

The CogniMem Emulation Kit is the perfect tools for Windows developers to evaluate the power and adaptivity of the CogniMem pattern recognition chip. It imitates all the functionalities of the chip and the only feature you will not be able to evaluate is the speed performance.

## CM1Ke\_SDK contents

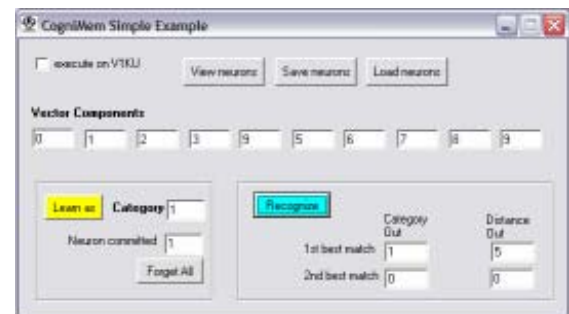
- DLLs (written in C++ and C#)
- Simple examples with source code (C/C++, VC#, VB6, VB.NET)
- Tutorial about the KNN and RBF classifiers both implemented in the chip
- CogniMem Reference Guide

## Function library

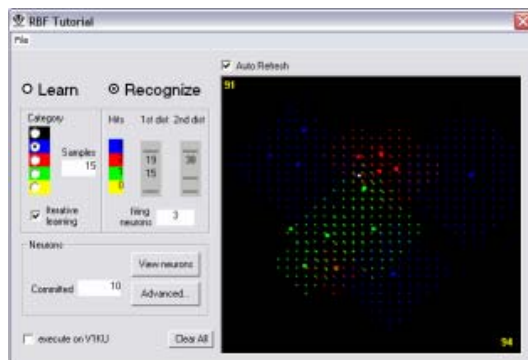
- Learn/Reco vector
  - Init network
  - Load/Save knowledge
  - Read/Write registers\*
- \*Like the CM1K chip, the CogniMem Emulation Kit is based on an Register Transfer Level (RTL) protocol. This means that a Read and Write command are all you need to fully control the operations of the neural network and this through two dozen registers only. For example, if you do not wish to use the higher level functions of the library, broadcasting a vector to the neurons uses two registers, learning a vector requires to write one register, classifying a vector can use three registers, etc.

## Simple examples

- Illustrate how you can integrate the use of CogniMem in your applications with a few lines of code.
- Example #1: Edit sample vectors on screen, learn them and view the contents of the neurons, or recognize them and view the response of all the firing neurons
- Example #2: Waveform recognition
- Example #3: Image recognition
- Example #4: Text recognition



## Tutorial



- Simple GUI to help understand the behavior of the neurons in learning and recognition mode
- Practice with the two classifiers available in the chip: RBF and KNN
- Understand the use of the global network registers such as the Min and Max Influence fields and the norm used to calculate the distance between an input vector and the models stored in the neurons.