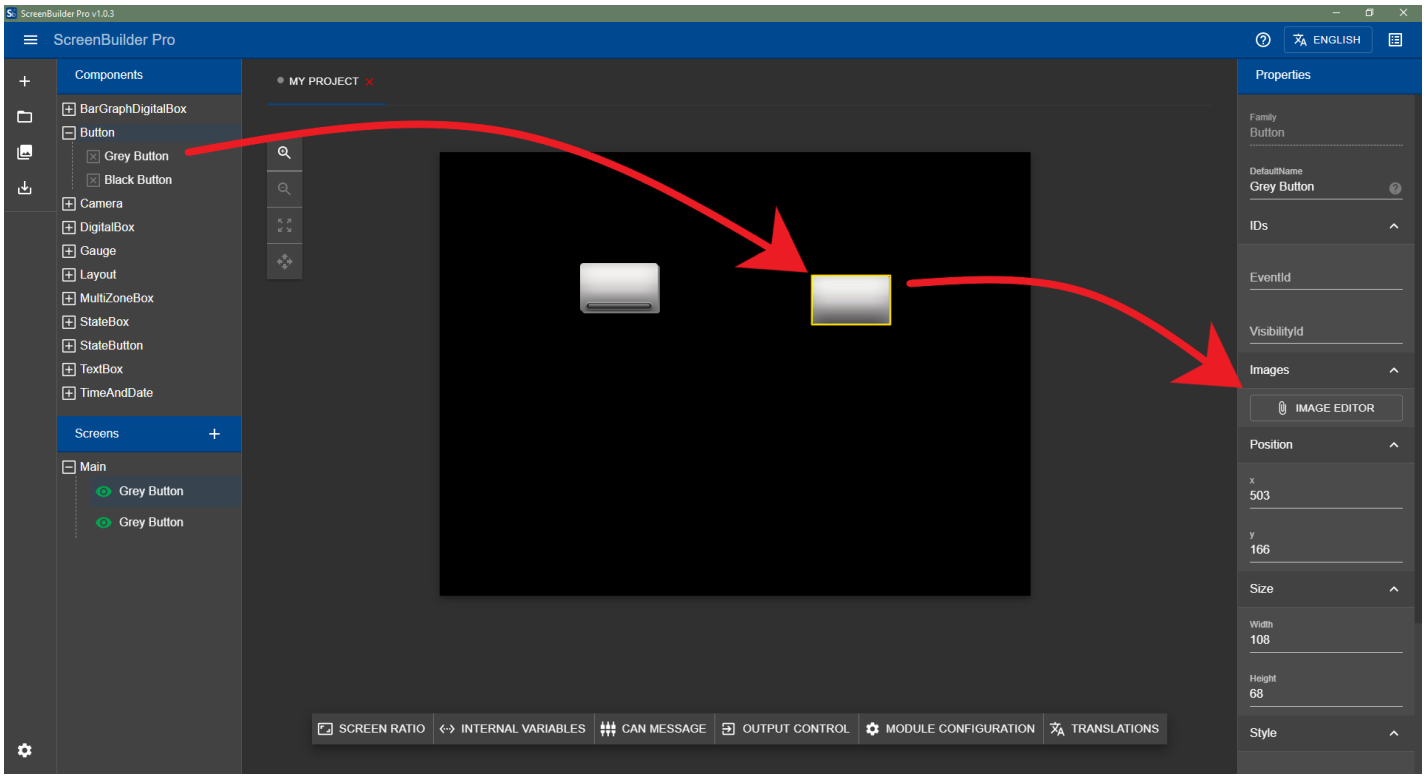
section will have the buttons associated with Resources enabled rather than greyed out. For the sake of example, we will add a new button that will receive all language translations.

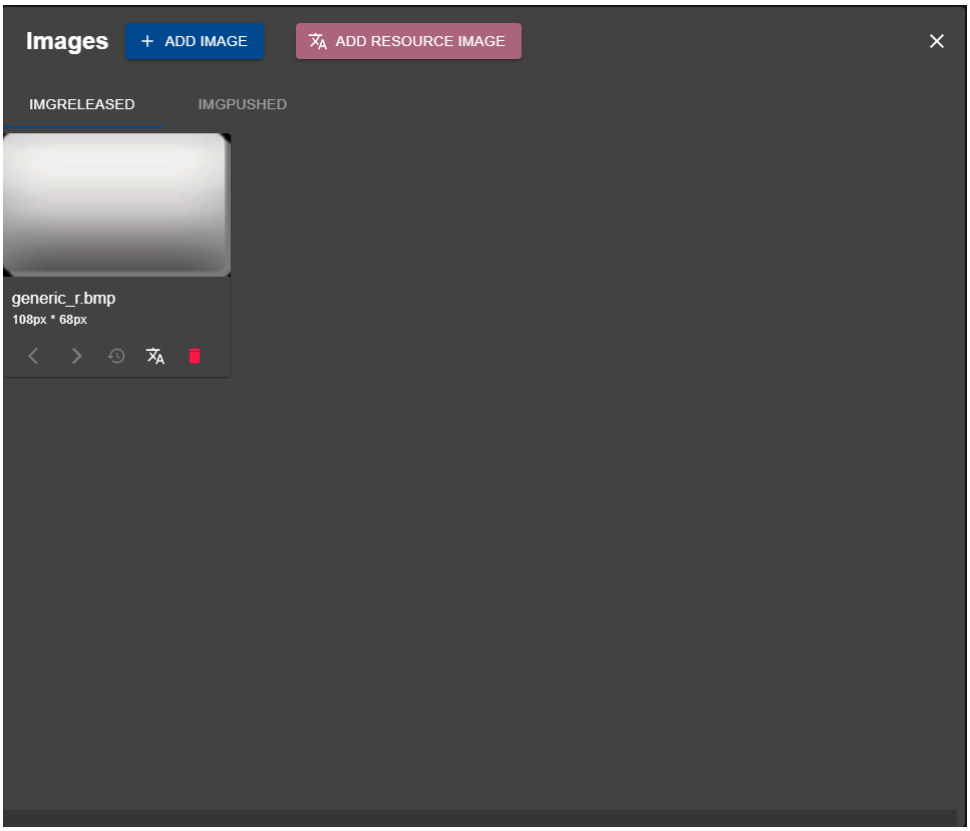
After following the instructions to add a Resource Image provided in section 4.6, our example image looks like this:



Next, we'll drag a generic grey button onto the Drawing Board and click the Image Editor

.

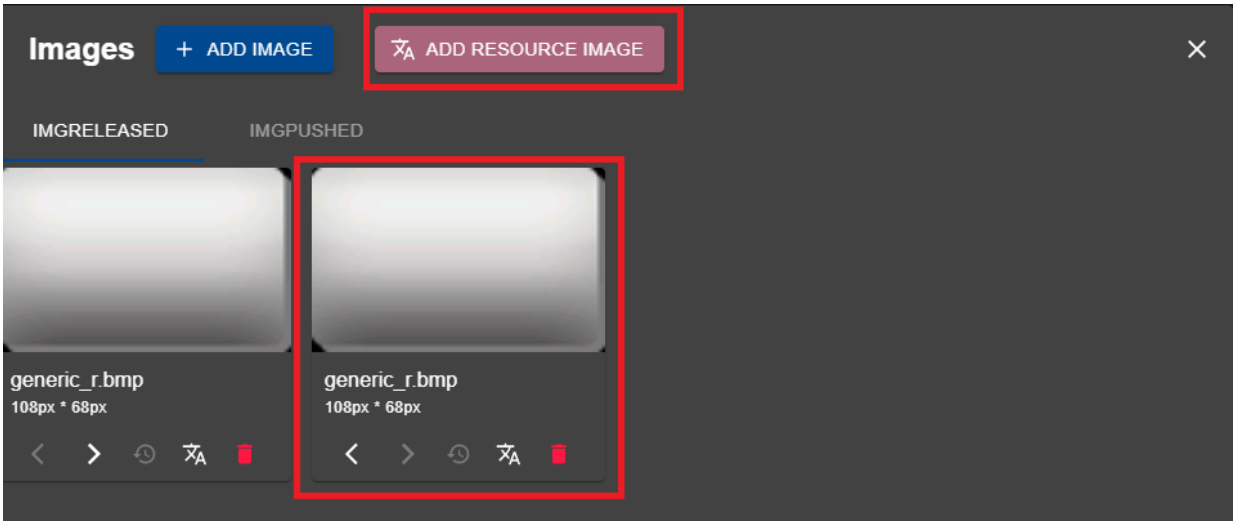

ScreenBuilder Pro v1.0.3
ScreenBuilder Pro
ENGLISH
Components
BarGraphDigitalBox
Button
Grey Button
Black Button
Camera
DigitalBox
Gauge
Layout
MultiZoneBox
StateBox
StateButton
TextBox
TimeAndDate
Screens
Main
Grey Button
Grey Button
MY PROJECT
Properties
Family
Button
DefaultName
Grey Button
IDs
EventId
VisibilityId
Images
IMAGE EDITOR
Position
x
503
y
166
Size
Width
108
Height
68
Style
SCREEN RATIO
INTERNAL VARIABLES
CAN MESSAGE
OUTPUT CONTROL
MODULE CONFIGURATION
TRANSLATIONS


Images
ADD IMAGE
ADD RESOURCE IMAGE
IMGRELEASED
IMGPUSHED
generic_r.bmp
108px * 68px

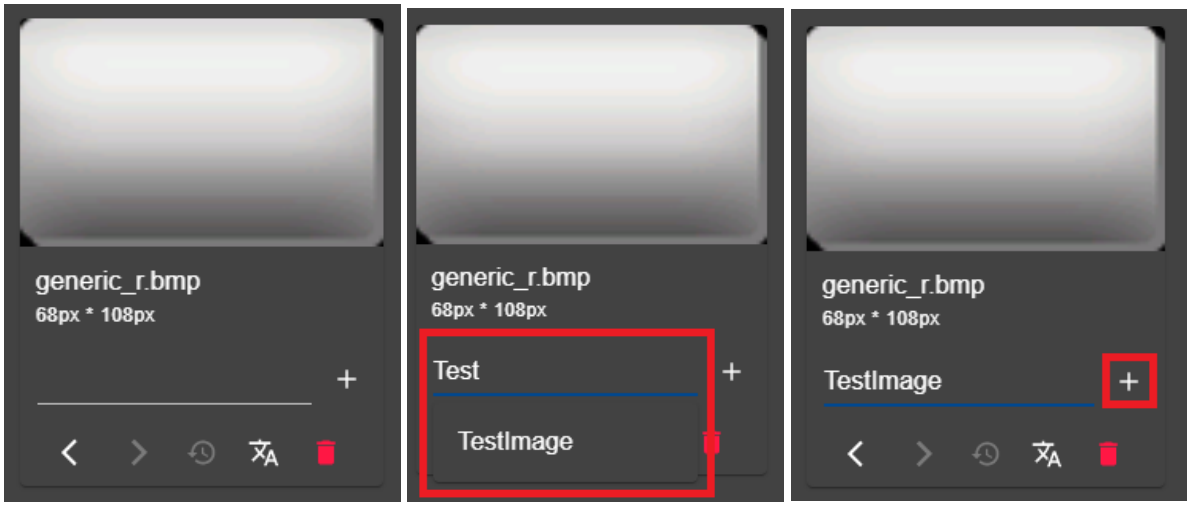
Right away, two new buttons have become available to us: an “Add Resource Image”

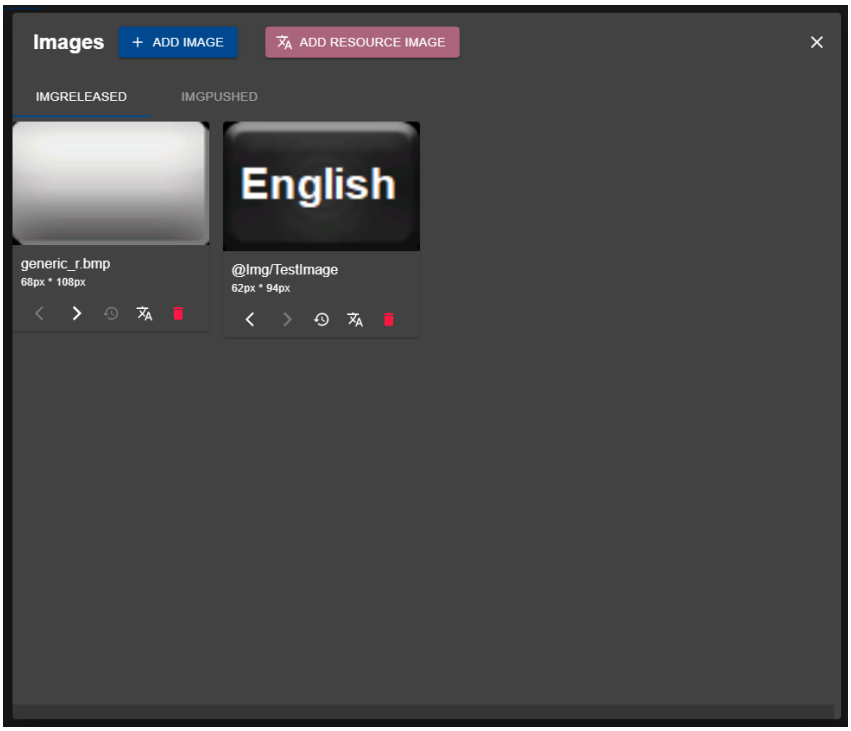
button at the top, and the translation button on the image itself. Both buttons perform the same function, but the top button will add a copy of the element’s default image to link to a Resource, while the button on the image will link the Resource directly to the selected image.

