synty®

Bow Combat

Keyframe Animation pack

User Guide

Version: 1.0.0

www.syntystore.com

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1. Introduction

Welcome to Animation BowCombat, a specialised animation pack designed for smooth integration across multiple platforms, delivering high-impact archery motion to your projects.

Featuring meticulously crafted bow combat animations, this pack is primed to enhance your workflow and breathe life into any project's combat needs. From epic battles to stealth shots, to agile slides and leaps, these versatile archery actions will bring characters to life with fluidity and personality.

So nock your arrows and prepare your projects to meet the pointy end of animated bowmanship!

From all of us at Synty,
We thank you for the support!

2. Installation and Setup

Requirements

Animation component files

- Unity supports FBX imports across all current LTS versions

Sample content

- TextMesh Pro Unity package - in order to correctly see Gallery scene text labels
- Timeline Unity package

Unity Asset Store Installation

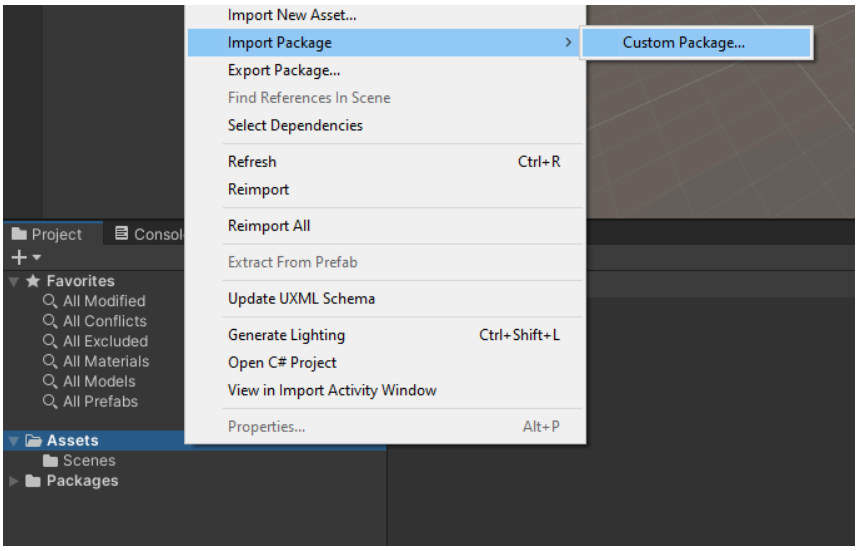
If you purchased Animation BowCombat from the Unity Asset Store, you can download the latest package using the **Unity Package Manager**, as follows:

1. Open **Unity Package Manager** from the top menu **Window > Package Manager**
2. Change the Packages drop down to **My Assets**
3. Look for or search **'Synty Animation BowCombat'** and click **Install**

Synty Store Installation

If you purchased Animation BowCombat from www.syntystore.com, you will need to do the following:

1. Open your Project window (from top menu select **Window > General > Project**)
2. Right Click in the **Assets** directory and select **Import Package > Custom Package...** from the right click menu



3. Navigate to where you downloaded the .unitypackage file and click 'Open'
4. You will be presented with a window to import the package, click 'Import'.

3. Animation Pack Components

The Animation Pack features 998 purpose-built animations. It has a comprehensive range of actions, including multiple stances, hits, deaths, leaps, rolls, and more. Each part of the archery process is broken down into individual actions, from equipping, aiming, drawing, firing, reloading, etc, allowing for maximum flexibility and control over your combat system.
In addition, the pack includes rigged bow models, quivers, and arrows of varying styles, all designed to work seamlessly with the animations.

Key features

Animation formats

- 499 total animations for each format: Polygon and Sidekick - the two key types of Synty characters.

Animation Sets

Within each character format (Sidekick and Polygon), there are:

- 190 BowCombat character animations per format including RootMotion versions, with smooth blending and transitions

- 309 associated ‘Prop’ animations per format. This includes 103 animations for each of the different bow types (Longbow, Recurve Bow and Compound Bow) to synchronise bow animation with character animation

Models:

- 14 rigged bow models
- 7 quiver models
- 3 arrow models
- 1 target model

Humanoid Character Avatar:

- These animations integrate with Unity's Mecanim system, providing a foundation for utilising animations across different characters easily.

Gallery Scenes:

- Two scenes (Sidekick and Polygon) showcasing the animations as separate assets for users to view clearly as individual animations.

List of Polygon Character Animations

Feminine

Death

A_POLY_BOW_Death_Head_F_Femn.fbx
A_POLY_BOW_Death_Head_L_Femn.fbx
A_POLY_BOW_Death_Head_R_Femn.fbx
A_POLY_BOW_Death_Spine_B_Femn.fbx
A_POLY_BOW_Death_Stomach_F_Femn.fbx

Hit

A_POLY_BOW_Hit_Back_B_React_Femn.fbx
A_POLY_BOW_Hit_Back_B_Stagger_Femn.fbx
A_POLY_BOW_Hit_Back_B_Stagger_RM_Femn.fbx
A_POLY_BOW_Hit_Head_B_React_Femn.fbx
A_POLY_BOW_Hit_Head_B_Stagger_Femn.fbx
A_POLY_BOW_Hit_Head_B_Stagger_RM_Femn.fbx
A_POLY_BOW_Hit_Head_F_React_Femn.fbx
A_POLY_BOW_Hit_Head_F_Stagger_Femn.fbx
A_POLY_BOW_Hit_Head_F_Stagger_RM_Femn.fbx
A_POLY_BOW_Hit_Head_L_React_Femn.fbx
A_POLY_BOW_Hit_Head_L_Stagger_Femn.fbx
A_POLY_BOW_Hit_Head_L_Stagger_RM_Femn.fbx
A_POLY_BOW_Hit_Head_R_React_Femn.fbx
A_POLY_BOW_Hit_Head_R_Stagger_Femn.fbx
A_POLY_BOW_Hit_Head_R_Stagger_RM_Femn.fbx
A_POLY_BOW_Hit_Shoulder_L_React_Femn.fbx
A_POLY_BOW_Hit_Shoulder_L_Stagger_Femn.fbx
A_POLY_BOW_Hit_Shoulder_L_Stagger_RM_Femn.fbx
A_POLY_BOW_Hit_Shoulder_R_React_Femn.fbx
A_POLY_BOW_Hit_Shoulder_R_Stagger_Femn.fbx
A_POLY_BOW_Hit_Shoulder_R_Stagger_RM_Femn.fbx

Idle

A_POLY_BOW_Crouch_Idle_Base_Equip_ToBowDown_Femn.fbx
A_POLY_BOW_Crouch_Idle_Base_Femn.fbx
A_POLY_BOW_Crouch_Idle_Base_ToBowDown_Femn.fbx
A_POLY_BOW_Crouch_Idle_Base_WithBow_Femn.fbx
A_POLY_BOW_Stand_Idle_Base_Equip_ToBowDown_Femn.fbx
A_POLY_BOW_Stand_Idle_Base_Femn.fbx
A_POLY_BOW_Stand_Idle_Base_ToBowDown_Femn.fbx
A_POLY_BOW_Stand_Idle_Base_ToTurned_Femn.fbx
A_POLY_BOW_Stand_Idle_Base_WithBow_Femn.fbx
A_POLY_BOW_Crouch_Idle_Base_Equip_ToBowDown_FPV_Femn.fbx
A_POLY_BOW_Stand_Idle_Base_Equip_ToBowDown_FPV_Femn.fbx

Masculine

Death

A_POLY_BOW_Death_Head_F_Masc.fbx
A_POLY_BOW_Death_Head_L_Masc.fbx
A_POLY_BOW_Death_Head_R_Masc.fbx
A_POLY_BOW_Death_Spine_B_Masc.fbx
A_POLY_BOW_Death_Stomach_F_Masc.fbx

Hit

A_POLY_BOW_Hit_Back_B_React_Masc.fbx
A_POLY_BOW_Hit_Back_B_Stagger_Masc.fbx
A_POLY_BOW_Hit_Back_B_Stagger_RM_Masc.fbx
A_POLY_BOW_Hit_Head_B_React_Masc.fbx
A_POLY_BOW_Hit_Head_B_Stagger_Masc.fbx
A_POLY_BOW_Hit_Head_B_Stagger_RM_Masc.fbx
A_POLY_BOW_Hit_Head_F_React_Masc.fbx
A_POLY_BOW_Hit_Head_F_Stagger_Masc.fbx
A_POLY_BOW_Hit_Head_F_Stagger_RM_Masc.fbx
A_POLY_BOW_Hit_Head_L_React_Masc.fbx
A_POLY_BOW_Hit_Head_L_Stagger_Masc.fbx
A_POLY_BOW_Hit_Head_L_Stagger_RM_Masc.fbx
A_POLY_BOW_Hit_Head_R_React_Masc.fbx
A_POLY_BOW_Hit_Head_R_Stagger_Masc.fbx
A_POLY_BOW_Hit_Head_R_Stagger_RM_Masc.fbx
A_POLY_BOW_Hit_Shoulder_L_React_Masc.fbx
A_POLY_BOW_Hit_Shoulder_L_Stagger_Masc.fbx
A_POLY_BOW_Hit_Shoulder_L_Stagger_RM_Masc.fbx

Neutral

Crouch_Aim

A_POLY_BOW_Crouch_Aiming_DrawnShaking_Neut.fbx
A_POLY_BOW_Crouch_Aiming_Drawn_Neut.fbx
A_POLY_BOW_Crouch_Aiming_Reload_Neut.fbx
A_POLY_BOW_Crouch_Aiming_ToDrawn_Neut.fbx
A_POLY_BOW_Crouch_Aiming_Undrawn_Neut.fbx
A_POLY_BOW_Crouch_Aiming_DrawnShaking_FPV_Neut.fbx
A_POLY_BOW_Crouch_Aiming_Drawn_FPV_Neut.fbx
A_POLY_BOW_Crouch_Aiming_Reload_FPV_Neut.fbx
A_POLY_BOW_Crouch_Aiming_ToDrawn_FPV_Neut.fbx
A_POLY_BOW_Crouch_Aiming_Undrawn_FPV_Neut.fbx

Crouch_Idle

A_POLY_BOW_Crouch_Idle_BowDown_Neut.fbx
A_POLY_BOW_Crouch_Idle_BowDown_Reload_Neut.fbx
A_POLY_BOW_Crouch_Idle_BowDown_Stow_ToBase_Femn.fbx
A_POLY_BOW_Crouch_Idle_BowDown_Stow_ToBase_Masc.fbx
A_POLY_BOW_Crouch_Idle_BowDown_ToAiming_Neut.fbx

A_POLY_BOW_Crouch_Idle_BowDown_FPV_Neut.fbx
A_POLY_BOW_Crouch_Idle_BowDown_Reload_FPV_Neut.fbx
A_POLY_BOW_Crouch_Idle_BowDown_Stow_ToBase_FPV_Femn.fbx
A_POLY_BOW_Crouch_Idle_BowDown_Stow_ToBase_FPV_Masc.fbx
A_POLY_BOW_Crouch_Idle_BowDown_ToAiming_FPV_Neut.fbx

Crouch_Roll

A_POLY_BOW_Crouch_Idle_BowDown_Roll_F_Neut.fbx
A_POLY_BOW_Crouch_Idle_BowDown_Roll_F_RM_Neut.fbx
A_POLY_BOW_Crouch_Idle_BowDown_Roll_L_Neut.fbx
A_POLY_BOW_Crouch_Idle_BowDown_Roll_L_RM_Neut.fbx
A_POLY_BOW_Crouch_Idle_BowDown_Roll_R_Neut.fbx
A_POLY_BOW_Crouch_Idle_BowDown_Roll_R_RM_Neut.fbx

Crouch_Shoot

A_POLY_BOW_Crouch_Shoot_Reload_Neut.fbx
A_POLY_BOW_Crouch_Shoot_ToAiming_Neut.fbx
A_POLY_BOW_Crouch_Shoot_ToIdle_Neut.fbx
A_POLY_BOW_Crouch_Shoot_Reload_FPV_Neut.fbx
A_POLY_BOW_Crouch_Shoot_ToAiming_FPV_Neut.fbx
A_POLY_BOW_Crouch_Shoot_ToIdle_FPV_Neut.fbx

Stand_Aim

A_POLY_BOW_Stand_Aiming_DrawnShaking_Neut.fbx
A_POLY_BOW_Stand_Aiming_Drawn_Neut.fbx
A_POLY_BOW_Stand_Aiming_Reload_Neut.fbx
A_POLY_BOW_Stand_Aiming_ToDrawn_Neut.fbx
A_POLY_BOW_Stand_Aiming_Undrawn_Neut.fbx

