LCD SPI DMA transaction time diagram (if FreeRtos used)

A drawing operation can consist of multiple DMA transactions (if the DMA transfer counter is only 16 bits size).

If LCD_DMA_TXWAIT == 0: at the beginning of the last DMA transaction, it return from the drawing function.
- What to watch out for?
  When drawing a bitmap, do not change the contents of the bitmap until it is actually finished drawing.
- How to use it?
  After a longer drawing activity, do other activities (eg file management).

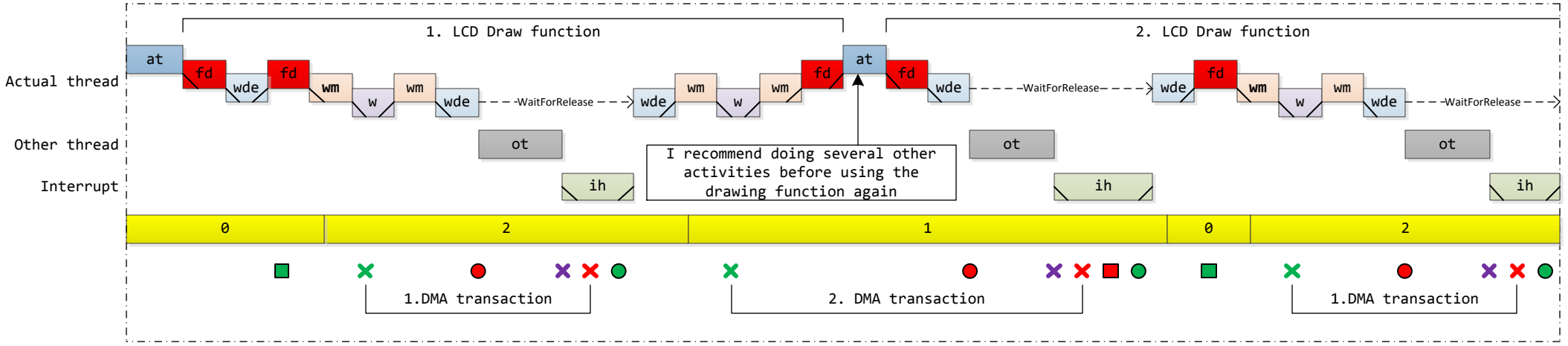
If LCD_DMA_TXWAIT == 1: it only returns from the drawing function at the end of the transaction.
- When do we use it?
  If you use another thread that can run while the DMA transaction is running.

DMA start
DMA stop
DMA Interrupt
Semaphore release
Semaphore wait
CS pin on (LOW)
CS pin off (HIGH)

at: Actual thread
fd: LCD Draw function
wm: LCD_IO_WriteMultiData 8 or 16
w: LCD_IO_WriteMultiData
ih: DMAX_CHANNEL_IRQHANDLER (LCD_DMA_TX)
wde: WaitForDmaEnd
ot: Other thread (osSemaphoreWait)
LCD_IO_DmaTransferStatus

wde start of function
wde end of function

LCD_IO_WriteMultiData time diagram (#if LCD_DMA_TXWAIT == 0)



LCD_IO_WriteMultiData time diagram (#if LCD_DMA_TXWAIT == 1)