INTERNATIONAL ORGANISATION FOR STANDARDISATION
ORGANISATION INTERNATIONALE DE NORMALISATION
ISO/IEC JTC1/SC29/WG11
CODING OF MOVING PICTURES AND AUDIO

ISO/IEC JTC1/SC29/WG11
MPEG98/N2425
Atlantic City - October 1998

Source: **Audio and Test subgroup**
Status: **Approved**
Title: **MPEG-4 Audio verification test results: Audio on Internet**
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1. Introduction

The MPEG-4 Audio coding tools cover a bit rate range from 2 kbit/s to 64 kbit/s with a corresponding subjective audio quality that needs to be evaluated. It was recognized that the verification tests should first address applications that are potentially of great interest for users. To this end, three important applications for MPEG-4 audio are being addressed in the verification tests:

- Internet Audio applications (6 to 56 kbit/s),
- digital audio broadcasting on AM modulated bands (16 to 24 kbit/s) and
- speech applications

Four different sites offered to run the listening tests: Sony (Japan), Mitsubishi Elec. America (USA), NTT (Japan) and Samsung AIT (Korea). The final results analysis was performed by MIT (USA).

The purpose of this document is to describe the procedures that have been followed and to present the outcome of the verification tests on Audio on Internet application. The remaining verification tests are handled in separate documents.

2. Test motivation

The highly increasing need for music transmission over networks like the Internet is the background for this test evaluating recent MPEG coders at bit rates suitable for analog modems and ISDN connections.
The comparisons of interest are:

- to compare the Twin-VQ and HILN tools provided by MPEG-4 with existing technique for transmission of audio at bitrates below 10 kbit/s.
- to compare the HILN and AAC tools provided by MPEG-4 with existing technique for transmission of audio at bitrates between 10 and 20 kbit/s.
- to compare the AAC-based tools for large step scaleability provided by MPEG-4 with existing tools (unscaled AAC and MPEG Layer 3). The scaleable system provides a mono/stereo scaleable system, offering 24 kbit/sec mono, 40 kbit/sec stereo and 56 kbit/sec stereo in one 56 kbit/sec bitstream. The purpose of this test is to evaluate the performance of the scaleable coding scheme in comparison with traditional unscaled coding.
- to compare the fine granule scaleable tool AAC-BSAC provided by MPEG-4 with unscaled AAC coding to evaluate the impact of the small step scalability functionality on the sound quality.

3. Codecs under Test

3.1 Test overview

The test was divided in four groups of coding scheme/bitrates.

- Group A tests the codecs at 6 and 8 kbit/sec mono and contains HILN, Twin-VQ and MPEG Layer-3. The reference for this Group A is MPEG Layer 3 (MP3).
- Group B tests the codecs at 16 kbit/sec mono and contains HILN, AAC, and G.722 at 48 kbit/sec as a reference.

Group C and D belong to the same coding system, but are separated because the lowest layer is a mono layer while the higher layers are stereo layers.

- Group C tests the mono core layer of the AAC large step scaleable Coder against a unscaled AAC coder and MPEG Layer 3. The reference coder for this Group C is MPEG Layer 3 (MP3).
- Group D tests the upper layers of the scaleable coders against unscaled coders and contains AAC, AAC large step scaleable coder, AAC-BSAC fine granule scaleable coder and MPEG Layer 3. The reference coder for this Group D is MPEG Layer 3 (MP3). The AAC-BSAC coder has no counterpart in the C-Test since it is based on a unscaled stereo AAC coder and therefore does not provide mono/stereo scaleability.

It should be noted that in MPEG standards only the decoder is normative and that the MPEG-4 encoders supplied for this test are developmental and further optimization is expected. It must be stressed that some of the coders in the test are parametric coders which are not designed for some natural sounds which are present in several items used in this test.
The codecs which were tested are listed below:

Group & #codec	Codec	mode	sampling rate of operation	total bitrate (layer bitrate) in kbit/s
A1	HILN	mono	8	6
A2	TwinVQ	mono	16	6
A3	MPEG Layer 3 (MP3)	mono	8	8
B1	HILN	mono	16	16
B2	AAC	mono	16	16
B3	G722	mono	16	48
C1	AAC	mono	24	24
C2	AAC scal	mono	24	24
C3	MPEG Layer 3	mono	16	24
D1	AAC	stereo	24	40
D2	AAC	stereo	24	56
D3	AAC scal	stereo	24	40
D4	AAC scal	stereo	24	56
D5	AAC scal (BSAC)	stereo	24	40
D6	AAC scal (BSAC)	stereo	24	56
D7	MPEG Layer 3	stereo	24	40
D8	MPEG Layer 3	stereo	24	56

3.2 Codec details

3.2.1 HILN

This coder is the HILN parametric coder (Harmonic and Individual Lines plus Noise) according to MPEG-4 Audio FCD (N2203, N2205). It operated at a fixed bit rate of 6 kbit/s (mono, 8kHz sampling rate) and 16 kbit/s (mono, 16 kHz sampling rate) respectively.

3.2.2 Twin-VQ

The TwinVQ (Transform-domain Weighted Interleaved Vector Quantization) coder is the coder newly designed as a result of the AAC-TwinVQ convergence work, whose specification are described in the FCD. It quantizes a part of the 1024/128 point MDCT coefficients at 16kHz sampling rate, and is directly plugged into the MPEG-4 AAC system.

3.2.3 AAC

The AAC coders (Advanced Audio Coding) used in this test were MPEG-2 AAC Main profile encoders according to ISO/IEC 13818-7. AAC was used with three different bitrates: 24 kbit/sec (mono), 40 kbit/sec (stereo), 56 kbit/sec (stereo). The sampling rate was 24 kHz for all bitrates.

3.2.4 AAC scal

This coder is an AAC mono/stereo large step scaleable coder according to the MPEG-4 Audio FCD. It operates at 24 kHz sampling rate at all bitrates. Neither the PNS tool (Perceptual Noise Substitution) nor the LTP tool (Long Term Prediction) was used. The base layer operates at 24 kbit/sec mono. Each of the two enhancement layers adds a 16 kbit/sec stereo enhancement, resulting in bitrates of 24 kbit/sec (mono), 40 kbit/sec (stereo), 56 kbit/sec (stereo).

3.2.5 AAC scal (BSAC)

This an AAC coder with a small step scaleable BSAC noiseless coder (Bit Sliced Arithmetic Coding). It operates at 24 kHz for all bitrates. Neither the PNS nor the LTP tools was used. The BSAC coder in this test was not based on a mono/stereo scaleble system, but on a standard MPEG-2 AAC coder operating at 56 kbit/sec stereo. Therefore neither the results at 56 kbit/sec nor 40 kbit/sec can be directly compared to the AAC scaleable coder, but only to the unscaled AAC coder.

3.2.6 G.722

The G.722 is a generic audio coder recommended by ITU-T for multimedia communication. In this test the 48 kbps version was used.

3.2.5 MPEG-Layer 3 (MP3)

For the A test, Layer 3 was used in the proprietary ultra-low sampling rate extension called ‘MPEG 2.5’ at 8 kHz sampling rate for 8 kbit/sec coding. For the B, C and D test (24 kbit/sec mono, 40 kbit/sec stereo, 56 kbit/sec stereo MPEG-2 Layer 3 was used.

4. Test Material

A call for new stereo test materials was sent out during Tokyo MPEG meeting. This resulted in a contribution of more than 90 items. Prescreening was performed during the Dublin meeting in order to reduce the amount of work for the final selection process. 39 representative items have been selected from the contributed items for the coding process. Prescreening results are shown in N2279. During pre-selection, panelists suggested to do level adjustment on some items. Level adjustment was performed by Univ. Hannover and resultant items were placed at Univ. Hannover ftp site. Coding was performed by the codec provider using the pre-selected materials. The decoded files were uploaded to the FhG-IIS ftp site. FhG-IIS prepared CD-ROMs for final selection and preparation and delivered to AT&T.

4.1 Selection panel

The process of identifying and selecting the most critical items, typical items and training items to be used in the formal test was delegated to a selection panel and carried out at AT&T. The selection panel was comprised of:

- J. Johnston
- V. Lam
- S. Quackenbush
- N. Zacharov
- M. Fellers

For the final selection of test excerpts it was proposed to have half of the selected items as critical excerpts and the other half as typical excerpts. Each critical and typical item group is proposed to consist with speech, single instrument, pop, classic and complex sound excerpts.

4.2 Chosen item

The selection panel recommended four sets of test items for the A, B, C and D test. The selection panel also recommended specific items to be used during the training phase of the listeners for each test. The definition of 'typical' and 'critical' as well as additional details on this selection process can be found in Annex 5.

4.3 Typical items for A, B, C, and D test

	Test A	Test B	Test C	Test D
Speech	38	01	38	01
Single instrument	16	11	16	02
Pop	08	29	19	37
Classical	31	18	22	31
Complex	33	09	28	33

Within the selection process for Test A, item 12 (Glockenspiel) was removed from the list of items since it suffered substantial bandwidth limitation when processed by some of the coders (see selection panel report, Annex 5).

4.4 Critical items for A, B, C, and D test

	Test A	Test B	Test C	Test D
Speech	01	13	13	13
Single instrument	11	05	03	11
Pop	15	15	14	10
Classical	07	22	07	18
Complex	39	34	33	20

4.5 Training items

The training items, proposed by the selection panel, were chosen to be different from the items used during the formal tests. The codecs used in the training items were proposed in order to cover the whole range of quality that will be encountered during the tests.

	Test A	Test B	Test C	Test D
Speech	13	38	01	38
Single instrument	03	04	11	12
Pop	37	14	15	29
Classical	18	07	18	07
Complex	34	20	35	34

5. Test methodology

- Subjective assessment of sound quality according to ITU-Recommendation BS.562.3

This methods use a five grade scale for scoring:

	BS.562.3 Quality scale
5	Excellent
4	Good
3	Fair
2	Poor
1	Bad

The Audio and Test group recommend the use of this scale as a *continuous scale* with one decimal place.

Within each test (A,B,C,D), the coders were compared to a bandlimited reference. The bandwidth of this reference was chosen in a way that its bandwidth was equal to the bandwidth of the coder with the highest bandwidth.

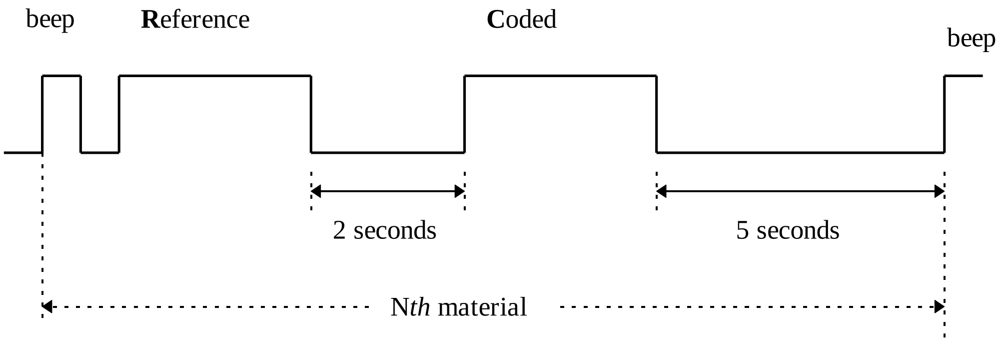
6. Test stimuli

In the A and B test, the sequence type was R(Reference)-A(Coded). In the C and D test, the sequence type was R-A-R-A.

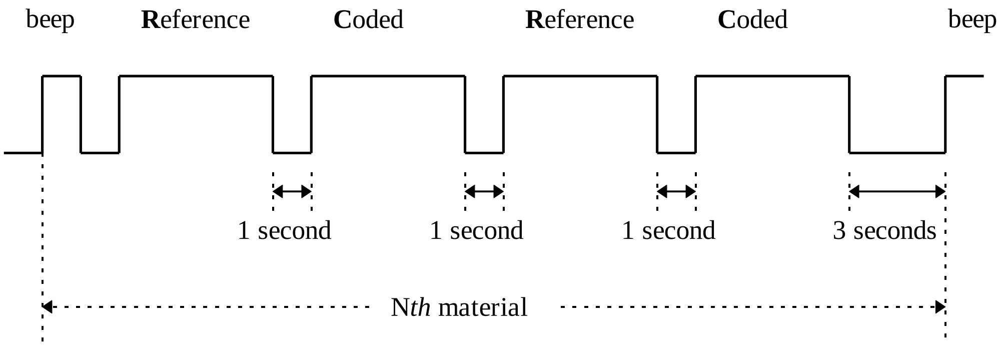
Experiment group	A	B	C
sequence type	R-A	R-A	R-A-R-A
scoring	BS.562.3		

where R: reference signal(original), A: coded material

In experiment A and B, for scoring, 5 seconds are given. The graphical example of sequence type is shown below:



For experiment C and D, 3 seconds are given for scoring. The graphical example sequence type R-A-R-A is shown below:



7. Test sessions

In experiment A and B, the total length of test session is less than 21 minutes. However, in experiment C mono and D, the total length of sequence is longer than 30 minutes. To ensure fatigue did not affect the results, C mono and C stereo test were split into sessions of approximately 18 to 26 minutes. That is 2 sessions for the C mono test and 4 sessions for C stereo test. Pseudo randomization of test stimuli was applied to minimize the number of times each codec configuration occurred in a test session, and therefore to mix the audio quality throughout the test. The pseudo-randomization table is shown in Annex 7.

8. Data Analysis

8.1 Data receipt and verification

Data were received as several Excel spreadsheets from the four test sites. These spreadsheets were converted to text form, and several Perl scripts were used to convert the textual data and the codec and item order keys to a case-by-case freeform data file. Each line of this data file consisted of ten columns, as follows:

site subject age sex tape session trial codec item grade

All four tests were grouped together in this file. The file has 6910 cases, which is the correct total (40 subjects for tests A and B at 30 trials/subject + 41 subjects for test C at 30 trials/subject + 41 subjects for test D at 80 trials/subject = 6910 trials in all).

The data file was imported into the statistical analysis tool SPSS for Windows v7.5. This tool was used for all subsequent analyses.

Several cross-tabulations were conducted to ensure proper data unrolling. There were 400 trials for each of codecs 1-6, and 410 for each of codecs 7-17, which is correct. The codec x item cross-frequency count was compared to the test plan and found correct. The subject x codec cross-frequency count was compared to the test plan; one error was found and fixed. After this, data organization was believed to be accurate.

The raw data, Perl scripts, and analysis log can be made available according to the future tests of the MPEG-4 Test group.

8.2 Subject reliability

Listener reliability was evaluated by ensuring that each listener could consistently distinguish between the original sound and the coded sound. t-tests were performed for each listener over the listener's aggregate responses to all coded items, to test that the responses differed from 5 (maximum). This is not a strong criterion, since the reference was not hidden to listeners and they were instructed to score the coded examples with scores less than 5. All listeners had mean scores different from 5 with $p < 01$. No listeners were rejected on this criterion.

A stronger criterion is to ensure that the listeners could make consistent distinctions between codecs. For each subject, a one-way ANOVA was conducted for each of the tests in which they participated. A subject would be retained if they showed significant distinctions between codecs on half or more than half of the tests in which they participated.

Four subjects were rejected on this basis (A10, M5, M6, S15) as shown in Table 1, Annex 8. The remaining subjects were retained and used for subsequent analyses.

8.3 Test site comparison

An overall comparison of test sites was conducted to determine the correctness of grouping results across test sites. The results are shown in Figure 1 and Table 2, Annex 8. As shown there, there were consistent differences between scores depending on test site, in an interaction with the test. Thus, the data must not be grouped together and analysed as one group; rather, the data are partitioned as follows:

Test A/B – Site 1; Test A/B – Sites 2 and 4; Test C/D – Site 2; Test C/D – Sites 3 and 4.

Within each of these groups, there are no significant differences in the scoring based on test site.

However, after rejecting the subjects in the listener-reliability post-hoc test above, only 7 subjects are left at test site 2, which is not enough to collect reliable statistics. Thus, the statistics for tests C and D will only be analysed at the joint site 3 / site 4 group.

8.4 Comparison of codecs

8.4.1 Test A – Site 1

(Figure 2; Table 3) Averaged over all ten items, MP3 at 8 kbit/sec and TwinVQ at 6 kbit/sec performed equivalently. Both performed better than HILN at 6 kbit/sec. MP3 and TwinVQ performed between „fair“ and „poor“ on the 5-point scale; HILN performed at „poor“.

Breaking down by item (Figure 3; Table 5), on 4/10 items there were no differences among the codecs. On the other 6/10, MP3 performed better than HILN for each item. On 5/10 items, TwinVQ performed better than HILN. On one item, MP3 performed better than TwinVQ. There were no items on which any codec performed better than MP3. There were no items on which HILN performed better than any other codec.

Codec-by-codec comparisons by item are also provided to examine the consistency of behaviour by item (Figure 4). This is a qualitative, not quantitative, comparison. On this comparison, TwinVQ and MP3 are equally consistant, ranging from „poor“ to nearly „good“ depending on the item. HILN is more consistant, ranging from between „bad“ and „poor“ to between „poor“ and „fair“.

8.4.2 Test A- Sites 2 & 4

(Figure 5; Table 4) Averaged over all ten items, MP3 at 8 kbit/sec and TwinVQ at 6 kbit/sec performed equivalently. Both performed better than HILN at 6 kbit/sec. MP3 and TwinVQ performed between „fair“ and „poor“ on the 5-point scale; HILN performed between „poor“ and „bad“.

Breaking down by item (Figure 6; Table 6), on 2/10 items there were no differences among the codecs. On the other 8/10 items, MP3 performed better than HILN for each item. On 5/10 items, TwinVQ performed better than HILN. MP3 performed better than TwinVQ on one item. There were no items on which any codec performed better than MP3. There were no items on which HILN performed better than any other codec.

(Figure 7) HILN was again the most consistent; items range from „bad“ to between „poor“ and „fair“. For TwinVQ results range from between „bad“ and „poor“ to „fair“; for MP3 from between „bad“ and „poor“ to between „fair“ and „good“.

8.4.3 Test B – Site 1

(Figure 8; Table 7) Averaged over all ten items, G.722 at 48 kbit/sec performed the best, followed by AAC at 16 kbit/sec, which was better in turn than HILN at 16 kbit/sec. G.722 performed at „good“ on the 5-point scale; AAC performed between „good“ and „fair“; HILN performed between „fair“ and „poor“.

Breaking down by item (Figure 9; Table 9), there were significant differences among codecs on all but 1 item. On 5/10 items, AAC performed better than HILN; HILN performed better than AAC on 1 item. G.722 performed better than AAC on 5 items; AAC performed better than G.722 on 1 item. G.722 performed better than HILN on 8 items; HILN performed better than G.722 on 1 item.

(Figure 10) On this test, AAC was the most consistant, performing between „fair“ or slightly lower and „good“ or slightly better on each item. HILN was the least consistant, performing anywhere between just below „poor“ to between „good“ and „excellent“. G.722 was in the middle; it performed at various levels at and above „fair.“

8.4.4 Test B – Sites 2 & 4

(Figure 11; Table 8) Averaged over all ten items, G.722 performed the best, followed by AAC, which was better in turn than HILN. G.722 performed just below „good“ on the 5-point scale; AAC performed just above „fair“; HILN performed between „fair“ and „poor“.

Breaking down by item (Figure 12; Table 10), there were significant differences between codecs for all items. On 8/10 items, AAC performed better than HILN. HILN did not perform better than AAC on any item. G.722 performed better than AAC on 5/10 items. AAC performed better than G.722 on 1 item. G.722 performed better than HILN on 7 items; HILN performed better than G.722 on 1 item.

(Figure 13) All three codecs showed inconsistent performance at this site. HILN was the least consistent, performing anywhere from „poor“ to between „good“ and „excellent“; both G.722 and AAC were slightly more consistant.

8.4.5 Test C – Site 3 & 4

(Figure 14; Table 11) Averaged over all ten items, the standard version of AAC at 24 kbit/sec performed the best; it performed slightly better than the scalable version of AAC at 24 kbit/sec. Both AAC codecs performed better than MP3 at 24 kbit/sec. The AAC codecs performed between „fair“ and „good“ on the 5-point scale; MP3 performed between „poor“ and „fair“.

(Figure 15; Table 13) There were significant differences between codecs on all items. Scalable AAC performed better than MP3 on 7/10 items, and worse on no items. Regular AAC performed better than MP3 on 9/10 items, and worse on no items. Scalable AAC performed better than regular AAC on 1 item, and worse on 2 items.

(Figure 16) All codecs were approximately equally consistant. The two AAC codecs performed from between „poor“ and „fair“ to between „good“ and „excellent“ depending on item; the MP3 codec performed from between „bad“ and „poor“ to between „fair“ and „good“.

8.4.6 Test D – Site 3 & 4

(Figure 17; Table 12) Averaged over all ten items, the overall comparisons are as follows. The overall order was AAC 56 main, AAC 56 BSAC, AAC 56 scalable, MP3 56, AAC 40 main, AAC 40 scalable, MP3 40, AAC 40 BSAC. Each pairwise difference was significant except for AAC 56 – AAC 56 BSAC, AAC 56 BSAC – AAC 56 scalable, and AAC 56 scalable – MP3 56. Thus, especially at the lower end of this scale, the order of codecs is quite reliable.

(Figure 18; Table 14) A table of item-by-item pairwise difference follows. These differences were calculated using the Dunnett T3 post-hoc test of mean difference on 10 one-dimensional ANOVAs, one for each item. The indicated numbers show the number of items on which each codec performed better than each other codec at the p < .05 significance level.

	MP3 40	***MP3 56***	***AAC 40***	***AAC 56 scal***	***AAC 56***	***AAC 40 scal***	***AAC 56 BSAC***	***AAC 40 BSAC***
MP3 40		0	0	0	0	0	0	7
MP3 56	7		3	0	0	6	1	10
AAC 40	7	0		0	0	1	1	10
AAC 56 scal	10	1	1		1	7	1	10
AAC 56	10	3	8	1		9	1	10
AAC 40 scal	0	0	0	0	0		1	9
AAC 56 BSAC	9	3	7	1	0	9		9
AAC 40 BSAC	0	0	0	0	0	0	0	

This table is read by rows; that is, on 7/10 items MP3 56 was judged statistically better that MP3 40; on 3/10 items it was judged better than AAC 40.

(Figure 19) There were few items showing differences between AAC 56, AAC 56 scalable, and AAC 56 BSAC. Thus, these three methods give very similar performance on most items. Confirming the result above, AAC 40 BSAC was outperformed by most other codecs for nearly all items; there were no items on which AAC 40 BSAC performed better than any other codec.

8.5 Test Results

A list of informal questions to be answered in the test was provided on the test AHG reflector.

1. Test A: Which codec performed better?

TwinVQ performed better overall, and on 5/10 individual items, in each test group. There were no items on which HILN performed better in either test group. TwinVQ and Layer 3 performed equally well overall, however TwinVQ needs 25% less bitrate.

2. Test B: Which codec performed better?

AAC performed better overall in both test groups. In one group, AAC performed better on 5/10 items, and HILN performed better on 1/10 items. In the other group, AAC performed better on 8/10 items, and HILN performed better on no items.

3. Test C: Did AAC 24 main and AAC 24 kbps scalable perform similarly?

AAC 24 main performed slightly better ($p = 0.031$) overall. There were not many item-by-item differences between these codecs; AAC 24 main performed better on 2/10 items, and AAC 24 scalable performed better on 1/10 items. The rather similar behaviour was expected due to the fact that, apart from some restrictions due to the scaleability feature, both coders are almost identical.

4. Test C: Did AAC coders perform better than MP3?

Both AAC coders performed much better overall and on most items compared to MP3.

5. Test D: How did AAC 56 compare to AAC scal 56?

AAC 56 performed better than AAC scal 56 overall, but performance was similar on almost all items. Each codec outperformed the other on one item.

6. Test D: How did AAC 40 compare to AAC scal 40?

AAC 40 performed better than AAC scal 40 overall, but performance was similar on almost all items. AAC 40 was rated higher than AAC scal 40 on one item.

7. Test D: How did AAC 56 compare to AAC BSAC 56?

These two codecs did not demonstrate statistical difference, although a trend ($p = 0.072$) shows AAC 56 perfoming slightly better overall. AAC main 56 performed better on one item than AAC BSAC 56. Since BSAC didn't use a mono/stereo scaleable mode but a small step scaleable mode based on a stereo coder, these results cannot be compared directly to the AAC scaleable coder. It should also be noted that AAC BSAC 56 performed very well on all items except item 20, on which it performed untypically bad. Further investigations have shown that this degradation has been caused by a implementation bug. Therefore this item should not be considered in the evaluation of this codec.

8. Test D: How did AAC 40 compare to AAC BSAC 40?

AAC 40 performed much better than AAC BSAC 40 overall, and all 10 items individually. Since BSAC didn't use a mono/stereo scaleable mode, but an unscaled AAC coder these results cannot be compared directly to the AAC scaleable coder. The performance difference between AAC 40 and AAC BSAC 40 is significant.