We’ll start by adding a Resource Image from the top button. This will create a copy of the “generic_r.bmp” button for the user to manipulate.

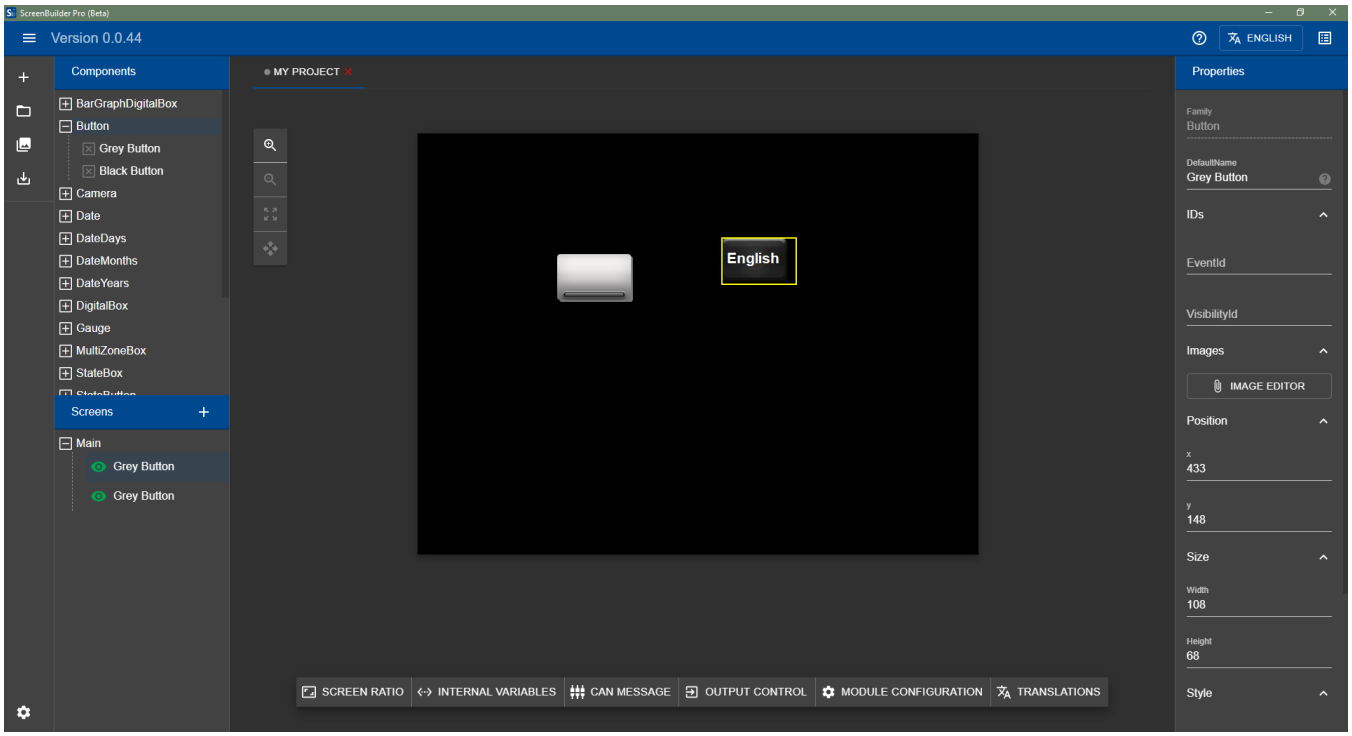


Next, we’ll click the translation button on the new image. This will add a row underneath the image where the user can type the name of the resource they’ve added, though, automatically upon clicking it, a dropdown will display a list anyway. Once selecting the Resource that the user wishes to link, the user will need to click the “add resource image” button next to the field for the change to take place.

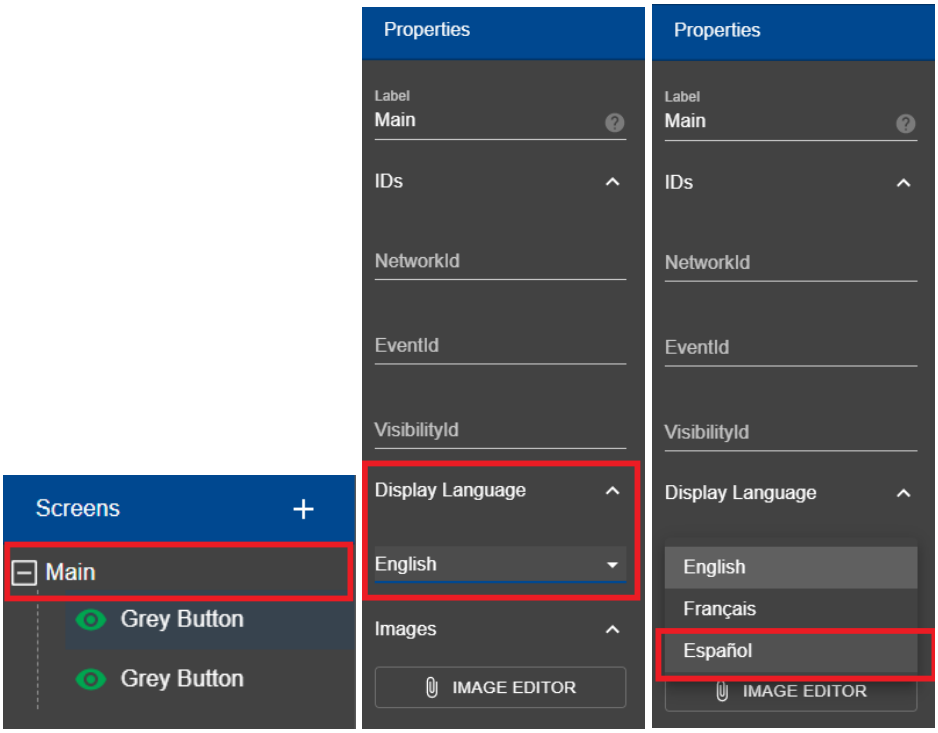


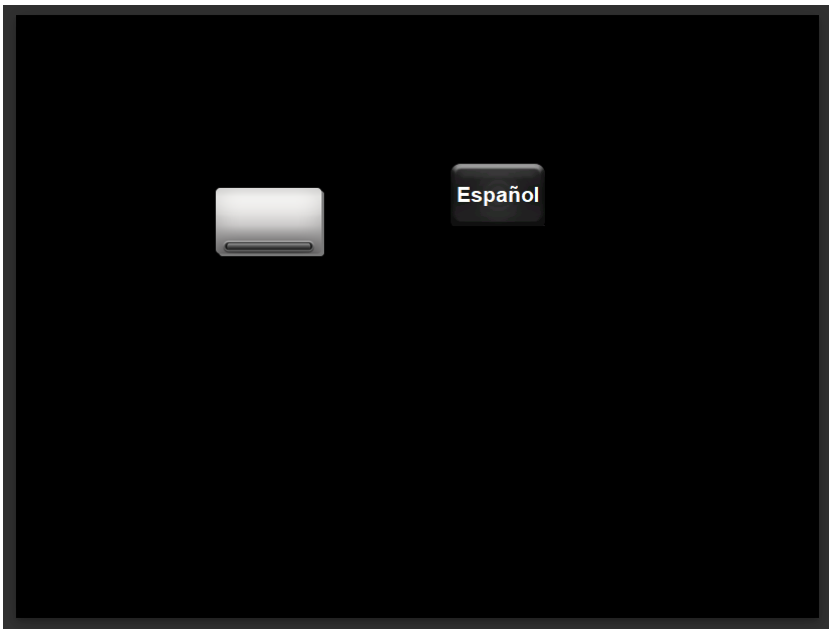


We'll remove the original "generic_r.bmp" image to allow the new Resource image to be at the front in the Drawing Board. In case of adding an image with a size different to that of the component's preset size, so we'll need to change the component's size manually on the Properties bar to see the full image on the board.



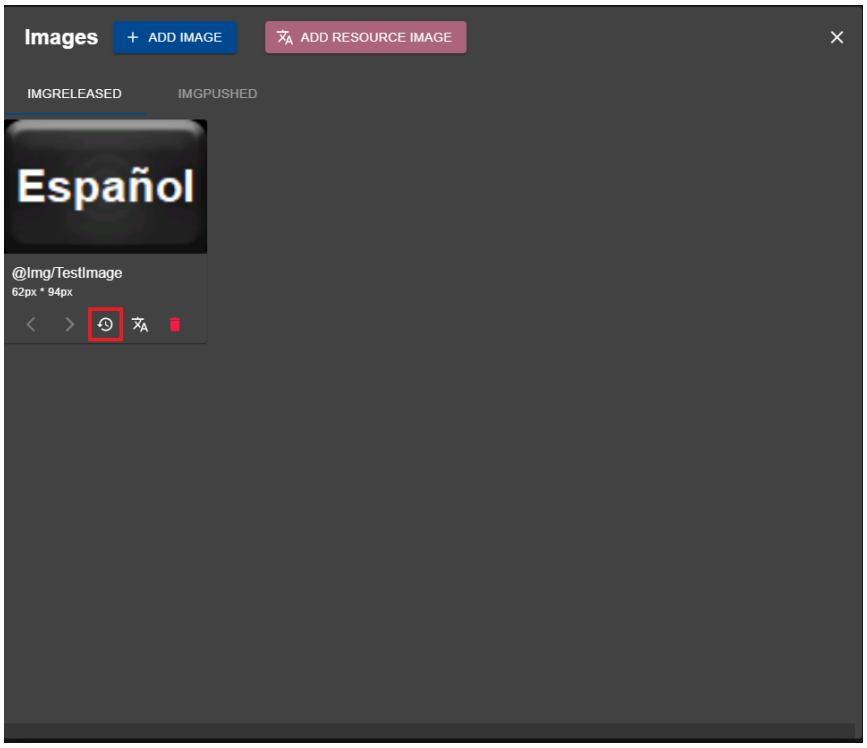
To see the image shown on the board in another language, the user must click on the screen that hosts the component linked to a Resource and find the “Display Language” dropdown menu. The user may change between the languages English, Spanish, and French. **Changing this property will only affect the components within the selected screen and not the rest of the application.** If the user picks a language that a component’s Resource is not associated with, the image will be shown in English as default.

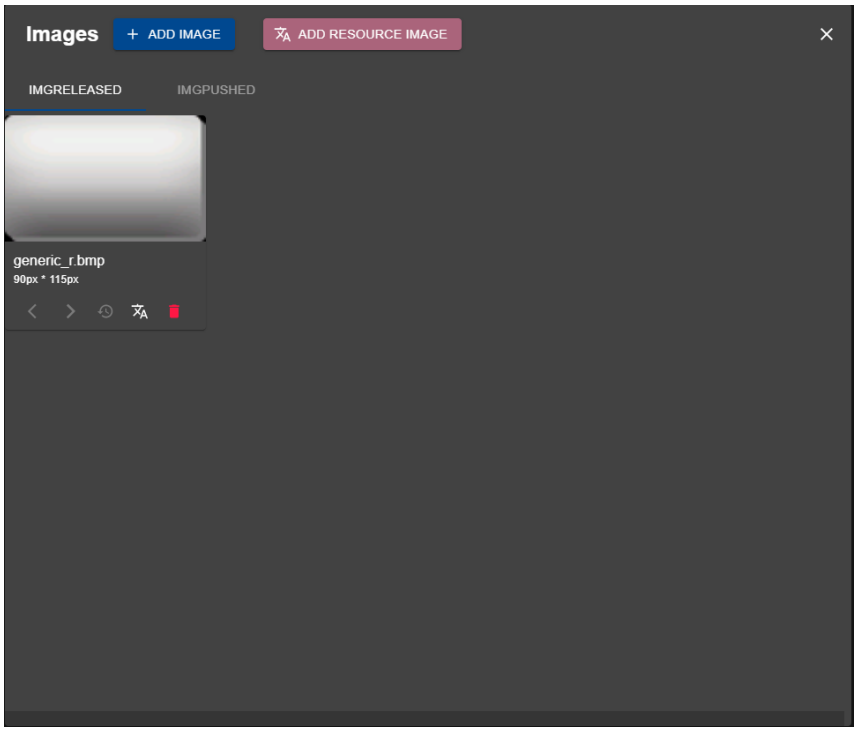




Back to the Image Editor, once an image has been associated with a Resource, the user can reset the image to remove any Resources and bring it back to its default state. This is only available when the component has recently been added—components from previous projects that have been opened will not have this option. In order to do this, the user must once again click on the Image Editor