Stand_Idle_BowDown

A_POLY_BOW_Stand_Idle_BowDown_Neut.fbx
A_POLY_BOW_Stand_Idle_BowDown_Reload_Neut.fbx
A_POLY_BOW_Stand_Idle_BowDown_Stow_ToBase_Femn.fbx
A_POLY_BOW_Stand_Idle_BowDown_Stow_ToBase_Masc.fbx
A_POLY_BOW_Stand_Idle_BowDown_Stow_ToTurned_Neut.fbx
A_POLY_BOW_Stand_Idle_BowDown_ToAiming_Neut.fbx
A_POLY_BOW_Stand_Idle_BowDown_ToBase_Femn.fbx
A_POLY_BOW_Stand_Idle_BowDown_ToBase_Masc.fbx
A_POLY_BOW_Stand_Idle_BowDown_FPV_Neut.fbx
A_POLY_BOW_Stand_Idle_BowDown_Reload_FPV_Neut.fbx
A_POLY_BOW_Stand_Idle_BowDown_Stow_ToBase_FPV_Femn.fbx
A_POLY_BOW_Stand_Idle_BowDown_Stow_ToBase_FPV_Masc.fbx
A_POLY_BOW_Stand_Idle_BowDown_Stow_ToTurned_FPV_Neut.fbx
A_POLY_BOW_Stand_Idle_BowDown_ToAiming_FPV_Neut.fbx

Stand_Idle_Turned

A_POLY_BOW_Stand_Idle_Turned_Equip_ToBowDown_Neut.fbx
A_POLY_BOW_Stand_Idle_Turned_Neut.fbx
A_POLY_BOW_Stand_Idle_Turned_ToBase_Femn.fbx
A_POLY_BOW_Stand_Idle_Turned_ToBase_Masc.fbx
A_POLY_BOW_Stand_Idle_Turned_Equip_ToBowDown_FPV_Neut.fbx

A_POLY_BOW_Hit_Shoulder_R_React_Masc.fbx
A_POLY_BOW_Hit_Shoulder_R_Stagger_Masc.fbx
A_POLY_BOW_Hit_Shoulder_R_Stagger_RM_Masc.fbx

Idle
A_POLY_BOW_Crouch_Idle_Base_Equip_ToBowDown_Masc.fbx
A_POLY_BOW_Crouch_Idle_Base_Masc.fbx
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A_POLY_BOW_Stand_Idle_Base_Equip_ToBowDown_Masc.fbx
A_POLY_BOW_Stand_Idle_Base_Masc.fbx
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A_POLY_BOW_Crouch_Idle_Base_Equip_ToBowDown_FPV_Masc.fbx
A_POLY_BOW_Stand_Idle_Base_Equip_ToBowDown_FPV_Masc.fbx

Neutral
Additive
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A_POLY_BOW_Stand_Aiming_Undrawn_Additive_U90_Neut.fbx

Melee
A_POLY_BOW_Blocking_Attack_01_Neut.fbx
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A_POLY_BOW_Blocking_Break_Neut.fbx
A_POLY_BOW_Blocking_Break_RM_Neut.fbx
A_POLY_BOW_Blocking_Neut.fbx
A_POLY_BOW_Blocking_Parry_Neut.fbx
A_POLY_BOW_Blocking_ToBowDown_Neut.fbx
A_POLY_BOW_BowDown_ToBlocking_Neut.fbx

Kneeling
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A_POLY_BOW_Kneeling_Aiming_ToDrawn_Neut.fbx
A_POLY_BOW_Kneeling_Aiming_Undrawn_Neut.fbx
A_POLY_BOW_Kneeling_ToBowDown_Neut.fbx
A_POLY_BOW_Kneeling_Shoot_Reload_Neut.fbx
A_POLY_BOW_Kneeling_Shoot_ToAiming_Neut.fbx

Stand_Shoot
A_POLY_BOW_Stand_Shoot_Dive_L_ToCrouch_BowDown_Neut.fbx
A_POLY_BOW_Stand_Shoot_Dive_L_ToCrouch_BowDown_RMH_Neut.fbx
A_POLY_BOW_Stand_Shoot_Dive_L_ToCrouch_BowDown_RMV_Neut.fbx
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A_POLY_BOW_Stand_Shoot_Dive_R_ToCrouch_BowDown_Neut.fbx
A_POLY_BOW_Stand_Shoot_Dive_R_ToCrouch_BowDown_RMH_Neut.fbx
A_POLY_BOW_Stand_Shoot_Dive_R_ToCrouch_BowDown_RMV_Neut.fbx
A_POLY_BOW_Stand_Shoot_Dive_R_ToCrouch_BowDown_RM_Neut.fbx
A_POLY_BOW_Stand_Shoot_Leaping_Neut.fbx
A_POLY_BOW_Stand_Shoot_Leaping_RMH_Neut.fbx
A_POLY_BOW_Stand_Shoot_Leaping_RMV_Neut.fbx
A_POLY_BOW_Stand_Shoot_Leaping_RM_Neut.fbx
A_POLY_BOW_Stand_Shoot_Reload_Neut.fbx
A_POLY_BOW_Stand_Shoot_ToAiming_Neut.fbx
A_POLY_BOW_Stand_Shoot_ToBowDown_Neut.fbx

LeanBack
A_POLY_BOW_Idle_BowDown_ToLeanBack_Neut.fbx
A_POLY_BOW_LeanBack_Aiming_Drawn_Neut.fbx
A_POLY_BOW_LeanBack_Aiming_Reload_Neut.fbx
A_POLY_BOW_LeanBack_Aiming_ToDrawn_Neut.fbx
A_POLY_BOW_LeanBack_Aiming_Undrawn_Neut.fbx
A_POLY_BOW_LeanBack_ToBowDown_Neut.fbxt
A_POLY_BOW_LeanBack_Shoot_Reload_Neut.fbx
A_POLY_BOW_LeanBack_Shoot_ToAiming_Neut.fbx

Sliding
A_POLY_BOW_Run_ToSliding_Aiming_Neut.fbx
A_POLY_BOW_Run_ToSliding_Aiming_RM_Neut.fbx
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A_POLY_BOW_Sliding_Aiming_Reload_Neut.fbx
A_POLY_BOW_Sliding_Aiming_Reload_RM_Neut.fbx
A_POLY_BOW_Sliding_Aiming_ToDrawn_Neut.fbx
A_POLY_BOW_Sliding_Aiming_ToDrawn_RM_Neut.fbx
A_POLY_BOW_Sliding_Aiming_Undrawn_Neut.fbx
A_POLY_BOW_Sliding_Aiming_Undrawn_RM_Neut.fbx
A_POLY_BOW_Sliding_ToIdle_Crouch_Neut.fbx
A_POLY_BOW_Sliding_ToIdle_Crouch_RM_Neut.fbx
A_POLY_BOW_Sliding_Shoot_Reload_Neut.fbx
A_POLY_BOW_Sliding_Shoot_Reload_RM_Neut.fbx
A_POLY_BOW_Sliding_Shoot_ToAiming_Neut.fbx
A_POLY_BOW_Sliding_Shoot_ToAiming_RM_Neut.fbx

List of Sidekick Character Animations

Feminine

Death

A_MOD_BOW_Death_Head_F_Femn.fbx
A_MOD_BOW_Death_Head_L_Femn.fbx
A_MOD_BOW_Death_Head_R_Femn.fbx
A_MOD_BOW_Death_Spine_B_Femn.fbx
A_MOD_BOW_Death_Stomach_F_Femn.fbx

Hit

A_MOD_BOW_Hit_Back_B_React_Femn.fbx
A_MOD_BOW_Hit_Back_B_Stagger_Femn.fbx
A_MOD_BOW_Hit_Back_B_Stagger_RM_Femn.fbx
A_MOD_BOW_Hit_Head_B_React_Femn.fbx
A_MOD_BOW_Hit_Head_B_Stagger_Femn.fbx
A_MOD_BOW_Hit_Head_B_Stagger_RM_Femn.fbx
A_MOD_BOW_Hit_Head_F_React_Femn.fbx
A_MOD_BOW_Hit_Head_F_Stagger_Femn.fbx
A_MOD_BOW_Hit_Head_F_Stagger_RM_Femn.fbx
A_MOD_BOW_Hit_Head_L_React_Femn.fbx
A_MOD_BOW_Hit_Head_L_Stagger_Femn.fbx
A_MOD_BOW_Hit_Head_L_Stagger_RM_Femn.fbx
A_MOD_BOW_Hit_Head_R_React_Femn.fbx
A_MOD_BOW_Hit_Head_R_Stagger_Femn.fbx
A_MOD_BOW_Hit_Head_R_Stagger_RM_Femn.fbx
A_MOD_BOW_Hit_Shoulder_L_React_Femn.fbx
A_MOD_BOW_Hit_Shoulder_L_Stagger_Femn.fbx
A_MOD_BOW_Hit_Shoulder_L_Stagger_RM_Femn.fbx
A_MOD_BOW_Hit_Shoulder_R_React_Femn.fbx
A_MOD_BOW_Hit_Shoulder_R_Stagger_Femn.fbx
A_MOD_BOW_Hit_Shoulder_R_Stagger_RM_Femn.fbx

Idle

A_MOD_BOW_Crouch_Idle_Base_Equip_ToBowDown_Femn.fbx
A_MOD_BOW_Crouch_Idle_Base_Femn.fbx
A_MOD_BOW_Crouch_Idle_Base_ToBowDown_Femn.fbx
A_MOD_BOW_Crouch_Idle_Base_WithBow_Femn.fbx
A_MOD_BOW_Stand_Idle_Base_Equip_ToBowDown_Femn.fbx
A_MOD_BOW_Stand_Idle_Base_Femn.fbx
A_MOD_BOW_Stand_Idle_Base_ToBowDown_Femn.fbx
A_MOD_BOW_Stand_Idle_Base_ToTurned_Femn.fbx
A_MOD_BOW_Stand_Idle_Base_WithBow_Femn.fbx
A_MOD_BOW_Crouch_Idle_Base_Equip_ToBowDown_FPV_Femn.fbx
A_MOD_BOW_Stand_Idle_Base_Equip_ToBowDown_FPV_Femn.fbx

Masculine

Death

A_MOD_BOW_Death_Head_F_Masc.fbx
A_MOD_BOW_Death_Head_L_Masc.fbx
A_MOD_BOW_Death_Head_R_Masc.fbx
A_MOD_BOW_Death_Spine_B_Masc.fbx
A_MOD_BOW_Death_Stomach_F_Masc.fbx

Hit

A_MOD_BOW_Hit_Back_B_React_Masc.fbx
A_MOD_BOW_Hit_Back_B_Stagger_Masc.fbx
A_MOD_BOW_Hit_Back_B_Stagger_RM_Masc.fbx
A_MOD_BOW_Hit_Head_B_React_Masc.fbx
A_MOD_BOW_Hit_Head_B_Stagger_Masc.fbx
A_MOD_BOW_Hit_Head_B_Stagger_RM_Masc.fbx
A_MOD_BOW_Hit_Head_F_React_Masc.fbx
A_MOD_BOW_Hit_Head_F_Stagger_Masc.fbx
A_MOD_BOW_Hit_Head_F_Stagger_RM_Masc.fbx
A_MOD_BOW_Hit_Head_L_React_Masc.fbx
A_MOD_BOW_Hit_Head_L_Stagger_Masc.fbx
A_MOD_BOW_Hit_Head_L_Stagger_RM_Masc.fbx
A_MOD_BOW_Hit_Head_R_React_Masc.fbx
A_MOD_BOW_Hit_Head_R_Stagger_Masc.fbx
A_MOD_BOW_Hit_Head_R_Stagger_RM_Masc.fbx
A_MOD_BOW_Hit_Shoulder_L_React_Masc.fbx
A_MOD_BOW_Hit_Shoulder_L_Stagger_Masc.fbx

Neutral

Crouch_Aim

A_MOD_BOW_Crouch_Aiming_DrawnShaking_Neut.fbx
A_MOD_BOW_Crouch_Aiming_Drawn_Neut.fbx
A_MOD_BOW_Crouch_Aiming_Reload_Neut.fbx
A_MOD_BOW_Crouch_Aiming_ToDrawn_Neut.fbx
A_MOD_BOW_Crouch_Aiming_Undrawn_Neut.fbx
A_MOD_BOW_Crouch_Aiming_DrawnShaking_FPV_Neut.fbx
A_MOD_BOW_Crouch_Aiming_Drawn_FPV_Neut.fbx
A_MOD_BOW_Crouch_Aiming_Reload_FPV_Neut.fbx
A_MOD_BOW_Crouch_Aiming_ToDrawn_FPV_Neut.fbx
A_MOD_BOW_Crouch_Aiming_Undrawn_FPV_Neut.fbx

Crouch_Idle

A_MOD_BOW_Crouch_Idle_BowDown_Neut.fbx
A_MOD_BOW_Crouch_Idle_BowDown_Reload_Neut.fbx
A_MOD_BOW_Crouch_Idle_BowDown_Stow_ToBase_Femn.fbx
A_MOD_BOW_Crouch_Idle_BowDown_Stow_ToBase_Masc.fbx
A_MOD_BOW_Crouch_Idle_BowDown_ToAiming_Neut.fbx