8.6 Figures

Figure 1. Variance of scores at test sites

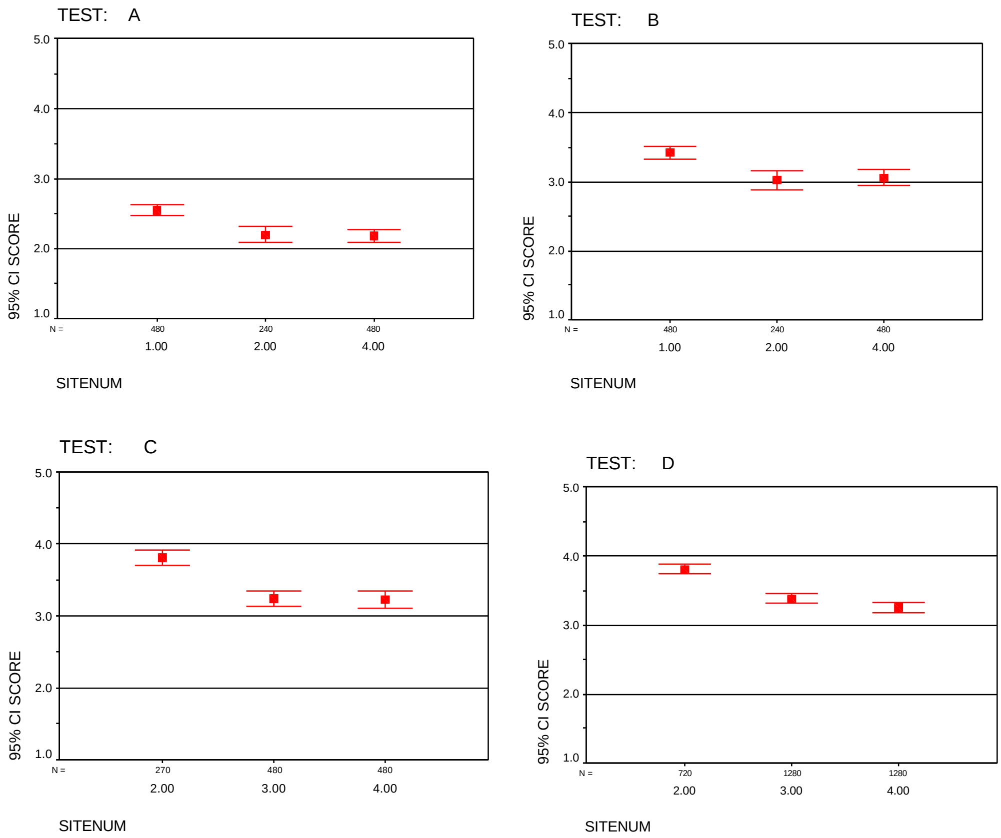


Figure 2: Site 1, Test A Overall results

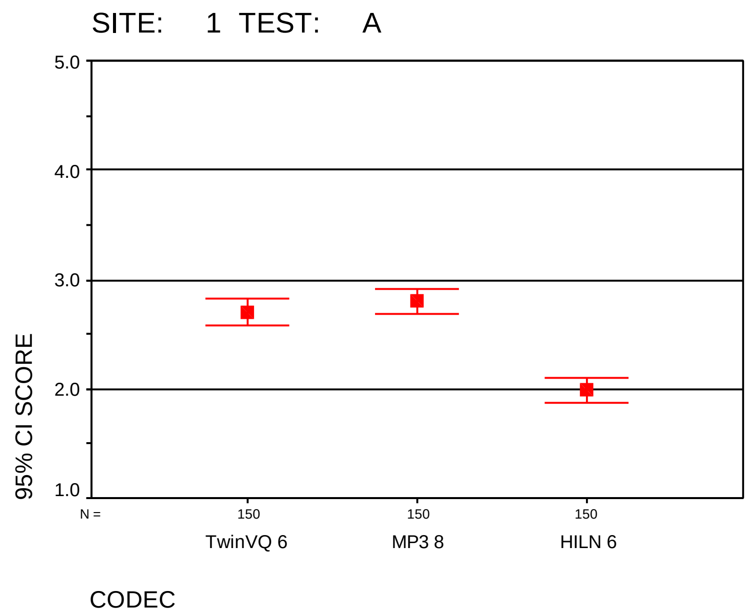
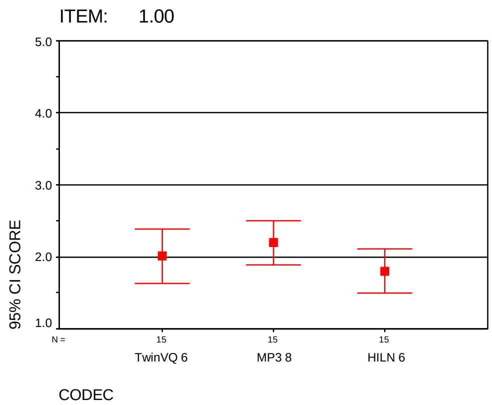
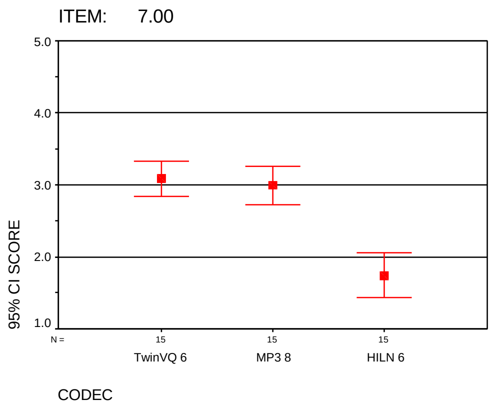


Figure 3: Site 1, Test A item-by-item comparison

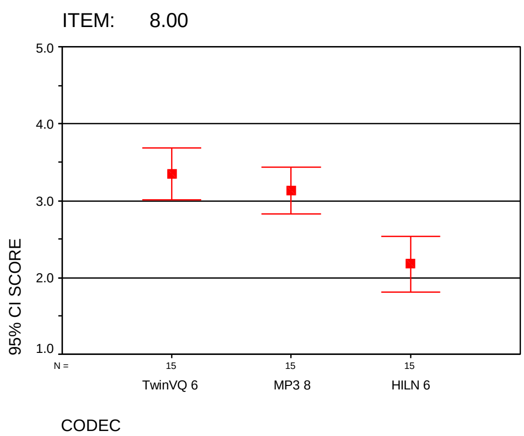
Item 1: English Female Speech



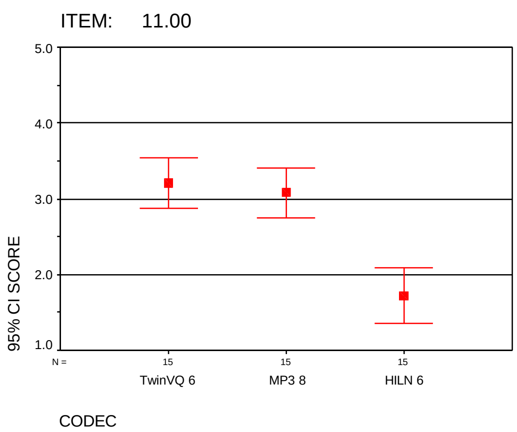
Item 7: Orchestral Piece



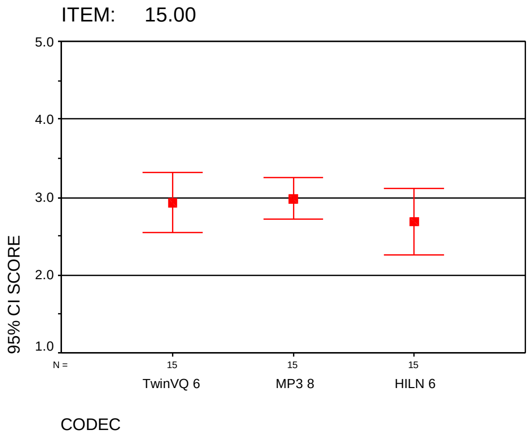
Item 8: Contemporary Pop Music



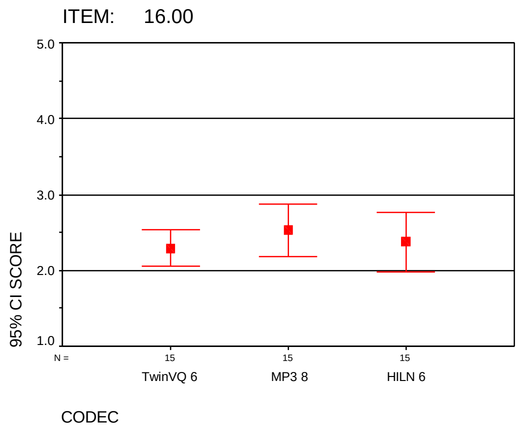
Item 11: We shall be happy



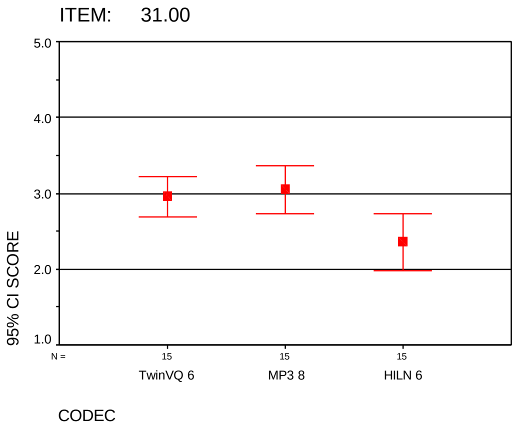
Item 15: Tracy Chapman



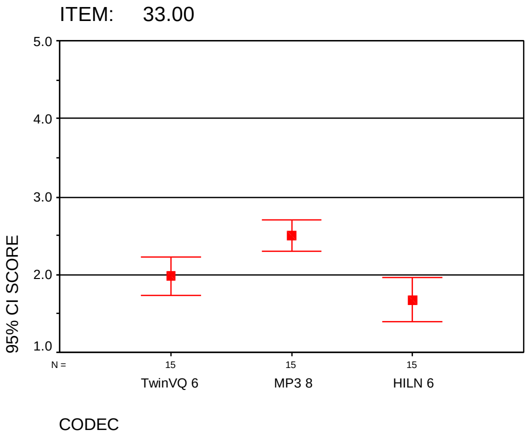
Item 16: Bass guitar



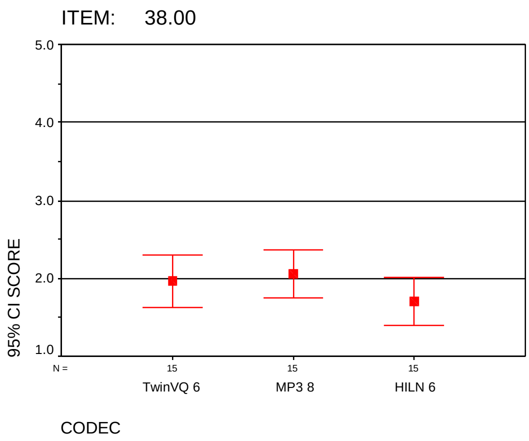
Item 31: Folklore



Item 33: Background Music



Item 38: Male German Speech



Item 39: Mussorgsky + Applause

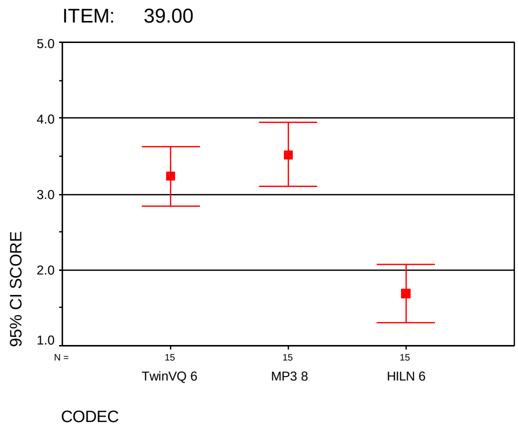
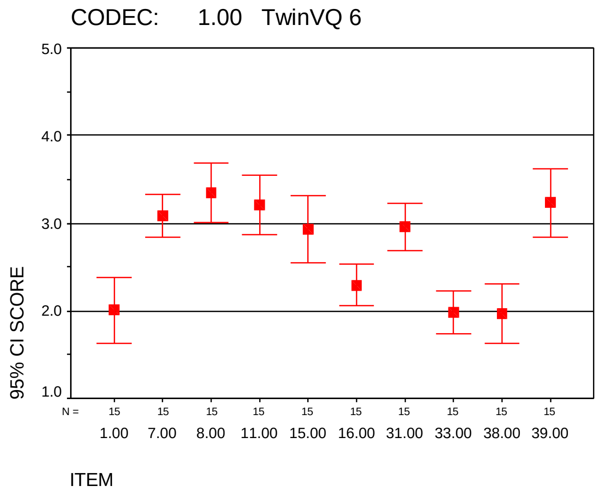
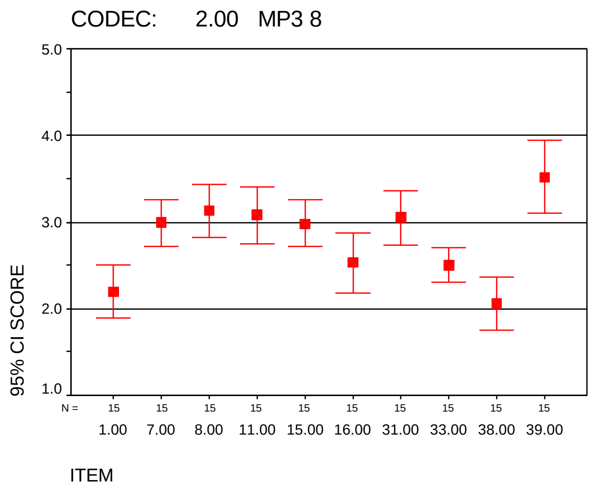


Figure 4: Site 1, Test A codec consistency





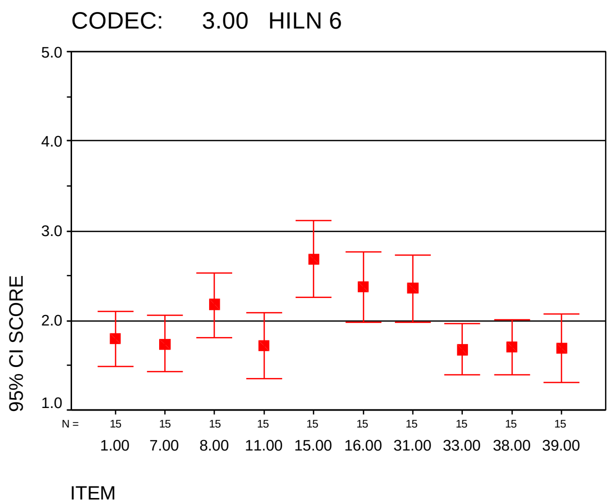
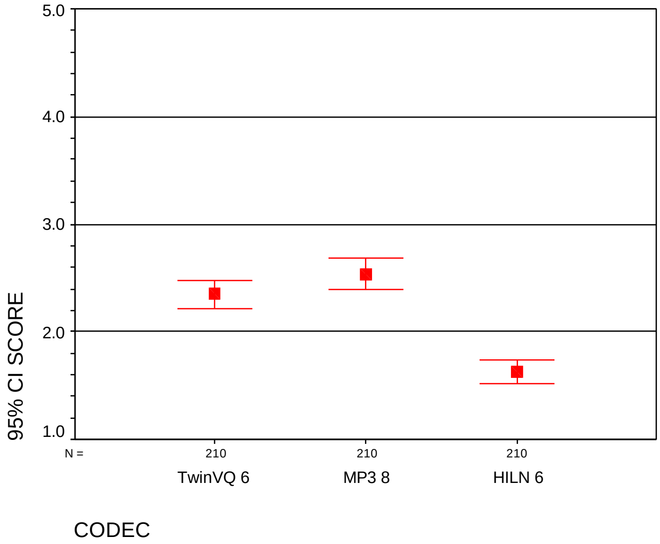
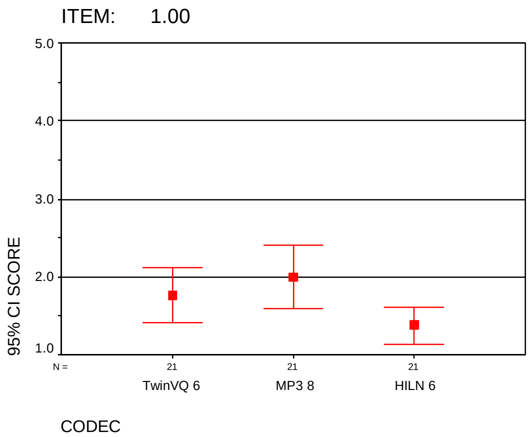


Figure 5: Site 2 & 4, Test A overall results

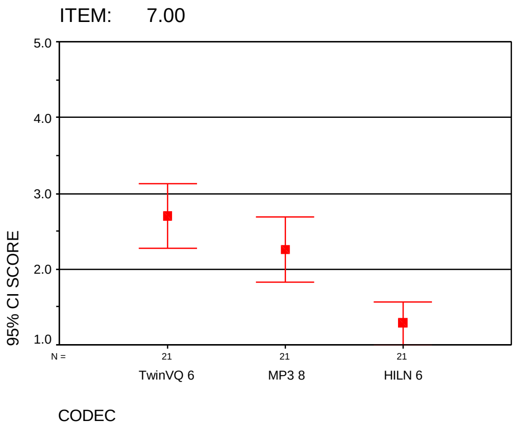


8.6.1.1 Figure 6: Site 2 & 4, Test A item-by-item comparison

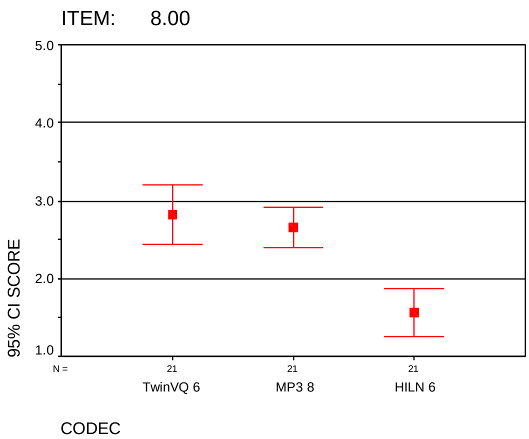
Item 1: English Female Speech



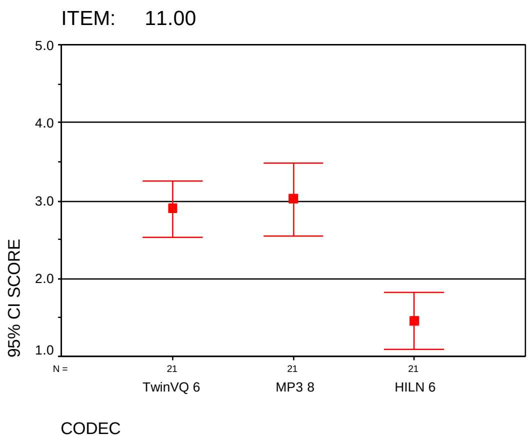
Item 7: Orchestral Piece



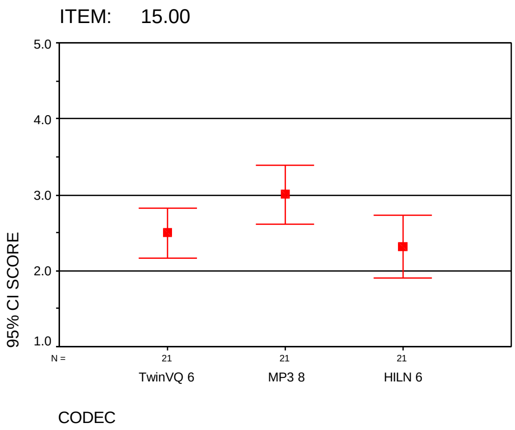
Item 8: Contemporary Pop Music



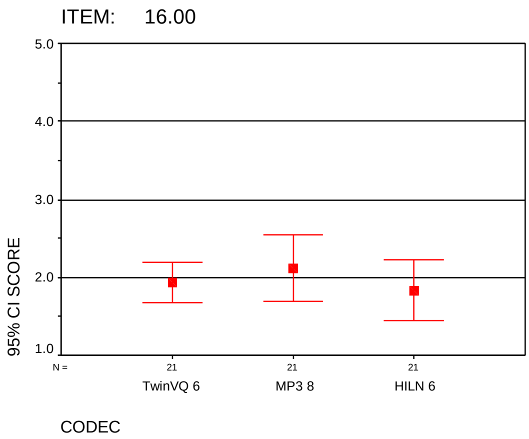
Item 11: We shall be happy



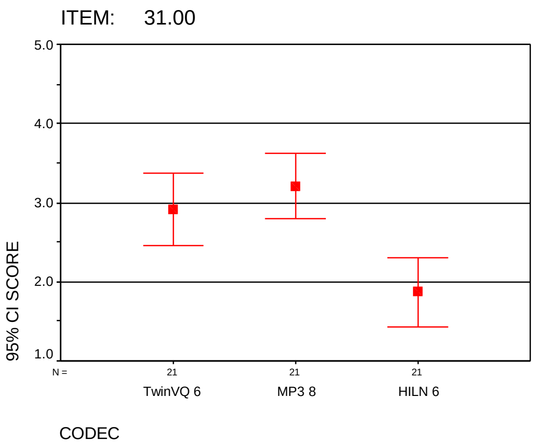
Item 15: Tracy Chapman



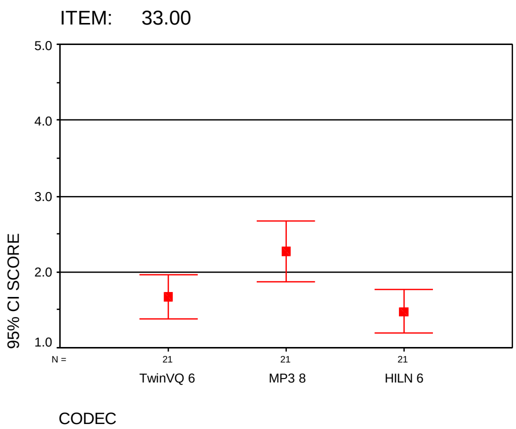
Item 16: Bass guitar



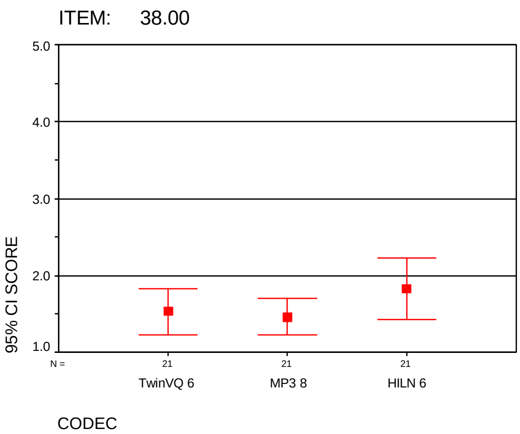
Item 31: Folklore



Item 33: Background Music



Item 38: Male German Speech



Item 39: Mussorgsky + Applause

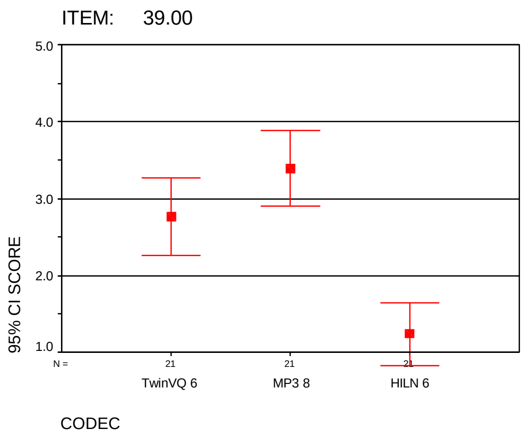
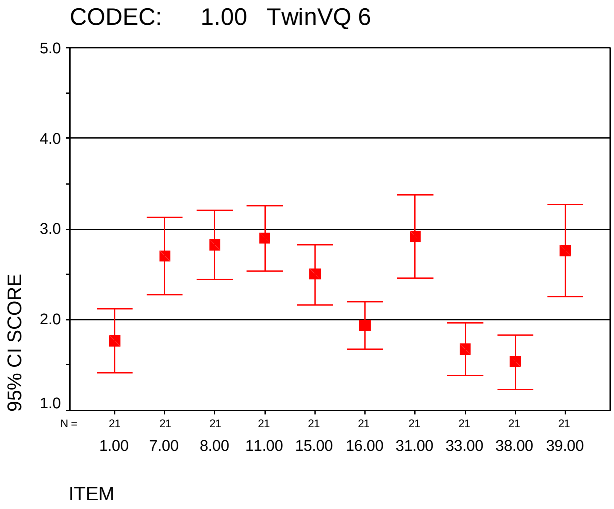
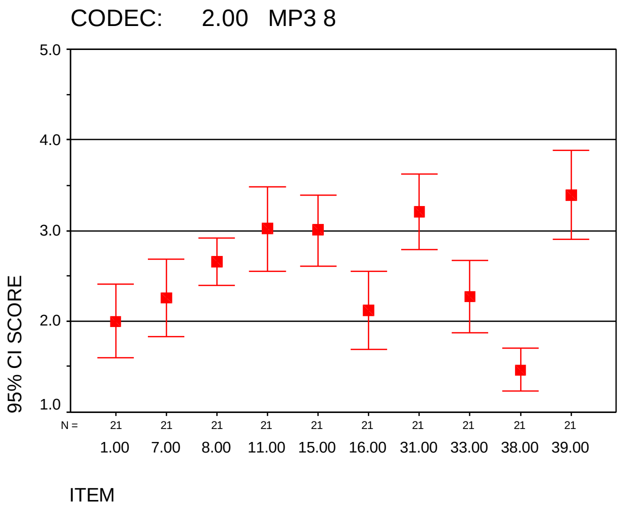


Figure 7: Site 2 & 4, Test A codec consistency





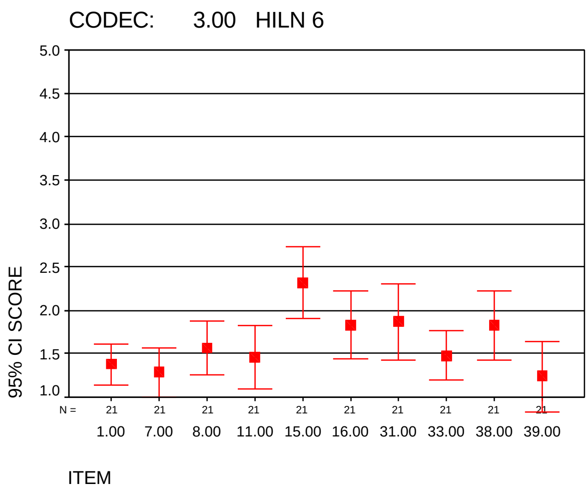
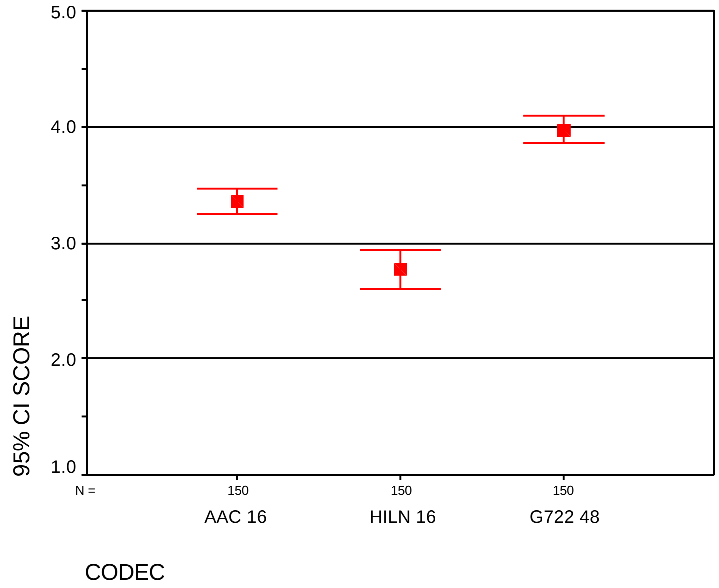
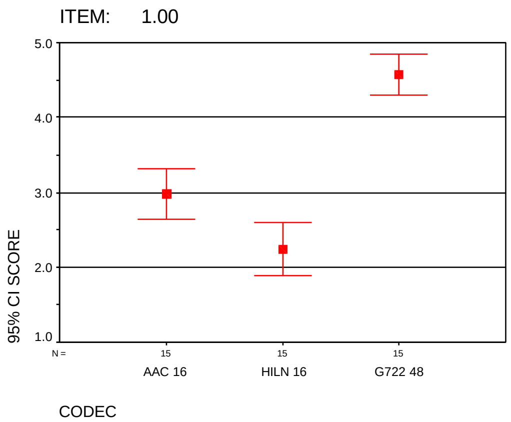


Figure 8: Site 1, Test B overall comparison

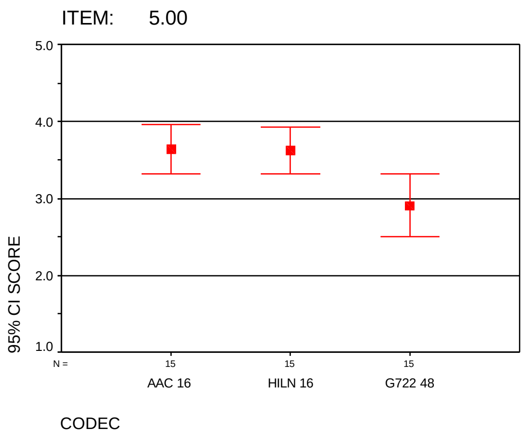


8.6.1.2 Figure 9: Site 1, Test B item-by-item comparison

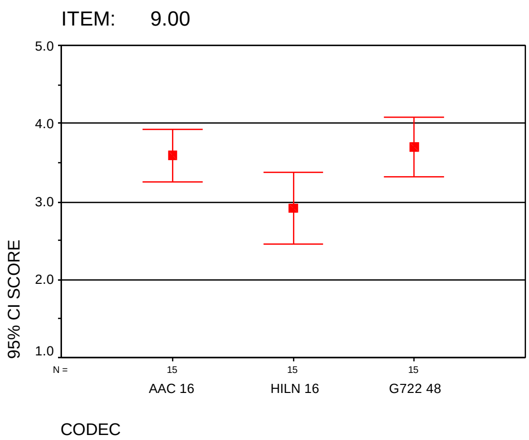
Item 1: English Female Speech:



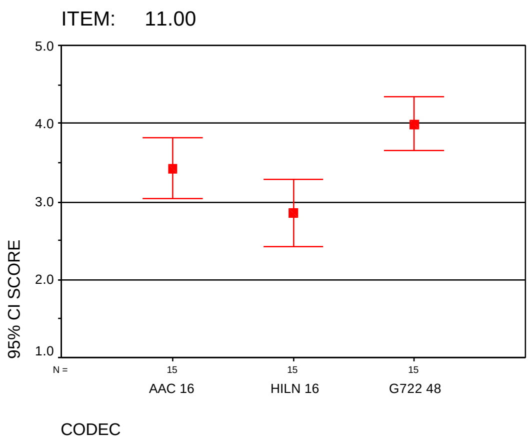
Item 5: Bagpipes



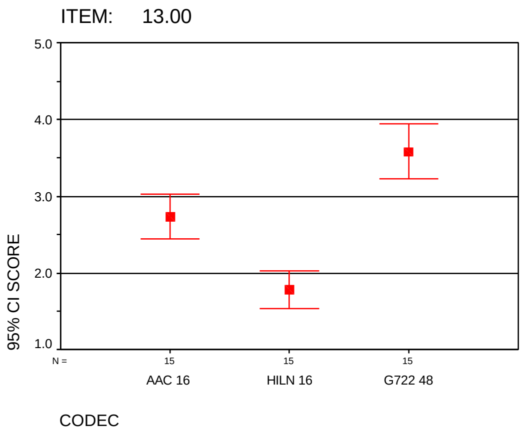
Item 9: Vocal + Guitar



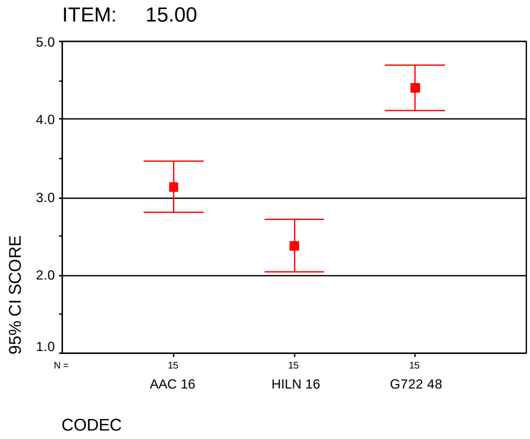
Item 11: Plucked Strings



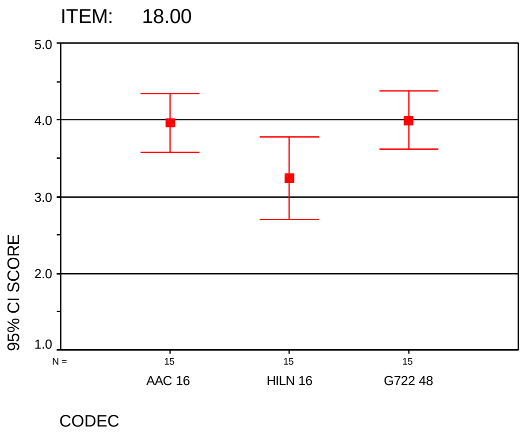
Item 13: Male German Speech



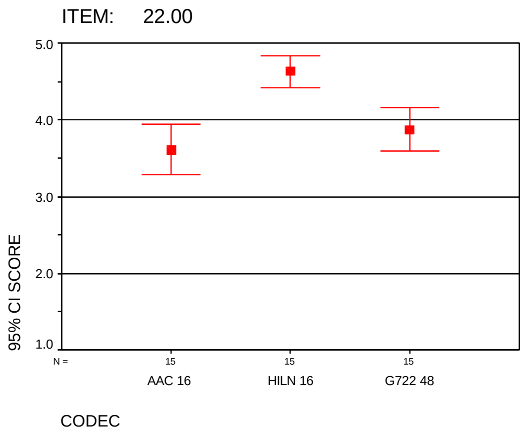
Item 15: Pop Music



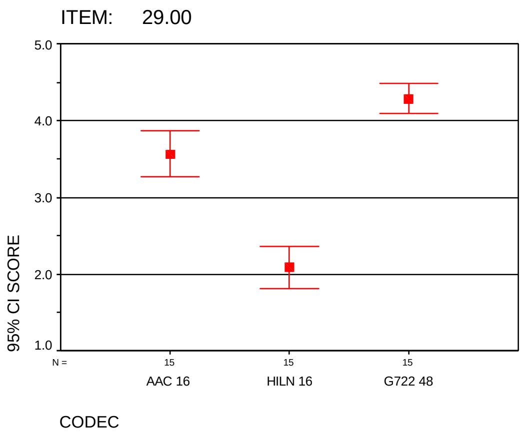
Item 18: Classical Music



Item 22: Violin



Item 29: Pop Music



Item 34: French Speech + Music

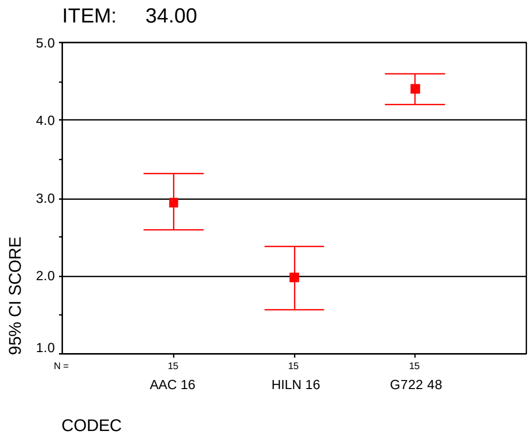
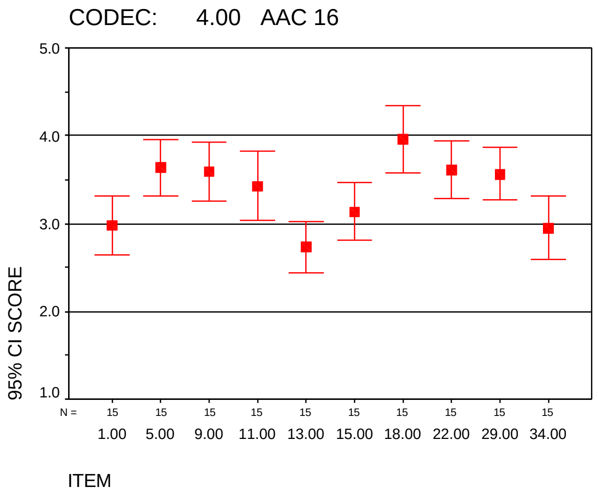
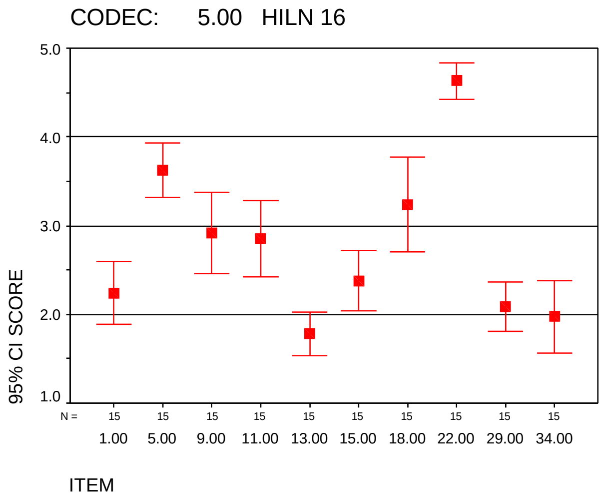


Figure 10 : Site 1, Test B codec consistency





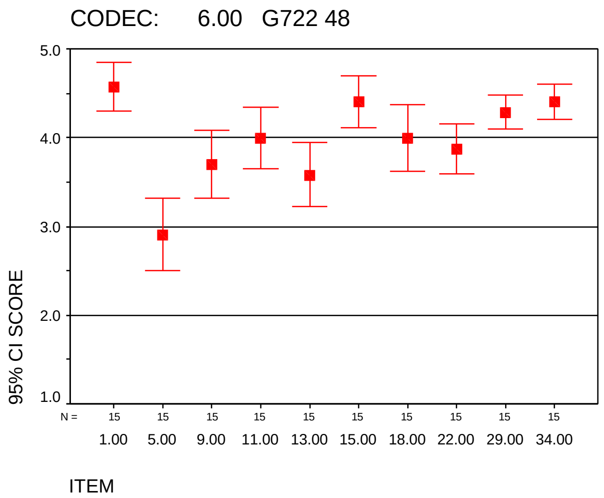
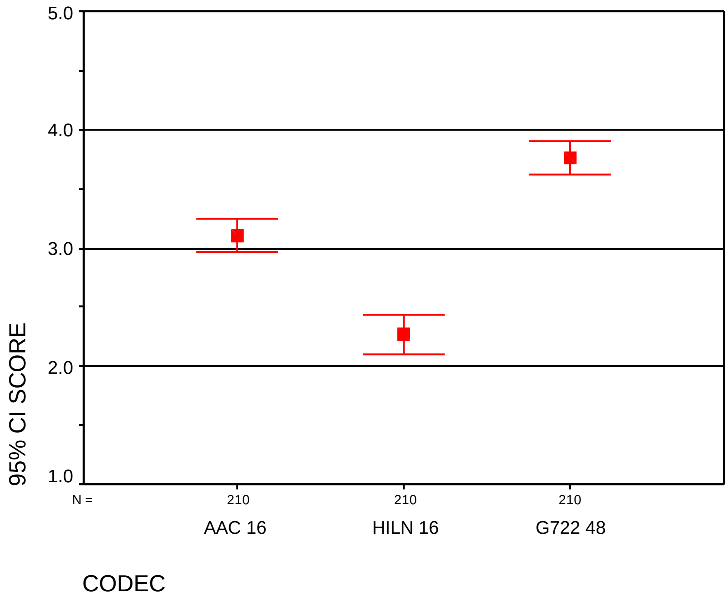
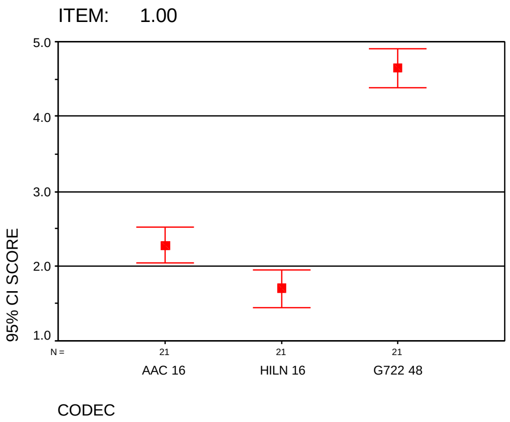


Figure 11: Site 2 & 4, Test B overall results

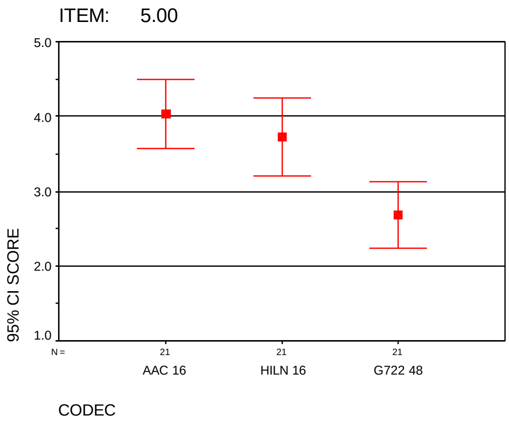


8.6.1.3 Figure 12: Site 2 & 4, Test B item-by-item comparison

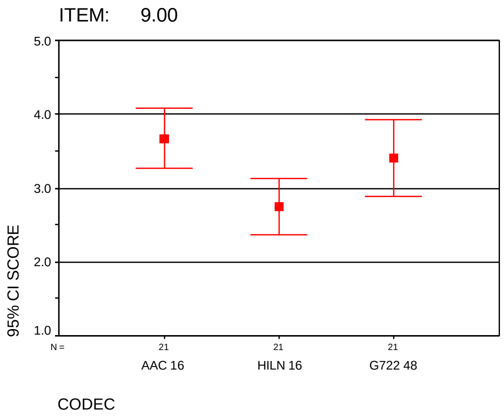
Item 1: English Female Speech:



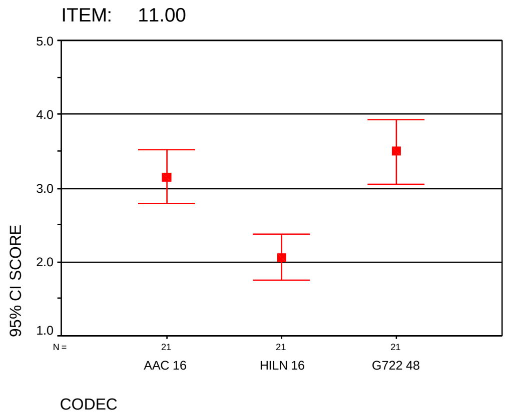
Item 5: Bagpipes



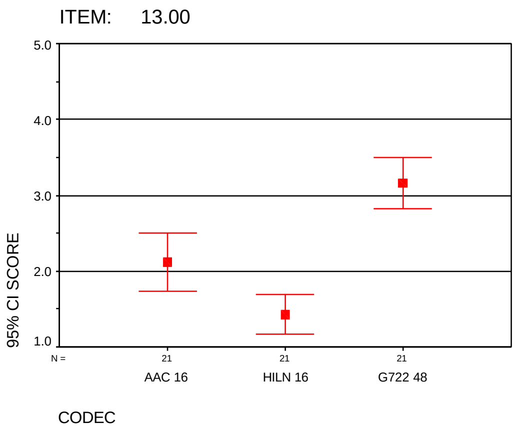
Item 9: Vocal + Guitar



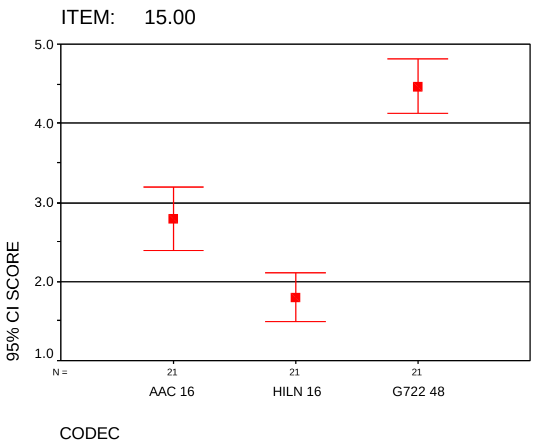
Item 11: Plucked Strings



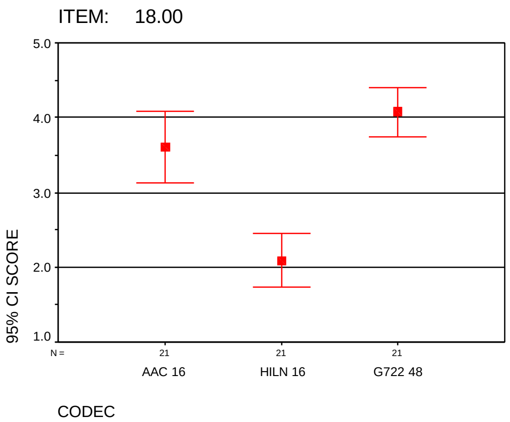
Item 13: Male German Speech



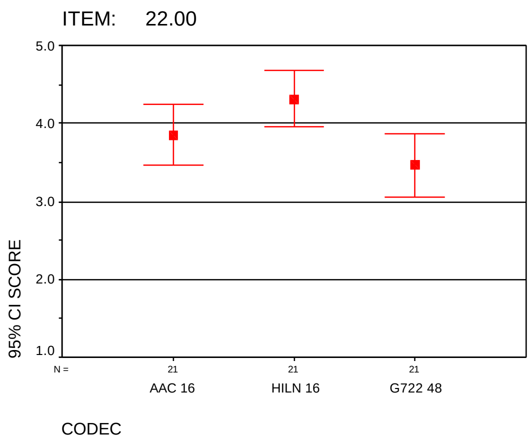
Item 15: Pop Music



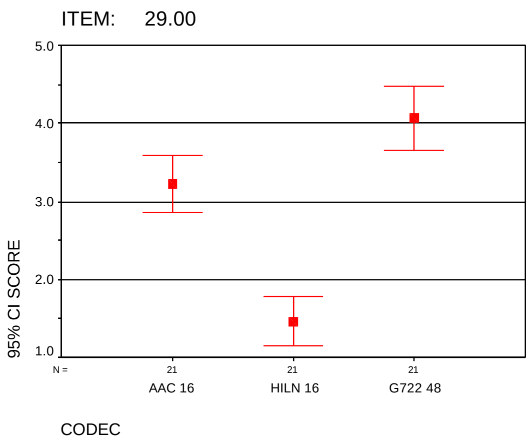
Item 18: Classical Music



Item 22: Violin



Item 29: Pop Music



Item 34: French Speech + Music

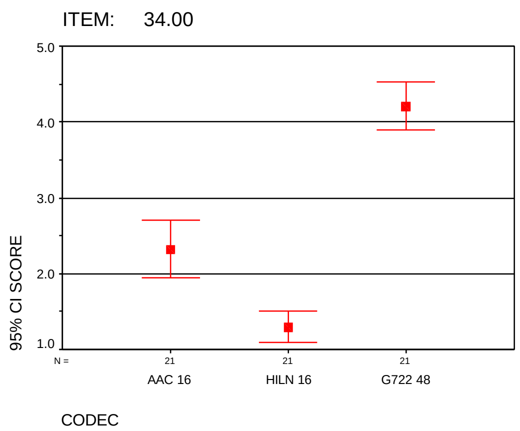


Figure 13: Site 2 & 4, Test B codec consistency

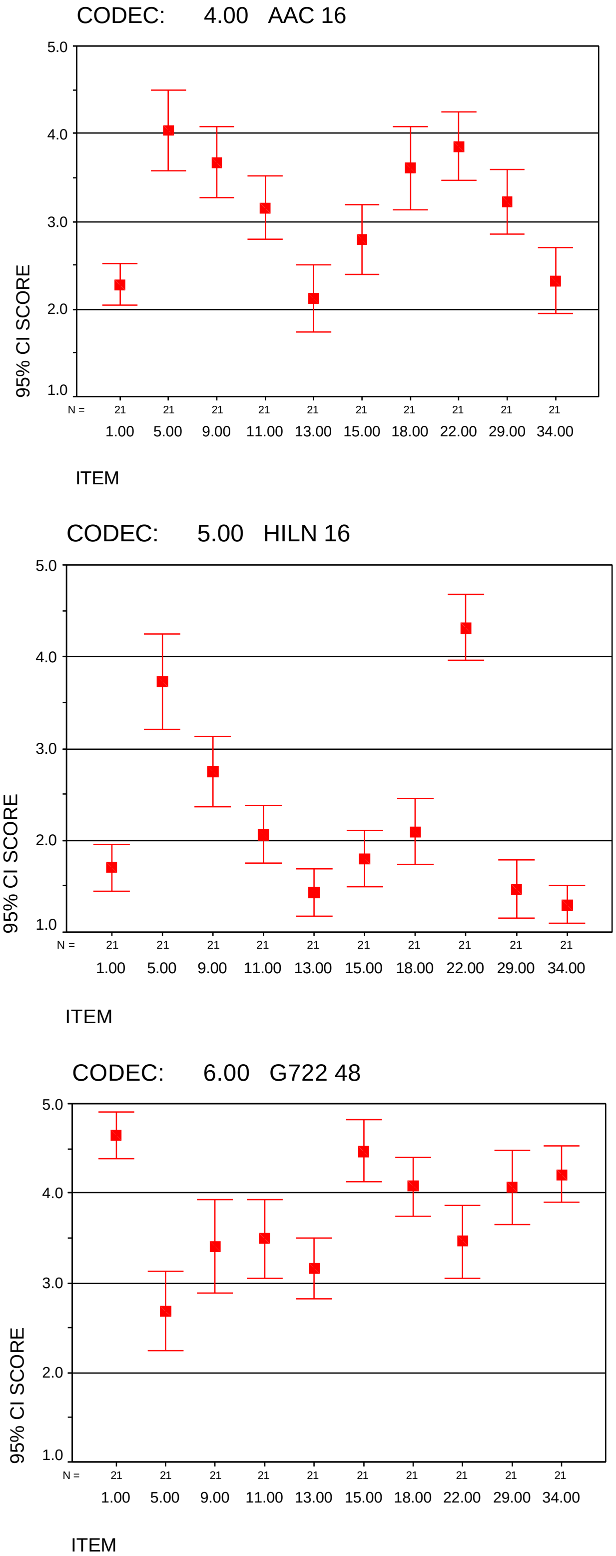
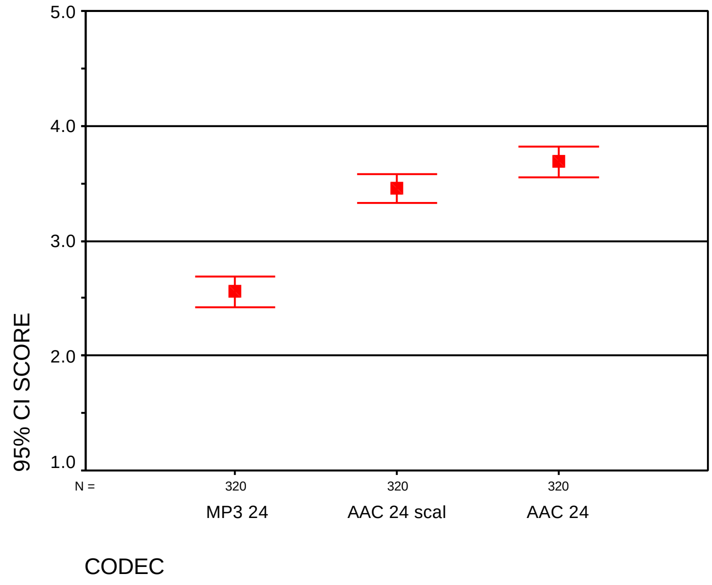
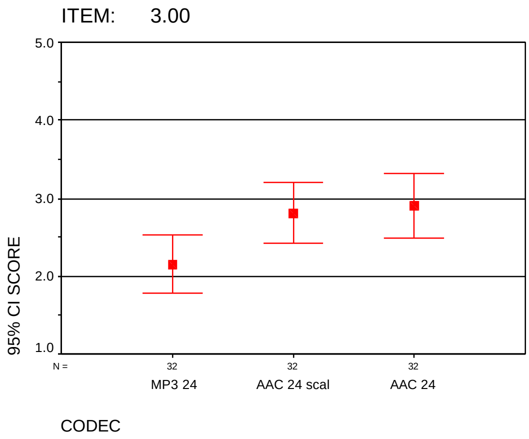