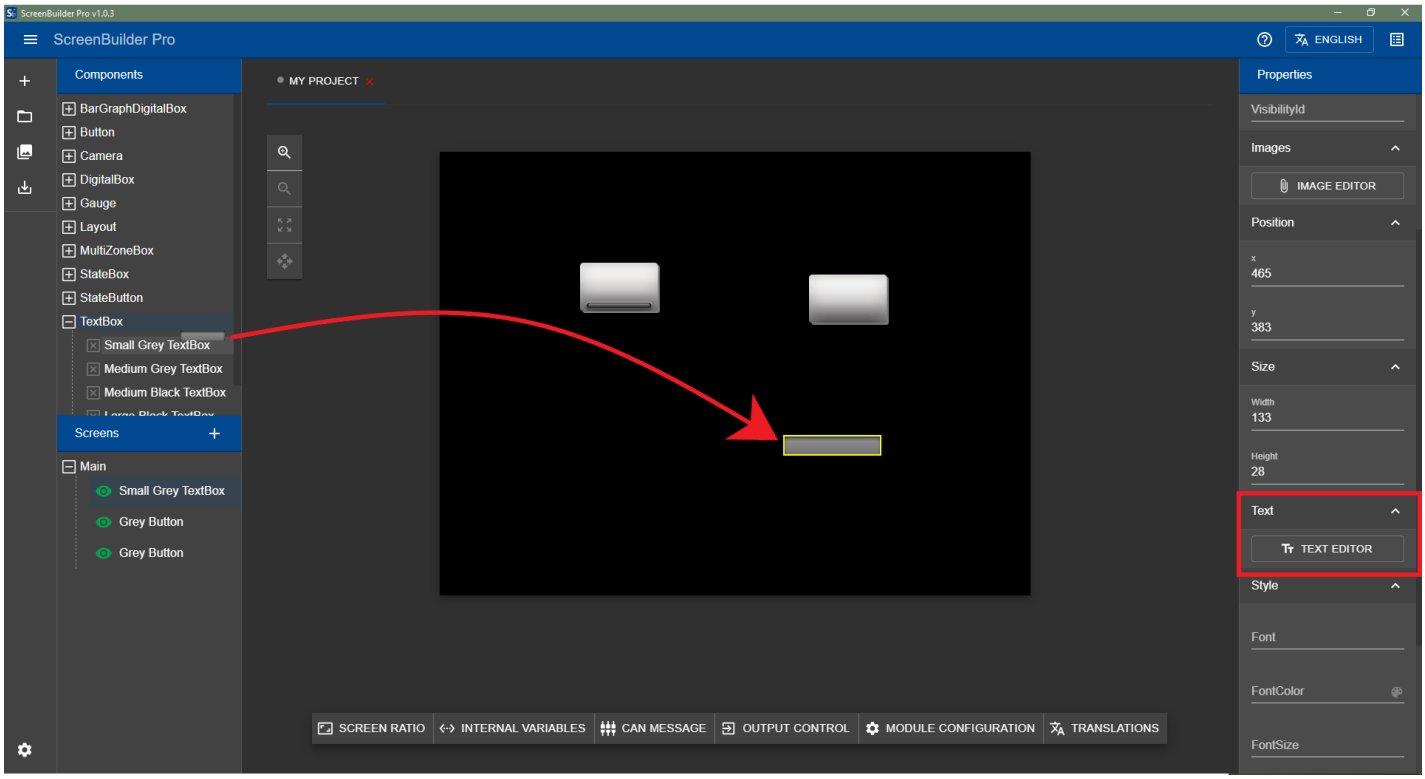
button. Here, a new button, “Restore to Default Image” , will be enabled. If the user clicks on it, the image will be restored to the original component’s state.

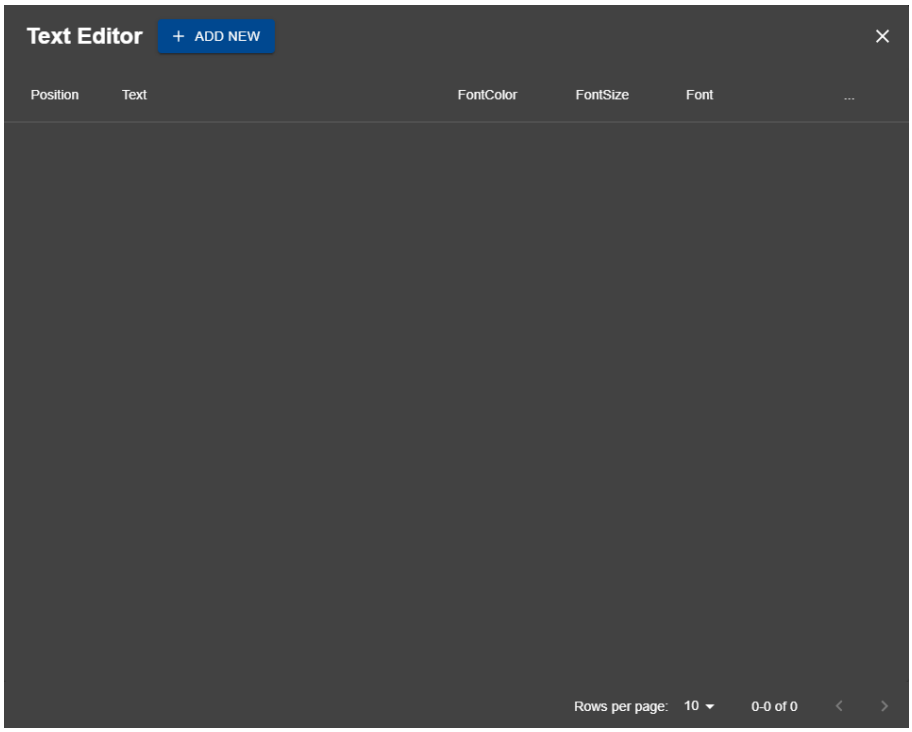



Images
ADD IMAGE
ADD RESOURCE IMAGE
IMGRELEASED
IMGPUSHED
generic_r.bmp
90px * 115px

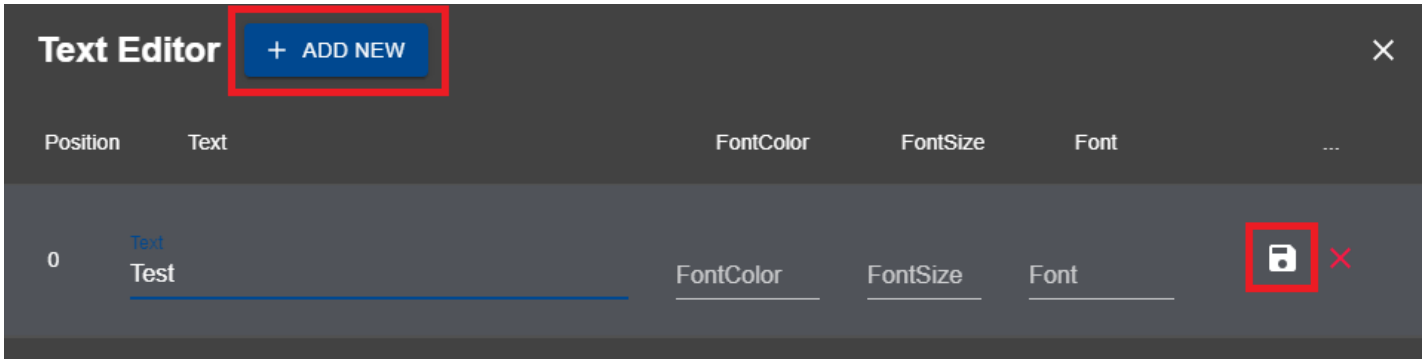
5.2 Text Editor

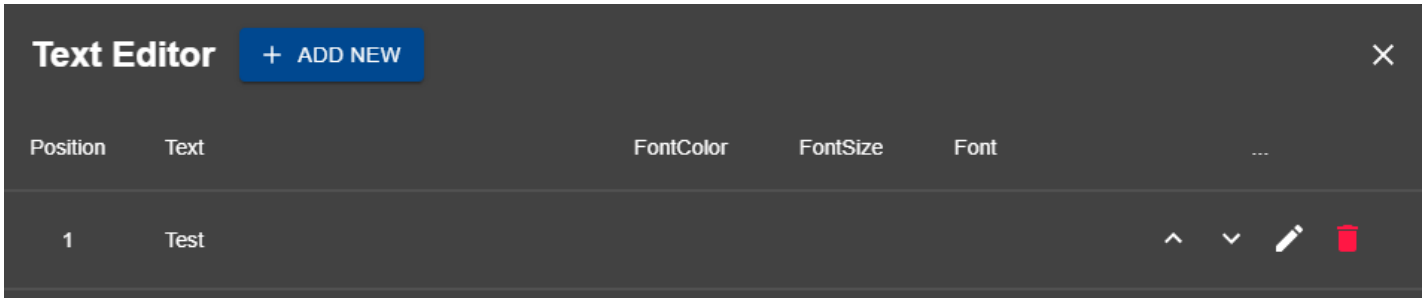
This dialog is exclusive to any component that displays any texts, such as the TextBox. To use it, the user must drag and drop a TextBox item from the component List and onto the Drawing Board.

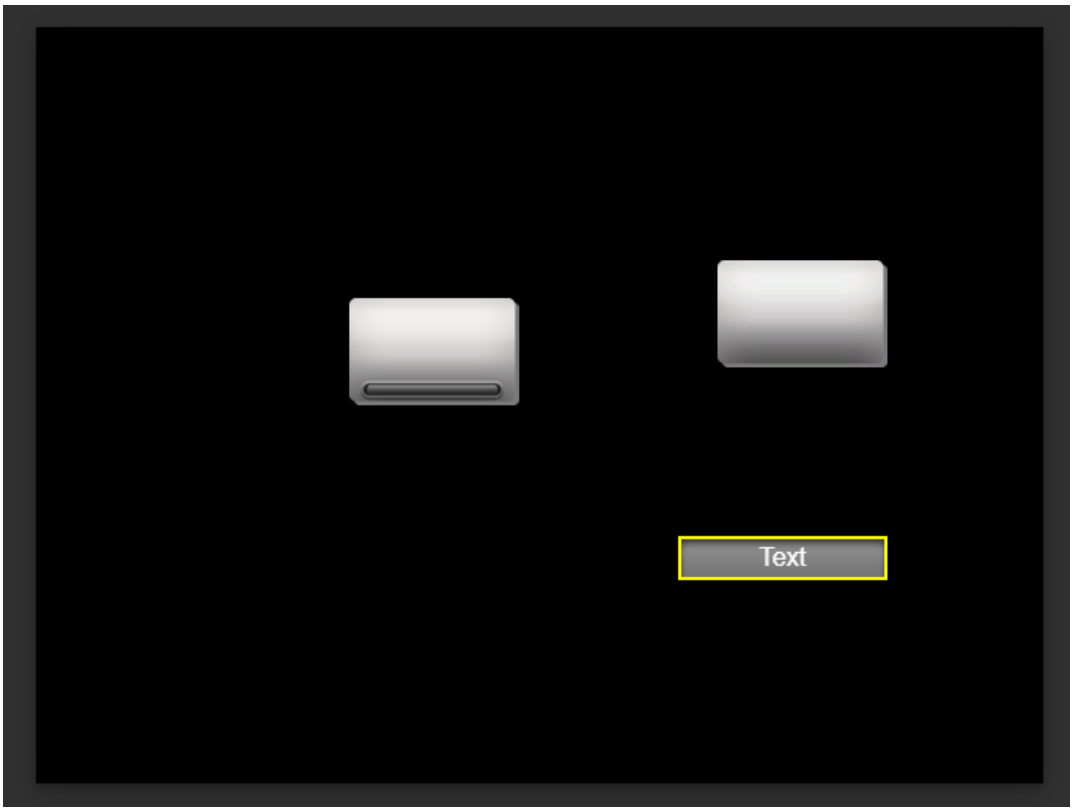




The Text Editor dialog will contain all the available texts for this component in a list, separated by pages of up to 10, 25, 50, or 100 rows. To add a new text, the user must click on the Add New + ADD NEW button at the top of the dialog. This will show a drop-down row with all the available properties for the text. Note that the FontColor property must be entered in hexadecimal as it would otherwise be written for the XML document. To save the text click the save button, and to cancel this action, click the cancel button.

