## Watchdog Documentation V2.0

# Watchdog32

Watchdog32	
😑 Watchdog Running	
Watching Folder : c:\sonyex\ Watchdog Interval : 5.000	
[20.40.51] - Watchdog Stated	~
	<b>S</b>
Stop Options	Cancel
Ready	

Watchdog is a single panel application that is used to load data from the Sony EX Data Acquisition System. The module monitors a user specified directory for the presence of XMR (Freq domain) and XMX(Time domain) data files. If new files are detected the user has the option to load the file automatically or to be prompted. The Monitoring interval, spectral types and max file load size can be configured by the user.

From version 2.0 the Watchdog module includes the ability to calculate Articulation Index scores. This can be applied to XMX, XMR and WAV file types. For XMX and WAV data the time domain data will be processed through a third octave filter bank before the AI scores are derived.

The module dialog has the following elements:

Watchdog Run Status



The status of the Watchog will be indicated at the top of the panel by either a flashing green light or a static red light. The Watchdog can be started of stopped by clicking on the "Start | Stop" button at the bottom left of the panel. When the Watchdog is running the "Options" button will be disabled. The "Cancel" button is only enabled when the digital octave filtering operations are in progress.

#### Watchdog Runtime information

The Watchdog will report any files it has processed in the large text area. This text area will present the last 100 messages.

Watching Folder : c:\ Watchdog Interval : 5.000	
[21:23:50] • Watchdog Stopped [21:23:45] • Processed : engine runup3 xmr [21:23:35] • Processed : 140605-121826_1.xmr [21:13:55] • Watchdog Started	~
	~

## PROCESSING OPTIONS

Click on the "Options..." button to show the following dialog.

Monitoring Directory       Polling Interval         C:\sonyex\       Browse       5       s         Mode	Matchdog Options			
c:\sonyex\     Browse     5     s       Mode <ul> <li>Prompted</li> <li>Automatic</li> <li>Prompted</li> <li>WAR (Frequency)</li> <li>XMR (Frequency)</li> <li>XMX (Time series)</li> <li>XMX (Time series)</li> <li>XMX (Time series)</li> <li>XMX</li> <li>XMR Spectra Types</li> <li>XAV</li> <li>Save</li> <li>Yalue / Unit</li> <li>0.00001000</li> <li>Al Setup</li> <li>Save</li> <li>Save</li> <li>Complex FT</li> <li>Setup</li> <li>OK</li> </ul>	Monitoring Directory		Polling Interval	
Mode	c:\sonyex\	Browse	5 s	
XMR Spectra Types       WAV Scaling         V Snapshot Magnitude       Value / Unit         Magnitude       Transfer Function H2         Magnitude       Transfer Function H3         Power Spectral Density       Coherence         Power Spectrum       Auto Correlation         Ctave Analysis       Cross Correlation         CSD       C Cepstrum         Ctarsfer Function H1       Complex FET         Setup       Setup	Mode Automatic Max XMR File Load Size 50 MB	Prompted  Max XMX/WAV Event  60.0000 s	File Types to Monitor XMR (Frequency) XMX (Time series) WAV	
Iv     Foreid Spectral Density     Iv     Control to Conto Control to Control to Control to Conto	XMR Spectra Types Snapshot Magnitude Magnitude Rower Spectral Density	Transfer Function H2 Transfer Function H3 Coherence	WAV Scaling Value / Unit 0.00001000	
	Fower Spectral Density     Power Spectral Density     Octave Analysis     CSD     Transfer Function H1	Considerice     Auto Correlation     Cross Correlation     Cepstrum     Complex FFT	Al Setup Enable Setup	Save OK

"Monitoring Directory" allows the user to set the directory where the Watchdog module will scan for XMR and XMX files. If the directory does not exist then the user will be prompted to create the directory:

J	Place	s		
	?	The directory Do you want	/ 'c: \txt' does no to create it ?	t exist.
		Yes	No	

The user can also browse their PC for an existing directory by clicking on the "Browse" button.

"Polling Interval" allows the user to set the frequency of the watchdog. The time must be entered in seconds and must be greater than 1s.

"Max XMR File Load Size" allows the user to set the maximum amount of data that will be loaded from one file. This limit can be any value above 1MB and should be set according to the resources available on your machine. The value relates to the data loaded into "PCScanIV Post" and will account for any spectral options selected and the events loaded by the Watchdog module.

"XMR Spectral Types" allows the user to set which spectral data will be extracted from the XMR file. This selection will be applied to either Automatic or Prompted modes.