Figure 14: Site 3 & 4, Test C overall results

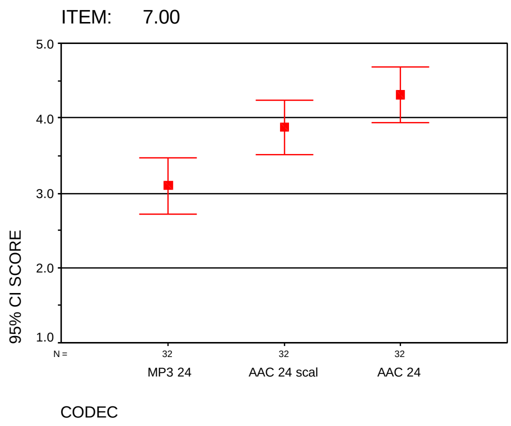


8.6.1.4 Figure 15: Site 3 & 4, Test C item-by-item comparison

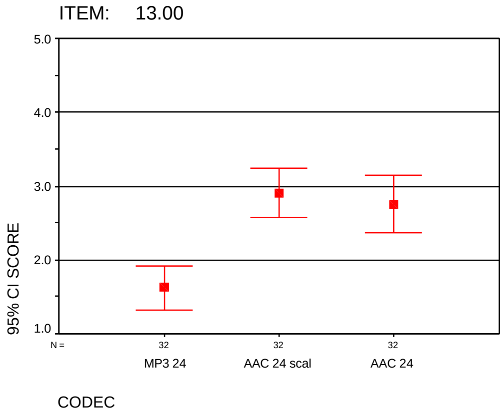
Item 3: Castanets



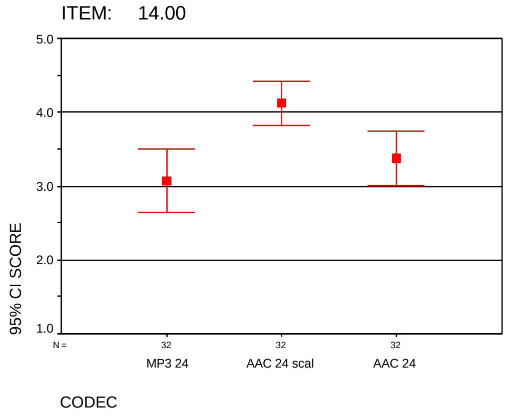
Item 7: Classical Music



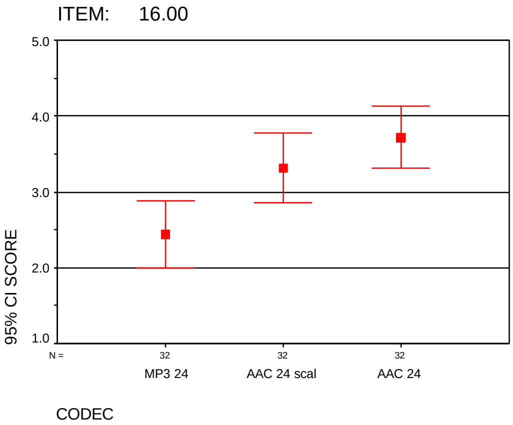
Item 13: Male German Speech



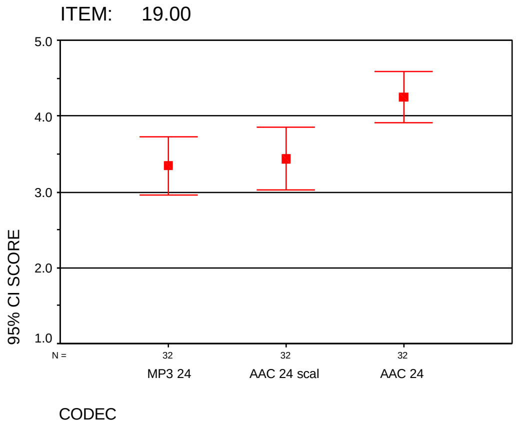
Item 14: Vocal a cappella



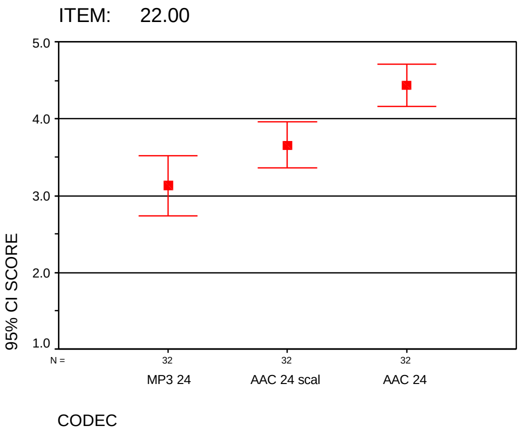
Item 16: Bass guitar



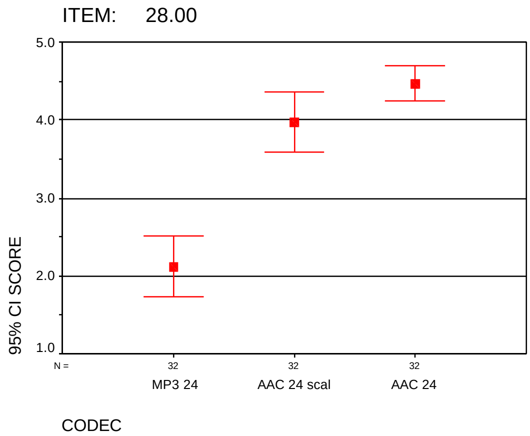
Item 19: Accordion/Triangle



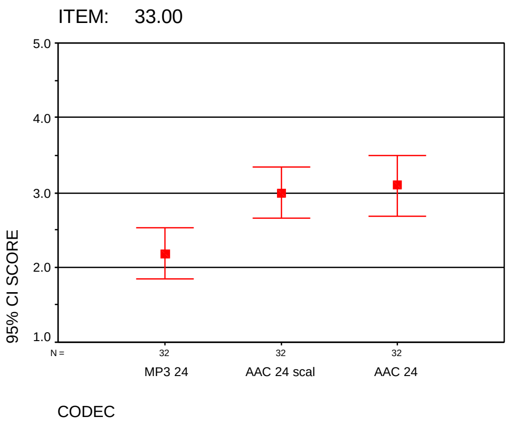
Item 22: Violin



Item 28: Classic instruments



Item 33: French Speech + Music



Item 38: Male German Speech

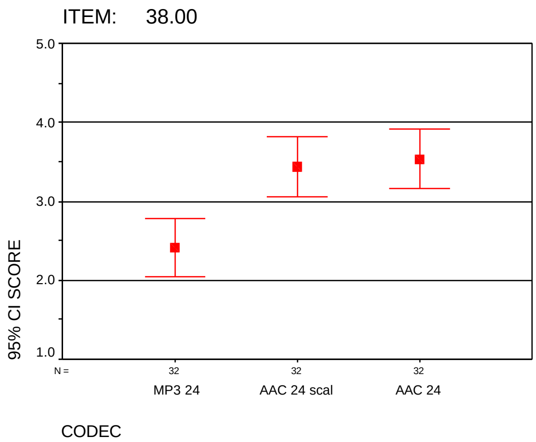


Figure 16: Site 3 & 4, Test C codec consistency

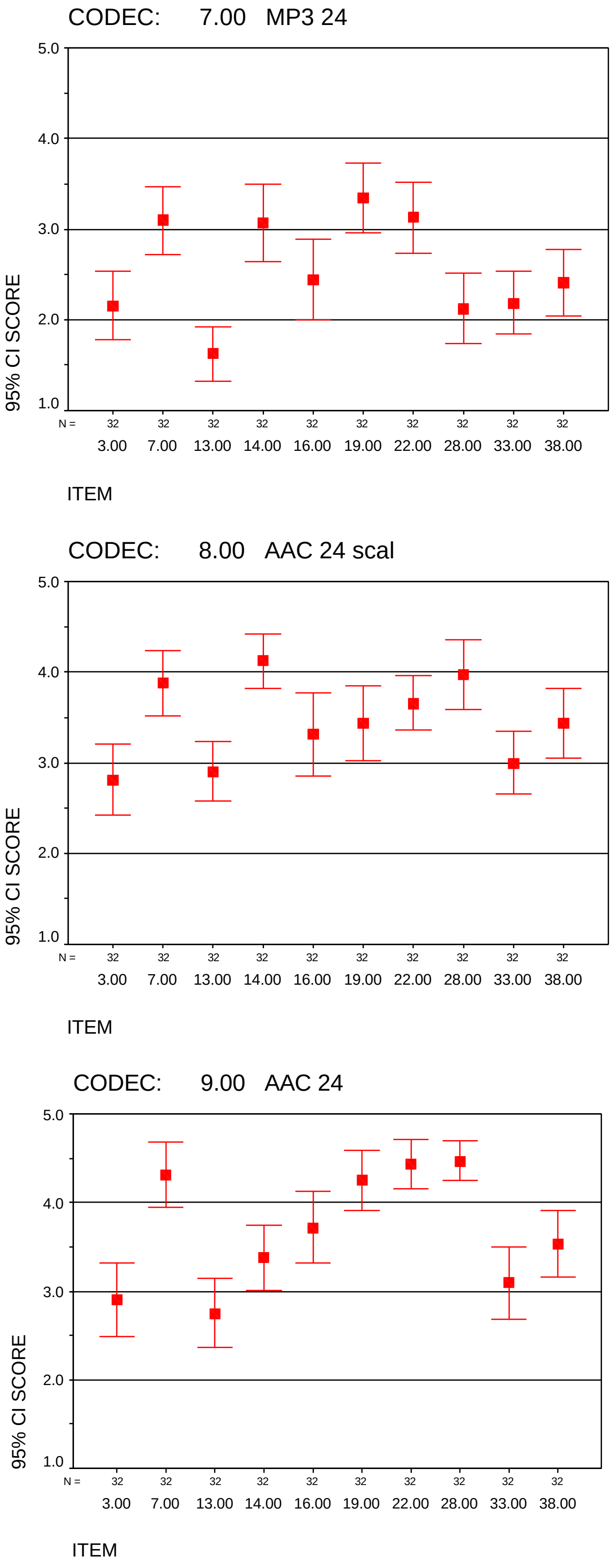
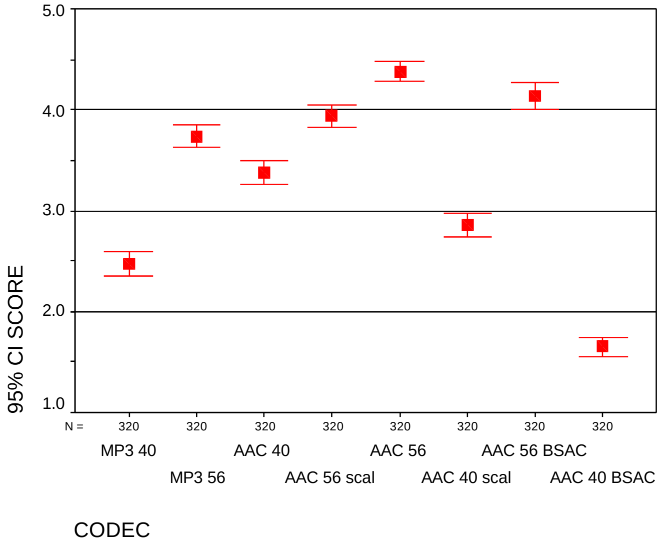
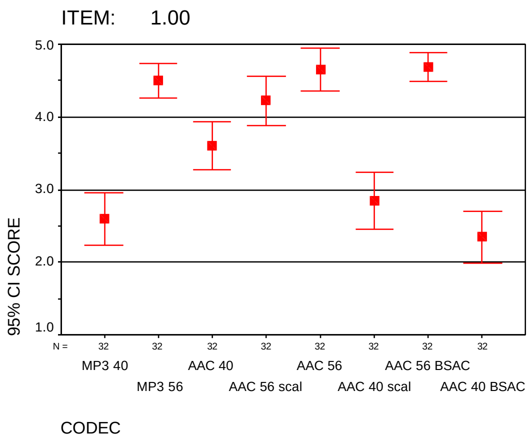


Figure 17: Site 3 & 4, Test D overall results

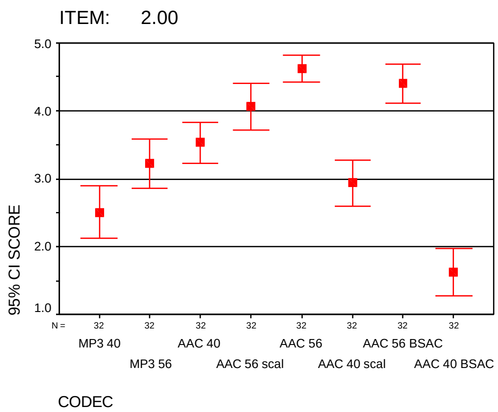


8.6.1.5 Figure 18: Site 3 & 4, Test D item-by-item comparison

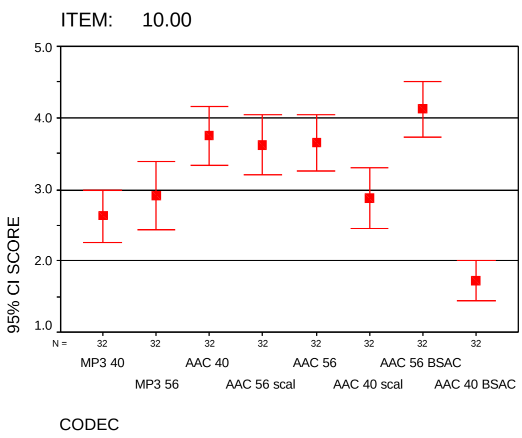
Item 1: English Female Speech



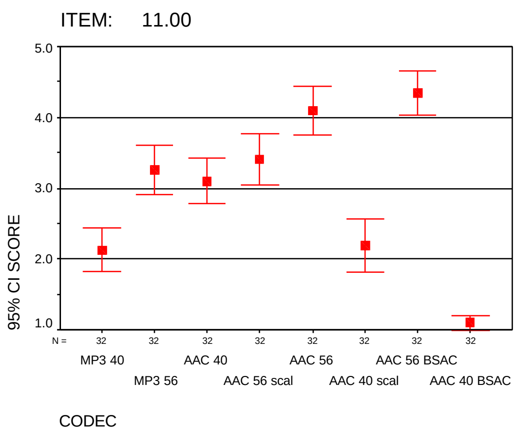
Item 2: Harpsichord



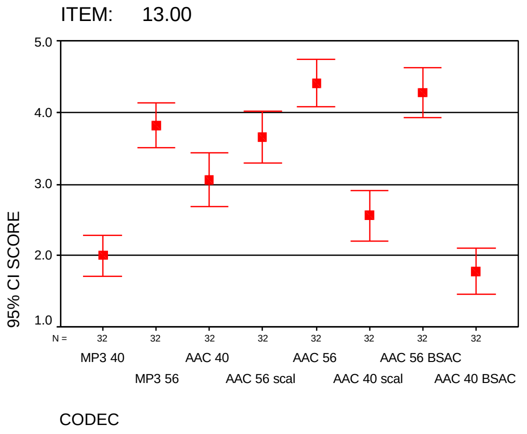
Item 10: Rock music



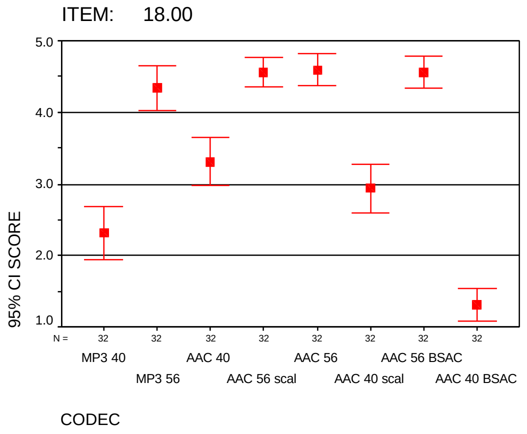
Item 11: Plucked Strings



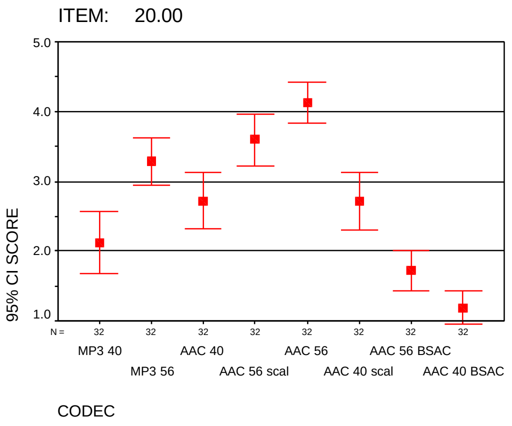
Item 13: Male German speech



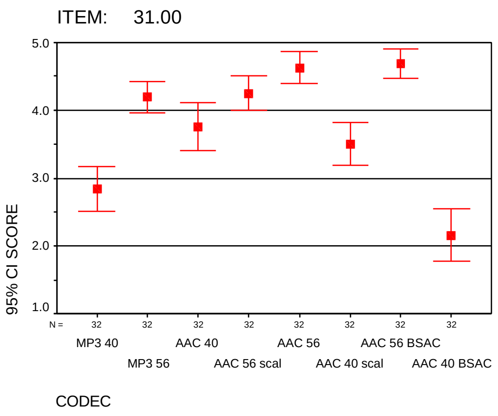
Item 18: Classical Music



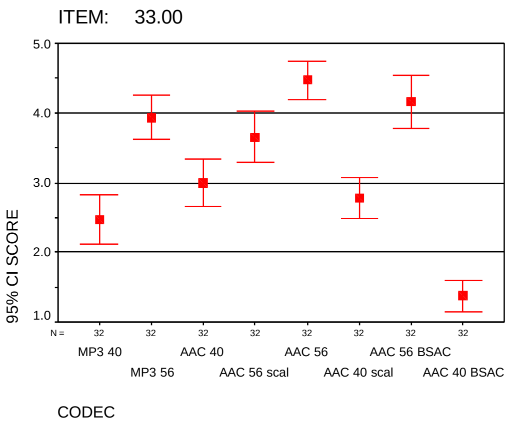
Item 20: Percussion



Item 31: Classical Music



Item 33: French speech + Music



Item 37: Jazz music

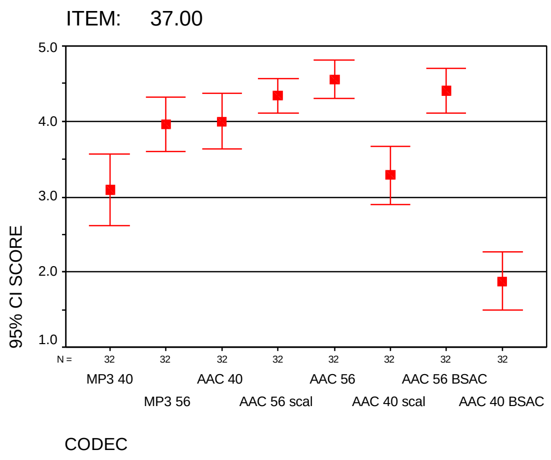
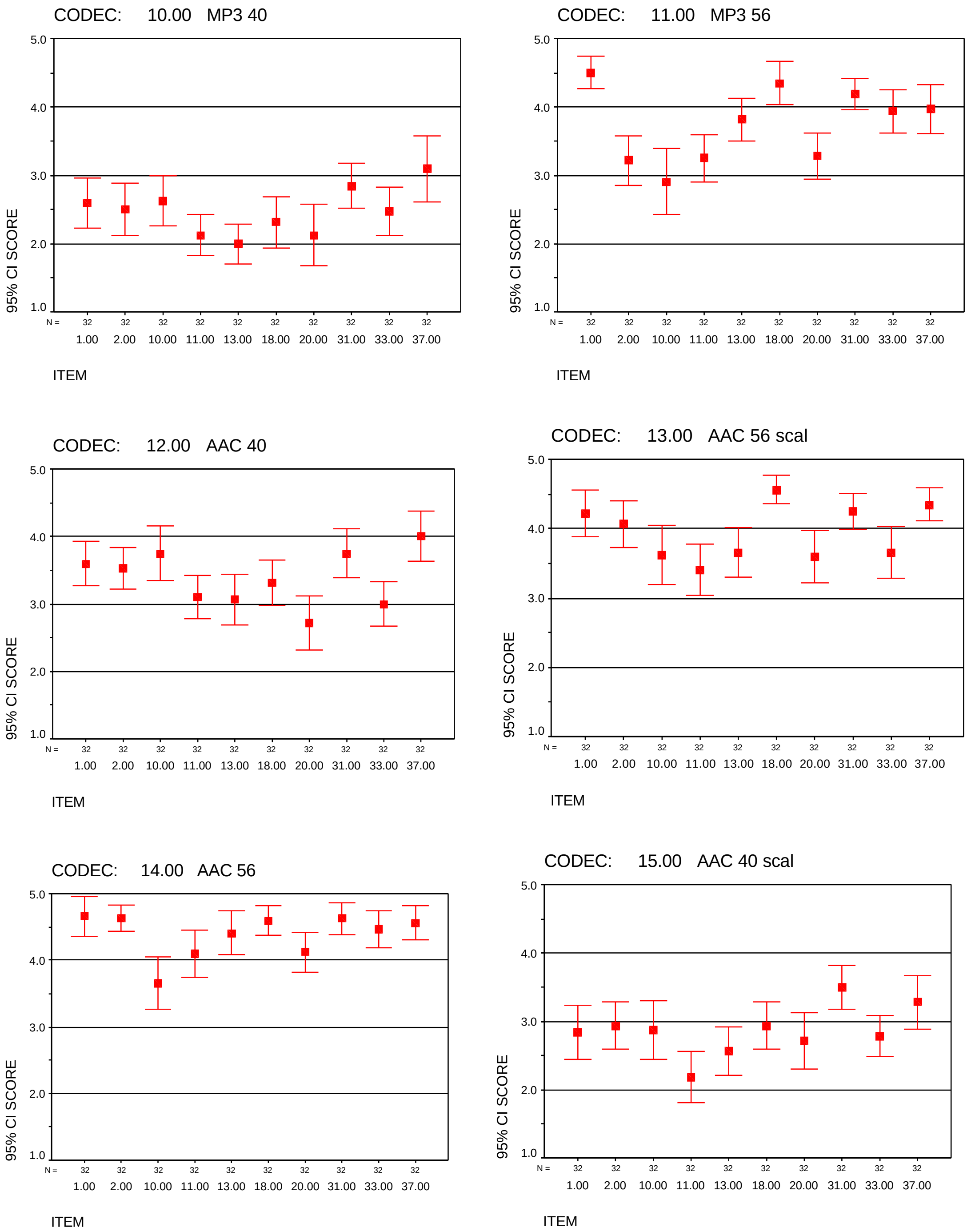
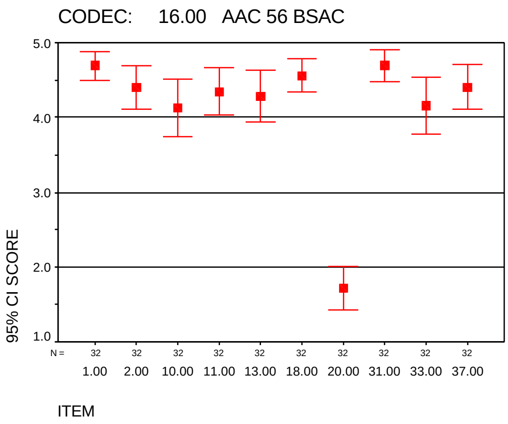
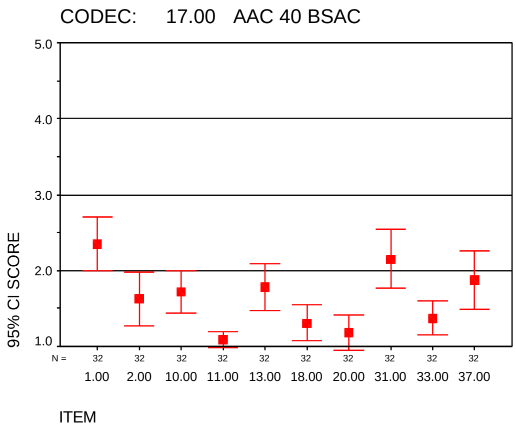


Figure 19: Site 3 & 4, Test D codec consistency







9. Conclusions

The following conclusions can be drawn from the test results:

9.1 Test A

- Twin VQ at 6 kbit/sec shows statistically the same quality as Layer 3 at 8 kbit/sec. Twin VQ is therefore a valuable MPEG-4 tool for improved coding efficiency at lowest bitrates.
- HILN at 6 kbit/sec shows a significantly worse average quality than Twin VQ and Layer 3 with the items used in this test. Further investigations (see document m4087) have shown, that the quality of HILN is highly dependent on the test material and is better than the quality of Twin VQ for some items. The selection process within this test, however, has been found to be correct in selecting the critical test items. Therefore the results of this test are a valid indication for the audio quality achieved when the coders are used as general audio coding systems on critical material. This leads to the conclusion that more work on HILN is required to improve the coding quality for critical material (see also test B).

9.2 Test B

- AAC at 16 kbit/sec performed 0.6 grades worse than G722, but operated at 1/3rd of the bitrate. It can therefore be concluded that AAC is a valuable MPEG-4 tool for coding music signals at bitrates as low as 16 kbit/sec.
- HILN at 16 kbit/sec performed equal or worse than AAC at 16 kbit/sec for almost all items at both test sites. The test results also shows that the quality of HILN is again highly dependent on the test material (see also test A). This leads to the conclusion that more work on HILN is required to improve the coding quality for critical material.

9.3 Test C&D

- At all three bitrates, AAC audio coding shows significantly better audio quality than MPEG Layer 3 (around 0.8 grades).
- The Large Step Scaleable System (AAC Scaleable) shows almost the same quality as unscaled AAC at the lower (mono) layer and about 0.4-0.5 grades worse quality at the higher (stereo) layers. Still

all Layers perform slightly better (highest layer) or significantly better (lower and mid layer) than MPEG Layer 3. Therefore the scaleable system shows good performance compared to older standards while providing the additional functionality of mono/stereo scaleable coding.

- The Small Step Scaleable System (BSAC) performed very well at the highest bitrate of 56 kbit/sec (item 20 should be excluded from the evaluation, see section 'Test Results'), which matches earlier results. On the lower bitrate of 40 kbit/sec, however, BSAC performed worse than expected. Although being mainly designed for bitrates from 40-64 kbit/sec mono at 48 kHz sampling rate, the BSAC tool is still expected to show reasonably good performance when going from 56 kbit/sec stereo to 40 kbit/sec stereo at 24 kHz sampling rate. The conclusion therefore is that the integration of BSAC in the MPEG-4 audio framework needs further investigation to check whether the integration is incomplete or needs changes.

10. ANNEXES

10.1 Annex 1: Test Schedule

Activity	Deadline	Responsibility	Comments
Preselection, Preprocessing & Resampling	13 July 98	Dublin task group, Univ. Hannover	
Coding process	17 July 98	Proponents	
Decoding, Upsampling delivery to FhG ftp sites	22 July 98	Proponenets	bitstream, decoded materials, upsampled to 48kHz by proponents.
Bitstream/bitrate & decoding verification	21 Aug. 98	check site	
Selection process	31 July 98	hosted by AT&T Selection panel from Nokia, Dolby, AT&T	
Test Setup/DAT Tape preparation	7 August 98	Samsung	
Grading phase	21 Aug 98	Sony (A,B,C) Mitsubishi (A,B,C) Samsung (A,B) NTT (C)	
Statistical analysis	28 Aug 98	MIT	
Test report	4 Sept 98	Audio Subgroup	

10.2 Annex 2: Test tape organization

Test	Tape	Time	Contents
Test A	A1	31m35sec	training (15 sequences: 10m52sec)
			test (30 sequences: 20m37sec)
Test B	B1	31m50sec	training (15 sequences: 11m57sec)
			test (30 sequences: 19m44sec)
Test C	C1	56m50sec	training (15 sequences: 18m57sec)
			test 1 (15 sequences: 19m05sec)
			test 2 (15 sequences: 18m29sec)
Test D	D-Training	54m15sec	training 1 (20 sequences: 27m16sec)
			training 2 (20 sequences: 26m50sec)
	D1	25m12sec	test (22 sequences: 25m12sec)
	D2	25m40sec	test (18 sequences: 25m40sec)
	D3	26m10sec	test (19 sequences: 26m10sec)
	D4	24m50sec	test (21 sequences: 24m50sec)

10.3 Annex 3: Codec verification

NEC had verified every 39 bit streams for HILN, Twin-VQ, G.722 and AAC-BSAC codecs. Samsung AIT had the task to verify the bitstreams and decoded and upsampled items of the AAC, MPEG Layer 3 and AAC scaleable codec for Audio on Internet. Samsung AIT did the verification with selected 10 test items for each experiment. Those results are shown on following table.

Group & #codec	Codec	Average bitrate	Minimum bitrate	Maximum bitrate	Remarks
A1	HILN	6000	-	-	
A2	TwinVQ	6000	-	-	
A3	MPEG Layer 3	8034	8028	8074	
B1	HILN	16000	-	-	
B2	AAC	16118	16006	16321	
B3	G.722	48000	-	-	
C1	AAC	24136	24006	24367	
C2	AAC scal	24103	24002	24315	
C3	MPEG Layer 3	24057	24042	24134	sampling rate is different with N2278
D1	AAC	40171	39963	40298	
D2	AAC	56160	56027	56292	
D3	AAC scal	40171	40003	40263	
D4	AAC scal	56222	56004	56363	
D5	AAC scal (BSAC)	-	34481	39869	
D6	AAC scal (BSAC)	-	49605	56347	
D7	MPEG Layer 3	40084	40071	40186	sampling rate is different with N2278
D8	MPEG Layer 3	56087	56066	56174	

The deviation of the bitrate can be explained by the use of the bit_resevoir.

10.4 Annex 4: Pre-selected and selected items for the Audio on Internet test

item #	filename	signal	exp. A	exp. B	exp.C mono	exp. C stereo	Remarks
1	es03	english female speech	**C**	**Ty**	**TR**	**Ty**	
2	si01	harpsichord				**Ty**	
3	si02	castanets0	**TR**		**C**		
4	si03	pitchpipe		**TR**			
5	sm01	bagpipes		**C**			
6	sc01	trumpet solo and orchestra					
7	sc02	orchestral piece	**C**	**TR**	**C**	**TR**	
8	sc03	contemporary pop music	**Ty**				*
9	uhd2	gula8		**Ty**			*
10	te1	Dorita				**C**	*
11	te2	We shall be happy	**C**	**Ty**	**TR**	**C**	
12	te6	Glockenspiel				**TR**	*
13	te7	Male German speech	**TR**	**C**	**C**	**C**	*
14	te8	Suzanne Vega		**TR**	**C**		
15	te9	Tracy Chapman	**C**	**C**	**TR**		
16	te13	Bass guitar	**Ty**		**Ty**		
17	te14	Hyden Trumpet Concert					
18	te15	Carmen	**TR**	**Ty**	**TR**	**C**	
19	te16	Accordion/Triangle			**Ty**		
20	te18	Percussion		**TR**		**C**	
21	te20	George Duke					
22	te21	Asa Jinder		**C**	**Ty**		
23	te23	Dalarnas Spelmansforbund					
24	te25	Stravinsky					*
25	te30	aimai					
26	te32	Palmtop boogie					
27	te36	O1					
28	te42	Kids Drive Dance (KDD)			**Ty**		
29	track76	pop		**Ty**		**TR**	
30	track78	folklore					
31	track82	classic	**Ty**			**Ty**	
32	track84	classic					
33	hexagon	background music	**Ty**		**C**	**Ty**	
34	radiofr1	Radio France mixed speech/music	**TR**	**C**		**TR**	
35	rfi1	Radio France International : news, jingles, mixed			**TR**		
36	app_guit	complex sound + applause					
37	jazzdrum	complex sound	**TR**			**Ty**	
38	kaest_mal		**Ty**	**TR**	**Ty**	**TR**	
39	mussorg	complex sound + applause	**C**				
Total	39	items					

C: Critical item, Ty: Typical item, TR: Training item,
*** : level adjustment was done**

10.5 Annex 5: Selection Panel report

Report of the Ad-Hoc Selection Committee for MPEG- 4 Audio Internet Audio Tests:

Listening Panel, 6/29/98
J. Johnston
V. Lam
S. Quackenbush
N. Zacharov

Listening Panel, 6/30/98, 6/31/98
J. Johnston
N. Zacharov
M. Fellers
S. Quackenbush

Listening Environment:

The listening tests were done at AT&T Laboratories' listening room, which is constructed using a floating floor and double walls. The listening setup consists of an SGI O2 R10000 computer running Irix, with an optical digital output connected through an interface to an Apogee 20 bit stereo DAC. The DAC output is connected through an Ashley 8-channel volume control and a Hafler P7000 amplifier to a pair of Snell C-V loudspeakers in the listening room. A PC keyboard and monitor is used to control the computer from inside the listening room. All presentation equipment except for speakers, keyboard and monitor are located outside the listening room.

The listening room has not yet been evaluated for full conformance to BS1116, but has been measured to have an NC8 noise floor. At at least one frequency the room appears to be too dead (i.e. near-anechoic) for full 1116 conformance. The room has previously provided very high sensitivity to codec impairments in informal 2-channel listening.

Signal Characterization

The document N2278 describes the material to be examined for possible inclusion in the final tests, and the constraints on selection of materials.

