With multiple tabbed view, schematics can be displayed in different tabs. Selection is independent between tabbed views, but selection in the tab in focus is synchronous with the Netlist Navigator pane.

To create a new blank tab, click the **New Tab** button at the end of the tab row . You can now drag a node from the **Netlist Navigator** pane into the schematic view.

Right-click in a tab to see a shortcut menu to perform the following actions:

- Create a blank view with **New Tab**
- Create a **Duplicate Tab** of the tab in focus
- Choose to **Cascade Tabs**
- Choose to **Tile Tabs**
- Choose **Close Tab** to close the tab in focus
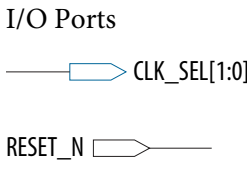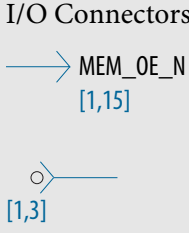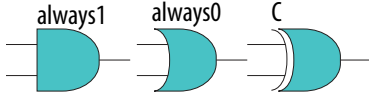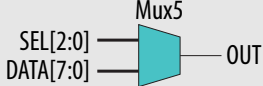- Choose **Close Other Tabs** to close all tabs except the tab in focus

Schematic Symbols
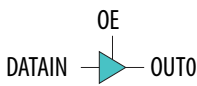
The symbols for nodes in the schematic represent elements of your design netlist. These elements include input and output ports, registers, logic gates, Altera primitives, high-level operators, and hierarchical instances.

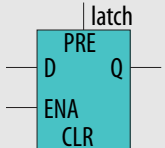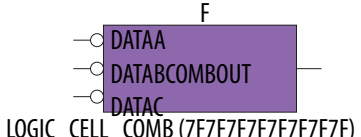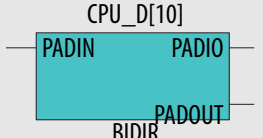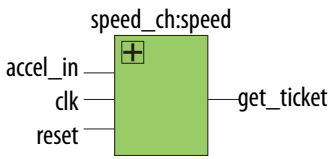**Note:** The logic gates and operator primitives appear only in the RTL Viewer. Logic in the Technology Map Viewer is represented by atom primitives, such as registers and LCELLs.

Table 17-3: Symbols in the Schematic View

This table lists and describes the primitives and basic symbols that you can display in the schematic view of the RTL Viewer and Technology Map Viewer.

Symbol	Description
I/O Ports CLK_SEL[1:0] RESET_N	An input, output, or bidirectional port in the current level of hierarchy. A device input, output, or bidirectional pin when viewing the top-level hierarchy. The symbol can also represent a bus. Only one wire is shown connected to the bidirectional symbol, representing the input and output paths. Input symbols appear on the left-most side of the schematic. Output and bidirectional symbols appear on the right-most side of the schematic.
I/O Connectors MEM_OE_N [1,15] [1,3]	An input or output connector, representing a net that comes from another page of the same hierarchy. To go to the page that contains the source or the destination, double-click on the connector to jump to the appropriate page.
OR, AND, XOR Gates always1 always0 C	An OR, AND, or XOR gate primitive (the number of ports can vary). A small circle (bubble symbol) on an input or output port indicates the port is inverted.

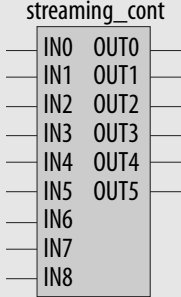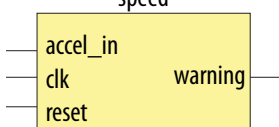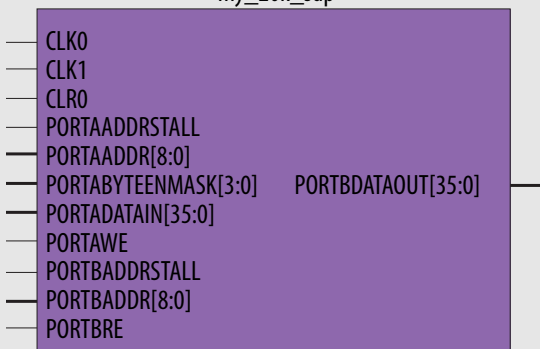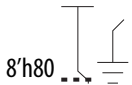| Symbol	Description
MULTIPLEXER Mux5 SEL[2:0] ─┐ DATA[7:0] ─┘ ▷ ─ OUT	A multiplexer primitive with a selector port that selects between port 0 and port 1. A multiplexer with more than two inputs is displayed as an operator.
BUFFER OE DATAIN ─▷─ OUT0	A buffer primitive. The figure shows the tri-state buffer, with an inverted output enable port. Other buffers without an enable port include LCELL, SOFT, CARRY, and GLOBAL. The NOT gate and EXP expander buffers use this symbol without an enable port and with an inverted output port.
LATCH latch PRE ─ D Q ─ ─ ENA CLR	A latch/DFF (data flipflop) primitive. A DFF has the same ports as a latch and a clock trigger. The other flipflop primitives are similar: • DFFEA (data flipflop with enable and asynchronous load) primitive with additional ALOAD asynchronous load and ADATA data signals • DFFEAS (data flipflop with enable and synchronous and asynchronous load), which has ASDATA as the secondary data port
Atom Primitive F ─○ DATAA ─○ DATABCOMBOUT ─ ─○ DATAC LOGIC_CELL_COMB (7F7F7F7F7F7F7F7F)	An atom primitive. The symbol displays the atom name, the port names, and the atom type. The blue shading indicates an atom primitive for which you can view the internal details.
Other Primitive CPU_D[10] ─ PADIN PADIO ─ ─ PADOUT BIDIR	Any primitive that does not fall into the previous categories. Primitives are low-level nodes that cannot be expanded to any lower hierarchy. The symbol displays the port names, the primitive or operator type, and its name.
Instance speed_ch:speed ⊞ accel_in ─ clk ─ ─ get_ticket reset ─	An instance in the design that does not correspond to a primitive or operator (a user-defined hierarchy block). The symbol displays the port name and the instance name.

