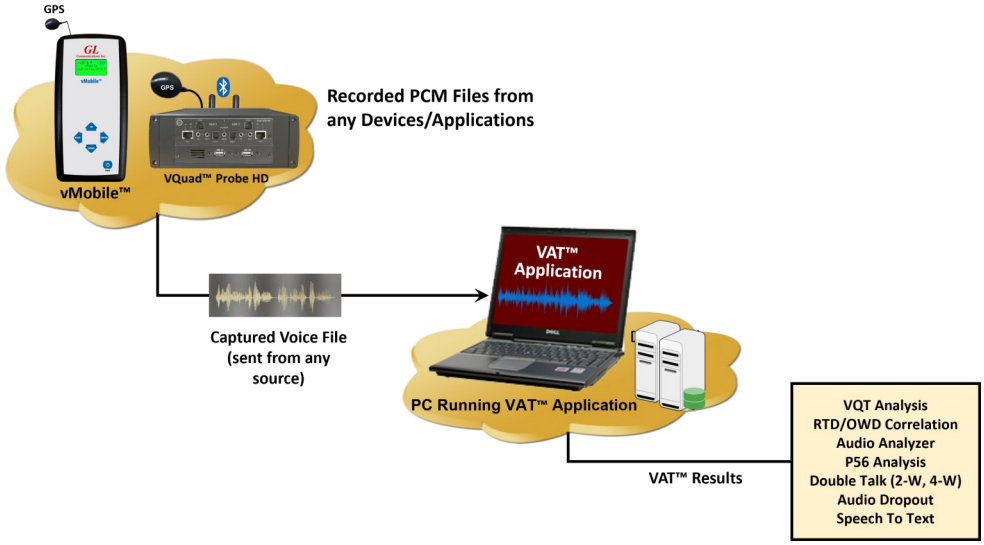
Voice Analysis Tool (VAT™)



Overview

The GL VAT™ application analyzes audio content in any Narrowband (NB), Wideband (WB), and Super Wideband (SWB) PCM audio files. In addition the VAT™ supports a-Law and µ-Law audio formats. VAT™ can run in manual mode or automated mode while generating a variety of audio metrics from a single PCM file including Frequency Bandwidth, Speech Activity, Active Speech and Noise Level, RMS Power, Audio Dropout, Delay measurements, and Voice Quality (POLQA or PESQ) when coupled with the GL Voice Quality Testing (VQT) software.

The VAT™ application offers a wide range of audio metrics which can be performed simultaneously on each individual voice file. Tests include as Round Trip and One Way Delay measurement, Audio Dropout analysis, P56 analysis (providing level and activity measurements), Double-Talk measurements, and Voice Quality Analysis (requires coupling with the GL VQT solution). Additionally GL VAT™ supports Speech to Text analysis with pass/fail when coupled with the GL Speech to Text Analysis solution.

GL's VAT™ performs fully automated operations by detecting audio files within a user-specified directory and analyzing them as they are created. When running in fully automated mode, the VAT™ uses the PCM file name along with a configuration file to determine which tests to run and proper settings for running the tests.

The VAT™ software automatically sends all the results to a centralized database - GL WebViewer™. Accessing these results is achieved through the WebViewer™ (web - based dashboard) providing functionalities such as filtering, querying, and generating custom reports. Furthermore, if the results include GPS coordinates, the WebViewer™ can directly plot the results within Google Maps for enhanced visualization.

For more details, please visit Voice Analysis Tool (VAT™) webpage.