A_MOD_BOW_Crouch_Idle_BowDown_FPV_Neut.fbx
A_MOD_BOW_Crouch_Idle_BowDown_Reload_FPV_Neut.fbx
A_MOD_BOW_Crouch_Idle_BowDown_Stow_ToBase_FPV_Femn.fbx
A_MOD_BOW_Crouch_Idle_BowDown_Stow_ToBase_FPV_Masc.fbx
A_MOD_BOW_Crouch_Idle_BowDown_ToAiming_FPV_Neut.fbx

Crouch_Roll

A_MOD_BOW_Crouch_Idle_BowDown_Roll_F_Neut.fbx
A_MOD_BOW_Crouch_Idle_BowDown_Roll_F_RM_Neut.fbx
A_MOD_BOW_Crouch_Idle_BowDown_Roll_L_Neut.fbx
A_MOD_BOW_Crouch_Idle_BowDown_Roll_L_RM_Neut.fbx
A_MOD_BOW_Crouch_Idle_BowDown_Roll_R_Neut.fbx
A_MOD_BOW_Crouch_Idle_BowDown_Roll_R_RM_Neut.fbx

Crouch_Shoot

A_MOD_BOW_Crouch_Shoot_Reload_Neut.fbx
A_MOD_BOW_Crouch_Shoot_ToAiming_Neut.fbx
A_MOD_BOW_Crouch_Shoot_ToIdle_Neut.fbx
A_MOD_BOW_Crouch_Shoot_Reload_FPV_Neut.fbx
A_MOD_BOW_Crouch_Shoot_ToAiming_FPV_Neut.fbx
A_MOD_BOW_Crouch_Shoot_ToIdle_FPV_Neut.fbx

Stand_Aim

A_MOD_BOW_Stand_Aiming_DrawnShaking_Neut.fbx
A_MOD_BOW_Stand_Aiming_Drawn_Neut.fbx
A_MOD_BOW_Stand_Aiming_Reload_Neut.fbx
A_MOD_BOW_Stand_Aiming_ToDrawn_Neut.fbx
A_MOD_BOW_Stand_Aiming_Undrawn_Neut.fbx

Stand_Idle_BowDown

A_MOD_BOW_Stand_Idle_BowDown_Neut.fbx
A_MOD_BOW_Stand_Idle_BowDown_Reload_Neut.fbx
A_MOD_BOW_Stand_Idle_BowDown_Stow_ToBase_Femn.fbx
A_MOD_BOW_Stand_Idle_BowDown_Stow_ToBase_Masc.fbx
A_MOD_BOW_Stand_Idle_BowDown_Stow_ToTurned_Neut.fbx
A_MOD_BOW_Stand_Idle_BowDown_ToAiming_Neut.fbx
A_MOD_BOW_Stand_Idle_BowDown_ToBase_Femn.fbx
A_MOD_BOW_Stand_Idle_BowDown_ToBase_Masc.fbx
A_MOD_BOW_Stand_Idle_BowDown_FPV_Neut.fbx
A_MOD_BOW_Stand_Idle_BowDown_Reload_FPV_Neut.fbx
A_MOD_BOW_Stand_Idle_BowDown_Stow_ToBase_FPV_Femn.fbx
A_MOD_BOW_Stand_Idle_BowDown_Stow_ToBase_FPV_Masc.fbx
A_MOD_BOW_Stand_Idle_BowDown_Stow_ToTurned_FPV_Neut.fbx
A_MOD_BOW_Stand_Idle_BowDown_ToAiming_FPV_Neut.fbx

Stand_Idle_Turned

A_MOD_BOW_Stand_Idle_Turned_Equip_ToBowDown_Neut.fbx
A_MOD_BOW_Stand_Idle_Turned_Neut.fbx
A_MOD_BOW_Stand_Idle_Turned_ToBase_Femn.fbx
A_MOD_BOW_Stand_Idle_Turned_ToBase_Masc.fbx

A_MOD_BOW_Hit_Shoulder_L_Stagger_RM_Masc.fbx
A_MOD_BOW_Hit_Shoulder_R_React_Masc.fbx
A_MOD_BOW_Hit_Shoulder_R_Stagger_Masc.fbx
A_MOD_BOW_Hit_Shoulder_R_Stagger_RM_Masc.fbx

Idle

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A_MOD_BOW_Crouch_Idle_Base_Masc.fbx
A_MOD_BOW_Crouch_Idle_Base_ToBowDown_Masc.fbx
A_MOD_BOW_Crouch_Idle_Base_WithBow_Masc.fbx
A_MOD_BOW_Stand_Idle_Base_Equip_ToBowDown_Masc.fbx
A_MOD_BOW_Stand_Idle_Base_Masc.fbx
A_MOD_BOW_Stand_Idle_Base_ToBowDown_Masc.fbx
A_MOD_BOW_Stand_Idle_Base_ToTurned_Masc.fbx
A_MOD_BOW_Stand_Idle_Base_WithBow_Masc.fbx
A_MOD_BOW_Crouch_Idle_Base_Equip_ToBowDown_FPV_Masc.fbx
A_MOD_BOW_Stand_Idle_Base_Equip_ToBowDown_FPV_Masc.fbx

Neutral

Additive

A_MOD_BOW_Stand_Aiming_Undrawn_Additive_D90_Neut.fbx
A_MOD_BOW_Stand_Aiming_Undrawn_Additive_L90_Neut.fbx
A_MOD_BOW_Stand_Aiming_Undrawn_Additive_N_Neut.fbx
A_MOD_BOW_Stand_Aiming_Undrawn_Additive_R90_Neut.fbx
A_MOD_BOW_Stand_Aiming_Undrawn_Additive_U90_Neut.fbx

Melee

A_MOD_BOW_Blocking_Attack_01_Neut.fbx
A_MOD_BOW_Blocking_Attack_01_RM_Neut.fbx
A_MOD_BOW_Blocking_Break_Neut.fbx
A_MOD_BOW_Blocking_Break_RM_Neut.fbx
A_MOD_BOW_Blocking_Neut.fbx
A_MOD_BOW_Blocking_Parry_Neut.fbx
A_MOD_BOW_Blocking_ToBowDown_Neut.fbx
A_MOD_BOW_BowDown_ToBlocking_Neut.fbx

Kneeling

A_MOD_BOW_BowDown_ToKneeling_Neut.fbx
A_MOD_BOW_Kneeling_Aiming_Drawn_Neut.fbx
A_MOD_BOW_Kneeling_Aiming_Reload_Neut.fbx
A_MOD_BOW_Kneeling_Aiming_ToDrawn_Neut.fbx
A_MOD_BOW_Kneeling_Aiming_Undrawn_Neut.fbx
A_MOD_BOW_Kneeling_ToBowDown_Neut.fbx
A_MOD_BOW_Kneeling_Shoot_Reload_Neut.fbx
A_MOD_BOW_Kneeling_Shoot_ToAiming_Neut.fbx

A_MOD_BOW_Stand_Idle_Turned_Equip_ToBowDown_FPV_Neut.fbx

Stand_Shoot

A_MOD_BOW_Stand_Shoot_Dive_L_ToCrouch_BowDown_Neut.fbx
A_MOD_BOW_Stand_Shoot_Dive_L_ToCrouch_BowDown_RMH_Neut.fbx
A_MOD_BOW_Stand_Shoot_Dive_L_ToCrouch_BowDown_RMV_Neut.fbx
A_MOD_BOW_Stand_Shoot_Dive_L_ToCrouch_BowDown_RM_Neut.fbx
A_MOD_BOW_Stand_Shoot_Dive_R_ToCrouch_BowDown_Neut.fbx
A_MOD_BOW_Stand_Shoot_Dive_R_ToCrouch_BowDown_RMH_Neut.fbx
A_MOD_BOW_Stand_Shoot_Dive_R_ToCrouch_BowDown_RMV_Neut.fbx
A_MOD_BOW_Stand_Shoot_Dive_R_ToCrouch_BowDown_RM_Neut.fbx
A_MOD_BOW_Stand_Shoot_Leaping_Neut.fbx
A_MOD_BOW_Stand_Shoot_Leaping_RMH_Neut.fbx
A_MOD_BOW_Stand_Shoot_Leaping_RMV_Neut.fbx
A_MOD_BOW_Stand_Shoot_Leaping_RM_Neut.fbx
A_MOD_BOW_Stand_Shoot_Reload_Neut.fbx
A_MOD_BOW_Stand_Shoot_ToAiming_Neut.fbx
A_MOD_BOW_Stand_Shoot_ToBowDown_Neut.fbx

LeanBack

A_MOD_BOW_Idle_BowDown_ToLeanBack_Neut.fbx
A_MOD_BOW_LeanBack_Aiming_Drawn_Neut.fbx
A_MOD_BOW_LeanBack_Aiming_Reload_Neut.fbx
A_MOD_BOW_LeanBack_Aiming_ToDrawn_Neut.fbx
A_MOD_BOW_LeanBack_Aiming_Undrawn_Neut.fbx
A_MOD_BOW_LeanBack_ToBowDown_Neut.fbxt
A_MOD_BOW_LeanBack_Shoot_Reload_Neut.fbx
A_MOD_BOW_LeanBack_Shoot_ToAiming_Neut.fbx

Sliding

A_MOD_BOW_Run_ToSliding_Aiming_Neut.fbx
A_MOD_BOW_Run_ToSliding_Aiming_RM_Neut.fbx
A_MOD_BOW_Sliding_Aiming_Drawn_Neut.fbx
A_MOD_BOW_Sliding_Aiming_Drawn_RM_Neut.fbx
A_MOD_BOW_Sliding_Aiming_Reload_Neut.fbx
A_MOD_BOW_Sliding_Aiming_Reload_RM_Neut.fbx
A_MOD_BOW_Sliding_Aiming_ToDrawn_Neut.fbx
A_MOD_BOW_Sliding_Aiming_ToDrawn_RM_Neut.fbx
A_MOD_BOW_Sliding_Aiming_Undrawn_Neut.fbxIdle
A_MOD_BOW_Sliding_Aiming_Undrawn_RM_Neut.fbx
A_MOD_BOW_Sliding_ToIdle_Crouch_Neut.fbx
A_MOD_BOW_Sliding_ToIdle_Crouch_RM_Neut.fbx
A_MOD_BOW_Sliding_Shoot_Reload_Neut.fbx
A_MOD_BOW_Sliding_Shoot_Reload_RM_Neut.fbx
A_MOD_BOW_Sliding_Shoot_ToAiming_Neut.fbx
A_MOD_BOW_Sliding_Shoot_ToAiming_RM_Neut.fbx

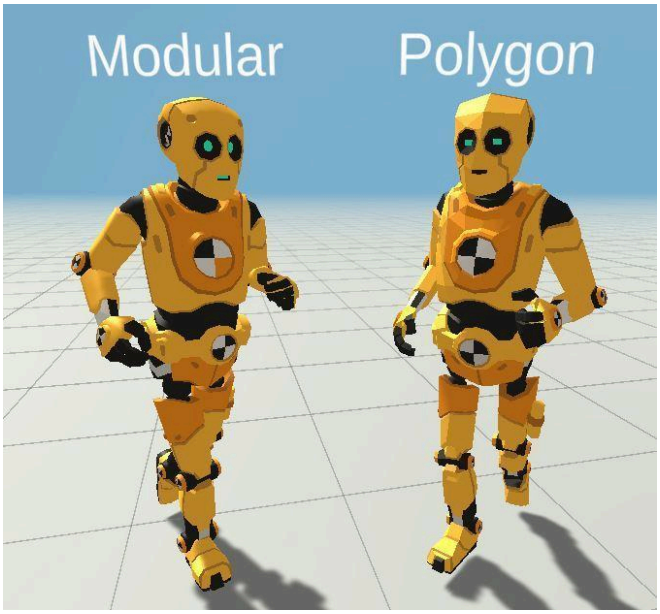
Sidekick and Polygon Animations

The BowCombat pack is designed to work with two main Synty character types: Polygon and Sidekick.

These two character types have different skeletons and proportions, so the BowCombat animation pack has been adapted for both character types via two different sets of animations, for maximum compatibility.

Any animations with the prefix **'_MOD_'** are designed for use with Synty Sidekick characters, whereas animations with the prefix **'_POLY_'** are designed for use with Synty Polygon characters. The animations are split into respective Sidekick and Polygon folders under:

Assets/Synty/AnimationGoblinLocomotion/Animation/



Masculine and Feminine Animations

The BowCombat pack includes animation subsets with different posing styles to offer masculine and feminine variations, giving users a broader range of character expression options.

- Animations with the suffix **'_Femn'** use more feminine posing
- Animations with the suffix **'_Masc'** use more masculine posing
- Otherwise, animations end with the suffix **'_Neut'**

Many animations in the BowCombat pack (including hits, deaths, equipping, stowing) are available in both masculine and feminine versions. This provides seamless integration with other Synty packs that use the same **'Idle_Base_Masc'** and **'Idle_Base_Femn'** base poses.