"File Types to Monitor". Select whether to poll for XMX, WAV, XMR.

"Max XMX Event" allows the user to set the maximum duration for data imported for a given event. As a example, an XMX file may contain 8 channels each with sample duration of 10minutes within each event. The amount of data in this example source file could easily exceed the available resource on the machine running PCScanIV Post. Setting the import duration to 1 minute would reduce the amount of data imported by a factor of 10. Only 1 minute of data would be imported for each channel in each event.

"Al Setup" group allows Articulation Index calculation routines to be enabled. See the dedicated section in this document for more information on this setting.

Click on "Save" to store the settings so that they will be reused when the Watchdog is restarted. Click on OK to only use the settings for the current session. Click on "Cancel" to abort your changes.

## ARTICULATION INDEX SETUP

Al Calculation Method V Unikeller Rooms NVH Result Files Save Results to HTML Auto Launch Results	Digital Octave Filter Octave Filter 3rd Octave Filter Order 6	Averaging Mode Detector Average Time Exp 1/8 I 0.100 s Bandwidth Low High 200.000 [8000.000 Note: All Al Algorithms use 200Hz - 8KHz
XMX and WAV Channels All    Selected Channel 010 Channel 010 Channel 011 Channel 012 Channel 012 Channel 013 Channel 015 Channel 015 Channel 015 Channel 016 Channel 017 Channel 019 Channel 019 Channel 021		Channel 001 Channel 002 Channel 003 Channel 004 Channel 005 Channel 005 Channel 007 Channel 007 Channel 007

"AI Calculation Method" group allows the user to select any of the three AI methods supported by PCscanIV.

The "Octave Filter" list box permits the user to select the type of octave analysis should be conducted. The user may choose between Full, Third, Twelfth, Twenty-fourth, Forty-eighth and Ninety-sixth octave band analysis. Octave filters will be used to process XMX and WAV input file types.

The "Detector" list box permits the user to select the type of detector. The detector will be applied to the output of each of the digital octave filters used in the AI analysis. The exponential detectors have a fixed range of averaging times whereas with linear averaging, the user may supply the

averaging time by entering a value in the averaging time edit box.

"Bandwidth" allows the user to set the maximum frequency range over which the AI should be calculated. The calculated upper bandwidth will be the minimum of either the setting in this dialog or the value determined from the signal sample rate.

"Save Results to HTML" will cause the AI results to be written to a series of HTML documents. An index page will be created that allows the user to quickly open specific event detail reports.

"Auto Launch Results" will cause the AI results HTML index document to be automatically loaded into a web browser once the calculations have completed. This enables a quick overview of the results without the need to load the resulting matrix objects into the PCscan graphing modules or to search the PC for the report files.

## **Channel Section**

The AI calculation will only be applied to certain channels as specified in the following dialog. This list is simply an

Channel 009 Channel 010	^	->	Channel 001 Channel 002
Channel 011 Channel 012 Channel 013	-11	<-	Channel 003 Channel 004 Channel 005
Channel 014 Channel 015			Channel 006 Channel 007 Channel 000
Channel 016 Channel 017 Channel 018			Channel 008
Channel 019 Channel 020	~		

enumerated list of channels. Channel 01 will be the first channel loaded from an XMX or WAV file, Channel 02 the second and so on. This dialog has no apriori knowledge of the Sony EX channel configuration.

To process all channels click on the "All" radio button.

To process only specific channels, click on the "Selected" radio button. The lower section of the

Channels group will now be enabled. The left hand list is the source channel list whilst the right hand side list contains the list of channels that should be processed for AI.

## SONY EX AND PCSCANIV CONFIGURATION

In order for the Watchdog module to correctly identify completed files it is important that the XMR and XMX rename option in the PCScanIV software is **disabled**. All files should have the Sony EX data format eg

In prompted mode the user will be given the opportunity to rename the XMR, XMX file as part of the Watchdog load process.

## EXAMPLE PROCESS USING PROMPTED MODE

- 1. Configure the Watchdog to monitor the "C:\sonyex" folder
- 2. Set the Mode to "Prompted"
- 3. Select all spectral types
- 4. Set the polling interval to 5s
- 5. Ensure the "XMR" options is checked.

