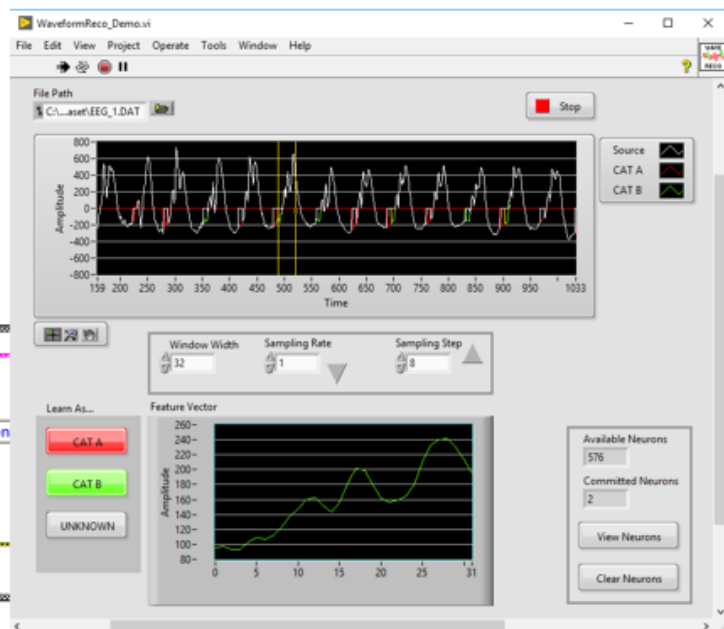
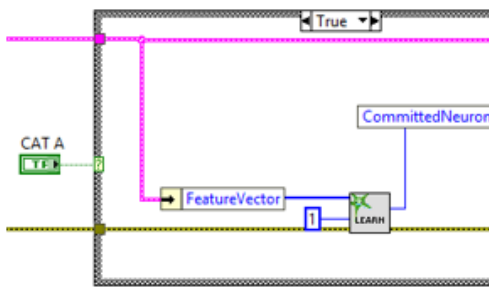


# CogniPat SDK for LabVIEW

## REAL-TIME MACHINE LEARNING WITH NEUROMEM<sup>®</sup> NEURAL NETWORKS

Version 5.5  
Revised 10/02/2019

CogniPat for LabVIEW  
to learn and recognize  
vectors extracted data,  
signal and images



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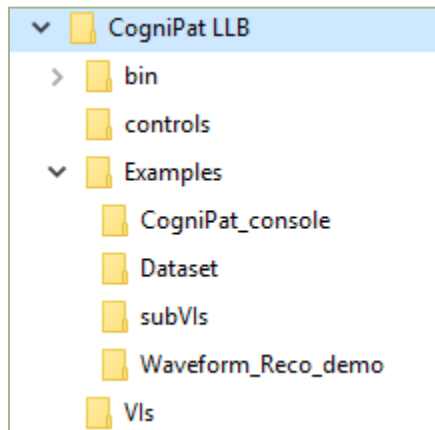
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## INTRODUCTION

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



### BIN FOLDER

- Win32/ CogniPat\_Simu.dll, CogniPat\_NSnK.dll, CogniPat\_NeuroShield.dll
- x64/ CogniPat\_Simu.dll, CogniPat\_NSnK.dll, CogniPat\_NeuroShield.dll
- CogniPat.dll DLL accessed by the VIs (can be any of the above copied and renamed)
- CogniPat.h Entry point to the CogniPat.dll

### VIS

- Library of virtual instruments calling the functions of the CogniPat\_xyz.dll
- The documentation of each VI can be found in the [CogniPat SDK manual](#).

### CONTROLS

- Controls and indicators commonly needed when interfacing to a NeuroMem network including, but not limited to, the list of supported hardware platforms, the display of the network's response to a new stimuli, the content of a single neuron, etc.

### EXAMPLES

- CogniPat\_Console
  - A generic console to practice with the neurons and understand their behavior to learn and classify vectors. Vectors can derive from any data types.
  - A typical scenario which can be reproduced is described in the [http://www.general-vision.com/documentation/TM\\_TestNeurons\\_SimpleScript.pdf](http://www.general-vision.com/documentation/TM_TestNeurons_SimpleScript.pdf)
- Waveform\_Reco\_Demo
  - Load a waveform, select a window size and teach sections of the waveform as arbitrary category A or B, understand how the entire waveform is classified after each learning.
  - The demonstration is documented at [http://www.general-vision.com/documentation/TM\\_WaveformReco\\_Demo.pdf](http://www.general-vision.com/documentation/TM_WaveformReco_Demo.pdf)