The constraints are that one of each of the following 5 categories of audio signals must be included as a "critical" signal, and one of each category as a "typical" member of that category. „Critical“ signals are signals that show the worst absolute audio quality when processed by the coders in a given test. „Typical“ signals are signals that show average perceivable distortion when processed by the coders in a given test. In addition, 4 signals were to be selected for training. As we found that training would be enhanced by the inclusion of one signal per category for training, we have expanded the training sequences to include one from each category, for a total of 5 training signals, for each of the four tests.

After some listening, we respectfully decline the invitation to make the critical signals the same across all 4 tests. We find that this would not result in the best sensitivity or balance for at least one or more of the tests.

First, we categorized the material according to the categories, as we did not have any guidance on signal type included in N2278. Our categorizations follow:

Category	Item Number
Speech	1, 13, 38
Single Instrument	2, 3, 4, 5, 11, 12, 16, 17
Pop	8, 10, 14, 15, 19, 21, 29, 37
Classical	6, 7, 18, 22, 24, 30, 31, 32
Complex	9, 20, 23, 25, 26, 27, 28, 33, 34, 35, 36, 39

This categorization includes folk and jazz items in classical, pop, or complex, as seemed appropriate from the signal content. In general, signals with more than one kind of source were considered for the complex category. We note that there are only 3 pure speech signals, so we have provided only 1 rather than the suggested 2 speech training signals.

Selection Process for Test A

After this categorization, we went through all members of each category for test A, the 6-8 kb/s test. We rated the members inside each category as to their "critical" behavior on an informal 1-5 scale (5 being critical), and selected the critical and typical items based on this rating, with further listening to ensure even distribution. One critical item that was not selected as the critical item in the test was selected for the training item. We found that artifacts, while similar among different categories, were different enough that we believe that one training sequence is appropriate for each category.

For Test A, we also note that the performance of codec 3 is very bad, and that the inclusion of this codec is likely to substantially compress the comparison scale for codecs 1 and 2. We suggest that if at all possible, codec 3 either be removed from the test, or evaluated by itself in a different test, so as to avoid unfortunate anchoring effects.

For Test A, we have selected the following materials for the test and the training sequence:

Category	Critical Signal	Typical Signal	Training Signal
Speech	01	38	13
Single Instrument	11	16	03
Pop	15	08	37
Classical	07	31	18
Complex	39	33	34

Item 12 (Glockenspiel) was removed from the list of items, since the bandwidth limitation of codecs 1 and 2 basically lead to a ‘broken’ signal (higher tones are completely missing). Having this item in the test is assumed not to give reasonable results on the coding quality of the codecs.

Selection Process for Test B

We repeated the same process for Test B, the 16kb/s mono material. We did not find a codec that was particularly bad in this test, and do not suggest exclusion of any codecs. The results were:

Category	Critical Signal	Typical Signal	Training Signal
Speech	13	01	38
Single Instrument	05	11	04
Pop	15	29	14
Classical	22	18	07
Complex	34	09	20

We note that in this test, the restriction placed on material by "category" forced us to use signals that may penalize one coder more than another, as different signals show each of the three coders to the most disadvantage. We have attempted to balance this as much as possible.

Selection Process for Test C, Monophonic Signals

Again, we used the same process for selection of signals for the Monophonic part of Test C. The results are:

Category	Critical Signal	Typical Signal	Training Signal
Speech	13	38	01
Single Instrument	03	16	11
Pop	14	19	15
Classical	07	22	18
Complex	33	28	35

In this test we note that, other than bandwidth differences, the impairments are not as strikingly different as they were in Tests A and B.

Selection Process for Test D, Stereophonic Signals

We note that there are an excessive number of codecs to evaluate in parallel for the pre-selection task. Again, we used the same process, but with all 4 listeners sitting on centerline, and the results are:

Category	Critical Signal	Typical Signal	Training Signal
Speech	13	01	38
Single Instrument	11	02	12
Pop	10	37	29
Classical	18	31	07
Complex	20	33	34

In test D we are concerned that the reference be of sufficient quality to convey the original signal imaging and soundstage as well as signal timbre for a suitable anchor. In particular, the reference should be an upper anchor, and we are concerned that it will not fulfill this role. We must note that in the loudspeaker tests, very large differences in soundstage and image contributed substantially to the impairments caused by the various codecs.

Some Concerns with the test plan

In section 3.1 and 3.2 of the test plan, the codecs under test, and the codecs to be used as reference are unclear. Above the table in 3.2, it says that the reference transmission bitrates are 28.8, 33.6, and 64 kb/s. In the table, it shows Layer 3 operating at 8, 24, 40 and 56 kb/s, and G722 operating at 48kb/s. While it is possible that these are test conditions, it is difficult from our position to evaluate the suitability and difference from the intended reference signals. Furthermore, we note that none of the coded signals in Test A or Test B are suitable for a reference, and that the signals of Test C and Test D contain perhaps one signal each that is suitable as a reference signal. As we do not know the identities of the codecs yet, it is hard to know if a reference is included, and if this reference is indeed suitable. We suggest substantial care in the use of references, ***especially*** in the stereo test.

Comments on Test Materials

Items vary in length (coded vs. uncoded and coded vs. coded) by up to 1 second in length.

Items should fade without clicks or artifacts. Signals 30, 32, and 34 have audible artifacts at the end of the sample.

Both intersignal loudness and intercodec loudness vary substantially. We wonder if this should be normalized to avoid level biasing. If it is possible, a loudness (NOT INTENSITY!) alignment would be desirable

10.6 Annex 6: Instructions for scoring and voting sheets

How to perform the listening test

1. Familiarisation or Training phase

The purpose of the training phase is to allow you, as a listener, to identify and become familiar with distortions and artefacts produced by the systems under test. The sound excerpts in the training phase are selected to illustrate the whole range of qualities that may be heard. This fact does NOT necessarily mean that you should give grade 1.0 to the sound excerpt with lowest quality, nor grade 5.0 to the sound excerpt with highest quality. You should use the range you find appropriate. During the training phase you will also become familiar with the test procedure. After the training, you should know what to listen for and how to grade the quality of the excerpts, and will then proceed with the real test.

During the training phase, you will hear both the reference (original), A, and the processed versions, B, of each item of audio material, presented in the sequence A-B-A-B. Announcements on the screen will remind you whether you are going to listen to the reference (A) or to the processed version (B). The duration of the audio sequences will typically be between 15 and 25 seconds.

You should use the quality scale as follows

5.0	Excellent
4.0	Good
3.0	Fair
2.0	Poor
1.0	Bad

You are advised to use the reference (A) stimulus as an indication of the optimum quality for each programme item, i.e. it corresponds to ”Excellent”. The grading scale is continuous from 5.0 to 1.0, and you should give your answer to an accuracy of one decimal place e.g. 3.2, 1.9.

Whilst you should be considering during the training phase how you, as an individual, will interpret the audible impairments in terms of the grading scale, it is important that you should not discuss this personal interpretation with the other subjects at any time.

All grades given during the training phase will be disregarded.

2. Grading phase

The purpose of the test is to grade the quality of the audio material you will hear.

For each item, you will listen to two versions of a given audio excerpt. The versions will be identified as A - the reference and B - the processed version, and will be presented in the sequence A-B-A-B. Afterwards there will be 8 seconds of silence during which you write down your judgement of the quality level of B. If you like, you can write down a comment as well, indicating, perhaps, why you gave the grade you did. After this silent period the next item starts with an aural announcement indicating the number of the new item: ”item nn”. Each session will contain approximately 15 items to be graded.

Test site :
Session N° :
Random N° :
Date :
Name :
Age :
Profession :
Expert / Non expert :

5.0	Excellent
4.0	Good
3.0	Fair
2.0	Poor
1.0	Bad

The quality scale

You should grade your evaluations to an accuracy of one decimal place.

# item	Grade of B	Comments
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

10.7 *Annex 7: List of the "pseudo-randomisation" of each test*

test A: 1-30	**test B: 1-30**	**test C mono: 1-30**
codec02/item33	codec05/item13	codec07/item38
codec01/item08	codec04/item22	codec08/item28
codec02/item07	codec06/item09	codec07/item03
codec03/item15	codec06/item05	codec08/item13
codec01/item33	codec06/item29	codec08/item38
codec01/item31	codec06/item15	codec09/item07
codec03/item08	codec06/item22	codec08/item16
codec02/item11	codec04/item09	codec09/item38
codec02/item31	codec04/item34	codec09/item16
codec02/item38	codec05/item18	codec07/item13
codec03/item31	codec04/item18	codec08/item19
codec01/item38	codec06/item11	codec08/item03
codec02/item16	codec04/item11	codec08/item22
codec02/item39	codec05/item05	codec08/item14
codec01/item11	codec06/item13	codec09/item14
codec01/item39	codec06/item34	codec09/item33
codec03/item38	codec04/item01	codec08/item07
codec02/item08	codec04/item29	codec09/item03
codec03/item01	codec05/item22	codec09/item22
codec01/item01	codec06/item01	codec07/item19
codec03/item11	codec05/item01	codec08/item33
codec03/item07	codec05/item29	codec09/item28
codec02/item01	codec04/item13	codec07/item22
codec03/item16	codec05/item34	codec09/item13
codec02/item15	codec05/item09	codec09/item19
codec03/item39	codec06/item18	codec07/item28
codec01/item07	codec04/item05	codec07/item07
codec01/item16	codec05/item11	codec07/item33
codec01/item15	codec04/item15	codec07/item14
codec03/item33	codec05/item15	codec07/item16

test D stereo:1-30	test D stereo:31-60	test D stereo:61-80
codec11/item01	codec13/item11	codec11/item11
codec12/item33	codec17/item10	codec15/item10
codec15/item11	codec15/item31	codec14/item01
codec10/item02	codec13/item37	codec10/item13
codec11/item37	codec14/item20	codec14/item13
codec16/item02	codec17/item11	codec15/item02
codec16/item37	codec14/item37	codec15/item01
codec17/item01	codec16/item20	codec16/item33
codec16/item01	codec10/item37	codec15/item13
codec11/item02	codec16/item10	codec10/item33
codec11/item10	codec13/item18	codec12/item01
codec15/item37	codec15/item18	codec16/item18
codec13/item01	codec14/item11	codec12/item20
codec14/item18	codec13/item10	codec14/item31
codec10/item20	codec12/item31	codec13/item02
codec14/item02	codec12/item13	codec10/item01
codec10/item11	codec12/item37	codec13/item13
codec14/item10	codec10/item31	codec13/item31
codec11/item33	codec17/item31	codec12/item02
codec12/item10	codec17/item13	codec13/item33
codec13/item20	codec12/item11	-
codec11/item31	codec16/item11	-
codec15/item33	codec17/item20	-
codec11/item13	codec10/item10	-
codec17/item18	codec11/item20	-
codec16/item31	codec12/item18	-
codec15/item20	codec17/item02	-
codec10/item18	codec14/item33	-
codec16/item13	codec17/item33	-
codec17/item37	codec11/item18	-

10.8 *Annex 8. Tables from the statistical analysis*

Table 1. Subject reliability test: subject-by-subject one-way ANOVA comparing codec responses. For each subject, an ANOVA was run for each test comparing the mean values given to each codec. Four subjects could not make significant comparisons (at the p < .05 level) among codecs on half or more of the tests in which they participated. They are highlighted and were removed from the data set.

S	TEST		SS	df	MS	F	Sig.
A1	A	B/w Groups	16.019	2	89	13.550	.000
		W/in Groups	15.960	27	.591		
		Total	31.979	29			
	B	B/w Groups	16.254	2	8.127	13.672	.000
		W/in Groups	16.049	27	.594		
		Total	32.303	29			
A10	A	B/w Groups	3.505	2	A.752	2.032	.151
		W/in Groups	23.285	27	.862		
		Total	26.790	29			
	B	B/w Groups	2.483	2	A.241	A.521	.237
		W/in Groups	22.036	27	.816		
		Total	24.519	29			
A11	A	B/w Groups	9.801	2	4.900	4.724	.017
		W/in Groups	289	27	A.037		
		Total	37.810	29			
	B	B/w Groups	10.385	2	5.192	4.241	.025
		W/in Groups	33.054	27	A.224		
		Total	43.439	29			
A12	A	B/w Groups	12.966	2	6.483	17.571	.000
		W/in Groups	9.962	27	.369		
		Total	22.928	29			
	B	B/w Groups	12.163	2	6.081	8.931	.001
		W/in Groups	18.384	27	.681		
		Total	30.547	29			
A13	A	B/w Groups	3.169	2	A.584	4.962	.015
		W/in Groups	8.621	27	.319		
		Total	11.790	29			
	B	B/w Groups	3.875	2	A.937	2.428	.107
		W/in Groups	21.540	27	.798		
		Total	25.415	29			
A14	A	B/w Groups	12.349	2	6.174	7.401	.003
		W/in Groups	22.526	27	.834		
		Total	34.875	29			
	B	B/w Groups	10.323	2	5.161	6.805	.004
		W/in Groups	20.479	27	.758		
		Total	30.802	29			
A15	A	B/w Groups	5.299	2	2.649	8.264	.002
		W/in Groups	8.656	27	.321		
		Total	13.955	29			
	B	B/w Groups	9.273	2	4.636	7.099	.003
		W/in Groups	17.634	27	.653		
		Total	26.907	29			
A16	A	B/w Groups	A.061	2	.530	3.774	.036
		W/in Groups	3.794	27	.141		
		Total	4.855	29			
	B	B/w Groups	3.709	2	A.854	6.760	.004
		W/in Groups	7.406	27	.274		
		Total	11.115	29			
A2	A	B/w Groups	2.198	2	A.099	2.422	.108
		W/in Groups	12.250	27	.454		
		Total	14.448	29			
	B	B/w Groups	7.509	2	3.754	5.202	.012
		W/in Groups	19.486	27	.722		
		Total	26.995	29			
A3	A	B/w Groups	.409	2	.204	.228	.798
		W/in Groups	24.185	27	.896		
		Total	24.594	29			
	B	B/w Groups	6.133	2	3.066	5.863	.008
		W/in Groups	14.122	27	.523		
		Total	20.255	29			
A4	A	B/w Groups	A.985	2	.992	6.077	.007
		W/in Groups	4.409	27	.163		
		Total	6.394	29			
	B	B/w Groups	3.621	2	A.810	4.852	.016
		W/in Groups	10.073	27	.373		
		Total	13.694	29			
A5	A	B/w Groups	3.129	2	A.564	4.700	.018
		W/in Groups	8.986	27	.333		
		Total	12.115	29			
	B	B/w Groups	9.715	2	4.857	7.067	.003
		W/in Groups	18.559	27	.687		
		Total	28.274	29			
A6	A	B/w Groups	6.691	2	3.345	7.068	.003
		W/in Groups	12.779	27	.473		
		Total	19.470	29			
	B	B/w Groups	15.205	2	7.602	10.410	.000
		W/in Groups	19.717	27	.730		
		Total	34.922	29			
A7	A	B/w Groups	.849	2	.424	A.180	.323
		W/in Groups	9.713	27	.360		
		Total	10.562	29			
	B	B/w Groups	6.765	2	3.382	4.651	.018
		W/in Groups	19.634	27	.727		
		Total	26.399	29			
A8	A	B/w Groups	4.793	2	2.396	7.669	.002
		W/in Groups	8.437	27	.312		

		Total	13.230	29			
	B	B/w Groups	5.961	2	2.980	5.861	.008
		W/in Groups	13.729	27	.508		
		Total	19.690	29			
A9	A	B/w Groups	8.067E-02	2	4.033E-02	13	.380
		W/in Groups	A.086	27	4.022E-02		
		Total	A.167	29			
	B	B/w Groups	A.718	2	.859	5.031	.014
		W/in Groups	4.610	27	.171		
		Total	6.328	29			
M1	A	B/w Groups	A.867	2	.933	A.042	.366
		W/in Groups	24.175	27	.895		
		Total	26.042	29			
	B	B/w Groups	7.638	2	3.819	3.591	.041
		W/in Groups	28.717	27	A.064		
		Total	36.355	29			
	3	B/w Groups	A.123	2	.561	A.029	.371
		W/in Groups	14.727	27	.545		
		Total	15.850	29			
	4	B/w Groups	6.713	7	.959	2.354	.032
		W/in Groups	29.337	72	.407		
		Total	36.050	79			
M2	A	B/w Groups	2.826	2	A.413	5.110	.013
		W/in Groups	7.466	27	.277		
		Total	10.292	29			
	B	B/w Groups	16.226	2	8.113	5.012	.014
		W/in Groups	43.706	27	A.619		
		Total	59.932	29			
	3	B/w Groups	3.746	2	A.873	2.798	.079
		W/in Groups	18.077	27	.670		
		Total	21.823	29			
	4	B/w Groups	73.374	7	10.482	21.310	.000
		W/in Groups	35.415	72	.492		
		Total	108.789	79			
M3	A	B/w Groups	2.625	2	A.312	4.956	.015
		W/in Groups	7.150	27	.265		
		Total	9.775	29			
	B	B/w Groups	12.413	2	6.206	10.642	.000
		W/in Groups	15.746	27	.583		
		Total	28.159	29			
	3	B/w Groups	A.323	2	.661	3.216	.056
		W/in Groups	5.552	27	.206		
		Total	6.875	29			
	4	B/w Groups	8.817	7	A.260	5.718	.000
		W/in Groups	15.862	72	.220		
		Total	24.679	79			
M4	A	B/w Groups	3.517	2	A.758	2.605	.092
		W/in Groups	18.225	27	.675		
		Total	21.742	29			
	B	B/w Groups	22.685	2	11.342	7.515	.003
		W/in Groups	40.750	27	A.509		
		Total	63.435	29			
	3	B/w Groups	.806	2	.403	.870	.430
		W/in Groups	12.502	27	.463		
		Total	13.308	29			
	4	B/w Groups	25.576	7	3.654	4.370	.000
		W/in Groups	60.192	72	.836		
		Total	85.768	79			
M5	A	B/w Groups	A.267	2	.633	.818	.452
		W/in Groups	20.900	27	.774		
		Total	22.167	29			
	B	B/w Groups	A.178	2	.589	A.849	.177
		W/in Groups	8.602	27	.319		
		Total	9.780	29			
	3	B/w Groups	3.333	2	A.666	6.496	.005
		W/in Groups	6.926	27	.257		
		Total	10.259	29			
	4	B/w Groups	4.350	7	.621	A.556	.162
		W/in Groups	28.748	72	.399		
		Total	33.098	79			
M6	A	B/w Groups	4.317	2	2.158	3.608	.041
		W/in Groups	16.150	27	.598		
		Total	20.467	29			
	B	B/w Groups	.648	2	.324	A.036	.368
		W/in Groups	8.440	27	.313		
		Total	9.088	29			
	3	B/w Groups	34.400	2	17.200	28.491	.000
		W/in Groups	16.300	27	.604		
		Total	50.700	29			
	4	B/w Groups	88.179	7	12.597	17.361	.000
		W/in Groups	52.243	72	.726		
		Total	140.422	79			
M7	A	B/w Groups	.117	2	5.833E-02	.257	.775
		W/in Groups	6.125	27	.227		
		Total	6.242	29			
	B	B/w Groups	7.203	2	3.601	8.891	.001
		W/in Groups	10.936	27	.405		
		Total	18.139	29			
	3	B/w Groups	2.493	2	A.246	3.894	.033
		W/in Groups	8.642	27	.320		
		Total	11.135	29			
	4	B/w Groups	.622	7	8.884E-02	.885	.523
		W/in Groups	7.225	72	.100		
		Total	7.847	79			
M8	A	B/w Groups	A.069	2	.534	3.278	.053
		W/in Groups	4.401	27	.163		
		Total	5.470	29			
	B	B/w Groups	.186	2	9.300E-02	.375	.691
		W/in Groups	6.694	27	.248		
		Total	6.880	29			

	3	B/w Groups	8.867E-02	2	4.433E-02	.518	.602
		W/in Groups	2.313	27	8.567E-02		
		Total	2.402	29			
	4	B/w Groups	.242	7	3.450E-02	.858	.544
		W/in Groups	2.894	72	4.019E-02		
		Total	3.136	79			
M9	3	B/w Groups	A.133	2	.566	A.929	.165
		W/in Groups	7.926	27	.294		
		Total	9.059	29			
	4	B/w Groups	21.171	7	3.024	6.749	.000
		W/in Groups	32.264	72	.448		
		Total	53.435	79			
N1	3	B/w Groups	2.067	2	A.033	A.037	.368
		W/in Groups	26.900	27	.996		
		Total	28.967	29			
	4	B/w Groups	53.600	7	7.657	11.438	.000
		W/in Groups	48.200	72	.669		
		Total	101.800	79			
N10	3	B/w Groups	10.400	2	5.200	4.875	.016
		W/in Groups	28.800	27	A.067		
		Total	39.200	29			
	4	B/w Groups	82.887	7	11.841	21.051	.000
		W/in Groups	40.500	72	.563		
		Total	123.387	79			
N11	3	B/w Groups	A.267	2	.633	.479	.625
		W/in Groups	35.700	27	A.322		
		Total	36.967	29			
	4	B/w Groups	23.750	7	3.393	2.283	.037
		W/in Groups	1070	72	A.486		
		Total	130.750	79			
N12	3	B/w Groups	4.467	2	2.233	A.530	.235
		W/in Groups	39.400	27	A.459		
		Total	43.867	29			
	4	B/w Groups	64.388	7	9.198	10.665	.000
		W/in Groups	62.100	72	.863		
		Total	126.488	79			
N13	3	B/w Groups	8.867	2	4.433	3.861	.034
		W/in Groups	310	27	A.148		
		Total	39.867	29			
	4	B/w Groups	112.388	7	16.055	17.126	.000
		W/in Groups	67.500	72	.937		
		Total	179.888	79			
N14	3	B/w Groups	8.267	2	4.133	3.532	.043
		W/in Groups	31.600	27	A.170		
		Total	39.867	29			
	4	B/w Groups	61.200	7	8.743	13.989	.000
		W/in Groups	450	72	.625		
		Total	106.200	79			
N15	3	B/w Groups	4.467	2	2.233	A.194	.318
		W/in Groups	50.500	27	A.870		
		Total	54.967	29			
	4	B/w Groups	101.150	7	14.450	25.752	.000
		W/in Groups	40.400	72	.561		
		Total	141.550	79			
N16	3	B/w Groups	10.067	2	5.033	14.613	.000
		W/in Groups	9.300	27	.344		
		Total	19.367	29			
	4	B/w Groups	77.550	7	11.079	17.965	.000
		W/in Groups	44.400	72	.617		
		Total	121.950	79			
N2	3	B/w Groups	5.400	2	2.700	2.661	.088
		W/in Groups	27.400	27	A.015		
		Total	32.800	29			
	4	B/w Groups	35.987	7	5.141	5.566	.000
		W/in Groups	66.500	72	.924		
		Total	102.487	79			
N3	3	B/w Groups	A.267	2	.633	.500	.612
		W/in Groups	34.200	27	A.267		
		Total	35.467	29			
	4	B/w Groups	60.150	7	8.593	9.403	.000
		W/in Groups	65.800	72	.914		
		Total	125.950	79			
N4	3	B/w Groups	6.867	2	3.433	4.522	.020
		W/in Groups	20.500	27	.759		
		Total	27.367	29			
	4	B/w Groups	44.200	7	6.314	10.332	.000
		W/in Groups	440	72	.611		
		Total	88.200	79			
N5	3	B/w Groups	5.067	2	2.533	A.541	.233
		W/in Groups	44.400	27	A.644		
		Total	49.467	29			
	4	B/w Groups	580	7	8.286	5.233	.000
		W/in Groups	1140	72	A.583		
		Total	1720	79			
N6	3	B/w Groups	6.867	2	3.433	7.357	.003
		W/in Groups	12.600	27	.467		
		Total	19.467	29			
	4	B/w Groups	50.987	7	7.284	12.577	.000
		W/in Groups	41.700	72	.579		
		Total	92.687	79			
N7	3	B/w Groups	7.267	2	3.633	4.419	.022
		W/in Groups	22.200	27	.822		
		Total	29.467	29			
	4	B/w Groups	84.988	7	12.141	14.594	.000
		W/in Groups	59.900	72	.832		
		Total	144.888	79			
N8	3	B/w Groups	5.267	2	2.633	2.890	.073
		W/in Groups	24.600	27	.911		
		Total	29.867	29			
	4	B/w Groups	80.987	7	11.570	16.175	.000

		W/in Groups	51.500	72	.715		
		Total	132.487	79			
N9	3	B/w Groups	4.467	2	2.233	2.087	.144
		W/in Groups	28.900	27	A.070		
		Total	33.367	29			
	4	B/w Groups	56.750	7	8.107	13.512	.000
		W/in Groups	43.200	72	.600		
		Total	99.950	79			
SA1	A	B/w Groups	6.067	2	3.033	7.248	.003
		W/in Groups	11.300	27	.419		
		Total	17.367	29			
	B	B/w Groups	14.467	2	7.233	17.755	.000
		W/in Groups	110	27	.407		
		Total	25.467	29			
SA10	A	B/w Groups	2.600	2	A.300	A.340	.279
		W/in Groups	26.200	27	.970		
		Total	28.800	29			
	B	B/w Groups	13.067	2	6.533	4.121	.027
		W/in Groups	42.800	27	A.585		
		Total	55.867	29			
SA11	A	B/w Groups	3.467	2	A.733	A.410	.262
		W/in Groups	33.200	27	A.230		
		Total	36.667	29			
	2	B/w Groups	22.467	2	11.233	7.326	.003
		W/in Groups	41.400	27	A.533		
		Total	63.867	29			
SA12	A	B/w Groups	2.867	2	A.433	2.276	.122
		W/in Groups	170	27	.630		
		Total	19.867	29			
	2	B/w Groups	17.067	2	8.533	4.243	.025
		W/in Groups	54.300	27	2.011		
		Total	71.367	29			
SA13	A	B/w Groups	.867	2	.433	A.500	.241
		W/in Groups	7.800	27	.289		
		Total	8.667	29			
	B	B/w Groups	12.600	2	6.300	8.421	.001
		W/in Groups	20.200	27	.748		
		Total	32.800	29			
SA14	A	B/w Groups	4.467	2	2.233	4.638	.019
		W/in Groups	130	27	.481		
		Total	17.467	29			
	B	B/w Groups	7.200	2	3.600	3.738	.037
		W/in Groups	260	27	.963		
		Total	33.200	29			
SA15	A	B/w Groups	.267	2	.133	.245	.785
		W/in Groups	14.700	27	.544		
		Total	14.967	29			
	B	B/w Groups	8.867	2	4.433	3.235	.055
		W/in Groups	370	27	A.370		
		Total	45.867	29			
SA16	A	B/w Groups	2.067	2	A.033	A.824	.181
		W/in Groups	15.300	27	.567		
		Total	17.367	29			
	B	B/w Groups	10.867	2	5.433	6.986	.004
		W/in Groups	210	27	.778		
		Total	31.867	29			
SA2	A	B/w Groups	12.067	2	6.033	9.362	.001
		W/in Groups	17.400	27	.644		
		Total	29.467	29			
	B	B/w Groups	10.400	2	5.200	5.421	.010
		W/in Groups	25.900	27	.959		
		Total	36.300	29			
SA3	A	B/w Groups	4.067	2	2.033	2.845	.076
		W/in Groups	19.300	27	.715		
		Total	23.367	29			
	B	B/w Groups	25.867	2	12.933	12.125	.000
		W/in Groups	28.800	27	A.067		
		Total	54.667	29			
SA4	A	B/w Groups	12.867	2	6.433	10.994	.000
		W/in Groups	15.800	27	.585		
		Total	28.667	29			
	B	B/w Groups	10.400	2	5.200	5.239	.012
		W/in Groups	26.800	27	.993		
		Total	37.200	29			
SA5	A	B/w Groups	20.267	2	10.133	12.214	.000
		W/in Groups	22.400	27	.830		
		Total	42.667	29			
	B	B/w Groups	12.600	2	6.300	4.465	.021
		W/in Groups	38.100	27	A.411		
		Total	50.700	29			
SA6	A	B/w Groups	28.467	2	14.233	23.291	.000
		W/in Groups	16.500	27	.611		
		Total	44.967	29			
	B	B/w Groups	13.867	2	6.933	7.118	3
		W/in Groups	26.300	27	.974		
		Total	40.167	29			
SA7	A	B/w Groups	22.067	2	11.033	10.912	.000
		W/in Groups	27.300	27	A.011		
		Total	49.367	29			
	B	B/w Groups	15.800	2	7.900	5.267	.012
		W/in Groups	40.500	27	A.500		
		Total	56.300	29			
SA8	A	B/w Groups	17.867	2	8.933	27.409	.000
		W/in Groups	8.800	27	.326		
		Total	26.667	29			
	B	B/w Groups	10.067	2	5.033	7.041	.003
		W/in Groups	19.300	27	.715		
		Total	29.367	29			
SA9	A	B/w Groups	7.400	2	3.700	4.288	.024
		W/in Groups	23.300	27	.863		