Main Features

- GL VAT™ supports analysis of any Raw PCM 16-bit voice file, including NB, WB, and SWB along with 8-bit PCM a-Law and µ-Law PCM voice files.
- The system is fully automated, with results logged and stored in the GL Central Database. The results can be easily accessed using the GL WebViewer™
- Audio files can be generated from any application, including GL VQuad™ and vMobile™
- VAT™ Command Line Interface (CLI) supports remote operation
- Audio analysis includes, Round Trip and One Way Delay, Audio Dropout analysis, Speech and Noise level,, Power Level and Frequency Analysis, Speech Activity, DC Offset, and Double Talk analysis.
- Supports Voice Quality Testing with POLQA or PESQ algorithms when used with GL VQT™ software. Supports Speech to Text analysis when used with GL STT software.
- Multiple analytical tests can be performed simultaneously on each individual voice file

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VAT™ Results

VAT™ results are displayed on the main window and these results can be viewed using GL's WebViewer™ database and the results can be saved locally to a log file.

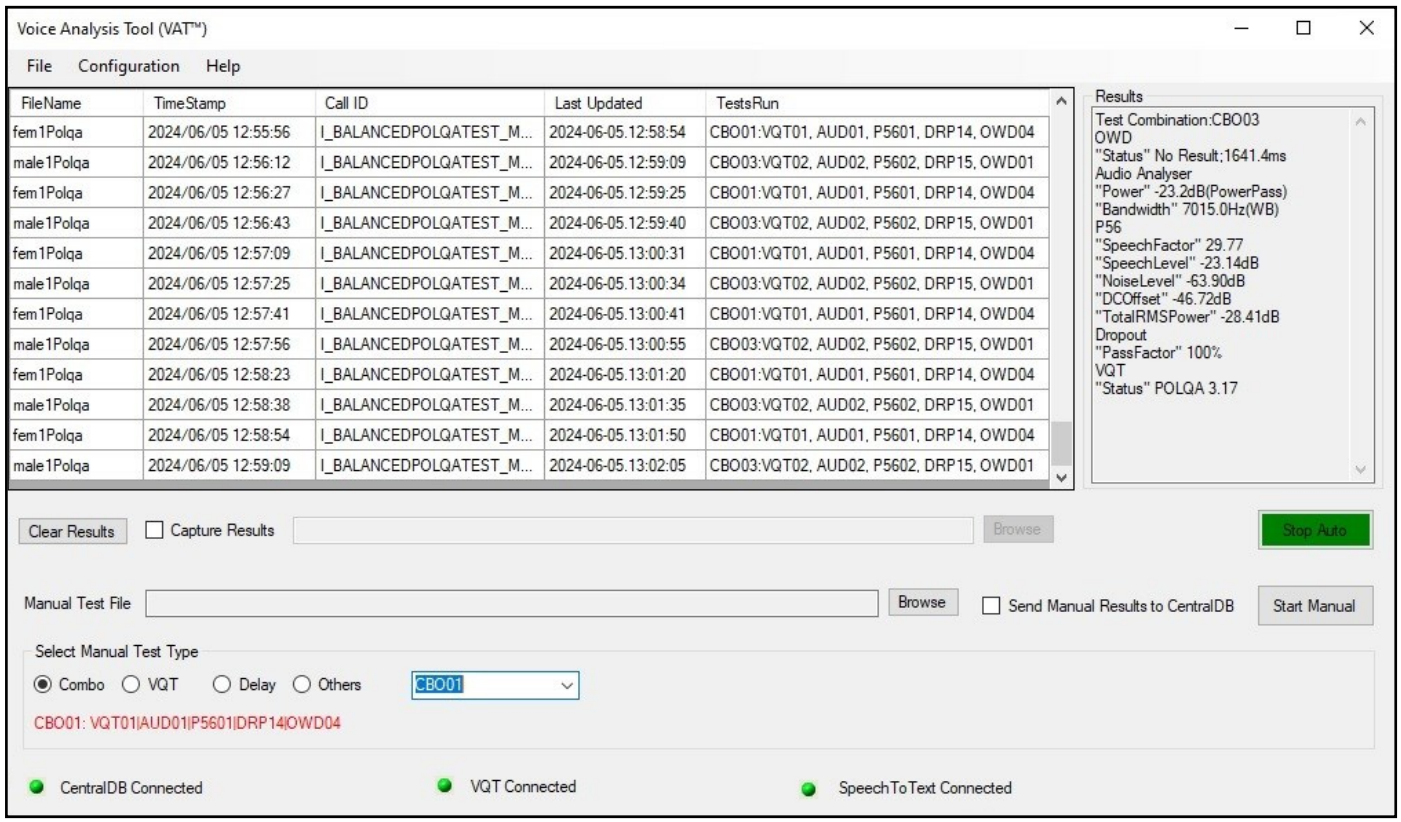

Figure: VAT™ Results

Audio and Delay Analysis (Display duration: 08-18-2022 03:52:25 - 08-18-2022 04:05:25)

VQuad Timestamp	Call Timestamp	VQuad Call ID	VQuad Device ID	VQuad GPS	RTD (ms)	Rating	PDD (ms)	SNR (dB)	OWD (ms)	CT (sec)	CCT (sec)	Signal Gain (dB)	Line Current (mA)	Line Voltage (V)	Ring Type	Ring Voltage (V)	Speech Active Factor (%)	Active Speech level (dB)	Noise Level (dB)	DC Offset (dB)	Total RMS Power (dB)	Double-Talk	Speech Analysis	Dropout	VMWI	SDT
08/18/2022 04:02:48	08/18/2022 04:01:13	GL Test	ITSD2	N12055'35" E077036'05"						74.20																
08/18/2022 04:02:46	08/18/2022 04:01:13	GL Test	ITSD1	N12055'35" E077036'05"						68.40																