Matchdog Options			L
Monitoring Directory		Poling Interval	
c:\sonyex\	Browse	5 \$	
Mode Automatic Max XMR File Load Size 50 MB	C Prompted Max XMX/WAV Event 60.0000 s	File Types to Monitor VMR (Frequency) VMX (Time series) VMX	
WRR Spectra Types           IV Snapshot Magnitude           IV Magnitude           IV Angritude           IV Power Spectral Density           IV Power Spectral Density           IV Detave Analysis           IV CSU           IV Spectrum           IV Spectrum           IV Detave Analysis           IV Spectrum           IV Spectrum	✓ Transfer Function H2     ✓ Transfer Function H3     ✓ Coherence     ✓ Auto Correlation     ✓ Cross Correlation     ✓ Cross Correlation     ✓ Copplex FFT	WAV Scaling           Value / Unit           0 00001000           Al Setup           If Enable           Setup	Save

6. Click on the Setup... dialog in the AI Setup Group

✓ Unikeller	Octave Filter	Averaging Mode	
Rooms	3rd Octave 💌		
NVH	Filter Order		s
Result Files	6 💌	Bandwidth Low High	
Save Results to HTML		200.000 8000.000	1
Auto Launch Results		Note: All Al Algorithms use 200Hz - 8KHz	
KMX and WAV Channels			
🔿 All 🛛 💿 Selected			
Channel 001 Channel 002	▲ →	Channel 025 Channel 026	
Channel 003			
Channel 004 Channel 005			
Channel 006			
Channel 008			
Channel 009 Channel 010			
Channel 011			
Channel 012 Channel 012	~		

- 7. Ensure that the options are configured as shown in the dialog above.
- 8. Click on OK to confirm the AI options.
- 9. Click on OK to confirm all settings.
- 10. Start the Watchdog module by clicking on the Start button.

The watchdog will now monitor the C:\SONYEX folder waiting for completed XMR files. When a file is detected the load process will start:

Watchdog32	
😑 Watchdog Running	
Watching Folder : c:\sonyex\ Watchdog Interval : 5.000	
[22:00:02] - Watchdog Started [21:54:21] - Watchdog Stopped [21:52:53] - Processe 2: 290306-152822_no weight.xmx [21:52:40] - Watchdog Started	
Stop Options	Cancel
Ready	

 In prompted mode the user will be asked if they wish to rename the source XMR file. The current name will be displayed by default and can be accepted by clicking on either "Next>>>" or "Finish". Clicking on "Next>>>" will display the Events dialog. Clicking on Finish will automatically select all Events in the XMR file.

Rename Object
The Watchdog only accepts EX files that have been generated automatically and have a format like:
ddmmyy-hhmmss-1.xmx
This option allows you to rename the XMR or XMX files. Any Matrix or Signal objects created by this routine will adopt any name change.
Old Name 120406-182735_1
New Name 120406-182735_1
Next >>

2. Once the name has been accepted the user will be asked to choose which events they wish to load. *This dialog will only be displayed if more than one event exists in the file.* 

🚇 XMR Load Options 🛛 🛛 🛛
Select Events to load
Event 1
Select All Clear All
Cancel [Finish]

3. The data will now be loaded and a series of matrix objects will be created. The number of matrices created will depend upon the Spectral data types enabled in the options dialog and the number of events selected.

Watchdog32	
😑 Watchdog Running	
Watching Folder : c:\sonyex\ Watchdog Interval : 5.000	
[22:28:09] - Processed : 140605-121826_1.xmr [22:28:02] - Watchdog Started	
Stop	

📗 Data	
File Object	Help
140605	-121826_1_mag



#### Prompt Options for XMX file imports



When and XMX file is detected and "Prompt" mode is selected then the following dialog will be displayed.

The user may select the Events and channels to be loaded. At least one channel and one event must be selected.

These settings will be remembered for future file imports. If the channel selections will remain unchanged between different loads, then the user will be able to click on "Finish" when the file rename dialog first appears.

#### Creation of .prr and .prx files

When an XMR or XMX file is successfully processed the Watchdog module will create a new file in the watchdog directory that has the same name as the source XMR or XMX file. The extension will be either .prr or .prx. The presence of a PRR or PRX file is used to tell the Watchdog module that it has previously loaded the corresponding XMR or XMX file and that it should now be ignored.

In the above screen shot you can see that the XMR file has a corresponding PRR file.

 140605-121826\_1.xmr
 Source XMR file

 140605-121826\_1.prr
 Watchdog generated file

Deleting the .prr file relating the an XMR file will cause the corresponding XMR file to be processed by the Watchdog module at the next polling interval.

