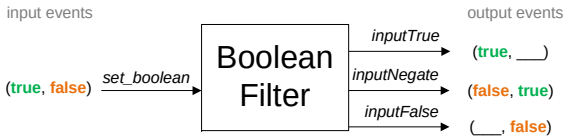
# X3D Event Utility Nodes: Field Event Diagrams

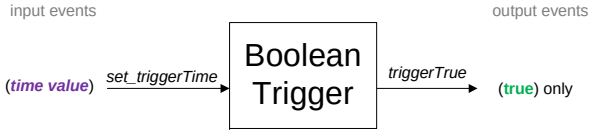



**Notation:** constructs such as (**true**, **false**) shows two different possible input/output sequences.
**Notation:** construct ____ indicates that no event is sent in response.

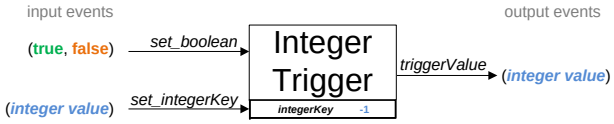
Note that *inputTrue* output event only passes **true** events,
while the *inputFalse* output event only passes **false** events.


Input event *set_boolean* **true** negates the value of the *toggle* field and sends it as the *toggle_changed* output event.
Input event *set_boolean* **false** has no effect.

The *toggle_changed* output event provides the current value of the *toggle* field.
Setting the *toggle* field directly results in a *toggle_changed* event with that same value.

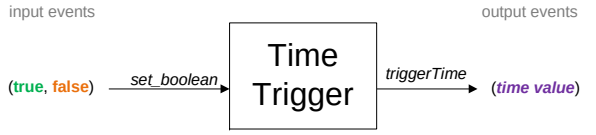



When a *set_triggerTime* timestamp event is received, a *triggerTrue* **true** event is sent.

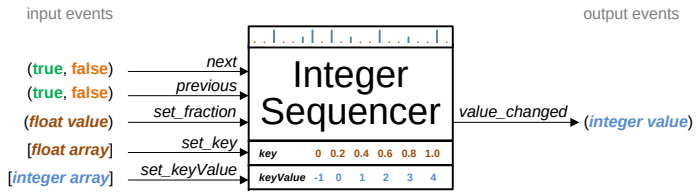



Input event *set_boolean* **true** sends the *triggerValue* output event.
Input event *set_boolean* **false** has no effect.

The *triggerValue* output event provides the current value of the *integerKey* field.
Resetting the *integerKey* field generates both *integerKey_changed and triggerValue* output events with the same value.




Input event *set_boolean* **true** sends the *triggerTime* output event.
Input event *set_boolean* **false** has no effect.

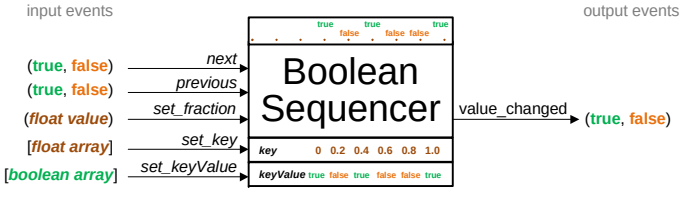



*next* and *previous* input events have discrete boolean values. Receiving a **true** value changes *fraction* to the following/prior *key*, while receiving a **false** value has no effect.

Whenever *set_fraction* first meets or exceeds an element in the *key* array, the corresponding *keyValue* array element is sent as output event *value_changed*.

*set_fraction* input values are continuous, *value_changed* output values are discrete.

The current internal value of *fraction* is not inspectable. Add a second output ROUTE from the originating TimeSensor node if that value is needed elsewhere.




*next* and *previous* input events have discrete boolean values. Receiving a **true** value changes *fraction* to the following/prior *key*, while receiving a **false** value has no effect.

Whenever *set_fraction* first meets or exceeds an element in the *key* array, the corresponding *keyValue* array element is sent as output event *value_changed*.

*set_fraction* input values are continuous, *value_changed* output values are discrete.

The current internal value of *fraction* is not inspectable. Add a second output ROUTE from the originating TimeSensor node if that value is needed elsewhere.

## Notes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Maintained at http://x3dgraphics.com/examples/X3dForWebAuthors/Chapter09-EventUtilitiesScripting/X3dEventUtilityNodeEventDiagrams.pdf