08/18/2022 04:02:14	08/18/2022 04:01:13	GL Test	ITSD1	N12055'35" E077036'05"	1352.30	Fail			1355.60			-26.80					53.19	-26.79	-29.53	-36.13	-29.53	Pass		Fail (Proper Voice 79%)		
08/18/2022 04:02:03	08/18/2022 04:01:13	GL Test	ITSD2	N12055'35" E077036'05"	1350.20	Fail			1353.40			-26.70					52.51	-26.69	-29.48	-37.43	-29.48	Pass		Fail (Proper Voice 79%)		
08/18/2022 04:01:42	08/18/2022 04:01:13	GL Test	ITSD2	N12055'35" E077036'04"	1350.20	Fail			1353.40			-26.70					52.50	-26.68	-29.47	-37.52	-29.47	Pass		Fail (Proper Voice 79%)		
08/18/2022 04:01:38	08/18/2022 04:01:13	GL Test	ITSD1	N12055'34" E077036'04"							15.30															
08/18/2022 04:01:29	08/18/2022 04:01:13	GL Test	ITSD2	N12055'34" E077036'04"											Peak	127										
08/18/2022 04:01:26	08/18/2022 04:01:13	GL Test	ITSD1	N12055'34" E077036'04"			3069																			

Figure: WebViewer™ Database

Buyer's Guide

Item No	Product Description
VQT008	Voice Analysis Tool
VQT291	vMobile™
VQT002	Voice Quality Testing (PESQ only)
VQT010	VQuad™ Software
VQT006	Voice Quality Testing (POLQA v 2.4)
VQT007	Voice Quality Testing (POLQA v3)
VQT014	VQT POLQA Auto™
VQT014U	Upgrade from VQT POLQA to VQT POLQA Auto™

Item No	Related Hardware
VQT251	Dual UTA HD Next generation Dual UTA with FXO Wideband support
VQT252	Dual UTA HD – Bluetooth Option
VQT280	VQuad™ Probe HD (with Dual UTA HD)

Item No	Related Software
VBA032	Near Real-time Voice-band Analyzer
EMU037	Echo Measurement Utility (EMU) Software
VQT040	WebViewer™

Note: PCs which include GL hardware/software require Intel or AMD processors for compliance.

For more details, please visit Voice Analysis Tool webpage.

For complete list of VQT products, please visit Voice Quality Testing Software webpage.

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