#### Al Processing

When AI Processing is enabled on XMX or WAV files, selected channels will be processed by a series of fractional octave filters prior to having the AI scores calculated. Depending on the duration of the signal and the sample rate used, the calculation of the fractional octave values could take a significant length of time. Watchdog will provide the user with status information and the ability to abort a data calculation.

🖉 Watchdog32	
Watchdog Running	
Watching Folder : c:\sonyex\ Watchdog Interval : 5.000	
[22:00:02] - Watchdog Started [21:54:21] - Watchdog Stopped [21:52:53] - Processed : 290306-152822_no weight.xmx [21:52:40] - Watchdog Started	
J	~
Stop Options	Cancel
Al Processing 270306-105538_1_ev2_Al_1	

If a user chooses to produce an AI results report, the results will be available once processing has completed. The module will produce a series of HTML files in the PCscan Save Place. If the option is enabled the index page for the results will be automatically launched in a web browser.

@	Watchdog Al Results - Microsoft Internet Explorer	(	
÷ E	ile <u>E</u> dit <u>V</u> iew F <u>a</u> vorites <u>T</u> ools <u>H</u> elp		- 🥂
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Ad	dress 🖉 C:\SonyEX\270306-105538_1_index.htm	💌 🄁 Go	<b>•</b>
Wa	tchdog AI Results		^
In		538_1.xmx	
Ev	ent Summary Click on the hyperlinks to open the Articulation Results	report for a given event.	
	Event	Report Filename	
	Event 01	270306-105538_1_ev1_AI_1.htm	
	Event 02	270306-105538_1_ev2_AI_1.htm	
	Event 03	270306-105538_1_ev3_AI_1.htm	
© 2	006 Bay Systems Limited. All rights reserved.		~
<b>e</b> 1	Done	😏 My Computer	

If a processed XMX file contains multiple events then the results index page will contain hyperlinks to reports for each event. Clicking on one of these links will show the AI report for that event.

