

Real data labeling → Text to 4D hybrid dataset ← Text to 4D AI generation

Text: An adventurer is riding dinosaur through the rainforest.

Text Extended Template

A Subject Details:
An adventurer wearing a hat and backpack sitting on a brown dinosaur in a vibrant rainforest with sunlight filtering through dense foliage and a stream below.

B Action Pattern:
Riding the dinosaur across a flowing stream through the lush jungle terrain with dynamic movement and splashing water.

T5 Text Encoder

1- Global text alignment

β_1 → Object Text Encoder

β_2 → Motion Text Encoder

2- Fine grained text alignment



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Block1

Block2

Block3

Block4

Quarter Division
(Data Matrix $N \times N$)

VAE Encoder

Timestep
Noise

Z_n

Self Attention Layer

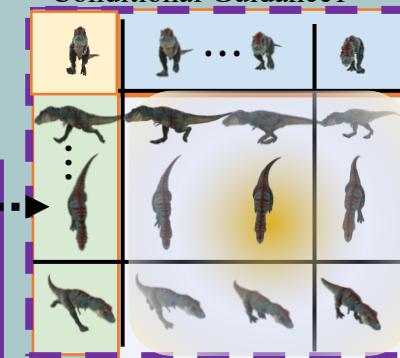
View cross attention

Frame cross attention

3- Guided Diffusion1

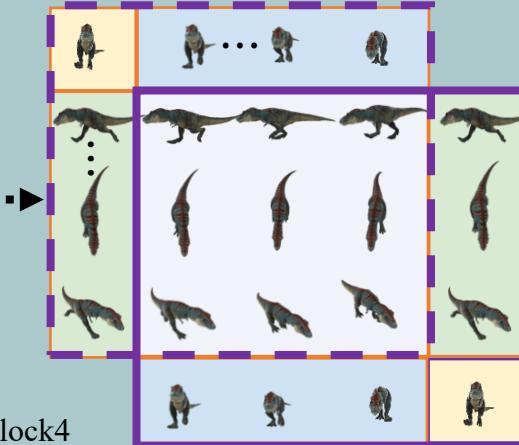
(1) I-Swin nine-grid division

Conditional Guidance1

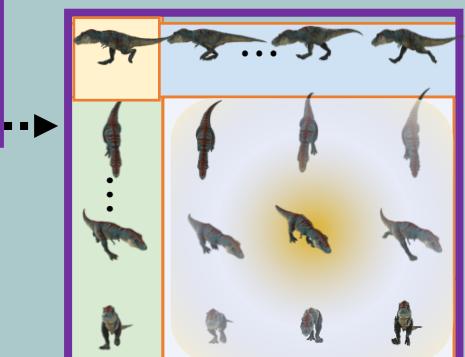


Nine-grid Matrix Division

(2) Swin Shifting

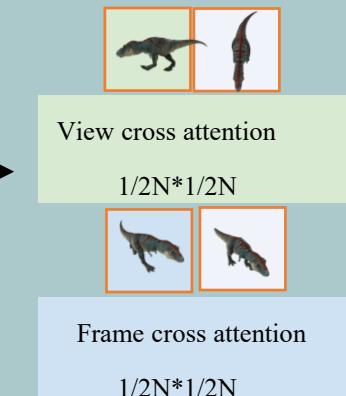


(3) Slicing window sampling



Block4

(4) Conditional Guidance2



4- Guided Diffusion2

Z_{n-1}