		Total	30.700	29			
	B	B/w Groups	18.067	2	9.033	8.324	.002
		W/in Groups	29.300	27	A.085		
		Total	47.367	29			
SC1	3	B/w Groups	26.867	2	13.433	11.406	.000
		W/in Groups	31.800	27	A.178		
		Total	58.667	29			
	4	B/w Groups	163.200	7	23.314	28.451	.000
		W/in Groups	590	72	.819		
		Total	222.200	79			
SC10	3	B/w Groups	28.867	2	14.433	17.876	.000
		W/in Groups	21.800	27	.807		
		Total	50.667	29			
	4	B/w Groups	1240	7	17.714	20.309	.000
		W/in Groups	62.800	72	.872		
		Total	186.800	79			
SC11	3	B/w Groups	15.200	2	7.600	4.851	.016
		W/in Groups	42.300	27	A.567		
		Total	57.500	29			
	4	B/w Groups	75.888	7	10.841	10.678	.000
		W/in Groups	73.100	72	A.015		
		Total	148.988	79			
SC12	3	B/w Groups	22.200	2	11.100	12.436	.000
		W/in Groups	24.100	27	.893		
		Total	46.300	29			
	4	B/w Groups	83.588	7	11.941	11.418	.000
		W/in Groups	75.300	72	A.046		
		Total	158.888	79			
SC13	3	B/w Groups	10.400	2	5.200	5.032	.014
		W/in Groups	27.900	27	A.033		
		Total	38.300	29			
	4	B/w Groups	76.400	7	10.914	14.883	.000
		W/in Groups	52.800	72	.733		
		Total	129.200	79			
SC14	3	B/w Groups	50	2	2.500	A.696	.202
		W/in Groups	39.800	27	A.474		
		Total	44.800	29			
	4	B/w Groups	48.600	7	6.943	4.487	.000
		W/in Groups	111.400	72	A.547		
		Total	1600	79			
SC15	3	B/w Groups	A.400	2	.700	.690	.510
		W/in Groups	27.400	27	A.015		
		Total	28.800	29			
	4	B/w Groups	29.188	7	4.170	6.746	.000
		W/in Groups	44.500	72	.618		
		Total	73.688	79			
SC16	3	B/w Groups	7.467	2	3.733	4.603	.019
		W/in Groups	21.900	27	.811		
		Total	29.367	29			
	4	B/w Groups	77.400	7	11.057	22.877	.000
		W/in Groups	34.800	72	.483		
		Total	112.200	79			
SC2	3	B/w Groups	11.467	2	5.733	3.651	.040
		W/in Groups	42.400	27	A.570		
		Total	53.867	29			
	4	B/w Groups	127.750	7	18.250	21.541	.000
		W/in Groups	610	72	.847		
		Total	188.750	79			
SC3	3	B/w Groups	12.600	2	6.300	9.145	.001
		W/in Groups	18.600	27	.689		
		Total	31.200	29			
	4	B/w Groups	71.950	7	10.279	20.557	.000
		W/in Groups	360	72	.500		
		Total	107.950	79			
SC4	3	B/w Groups	6.200	2	3.100	3.100	.061
		W/in Groups	270	27	10		
		Total	33.200	29			
	4	B/w Groups	270	7	3.857	6.458	.000
		W/in Groups	430	72	.597		
		Total	700	79			
SC5	3	B/w Groups	4.867	2	2.433	3.551	.043
		W/in Groups	18.500	27	.685		
		Total	23.367	29			
	4	B/w Groups	35.888	7	5.127	11.718	.000
		W/in Groups	31.500	72	.438		
		Total	67.388	79			
SC6	3	B/w Groups	14.867	2	7.433	5.499	.010
		W/in Groups	36.500	27	A.352		
		Total	51.367	29			
	4	B/w Groups	109.287	7	15.612	23.468	.000
		W/in Groups	47.900	72	.665		
		Total	157.187	79			
SC7	3	B/w Groups	2.600	2	A.300	2.901	.072
		W/in Groups	12.100	27	.448		
		Total	14.700	29			
	4	B/w Groups	20.350	7	2.907	9.022	.000
		W/in Groups	23.200	72	.322		
		Total	43.550	79			
SC8	3	B/w Groups	10.867	2	5.433	8.242	.002
		W/in Groups	17.800	27	.659		
		Total	28.667	29			
	4	B/w Groups	31.687	7	4.527	10.413	.000
		W/in Groups	31.300	72	.435		
		Total	62.987	79			
SC9	3	B/w Groups	18.867	2	9.433	5.295	.011
		W/in Groups	48.100	27	A.781		
		Total	66.967	29			
	4	B/w Groups	77.188	7	11.027	13.080	.000
		W/in Groups	60.700	72	.843		
		Total	137.888	79			

Table 2: Comparison of results among sites. The Dunnett post-hoc test for a significant ANOVA showing differences in score between sites.

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

TEST	(I) SITENUM	(J) SITENUM	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1.00	1.00	2.00	.3504*	.075	.000	.1812	.5197
		4.00	.3750*	.061	.000	.2269	.5231
	2.00	1.00	-.3504*	.075	.000	-.5197	-.1812
		4.00	2.458E-02	.075	.984	-.1578	.2069
	4.00	1.00	-.3750*	.061	.000	-.5231	-.2269
		2.00	-2.46E-02	.075	.984	-.2069	.1578
2.00	1.00	2.00	.3946*	.090	.000	.1997	.5895
		4.00	.3587*	.073	.000	.1799	.5376
	2.00	1.00	-.3946*	.090	.000	-.5895	-.1997
		4.00	-3.58E-02	.090	.970	-.2514	.1797
	4.00	1.00	-.3587*	.073	.000	-.5376	-.1799
		2.00	3.583E-02	.090	.970	-.1797	.2514
3.00	2.00	4.00	.5798*	.089	.000	.3906	.7690
		3.00	.5673*	.089	.000	.3906	.7440
	4.00	2.00	-.5798*	.089	.000	-.7690	-.3906
		3.00	-1.25E-02	.076	.998	-.2055	.1805
	3.00	2.00	-.5673*	.089	.000	-.7440	-.3906
		4.00	1.250E-02	.076	.998	-.1805	.2055
4.00	2.00	4.00	.5513*	.059	.000	.4282	.6744
		3.00	.4263*	.059	.000	.3064	.5462
	4.00	2.00	-.5513*	.059	.000	-.6744	-.4282
		3.00	-.1250	.050	.055	-.2521	2.125E-03
	3.00	2.00	-.4263*	.059	.000	-.5462	-.3064
		4.00	.1250	.050	.055	-2.13E-03	.2521

*. The mean difference is significant at the .05 level.

Table 3. Test A, Site 1 results. All results tables are Dunnett post-hoc analyses of significant ANOVAs comparing scores across codecs. For „item-by-item“ comparisons, the results are broken down separately by item. Significant differences are marked with (*); for mean differences in the positive (+) direction, the (I) codec is superior; for mean differences in the negative (-) direction, the (J) codec is superior.

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

TEST	(I) CODEC	(J) CODEC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
1.00	TwinVQ 6	MP3 8	-.1033	.085	.540	-.3090	.1023
		HILN 6	.7073*	.085	.000	.4998	.9149
	MP3 8	TwinVQ 6	.1033	.085	.540	-.1023	.3090
		HILN 6	.8107*	.085	.000	.6143	1.0070
	HILN 6	TwinVQ 6	-.7073*	.085	.000	-.9149	-.4998
		MP3 8	-.8107*	.085	.000	-1.0070	-.6143

*. The mean difference is significant at the .05 level.

Table 4. Test A, Site 2 & 4 results.

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

(I) CODEC	(J) CODEC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
TwinVQ 6	MP3 8	-.1886	.093	.155	-.4231	4.596E-02
	HILN 6	.7243*	.093	.000	.5137	.9349
MP3 8	TwinVQ 6	.1886	.093	.155	-4.60E-02	.4231
	HILN 6	.9129*	.093	.000	.6927	1.1330
HILN 6	TwinVQ 6	-.7243*	.093	.000	-.9349	-.5137
	MP3 8	-.9129*	.093	.000	-1.1330	-.6927

*. The mean difference is significant at the .05 level.

Table 5. Test A, Site 1 item-by-item comparison

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

ITEM	(I) CODEC	(J) CODEC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1.00	TwinVQ 6	MP3 8	-.1867	.216	.789	-.7547	.3814
		HILN 6	.2133	.216	.716	-.3552	.7819
	MP3 8	TwinVQ 6	.1867	.216	.789	-.3814	.7547
		HILN 6	.4000	.216	.154	-.1064	.9064
	HILN 6	TwinVQ 6	-.2133	.216	.716	-.7819	.3552
		MP3 8	-.4000	.216	.154	-.9064	.1064
7.00	TwinVQ 6	MP3 8	9.333E-02	.184	.927	-.3383	.5250
		HILN 6	1.3400*	.184	.000	.8657	1.8143
	MP3 8	TwinVQ 6	-9.33E-02	.184	.927	-.5250	.3383
		HILN 6	1.2467*	.184	.000	.7503	1.7431
	HILN 6	TwinVQ 6	-1.3400*	.184	.000	-1.8143	-.8657
		MP3 8	-1.2467*	.184	.000	-1.7431	-.7503
8.00	TwinVQ 6	MP3 8	.2133	.222	.682	-.3244	.7511
		HILN 6	1.1733*	.222	.000	.5889	1.7578
	MP3 8	TwinVQ 6	-.2133	.222	.682	-.7511	.3244
		HILN 6	.9600*	.222	.001	.3924	1.5276
	HILN 6	TwinVQ 6	-1.1733*	.222	.000	-1.7578	-.5889
		MP3 8	-.9600*	.222	.001	-1.5276	-.3924
11.00	TwinVQ 6	MP3 8	.1200	.229	.928	-.4360	.6760
		HILN 6	1.4800*	.229	.000	.8868	2.0732
	MP3 8	TwinVQ 6	-.1200	.229	.928	-.6760	.4360
		HILN 6	1.3600*	.229	.000	.7739	1.9461
	HILN 6	TwinVQ 6	-1.4800*	.229	.000	-2.0732	-.8868
		MP3 8	-1.3600*	.229	.000	-1.9461	-.7739
15.00	TwinVQ 6	MP3 8	-4.67E-02	.243	.995	-.6054	.5121
		HILN 6	.2467	.243	.740	-.4367	.9300
	MP3 8	TwinVQ 6	4.667E-02	.243	.995	-.5121	.6054
		HILN 6	.2933	.243	.531	-.3154	.9021
	HILN 6	TwinVQ 6	-.2467	.243	.740	-.9300	.4367
		MP3 8	-.2933	.243	.531	-.9021	.3154
16.00	TwinVQ 6	MP3 8	-.2333	.219	.567	-.7379	.2713
		HILN 6	-8.00E-02	.219	.974	-.6251	.4651
	MP3 8	TwinVQ 6	.2333	.219	.567	-.2713	.7379
		HILN 6	.1533	.219	.894	-.4630	.7696
	HILN 6	TwinVQ 6	8.000E-02	.219	.974	-.4651	.6251
		MP3 8	-.1533	.219	.894	-.7696	.4630
31.00	TwinVQ 6	MP3 8	-8.67E-02	.214	.959	-.5806	.4073
		HILN 6	.6000*	.214	.030	4.866E-02	1.1513
	MP3 8	TwinVQ 6	8.667E-02	.214	.959	-.4073	.5806
		HILN 6	.6867*	.214	.018	.1012	1.2721
	HILN 6	TwinVQ 6	-.6000*	.214	.030	-1.1513	-4.87E-02
		MP3 8	-.6867*	.214	.018	-1.2721	-.1012
33.00	TwinVQ 6	MP3 8	-.5200*	.161	.004	-.8925	-.1475
		HILN 6	.3000	.161	.255	-.1413	.7413
	MP3 8	TwinVQ 6	.5200*	.161	.004	.1475	.8925
		HILN 6	.8200*	.161	.000	.4116	1.2284
	HILN 6	TwinVQ 6	-.3000	.161	.255	-.7413	.1413
		MP3 8	-.8200*	.161	.000	-1.2284	-.4116
38.00	TwinVQ 6	MP3 8	-1.00E-01	.207	.951	-.6361	.4361
		HILN 6	.2533	.207	.549	-.2792	.7858
	MP3 8	TwinVQ 6	1.000E-01	.207	.951	-.4361	.6361
		HILN 6	.3533	.207	.238	-.1539	.8606
	HILN 6	TwinVQ 6	-.2533	.207	.549	-.7858	.2792
		MP3 8	-.3533	.207	.238	-.8606	.1539
39.00	TwinVQ 6	MP3 8	-.2867	.262	.634	-.9607	.3874
		HILN 6	1.5467*	.262	.000	.9010	2.1923
	MP3 8	TwinVQ 6	.2867	.262	.634	-.3874	.9607
		HILN 6	1.8333*	.262	.000	1.1633	2.5034
	HILN 6	TwinVQ 6	-1.5467*	.262	.000	-2.1923	-.9010
		MP3 8	-1.8333*	.262	.000	-2.5034	-1.1633

*. The mean difference is significant at the .05 level.

Table 6: Test A, Site 2 & 4 item-by-item comparison

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

ITEM	(I) CODEC	(J) CODEC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
1.00	TwinVQ 6	MP3 8	-.2381	.229	.732	-.8775	.4013
		HILN 6	.3810	.229	.189	-.1264	.8883
	MP3 8	TwinVQ 6	.2381	.229	.732	-.4013	.8775
		HILN 6	.6190*	.229	.029	5.254E-02	1.1856
	HILN 6	TwinVQ 6	-.3810	.229	.189	-.8883	.1264
		MP3 8	-.6190*	.229	.029	-1.1856	-5.25E-02
7.00	TwinVQ 6	MP3 8	.4476	.263	.344	-.2792	1.1744
		HILN 6	1.4143*	.263	.000	.7942	2.0343
	MP3 8	TwinVQ 6	-.4476	.263	.344	-1.1744	.2792
		HILN 6	.9667*	.263	.001	.3484	1.5849
	HILN 6	TwinVQ 6	-1.4143*	.263	.000	-2.0343	-.7942
		MP3 8	-.9667*	.263	.001	-1.5849	-.3484
8.00	TwinVQ 6	MP3 8	.1667	.218	.839	-.3938	.7271
		HILN 6	1.2571*	.218	.000	.6724	1.8419
	MP3 8	TwinVQ 6	-.1667	.218	.839	-.7271	.3938
		HILN 6	1.0905*	.218	.000	.6109	1.5701
	HILN 6	TwinVQ 6	-1.2571*	.218	.000	-1.8419	-.6724
		MP3 8	-1.0905*	.218	.000	-1.5701	-.6109
11.00	TwinVQ 6	MP3 8	-.1238	.271	.961	-.8279	.5803
		HILN 6	1.4381*	.271	.000	.8242	2.0520
	MP3 8	TwinVQ 6	.1238	.271	.961	-.5803	.8279
		HILN 6	1.5619*	.271	.000	.8561	2.2677
	HILN 6	TwinVQ 6	-1.4381*	.271	.000	-2.0520	-.8242
		MP3 8	-1.5619*	.271	.000	-2.2677	-.8561
15.00	TwinVQ 6	MP3 8	-.5095	.258	.127	-1.1221	.1031
		HILN 6	.1762	.258	.867	-.4601	.8125
	MP3 8	TwinVQ 6	.5095	.258	.127	-.1031	1.1221
		HILN 6	.6857*	.258	.047	5.933E-03	1.3655
	HILN 6	TwinVQ 6	-.1762	.258	.867	-.8125	.4601
		MP3 8	-.6857*	.258	.047	-1.3655	-5.93E-03
16.00	TwinVQ 6	MP3 8	-.1810	.249	.832	-.7804	.4185
		HILN 6	.1048	.249	.955	-.4645	.6741
	MP3 8	TwinVQ 6	.1810	.249	.832	-.4185	.7804
		HILN 6	.2857	.249	.667	-.4076	.9790
	HILN 6	TwinVQ 6	-.1048	.249	.955	-.6741	.4645
		MP3 8	-.2857	.249	.667	-.9790	.4076
31.00	TwinVQ 6	MP3 8	-.2857	.294	.706	-1.0207	.4493
		HILN 6	1.0524*	.294	.003	.3041	1.8006
	MP3 8	TwinVQ 6	.2857	.294	.706	-.4493	1.0207
		HILN 6	1.3381*	.294	.000	.6245	2.0517
	HILN 6	TwinVQ 6	-1.0524*	.294	.003	-1.8006	-.3041
		MP3 8	-1.3381*	.294	.000	-2.0517	-.6245
33.00	TwinVQ 6	MP3 8	-.5952*	.224	.049	-1.1886	-1.84E-03
		HILN 6	.1952	.224	.682	-.2889	.6794
	MP3 8	TwinVQ 6	.5952*	.224	.049	1.841E-03	1.1886
		HILN 6	.7905*	.224	.006	.1966	1.3843
	HILN 6	TwinVQ 6	-.1952	.224	.682	-.6794	.2889
		MP3 8	-.7905*	.224	.006	-1.3843	-.1966
38.00	TwinVQ 6	MP3 8	6.667E-02	.215	.977	-.3890	.5224
		HILN 6	-.2952	.215	.523	-.8888	.2983
	MP3 8	TwinVQ 6	-6.67E-02	.215	.977	-.5224	.3890
		HILN 6	-.3619	.215	.287	-.9130	.1892
	HILN 6	TwinVQ 6	.2952	.215	.523	-.2983	.8888
		MP3 8	.3619	.215	.287	-.1892	.9130
39.00	TwinVQ 6	MP3 8	-.6333	.318	.189	-1.4745	.2078
		HILN 6	1.5190*	.318	.000	.7437	2.2943
	MP3 8	TwinVQ 6	.6333	.318	.189	-.2078	1.4745
		HILN 6	2.1524*	.318	.000	1.3941	2.9106
	HILN 6	TwinVQ 6	-1.5190*	.318	.000	-2.2943	-.7437
		MP3 8	-2.1524*	.318	.000	-2.9106	-1.3941

*. The mean difference is significant at the .05 level.

Table 7. Test B, Site 1 overall results

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

(I) CODEC	(J) CODEC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
AAC 16	HILN 16	.5860*	.098	.000	.3374	.8346
	G722 48	-.6120*	.098	.000	-.8103	-.4137
HILN 16	AAC 16	-.5860*	.098	.000	-.8346	-.3374
	G722 48	-1.1980*	.098	.000	-1.4500	-.9460
G722 48	AAC 16	.6120*	.098	.000	.4137	.8103
	HILN 16	1.1980*	.098	.000	.9460	1.4500

*. The mean difference is significant at the .05 level.

Table 8. Test B, Site 2 & 4 overall results

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

(I) CODEC	(J) CODEC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
AAC 16	HILN 16	.8414*	.108	.000	.5735	1.1094
	G722 48	-.6600*	.108	.000	-.9047	-.4153
HILN 16	AAC 16	-.8414*	.108	.000	-1.1094	-.5735
	G722 48	-1.5014*	.108	.000	-1.7641	-1.2388
G722 48	AAC 16	.6600*	.108	.000	.4153	.9047
	HILN 16	1.5014*	.108	.000	1.2388	1.7641

*. The mean difference is significant at the .05 level.

Table 9. Test B, Site 1 item-by-item breakdown

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

ITEM	(I) CODEC	(J) CODEC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
1.00	AAC 16	HILN 16	.7333*	.214	.010	.1558	1.3108
		G722 48	-1.5867*	.214	.000	-2.1020	-1.0713
	HILN 16	AAC 16	-.7333*	.214	.010	-1.3108	-.1558
		G722 48	-2.3200*	.214	.000	-2.8528	-1.7872
	G722 48	AAC 16	1.5867*	.214	.000	1.0713	2.1020
		HILN 16	2.3200*	.214	.000	1.7872	2.8528
5.00	AAC 16	HILN 16	1.333E-02	.229	1.000	-.5137	.5404
		G722 48	.7267*	.229	.017	.1139	1.3395
	HILN 16	AAC 16	-1.33E-02	.229	1.000	-.5404	.5137
		G722 48	.7133*	.229	.017	.1115	1.3152
	G722 48	AAC 16	-.7267*	.229	.017	-1.3395	-.1139
		HILN 16	-.7133*	.229	.017	-1.3152	-.1115
9.00	AAC 16	HILN 16	.6733	.262	.052	-4.66E-03	1.3513
		G722 48	-.1067	.262	.957	-.7071	.4938
	HILN 16	AAC 16	-.6733	.262	.052	-1.3513	4.660E-03
		G722 48	-.7800*	.262	.028	-1.4903	-6.97E-02
	G722 48	AAC 16	.1067	.262	.957	-.4938	.7071
		HILN 16	.7800*	.262	.028	6.973E-02	1.4903
11.00	AAC 16	HILN 16	.5733	.259	.126	-.1179	1.2646
		G722 48	-.5667	.259	.081	-1.1874	5.409E-02
	HILN 16	AAC 16	-.5733	.259	.126	-1.2646	.1179
		G722 48	-1.1400*	.259	.000	-1.7973	-.4827
	G722 48	AAC 16	.5667	.259	.081	-5.41E-02	1.1874
		HILN 16	1.1400*	.259	.000	.4827	1.7973
13.00	AAC 16	HILN 16	.9533*	.200	.000	.5021	1.4045
		G722 48	-.8467*	.200	.002	-1.3999	-.2935
	HILN 16	AAC 16	-.9533*	.200	.000	-1.4045	-.5021
		G722 48	-1.8000*	.200	.000	-2.3173	-1.2827
	G722 48	AAC 16	.8467*	.200	.002	.2935	1.3999
		HILN 16	1.8000*	.200	.000	1.2827	2.3173
15.00	AAC 16	HILN 16	.7533*	.212	.006	.1937	1.3130
		G722 48	-1.2667*	.212	.000	-1.7843	-.7491
	HILN 16	AAC 16	-.7533*	.212	.006	-1.3130	-.1937
		G722 48	-2.0200*	.212	.000	-2.5502	-1.4898
	G722 48	AAC 16	1.2667*	.212	.000	.7491	1.7843
		HILN 16	2.0200*	.212	.000	1.4898	2.5502
18.00	AAC 16	HILN 16	.7200	.289	.077	-6.07E-02	1.5007
		G722 48	-3.33E-02	.289	.999	-.6664	.5998
	HILN 16	AAC 16	-.7200	.289	.077	-1.5007	6.067E-02
		G722 48	-.7533	.289	.061	-1.5335	2.681E-02
	G722 48	AAC 16	3.333E-02	.289	.999	-.5998	.6664
		HILN 16	.7533	.289	.061	-2.68E-02	1.5335
22.00	AAC 16	HILN 16	-1.0200*	.181	.000	-1.4843	-.5557
		G722 48	-.2667	.181	.470	-.7760	.2427
	HILN 16	AAC 16	1.0200*	.181	.000	.5557	1.4843
		G722 48	.7533*	.181	.000	.3454	1.1612
	G722 48	AAC 16	.2667	.181	.470	-.2427	.7760
		HILN 16	-.7533*	.181	.000	-1.1612	-.3454
29.00	AAC 16	HILN 16	1.4800*	.173	.000	.9954	1.9646
		G722 48	-.7200*	.173	.001	-1.1506	-.2894
	HILN 16	AAC 16	-1.4800*	.173	.000	-1.9646	-.9954
		G722 48	-2.2000*	.173	.000	-2.6019	-1.7981
	G722 48	AAC 16	.7200*	.173	.001	.2894	1.1506
		HILN 16	2.2000*	.173	.000	1.7981	2.6019
34.00	AAC 16	HILN 16	.9800*	.220	.002	.3411	1.6189
		G722 48	-1.4533*	.220	.000	-1.9446	-.9621
	HILN 16	AAC 16	-.9800*	.220	.002	-1.6189	-.3411
		G722 48	-2.4333*	.220	.000	-2.9827	-1.8840
	G722 48	AAC 16	1.4533*	.220	.000	.9621	1.9446
		HILN 16	2.4333*	.220	.000	1.8840	2.9827

*. The mean difference is significant at the .05 level.

Table 10. Test B, site 2 & 4 item-by-item comparison

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

ITEM	(I) CODEC	(J) CODEC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
1.00	AAC 16	HILN 16	.5762*	.169	.004	.1639	.9885
		G722 48	-2.3667*	.169	.000	-2.7870	-1.9464
	HILN 16	AAC 16	-.5762*	.169	.004	-.9885	-.1639
		G722 48	-2.9429*	.169	.000	-3.3712	-2.5145
	G722 48	AAC 16	2.3667*	.169	.000	1.9464	2.7870
		HILN 16	2.9429*	.169	.000	2.5145	3.3712
5.00	AAC 16	HILN 16	.3095	.324	.733	-.5232	1.1422
		G722 48	1.3524*	.324	.000	.5858	2.1189
	HILN 16	AAC 16	-.3095	.324	.733	-1.1422	.5232
		G722 48	1.0429*	.324	.009	.2260	1.8597
	G722 48	AAC 16	-1.3524*	.324	.000	-2.1189	-.5858
		HILN 16	-1.0429*	.324	.009	-1.8597	-.2260
9.00	AAC 16	HILN 16	.9190*	.298	.004	.2527	1.5854
		G722 48	.2667	.298	.781	-.5177	1.0510
	HILN 16	AAC 16	-.9190*	.298	.004	-1.5854	-.2527
		G722 48	-.6524	.298	.117	-1.4221	.1173
	G722 48	AAC 16	-.2667	.298	.781	-1.0510	.5177
		HILN 16	.6524	.298	.117	-.1173	1.4221
11.00	AAC 16	HILN 16	1.0905*	.253	.000	.5190	1.6620
		G722 48	-.3381	.253	.518	-1.0130	.3368
	HILN 16	AAC 16	-1.0905*	.253	.000	-1.6620	-.5190
		G722 48	-1.4286*	.253	.000	-2.0709	-.7862
	G722 48	AAC 16	.3381	.253	.518	-.3368	1.0130
		HILN 16	1.4286*	.253	.000	.7862	2.0709
13.00	AAC 16	HILN 16	.6905*	.226	.012	.1299	1.2510
		G722 48	-1.0381*	.226	.000	-1.6517	-.4244
	HILN 16	AAC 16	-.6905*	.226	.012	-1.2510	-.1299
		G722 48	-1.7286*	.226	.000	-2.2406	-1.2166
	G722 48	AAC 16	1.0381*	.226	.000	.4244	1.6517
		HILN 16	1.7286*	.226	.000	1.2166	2.2406
15.00	AAC 16	HILN 16	.9952*	.239	.001	.3923	1.5982
		G722 48	-1.6762*	.239	.000	-2.3032	-1.0492
	HILN 16	AAC 16	-.9952*	.239	.001	-1.5982	-.3923
		G722 48	-2.6714*	.239	.000	-3.2260	-2.1168
	G722 48	AAC 16	1.6762*	.239	.000	1.0492	2.3032
		HILN 16	2.6714*	.239	.000	2.1168	3.2260
18.00	AAC 16	HILN 16	1.5048*	.267	.000	.7924	2.2171
		G722 48	-.4762	.267	.258	-1.1728	.2204
	HILN 16	AAC 16	-1.5048*	.267	.000	-2.2171	-.7924
		G722 48	-1.9810*	.267	.000	-2.5637	-1.3982
	G722 48	AAC 16	.4762	.267	.258	-.2204	1.1728
		HILN 16	1.9810*	.267	.000	1.3982	2.5637
22.00	AAC 16	HILN 16	-.4571	.262	.217	-1.0895	.1752
		G722 48	.3952	.262	.382	-.2758	1.0663
	HILN 16	AAC 16	.4571	.262	.217	-.1752	1.0895
		G722 48	.8524*	.262	.007	.1981	1.5067
	G722 48	AAC 16	-.3952	.262	.382	-1.0663	.2758
		HILN 16	-.8524*	.262	.007	-1.5067	-.1981
29.00	AAC 16	HILN 16	1.7571*	.248	.000	1.1848	2.3295
		G722 48	-.8381*	.248	.009	-1.4979	-.1783
	HILN 16	AAC 16	-1.7571*	.248	.000	-2.3295	-1.1848
		G722 48	-2.5952*	.248	.000	-3.2119	-1.9786
	G722 48	AAC 16	.8381*	.248	.009	.1783	1.4979
		HILN 16	2.5952*	.248	.000	1.9786	3.2119
34.00	AAC 16	HILN 16	1.0286*	.209	.000	.5081	1.5491
		G722 48	-1.8810*	.209	.000	-2.4666	-1.2953
	HILN 16	AAC 16	-1.0286*	.209	.000	-1.5491	-.5081
		G722 48	-2.9095*	.209	.000	-3.3615	-2.4576
	G722 48	AAC 16	1.8810*	.209	.000	1.2953	2.4666
		HILN 16	2.9095*	.209	.000	2.4576	3.3615

*. The mean difference is significant at the .05 level.

