



Powered by
sedona
FRAMEWORK™

Touch functions of Ox Widgets



Touch functions of Ox Widgets



Touch property of ox widgets

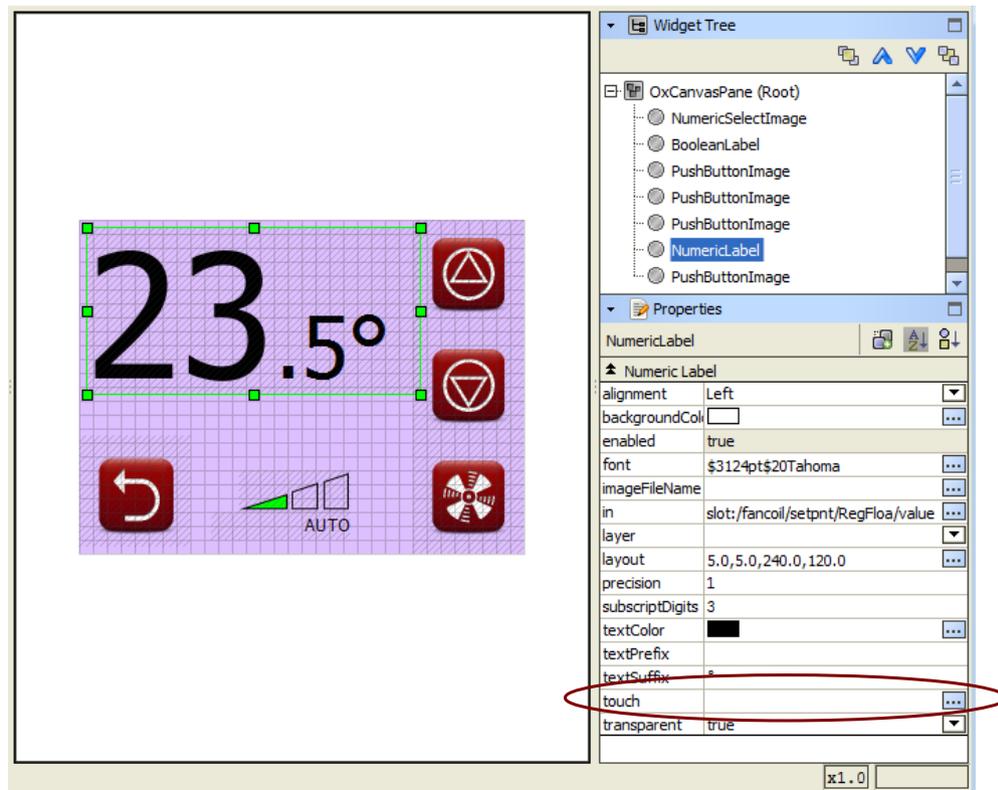
Ox widgets have an active boolean property called 'touch' :

- The '*touch*' slot value is normally false,
- The value switches to true as the widget area on the display is touched
- It remains true as long as user keeps touching the area
- Returns to false only when the user moves finger away.

Therefore, in a simple touch action, the '*touch*' slot will become true for a brief time and will switch back to false.

This value change is used to trigger other components.

Any further functionality is achieved by linking the '*touch*' slot to other components, typically ones from the **ontrolTrigger** kit.





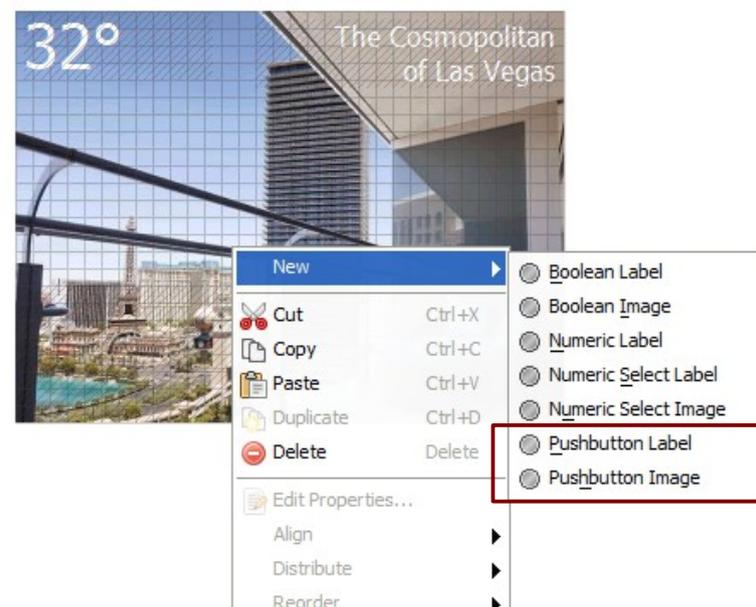
Touch functions of Ox Widgets



Ox Pushbutton types are deprecated

Starting from version 1.06 of the ontrolOx kit, all widgets have a touch property. Therefore, the two pushbutton widgets that were previously used are no longer needed.

