

Export | | | | | |--|--|--|--| | | | | | |--|--|--|--|

- [VRM

--	--	--	--
- [VRM

--	--	--

VRM□□□□

□□	□□
Root	□□□□□□
Hierarchy	□□ Root □□□

v0.58~

VRM Exporter

langJa

ExportRoot

AliciaSolid_vrm-0.51

Root OK

Jaw(顎)ボーンが含まれています。意図していない場合は設定解除をおすすめします。FBX importer の rig 設定から変更できます

Mesh size: 3.7 MByte

MetaMeshBlendShapeExportSettings

Exporter VersionUniVRM-0.51.0

ThumbnailAlicia

Camera.main で画像を Render します。

スクリーンショット

Select

▼ Information

TitleAlicia Solid

Version1.10

Author© DWANGO Co., Ltd.

Contact Informationhttps://3d.nicovideo.jp/alicia/

Reference

▼ アバターの人格に関する許諾範囲

アバターに人格を与えることの許諾範囲

Everyone▼

このアバターを用いて暴力表現を演じることの許可

Disallo▼

このアバターを用いて性的表現を演じることの許可

Disallo▼

商用利用の許可

Allow▼

Other License Urlhttps://3d.nicovideo.jp/alicia/rule.html

▼ 再配布・改変に関する許諾範囲

License TypeOther

Other License Urlhttps://3d.nicovideo.jp/alicia/rule.html

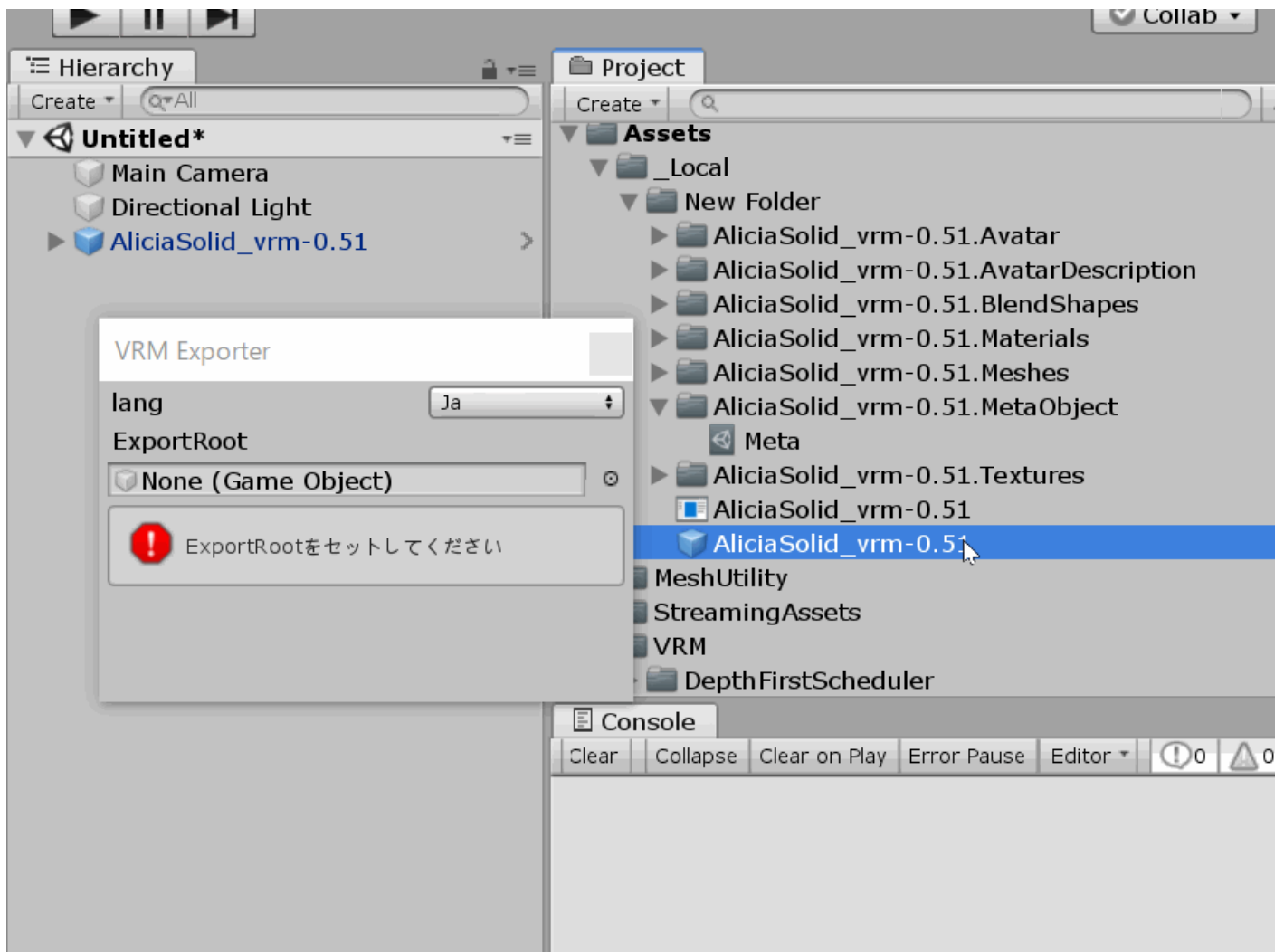
Export

■■■■■[Editor Window](#)

