

# $f(x)$

## POST PROCESSING

MAGALI : Description module

MAGALI software includes a complete library for data analysis and processing functions. If necessary, it can be completed with new functions developed with the Post Processing Development Toolkit.

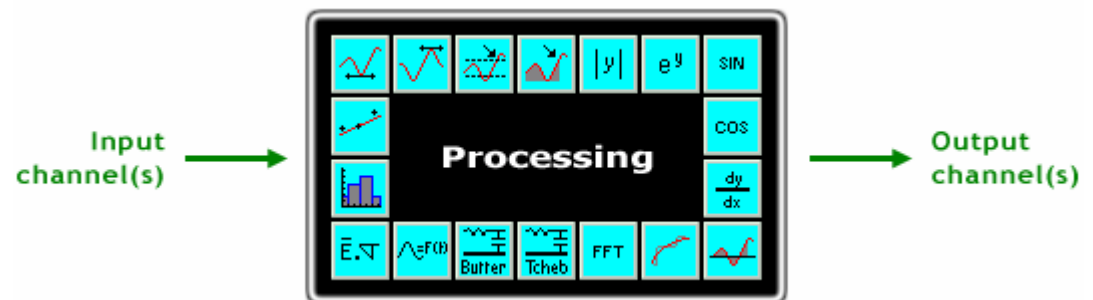
### Principle

- All channel types
- All formats
- All sources
- All time basis
- Shortcut buttons
- Linkage

Processings are available in **MAGALI** menu and can be related to a shortcut button to quickly use. They can be linked in macro-commands to automate a serial of repetitive processings.

From input channels (sources), they generate output channels (results), to use as sources for other processings. They are applied to all channel types, whatever origin, format or time basis.

All processing made on a test channels are saved with this test.



### Tools

- Automation
- Optimization
- Specific functions

#### Macro-commands

Macro-commands are designed to automate a processing sequence. They are built easily and graphically, and display in **MAGALI** menu like other processings.

Conditional functions are designed to built more complex macro-commands :

Functions, If, loop on index, loop on channel lists, ....

#### Stack

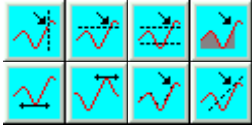
A stack is designed to record the processings made on a test. By this way, they can be directly used from this stack, identically or modifying some settings.

#### Development

The development toolkit develops easily new specific processings. Integration in **MAGALI** is automated; the user thus, is just concerned by its algorithm.

### EURILOGIC

#### Point research



- search on min and max,
- search on abscissa, ordinate, index, ...
- search on slope, integral, interval.

#### Mathematic processing



- arithmetic functions : addition, subtraction, product, rate,
- logic functions : and, or, negation, ...
- trigonometric, logarithmic functions ...
- interpreted functions (literal expression of a processing),
- integration, deviation,
- concatenation.

#### Signal processing



- digital filter : FIR, elliptic, Tchebychev, Butterworth,
- FFT, DSP, reverse FFT,
- auto and cross spectrums,
- transfer and coherence functions,
- auto and cross correlation,
- smoothing, envelop.

#### Statistic processings



- average, standard deviation, extrema,
- cross channel average,
- linear, polynomial regression,
- trend curves.

#### Specific modules

The list is not exhaustive, specific modules are available. For example :

- shock response spectrum,
- crash tests,
- ...

EURILOGIC Magali  
Route d'Elne  
F-66200 MONTESCOT  
Tel. (33) 4 68 37 36 35  
Fax (33) 4 68 37 36 34  
E-mail : <mailto:info@htsys.com>  
Internet : <http://www.magali.com>

The know how described in this document is presented for information. EURILOGIC won't be liable for any misleading information included in the document. Copyrights 2004 -EURILOGIC- All rights reserved