Diagram Documentation

Primary Use Cases - (Use Case diagram)

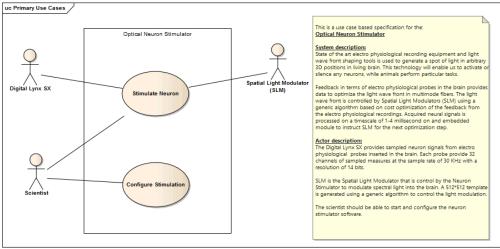


Figure: 1

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

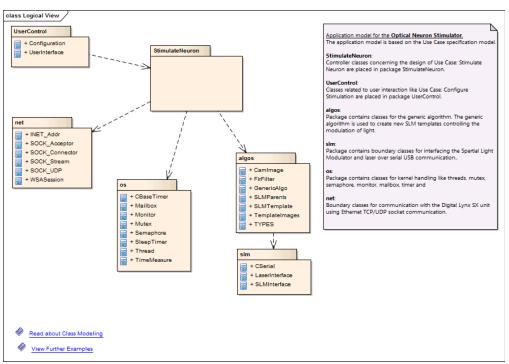


Figure: 2

Collect and Analyze Neuron Data - (Interaction diagram)

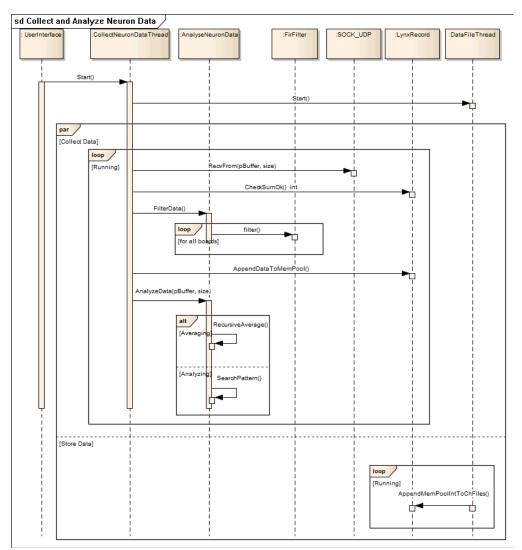


Figure: 3

 $\underline{Generate\ Templates\ and\ Control\ SLM}\ \text{-}\ (Interaction\ diagram)$

Figure: 4

StimulateNeuron Classes - (Class diagram)

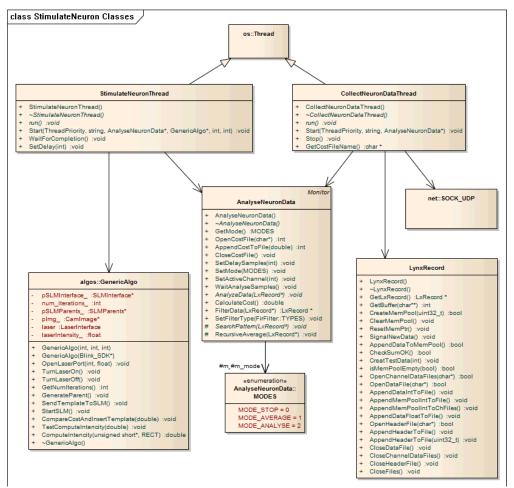


Figure: 5

<u>AnalyseNeuronData Class</u> - (Class diagram)

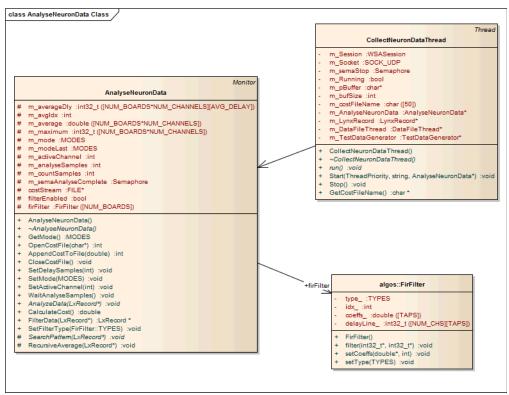


Figure: 6

 $\underline{\textbf{Neuron Data File Thread}} \cdot (Class \ diagram)$

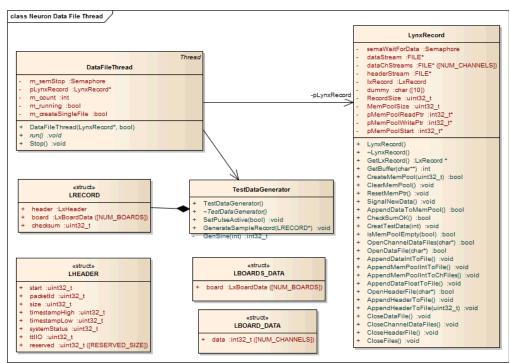


Figure: 7

Stimulate Neuron States - (StateMachine diagram)

