

## 3D Human Motion Control System using Visual Script

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**Abstract** This paper proposes Visual Script Language which can direct a type of motion to 3D human model and create by dragging gesture like as we can express a certain meaning with hand gestures. Traditional motion control technique of articulated figures such as human needs a complex task that draws on highly developed human skills. So it will reduce the amount of motion specification to provide the motion control method that allow users to describe characters' motion at the higher level abstraction. Visual script is the visual gestures to direct various human motions, so users can express the spatial attributes of a motion such as the path of moving with high-level concepts if they use visual script. And we can show that it is possible to control the motion of human model directly and intuitively by development of 3D human motion control system based on visual script.

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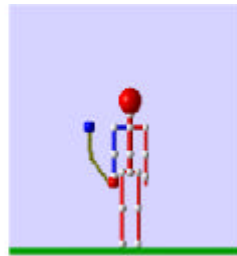
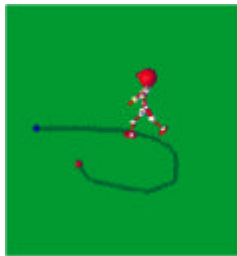
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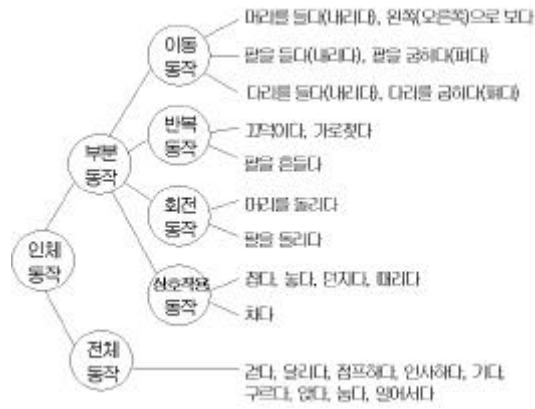
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VS

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VSXn	VS	Visual Sentence
MOVE		M...M
REPEAT		M...MT1M...M
ROTATE		M.MT1M.MT1M..MT1M..M
D_REPEAT		M.MT1M.MT2M..M
HOP		M.MT1M.MT2M..MT1M..M
MOVE_ROTATE		M.MT1M.MT1M..MT1M..M
D_ROTATE		M.MRI.M.MRI.M..M
FREE_STYLE	Free Shape	No Visual Sentence

1

MOVE

REPEAT

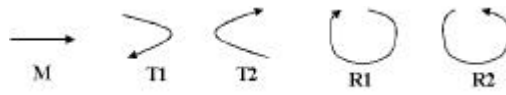
REPEAT

$VisualSentence = \{ \blacksquare X_n \mid X_n \blacksquare T_{vs} \}, T_{vs} = \{M, T_1, T_2, R_1, R_2\}$

$T_{vs}$

$M, T_1, T_2, R_1, R_2$

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$\blacksquare M$

'MOVE'

2.3

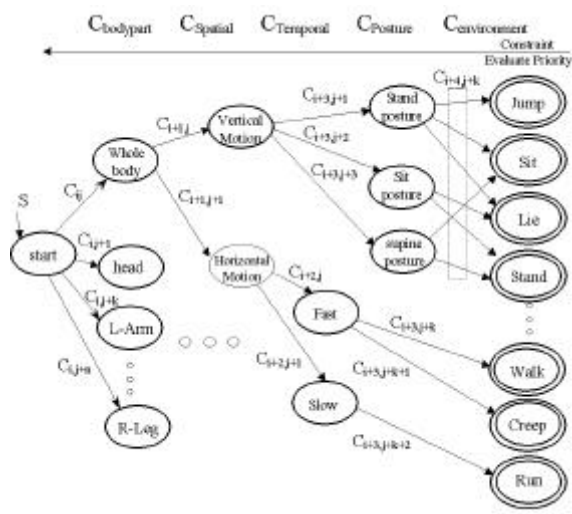
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'MOVE'

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Y

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X, Y

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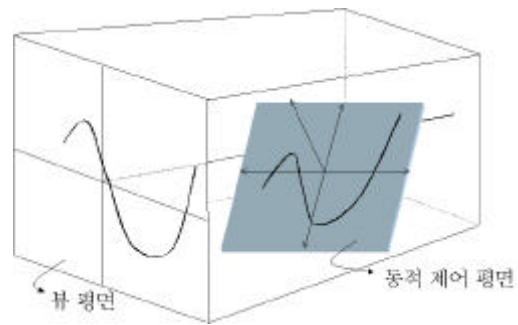
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#### 4. HUMOA

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**HUMOA** (*H Uman M Otion A gent*)

*Visual C++ OpenGL*

6 HUMOA

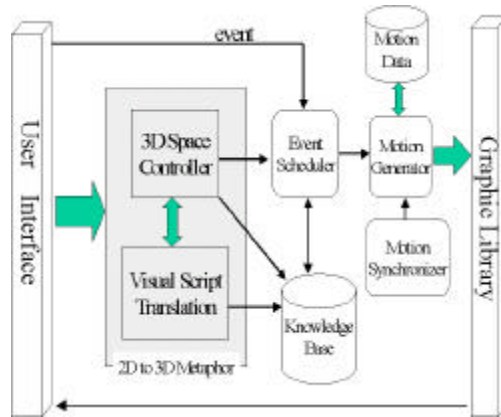
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*Open GL*

API



6 HUMOA

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1 'MOVE\_ROTATE'

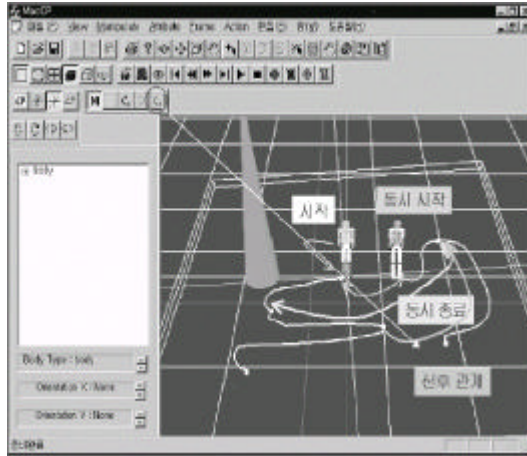
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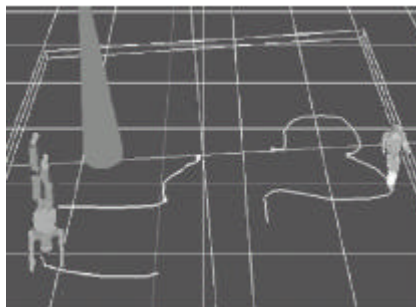
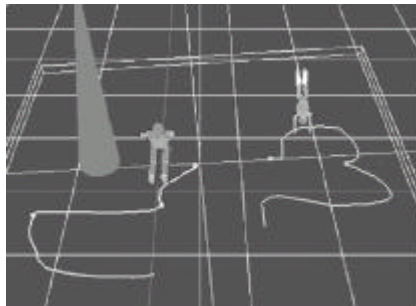
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