

Release 14.7 - xst P.20131013 (nt64)
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--> Parameter TMPDIR set to xst/projnav.tmp

Total REAL time to Xst completion: 0.00 secs
Total CPU time to Xst completion: 0.11 secs

--> Parameter xsthdpdir set to xst

Total REAL time to Xst completion: 0.00 secs
Total CPU time to Xst completion: 0.11 secs

--> Reading design: mux_proper.prj

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```
=====
*           Synthesis Options Summary           *
=====

---- Source Parameters
Input File Name      : "mux_proper.prj"
Ignore Synthesis Constraint File : NO

---- Target Parameters
Output File Name       : "mux_proper"
Output Format          : NGC
Target Device          : xc7a100t-3-csg324

---- Source Options
Top Module Name        : mux_proper
Automatic FSM Extraction : YES
FSM Encoding Algorithm : Auto
Safe Implementation    : No
FSM Style              : LUT
RAM Extraction         : Yes
RAM Style              : Auto
ROM Extraction          : Yes
Shift Register Extraction : YES
ROM Style              : Auto
```

```
Resource Sharing           : YES
Asynchronous To Synchronous : NO
Shift Register Minimum Size : 2
Use DSP Block             : Auto
Automatic Register Balancing : No
```

---- Target Options

```
LUT Combining            : Auto
Reduce Control Sets       : Auto
Add IO Buffers            : YES
Global Maximum Fanout     : 100000
Add Generic Clock Buffer(BUFG) : 32
Register Duplication      : YES
Optimize Instantiated Primitives : NO
Use Clock Enable          : Auto
Use Synchronous Set        : Auto
Use Synchronous Reset       : Auto
Pack IO Registers into IOBs : Auto
Equivalent register Removal : YES
```

---- General Options

```
Optimization Goal          : Speed
Optimization Effort         : 1
Power Reduction              : NO
Keep Hierarchy                : No
Netlist Hierarchy             : As_Optimized
RTL Output                   : Yes
Global Optimization           : AllClockNets
Read Cores                     : YES
Write Timing Constraints      : NO
Cross Clock Analysis          : NO
Hierarchy Separator            : /
Bus Delimiter                  : <>
Case Specifier                  : Maintain
Slice Utilization Ratio        : 100
BRAM Utilization Ratio         : 100
DSP48 Utilization Ratio        : 100
Auto BRAM Packing               : NO
Slice Utilization Ratio Delta   : 5
```

```
=====
```

```
=====
```

* HDL Parsing *

```
=====
```

Analyzing Verilog file "D:\BRB\dds-mini\W6_1.v" into library work
Parsing module <mux_proper>.

```
=====
```

```
=====
```

* HDL Elaboration *

```
=====
```

Elaborating module <mux_proper>.

WARNING:HDLCompiler:413 - "D:\BRB\dds-mini\W6_1.v" Line 13: Result of 32-bit expression is truncated to fit in 1-bit target.

```
=====
```

```
=====
```

* HDL Synthesis *

```
=====
```

```
Synthesizing Unit <mux_proper>.  
Related source file is "D:\BRB\dds-mini\W6_1.v".  
Summary:  
    no macro.  
Unit <mux_proper> synthesized.
```

```
=====
```

HDL Synthesis Report

```
Found no macro
```

```
=====
```

* Advanced HDL Synthesis *

```
=====
```

```
=====
```

Advanced HDL Synthesis Report

```
Found no macro
```

```
=====
```

* Low Level Synthesis *

```
=====
```

```
Optimizing unit <mux_proper> ...
```

```
Mapping all equations...
```

```
Building and optimizing final netlist ...
```

```
Found area constraint ratio of 100 (+ 5) on block mux_proper, actual ratio is 0.
```

```
Final Macro Processing ...
```

```
=====
```

Final Register Report

```
Found no macro
```

```
=====
```

* Partition Report *

```
=====
```

```
Partition Implementation Status
```

```
-----
```

```
No Partitions were found in this design.
```

```
-----
```

```
=====
```

* Design Summary *

```
=====
```

```
Top Level Output File Name : mux_proper.ngc
```

```
Primitive and Black Box Usage:
```

```
-----
```

```
# BELS : 3
```

```
#      INV          : 1
#      LUT2         : 1
#      VCC          : 1
# IO Buffers       : 12
#      IBUF         : 3
#      OBUF         : 9
```

Device utilization summary:

Selected Device : 7a100tcsg324-3

Slice Logic Utilization:

Number of Slice LUTs:	2	out of	63400	0%
Number used as Logic:	2	out of	63400	0%

Slice Logic Distribution:

Number of LUT Flip Flop pairs used:	2			
Number with an unused Flip Flop:	2	out of	2	100%
Number with an unused LUT:	0	out of	2	0%
Number of fully used LUT-FF pairs:	0	out of	2	0%
Number of unique control sets:	0			

IO Utilization:

Number of IOs:	12			
Number of bonded IOBs:	12	out of	210	5%

Specific Feature Utilization:

Partition Resource Summary:

No Partitions were found in this design.

=====

Timing Report

NOTE: THESE TIMING NUMBERS ARE ONLY A SYNTHESIS ESTIMATE.
FOR ACCURATE TIMING INFORMATION PLEASE REFER TO THE TRACE REPORT
GENERATED AFTER PLACE-and-ROUTE.

Clock Information:

No clock signals found in this design

Asynchronous Control Signals Information:

No asynchronous control signals found in this design

Timing Summary:

Speed Grade: -3

Minimum period: No path found
Minimum input arrival time before clock: No path found
Maximum output required time after clock: No path found

Maximum combinational path delay: 0.761ns

Timing Details:

All values displayed in nanoseconds (ns)

=====

Timing constraint: Default path analysis

Total number of paths / destination ports: 8 / 7

=====

Delay: 0.761ns (Levels of Logic = 3)

Source: IO (PAD)

Destination: out<7> (PAD)

Data Path: IO to out<7>

Cell:in->out	fanout	Gate Delay	Net Delay	Logical Name (Net Name)
IBUF:I->O	2	0.001	0.383	IO_IBUF (out_0_OBUF)
LUT2:IO->O	1	0.097	0.279	out<7>1 (out_7_OBUF)
OBUF:I->O		0.000		out_7_OBUF (out<7>)
Total			0.761ns (0.098ns logic, 0.663ns route)	(12.9% logic, 87.1% route)

=====

Cross Clock Domains Report:

=====

Total REAL time to Xst completion: 10.00 secs

Total CPU time to Xst completion: 9.34 secs

-->

Total memory usage is 4616484 kilobytes

Number of errors : 0 (0 filtered)

Number of warnings : 1 (0 filtered)

Number of infos : 0 (0 filtered)