WHOLODANCE

Whole-Body Interaction Learning for Dance Education

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Deliverable 2.4

Trimmed linear database of curated data sequences

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Introduction

The motion capture sessions done in Amsterdam in May and July 2016, yielded a database consisting of more than 6000 files. The recordings of motion capture were based on the movement principals agreed on by the partners.

A shortlist of curated data sequences was created for the purpose of benchmarking the motion capture blending engine in development.

The selected data sequences are representations of the 4 dance genres that have been captured and are selected based on several guidelines to assist in the development and implementation within the blending engine.

Guidelines for sequence curation

The motion capture data curation in the context of the WhoLoDance project involves the management of the selected sequences throughout their lifecycle, from creation and initial storage to the time when it is archived for posterity or becomes obsolete and is deleted.

The guidelines for the selected sequences curation was to ensure that the selected sequences are reliably retrievable for future research purposes or reuse. All the selected sequences were trimmed to include the motion start and end without the needed subject calibrated "T-pose" before and after the delivery of motion.

Attention is also given to the repeatability of selected movements and their relevance to the given motion principals.

Guidelines for sequence Selection

The motion capture shortlist selection was based on the following guidelines:

- Relevancy to the agreed upon movement principals
- Repeatability and generality of the motion in the selected dance genre
- Movement variance
- Movement "Building block" taxonomy   (Blend-ability)
- Biomechanical variance

The main criteria used for selection was the need to feed the blending engine with dance movements that would fit the process of benchmarking the engine software. Sequences were selected to ensure a wide movement variance of different body parts in all selected genres. This allows the engine developers to check the engine in a better way, since blending sequences that are closely related (in terms of actual movement), can result in confusing results or very little blending at all.

In addition, care was given to the base representation of each dance genre, so the most "recognizable" motion capture sequence associated with a specific dance genre were included in the database.

Sequence list

GREEK DANCE

- Ballos_Base_Step_Turn_FT
- Ballos_couple1_FT
- Ballos_fast_couple1_FT
- Ballos_fast_diagonal_FT
- Ballos_fast_diagonal_loop_FT
- Ballos_fast_forward_backward_FT
- Ballos_fast_turn_left_FT
- Ballos_fast_turn_right_FT
- Ballos_forward_backward_FT
- Ballos_full_FT
- Ballos_turn_left_FT
- Ballos_turn_right_FT
- Ikariotico_step1_slow_FT
- Ikariotico_step2_slow_FT
- Ikariotico_step3_slow_FT
- Ikariotico_step4_slow_FT
- Ikariotico_step5_slow_FT
- Karatzova_fast_step1_FT
- Karatzova_fast_step2_FT
- Karatzova_fast_step3_FT
- Karatzova_slow_step1_FT
- Karatzova_slow_step2_FT
- Karatzova_slow_step3_FT
- Kastrinos_step1_FT

- Kastrinos_step2_FT

- Kastrinos_step3_FT

- Kastrinos_step4_FT

- Kastrinos_step5_FT

- Kastrinos_step6_FT

- Laventiikos_step1a_FT

- Laventiikos_step1b_FT

- Laventiikos_step1c_FT

- Laventiikos_step2a_FT

- Laventiikos_step2b_FT

- Laventiikos_step3_FT

- Letsina_step1_FT

- Letsina_step2_FT

- Letsina_step3_FT

- TikPal_step1_FT

- TikPal_step2_FT

CONTEMPORARY DANCE

- Directionality_Cube_BackPlane9_002

- Directionality_Cube_BackPlane10_001

- Directionality_Cube_BackPlane11_001

- Directionality_Cube_BackPlane12_002

- Directionality_Cube_Diagonal_22_001

- Directionality_Cube_Diagonal_23_001

- Directionality_Cube_Diagonal_24_001

- Directionality_Cube_Diagonal_25_001

- Directionality_Cube_Diagonal_26_001

- Directionality_Cube_Diagonal_27_001

- Directionality_Cube_Diagonal_28_001

- Directionality_Cube_Floor_003

- Directionality_Cube_OutFocus_Sagital_14_001

- Directionality_Cube_OutFocus_Sagital_15_001

- Directionality_Cube_OutFocus_Sagital_16_001

- Directionality_Cube_OutFocus_Sagital_17_001

- Directionality_Cube_OutFocus_Side_9_001

- Directionality_Cube_OutFocus_Side_10_001

- Directionality_Cube_OutFocus_Side_11_001

- Directionality_Cube_OutFocus_Side_12_001

- Directionality_Cube_OutFocus_Side_13_001

- Directionality_Cube_SagitalPlane13_001

- Directionality_Cube_SagitalPlane14_001

- Directionality_Cube_SagitalPlane15_001

- Directionality_Cube_SagitalPlane16_001

- Directionality_Cube_Variations_Full_001

CLASSIC BALLET DANCE

- demi_plie_2_001_A

- demi_plie_2_001_J

- demi_plie_3_001_A

- demi_plie_3_001_J

- demi_plie_4_004_A

- demi_plie_4_004_J

- demi_plie_5_001_J

- demi_plie_5_001_A

- demi_plie_6_001_J

- demi_plie_7_001_A

- demi_plie_7_001_J

- grand_plie_001_A

- grand_plie_001_J

- jete_in_croix_01_J_002

- jete_in_croix_01_J_007

- pointe_jetee_01_J_001

- pointe_jetee_01_A_001

- port_de_bra_001_A

- port_de_bra_001_J

- port_de_bra_003_A

- port_de_bra_003_J

- tendu_fifth_pos_01_A_001

- tendu_fifth_pos_01_J_001

- tendu_with_plie_fifth_pos_01_A_002

- tendu_with_plie_fifth_pos_01_J_002

- develope_01_A_001

- develope_01_J_001

- excersize_A_000

- excersize_A_001

- excersize_A_002

- flic_flac_01_A_003

- flic_flac_01_J_001

- fondue_01_J_001

- fondue_02_A_001

- fondue_03_J_001

- grand_battement_01_A_001

- grand_battement_01_J_001

- pas_marche_01_A_001

- pas_marche_01_J_001

- pas_marche_02_A_001

- pas_marche_02_J_001

- pas_marche_03_A_001

- pas_marche_03_J_001

- pase_de_cheval_01_A_002

- pase_de_cheval_01_J_002

- soutenu_01_A_001

- soutenu_01_J_001

FLAMENCO DANCE

- Assymetry_full_01_001

- Balance_L_Side_01_003

- Balance_R_Side_01_001

- Coordination_full_01_001

- Directionality_full_01_001

- Directionality_L_Side_01_001

- Directionality_R_Side_01_001

- Motion_space_full_01_002

- Motorics_full_01_001

- Motorics_full_02_001

- Posture_down_01_001

- Posture_down_02_001

- Posture_full_01_001

- Posture_up_02_001

- Rhythm_phrasing_full_01_001

- Stillness_fast_01_001

- Symmetry_full_01_002

- Weight_Gesture_Full_01_001

NOTE: The order of the sequences pertains to their blend-ability values. Since the data processing is still ongoing, the list may still change when better blendable sequences will be processed. The current list is planned to be included in the Blending engine alpha version that will be shown at the consortium meeting in December 2016