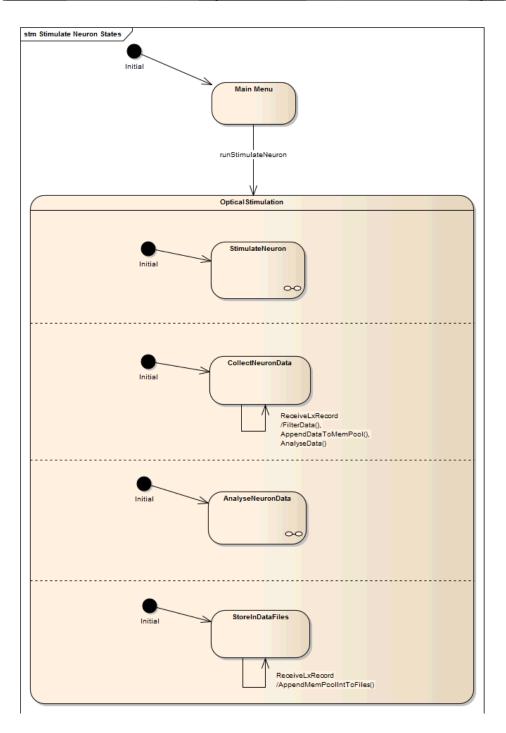
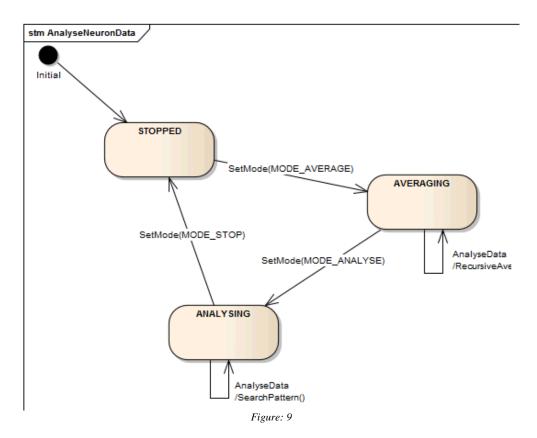


Figure: 8

$\underline{Analyse Neuron Data} \text{ - } (State Machine \ diagram)$



 $\underline{Stimulate Neuron} \text{ - } (State Machine \ diagram)$

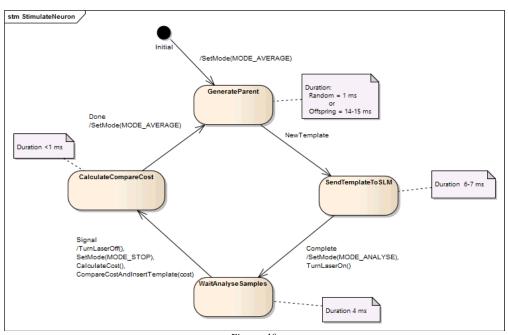


Figure: 10

 $\underline{UserControl} - (Class\ diagram)$

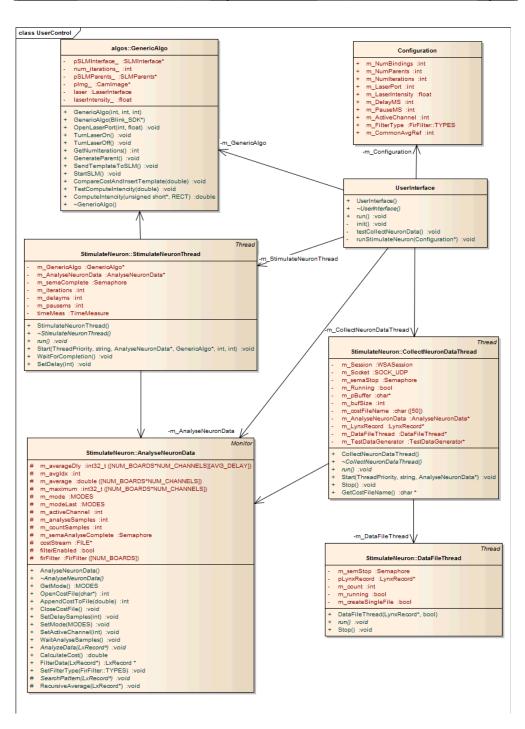


Figure: 11

Generic Algorithm Classes - (Class diagram)

