AMBA

Young Won Lim
6/17/16

Please send corrections (or suggestions) to youngwlim@hotmail.com.

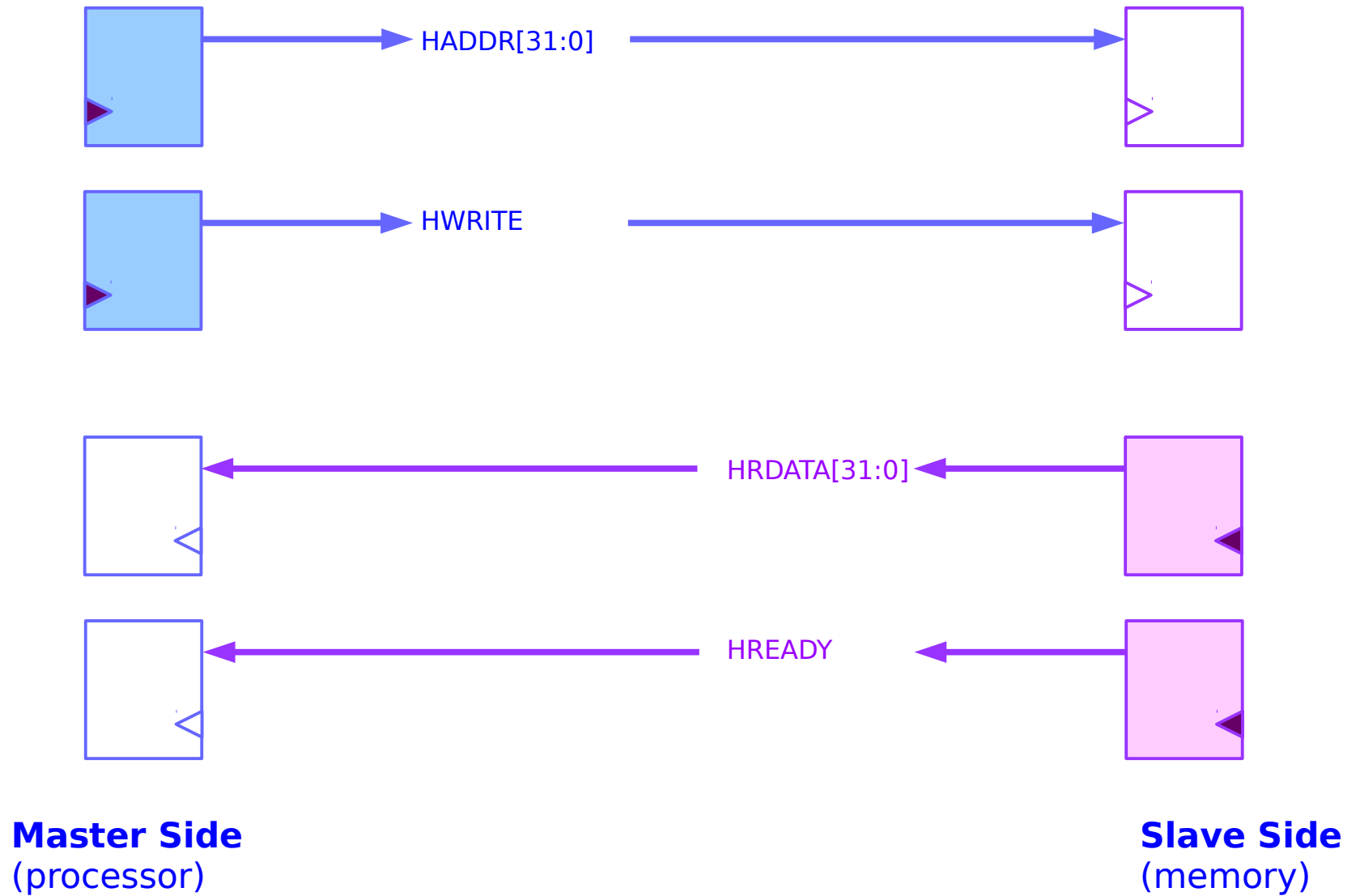This document was produced by using OpenOffice.