- **PushbuttonLabel**
- **PushbuttonImage**

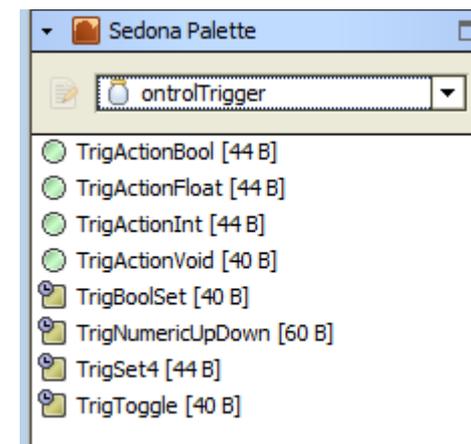




Touch functions of Ox Widgets



Components in the OntrolTrigger kit example uses



COMPONENT	EXAMPLE USE
TrigToggle	Switch a light ON/OFF every time a single button area is touched
TrigBoolSet	Switch a device ON from one touch button, OFF from another
TrigSet4	Switch a three speed fan (off, low, medium, high) from a set of four touch buttons.
TrigNumericUpDown	Increment/decrement a setpoint value on touch events from an UP and a DOWN button.
TrigAction....	Reset a counter value



Touch functions of Ox Widgets

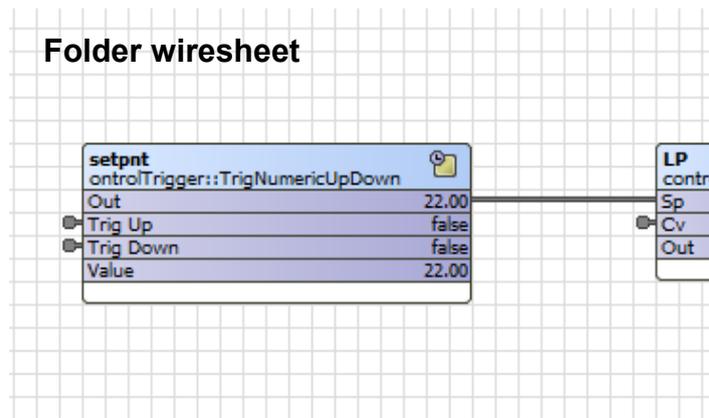


Example : Setpoint adjustment with up/down buttons

STEP 1 : In some folder,

- Add a TrigNumericUpDown component
- Set its properties (base value, min, max, increment delta)

Folder wiresheet



TrigNumericUpDown Property sheet :

TrigNum (ontrolTrigger::TrigNumericUpDown)	
<input type="checkbox"/> Meta	Group [1] >>
<input type="checkbox"/> Out	22.00
<input type="checkbox"/> Trig Up	<input type="radio"/> false
<input type="checkbox"/> Trig Down	<input type="radio"/> false
<input type="checkbox"/> Value	22.00
<input type="checkbox"/> Delta	0.50
<input type="checkbox"/> Min	15.00
<input type="checkbox"/> Max	30.00
<input type="checkbox"/> Rollover	<input type="radio"/> false

STEP 2 : On your oxPage,

- Add two widgets for up&down
- Edit their *touch* properties to link them to the trigNumericUpDown component's trigUp & trigDown slots.

OxPage (oxEditor view)

The OxPage view shows a large digital display showing '22.0°'. To the right of the display are two buttons: an up arrow and a down arrow. Below the display are other controls including a refresh button, an 'AUTO' indicator, and a fan speed control dial.

The Properties panel on the right shows the configuration for the 'PushButtonImage' widget:

enabled	true
imageFileName	
layer	
layout	240:0;0;0;00:0;00:0
touch	slot:/fancoil/setpnt/TrigNum/trigUp
visible	true



Touch functions of Ox Widgets



Linking ox widgets to trig components

Simply edit the touch property of the pushbutton widget in oxEditor. This will allow you to select a slot from the component tree of the app. OxEditor takes care of the linking for you.

The screenshot shows the OxEditor interface with several key components:

- Widget Tree:** A tree view on the right showing the application's component structure. The 'touch' property of a 'PushButtonImage' widget is selected.
- Properties Panel:** A panel on the right showing the properties of the selected widget. The 'touch' property is set to 'slot:/fancoil/setpnt/TrigNum/trigUp'.
- Select Ord Dialog:** A dialog box in the center showing a list of available slots. The 'Trig Up' slot is selected.
- Touch Property Dialog:** A small dialog box at the top center showing the 'touch' property value: 'slot:/fancoil/setpnt/TrigNum/trigUp'.
- Widget Preview:** A central preview window showing a touch screen interface with a temperature display '19.5°' and several buttons. A red arrow points to the 'touch' property in the Properties panel, with the text 'Click 'touch' property'. Another red arrow points to the 'Trig Up' slot in the Select Ord dialog, with the text 'Select trig... slot From component tree'.



Touch functions of Ox Widgets



Note on location of Ontrol Trig... components

You can add Trig... type components anywhere in your App using standard drag&drop or copy/paste methods.

