## **Diagram Documentation**

#### <u>Logical View</u> - (Class diagram)

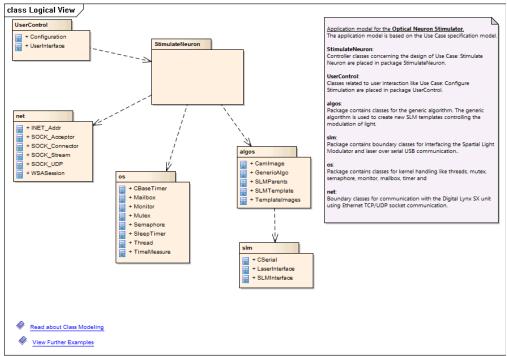


Figure: 1

StimulateNeuron - (Class diagram)

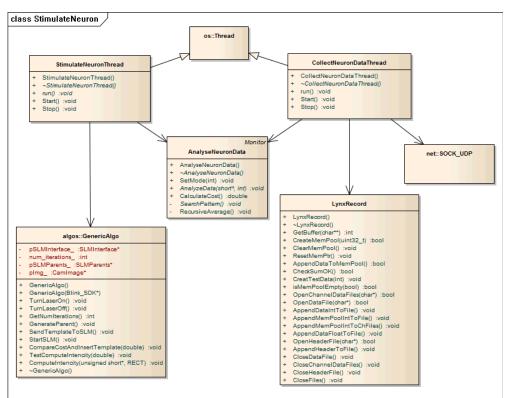


Figure: 2

**Generate Templates and Control SLM** - (Interaction diagram)

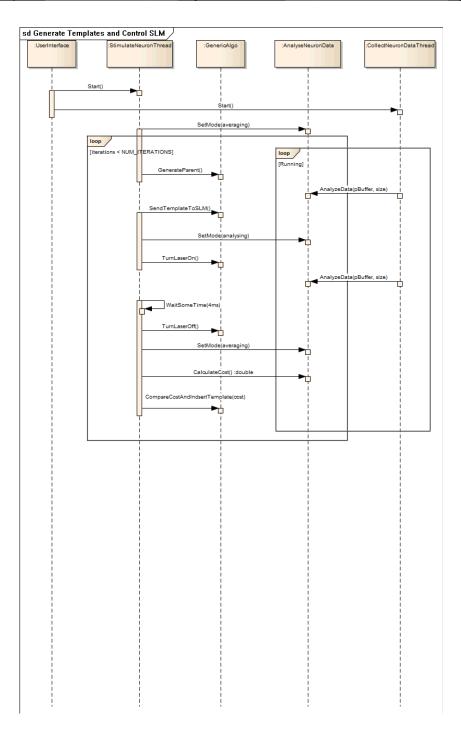


Figure: 3

### $\underline{\textbf{Collect and Analyze Neuron Data}} \text{-} (Interaction \ diagram)$

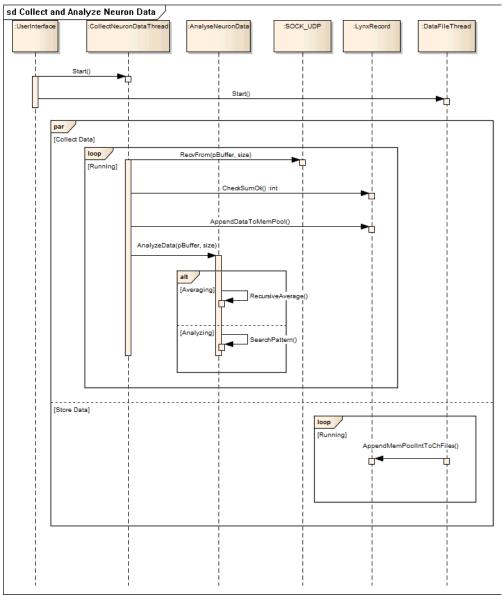


Figure: 4

#### Neuron Data File Thread - (Class diagram)

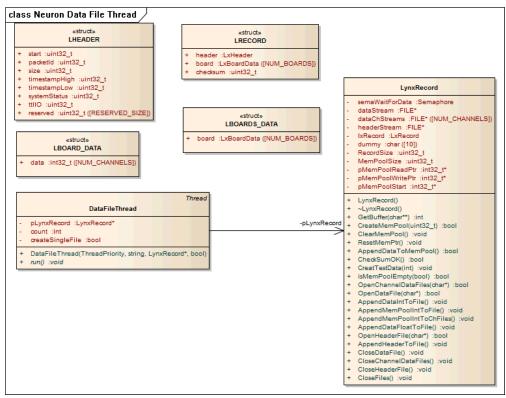


Figure: 5

**UserControl** - (Class diagram)

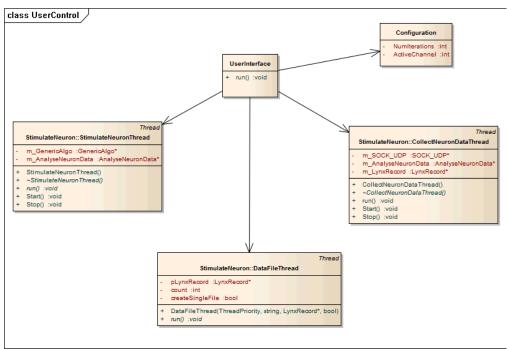


Figure: 6

 $\underline{\textbf{Generic Algorithm Classes}} \textbf{-} (Class\ diagram)$ 

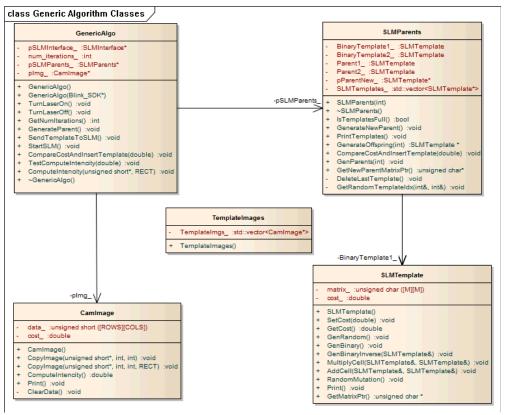


Figure: 7

SLM and Laser Interface Classes - (Class diagram)

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# class SLM and Laser Interface Classes SLMInterface oldPhase :uchar\_vec pSDK\_ :Blink\_SDK\* board\_number :int {readOnly} n\_boards\_found\_ :unsigned int constructed\_okay\_ :bool + SLMInterface(Blink\_SDK\*) + SLMInterface() + ~SLMInterface() + ResetInterface() :bool + SendTestPhase(unsigned char\*, int) :bool + SendPhase(unsigned char\*) :bool phaseRandom(size\_t, size\_t, uchar\_vec&) :void Consume\_keystrokes() :void Precalculate\_and\_loop(uchar\_vec&, uchar\_vec&, int, Blink\_SDK&) :bool LaserInterface + LaserInterface() :void TurnOn() :void + TurnOff() :void **CSerial** # m\_hIDComDev :HANDLE # m\_OverlappedRead :OVERLAPPED # m\_OverlappedWrite :OVERLAPPED # m\_bOpened :bool + CSerial() + ~CSerial() + Open(int, int) :BOOL + Close() :BOOL + ReadData(void\*, int) :int + SendData(char\*, int) :int + ReadDataWaiting() :int IsOpened() :BOOL # WriteCommByte(unsigned char) :BOOL

Figure: 8

#### Kernel Classes - (Class diagram)

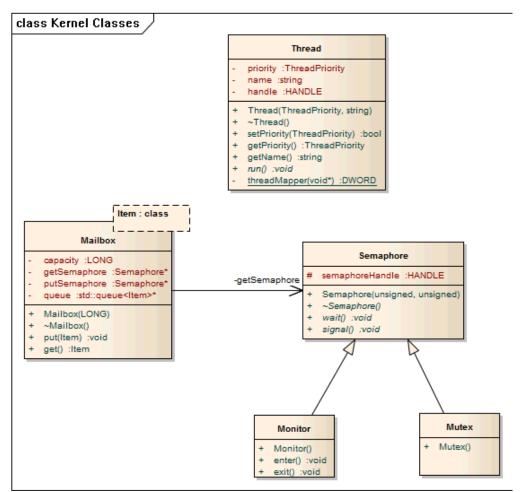


Figure: 9

<u>Timer Classes</u> - (Class diagram)

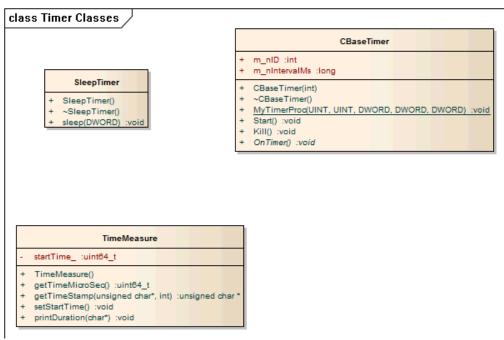


Figure: 10

Network Classes - (Class diagram)

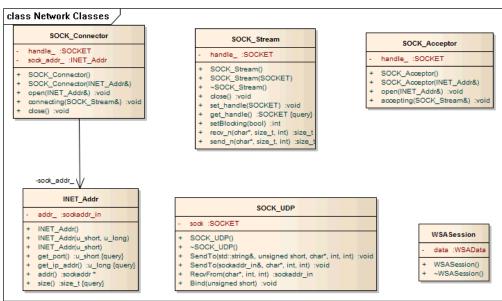


Figure: 11