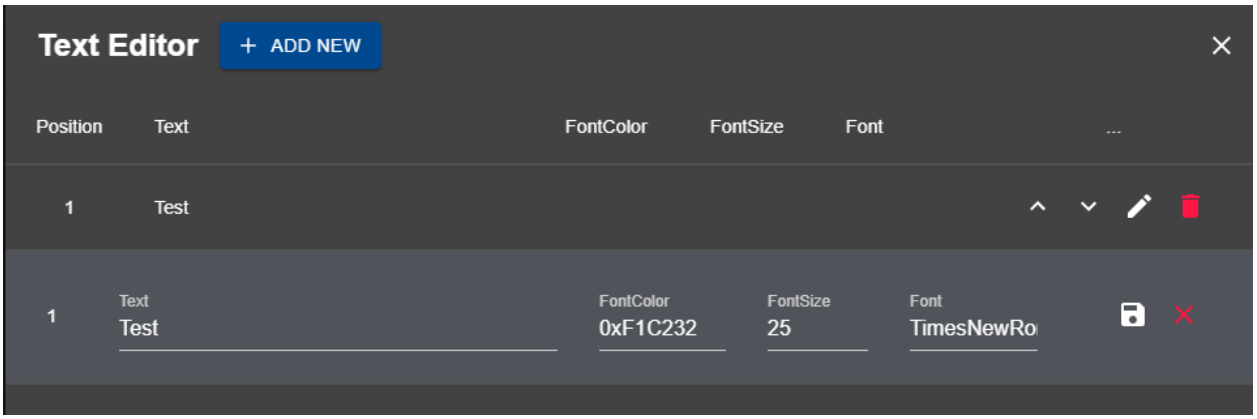


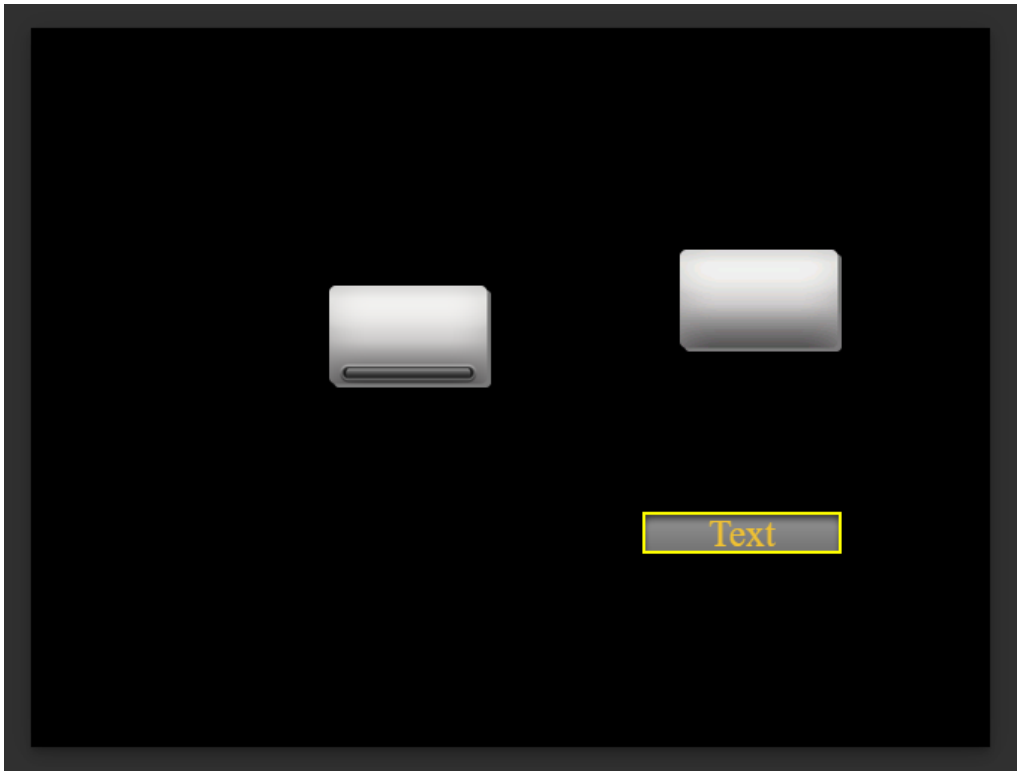




The position of the Text rows affects the way they will show and behave in the resulting XML document. To move a row up or down, the user must click the up and down movement keys. To edit a row, the user must click the edit button, which will show another drop-down with the row's information ready to edit. The editing feature works much in the same way that adding a new text does.

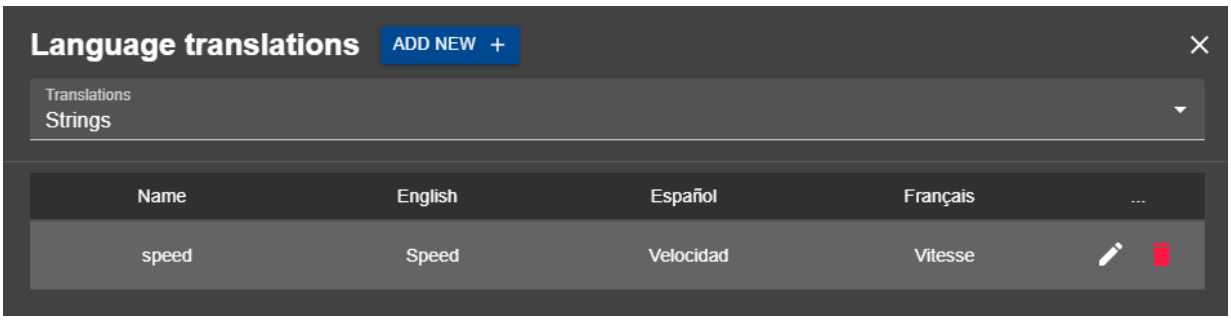
All the changes added to the text will be displayed on the Drawing Board.



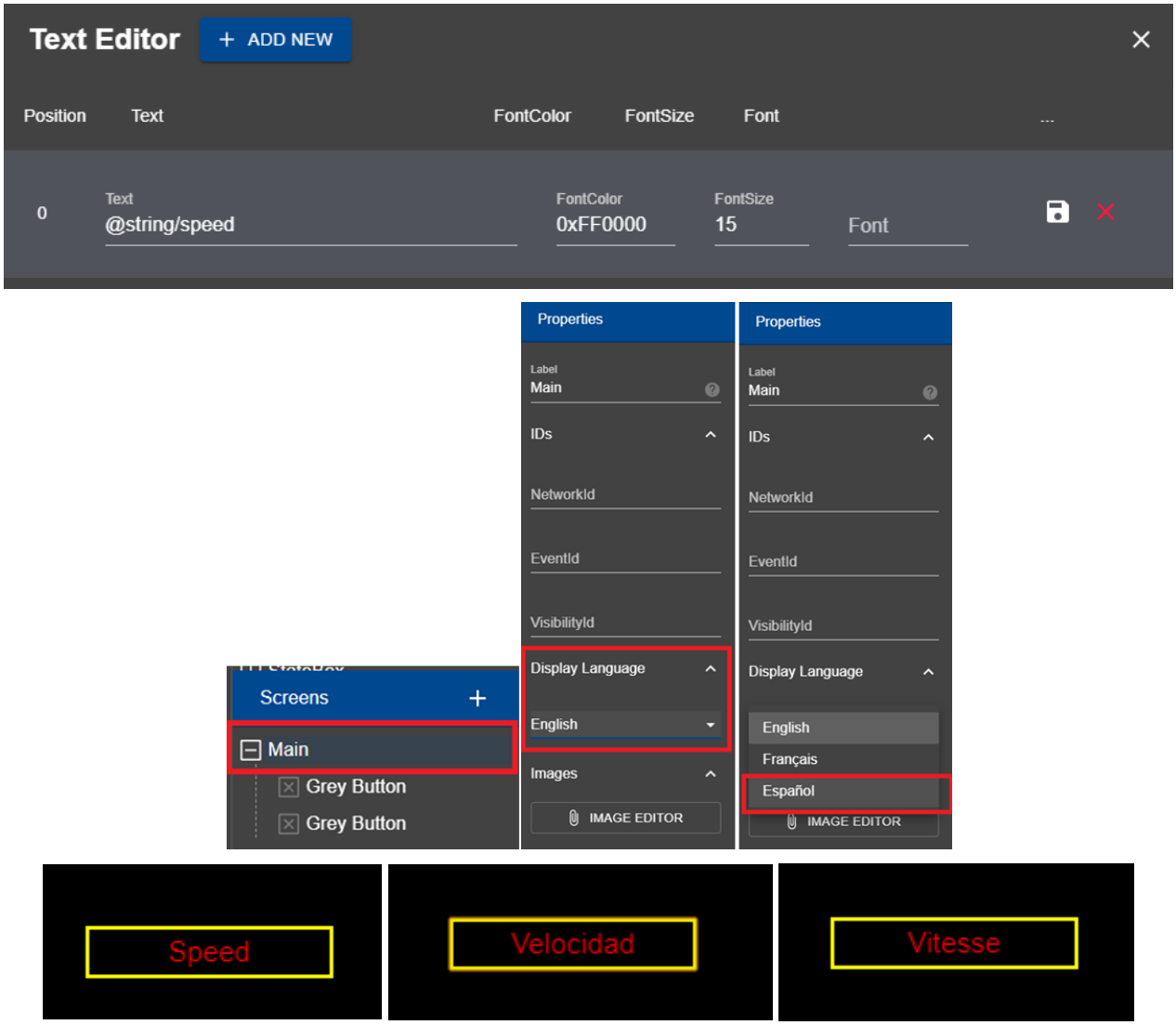


5.2.1 Using Resource Texts

Resource text allows users to translate the text of a component inside the interface depending on the language chosen. How to add a String (textual) translation to the project has already been described in section 4.6. For the sake of example, we will add a String translation for the word “speed” in all three languages.

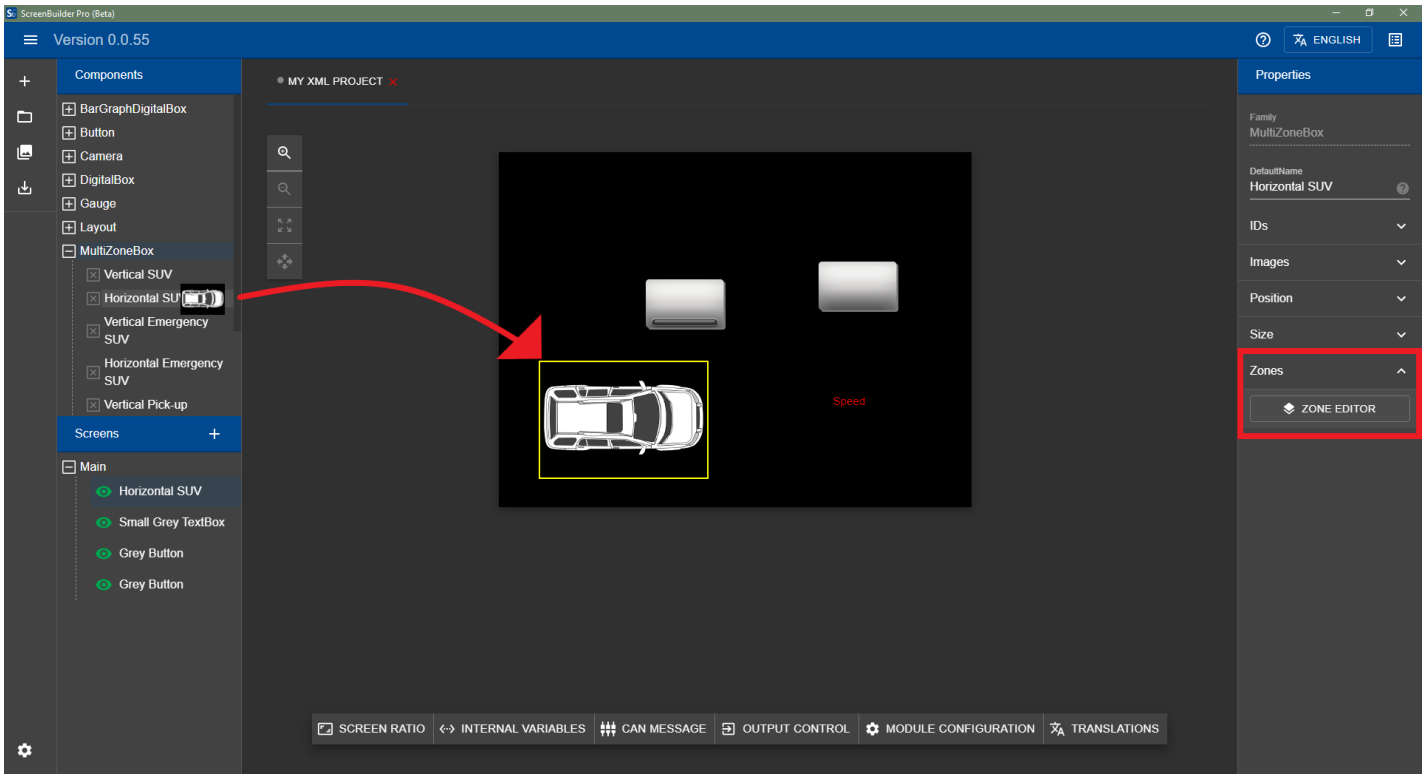


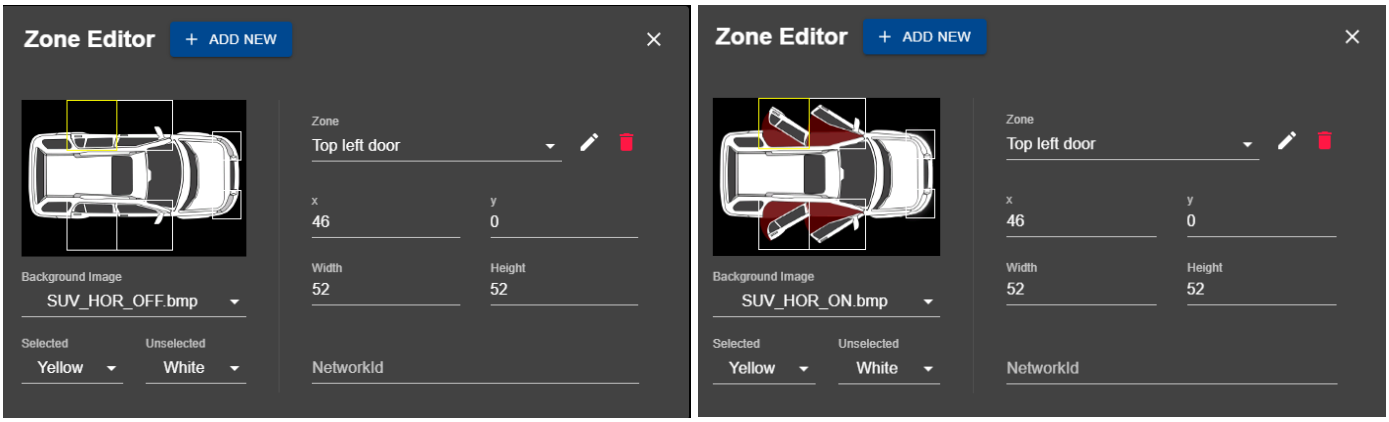
Once the String has been added to the project, open the **Text Editor** TEXT EDITOR on the Properties List of the TextBox component. Here, we will press Add New + ADD NEW to add a new text to the component, but, when writing in the "Text" input, add the syntax **"@string/string variable name"** instead. This will create a link between the String translation that will automatically change the text when the screen's language has changed. Change the language by clicking on the screen that hosts the component linked to a Resource and changing the "Display Language" property.