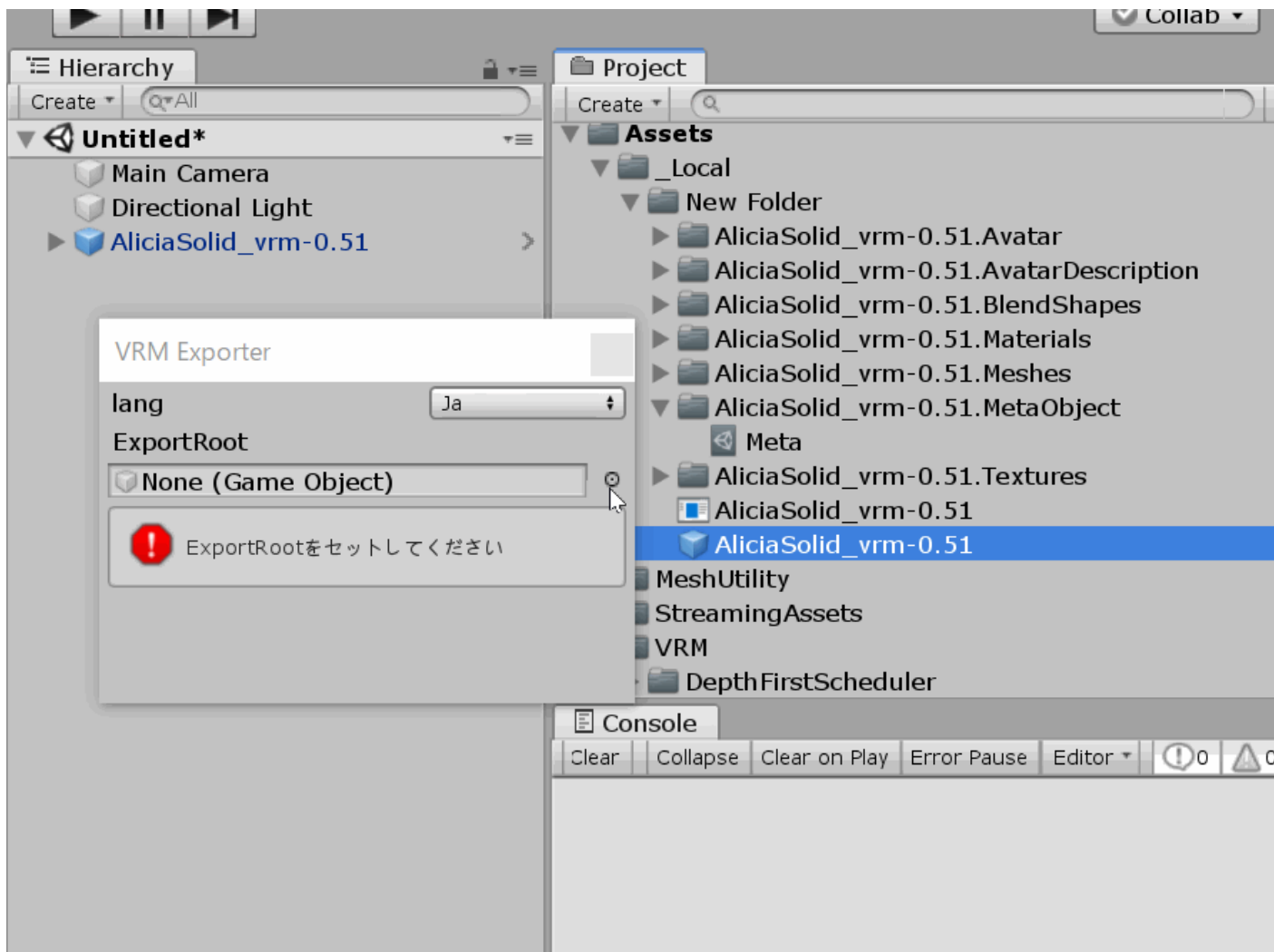
■■■■■

VRM■■■■■

■■VRM■■■■■“VRM0 -> Export UniVRM-0.XX”



- □□



ExportRoot

ExportRoot

-
- Root
- Animator Humanoid.Avatar
- Z+ ()
-

M export VRM

Force T Pose

T-Pose T-Pose

Pose Freeze

GameObject0

v0.58 PoseFreeze

UseExperimentalExporter

UseSparseAccessor

BlendeShape

OnlyBlendshapePosition BlendShape

BlendShape UniVRM-0.53

ReduceBlendshape BlendShape

BlendShapeClip BlendShape

ReduceBlendshapeClip BlendShapeClip

Unknown BlendShapeClip ReduceBlendshap

RemoveVertexColor

GLTF UniVRM unlit

message	0.56	0.57	0.58
---------	------	------	------

The Root translation, rotation and scale will be dropped. Root []	error	warn	error([]) []
Jaw bone []	warn	warn	warn
Same name bone []	error	warn([]) []	warn
Vertex color []	warn	warn	warn
Unknown shader []	warn	warn	warn
Require source []	error	error	error
Require no parent []	ok	ok	error(NEW)
Require Z+ forward [] Z+ []	ok	ok	error(NEW)
Require animator []	error	error	error
Require humanoid avatar []	error	error	error
Require Title/Version/Author []/[]/[]	error	error	error
No active mesh []	error	error	error
Prefab export []	error	error	ok(NO_ACTIVE_MESH[]) []
Springbone validation []	ok	ok	warn

[]Error[]Warn[]

Require source[]

[] VRM []

Require animator.[]

Root [Animator [Avatar[]/non-humanoid[]

Require animator.avatar[] Animator.avatar [

Root[Animator[]avatar[]/non-humanoid[]

Animator.avatar is not valid.[Animator.avatar []