	osoft Internet Explorer			-) Ľ
<u>File E</u> dit <u>View</u> Favorites	<u>T</u> ools <u>H</u> elp			ł
🕞 Back 👻 🕑 👻 📕	🗿 🏠 🔎 Search   👷 Favorite	s 🚱 🔗 🍓 💿 • 🗾	🖹 😂 🎇 🐢 🚳	
ddress 🙋 C:\SonyEX\270306-10	5538_1_ev1_AI_1.htm		💌 🄁 Go 🛛 🖣	•
atchdog AI Results				1
esults for source File : c	:\sonyex\270306-105538_	_1.xmx		
aport Summary for event ( Signal File : 270306-10553 Matrix File : 270306-10553 Report Created : Sunday, (	001 38_1_ev1_1 38_1_ev1_AI_1 02 April 2006 at 22:14:44			
Average Articulation Ind	ex scores are as follows:			
Channel	Unikeller (%)	Rooms (%)	NVH (%)	
<u>1.1.1 - drv rt ear</u>	-26.86	16.96	2.01	
<u>1.1.2 - drv left ear</u>	-27.08	16.92	1.93	
Worst Articulation Index	scores are as follows:			
Channel	Unikeller (%)	Rooms (%)	NVH (%)	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear	Unikeller (%) -28.07 @ 0.6250s -28.07 @ 0.6250s	Rooms (%) 16.00 @ 1.1250s 16.00 @ 1.1250s	NVH (%)           1.37 @ 1.1250s           1.37 @ 1.1250s	
Channel 1.1.1 - drv rt ear 1.1.2 - drv left ear top mannel : 1.1.1 - drv rt ear	Unikeller (%) -28.07 @ 0.6250s -28.07 @ 0.6250s	Rooms (%) 16.00 @ 1.1250s 16.00 @ 1.1250s	NVH (%) 1.37 ⊕ 1.1250s 1.37 ⊕ 1.1250s	
Channel         1.1.1 - drv rt ear           1.1.2 - drv left ear         100           top         11.1 - drv rt ear           Time (s)         11.1 - drv rt ear	Unikeller (%) -28.07 @ 0.6250s -28.07 @ 0.6250s Unikeller (%)	Rooms (%) 16.00 @ 1.1250s 16.00 @ 1.1250s Rooms (%)	NVH (%6) 1.37 © 1.1250s 1.37 © 1.1250s NVH (%6)	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear           Lop           xannel : 1.1.1 - drv rt ear           Time (s)           0.0000           0.0000	Unikeller (%) -28.07 ⊕ 0.6250s -28.07 ⊕ 0.6250s Unikeller (%) -20.17 -20.55	Rooms (%) 16.00 @ 1.1250s 16.00 @ 1.1250s Rooms (%) 18.00 18.00	NVH (%) 1.37 @ 1.1250s 1.37 @ 1.1250s NVH (%) NVH (%) 4.31 5.55	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear           top           tannel : 1.1.1 - drv rt ear           Time (s)           0.0000           0.1250	Unikeller (%)           -28.07 @ 0.6250s           -28.07 @ 0.6250s           Unikeller (%)           -20.17           -25.56           -25.57	Rooms (%)           16.00 @ 1.1250s           16.00 @ 1.1250s           8.00 @ 1.1250s           18.00           17.00           17.00	NVH (%)           1.37 @ 1.1250s           1.37 @ 1.1250s           1.37 @ 1.1250s           4.31           2.29           2.21	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear           top           tannel : 1.1.1 - drv rt ear           Time (s)           0.0000           0.1250           0.2500           0.270	Unikeller (%)           -28.07 ⊕ 0.6250s           -28.07 ⊕ 0.6250s           Unikeller (%)           -20.17           -25.56           -26.35           -20.0	Rooms (%)           16.00 @ 1.1250s           16.00 @ 1.1250s           8.00 @ 1.1250s           18.00           17.00           17.00           17.00	NVH (%) 1.37 @ 1.1250s 1.37 @ 1.1250s NVH (%) 4.31 2.29 2.24 1.20	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear           top           hannel : 1.1.1 - drv rt ear           Time (s)           0.0000           0.1250           0.3500           0.3750           0.5000	Unikeller (%)           -28.07 ⊕ 0.6250s           -28.07 ⊕ 0.6250s           Unikeller (%)           -20.17           -25.56           -26.36           -26.80           -27.21	Rooms (%)           16.00 @ 1.1250s           16.00 @ 1.1250s           800ms (%)           18.00           17.00           17.00           17.00           17.00           17.00	NVH (%)           1.37 @ 1.1250s           1.37 @ 1.1250s           1.37 @ 1.1250s           VH (%)           4.31           2.29           2.24           1.70           1.92	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear           top           hannel : 1.1.1 - drv rt ear           0.0000           0.1250           0.2500           0.3750           0.6000           0.2500           0.3750           0.6000	Unikeller (%)           -28.07 @ 0.6250s           -28.07 @ 0.6250s           Unikeller (%)           -20.17           -25.56           -26.35           -26.80           -27.31           -29.07	Rooms (%)           16.00 @ 1.1250s           16.00 @ 1.1250s           18.00 @ 1.1250s           18.00 17.00           17.00 17.00           17.00 17.00           17.00 17.00	NVH (%)           1.37 @ 1.1250s           1.37 @ 1.1250s           1.37 @ 1.1250s           VH (%)           4.31           2.29           2.24           1.70           1.93           1.92	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear           100           Time (s)           0.0000           0.1250           0.2500           0.3750           0.5000           0.4250           0.2500           0.3250           0.2500           0.2500           0.2500	Unikeller (%) -28.07 @ 0.6250s -28.07 @ 0.6250s Unikeller (%) -20.17 -25.56 -26.36 -26.80 -27.31 -28.07 -21.5	Rooms (%)           16.00 @ 1.1250s           16.00 @ 1.1250s           16.00 @ 1.1250s           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00	NVH (%)           1.37 ⊕ 1.1250s           1.37 ⊕ 1.1250s           1.37 ⊕ 1.1250s           NVH (%)           4.31           2.29           2.24           1.70           1.93           1.40	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear           Lop           Time (s)           0.0000           0.1250           0.2500           0.3750           0.5000           0.5250           0.5500           0.5250	Unikeller (%) -28.07 @ 0.6250s -28.07 @ 0.6250s Unikeller (%) -20.17 -25.56 -26.36 -26.36 -26.80 -27.31 -28.07 -27.15 -26.70	Rooms (%)           16.00 ⊕ 1.1250s           16.00 ⊕ 1.1250s           16.00 ⊕ 1.1250s           8.