5.3 Zone Editor

This dialog is exclusive to the MultiZoneBox component and is used to determine which sections of the component will be affected by the NetworkIds provided. It requires, at minimum, two images to work. For more information on the MultiZoneBox component, check the ScreenBuilder User Manual.



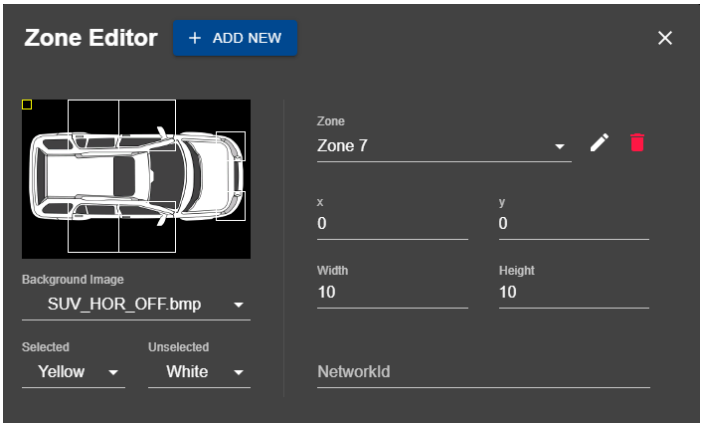


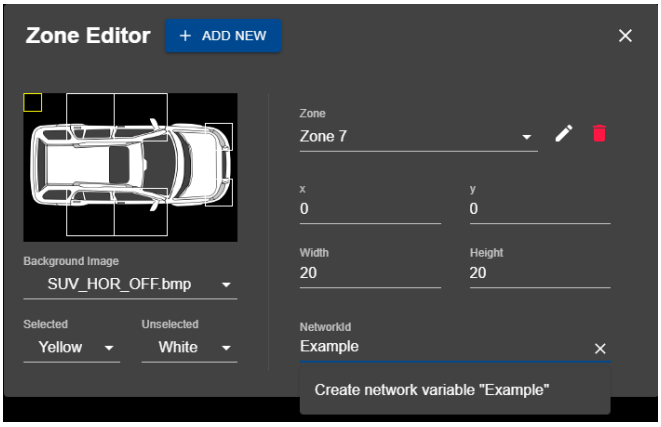
The Zone Editor displays the images associated with the MultiZoneBox component to the left, and the user may change the image displayed by picking it in the “Background Image” dropdown menu. Default MultiZoneBox components already come with their own zones displayed as squares on the image. The “Selected” and “Unselected” options will change the colour of these zones’ outline, with those selected displayed in yellow by default and the unselected displayed in white. This component requires a NetworkId per zone to function, so the NetworkId section of the zone’s properties will display all Internal Variables available as well as allow the user to create their own.

To add a new zone to the component, the user must click the Add New

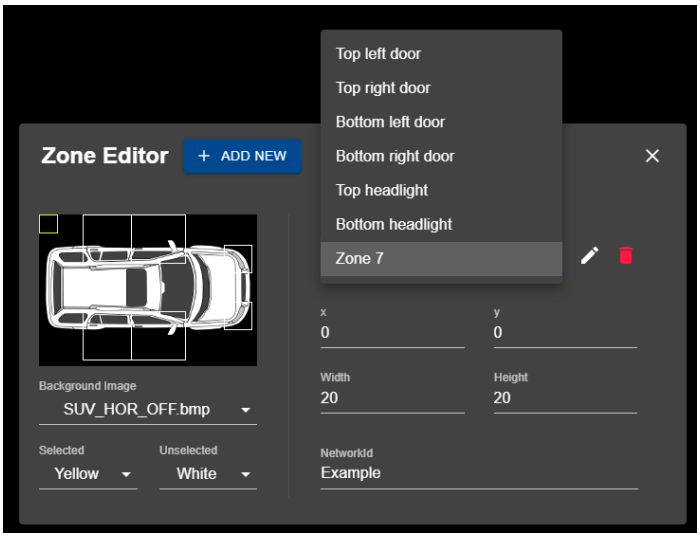
button at the top of the dialog. This will create a small cube on the top-left of the image that the user can then modify with the controls to the right or drag to

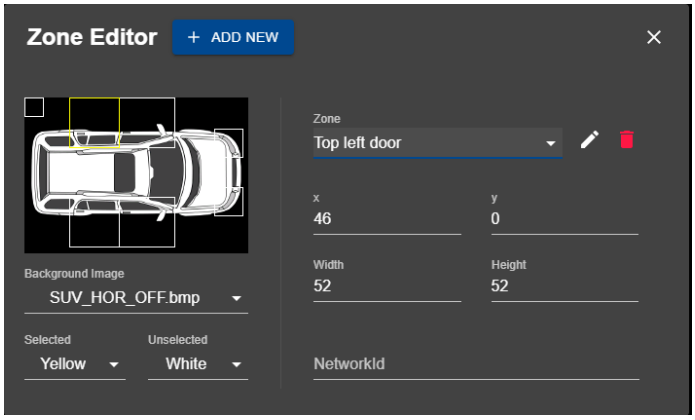
reposition on the component just like the components of the Drawing Board are dragged. The user can also use the arrow keys to move each zone around.





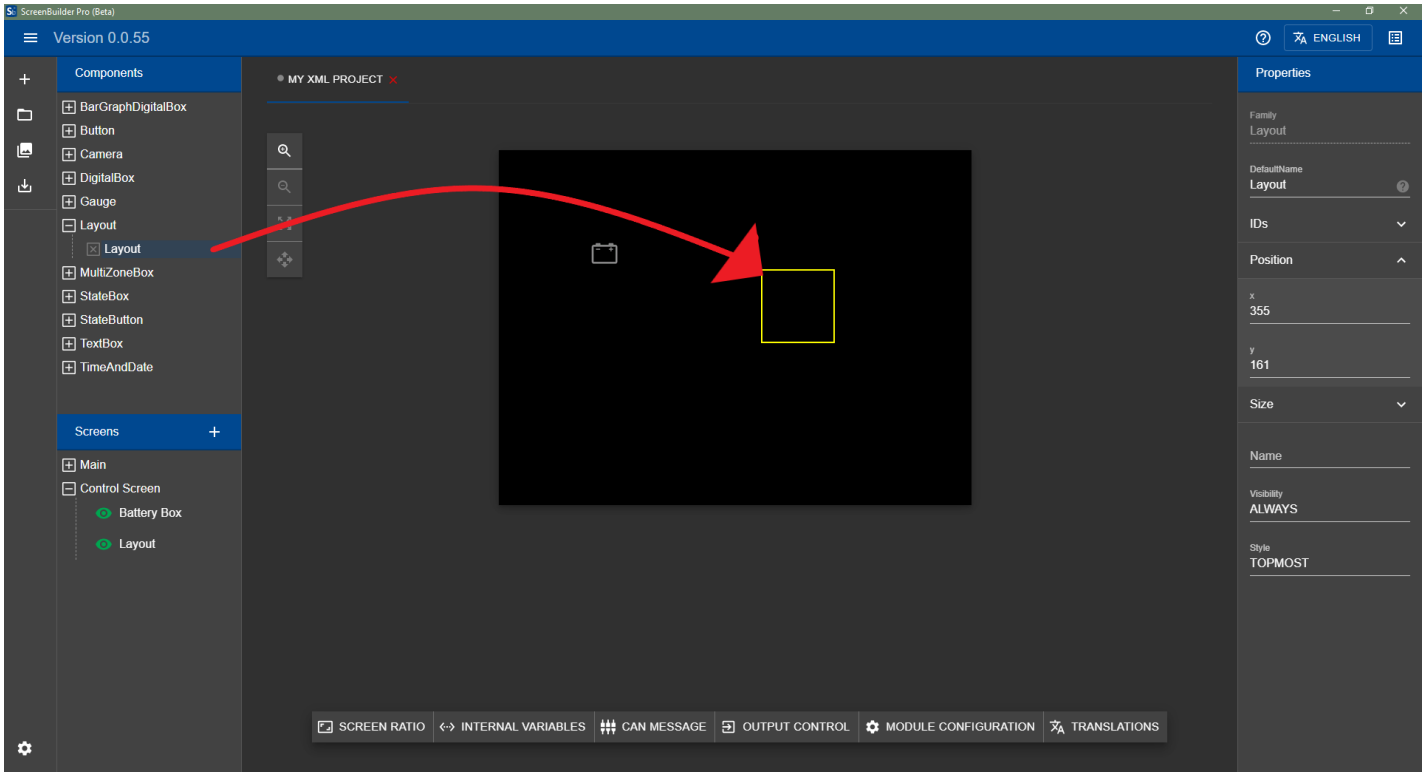
Each Zone also comes with a name, and the user can either select zones by clicking on them over the image or selecting them from the dropdown menu under the “Zone” property. To change a zone’s name, the user must click the edit button, write a new name, and then click the save button to keep the new name. These names have no impact on the resulting XML and are just for the user’s ease of access when dealing with the MultiZoneBox component in the ScreenBuilder Pro application.



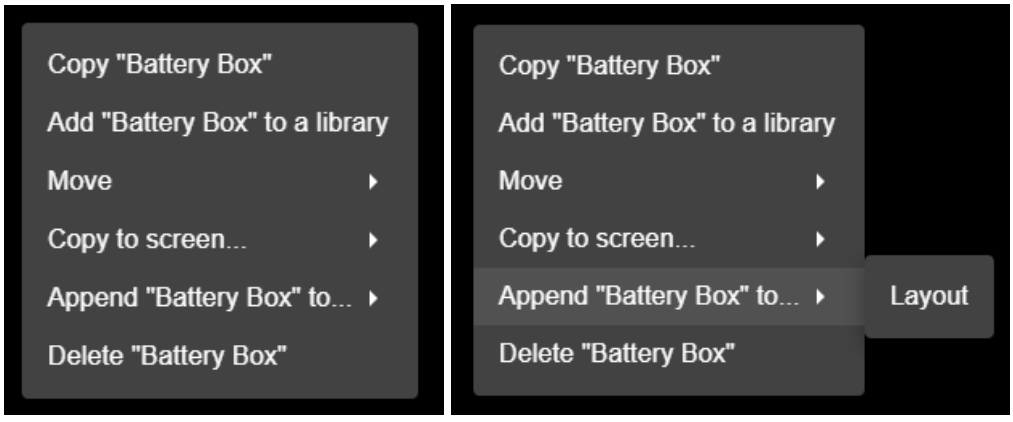


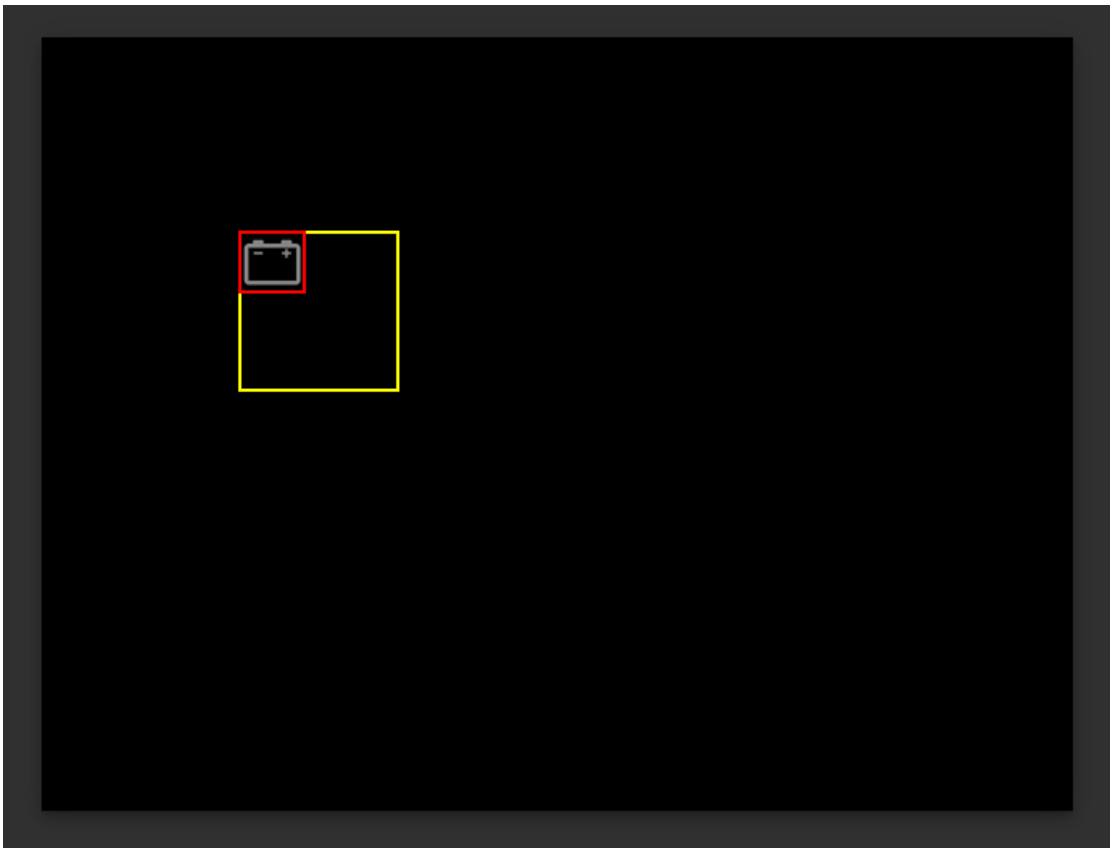
5.4 Using Layouts

ScreenBuilder Pro supports a type of GraphElement named “Layout”. A Layout functions as a sub-drawing board inside of the application’s own drawing board, with its own elements attached to it. Not all screens support a Layout. To add a Layout to a project, simply drag it from the Components list—by default it will be a transparent 100x100 element, but the size can be modified.



