

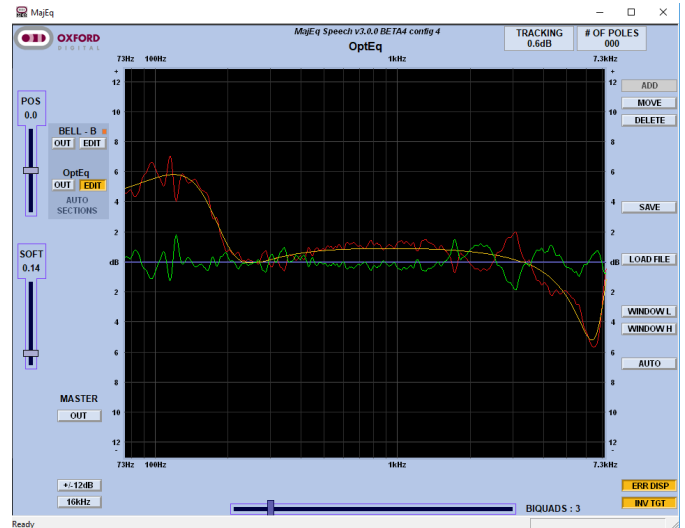
Overview

The **MajEq Speech** system is an automated tuning process that radically speeds up the task of equalising the spectral response of Voice Input Systems (VISs) so that they are compliant with Speech-to-Text providers' (e.g. Nuance, Google) requirements for frequency response.

The time taken to 'tune' the system (e.g. voice-activated remote control) can be reduced from many hours (or days) using conventional parametric EQs for response equalisation to minutes using **MajEq Speech**.

Features

- Import of measurements
- Automatic correction to 'target' EQ curve within a few seconds with guaranteed convergence
- Optional selection of the useful band where correction is applied for managing response at both LF and near to Nyquist
- Specification of a fixed DSP budget for correction (e.g. 3 bi-quads)
- Choice of fully-automated correction via **OptEq** (which can be up to 40% more efficient than conventional parametric EQs) or via automation assisted tuning of parametric EQs (**Bell**).
- Option for direct manual fine-tuning of compensating results produced by parametric EQs if required
- Editing of the correcting response via familiar EQ controls (parametric EQs) if it is desired to over-ride the auto-correction
- Indication of Go/NoGo test results for compliant performance
- It allows deskilling of the task as relatively unskilled people can produce good results
- It's a low latency, low-processing-budget solution



Red line: target curve required to correct the response; Yellow line: Correcting response using 3 bi-quads; Green line: Error from a flat response

Functions

- Taking or ingest of measurement
- Production of required target compensating response
- Optional Target Response smoothing and windowing
- Selection of number of EQs available for compensation
- Fully-automated correction or intuitive drag & drop of initial pole-pair placement for automation assisted correction
- AUTO optimisation for LMS error

Aspects of the **MajEq Speech** system are covered by European Patent No: 2520102 and US Patent No: 9025792.