



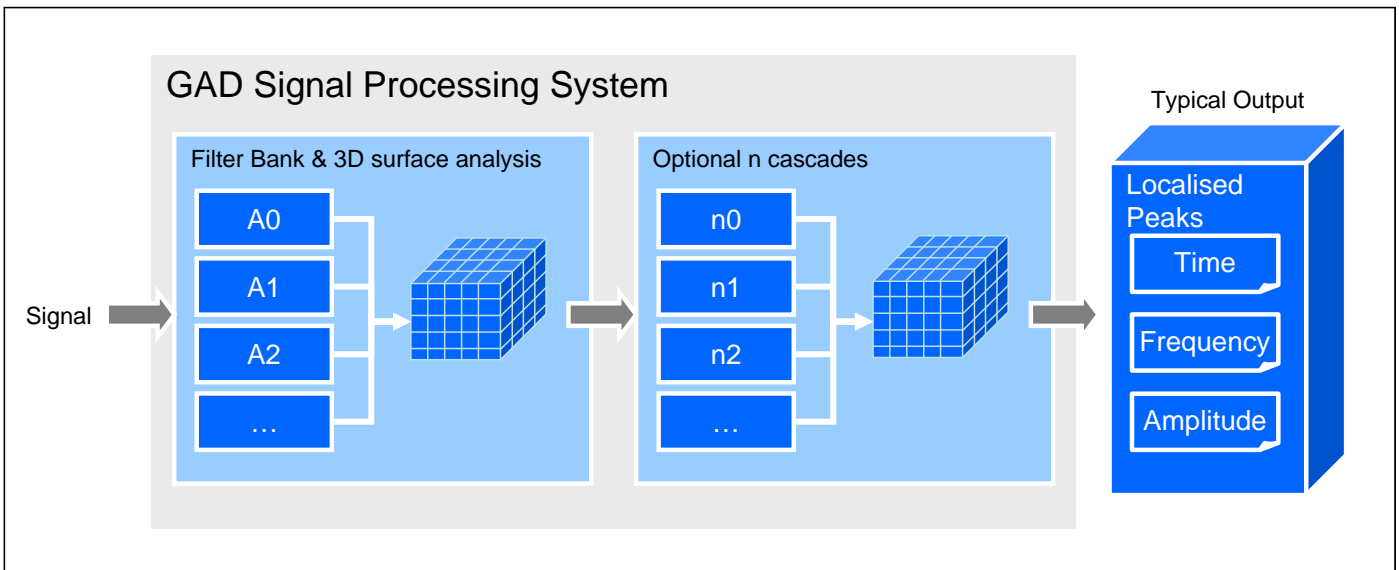
**Applications**

Further analysis may include (but is not limited to) locating transients, detecting new sinusoidal frequencies, anti-phasing signals, determining harmonic relationships, searching for phase coincidences that may cause resonances, finding and describing time/frequency/amplitude curves, re-constructing a representation of the signal by generating sine waves, feeding into a neural network.

**Filters**

The filters are based on cascades of resonant filters that may be configured with any Q value and centre frequencies up to Nyquist. They are so designed that the stable output of each filter in response to a signal of its centre frequency is the same for all Q values. The sinusoidal frequency/phase discrimination depends on the number and Q of the filters, the length of the sinusoidal signal and the sampling rate and bit precision of the input data. For sinusoidal signals stability increases exponentially with the duration of any sinusoidal component.

Parameter	Typical Offering
Filter Window Size	Variable, non-integer
Sinusoidal Signal Stability	Proportional to $1 - \exp(-t/T)$ ; $t = \text{duration}$ , $T = 2*Q/w_0$
Outputs	Peaks with time, frequency and amplitude information
Signal Analysis Technique	Proprietary - Worldwide patent pending



**Technology Licensing**

GSP is now available for licensing in a variety of formats. Please contact GAD Group for more information.

**GAD Group Limited**  
 7 Square Rigger Row  
 Plantation Wharf  
 London SW11 3TZ  
 United Kingdom  
 t: +44 (0) 7350 1210  
 f: +44 (0) 7223 1296

**GAD GROUP**

w: [www.gad-group.com](http://www.gad-group.com)  
 e: [info@gad-group.com](mailto:info@gad-group.com)