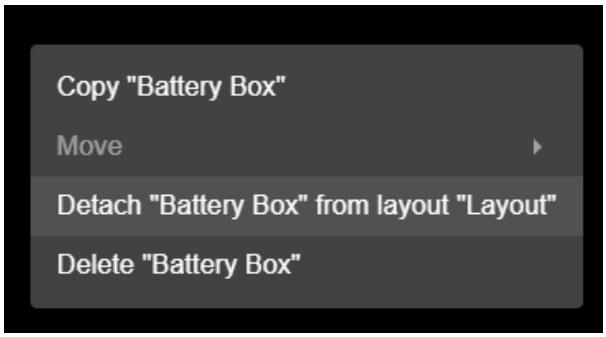
To add any element to a Layout, the user must right click on any other element on the screen that isn’t another Layout to bring up the context menu once again. If there are no Layouts on the screen, the option “Append [element name] to a Layout” will be greyed out and disabled, but if there is, a list of all layouts’ names will appear, of which the user may choose whichever they desire.

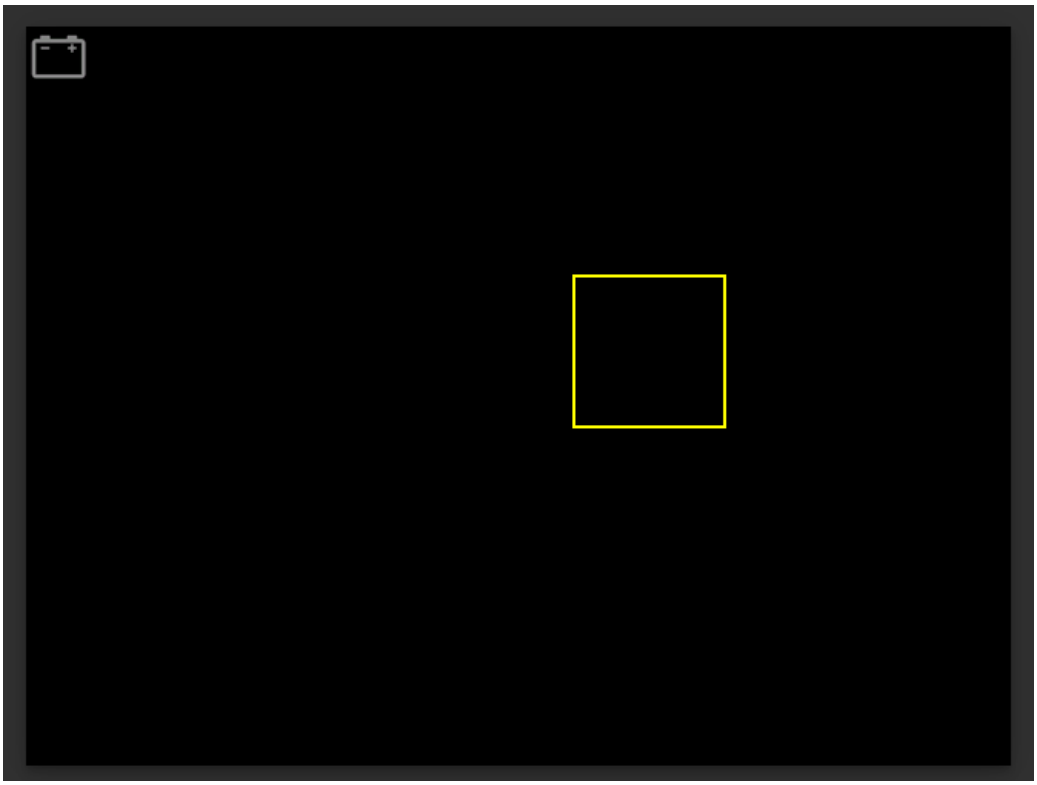




A selected sub-element of a Layout is bordered in red to contrast with the yellow of the elements on the drawing board, though these colours can be changed by clicking on the Settings button. The user cannot drag and drop a sub-element inside of a layout, so the only way to move it is by manually inputting the X and Y coordinates on the Properties section of the element.

Right clicking and bringing up the context menu, however, functions as normally. With the exception that adding to libraries and attaching to a Layout are unavailable. Instead, the user can detach the component from the current Layout and set it at the top of the element list at the coordinates 0,0.

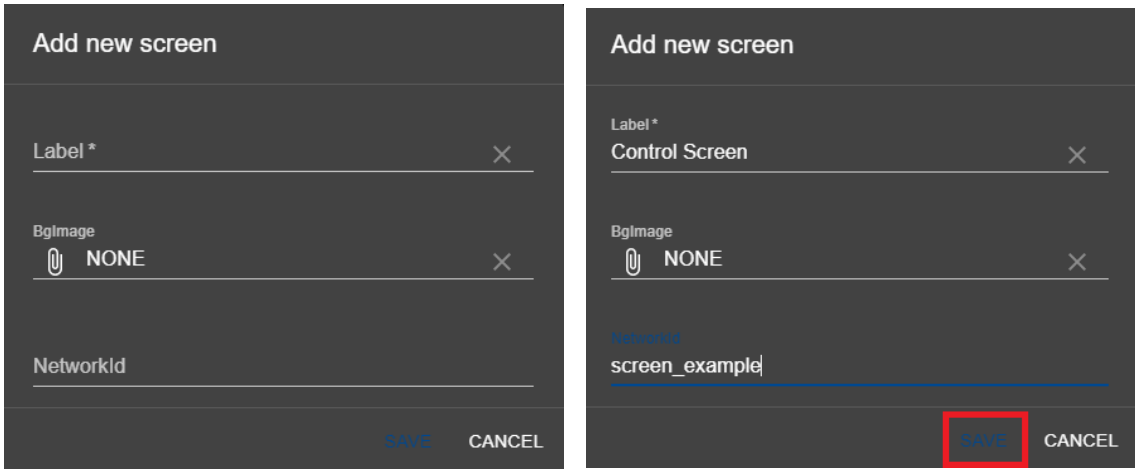


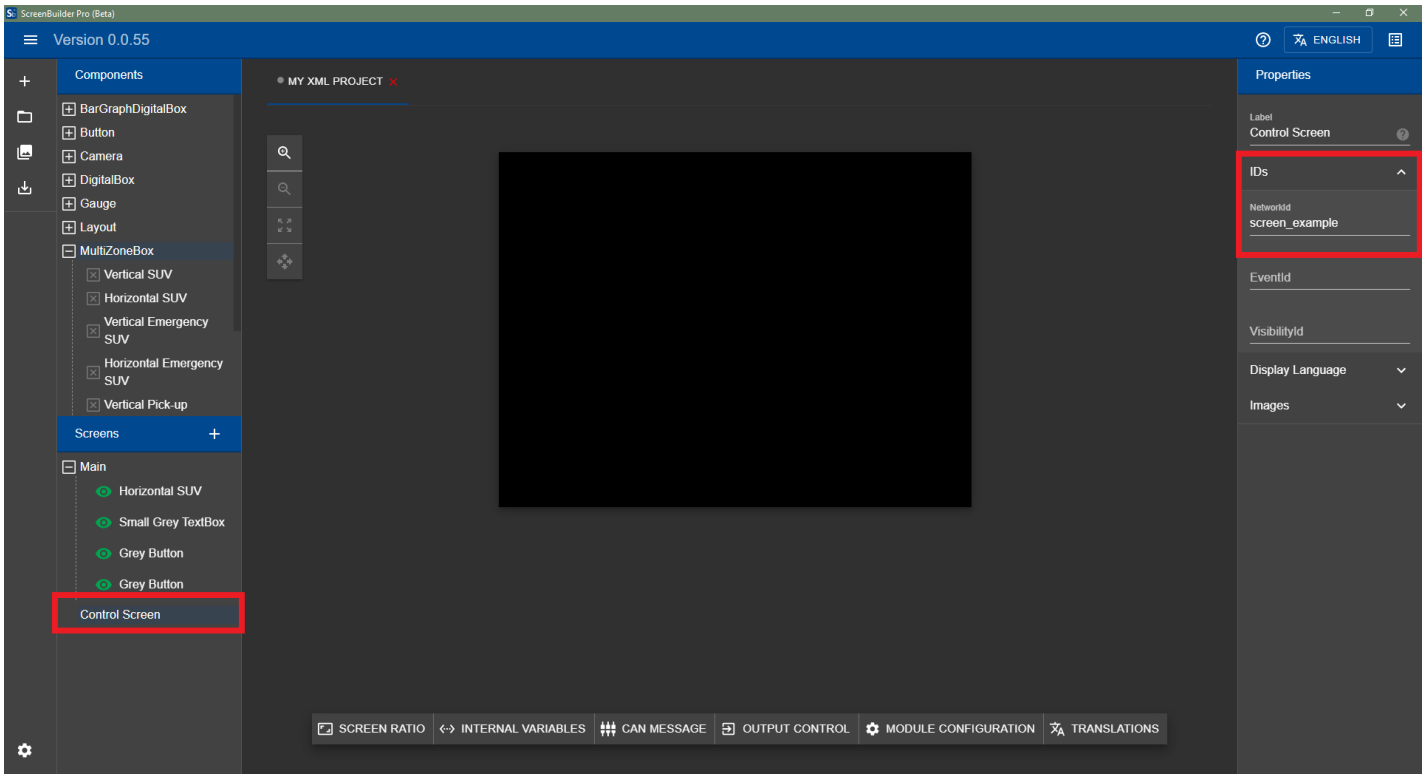


5.5 Adding a new screen

To create a new screen for the project, the user must click the "Add New Screen" button on the Screen List. This will bring up a new dialog with all the information needed for the new screen. The only required field for the new screen is a Label, but if the user wishes to add a background image or an Internal Variable to the screen, the rest of the fields may be filled.

The resulting screen will be created without any components to it.



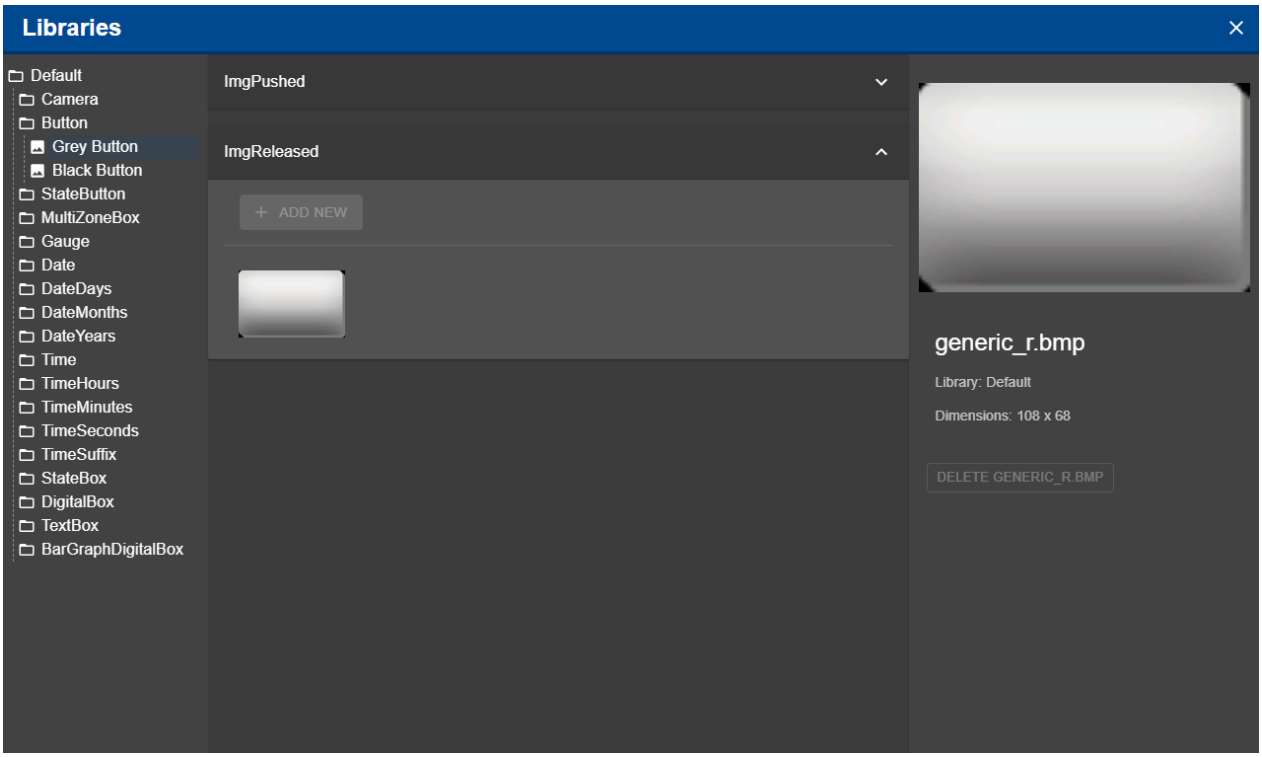


6 Libraries

To view the application's libraries, click on the Libraries button on the primary menu sidebar. This will bring up a dialog. To the left of this dialog is a list of all libraries and their component families, all in a menu that adheres to the following structure:

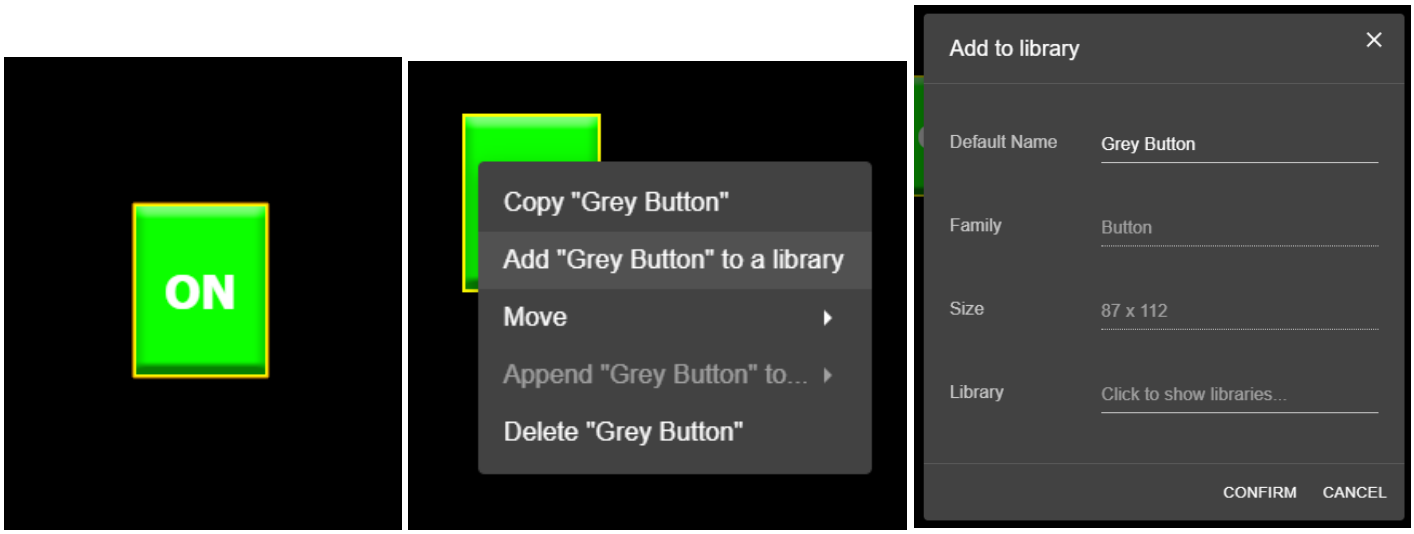
1. Library (i.e., Default)
    1.1. Component Family (i.e., Button)
        1.1.1. Components (i.e., Grey Button, Black Button)

Clicking on a component family's name will display its components and clicking the name of the component will show the images associated with the component's attributes, such as "ImgPushed" and "ImgReleased" for Buttons, or "ImgFile" for TextBoxes and the like. Clicking on the images displayed will then show the user other details, such as the image's filename, which library it belongs to, and its dimensions.

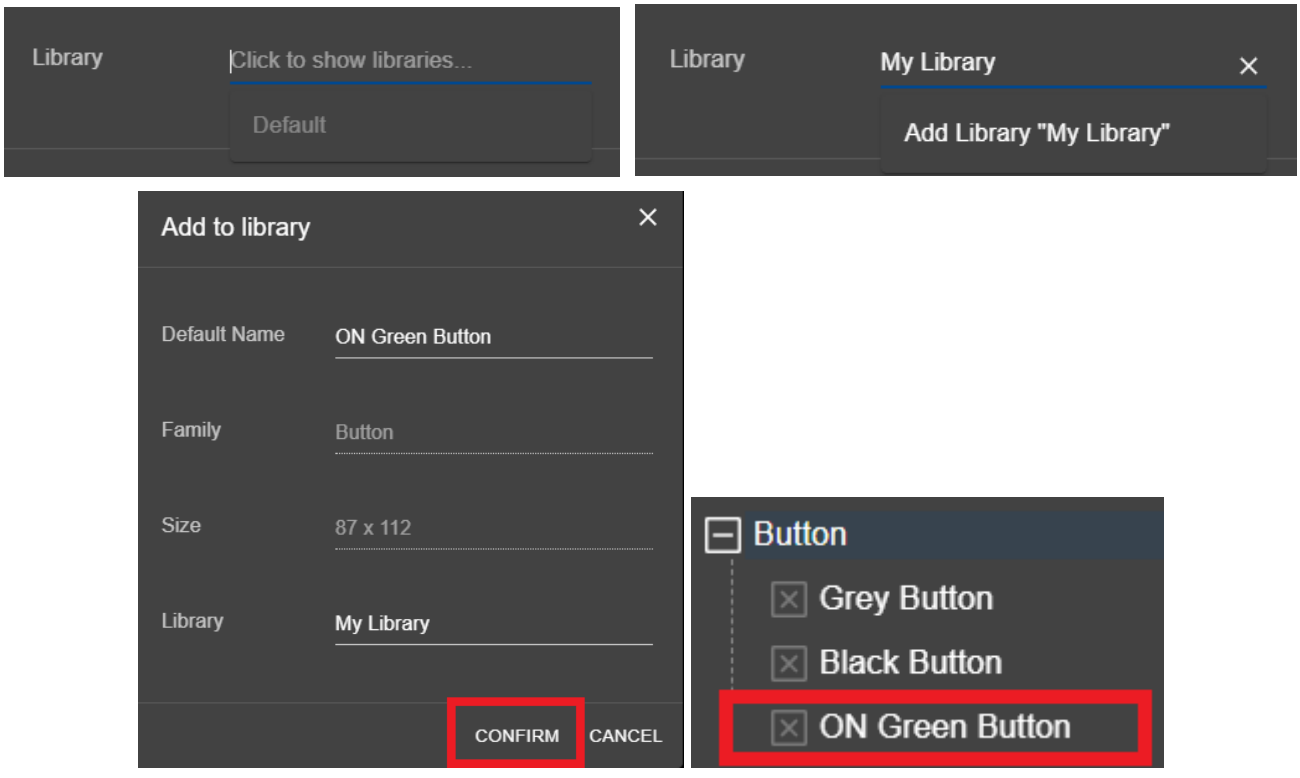


The ability to delete or add content to the Default library is disabled. If the user would rather create a new library with their own components, it must be created from scratch. To do this, the user must add components one by one to the library itself.

Suppose that the user has a button component on the canvas and has modified it sufficiently to want to continue using it throughout their project. Right clicking on the component will bring up a context menu with several options such as moving the element within its list, copying the element, deleting it from the canvas, or adding it to a library. Selecting the option to “Add ‘[Component Name]’ to a library” will bring up a dialog requesting the new Default Name and Library of the component. Also present are the component’s Family (in this case, a Button) and the component’s size in pixels. The user may then rename the component to anything they desire in the “Default Name” section.

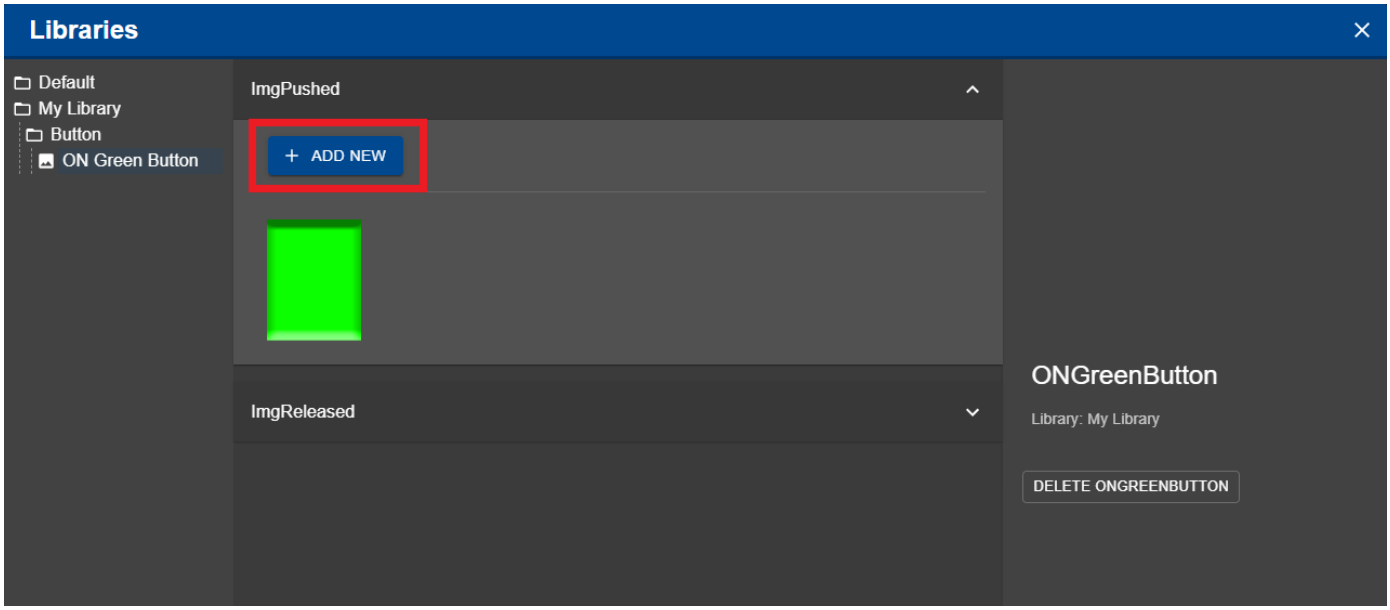


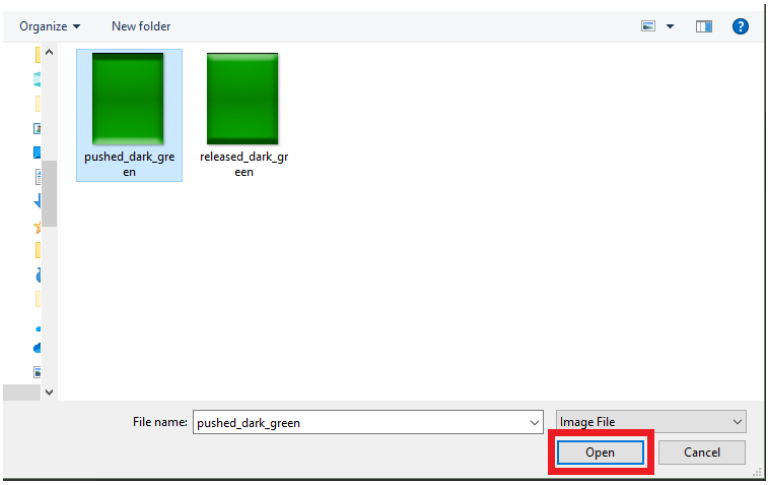
Clicking on the “Library” section will show a dropdown menu of all current libraries in the application. The Default library is the only library available until a user adds any. To add a library, simply type a name into this field and click “Add Library ‘[Library name]’”. Once this is done, simply click “Confirm”. Once the component has been added and the library has been created, the user will be able to see this new component nested together with the rest in the Components List.

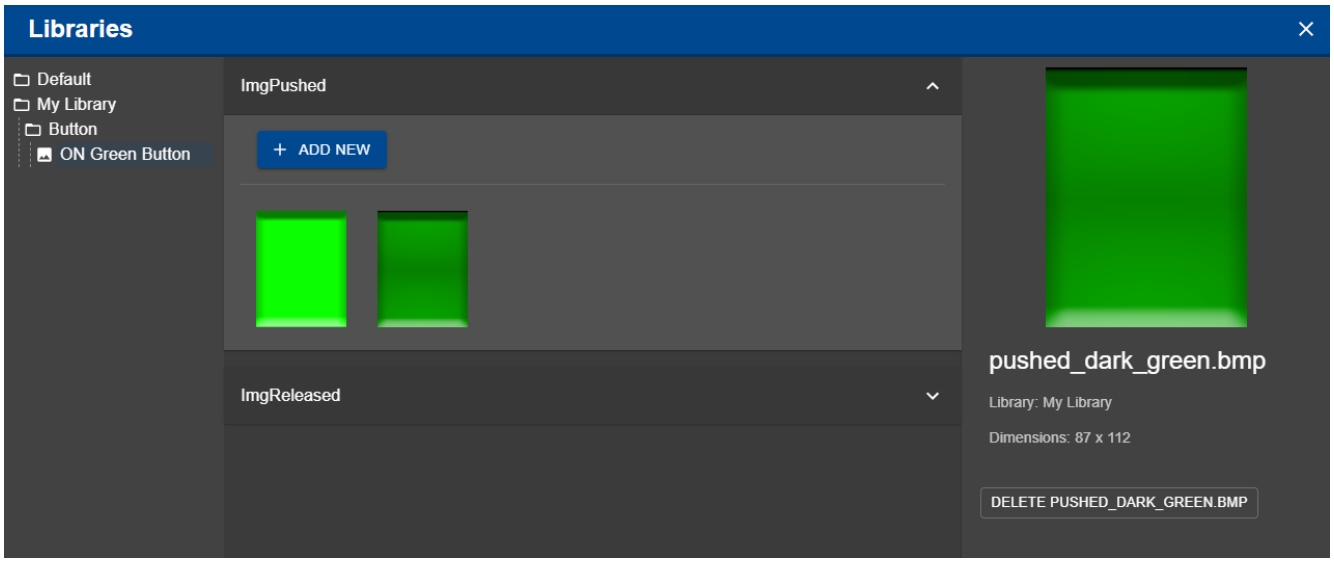


To see the new library and its new component in the libraries manager, click on the Libraries button on the primary menu sidebar again. All new libraries will be displayed underneath the Default library and behave in the same way that the Default library behaves, with the exception that the user can add or delete images and components.