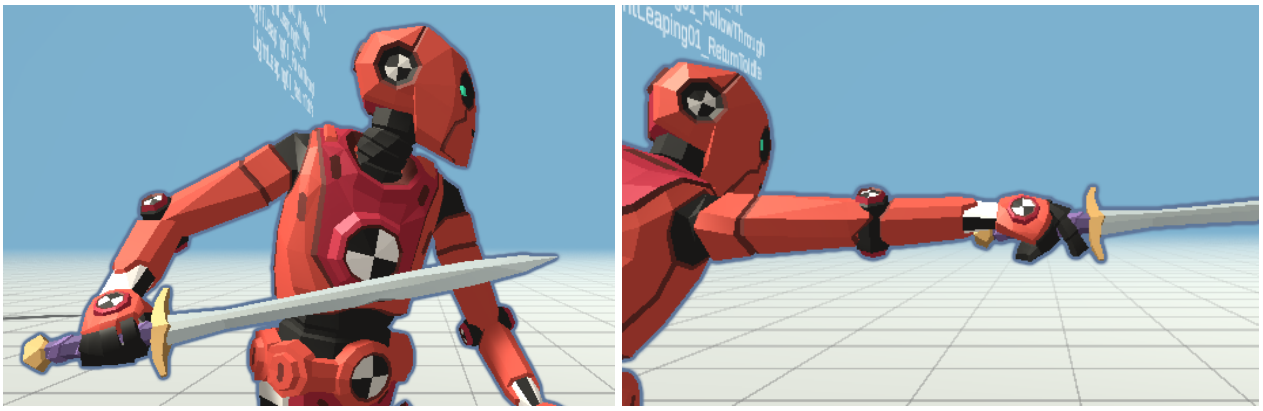
Masculine, **Feminine**, and **Neutral** animations are organized in their respective folders

Example path:
Assets\Synty\AnimationBowCombat\Animations\Sidekick\Masculine

4. Prop Bone

To enable more natural prop motion and flexibility in prop behavior, new **Prop_L** and **Prop_R** bones have been added to the Synty Polygon character beneath the **Hand_L** and **Hand_R** bones, respectively.

These additions allow for different hand grips where props can be oriented uniquely relative to the hand:



The Sidekick character in this pack also includes prop joints, as well as additional bones such as ‘twist’ joints in the limbs and ‘attach’ joints.

By default, Unity’s Humanoid Avatar system does not recognize extra bones during animation playback. As a result, animation assets won’t animate these bones unless they have an assigned AvatarMask that explicitly includes them.

To address this, the pack includes AvatarMask assets with the extra joints enabled. The included animations are configured to use the appropriate (Polygon or Sidekick) mask, ensuring proper playback of keyframed motion on these extra bones.

For this reason, animation clips in this pack use the AvatarMask assets:

Mask_PolygonSyntyCharacter
Mask_SidekickSyntyCharacter

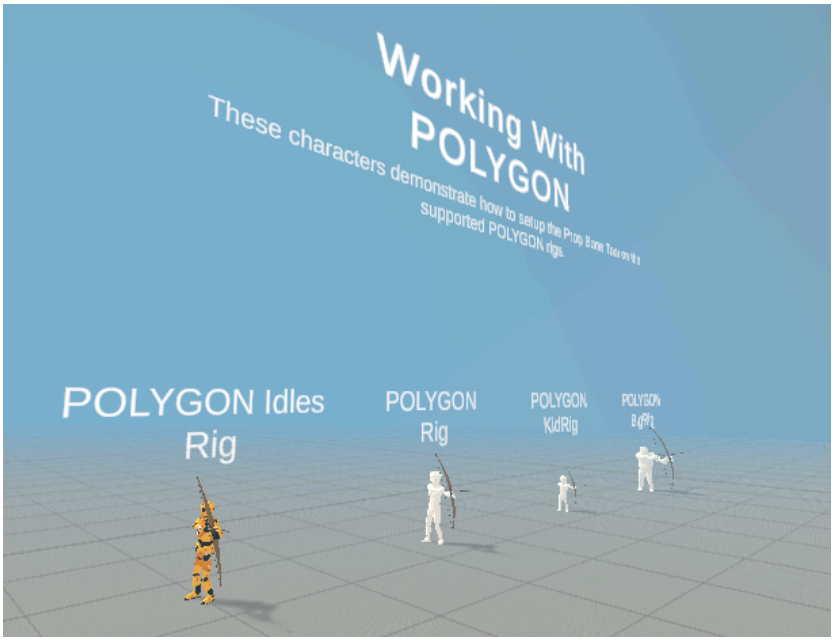
These are located here:

/Assets/Synty/AnimationBowCombat/Samples/Meshes/

Prop Bone Binder Tool

For skeletal meshes that do not include a prop bone (e.g. older Synty characters, or non-Synty characters), the BowCombat pack comes with a tool to add 'virtual' prop bones to any character so the bow animation can still be correctly played.

The virtual prop bone binder tool works with the standard POLYGON character Rig, POLYGON Kid Rig, POLYGON Big Rig. Demonstrations of these characters and how they are set up can be found in the ANIMATION BowCombat gallery scene.



Setting up your character

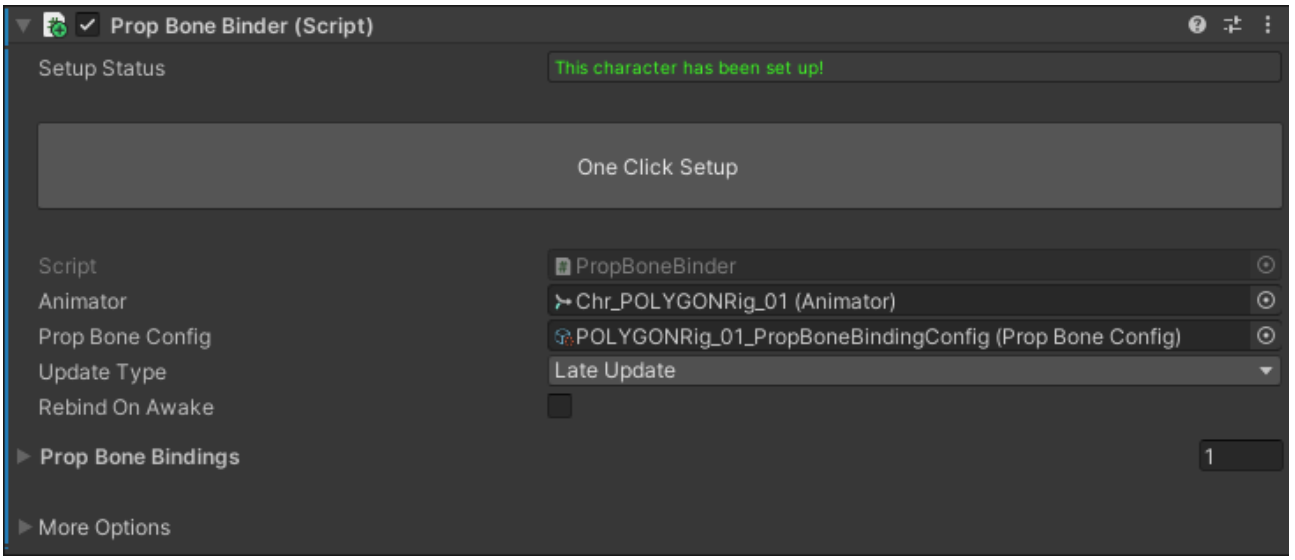
Setting up your character only involves a couple of steps:

1. Select your character. Select either an instance in the scene or an open prefab.
2. Use the menu item **Synty > Tools > Animation > Setup Prop Bones**
3. Attach your weapon to the newly created **Prop_L_Socket** game object located under **Hand_L** in the skeleton.

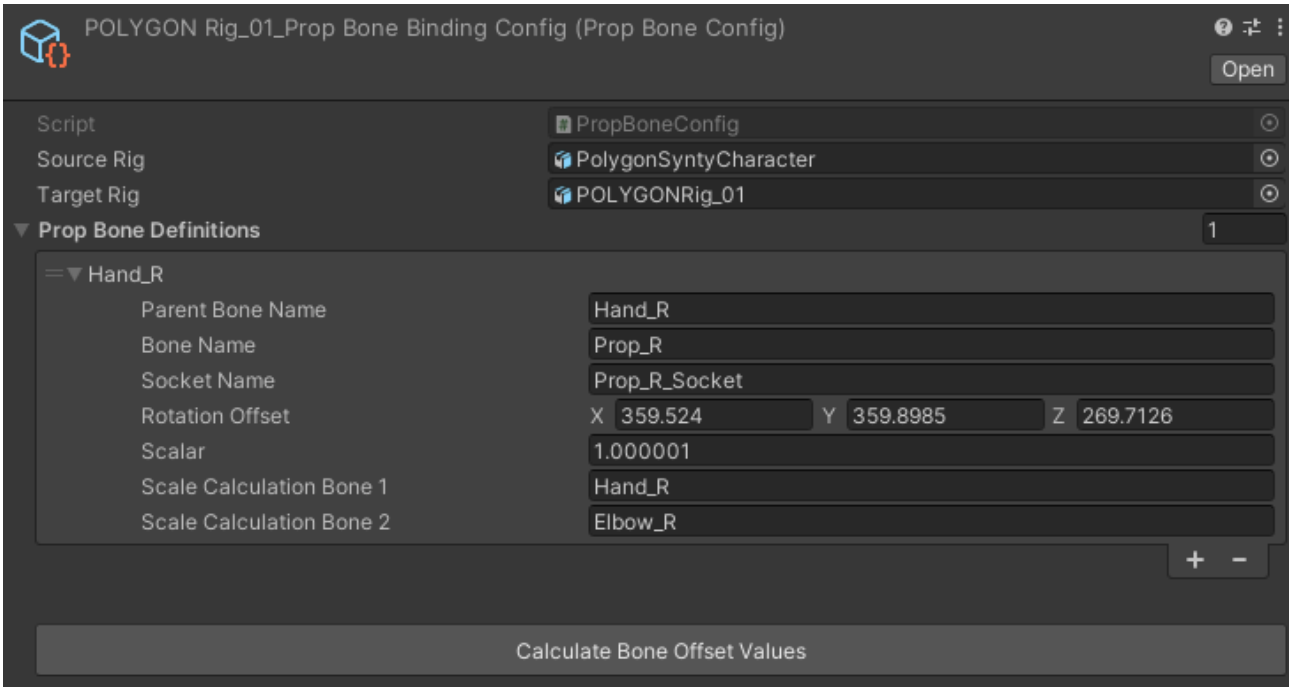
That's it!

Tip: To update multiple characters at once drag them all into the scene, select their root nodes and run the tool.

After following the steps above you should see the Prop Bone Binder component on the game object that your character's Animator component is on. The green status message denotes that the character is correctly configured for the animations to work.



You will find a **PropBoneBindingConfig** file in your project. This file details the location of the prop bone and the offset orientation and scale between your character's rig and the ANIMATION BowCombat rig.



The offset values are calculated automatically on set up but if needed you can edit these values manually when setting up your own custom rigs.

To calculate the values automatically make sure:

1. Set the **source rig** and **target rig** references
2. Make sure the **source rig** and **target rig** are in T Pose
3. Set names of all the bones in the **Prop Bone Definitions** list

4. Click the **Calculate Bone Offset Values** button

Source Rig: The rig the animations are keyed for. In this case it should be the ANIMATION Bow Combat Rig (PolygonSyntyCharacter)
Target Rig: The rig that you intend to play the animations on. This is your game's character model or prefab.
Parent Bone Name: The bone to create the virtual prop bone under.
Bone Name: The name of the virtual prop bone. The tool will generate this node.
Socket Name: The name of the object to attach your props to. The tool will generate this node.
Rotation Offset: Rotation offset used to compensate for differences in orientation of the parent bone between the **source rig** and the **target rig**
Scalar: Value used to compensate for differences in size between the **source rig** and the **target rig**. A value of 1 = **target rig** is the same scale as the reference rig, a value of 2 = **target rig** is twice the size as the reference rig.
Scale Calculation Bone 1 / Scale Calculation Bone 2: The bones used to determine the difference in size between the **source rig** and the **target rig**. These bones need to exist in both rigs for the automatic calculation of **Scalar** to work.

Prop Bone Binder Tool Troubleshooting

My weapon is not oriented correctly

- There could be a couple of reasons for this:
    a. You need to find the correct orientation to attach your weapon to the **Prop_L_Socket** game object. The weapons that come with the BowCombat pack are designed to be attached with 0,0,0 rotation. You can use this bow as a guide to ensure you've attached your weapon in the correct orientation.
    b. The values in the Prop Bone Binding Config file are not set up correctly. POLYGON rigs should be set up correctly by default but these values can be manually set if need be.