Send Feedback

Symbol	Description
Ecrypted Instance streaming_cont IN0 OUT0 IN1 OUT1 IN2 OUT2 IN3 OUT3 IN4 OUT4 IN5 OUT5 IN6 IN7 IN8	A user-defined encrypted instance in the design. The symbol displays the instance name. You cannot open the schematic for the lower-level hierarchy, because the source design is encrypted.
State Machine Instance speed accel_in clk warning reset	A finite state machine instance in the design.
RAM my_20k_sdp CLK0 CLK1 CLR0 PORTAADDRSTALL PORTAADDR[8:0] PORTABYTEENMASK[3:0] PORTBDATAOUT[35:0] PORTADATAIN[35:0] PORTAWE PORTBADDRSTALL PORTBADDR[8:0] PORTBRE RAM	A synchronous memory instance with registered inputs and optionally registered outputs. The symbol shows the device family and the type of memory block. This figure shows a true dual-port memory block in a Stratix M-RAM block.
Constant 8'h80	A constant signal value that is highlighted in gray and displayed in hexadecimal format by default throughout the schematic.

Table 17-4: Symbol Available Only in the State Machine Viewer

The following table lists and describes the symbol open only in the State Machine Viewer.
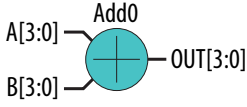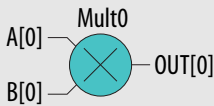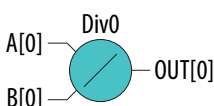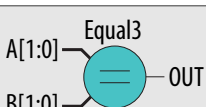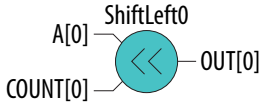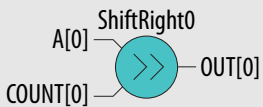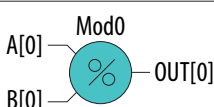
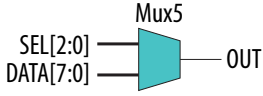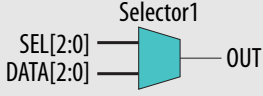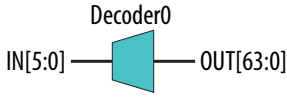| Symbol	Description
State Node	The node representing a state in a finite state machine. State transitions are indicated with arcs between state nodes. The double circle border indicates the state connects to logic outside the state machine, and a single circle border indicates the state node does not feed outside logic.

Table 17-5: Operator Symbols in the RTL Viewer Schematic View

The following lists and describes the additional higher level operator symbols in the RTL Viewer schematic view.

Symbol	Description
Add0	An adder operator: `OUT = A + B`
Mult0	A multiplier operator: `OUT = A ¥ B`
Div0	A divider operator: `OUT = A / B`
Equal3	Equals
ShiftLeft0	A left shift operator: `OUT = (A << COUNT)`
ShiftRight0	A right shift operator: `OUT = (A >> COUNT)`
Mod0	A modulo operator: `OUT = (A%B)`
LessThan0	A less than comparator: `OUT = (A<:B:A>B)`

Symbol	Description
Mux5 SEL[2:0] —— DATA[7:0] —— OUT	A multiplexer: `OUT = DATA [SEL]` The data range size is $2^{sel\ range\ size}$
Selector1 SEL[2:0] —— DATA[2:0] —— OUT	A selector: A multiplexer with one-hot select input and more than two input signals
Decoder0 IN[5:0] —— OUT[63:0]	A binary number decoder: `OUT` = (binary_number (`IN`) == x) for x = 0 to x = $2^{(n+1)}$ - 1

Related Information

Select Items in the Schematic View

To select an item in the schematic view, ensure that the **Selection Tool** is enabled in the Netlist Viewer toolbar (this tool is enabled by default). Click an item in the schematic view to highlight it in red.

Select multiple items by pressing the Shift key while selecting with your mouse.

Items selected in the schematic view are automatically selected in the **Netlist Navigator** pane. The folder then expands automatically if it is required to show the selected entry; however, the folder does not collapse automatically when you are not using or you have deselected the entries.

When you select a hierarchy box, node, or port in the schematic view, the item is highlighted in red but none of the connecting nets are highlighted. When you select a net (wire or bus) in the schematic view, all connected nets are highlighted in red.

Once you have selected an item, you can perform different actions on it based on the contents of the shortcut menu which appears when you right-click on your selection.

Related Information

Shortcut Menu Commands in the Schematic View

When you right-click on an instance or primitive selected in the schematic view, the Netlist Viewer displays a shortcut menu.