However, never place any kind of logic under an oxPage. (including trig... components)

Components under an oxPage do not execute unless that particular oxPage is on the RION display. At all other times, such child components remain idle.



Using registers for non-volatile data

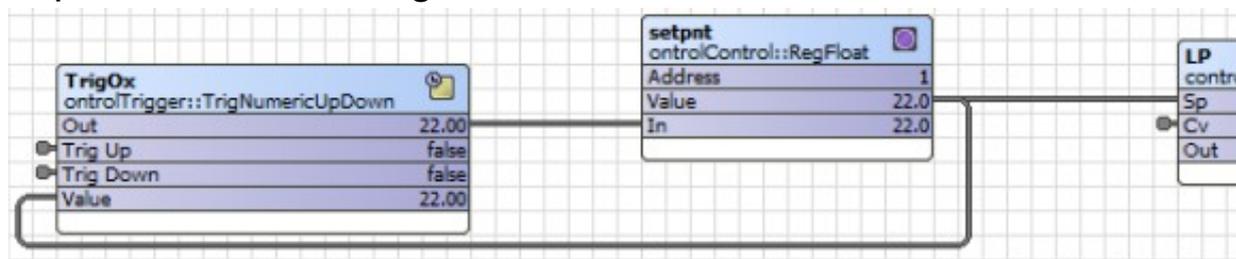
In a power interruption, Trig.. type components would return to values of the last App save. Therefore, the most recent user changes to values like setpoint etc. may be lost. You can prevent this by using register components.

RegFloat and RegBool

- These two components (in the kit ontrolControl) store values in non-volatile memory.
- Their values are retained across power-interruptions without requiring an App save.

Best practice use

- Link 'out' slot of Trig.. component to 'in' slot of register component
(This will enable latest changes to be stored in non-volatile memory)
- Link 'value' slot of register, back to 'value' slot of Trig.. component
(This will ensure synchronization, for example, if the setpoint is changed from a supervisory system)
- Use 'out' slot of register component in further logic



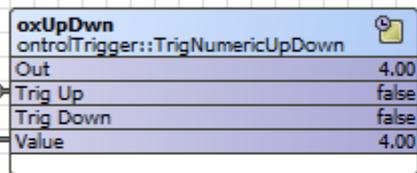


Touch functions of Ox Widgets

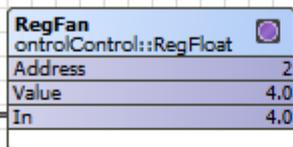


An example for three-speed fan control with auto mode selection

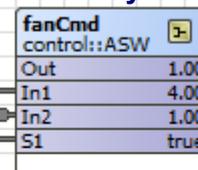
Fan speed select for user.
cycles 0..4
(off, lo, med, hi, auto)



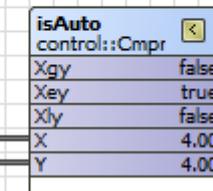
Stores user selection
In non-volatile memory



AnalogSwitch:
Select fixed or auto value.
Use this to drive the fan.
Output is always 0..3



Float-to-Int:
Convert to int for use
with NumericSelectImage
on OxPage



Compares with '4'
(true when auto)

Cmpr.Xey >>
BooleanLabel.in

PushButtonImage.touch >>
TrigNumericUpDown.trigUp



F2I.out >>
NumericSelectImage.in



Touch functions of Ox Widgets



Hyperlinking between pages

Simply associate the *touch* slot of the button to the target oxPage's 'trigThisPage' slot

trigThisPage == “make this page active”

touch

slot:/fancoil/ox/setting/trigThisPage

OK Cancel

Select Ord

- fancoil
 - Meta
 - ox
 - Meta
 - main
 - display
 - setting
 - Meta
 - Background Color
 - Image File Name
 - Trig This Page
 - Trig Back
 - Trig Home
 - Is Active
 - Touch Timeout

Type

- Slot
- Handle

OK Cancel

layout	0.0, 125.0, 128.0, 128.0
touch	slot:/fancoil/ox/setting/trigThisPage
visible	true



Touch functions of Ox Widgets



Configuring Back and Home buttons

The mechanism for configuring BACK and HOME buttons is also very similar.

Simply associate the *touch* slot of the button to its own oxPage's *trigBack* or *trigHome* slot.

The image shows two overlapping dialog boxes in the Ox Designer interface. The background dialog, titled "Select Ord", displays a hierarchical tree view of the project structure. The "setting" folder is expanded, and "Trig Back" is selected. Below the tree, the "Type" section shows "Slot" selected. The foreground dialog, titled "touch", has a text field containing the path "slot:/fancoil/ox/setting/trigBack". Below the text field are "OK" and "Cancel" buttons. To the right, a "Properties" panel is visible, showing the "touch" slot is set to "slot:/fancoil/ox/setting/trigBack".

Properties	
PushButtonImage	
Push Button Image	
enabled	true
imageFileName	
layer	
layout	0.0, 155.0, 80.0, 80.0
touch	slot:/fancoil/ox/setting/trigBack
visible	true