The status does not say "This character has been set up":

- There are many reasons why a character may not be set up correctly. Try clicking the **One click setup** button and see if that resolves the issue, if not check the console for more details about what could have gone wrong.

I have a few different character rigs in my game. Does the tool work in this case?

- Yes! You will need a Prop Bone Binding Config file for each rig you are using. Additionally, ensure that each character references the correct config file. The tool should automatically set up the characters and create new config files when it needs to. Simply select all your characters and use the menu options **Synty/Tools/Animation/Setup Prop Bones**

Removing the Prop Bone Binder Tool

You may find you need to remove the bones created by the Prop Bone Binding Tool. The tool provides you with the ability to do this. Located on the Prop Bone Binder component, under **More Options** is the **Reset** button. Click **Reset** and all objects created by the tool will be destroyed. Any props attached to the socket will be reparented to the **Hand** bone. After successfully removing the bones you can remove the Prop Bone Binder component from your character.

Prop Bone with Non-POLYGON Rigs

For the prop bone to animate the hierarchy paths needs to be a match for the animation property. For example - The **Prop_R** path is:

Root/Hips/Spine_01/Spine_02/Spine_03/Clavicle_R/Shoulder_R/Elbow_R/Hand_R/Prop_R

If your rig is not named like this then it will not animate even with the virtual prop bone added.

Using Animations Without Prop Bones

It is possible to simply parent a weapon to the **Hand** bone and to use this animation set on any Humanoid Unity character, however it is recommended to use a Synty character with the extra prop bone to take advantage of the fluid prop animations. Some animations in particular (where the prop moves) will not look correct without the prop parented to the animated **Prop** bone.

5. Weapon/Prop Animation

Since the bow is not a static weapon, the bows in this pack are rigged and designed to be animated. Any character animation in the BowCombat pack that includes a bow will have an associated **Prop** animation file, intended to be played on the weapon in sync with the character animation.

There are three types of **Prop** animations in this pack, each corresponding to a different bow type: **Longbow**, **Recurve**, and **Compound**.

The basic setup is as follows: a rigged bow asset should be placed under the **'Prop_L'** bone in the character hierarchy, and an arrow (if needed) should be placed under the **'arrow_rest_jnt'** bone on the bow rig.

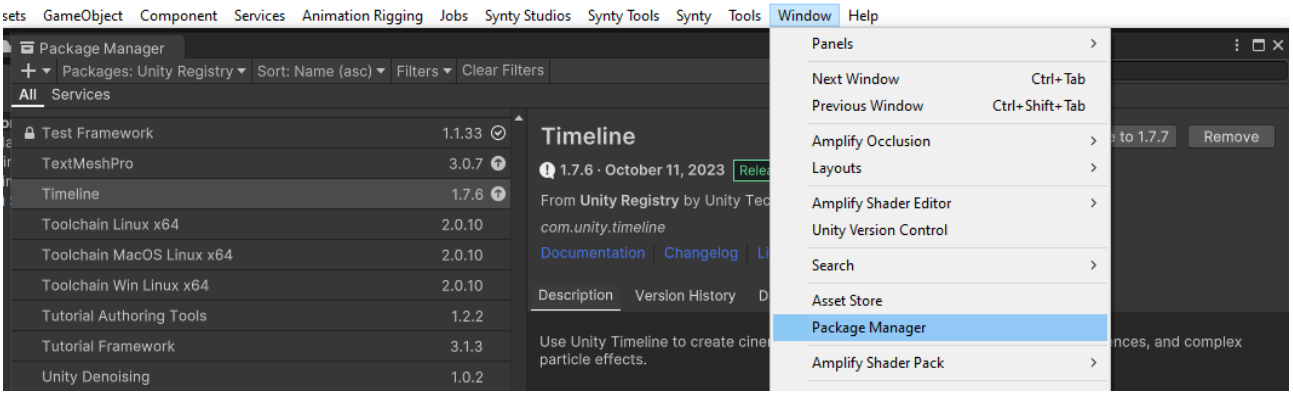
Then the character animation and the corresponding bow animation should be played synchronously to ensure the animation displays correctly.

Example Setup

In this example, we'll play a shooting Sidekick animation using Unity's Timeline.

Make sure you have the **Timeline** package installed:

Go to **Window > Package Manager**, scroll down to **Timeline**, and click **Install** if it's not already enabled.



1. Add the Character

Drag a **SidekickSyntyCharacter** asset into your scene from the following folder:
Assets/Synty/AnimationBowCombat/Samples/Meshes/

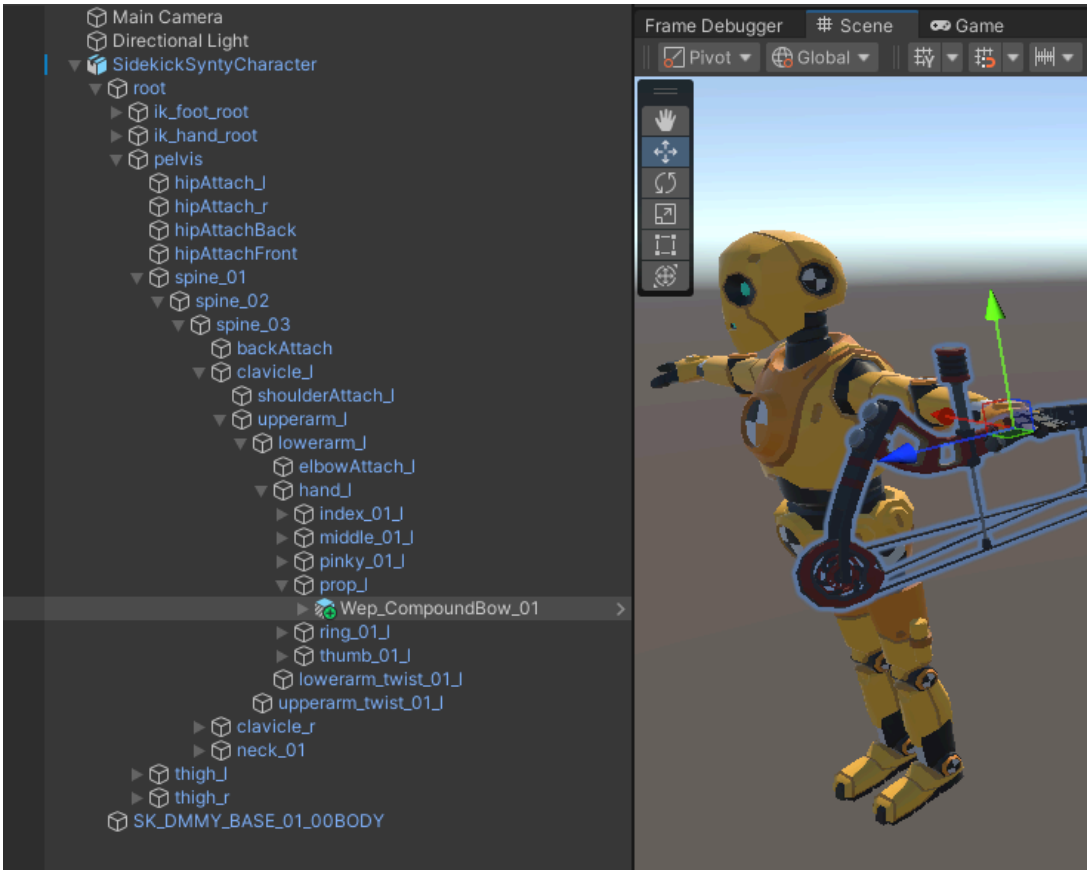
2. Equip the Bow

Equip the desired weapon to the character's **prop_l** bone. The exact hierarchy location matters, as it ensures the bow inherits the correct position to inherit prop animation.

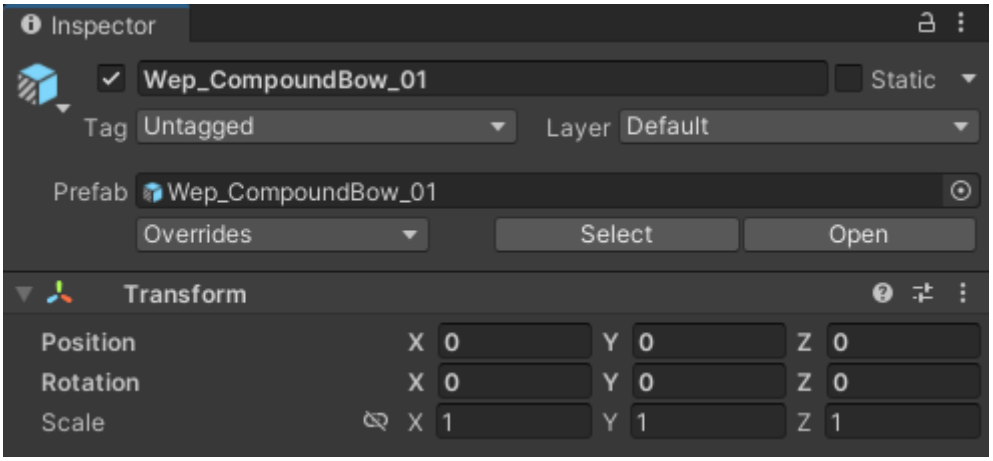
In this example, we'll use the **Compound Bow** asset **Wep_CompoundBow_01**. Drag it from this directory:

Assets/Synty/AnimationBowCombat/Prefabs/Bows/Compound/

Then make it a child of the character's **prop_l** bone.



Ensure that the transform values of the **Wep_CompoundBow_01** prefab are set to 0, as this will ensure the bow plays its animation in the correct spot with no offsets.



3. Add the Arrow

An arrow asset should also be added for the shot. There are two valid locations to attach it:

- The bow's **arrow_rest_jnt** bone
- The character's **prop_r** bone

In this example, we'll attach the arrow to the bow.
Expand the Compound Bow prefab hierarchy until you find **arrow_rest_jnt**.
Then drag in an arrow prefab such as **Wep_Arrow_Modern_01** from:

Assets/Synty/AnimationBowCombat/Prefabs/Arrows/

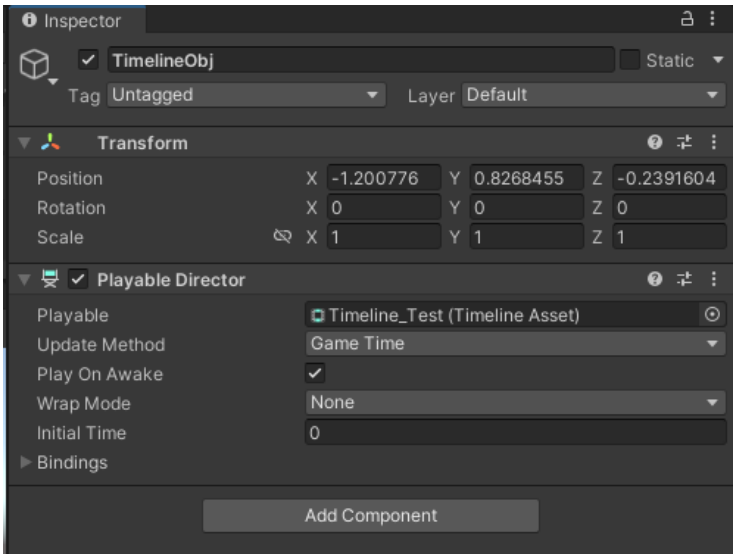
Make it a child of **arrow_rest_jnt**, and again, set its Transform values to zero.

4. Set Up the Timeline

The setup of props is complete. Now to add some animation using a **Timeline**.

Create an **empty GameObject** in the scene and name it (e.g. **TimelineObj**).
Add a **Playable Director** component to it.

Create a new **Timeline asset** and assign it to the **Playable** field of the Playable Director.