Useful Links

ARM AHB-Lite 3.0
http://www.eecs.umich.edu/courses/eecs373/readings/ARM_IHI0033A_AMBA_AHB-Lite_SPEC.pdf

ARM APB 3.0
https://web.eecs.umich.edu/~prabal/teaching/eecs373-f10/readings/ARM_AMBA3_APB.pdf

Read Cycle – handshake

HADDR[31:0]

HWRITE

HRDATA[31:0]

HREADY

Master Side
(processor)

Slave Side
(memory)

Read Cycle – throwing view

Master Side

HADDR[31:0]

HRDATA[31:0]

Slave Side

HWRITE

HREADY

HCLK

HADDR[31:0]

HWRITE

HRDATA[31:0]

HREADY

address phase

data phase

Read Cycle – catching view

Master
Side

HRDATA[31:0]

HREADY

HADDR[31:0]

HWRITE

Slave
Side

HCLK

HADDR[31:0]

HWRITE

HRDATA[31:0]

HREADY

address phase

data phase

Write Cycle - handshake

HADDR[31:0]

HWDATA[31:0]

HWRITE

HREADY
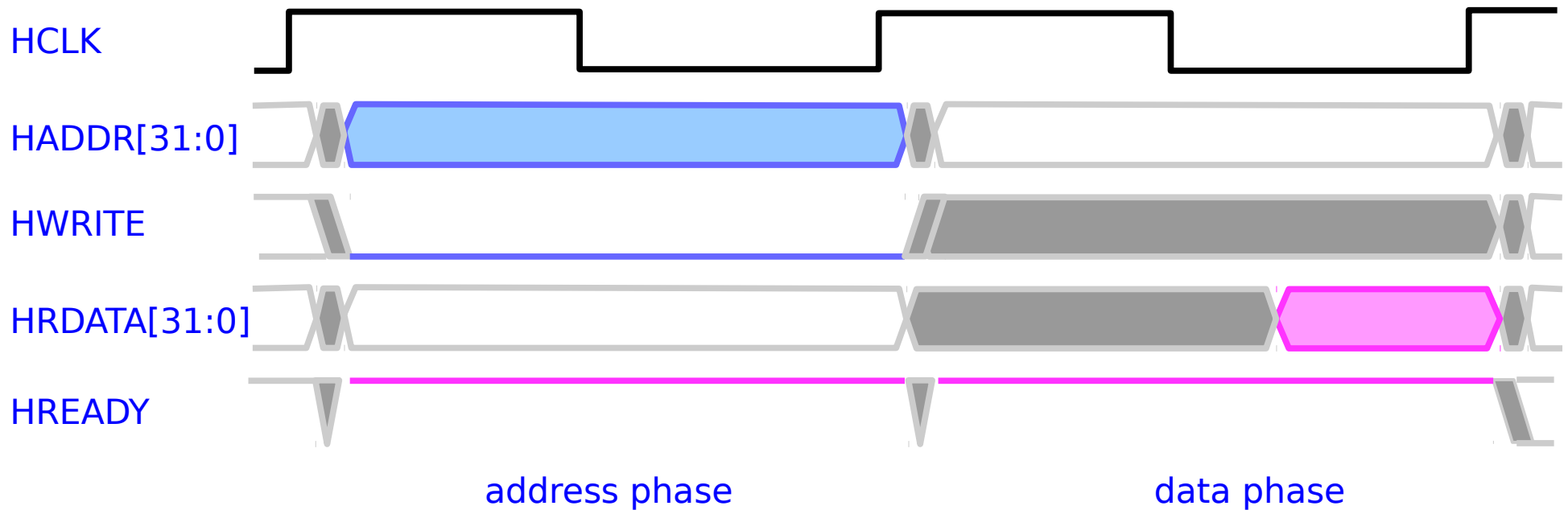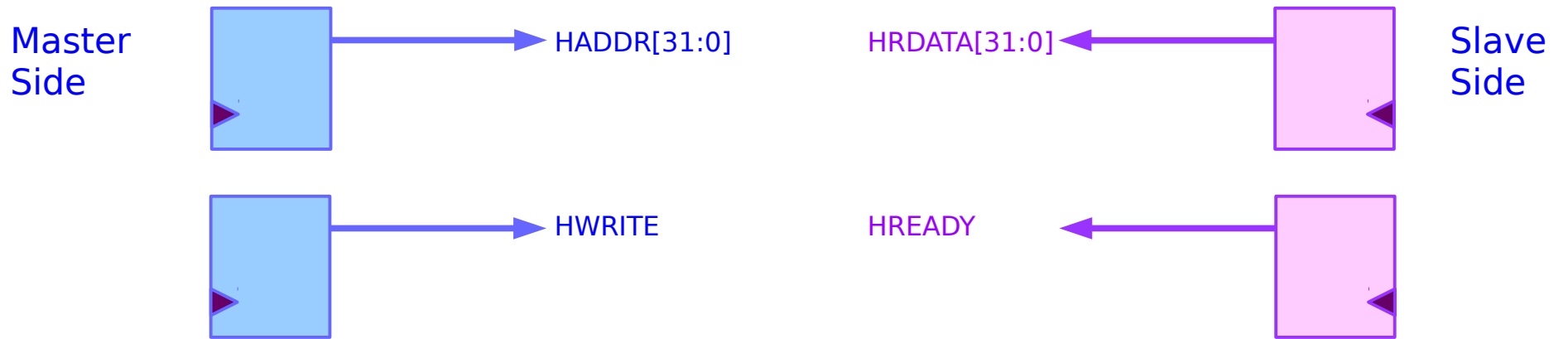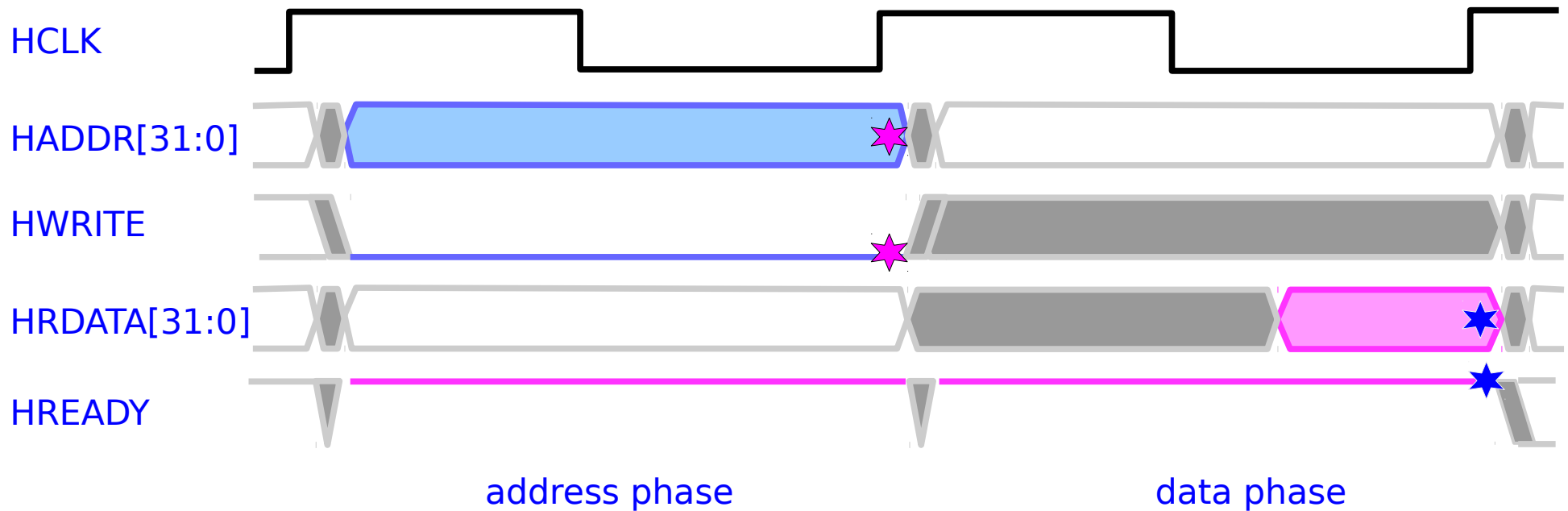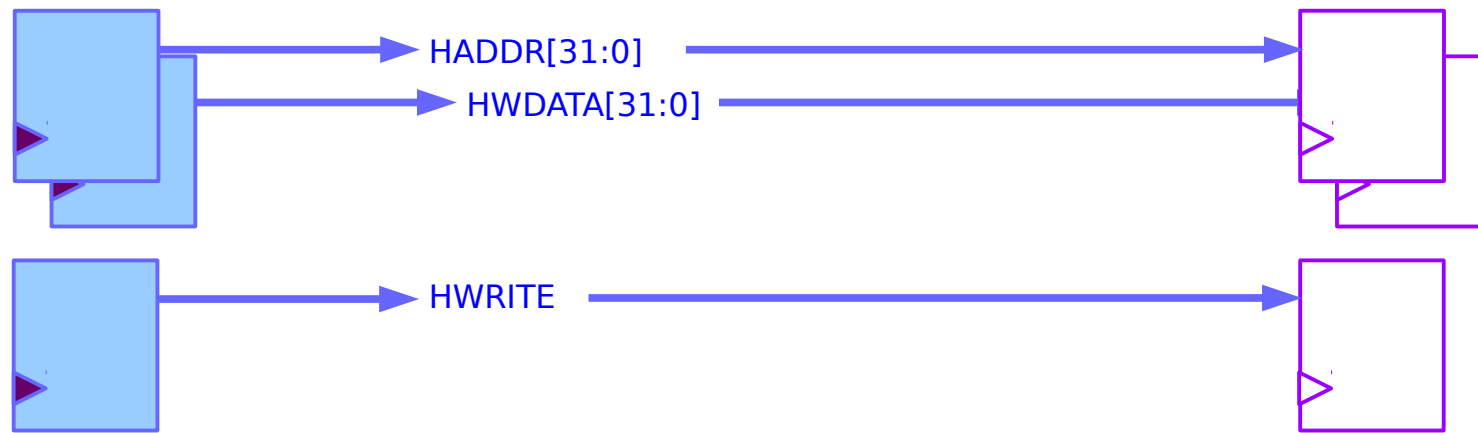
Master Side
(processor)