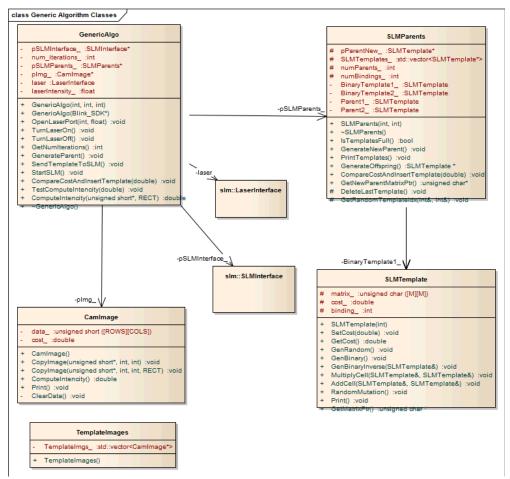


Figure: 12

Filter Classes - (Class diagram)

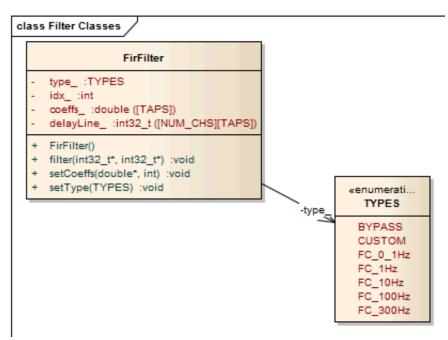


Figure: 13

SLM and Laser Interface Classes - (Class diagram)

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 m_CSerial :CSerial* m_baudRate :int LaserInterface(int) ~LaserInterface() OpenPort(int) :bool TurnOn(float) :bool TurnOff() :bool **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: 14

Kernel Classes - (Class diagram)

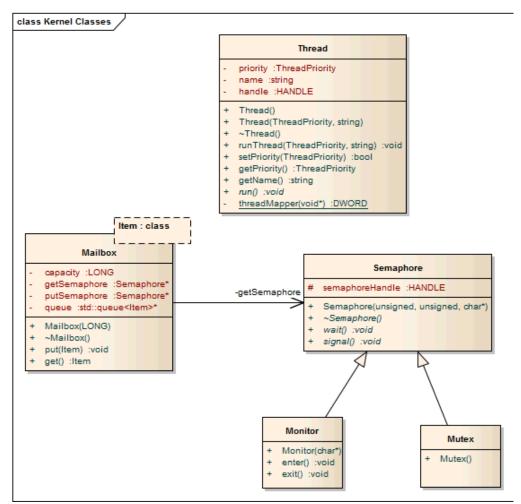


Figure: 15

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

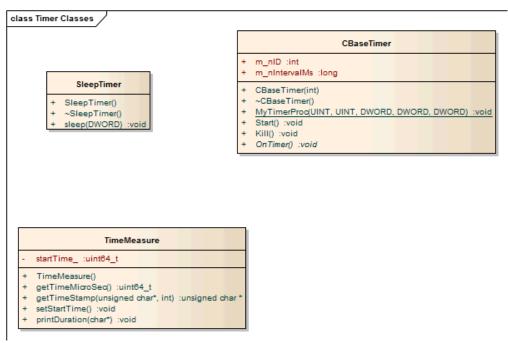


Figure: 16

Network Classes - (Class diagram)

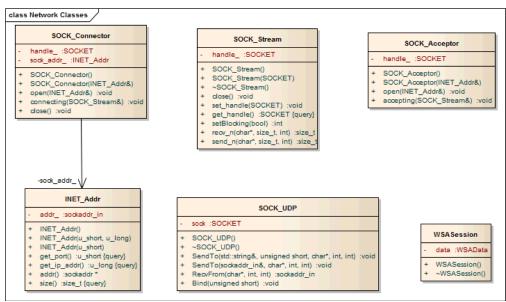


Figure: 17