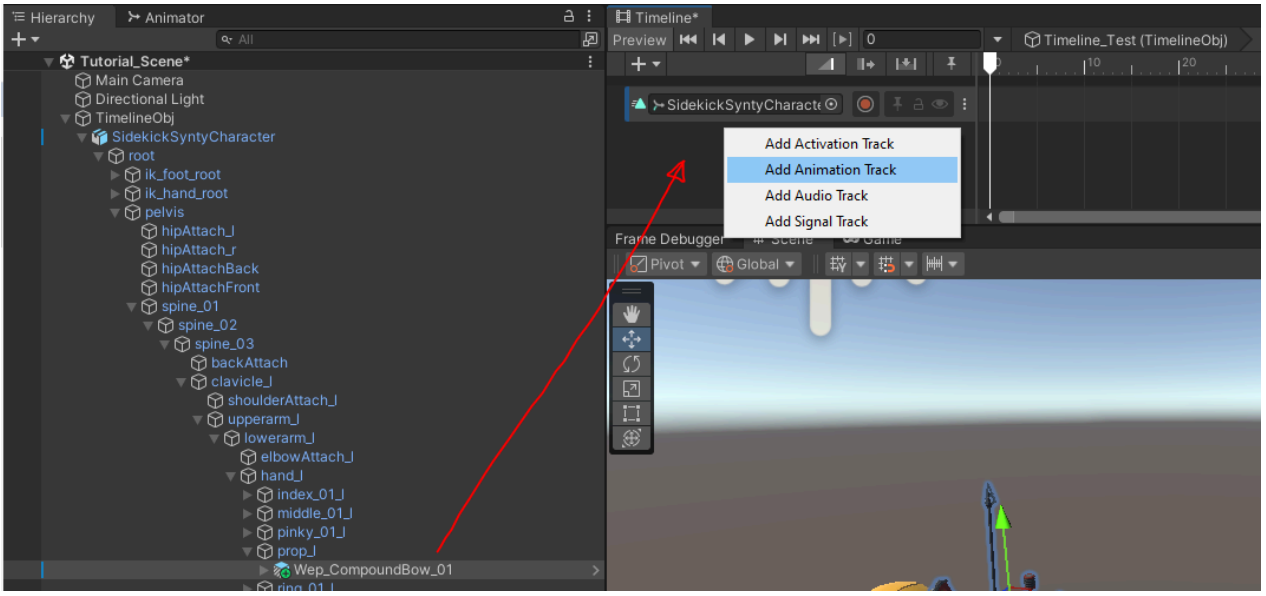


Then open the Timeline window: **Window > Sequencing > Timeline**.

Select **TimelineObj** - you should see a blank timeline ready to use.

5. Add Animation Tracks

Drag both the **SidekickSyntyCharacter** and the **Wep_CompoundBow_01** prefab into the Timeline window.
When prompted, choose **Add Animation Track** for each.
You should now have two animation tracks, one for the character and one for the bow.



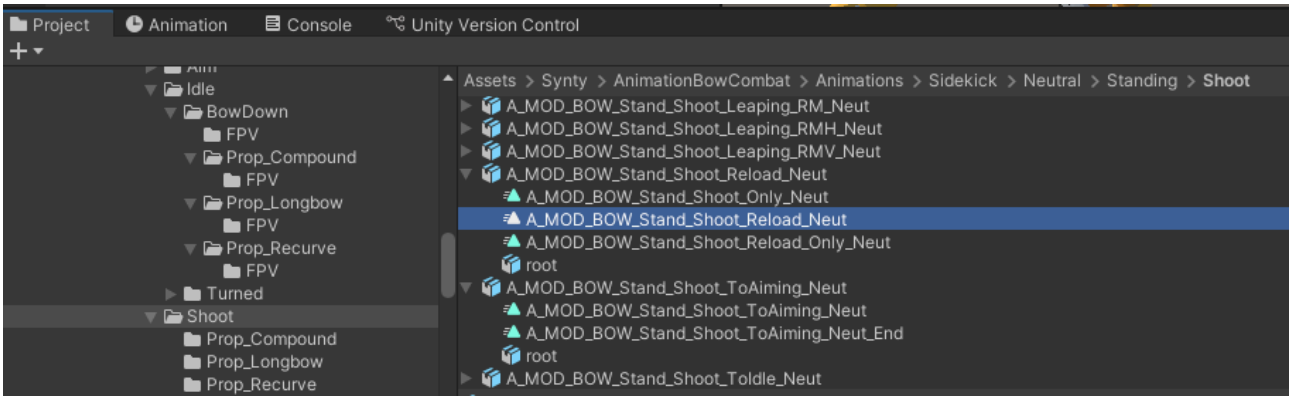
6. Add the Animation Clips

Locate the character animation clip. Be sure to use the correct **Sidekick** animation (not from the Polygon folder).
For this example, we'll use:

A_MOD_BOW_Stand_Shoot_Reload_Neut

Located at:
Assets/Synty/AnimationBowCombat/Animations/Sidekick/Neutral/Standing/Shoot/

Drag the correct animation clip (beneath the animation asset) into the **SidekickSyntyCharacter** track on the Timeline.

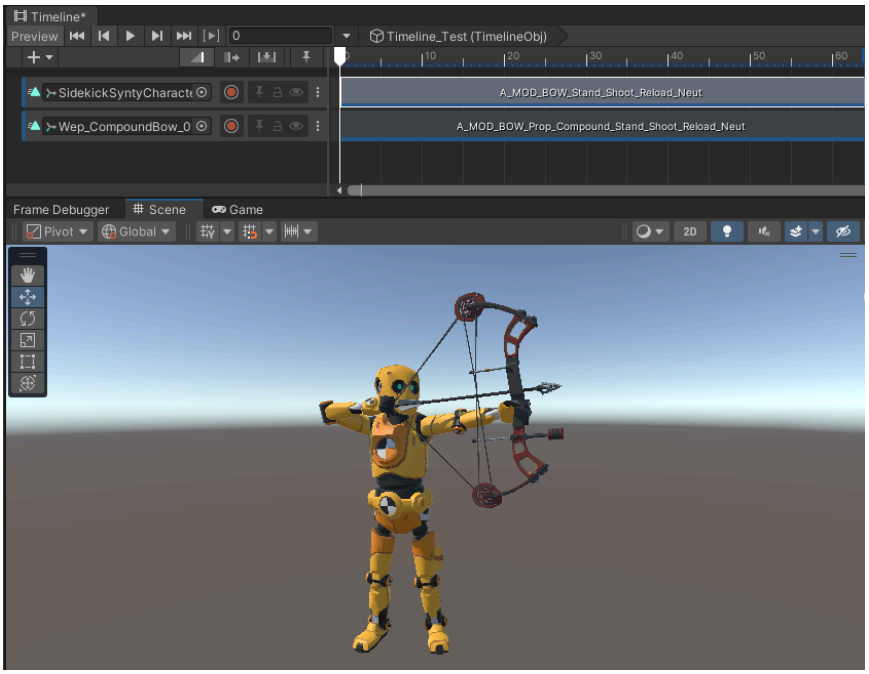


Now locate the matching Compound Bow **Prop animation**. These are located in the corresponding **Cmp/** subfolder:

Assets/Synty/AnimationBowCombat/Animations/Sidekick/Neutral/Standing/Shoot/Cmp/

Find the file with the matching name and the **Cmp** tag in its filename:
A_MOD_BOW_Cmp_Stand_Shoot_Reload_Neut

Drag the correct animation clip from that file into the **Wep_CompoundBow_01** track on the Timeline.



The character and prop animation clips should be identical in length. Align them precisely in the tracks, and the bow and character animations will be perfectly synchronized.

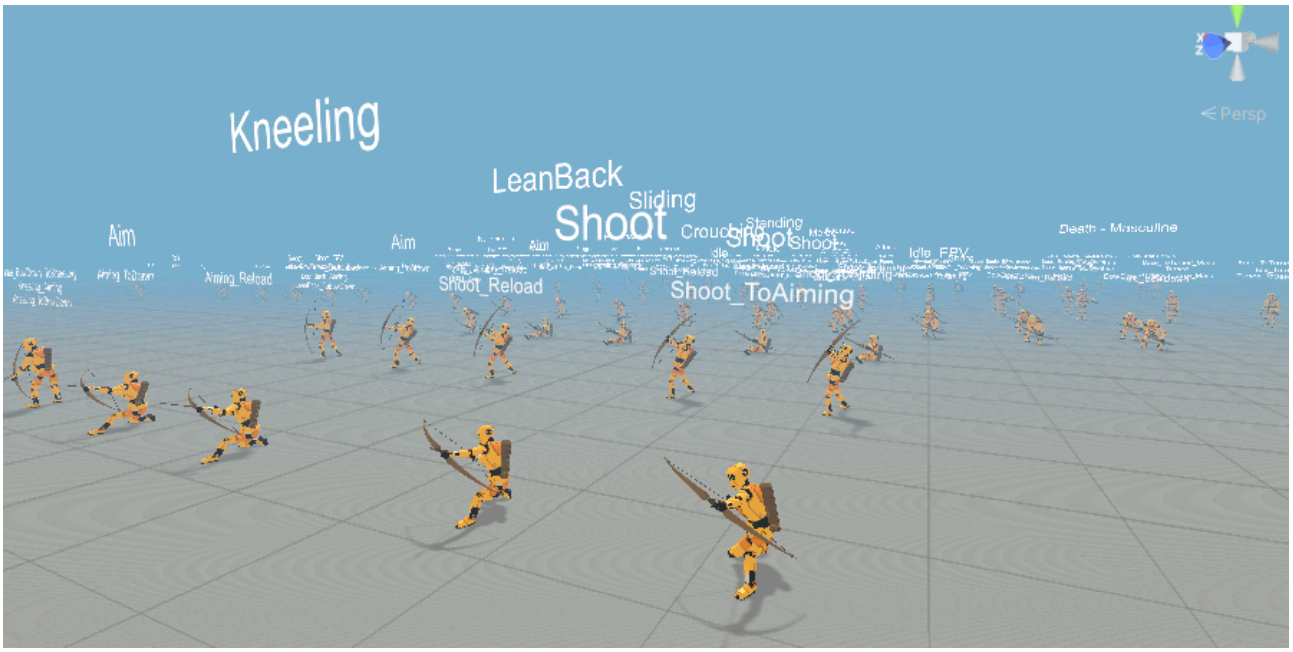
6. Quick Start

Gallery Scenes

The Animation BowCombat pack comes with Gallery scenes for both Polygon and Sidekick Synty characters:

Gallery_Sidekick
Gallery_Polygon

You will find the scenes in:
Assets/Synty/AnimationBowCombat/Samples/Scenes



These scenes demonstrate the various animations in this pack as a virtual gallery/library so users can break down how the animations work in isolation, and to understand further how they work in tandem:

- Labelled groups of animations to quickly track down specific animations
- Looped to see timing/length of animation
- Combined with adjacent relevant clips to loop seamlessly on the timline

Under the groups **DEMO_Animations_Sidekick_Grp** or **DEMO_Animations_Polygon_Grp** in the scene hierarchy, you will find category groups with all the animations nested below, e.g. **Sliding_Grp**. subsequently contains subcategories of **Sliding_Aim_Grp** and **Sliding_Shoot_Grp**.

Those groups have a PlayableDirector component, with an assigned Timeline asset that demonstrates how the animations cycle or blend (e.g. to and from idle).

Build your own

The following example will walk you through a typical use case of Synty Animation BowCombat as a means to guide your experimentation further to find your own workflow. This assumes you have installed the pack correctly and are starting from a new scene.

Applying Animations to Characters

In Unity, a developer can import the animation package into a new scene and reference the 'Polygon' or 'Sidekick' **SyntyCharacterAvatar** to retarget the animation to their own character. This character can be a Synty character or a completely different biped, however the animations will work the best with Synty characters as the animations were created with their proportions in mind.

For this example, the guide will assume you are using the **Polygon** Avatar.

Import Characters:

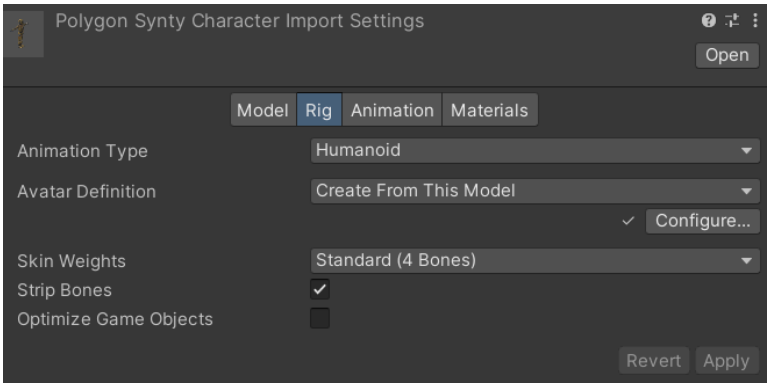
- Import the Animation BowCombat package into the project for access to

the animations and the **PolygonSyntyCharacterAvatar**

- Import your character that will be the target for Synty BowCombat Pack animations

Create a Humanoid Avatar on new character:

- On the new character, create a new Avatar and configure bone mappings



Creating a new Avatar

Animation Type:

- Navigate to the Inspector window in Unity of the Character.
- Click on the **Rig** tab to access the Avatar Configuration tab.

Avatar Definition:

- Set the Animation Type to **Humanoid**
- Set the Avatar Definition to **Create From This Model** to generate a humanoid avatar based on the character's rig.