Table 11. Test C, Site 3 & 4 overall comparison

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

(I) CODEC	(J) CODEC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
MP3 24	AAC 24 scal	-.8969*	.091	.000	-1.1129	-.6808
	AAC 24	-1.1281*	.091	.000	-1.3500	-.9062
AAC 24 scal	MP3 24	.8969*	.091	.000	.6808	1.1129
	AAC 24	-.2313*	.091	.031	-.4465	-1.60E-02
AAC 24	MP3 24	1.1281*	.091	.000	.9062	1.3500
	AAC 24 scal	.2313*	.091	.031	1.597E-02	.4465

*. The mean difference is significant at the .05 level.

Table 12. Test D, Site 3 & 4 overall comparison

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

(I) CODEC	(J) CODEC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	Upper Bound
MP3 40	MP3 56	-1.2719*	.081	.000	-1.5352	-1.0086
	AAC 40	-.9125*	.081	.000	-1.1747	-.6503
	AAC 56 scal	-1.4688*	.081	.000	-1.7245	-1.2130
	AAC 56	-1.9125*	.081	.000	-2.1529	-1.6721
	AAC 40 scal	-.3937*	.081	.000	-.6586	-.1289
	AAC 56 BSAC	-1.6688*	.081	.000	-1.9463	-1.3912
	AAC 40 BSAC	.8219*	.081	.000	.5760	1.0677
MP3 56	MP3 40	1.2719*	.081	.000	1.0086	1.5352
	AAC 40	.3594*	.081	.000	9.981E-02	.6189
	AAC 56 scal	-.1969	.081	.345	-.4499	5.618E-02
	AAC 56	-.6406*	.081	.000	-.8781	-.4031
	AAC 40 scal	.8781*	.081	.000	.6159	1.1404
	AAC 56 BSAC	-.3969*	.081	.000	-.6720	-.1218
	AAC 40 BSAC	2.0938*	.081	.000	1.8507	2.3368
AAC 40	MP3 40	.9125*	.081	.000	.6503	1.1747
	MP3 56	-.3594*	.081	.000	-.6189	-9.98E-02
	AAC 56 scal	-.5562*	.081	.000	-.8082	-.3043
	AAC 56	-1.0000*	.081	.000	-1.2363	-.7637
	AAC 40 scal	.5188*	.081	.000	.2576	.7799
	AAC 56 BSAC	-.7563*	.081	.000	-1.0303	-.4822
	AAC 40 BSAC	1.7344*	.081	.000	1.4925	1.9762
AAC 56 scal	MP3 40	1.4688*	.081	.000	1.2130	1.7245
	MP3 56	.1969	.081	.345	-5.62E-02	.4499
	AAC 40	.5562*	.081	.000	.3043	.8082
	AAC 56	-.4437*	.081	.000	-.6729	-.2146
	AAC 40 scal	1.0750*	.081	.000	.8203	1.3297
	AAC 56 BSAC	-.2000	.081	.424	-.4679	6.790E-02
	AAC 40 BSAC	2.2906*	.081	.000	2.0558	2.5255
AAC 56	MP3 40	1.9125*	.081	.000	1.6721	2.1529
	MP3 56	.6406*	.081	.000	.4031	.8781
	AAC 40	1.0000*	.081	.000	.7637	1.2363
	AAC 56 scal	.4437*	.081	.000	.2146	.6729
	AAC 40 scal	1.5187*	.081	.000	1.2795	1.7580
	AAC 56 BSAC	.2437	.081	.072	-9.54E-03	.4970
	AAC 40 BSAC	2.7344*	.081	.000	2.5163	2.9524
AAC 40 scal	MP3 40	.3937*	.081	.000	.1289	.6586
	MP3 56	-.8781*	.081	.000	-1.1404	-.6159
	AAC 40	-.5188*	.081	.000	-.7799	-.2576
	AAC 56 scal	-1.0750*	.081	.000	-1.3297	-.8203
	AAC 56	-1.5187*	.081	.000	-1.7580	-1.2795
	AAC 56 BSAC	-1.2750*	.081	.000	-1.5516	-.9984
	AAC 40 BSAC	1.2156*	.081	.000	.9709	1.4603
AAC 56 BSAC	MP3 40	1.6688*	.081	.000	1.3912	1.9463
	MP3 56	.3969*	.081	.000	.1218	.6720
	AAC 40	.7563*	.081	.000	.4822	1.0303
	AAC 56 scal	.2000	.081	.424	-6.79E-02	.4679
	AAC 56	-.2437	.081	.072	-.4970	9.535E-03
	AAC 40 scal	1.2750*	.081	.000	.9984	1.5516
	AAC 40 BSAC	2.4906*	.081	.000	2.2322	2.7491
AAC 40 BSAC	MP3 40	-.8219*	.081	.000	-1.0677	-.5760
	MP3 56	-2.0938*	.081	.000	-2.3368	-1.8507
	AAC 40	-1.7344*	.081	.000	-1.9762	-1.4925
	AAC 56 scal	-2.2906*	.081	.000	-2.5255	-2.0558
	AAC 56	-2.7344*	.081	.000	-2.9524	-2.5163
	AAC 40 scal	-1.2156*	.081	.000	-1.4603	-.9709
	AAC 56 BSAC	-2.4906*	.081	.000	-2.7491	-2.2322

*. The mean difference is significant at the .05 level.

Table 13. Test C, item-by-item comparison

Multiple Comparisons

Dependent Variable: SCORE
Dunnett T3

ITEM	(I) CODEC	(J) CODEC	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
3.00	MP3 24	AAC 24 scal	-.6563	.274	.050	-1.3125	1.145E-05
		AAC 24	-.7500*	.274	.024	-1.4238	-7.62E-02
	AAC 24 scal	MP3 24	.6563	.274	.050	-1.15E-05	1.3125
		AAC 24	-9.38E-02	.274	.982	-.7794	.5919
	AAC 24	MP3 24	.7500*	.274	.024	7.623E-02	1.4238
		AAC 24 scal	9.375E-02	.274	.982	-.5919	.7794
7.00	MP3 24	AAC 24 scal	-.7813*	.255	.009	-1.4050	-.1575
		AAC 24	-1.2188*	.255	.000	-1.8491	-.5884
	AAC 24 scal	MP3 24	.7813*	.255	.009	.1575	1.4050
		AAC 24	-.4375	.255	.246	-1.0620	.1870
	AAC 24	MP3 24	1.2188*	.255	.000	.5884	1.8491
		AAC 24 scal	.4375	.255	.246	-.1870	1.0620
13.00	MP3 24	AAC 24 scal	-1.2813*	.238	.000	-1.8220	-.7405
		AAC 24	-1.1250*	.238	.000	-1.7163	-.5337
	AAC 24 scal	MP3 24	1.2813*	.238	.000	.7405	1.8220
		AAC 24	.1563	.238	.899	-.4604	.7729
	AAC 24	MP3 24	1.1250*	.238	.000	.5337	1.7163
		AAC 24 scal	-.1563	.238	.899	-.7729	.4604
14.00	MP3 24	AAC 24 scal	-1.0625*	.255	.000	-1.6939	-.4311
		AAC 24	-.3125	.255	.593	-.9888	.3638
	AAC 24 scal	MP3 24	1.0625*	.255	.000	.4311	1.6939
		AAC 24	.7500*	.255	.006	.1829	1.3171
	AAC 24	MP3 24	.3125	.255	.593	-.3638	.9888
		AAC 24 scal	-.7500*	.255	.006	-1.3171	-.1829
16.00	MP3 24	AAC 24 scal	-.8750*	.306	.022	-1.6484	-.1016
		AAC 24	-1.2813*	.306	.000	-2.0128	-.5497
	AAC 24 scal	MP3 24	.8750*	.306	.022	.1016	1.6484
		AAC 24	-.4063	.306	.456	-1.1505	.3380
	AAC 24	MP3 24	1.2813*	.306	.000	.5497	2.0128
		AAC 24 scal	.4063	.306	.456	-.3380	1.1505
19.00	MP3 24	AAC 24 scal	-9.38E-02	.266	.982	-.7771	.5896
		AAC 24	-.9063*	.266	.002	-1.5254	-.2871
	AAC 24 scal	MP3 24	9.375E-02	.266	.982	-.5896	.7771
		AAC 24	-.8125*	.266	.010	-1.4637	-.1613
	AAC 24	MP3 24	.9063*	.266	.002	.2871	1.5254
		AAC 24 scal	.8125*	.266	.010	.1613	1.4637
22.00	MP3 24	AAC 24 scal	-.5313	.224	.087	-1.1185	5.602E-02
		AAC 24	-1.3125*	.224	.000	-1.8827	-.7423
	AAC 24 scal	MP3 24	.5313	.224	.087	-5.60E-02	1.1185
		AAC 24	-.7813*	.224	.001	-1.2679	-.2946
	AAC 24	MP3 24	1.3125*	.224	.000	.7423	1.8827
		AAC 24 scal	.7813*	.224	.001	.2946	1.2679
28.00	MP3 24	AAC 24 scal	-1.8438*	.238	.000	-2.5063	-1.1812
		AAC 24	-2.3438*	.238	.000	-2.8951	-1.7924
	AAC 24 scal	MP3 24	1.8438*	.238	.000	1.1812	2.5063
		AAC 24	-.5000	.238	.075	-1.0367	3.666E-02
	AAC 24	MP3 24	2.3438*	.238	.000	1.7924	2.8951
		AAC 24 scal	.5000	.238	.075	-3.67E-02	1.0367
33.00	MP3 24	AAC 24 scal	-.8125*	.253	.004	-1.3995	-.2255
		AAC 24	-.9063*	.253	.003	-1.5464	-.2661
	AAC 24 scal	MP3 24	.8125*	.253	.004	.2255	1.3995
		AAC 24	-9.38E-02	.253	.977	-.7301	.5426
	AAC 24	MP3 24	.9063*	.253	.003	.2661	1.5464
		AAC 24 scal	9.375E-02	.253	.977	-.5426	.7301
38.00	MP3 24	AAC 24 scal	-1.0313*	.261	.001	-1.6712	-.3913
		AAC 24	-1.1250*	.261	.000	-1.7558	-.4942
	AAC 24 scal	MP3 24	1.0313*	.261	.001	.3913	1.6712
		AAC 24	-9.38E-02	.261	.979	-.7442	.5567
	AAC 24	MP3 24	1.1250*	.261	.000	.4942	1.7558
		AAC 24 scal	9.375E-02	.261	.979	-.5567	.7442

*. The mean difference is significant at the .05 level.

Table 14. Test D, item-by-item comparison

(For this table, the significance marker (*) has been lost in re-formatting; however, the significance column gives the correct result.)

			Mean Diff (I-J)	Std. Error	Sig.	95% Confidence	Interval
ITEM	(I) CODEC	(J) CODEC				Lower Bound	Upper Bound
1.00	MP3 40	MP3 56	-1.9063	.222	.000	-2.6075	-1.2050
		AAC 40	-1.0000	.222	.003	-1.7818	-.2182
		AAC 56 scal	-1.6250	.222	.000	-2.4181	-.8319
		AAC 56	-2.0625	.222	.000	-2.8136	-1.3114
		AAC 40 scal	-.2500	.222	1.000	-1.1127	.6127
		AAC 56 BSAC	-2.0938	.222	.000	-2.7592	-1.4283
		AAC 40 BSAC	.2500	.222	1.000	-.5547	1.0547
	MP3 56	MP3 40	1.9063	.222	.000	1.2050	2.6075
		AAC 40	.9063	.222	.001	.2542	1.5583
		AAC 56 scal	.2813	.222	.990	-.3855	.9480
		AAC 56	-.1563	.222	1.000	-.7689	.4564
		AAC 40 scal	1.6563	.222	.000	.9047	2.4078
		AAC 56 BSAC	-.1875	.222	.998	-.6816	.3066
		AAC 40 BSAC	2.1563	.222	.000	1.4750	2.8375
	AAC 40	MP3 40	1.0000	.222	.003	.2182	1.7818
		MP3 56	-.9063	.222	.001	-1.5583	-.2542
		AAC 56 scal	-.6250	.222	.211	-1.3768	.1268
		AAC 56	-1.0625	.222	.000	-1.7693	-.3557
		AAC 40 scal	.7500	.222	.113	-7.5454E-02	1.5755
		AAC 56 BSAC	-1.0938	.222	.000	-1.7061	-.4814
		AAC 40 BSAC	1.2500	.222	.000	.4859	2.0141
	AAC 56 scal	MP3 40	1.6250	.222	.000	.8319	2.4181
		MP3 56	-.2813	.222	.990	-.9480	.3855
		AAC 40	.6250	.222	.211	-.1268	1.3768
		AAC 56	-.4375	.222	.741	-1.1573	.2823
		AAC 40 scal	1.3750	.222	.000	.5383	2.2117
		AAC 56 BSAC	-.4688	.222	.367	-1.0970	.1595
		AAC 40 BSAC	1.8750	.222	.000	1.0988	2.6512
	AAC 56	MP3 40	2.0625	.222	.000	1.3114	2.8136
		MP3 56	.1563	.222	1.000	-.4564	.7689
		AAC 40	1.0625	.222	.000	.3557	1.7693
		AAC 56 scal	.4375	.222	.741	-.2823	1.1573
		AAC 40 scal	1.8125	.222	.000	1.0149	2.6101
		AAC 56 BSAC	-3.1250E-02	.222	1.000	-.6007	.5382
		AAC 40 BSAC	2.3125	.222	.000	1.5794	3.0456
	AAC 40 scal	MP3 40	.2500	.222	1.000	-.6127	1.1127
		MP3 56	-1.6563	.222	.000	-2.4078	-.9047
		AAC 40	-.7500	.222	.113	-1.5755	7.545E-02
		AAC 56 scal	-1.3750	.222	.000	-2.2117	-.5383
		AAC 56	-1.8125	.222	.000	-2.6101	-1.0149
		AAC 56 BSAC	-1.8438	.222	.000	-2.5622	-1.1253
		AAC 40 BSAC	.5000	.222	.784	-.3471	1.3471
	AAC 56 BSAC	MP3 40	2.0938	.222	.000	1.4283	2.7592
		MP3 56	.1875	.222	.998	-.3066	.6816
		AAC 40	1.0938	.222	.000	.4814	1.7061
		AAC 56 scal	.4688	.222	.367	-.1595	1.0970
		AAC 56	3.125E-02	.222	1.000	-.5382	.6007
		AAC 40 scal	1.8438	.222	.000	1.1253	2.5622
		AAC 40 BSAC	2.3438	.222	.000	1.6999	2.9876
	AAC 40 BSAC	MP3 40	-.2500	.222	1.000	-1.0547	.5547
		MP3 56	-2.1563	.222	.000	-2.8375	-1.4750
		AAC 40	-1.2500	.222	.000	-2.0141	-.4859
		AAC 56 scal	-1.8750	.222	.000	-2.6512	-1.0988
		AAC 56	-2.3125	.222	.000	-3.0456	-1.5794
		AAC 40 scal	-.5000	.222	.784	-1.3471	.3471
		AAC 56 BSAC	-2.3438	.222	.000	-2.9876	-1.6999
2.00	MP3 40	MP3 56	-.7188	.227	.184	-1.5655	.1280
		AAC 40	-1.0313	.227	.002	-1.8178	-.2447
		AAC 56 scal	-1.5625	.227	.000	-2.3870	-.7380
		AAC 56	-2.1250	.227	.000	-2.8303	-1.4197
		AAC 40 scal	-.4375	.227	.901	-1.2620	.3870
		AAC 56 BSAC	-1.9063	.227	.000	-2.6785	-1.1340
		AAC 40 BSAC	.8750	.227	.032	4.011E-02	1.7099
	MP3 56	MP3 40	.7188	.227	.184	-.1280	1.5655
		AAC 40	-.3125	.227	.993	-1.0671	.4421
		AAC 56 scal	-.8438	.227	.027	-1.6379	-4.9599E-02
		AAC 56	-1.4063	.227	.000	-2.0740	-.7385
		AAC 40 scal	.2813	.227	.999	-.5129	1.0754
		AAC 56 BSAC	-1.1875	.227	.000	-1.9266	-.4484
		AAC 40 BSAC	1.5938	.227	.000	.7888	2.3987
	AAC 40	MP3 40	1.0313	.227	.002	.2447	1.8178
		MP3 56	.3125	.227	.993	-.4421	1.0671
		AAC 56 scal	-.5313	.227	.419	-1.2596	.1971
		AAC 56	-1.0938	.227	.000	-1.6756	-.5119
		AAC 40 scal	.5938	.227	.237	-.1346	1.3221
		AAC 56 BSAC	-.8750	.227	.002	-1.5406	-.2094
		AAC 40 BSAC	1.9063	.227	.000	1.1662	2.6463

	AAC 56 scal	MP3 40	1.5625	.227	.000	.7380	2.3870
		MP3 56	.8438	.227	.027	4.960E-02	1.6379
		AAC 40	.5313	.227	.419	-.1971	1.2596
		AAC 56	-.5625	.227	.136	-1.1989	7.394E-02
		AAC 40 scal	1.1250	.227	.000	.3553	1.8947
		AAC 56 BSAC	-.3438	.227	.958	-1.0559	.3684
		AAC 40 BSAC	2.4375	.227	.000	1.6566	3.2184
	AAC 56	MP3 40	2.1250	.227	.000	1.4197	2.8303
		MP3 56	1.4063	.227	.000	.7385	2.0740
		AAC 40	1.0938	.227	.000	.5119	1.6756
		AAC 56 scal	.5625	.227	.136	-7.3942E-02	1.1989
		AAC 40 scal	1.6875	.227	.000	1.0511	2.3239
		AAC 56 BSAC	.2188	.227	.996	-.3414	.7789
		AAC 40 BSAC	3.0000	.227	.000	2.3492	3.6508
	AAC 40 scal	MP3 40	.4375	.227	.901	-.3870	1.2620
		MP3 56	-.2813	.227	.999	-1.0754	.5129
		AAC 40	-.5938	.227	.237	-1.3221	.1346
		AAC 56 scal	-1.1250	.227	.000	-1.8947	-.3553
		AAC 56	-1.6875	.227	.000	-2.3239	-1.0511
		AAC 56 BSAC	-1.4688	.227	.000	-2.1809	-.7566
		AAC 40 BSAC	1.3125	.227	.000	.5316	2.0934
	AAC 56 BSAC	MP3 40	1.9063	.227	.000	1.1340	2.6785
		MP3 56	1.1875	.227	.000	.4484	1.9266
		AAC 40	.8750	.227	.002	.2094	1.5406
		AAC 56 scal	.3438	.227	.958	-.3684	1.0559
		AAC 56	-.2188	.227	.996	-.7789	.3414
		AAC 40 scal	1.4688	.227	.000	.7566	2.1809
		AAC 40 BSAC	2.7813	.227	.000	2.0570	3.5055
	AAC 40 BSAC	MP3 40	-.8750	.227	.032	-1.7099	-4.0109E-02
		MP3 56	-1.5938	.227	.000	-2.3987	-.7888
		AAC 40	-1.9063	.227	.000	-2.6463	-1.1662
		AAC 56 scal	-2.4375	.227	.000	-3.2184	-1.6566
		AAC 56	-3.0000	.227	.000	-3.6508	-2.3492
		AAC 40 scal	-1.3125	.227	.000	-2.0934	-.5316
		AAC 56 BSAC	-2.7813	.227	.000	-3.5055	-2.0570
10.00	MP3 40	MP3 56	-.2813	.278	1.000	-1.2515	.6890
		AAC 40	-1.1250	.278	.003	-2.0088	-.2412
		AAC 56 scal	-1.0000	.278	.018	-1.9052	-9.4779E-02
		AAC 56	-1.0313	.278	.007	-1.8982	-.1643
		AAC 40 scal	-.2500	.278	1.000	-1.1552	.6552
		AAC 56 BSAC	-1.5000	.278	.000	-2.3563	-.6437
		AAC 40 BSAC	.9063	.278	.006	.1604	1.6521
	MP3 56	MP3 40	.2813	.278	1.000	-.6890	1.2515
		AAC 40	-.8438	.278	.196	-1.8477	.1602
		AAC 56 scal	-.7188	.278	.487	-1.7411	.3036
		AAC 56	-.7500	.278	.351	-1.7398	.2398
		AAC 40 scal	3.125E-02	.278	1.000	-.9911	1.0536
		AAC 56 BSAC	-1.2188	.278	.004	-2.2000	-.2375
		AAC 40 BSAC	1.1875	.278	.002	.2969	2.0781
	AAC 40	MP3 40	1.1250	.278	.003	.2412	2.0088
		MP3 56	.8438	.278	.196	-.1602	1.8477
		AAC 56 scal	.1250	.278	1.000	-.8170	1.0670
		AAC 56	9.375E-02	.278	1.000	-.8121	.9996
		AAC 40 scal	.8750	.278	.095	-6.7017E-02	1.8170
		AAC 56 BSAC	-.3750	.278	.992	-1.2708	.5208
		AAC 40 BSAC	2.0313	.278	.000	1.2389	2.8236
	AAC 56 scal	MP3 40	1.0000	.278	.018	9.478E-02	1.9052
		MP3 56	.7188	.278	.487	-.3036	1.7411
		AAC 40	-.1250	.278	1.000	-1.0670	.8170
		AAC 56	-3.1250E-02	.278	1.000	-.9574	.8949
		AAC 40 scal	.7500	.278	.305	-.2116	1.7116
		AAC 56 BSAC	-.5000	.278	.877	-1.4169	.4169
		AAC 40 BSAC	1.9063	.278	.000	1.0891	2.7234
	AAC 56	MP3 40	1.0313	.278	.007	.1643	1.8982
		MP3 56	.7500	.278	.351	-.2398	1.7398
		AAC 40	-9.3750E-02	.278	1.000	-.9996	.8121
		AAC 56 scal	3.125E-02	.278	1.000	-.8949	.9574
		AAC 40 scal	.7813	.278	.192	-.1449	1.7074
		AAC 56 BSAC	-.4688	.278	.898	-1.3479	.4104
		AAC 40 BSAC	1.9375	.278	.000	1.1648	2.7102
	AAC 40 scal	MP3 40	.2500	.278	1.000	-.6552	1.1552
		MP3 56	-3.1250E-02	.278	1.000	-1.0536	.9911
		AAC 40	-.8750	.278	.095	-1.8170	6.702E-02
		AAC 56 scal	-.7500	.278	.305	-1.7116	.2116
		AAC 56	-.7813	.278	.192	-1.7074	.1449
		AAC 56 BSAC	-1.2500	.278	.001	-2.1669	-.3331
		AAC 40 BSAC	1.1563	.278	.001	.3391	1.9734
	AAC 56 BSAC	MP3 40	1.5000	.278	.000	.6437	2.3563
		MP3 56	1.2188	.278	.004	.2375	2.2000
		AAC 40	.3750	.278	.992	-.5208	1.2708
		AAC 56 scal	.5000	.278	.877	-.4169	1.4169
		AAC 56	.4688	.278	.898	-.4104	1.3479
		AAC 40 scal	1.2500	.278	.001	.3331	2.1669
		AAC 40 BSAC	2.4063	.278	.000	1.6456	3.1669
	AAC 40 BSAC	MP3 40	-.9063	.278	.006	-1.6521	-.1604
		MP3 56	-1.1875	.278	.002	-2.0781	-.2969
		AAC 40	-2.0313	.278	.000	-2.8236	-1.2389
		AAC 56 scal	-1.9063	.278	.000	-2.7234	-1.0891

