Tranalyzer2

wavelet

Wavelet
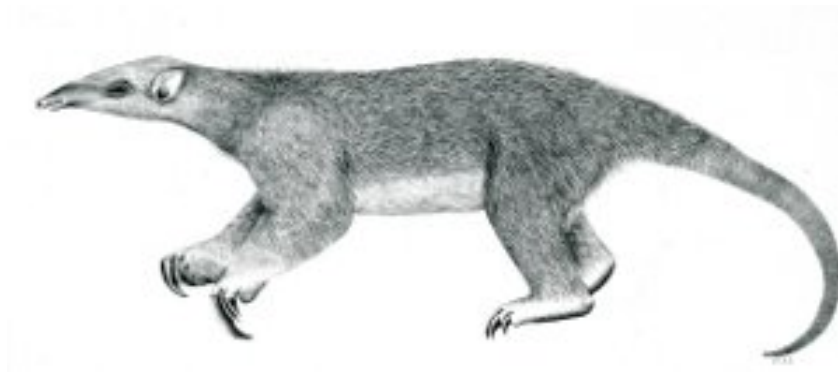
Tranalyzer Development Team

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1.1   Description

This plugin calculates the Daubechies wavelet transformation of the IP packet length variable in the packet structure, or the inter arrival distance of packets (IAT). The wavelet plugin requires no dependencies and produces only output to the flow file. User defined compiler switches in *define_global.h* produce optimized code for the specific application.

1.2   Configuration Flags

The following flags can be used to control the output of the plugin:

Variable	Default	Description
WAVELET_IAT	0	analysis of 0: pktlen, 1:IAT
WAVELET_SIG	0	print signal
WAVELET_PREC	0	precision 0: float, 1: double
WAVELET_THRES	8	Min number of packets for analysis
WAVELET_LEVEL	3	Wavelet decomposition level
WAVELET_EXTMODE	ZPD	Extension Mode: NON, SYM, ZPD
WAVELET_TYPE	DB3	Mother Wavelet: Daubechies DB1 - DB4
WAVELET_MAX_PKT	40	Maximal # of selected pkts

1.3   Flow File Output

The wavelet plugin outputs the following columns:

Name	Type	Description
waveNumPnts	U16	Number of points
waveSig	RF/D	Packet length / IAT signal
waveNumLvl	U32	Number of wavelet levels
waveCoefDetail	RF/D	Wavelet detail coefficients
waveCoefApprox	RF/D	Wavelet approximation coefficients