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00	NVH (%)           1.37 ⊕ 1.1250s           1.37 ⊕ 1.1250s           1.37 ⊕ 1.1250s           NVH (%)           4.31           2.29           2.24           1.70           1.93           1.40           1.68           1.92	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear           top           Time (s)           0.0000           0.1250           0.3750           0.5000           0.5250           0.7500           0.7500           0.7500	Unikeller (%) -28.07 @ 0.6250s -28.07 @ 0.6250s Unikeller (%) -20.17 -25.56 -26.36 -26.80 -27.31 -28.07 -27.15 -26.79 -27.75	Rooms (%)           16.00 @ 1.1250s           16.00 @ 1.1250s           16.00 @ 1.1250s           18.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00	NVH (%)           1.37 ⊕ 1.1250s           1.37 ⊕ 1.1250s           1.37 ⊕ 1.1250s           NVH (%)           4.31           2.29           2.24           1.70           1.93           1.40           1.68           1.92           1.72	
Time           1.1.1 - drv rt ear           1.1.2 - drv left ear           top           hannel: 1.1.1 - drv rt ear           0.0000           0.1250           0.2500           0.3750           0.6250           0.7500           0.3750           1.0250           1.1.2 - drv left ear	Unikeller (%)           -28.07 @ 0.6250s           -28.07 @ 0.6250s           -28.07 @ 0.6250s           Unikeller (%)           -20.17           -25.56           -26.36           -26.80           -27.31           -28.07           -27.15           -26.79           -27.57	Rooms (%)           16.00 ⊕ 1.1250s           16.00 ⊕ 1.1250s           16.00 ⊕ 1.1250s           18.00           17.00	NVH (%)           1.37 © 1.1250s           1.37 © 1.1250s           1.37 © 1.1250s           2.29           2.24           1.70           1.93           1.40           1.68           1.92           1.73           2.27	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear           top           top	Unikeller (%)           -28.07 © 0.6250s           -28.07 © 0.6250s           -28.07 © 0.6250s           Unikeller (%)           -20.17           -25.56           -26.36           -26.36           -26.80           -27.31           -28.07           -27.15           -26.79           -27.57           -27.51	Rooms (%)           16.00 @ 1.1250s           16.00 @ 1.1250s           16.00 @ 1.1250s           8000 @ 1.1250s           18.00           17.00	NVH (%)           1.37 © 1.1250s           1.37 © 1.1250s           1.37 © 1.1250s           VVH (%)           4.31           2.29           2.24           1.70           1.93           1.40           1.68           1.92           1.73           1.37	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear           Log           hannel : 1.1.1 - drv rt ear           7           0.0000           0.1250           0.2500           0.3750           0.5000           0.4250           0.7500           0.8750           1.0000           1.1250           1.2500           1.2500           1.2500	Unikeller (%)           -28.07 @ 0.6250s           -28.07 @ 0.6250s           -28.07 @ 0.6250s           Unikeller (%)           -20.17           -25.56           -26.36           -26.36           -27.31           -28.07           -27.15           -26.79           -27.57           -27.51           -27.51           -27.51           -27.51	Rooms (%)           16.00 @ 1.1250s           16.00 @ 1.1250s           16.00 @ 1.1250s           800ms (%)           18.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           17.00           16.00           17.00           17.00	NVH (%)           1.37 ⊕ 1.1250s           1.37 ⊕ 1.1250s           1.37 ⊕ 1.1250s           NVH (%)           4.31           2.29           2.24           1.70           1.93           1.40           1.68           1.92           1.73           1.37           1.37           1.37           1.37           1.83           1.00	
Channel           1.1.1 - drv rt ear           1.1.2 - drv left ear           ISQ           cannel : 1.1.1 - drv rt ear           1.1.2 - drv left ear           Source           0.0000           0.1250           0.2500           0.3750           0.5000           0.3750           0.6250           0.7500           1.1250           1.2500           1.3750           1.3750	Unikeller (%)           -28.07 @ 0.6250s           -28.07 @ 0.6250s           -28.07 @ 0.6250s           Unikeller (%)           -20.17           -25.56           -26.36           -26.36           -27.31           -28.07           -27.15           -26.79           -27.57           -27.51           -27.19           -27.9           -27.9           -27.9           -27.9           -27.9	Rooms (%)           16.00 @ 1.1250s           16.00 @ 1.1250s           16.00 @ 1.1250s           800ms (%)           18.00           17.00	NVH (%)           1.37 ⊕ 1.1250s           1.37 ⊕ 1.1250s           1.37 ⊕ 1.1250s           NVH (%)           4.31           2.29           2.24           1.70           1.93           1.40           1.68           1.92           1.73           1.37           1.83           1.89           1.00	

## KNOWN LIMITATIONS OF WATCHDOG WITH AI PROCESSING

- 1. Al processing cannot detect if data has been pre-weighting with A, B, C filters. This is a limitation of the PCScan driver. Not weighting filters should be used on the source data otherwise Al calculation will yield incorrect results.
- 2.