
**Information technology — Multimedia
application format (MPEG-A) —**

**Part 12:
Interactive music application format**

**AMENDMENT 2: Compact representation of
dynamic volume change and audio
equalization**

*Technologies de l'information — Format pour application multimédia
(MPEG-A) —*

Partie 12: Format d'application musicale interactive

*AMENDEMENT 2: Représentation compacte de changement de
volume dynamique et égalisation audio*



Reference number
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Amendment 2 to ISO/IEC 23000-12:2010 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 29, *Coding of audio, picture, multimedia and hypermedia information*.

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Part 12: Interactive music application format

AMENDMENT 2: Compact representation of dynamic volume change and audio equalization

In 6.6.5: Preset Box, replace:

```

if(preset_type == 0){
    for(i=0; i<num_preset_elements; i++){
        unsigned int(8) preset_volume_element;

    }

}

if(preset_type == 1){
    unsigned int(8)    num_input_channel[num_preset_elements];
    unsigned int(8)    output_channel_type;
    for (i=0; i<num_preset_elements; i++){
        for (j=0; j<num_input_channel[i]; j++){
            for (k=0; k<num_output_channel; k++){
                unsigned int(8)    preset_volume_element;

            }

        }

    }

}

if(preset_type == 2){ // dynamic track volume preset
    unsigned int(16)    num_updates;
    for(i=0; i<num_updates; i++){
        unsigned int(16)    updated_sample_number;
        for(j=0; j<num_preset_elements; j++){
            unsigned int(8)    preset_volume_element;

        }

    }

}

if(preset_type == 3){ // dynamic object volume preset
    unsigned int(16)    num_updates;
    unsigned int(8)    num_input_channel[num_preset_elements];
    unsigned int(8)    output_channel_type;

```

```

for(i=0; i<num_updates; i++){
    unsigned int(16)    updated_sample_number;
    for(j=0; j<num_preset_elements; j++){
        for(k=0; k<num_input_channel[j]; k++){
            for(m=0; m<num_output_channel; m++){
                unsigned int(8)    preset_volume_element;
            }
        }
    }
}

```

with:

```

if(preset_type&0x07 == 0){ // static track volume preset
    for(i=0; i<num_preset_elements; i++){
        unsigned int(8) preset_volume_element;

        if(preset_type&0x08 == 8){ // with EQ
            unsigned int(8)    num_eq_filters;
            for(j=0; j<num_eq_filters; j++){
                unsigned int(8)    filter_type;
                unsigned int(16)    filter_reference_frequency;
                unsigned int(8)    filter_gain;
                unsigned int(8)    filter_bandwidth;
            }
        }
    }
}

if(preset_type&0x07 == 1){ // static object volume preset
    unsigned int(8)    num_input_channel[num_preset_elements];
    unsigned int(8)    output_channel_type;
    for (i=0; i<num_preset_elements; i++){
        for (j=0; j<num_input_channel[i]; j++){
            for (k=0; k<num_output_channel; k++){
                unsigned int(8)    preset_volume_element;

                if(preset_type&0x08 == 8){ // with EQ
                    unsigned int(8)    num_eq_filters;
                    for(k=0; k<num_eq_filters; k++){
                        unsigned int(8)    filter_type;
                        unsigned int(16)    filter_reference_frequency;
                        unsigned int(8)    filter_gain;
                        unsigned int(8)    filter_bandwidth;
                    }
                }
            }
        }
    }
}

if(preset_type&0x07 == 2){ // dynamic track volume preset
    unsigned int(16)    num_updates;
    for(i=0; i<num_updates; i++){
        unsigned int(16)    updated_sample_number;

```