Root[Animator.avatar[]/non-humanoid[]

Animator.avatar is not humanoid. Please change model's AnimationType to humanoid.

[Animator.avatar [] AnimationType ([]) humanoid[

Root [Animator [avata humanoid [] FBX [import [humanoid []
[]Insp FBX Import [rig -> AnimationType

Require Title[]

[]

Require Version[]

[]

Require Author[]

[]

No active mesh[]

[]

FileName ‘{0}’ is too long.[]“{0}”[]

[] []

The Root translation, rotation and scale will be dropped

Root Root TRS

TRS TranslationRotationScale

Jaw bone is included. It may not what you intended. Please check the humanoid avatar setting screen humanoid

humanoidFBX

There are bones with the same name in the hierarchy. They will be automatically renamed after export

This model contains vertex color

UniVRM-0.53		
UniVRM-0.54		

Unlit "Remove Vertex Color"

unknown material '{0}' is used. this will export as Standard fallback

'{0}'Standard()

standardunlit MToon standard

v0.57

VRM Exporter

Jaw bone is included. It may not be what you intended. Please check the humanoid avatar setting screen

Script

VRMExporterWizard

▼ Settings

Source

AliciaSolid_vrm-0.51

Title

Alicia Solid

Version

1.10

Author

Contact Information

https://3d.nicovideo.jp/alicia/

Reference

Force T Pose

Pose Freeze

Use Experimental Expo

Use Sparse Accessor

Only Blendshape Positi

Reduce Blendshape

Reduce Blendshape Cli

Remove Vertex Color

Require Author.