Modifying existing Avatar

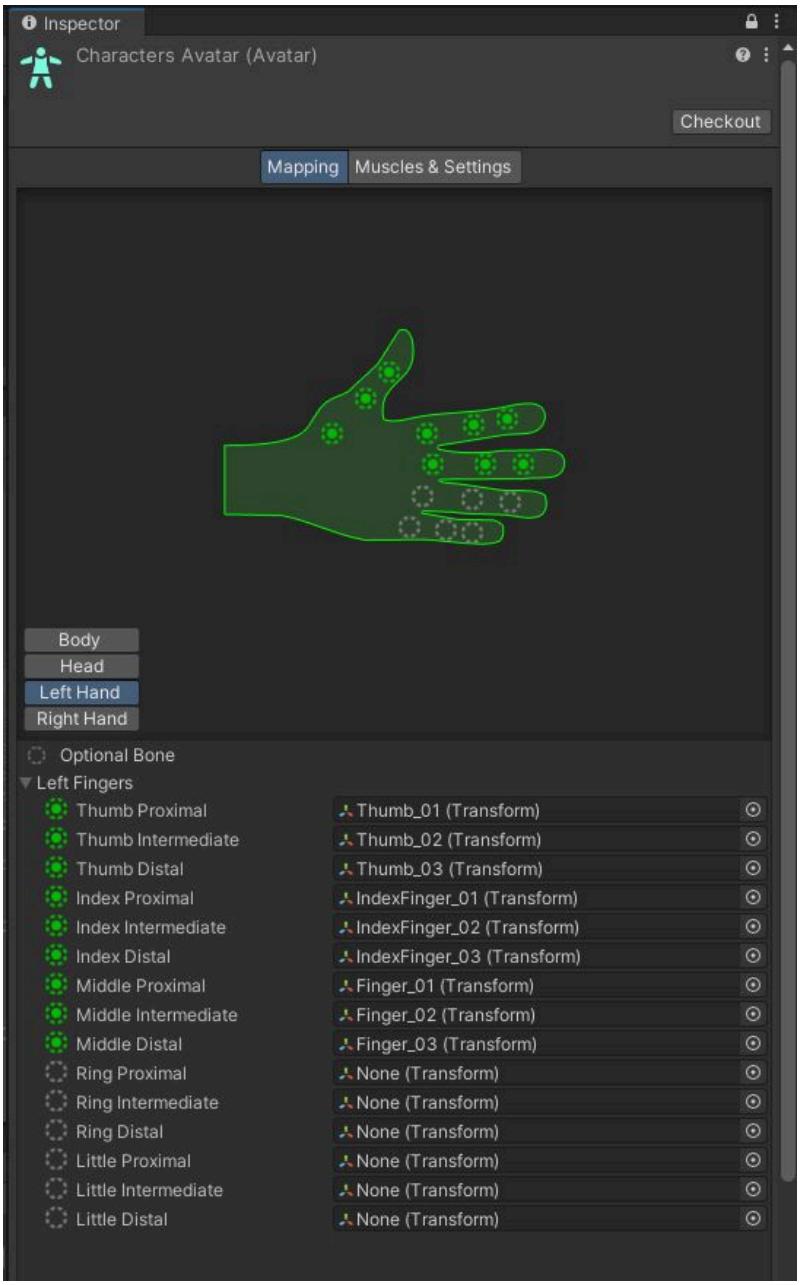
Access Avatar Configuration:

- Click on **Configure...** to access the Avatar Configuration tab.

Bone Mapping:

- Review and adjust bone mappings to ensure precise alignment with the character's skeletal structure.
- NOTE: Synty POLYGON characters have three finger bone chains: the Thumb, Index, and a third ‘mitt’ which is a representation of the rest of the fingers on the hand. The default setup in Synty POLYGON Animation packs is to have the third ‘mitt’ finger mapped to the ‘Middle’ finger.

- By default, Unity sometimes automatically maps these finger joints to the ‘Little’ finger on a new Avatar configuration. This can result in Synty POLYGON animations not correctly playing finger animation on such an avatar.
- To ensure the correct interpretation of Synty POLYGON animation, configure the hands to match the setup displayed below:



Preview and Apply:

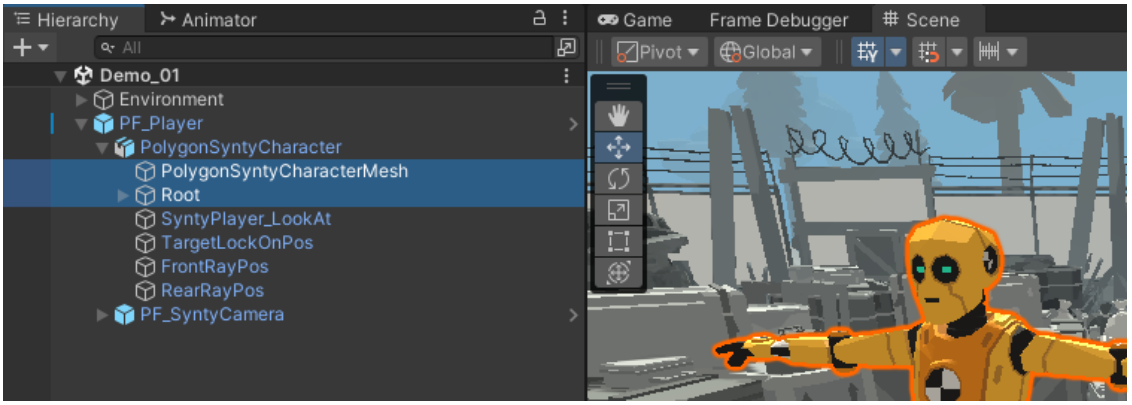
- Check for any errors that occur or if you are using the same bone in two definitions in the skeletal mapping
- Apply changes to update the avatar properties.

Now animations from the BowCombat pack can be applied to an Animator or a Timeline using the new character, and will retarget automatically due to the Humanoid setup.

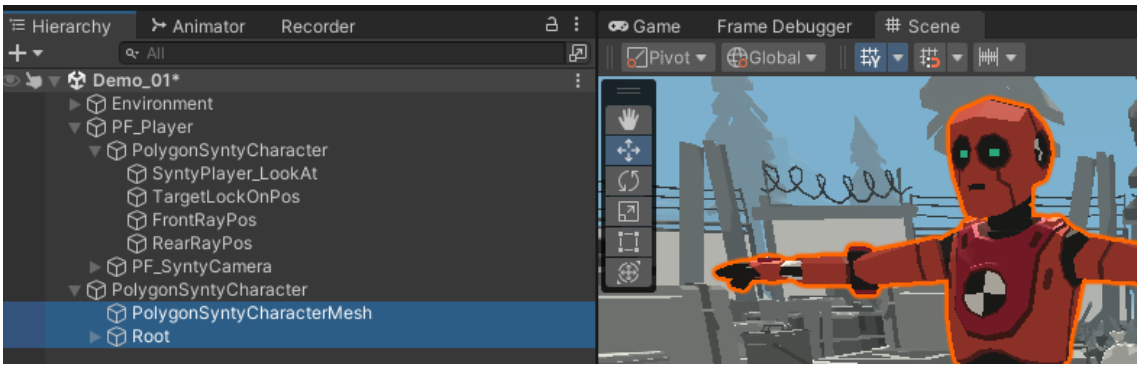
Integrating Synty Animation BowCombat with Synty Base Locomotion

Animation BowCombat is designed to integrate easily with existing Synty animation packages. If you already own Base Locomotion, you can get the **PF_Player** prefab set up to work with BowCombat pack animations.

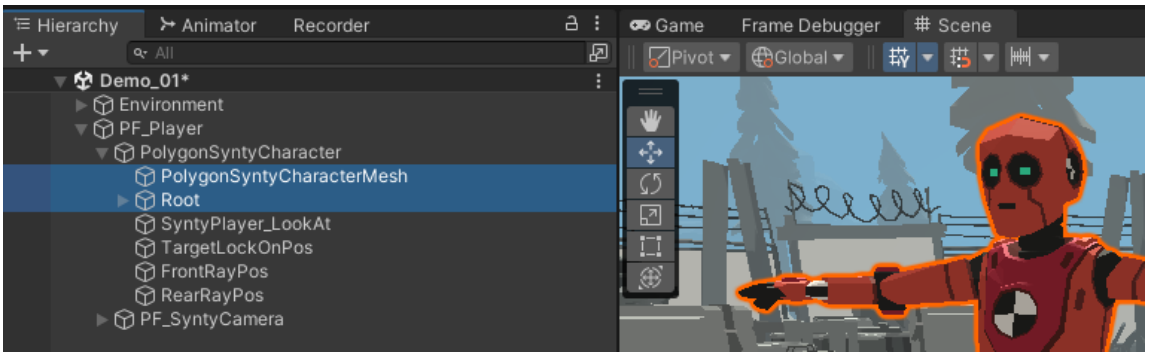
1. If you are using Base Locomotion version earlier than 1.1.0, you need to swap out the character mesh for a newer one that includes prop bones, or add a virtual prop bone using the **Prop Bone Binder Tool**. To use this tool, see Section 4 of the guide. guide on the **Prop Bone Binder Tool**, or replace the BaseLocomotion character with the BowCombat pack character (which includes the prop bone) using these following steps:
2. Open a scene in a project containing Base Locomotion and import the BowCombat package (see Section 1 of this guide).
3. Select the **PF_Player** object in the scene hierarchy, right-click and choose **'Prefab' > 'Unpack Completely'**
4. Beneath the PolygonSyntyCharacter node, select and delete the **PolygonSyntyCharacterMesh** and Root nodes.



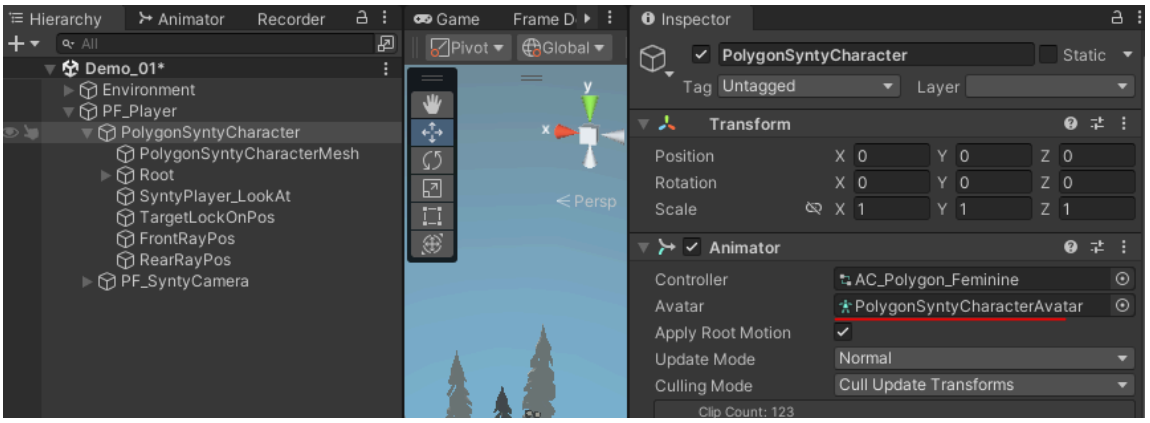
5. Drag a new **PolygonSyntyCharacter** from the BowCombat pack into the scene.
6. Right click on this new prefab and select **'Prefab' > 'Unpack Completely'**.



7. Now drag the two nodes **PolygonSyntyCharacterMesh** and Root from the new BowCombat pack Prefab into the place of the two deleted nodes under the **PolygonSyntyCharacter** inside **PF_Player**. You can delete the rest of the Animation BowCombat pack prefab's nodes.



8. On the node **PolygonSyntyCharacter** (below **PF_Player**), update the Avatar on the Animator component to use the **PolygonSyntyCharacter** Avatar from the BowCombat pack.



9. From here you can begin to add new functionality to the existing controller, e.g. new combat archery states, equipping, shooting, reloading, etc
10. A good starting point is to add an upper body override layer to the Animation Controller. This allows you to apply the BowCombat system to the upper half of the character while the lower half continues using the BaseLocomotion movement animations.

Other possible approaches for this kind of setup include:

- Using two animation override layers:
  The first layer set to around 90–95% weight allows subtle movement from the BaseLocomotion to bleed through, making the character feel less stiff than a full 100% upper body override.
  A second layer at 100% weight, masked to just the arms, ensures that the hands remain precisely positioned on the bow.

- Using Unity's Animation Rigging package:
  Combine aim constraints on the chest, spine, or bow to target specific points, allowing the upper body and weapon to track independently from the character's overall orientation.

Equipping/Stowing Props

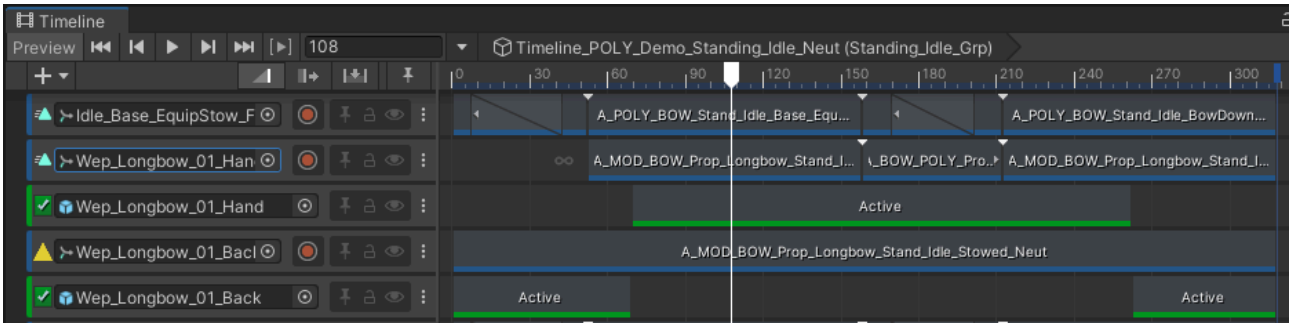
For animations in the BowCobat pack which involve equipping or stowing the bow, it is recommended to either reparent the bow, or use a second bow asset (parented beneath the **Spine_03** bone, for example) that has its visibility toggled during equip and stow moments of its animation.