Slave Side
(memory)

Write Cycle – throwing view

address phase

data phase

Write Cycle – catching view

Master
Side

Slave
Side

HADDR[31:0]

HWDATA[31:0]

HREADY

HWRITE

HCLK

HADDR[31:0]

HWRITE

HWDATA[31:0]

HREADY

address phase

data phase
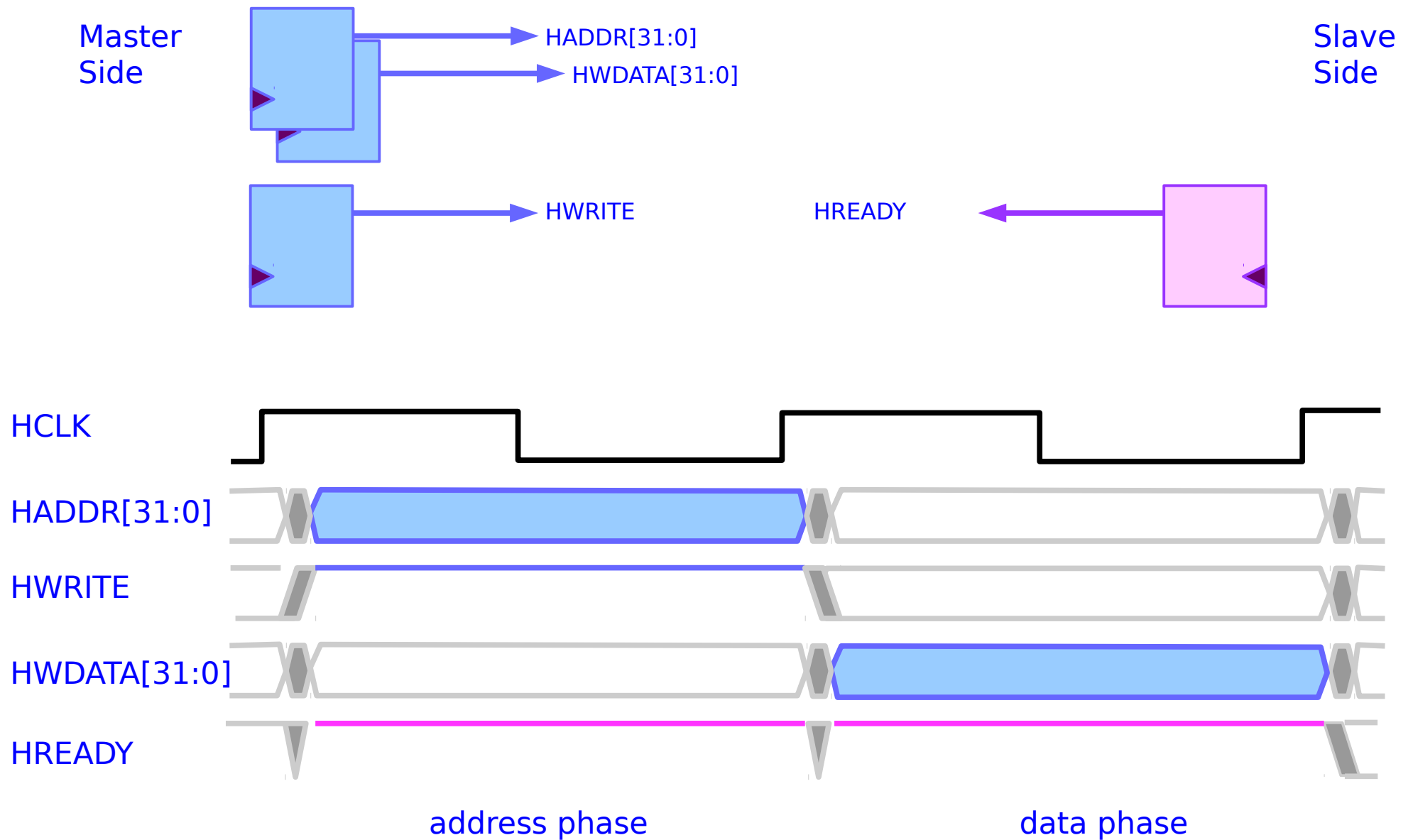
References
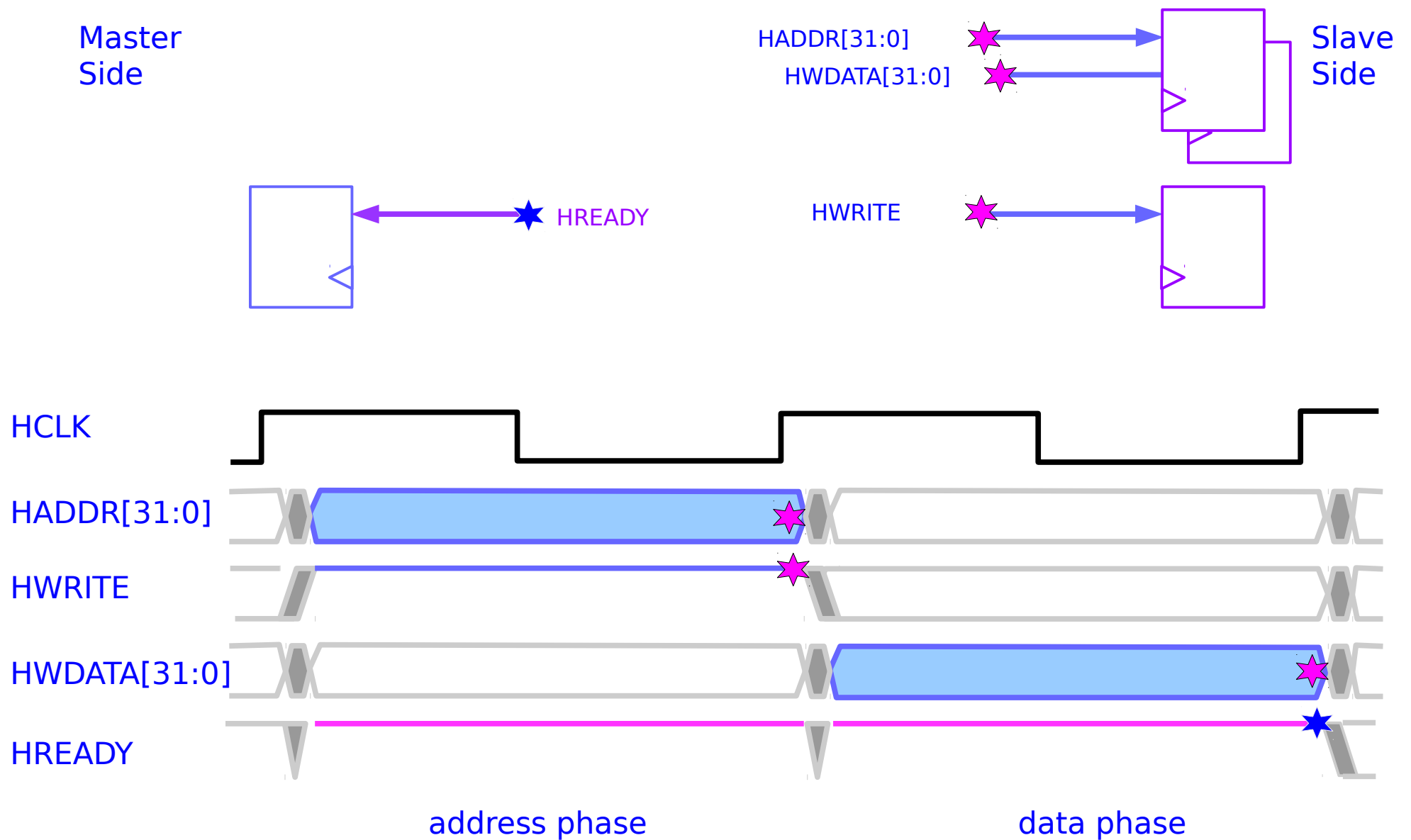
[1] http://en.wikipedia.org/
[2] https://en.wikiversity.org/wiki/The_necessities_in_SOC_Design
[3] https://en.wikiversity.org/wiki/The_necessities_in_Digital_Design
[4] https://en.wikiversity.org/wiki/The_necessities_in_Computer_Design
[5] https://en.wikiversity.org/wiki/The_necessities_in_Computer_Architecture
[6] https://en.wikiversity.org/wiki/The_necessities_in_Computer_Organization
[7] https://en.wikiversity.org/wiki/Understanding_Embedded_Software
[8] Digital Systems, Hill, Peterson, 1987

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