Export

UnityScriptableWizard 0.58

VRM Exporter

langJa

ExportRootAliciaSolid_vrm-0.51

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License TypeOther

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Export

VRM

VRM GLB

VRM glb

glb => json + binary

json 1MB

image [mesh]

5 5

Image

Image Texture(VRM PNG JPG

v0.56 4096x4096 1024x1024 -> MaxSize v0.58

<https://github.com/vrm-c/UniVRM/issues/502>

Mesh

Index Buffer Vertex Buffer

Index Buffer

Int

5

50000 x 4 Int = 4 x 3 => 0.6MB

GLTF unsigned short UniVRM 65536 50000

Vertex Buffer

```

{
    float3 Position; // 4(float[3]) x 3(xyz) => 12byte
    float3 Normal; // 4(float[3]) x 3(xyz) => 12byte
    float2 TEXCOORD_0; // UV 4(float[2]) x 2(xy) => 8byte
    short4 JOINTS_0; // BoneIndex 2(short[4]) x 4(4bone) => 8byte
    float4 WEIGHTS_0; // Weight 4(float[4]) x 4(4bone) => 16byte
}

```

UV

UniVRM float4 Unity GLTF UV MIKK T Space

5

$50000 \times (12 + 12 + 8 + 8 + 16) \Rightarrow 2.8\text{MB}$

+ 50k 3.4MB + BlendShape

BlendShape MorphTarget

```

// 
{
    float3 Position; // 4 x 3 => 12byte. 
    float3 Normal; // 4 x 3 => 12byte. 
    float3 Tangent; // Tangent 4 x 3 => 12byte. 
}

```

BlendShap $50000 \times (12 + 12) \Rightarrow 1.2\text{MB}$

20 BlendSh $50000 \times (12 + 12) \times 20 \Rightarrow 24\text{MB}$

60 BlendSh $50000 \times (12 + 12) \times 60 \Rightarrow 72\text{MB}$

- BlendShape
- BlendShape BlendShape

BlendShape

K

BlendShape[]

☐ BlendShapeReduceBlendshapeClip ☐ UseSparseAccessor ☐ VRMLoadersUniVRM loader ☐ OnlyBlendshapePosition

BlendShapeClips BlendShapes

<input type="checkbox"/>	Preset.Unknown	<input type="checkbox"/>	BlendShapeClip	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ReduceBlendshape	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	----------------	--------------------------	----------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	------------------	--------------------------	--------------------------	--------------------------	--------------------------

```

graph LR
    subgraph Row1
        direction LR
        GLTF[GLTF] --- B1[ ] --- B2[ ] --- B3[ ] --- B4[ ] --- B5[ ] --- B6[ ] --- B7[ ] --- B8[ ] --- B9[ ] --- B10[ ] --- B11[ ] --- B12[ ] --- B13[ ] --- B14[ ] --- B15[ ] --- B16[ ] --- BS1[BlendShape] --- BS2[ ]
    end
    subgraph Row2
        direction LR
        B17[ ] --- B18[ ] --- B19[ ] --- B20[ ] --- BS3[BlendShape] --- B21[ ] --- B22[ ] --- B23[ ] --- B24[ ] --- B25[ ] --- B26[ ] --- B27[ ] --- B28[ ] --- B29[ ] --- B30[ ] --- B31[ ] --- B32[ ]
    end

```

```
// [ ][ ][ ][ ][ ][ ][ ][ ]
{
    int Index; // [ ][ ][ ][ ][ ][ ][ ][ ] index => 4
    float3 Position; // [ ][ ][ ] 4 x 3 => 12byte. [ ][ ][ ]
    float3 Normal; // [ ][ ][ ] 4 x 3 => 12byte. [ ][ ][ ][ ]
    float3 Tangent; // [ ][ ]Tangent 4 x 3 => 12byte. [ ][ ][ ][ ]
}
```


OnlyBlendshapePosition BlendeShape Position

BlendShape Normal Tangent

UniVRM-0.53

MESHUTILITYBlendShape

50k10kBlendShape40kBlendShape

Blend 10000 x (12 + 12) => 0.24MB

Blend 50000 x (12 + 12) => 1.2MB

Draw

Mesh Utility

VRM BlendShape