## CogniPat SDK For MatLab

# A TOOLBOX CONNECTING MATLAB TO A NEUROMEM SILICON NETWORK

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CogniPat SDK is a product of General Vision, Inc. (GV)

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### **INTRODUCTION**

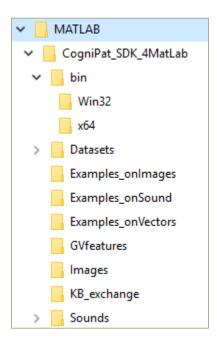
The CogniPat SDK for LabVIEW is a wrapper for the CogniPat Dynamic Link Library which interfaces to a NeuroMem network for the learning and recognition of patterns derived from any data type.

The description of the CogniPat engine and its function library is therefore available in the CogniPat SDK manual.

### **INSTALLATION**

Several versions of the DLL exist. They have the same entry points but include different drivers for access to the NeuroMem hardware:

CogniPat\_NeuroShield Cypress USB serial driver (and simulation if board not found)
CogniPat\_NSnK FTDI USB driver for NeuroStack (and simulation if board not found)
CogniPat\_Simu Cycle accurate simulation of the NeuroMem network of 1024 neurons



### **BIN FOLDER**

Win32/ CogniPat\_Simu.dll, CogniPat\_NSnK.dll, CogniPat\_NeuroShield.dll
 x64/ CogniPat Simu.dll, CogniPat NSnK.dll, CogniPat NeuroShield.dll

- CogniPat.h Header defining the entry points to the DLL

CogniPat.cs
 Class defining the entry points to the DLL for C# interface
 CogniPatClass.m
 Class defining the entry points to the DLL for MatLab interface

### **EXAMPLES**

- Examples on vectors
- Examples on sounds
- Examples on images

All the examples expect to find the CogniPatClass and its dependencies under ..\bin.

The folders Images, Datasets and Projects contain images, vectors and project files ready to use by some of the examples.

### **COGNIPAT CLASS**

Detailed description of the function library is available at <u>CogniPat SDK Manual</u>. Useful comments are also inserted in the \*.m files.