		AAC 56	-1.9375	.278	.000	-2.7102	-1.1648
		AAC 40 scal	-1.1563	.278	.001	-1.9734	-.3391
		AAC 56 BSAC	-2.4063	.278	.000	-3.1669	-1.6456
11.00	MP3 40	MP3 56	-1.1250	.222	.000	-1.8508	-.3992
		AAC 40	-.9688	.222	.001	-1.6696	-.2679
		AAC 56 scal	-1.2813	.222	.000	-2.0343	-.5282
		AAC 56	-1.9688	.222	.000	-2.6998	-1.2377
		AAC 40 scal	-6.2500E-02	.222	1.000	-.8381	.7131
		AAC 56 BSAC	-2.2188	.222	.000	-2.9081	-1.5294
		AAC 40 BSAC	1.0313	.222	.000	.5116	1.5509
	MP3 56	MP3 40	1.1250	.222	.000	.3992	1.8508
		AAC 40	.1563	.222	1.000	-.5923	.9048
		AAC 56 scal	-.1563	.222	1.000	-.9529	.6404
		AAC 56	-.8438	.222	.022	-1.6201	-6.7362E-02
		AAC 40 scal	1.0625	.222	.002	.2445	1.8805
		AAC 56 BSAC	-1.0938	.222	.000	-1.8320	-.3555
		AAC 40 BSAC	2.1563	.222	.000	1.5689	2.7436
	AAC 40	MP3 40	.9688	.222	.001	.2679	1.6696
		MP3 56	-.1563	.222	1.000	-.9048	.5923
		AAC 56 scal	-.3125	.222	.995	-1.0875	.4625
		AAC 56	-1.0000	.222	.002	-1.7536	-.2464
		AAC 40 scal	.9063	.222	.013	.1093	1.7032
		AAC 56 BSAC	-1.2500	.222	.000	-1.9638	-.5362
		AAC 40 BSAC	2.0000	.222	.000	1.4459	2.5541
	AAC 56 scal	MP3 40	1.2813	.222	.000	.5282	2.0343
		MP3 56	.1563	.222	1.000	-.6404	.9529
		AAC 40	.3125	.222	.995	-.4625	1.0875
		AAC 56	-.6875	.222	.172	-1.4889	.1139
		AAC 40 scal	1.2188	.222	.000	.3775	2.0600
		AAC 56 BSAC	-.9375	.222	.005	-1.7021	-.1729
		AAC 40 BSAC	2.3125	.222	.000	1.6895	2.9355
	AAC 56	MP3 40	1.9688	.222	.000	1.2377	2.6998
		MP3 56	.8438	.222	.022	6.736E-02	1.6201
		AAC 40	1.0000	.222	.002	.2464	1.7536
		AAC 56 scal	.6875	.222	.172	-.1139	1.4889
		AAC 40 scal	1.9063	.222	.000	1.0836	2.7289
		AAC 56 BSAC	-.2500	.222	1.000	-.9934	.4934
		AAC 40 BSAC	3.0000	.222	.000	2.4059	3.5941
	AAC 40 scal	MP3 40	6.250E-02	.222	1.000	-.7131	.8381
		MP3 56	-1.0625	.222	.002	-1.8805	-.2445
		AAC 40	-.9063	.222	.013	-1.7032	-.1093
		AAC 56 scal	-1.2188	.222	.000	-2.0600	-.3775
		AAC 56	-1.9063	.222	.000	-2.7289	-1.0836
		AAC 56 BSAC	-2.1563	.222	.000	-2.9431	-1.3694
		AAC 40 BSAC	1.0938	.222	.000	.4428	1.7447
	AAC 56 BSAC	MP3 40	2.2188	.222	.000	1.5294	2.9081
		MP3 56	1.0938	.222	.000	.3555	1.8320
		AAC 40	1.2500	.222	.000	.5362	1.9638
		AAC 56 scal	.9375	.222	.005	.1729	1.7021
		AAC 56	.2500	.222	1.000	-.4934	.9934
		AAC 40 scal	2.1563	.222	.000	1.3694	2.9431
		AAC 40 BSAC	3.2500	.222	.000	2.7113	3.7887
	AAC 40 BSAC	MP3 40	-1.0313	.222	.000	-1.5509	-.5116
		MP3 56	-2.1563	.222	.000	-2.7436	-1.5689
		AAC 40	-2.0000	.222	.000	-2.5541	-1.4459
		AAC 56 scal	-2.3125	.222	.000	-2.9355	-1.6895
		AAC 56	-3.0000	.222	.000	-3.5941	-2.4059
		AAC 40 scal	-1.0938	.222	.000	-1.7447	-.4428
		AAC 56 BSAC	-3.2500	.222	.000	-3.7887	-2.7113
13.00	MP3 40	MP3 56	-1.8125	.233	.000	-2.4875	-1.1375
		AAC 40	-1.0625	.233	.001	-1.8213	-.3037
		AAC 56 scal	-1.6563	.233	.000	-2.3956	-.9169
		AAC 56	-2.4063	.233	.000	-3.1038	-1.7087
		AAC 40 scal	-.5625	.233	.321	-1.2915	.1665
		AAC 56 BSAC	-2.2813	.233	.000	-2.9999	-1.5626
		AAC 40 BSAC	.2188	.233	1.000	-.4609	.8984
	MP3 56	MP3 40	1.8125	.233	.000	1.1375	2.4875
		AAC 40	.7500	.233	.069	-2.7675E-02	1.5277
		AAC 56 scal	.1563	.233	1.000	-.6025	.9150
		AAC 56	-.5938	.233	.219	-1.3124	.1249
		AAC 40 scal	1.2500	.233	.000	.5008	1.9992
		AAC 56 BSAC	-.4688	.233	.673	-1.2079	.2704
		AAC 40 BSAC	2.0313	.233	.000	1.3295	2.7330
	AAC 40	MP3 40	1.0625	.233	.001	.3037	1.8213
		MP3 56	-.7500	.233	.069	-1.5277	2.767E-02
		AAC 56 scal	-.5938	.233	.460	-1.4255	.2380
		AAC 56	-1.3438	.233	.000	-2.1401	-.5474
		AAC 40 scal	.5000	.233	.743	-.3231	1.3231
		AAC 56 BSAC	-1.2188	.233	.000	-2.0327	-.4048
		AAC 40 BSAC	1.2813	.233	.000	.4995	2.0630
	AAC 56 scal	MP3 40	1.6563	.233	.000	.9169	2.3956
		MP3 56	-.1563	.233	1.000	-.9150	.6025
		AAC 40	.5938	.233	.460	-.2380	1.4255
		AAC 56	-.7500	.233	.070	-1.5284	2.841E-02
		AAC 40 scal	1.0938	.233	.001	.2880	1.8995
		AAC 56 BSAC	-.6250	.233	.295	-1.4214	.1714
		AAC 40 BSAC	1.8750	.233	.000	1.1121	2.6379
	AAC 56	MP3 40	2.4063	.233	.000	1.7087	3.1038

		MP3 56	.5938	.233	.219	-.1249	1.3124
		AAC 40	1.3438	.233	.000	.5474	2.1401
		AAC 56 scal	.7500	.233	.070	-2.8410E-02	1.5284
		AAC 40 scal	1.8438	.233	.000	1.0751	2.6124
		AAC 56 BSAC	.1250	.233	1.000	-.6339	.8839
		AAC 40 BSAC	2.6250	.233	.000	1.9020	3.3480
	AAC 40 scal	MP3 40	.5625	.233	.321	-.1665	1.2915
		MP3 56	-1.2500	.233	.000	-1.9992	-.5008
		AAC 40	-.5000	.233	.743	-1.3231	.3231
		AAC 56 scal	-1.0938	.233	.001	-1.8995	-.2880
		AAC 56	-1.8438	.233	.000	-2.6124	-1.0751
		AAC 56 BSAC	-1.7188	.233	.000	-2.5062	-.9313
		AAC 40 BSAC	.7813	.233	.035	2.781E-02	1.5347
	AAC 56 BSAC	MP3 40	2.2813	.233	.000	1.5626	2.9999
		MP3 56	.4688	.233	.673	-.2704	1.2079
		AAC 40	1.2188	.233	.000	.4048	2.0327
		AAC 56 scal	.6250	.233	.295	-.1714	1.4214
		AAC 56	-.1250	.233	1.000	-.8839	.6339
		AAC 40 scal	1.7188	.233	.000	.9313	2.5062
		AAC 40 BSAC	2.5000	.233	.000	1.7566	3.2434
	AAC 40 BSAC	MP3 40	-.2188	.233	1.000	-.8984	.4609
		MP3 56	-2.0313	.233	.000	-2.7330	-1.3295
		AAC 40	-1.2813	.233	.000	-2.0630	-.4995
		AAC 56 scal	-1.8750	.233	.000	-2.6379	-1.1121
		AAC 56	-2.6250	.233	.000	-3.3480	-1.9020
		AAC 40 scal	-.7813	.233	.035	-1.5347	-2.7806E-02
		AAC 56 BSAC	-2.5000	.233	.000	-3.2434	-1.7566
18.00	MP3 40	MP3 56	-2.0313	.199	.000	-2.8044	-1.2581
		AAC 40	-1.0000	.199	.004	-1.7974	-.2026
		AAC 56 scal	-2.2500	.199	.000	-2.9321	-1.5679
		AAC 56	-2.2813	.199	.000	-2.9757	-1.5868
		AAC 40 scal	-.6250	.199	.309	-1.4285	.1785
		AAC 56 BSAC	-2.2500	.199	.000	-2.9457	-1.5543
		AAC 40 BSAC	1.0000	.199	.001	.2972	1.7028
	MP3 56	MP3 40	2.0313	.199	.000	1.2581	2.8044
		AAC 40	1.0313	.199	.001	.3016	1.7609
		AAC 56 scal	-.2188	.199	.998	-.8159	.3784
		AAC 56	-.2500	.199	.993	-.8620	.3620
		AAC 40 scal	1.4063	.199	.000	.6689	2.1436
		AAC 56 BSAC	-.2188	.199	.999	-.8321	.3946
		AAC 40 BSAC	3.0313	.199	.000	2.4097	3.6528
	AAC 40	MP3 40	1.0000	.199	.004	.2026	1.7974
		MP3 56	-1.0313	.199	.001	-1.7609	-.3016
		AAC 56 scal	-1.2500	.199	.000	-1.8805	-.6195
		AAC 56	-1.2813	.199	.000	-1.9256	-.6369
		AAC 40 scal	.3750	.199	.951	-.3878	1.1378
		AAC 56 BSAC	-1.2500	.199	.000	-1.8956	-.6044
		AAC 40 BSAC	2.0000	.199	.000	1.3467	2.6533
	AAC 56 scal	MP3 40	2.2500	.199	.000	1.5679	2.9321
		MP3 56	.2188	.199	.998	-.3784	.8159
		AAC 40	1.2500	.199	.000	.6195	1.8805
		AAC 56	-3.1250E-02	.199	1.000	-.5103	.4478
		AAC 40 scal	1.6250	.199	.000	.9860	2.2640
		AAC 56 BSAC	.0000	.199	1.000	-.4811	.4811
		AAC 40 BSAC	3.2500	.199	.000	2.7580	3.7420
	AAC 56	MP3 40	2.2813	.199	.000	1.5868	2.9757
		MP3 56	.2500	.199	.993	-.3620	.8620
		AAC 40	1.2813	.199	.000	.6369	1.9256
		AAC 56 scal	3.125E-02	.199	1.000	-.4478	.5103
		AAC 40 scal	1.6563	.199	.000	1.0031	2.3094
		AAC 56 BSAC	3.125E-02	.199	1.000	-.4695	.5320
		AAC 40 BSAC	3.2813	.199	.000	2.7700	3.7925
	AAC 40 scal	MP3 40	.6250	.199	.309	-.1785	1.4285
		MP3 56	-1.4063	.199	.000	-2.1436	-.6689
		AAC 40	-.3750	.199	.951	-1.1378	.3878
		AAC 56 scal	-1.6250	.199	.000	-2.2640	-.9860
		AAC 56	-1.6563	.199	.000	-2.3094	-1.0031
		AAC 56 BSAC	-1.6250	.199	.000	-2.2795	-.9705
		AAC 40 BSAC	1.6250	.199	.000	.9635	2.2865
	AAC 56 BSAC	MP3 40	2.2500	.199	.000	1.5543	2.9457
		MP3 56	.2188	.199	.999	-.3946	.8321
		AAC 40	1.2500	.199	.000	.6044	1.8956
		AAC 56 scal	.0000	.199	1.000	-.4811	.4811
		AAC 56	-3.1250E-02	.199	1.000	-.5320	.4695
		AAC 40 scal	1.6250	.199	.000	.9705	2.2795
		AAC 40 BSAC	3.2500	.199	.000	2.7371	3.7629
	AAC 40 BSAC	MP3 40	-1.0000	.199	.001	-1.7028	-.2972
		MP3 56	-3.0313	.199	.000	-3.6528	-2.4097
		AAC 40	-2.0000	.199	.000	-2.6533	-1.3467
		AAC 56 scal	-3.2500	.199	.000	-3.7420	-2.7580
		AAC 56	-3.2813	.199	.000	-3.7925	-2.7700
		AAC 40 scal	-1.6250	.199	.000	-2.2865	-.9635
		AAC 56 BSAC	-3.2500	.199	.000	-3.7629	-2.7371
20.00	MP3 40	MP3 56	-1.1563	.247	.002	-2.0460	-.2665
		AAC 40	-.5938	.247	.708	-1.5502	.3627
		AAC 56 scal	-1.4688	.247	.000	-2.3991	-.5384
		AAC 56	-2.0000	.247	.000	-2.8615	-1.1385
		AAC 40 scal	-.5938	.247	.727	-1.5606	.3731

		AAC 56 BSAC	.4063	.247	.961	-.4488	1.2613
		AAC 40 BSAC	.9375	.247	.011	.1260	1.7490
	MP3 56	MP3 40	1.1563	.247	.002	.2665	2.0460
		AAC 40	.5625	.247	.558	-.2694	1.3944
		AAC 56 scal	-.3125	.247	.997	-1.1128	.4878
		AAC 56	-.8438	.247	.008	-1.5582	-.1293
		AAC 40 scal	.5625	.247	.586	-.2827	1.4077
		AAC 56 BSAC	1.5625	.247	.000	.8557	2.2693
		AAC 40 BSAC	2.0938	.247	.000	1.4438	2.7437
	AAC 40	MP3 40	.5938	.247	.708	-.3627	1.5502
		MP3 56	-.5625	.247	.558	-1.3944	.2694
		AAC 56 scal	-.8750	.247	.050	-1.7509	8.837E-04
		AAC 56	-1.4063	.247	.000	-2.2074	-.6051
		AAC 40 scal	.0000	.247	1.000	-.9159	.9159
		AAC 56 BSAC	1.0000	.247	.004	.2057	1.7943
		AAC 40 BSAC	1.5313	.247	.000	.7853	2.2772
	AAC 56 scal	MP3 40	1.4688	.247	.000	.5384	2.3991
		MP3 56	.3125	.247	.997	-.4878	1.1128
		AAC 40	.8750	.247	.050	-8.8371E-04	1.7509
		AAC 56	-.5313	.247	.514	-1.2989	.2364
		AAC 40 scal	.8750	.247	.058	-1.3535E-02	1.7635
		AAC 56 BSAC	1.8750	.247	.000	1.1146	2.6354
		AAC 40 BSAC	2.4063	.247	.000	1.6970	3.1155
	AAC 56	MP3 40	2.0000	.247	.000	1.1385	2.8615
		MP3 56	.8438	.247	.008	.1293	1.5582
		AAC 40	1.4063	.247	.000	.6051	2.2074
		AAC 56 scal	.5313	.247	.514	-.2364	1.2989
		AAC 40 scal	1.4063	.247	.000	.5918	2.2207
		AAC 56 BSAC	2.4063	.247	.000	1.7384	3.0741
		AAC 40 BSAC	2.9375	.247	.000	2.3314	3.5436
	AAC 40 scal	MP3 40	.5938	.247	.727	-.3731	1.5606
		MP3 56	-.5625	.247	.586	-1.4077	.2827
		AAC 40	.0000	.247	1.000	-.9159	.9159
		AAC 56 scal	-.8750	.247	.058	-1.7635	1.354E-02
		AAC 56	-1.4063	.247	.000	-2.2207	-.5918
		AAC 56 BSAC	1.0000	.247	.005	.1917	1.8083
		AAC 40 BSAC	1.5313	.247	.000	.7701	2.2924
	AAC 56 BSAC	MP3 40	-.4063	.247	.961	-1.2613	.4488
		MP3 56	-1.5625	.247	.000	-2.2693	-.8557
		AAC 40	-1.0000	.247	.004	-1.7943	-.2057
		AAC 56 scal	-1.8750	.247	.000	-2.6354	-1.1146
		AAC 56	-2.4063	.247	.000	-3.0741	-1.7384
		AAC 40 scal	-1.0000	.247	.005	-1.8083	-.1917
		AAC 40 BSAC	.5313	.247	.131	-6.5274E-02	1.1278
	AAC 40 BSAC	MP3 40	-.9375	.247	.011	-1.7490	-.1260
		MP3 56	-2.0938	.247	.000	-2.7437	-1.4438
		AAC 40	-1.5313	.247	.000	-2.2772	-.7853
		AAC 56 scal	-2.4063	.247	.000	-3.1155	-1.6970
		AAC 56	-2.9375	.247	.000	-3.5436	-2.3314
		AAC 40 scal	-1.5313	.247	.000	-2.2924	-.7701
		AAC 56 BSAC	-.5313	.247	.131	-1.1278	6.527E-02
31.00	MP3 40	MP3 56	-1.3438	.207	.000	-1.9911	-.6964
		AAC 40	-.9063	.207	.009	-1.6792	-.1333
		AAC 56 scal	-1.4063	.207	.000	-2.0775	-.7350
		AAC 56	-1.7813	.207	.000	-2.4338	-1.1287
		AAC 40 scal	-.6563	.207	.123	-1.3868	7.430E-02
		AAC 56 BSAC	-1.8438	.207	.000	-2.4760	-1.2115
		AAC 40 BSAC	.6875	.207	.192	-.1282	1.5032
	MP3 56	MP3 40	1.3438	.207	.000	.6964	1.9911
		AAC 40	.4375	.207	.637	-.2422	1.1172
		AAC 56 scal	-6.2500E-02	.207	1.000	-.6168	.4918
		AAC 56	-.4375	.207	.219	-.9669	9.193E-02
		AAC 40 scal	.6875	.207	.020	5.925E-02	1.3158
		AAC 56 BSAC	-.5000	.207	.052	-1.0024	2.397E-03
		AAC 40 BSAC	2.0313	.207	.000	1.3026	2.7599
	AAC 40	MP3 40	.9063	.207	.009	.1333	1.6792
		MP3 56	-.4375	.207	.637	-1.1172	.2422
		AAC 56 scal	-.5000	.207	.458	-1.2017	.2017
		AAC 56	-.8750	.207	.003	-1.5590	-.1910
		AAC 40 scal	.2500	.207	1.000	-.5081	1.0081
		AAC 56 BSAC	-.9375	.207	.001	-1.6024	-.2726
		AAC 40 BSAC	1.5938	.207	.000	.7543	2.4332
	AAC 56 scal	MP3 40	1.4063	.207	.000	.7350	2.0775
		MP3 56	6.250E-02	.207	1.000	-.4918	.6168
		AAC 40	.5000	.207	.458	-.2017	1.2017
		AAC 56	-.3750	.207	.578	-.9349	.1849
		AAC 40 scal	.7500	.207	.012	9.710E-02	1.4029
		AAC 56 BSAC	-.4375	.207	.233	-.9727	9.767E-02
		AAC 40 BSAC	2.0938	.207	.000	1.3443	2.8432
	AAC 56	MP3 40	1.7813	.207	.000	1.1287	2.4338
		MP3 56	.4375	.207	.219	-9.1934E-02	.9669
		AAC 40	.8750	.207	.003	.1910	1.5590
		AAC 56 scal	.3750	.207	.578	-.1849	.9349
		AAC 40 scal	1.1250	.207	.000	.4914	1.7586
		AAC 56 BSAC	-6.2500E-02	.207	1.000	-.5718	.4468
		AAC 40 BSAC	2.4688	.207	.000	1.7354	3.2021
	AAC 40 scal	MP3 40	.6563	.207	.123	-7.4297E-02	1.3868
		MP3 56	-.6875	.207	.020	-1.3158	-5.9248E-02

		AAC 40	-.2500	.207	1.000	-1.0081	.5081
		AAC 56 scal	-.7500	.207	.012	-1.4029	-9.7102E-02
		AAC 56	-1.1250	.207	.000	-1.7586	-.4914
		AAC 56 BSAC	-1.1875	.207	.000	-1.8000	-.5750
		AAC 40 BSAC	1.3438	.207	.000	.5427	2.1448
	AAC 56 BSAC	MP3 40	1.8438	.207	.000	1.2115	2.4760
		MP3 56	.5000	.207	.052	-2.3973E-03	1.0024
		AAC 40	.9375	.207	.001	.2726	1.6024
		AAC 56 scal	.4375	.207	.233	-9.7667E-02	.9727
		AAC 56	6.250E-02	.207	1.000	-.4468	.5718
		AAC 40 scal	1.1875	.207	.000	.5750	1.8000
		AAC 40 BSAC	2.5313	.207	.000	1.8153	3.2472
	AAC 40 BSAC	MP3 40	-.6875	.207	.192	-1.5032	.1282
		MP3 56	-2.0313	.207	.000	-2.7599	-1.3026
		AAC 40	-1.5938	.207	.000	-2.4332	-.7543
		AAC 56 scal	-2.0938	.207	.000	-2.8432	-1.3443
		AAC 56	-2.4688	.207	.000	-3.2021	-1.7354
		AAC 40 scal	-1.3438	.207	.000	-2.1448	-.5427
		AAC 56 BSAC	-2.5313	.207	.000	-3.2472	-1.8153
33.00	MP3 40	MP3 56	-1.4688	.224	.000	-2.2257	-.7118
		AAC 40	-.5313	.224	.526	-1.3025	.2400
		AAC 56 scal	-1.1875	.224	.000	-2.0070	-.3680
		AAC 56	-2.0000	.224	.000	-2.7158	-1.2842
		AAC 40 scal	-.3125	.224	.991	-1.0529	.4279
		AAC 56 BSAC	-1.6875	.224	.000	-2.5134	-.8616
		AAC 40 BSAC	1.0938	.224	.000	.4247	1.7628
	MP3 56	MP3 40	1.4688	.224	.000	.7118	2.2257
		AAC 40	.9375	.224	.003	.2095	1.6655
		AAC 56 scal	.2813	.224	.999	-.4988	1.0613
		AAC 56	-.5313	.224	.272	-1.1986	.1361
		AAC 40 scal	1.1563	.224	.000	.4621	1.8504
		AAC 56 BSAC	-.2188	.224	1.000	-1.0056	.5681
		AAC 40 BSAC	2.5625	.224	.000	1.9462	3.1788
	AAC 40	MP3 40	.5313	.224	.526	-.2400	1.3025
		MP3 56	-.9375	.224	.003	-1.6655	-.2095
		AAC 56 scal	-.6563	.224	.218	-1.4501	.1376
		AAC 56	-1.4688	.224	.000	-2.1533	-.7842
		AAC 40 scal	.2188	.224	1.000	-.4920	.9295
		AAC 56 BSAC	-1.1563	.224	.000	-1.9568	-.3557
		AAC 40 BSAC	1.6250	.224	.000	.9899	2.2601
	AAC 56 scal	MP3 40	1.1875	.224	.000	.3680	2.0070
		MP3 56	-.2813	.224	.999	-1.0613	.4988
		AAC 40	.6563	.224	.218	-.1376	1.4501
		AAC 56	-.8125	.224	.020	-1.5527	-7.2299E-02
		AAC 40 scal	.8750	.224	.012	.1111	1.6389
		AAC 56 BSAC	-.5000	.224	.784	-1.3466	.3466
		AAC 40 BSAC	2.2813	.224	.000	1.5851	2.9774
	AAC 56	MP3 40	2.0000	.224	.000	1.2842	2.7158
		MP3 56	.5313	.224	.272	-.1361	1.1986
		AAC 40	1.4688	.224	.000	.7842	2.1533
		AAC 56 scal	.8125	.224	.020	7.230E-02	1.5527
		AAC 40 scal	1.6875	.224	.000	1.0401	2.3349
		AAC 56 BSAC	.3125	.224	.991	-.4349	1.0599
		AAC 40 BSAC	3.0938	.224	.000	2.5330	3.6545
	AAC 40 scal	MP3 40	.3125	.224	.991	-.4279	1.0529
		MP3 56	-1.1563	.224	.000	-1.8504	-.4621
		AAC 40	-.2188	.224	1.000	-.9295	.4920
		AAC 56 scal	-.8750	.224	.012	-1.6389	-.1111
		AAC 56	-1.6875	.224	.000	-2.3349	-1.0401
		AAC 56 BSAC	-1.3750	.224	.000	-2.1459	-.6041
		AAC 40 BSAC	1.4063	.224	.000	.8122	2.0003
	AAC 56 BSAC	MP3 40	1.6875	.224	.000	.8616	2.5134
		MP3 56	.2188	.224	1.000	-.5681	1.0056
		AAC 40	1.1563	.224	.000	.3557	1.9568
		AAC 56 scal	.5000	.224	.784	-.3466	1.3466
		AAC 56	-.3125	.224	.991	-1.0599	.4349
		AAC 40 scal	1.3750	.224	.000	.6041	2.1459
		AAC 40 BSAC	2.7813	.224	.000	2.0773	3.4852
	AAC 40 BSAC	MP3 40	-1.0938	.224	.000	-1.7628	-.4247
		MP3 56	-2.5625	.224	.000	-3.1788	-1.9462
		AAC 40	-1.6250	.224	.000	-2.2601	-.9899
		AAC 56 scal	-2.2813	.224	.000	-2.9774	-1.5851
		AAC 56	-3.0938	.224	.000	-3.6545	-2.5330
		AAC 40 scal	-1.4063	.224	.000	-2.0003	-.8122
		AAC 56 BSAC	-2.7813	.224	.000	-3.4852	-2.0773
37.00	MP3 40	MP3 56	-.8750	.246	.107	-1.8320	8.197E-02
		AAC 40	-.9063	.246	.085	-1.8690	5.646E-02
		AAC 56 scal	-1.2500	.246	.001	-2.1129	-.3871
		AAC 56	-1.4688	.246	.000	-2.3453	-.5922
		AAC 40 scal	-.1875	.246	1.000	-1.1733	.7983
		AAC 56 BSAC	-1.3125	.246	.000	-2.2209	-.4041
		AAC 40 BSAC	1.2188	.246	.004	.2375	2.2000
	MP3 56	MP3 40	.8750	.246	.107	-8.1967E-02	1.8320
		AAC 40	-3.1250E-02	.246	1.000	-.8493	.7868
		AAC 56 scal	-.3750	.246	.872	-1.0650	.3150
		AAC 56	-.5938	.246	.198	-1.3024	.1149
		AAC 40 scal	.6875	.246	.243	-.1591	1.5341
		AAC 56 BSAC	-.4375	.246	.797	-1.1868	.3118

		AAC 40 BSAC	2.0938	.246	.000	1.2533	2.9342
	AAC 40	MP3 40	.9063	.246	.085	-5.6458E-02	1.8690
		MP3 56	3.125E-02	.246	1.000	-.7868	.8493
		AAC 56 scal	-.3438	.246	.944	-1.0418	.3543
		AAC 56	-.5625	.246	.290	-1.2789	.1539
		AAC 40 scal	.7188	.246	.193	-.1343	1.5718
		AAC 56 BSAC	-.4063	.246	.890	-1.1629	.3504
		AAC 40 BSAC	2.1250	.246	.000	1.2780	2.9720
	AAC 56 scal	MP3 40	1.2500	.246	.001	.3871	2.1129
		MP3 56	.3750	.246	.872	-.3150	1.0650
		AAC 40	.3438	.246	.944	-.3543	1.0418
		AAC 56	-.2188	.246	.996	-.7752	.3377
		AAC 40 scal	1.0625	.246	.000	.3294	1.7956
		AAC 56 BSAC	-6.2500E-02	.246	1.000	-.6731	.5481
		AAC 40 BSAC	2.4688	.246	.000	1.7428	3.1947
	AAC 56	MP3 40	1.4688	.246	.000	.5922	2.3453
		MP3 56	.5938	.246	.198	-.1149	1.3024
		AAC 40	.5625	.246	.290	-.1539	1.2789
		AAC 56 scal	.2188	.246	.996	-.3377	.7752
		AAC 40 scal	1.2813	.246	.000	.5309	2.0316
		AAC 56 BSAC	.1563	.246	1.000	-.4763	.7888
		AAC 40 BSAC	2.6875	.246	.000	1.9441	3.4309
	AAC 40 scal	MP3 40	.1875	.246	1.000	-.7983	1.1733
		MP3 56	-.6875	.246	.243	-1.5341	.1591
		AAC 40	-.7188	.246	.193	-1.5718	.1343
		AAC 56 scal	-1.0625	.246	.000	-1.7956	-.3294
		AAC 56	-1.2813	.246	.000	-2.0316	-.5309
		AAC 56 BSAC	-1.1250	.246	.001	-1.9136	-.3364
		AAC 40 BSAC	1.4063	.246	.000	.5317	2.2808
	AAC 56 BSAC	MP3 40	1.3125	.246	.000	.4041	2.2209
		MP3 56	.4375	.246	.797	-.3118	1.1868
		AAC 40	.4063	.246	.890	-.3504	1.1629
		AAC 56 scal	6.250E-02	.246	1.000	-.5481	.6731
		AAC 56	-.1563	.246	1.000	-.7888	.4763
		AAC 40 scal	1.1250	.246	.001	.3364	1.9136
		AAC 40 BSAC	2.5313	.246	.000	1.7498	3.3127
	AAC 40 BSAC	MP3 40	-1.2188	.246	.004	-2.2000	-.2375
		MP3 56	-2.0938	.246	.000	-2.9342	-1.2533
		AAC 40	-2.1250	.246	.000	-2.9720	-1.2780
		AAC 56 scal	-2.4688	.246	.000	-3.1947	-1.7428
		AAC 56	-2.6875	.246	.000	-3.4309	-1.9441
		AAC 40 scal	-1.4063	.246	.000	-2.2808	-.5317
		AAC 56 BSAC	-2.5313	.246	.000	-3.3127	-1.7498