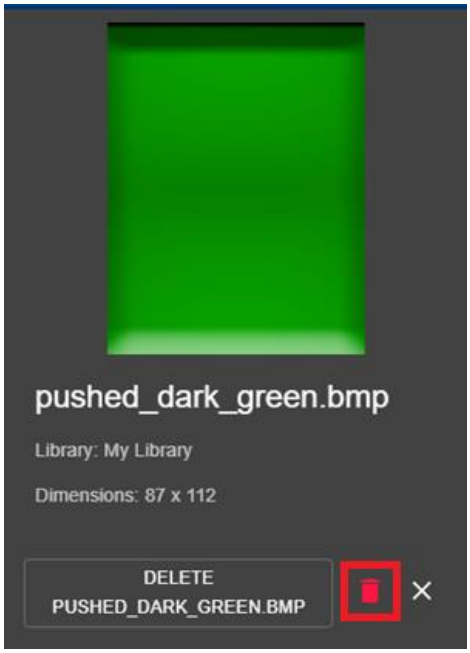
To add an image to a component, the user must navigate to the component they wish to change, in this case we will use the “ON Green Button” as an example. The image displays now have a new Add New + ADD NEW button active at the top, which the user can click to navigate their files and find the image desired. All images added will be displayed together with the original images.

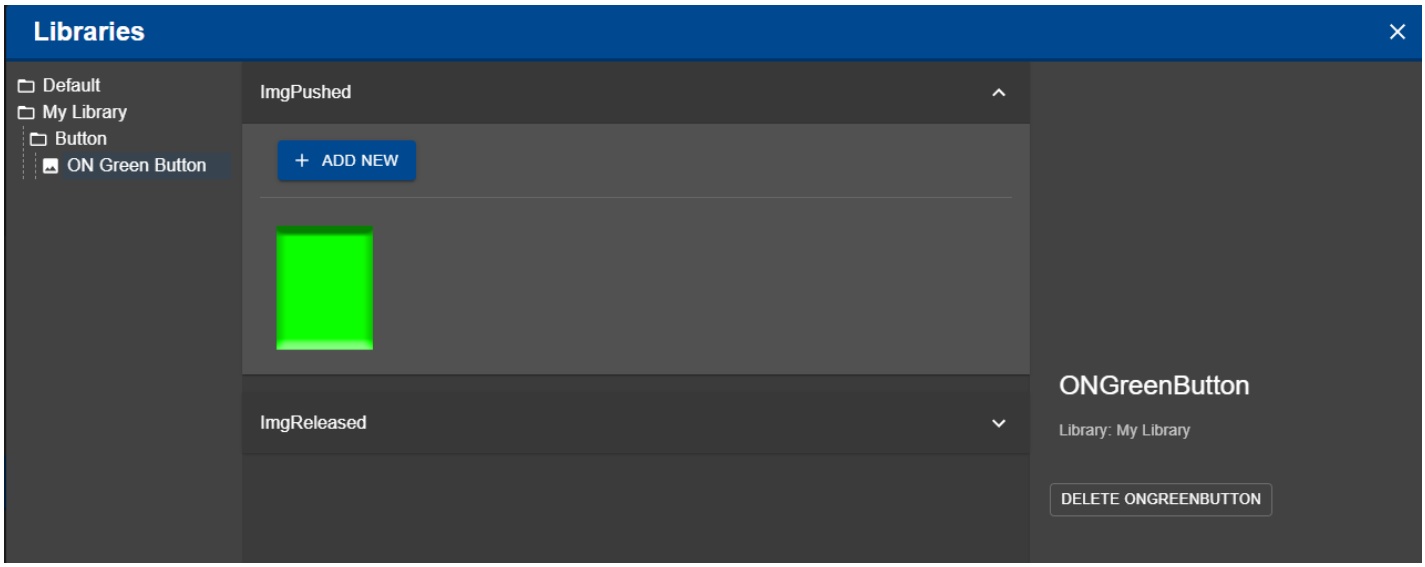






To remove an image from the component, simply click “delete [image name]” on the right sidebar underneath the image preview. This will prompt the user twice to delete the image with a delete and a cancel button to ensure it is what they wish to do. If the user clicks the delete button, the image will be removed from the component. At the same time, if the user clicks cancel, nothing will happen.





Deleting a component, component family, or the library itself works much in the same way. Note that if a component family is deleted off the current library, every single component in said family will be deleted as well, so be sure to tread carefully when doing so.

7 Exporting a Project

Exporting a project is done with the "export xml" icon on the **Primary Menu Sidebar**. A dialog will open for the user to check where they wish to save the .xml file, with the default path being the project's folder, though the user can be free to select a new path to export to. The application will ask the user for confirmation in case of overwriting an XML file of the same name.

The generated XML file should be compatible with the ScreenBuilder software.

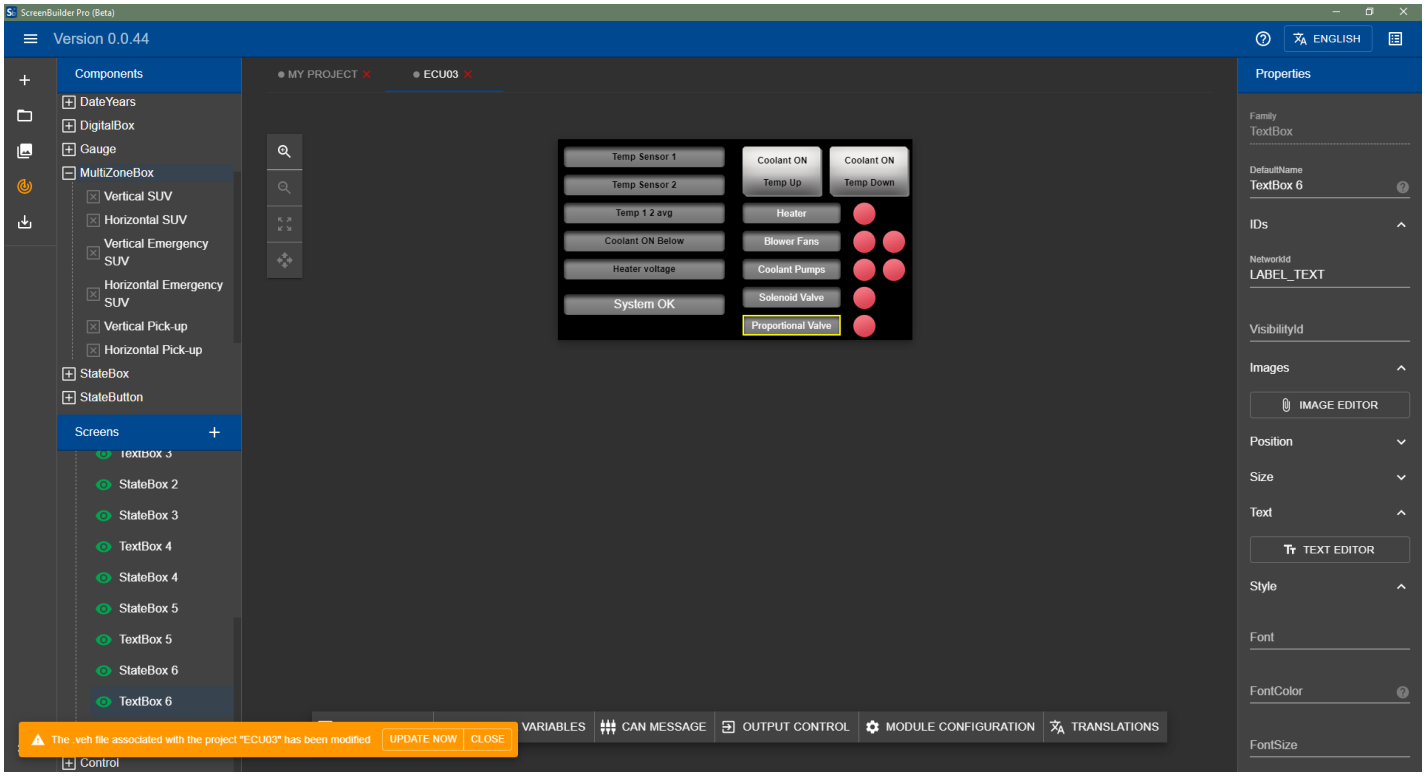
```
<?xml version="1.0" encoding="ISO-8859-1" ?>
<Application Name="My Project" Version="0.0.0.1" />
<Network>
    <Variable ID="Example" />
    <Variable ID="screen_example" />
</Network>
<Screen Label="Main">
    <GraphElement>
        <MultiZoneBox Type="4" DefaultName="MultiZoneBox 1" x="116" y="325" Width="230" Height="160" ImgFile=
        "SUV_HOR_OFF.bmp | SUV_HOR_ON.bmp">
            <Zone Width="52" Height="52" x="46" y="0" />
            <Zone Width="58" Height="52" x="97" y="0" />
            <Zone Width="52" Height="52" x="46" y="102" />
            <Zone Width="58" Height="52" x="97" y="102" />
            <Zone Width="30" Height="30" x="195" y="32" />
            <Zone Width="30" Height="30" x="195" y="92" />
            <Zone Wdth="20" Height="20" x="0" y="0" NetworkId="Example" />
        </MultiZoneBox>
    </GraphElement>
    <GraphElement>
        <TextBox Type="4" DefaultName="Small Grey TextBox" x="408" y="340" Width="133" Height="28" Background
        ="NONE">
            <Text FontColor="0xFF0000" FontSize="15">@string/speed</Text>
            <Text FontColor="0xF1C232" FontSize="25" Font="TimesNewRoman">Test</Text>
        </TextBox>
    </GraphElement>
    <GraphElement>
        <Button Type="4" DefaultName="Grey Button" x="433" y="148" Width="108" Height="68" ImgReleased=
        "generic_r.bmp" ImgPushed="generic_p.bmp" />
    </GraphElement>
    <GraphElement>
        <StateButton Type="4" DefaultName="Grey Button" x="199" y="172" Width="108" Height="68" ImgReleased=
        "empty_r.bmp | full_r.bmp | error_r.bmp" ImgPushed="empty_p.bmp | full_p.bmp | error_p.bmp" />
    </GraphElement>
</Screen>
<Screen Label="Control Screen" NetworkId="screen_example">
    <GraphElement>
        <Button Type="4" DefaultName="Grey Button" x="122" y="172" Width="87" Height="112" ImgReleased=
        "3845_intercomm_grn_1_r.bmp" ImgPushed="3845_intercomm_grn_1_p.bmp" Label="ON" Font="Tahoma"
        FontColor="0xFFFFFF" FontSize="30" />
    </GraphElement>
</Screen>
<Resources>
    <String Name="speed" en="Speed" es="Velocidad" fr="Vitesse" />
    <Img Name="TestImage" en="en\english.bmp" es="es\spanish.bmp" fr="fr\french.bmp" />
</Resources>
```

Exporting a .pkg file behaves much in the same way, with the exception that the export icon will instead appear as “export to pkg”. This will repackage every file in the .pkg file with the new images and XML file.

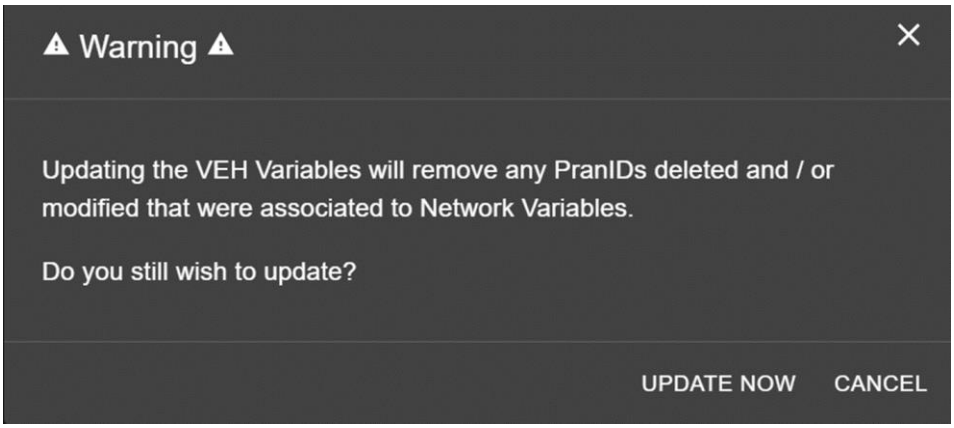
8 Handling a VEH File

The Screen Configurator software can accept xml and pkg files into a project for the user to work with. In all these cases, if found, the project's veh file is available for Screen Configurator to read, which will add any network variables and I/O pins added or modified in the VisionPlex software.

With this feature, the Screen Configurator can detect any changes made to the original VisionPlex project's network variables and I/O pins and warn the user of them, offering to accept a change or keep the original values the user already has from before the modification was detected.



Detecting a change in a project's associated .veh file is done automatically by the software, and it can also detect changes in multiple open projects. When the .veh file changes, the software will wait a moment before notifying the user via an icon and a snackbar notification at the bottom left corner. Clicking the icon on the primary menu or the Update Now UPDATE NOW button on the snackbar will display a dialog warning the user that any VEH variables removed or modified in VisionPlex will replace/remove those same variables within the ScreenBuilder Pro project.



The user has two choices per variable: keeping the current values, or accepting the new changes provided. Until all the discrepancies shown in the “VEH Variables” dialog are taken care of, the icon will remain on the sidebar even if the snackbar notification is dismissed.

Any questions? Contact us :

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