Because the **Prop_L** bone is a child of the **Hand_L** bone in the arm hierarchy, there are some potential issues that can arise when the prop needs to be 'detached' from the arm.

During equip and stow animations, during the moments when the **Prop_L** bone remains fixed to the back, it is effectively counter-animating against its parent in order to itself remain still (while the arm moves away from it). This can possibly cause motion jitter as it interpolates.

It is thus suggested to switch to a bow asset parented to the character's spine at the moment the prop reaches its intended end position.

Multiple setups exists in the Gallery scenes demonstrating the transition from a prop parented to the **Prop_L** bone to a prop parented **Spine_03** bone.
The group timeline on object **Standing_Grp | Standing_Idle_Grp** in the Gallery scenes contains the timeline **Timeline_POLY_Demo_Standing_Idle_Neut**, demonstrating transitions during the various **Equip** and **Stow** animations, swapping between two bow props using an **'Activation'** track to hide and unhide each prop.



Equally, a visibility toggle achieving the same result could be triggered by an Animation Event to work on a controllable player, character etc.

7. Bow Combat Animations

Stances

Combat Stances

The BowCombat animation pack includes a variety of combat stances from which the core archery actions can be performed. These stances are:

- Standing
- Crouching
- LeanBack
- Kneeling
- Sliding

Each stance includes entry and exit animations, as well as a full set of archery actions: drawing, aiming, shooting, and reloading.

Idle Stances

The pack also comes with some Idle animations (non-combat stances) that help this pack link with existing Synty animations. The main Idle poses here are the same as in other Synty packs, allowing for seamless blending to and from BowCombat animations:

- **Stand_Idle_Base** (Masc and Femn)
- **Crouch_Idle_Base** (Masc and Femn)

In addition to these base Synty poses, the BowCombat pack also has variants of these with the hands posed to hold the bow:

- **Stand_Idle_Base_WithBow** (Masc and Femn)
- **Crouch_Idle_Base_WithBow** (Masc and Femn)

Lastly, there is a standing stance called **Stand_Idle_Turned**, which includes entry and exit animations to and from the standard **Stand_Idle_Base** poses.

- **Stand_Idle_Turned**

This stance matches the foot position of **Stand_Idle_BowDown**, reflecting the typical side-on posture of an archer. However, unlike **Stand_Idle_BowDown**, the bow is not yet equipped in this pose.
This allows for a clean separation between two actions:

- Turning the body into the archer's stance
- Equipping the bow

Aiming

Aiming animations come in 'Drawn' and 'Undrawn' varieties, and these animations are loops, allowing for them to cycle as long as needed.

- **'Undrawn'** is a sort of 'bow-ready' stance - aiming but not yet primed to fire.
- **'Drawn'** is the bow aiming under full tension, with the arrow ready to fly
- There is a **'ToDrawn'** animation to transition from **'Undrawn'** to **'Drawn'** states.

Shooting

There are two main shooting animations per stance:

- **'Shoot_ToAiming'** - basic shot which returns to the **'Aiming_Undrawn'** stance afterwards
- **'Shoot_Reload'** - quickfire action immediately nocks a new arrow and then returns to the **'Aiming_Undrawn'** stance.

Additionally there are some more bespoke and acrobatic animations shots:

- Dive shot (L and R variants)
- Leaping shot

The arrow position on the bow during shooting animations is largely intended to be visible before and up until the moment that the bow shoots. From here it would be suggested to have a separate arrow asset that spawns and fires from the release point on the bow, controlled either by a separate animation, physics forces, etc, so it can travel through the scene no longer parented to the bow.

FPV

Some of the animations in the BowCombat pack have the tag '_FPV_' in their name, which stands for 'First Person View'.
The posing in these animations has been adjusted so that generally the bow will be more visible in frame from a camera parented to the head of the character, thus more suited to first-person style projects.

Rolls

The Crouching stance also has some directional roll animations (with the bow equipped) for evasive-style dodge movements.

Melee

Some melee combat animations have been included for scenarios where a bow could be used to block incoming melee attacks. The pack includes animations to and from **Stand_Idle_BowDown**, into a **Blocking** stance which is a looping animation cycle. There is also a **Parry**, and a **Blocking_Break** animation which returns to **Stand_Idle_Bow_Down** stance, intended for scenarios where the block was unsuccessful or the player ran out of stamina, thus staggers back from blocking into a regular stance.
Finally, a **Blocking_Attack** animation is included, to allow characters to perform a rudimentary melee attack using the bow as a club.

Hits and Deaths

A variety of directional hits and deaths have been included in the pack to account for characters being shot from any angle.
The 'React' hits are smaller reactions to taking damage, the 'Stagger' hits are more extreme and can displace the character away from the direction they were struck (including with RootMotion).

These animations all include both a Masculine and Feminine set (starting from the generic Synty **Base_Masc** and **Base_Femn** Idle pose) to blend with other Synty Animation Packs.

File Naming conventions

A_	Animation
AC_	Animation Controller
M_	Material
PM_	Physics Material
SK_	Skeletal Mesh
SM_	Static Mesh
T_	Texture

Animation Naming Conventions

The animations in the BowCombat pack follow this ordered system of tags to structure the name of the animation file:

<Filetype>_<SyntyCharacter>_<AnimationPack>_<Prop>_<PropType>_<AnimationType/Stance>_<MainAction>_<SubAction>_<Direction/Section>_<RootMotion>_<Gender>

Examples:

- A_MOD_BOW_Sliding_Shoot_Reload_RM_Neut.fbx
- A_MOD_BOW_Cmp_Sliding_Shoot_Reload_Neut.fbx
- A_MOD_BOW_Death_Head_R_Masc.fbx
- A_POLY_BOW_Stand_Idle_BowDown_Stow_ToBase_Femn.fbx

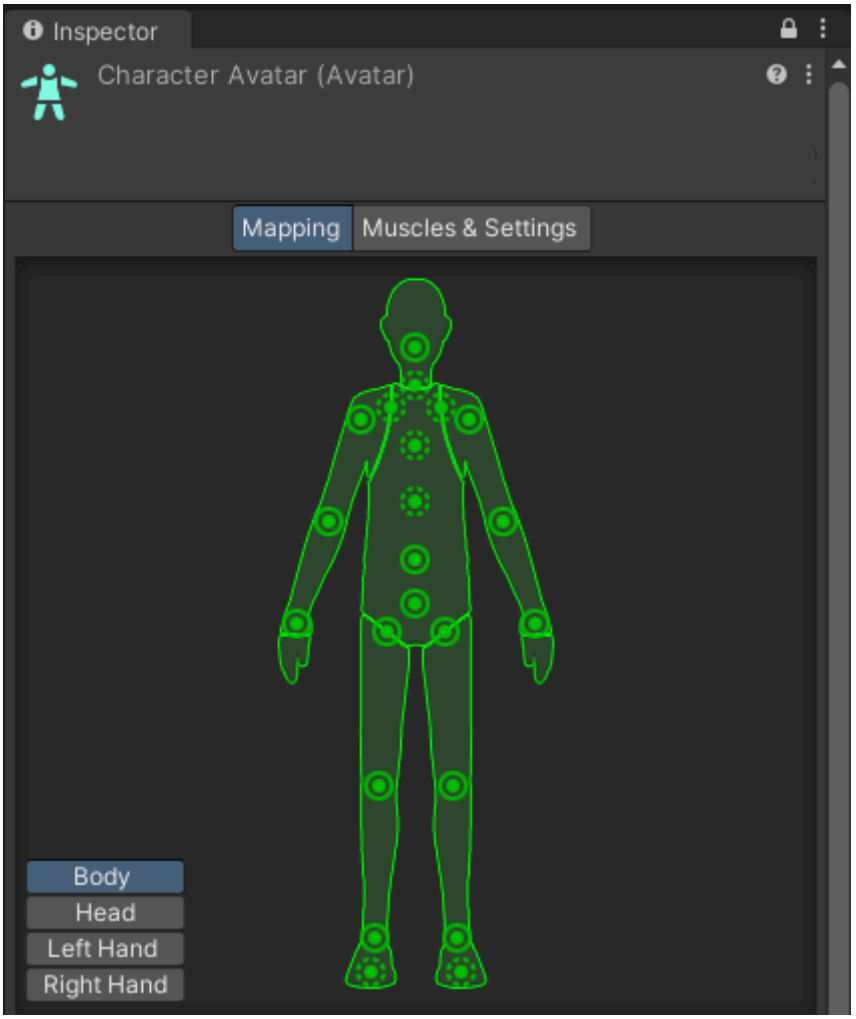
Categories:

- **Filetype:** The broad-scope prefix. Here 'A' stands for 'Animation'
- **SyntyCharacter:** Which character this animation is for. 'MOD' (short for 'Modular') means this animation is for Sidekick characters. 'POLY' is used for Polygon characters.

- **AnimationPack:** Here ‘BOW’ indicates that the animation belongs to the ‘Goblin Locomotion’ Pack.
- **Prop:** Denotes whether this animation is for a prop (if not, it’s for the character)
- **PropType:** The type of prop this animation should be played on (‘Lng’ for Longbow, ‘Cmp’ for Compound Bow, and ‘Rcv’ for Recurve Bow)
- **AnimationType/Stance:** The general stance of the animation (e.g. Stand, Crouch)
- **MainAction:** The key motion of this animation (e.g. Shoot will mean the bow is being fired)
- **SubAction:** The secondary action of this motion (e.g. Reload would mean this shooting animation will reload as part of the same fluid motion)
- **Direction/Section:** Describes what side something is happening (e.g. L or R) or what stance this animation is transitioning to (e.g. ToBowDown, ToBase)
- **RootMotion:** If this is the root-motion version of an animation, it is indicated with an extra tag, shortened to ‘RM’ in the new naming convention. ‘Vertical-only’ and ‘Horizontal-only’ root motion is indicated with the tag ‘RMV’ or ‘RMH’.
- **Gender:** Either masculine, (Masc), feminine, (Femn) or neutral, (Neut).

8. Character Avatar

Mecanim Humanoid Character Avatar



In Unity, the mecanim Humanoid Character Avatar serves as a fundamental framework for bipedal character animation. Essentially, an avatar in this context is a digital representation of a character's skeletal structure and body proportions. To access the avatar of a character you can find the mesh that the avatar definition is created from, in the case of the Synty pack, the Avatar is nested in **Synty/AnimationBowCombat/Samples/Meshes** as the **PolygonSyntyCharacterAvatar.**

Here's a breakdown to clarify its purpose for users:

Humanoid Structure:

- Unity's mecanim Humanoid Character Avatar adheres to a bipedal structure, aligning with the standard anatomy of human characters.

Compatibility Across Characters:

- Designed to be universally compatible, the avatar allows users to apply animations seamlessly to a variety of humanoid characters, streamlining the animation process.
- Other character models on different bipedal rigs can be added to the project, with their own Avatar set up to allow the animations from this pack and others to be applied to them, bypassing the issue of compatibility.

Configurable and Adaptable:

- Users can configure their own avatars by adjusting the bone mappings and aligning them with Unity's Humanoid Avatar configuration.

Adjusting Avatar Properties

In Unity, within the rig tab of an asset you are able to define the skeleton type to one of the following, **Humanoid**, **Generic** or **Legacy**.

Humanoid is used when working with humanoid characters. It provides a standardized bone structure that makes it easier to work with humanoid animations, retargeting, and blending. The Humanoid rig is particularly useful when using Unity's Mecanim animation system.

Generic is a more flexible option that doesn't adhere to the humanoid bone structure. It allows for more custom setups but may not be as compatible with certain features like retargeting humanoid animations.

Legacy is used for the older animation system in Unity. It's not recommended for new projects, as Unity has shifted its focus to Mecanim and the Humanoid rig. The content within this pack is set up to be used with the Humanoid skeleton type, to leverage the aforementioned retargeting and blending with the Mecanim animation system.

Optimizing Animation Performance

Unity has numerous options to help optimize performance when using animations. These options are within the animation tab for each FBX animation asset.

Animation Compression:

- Utilize Unity's animation compression options.
- Use "Optimal" for keyframe reduction.
- Experiment with different compression ratios to find the right balance between performance and quality.

Remove Scale Curves:

- If not needed, consider removing scale curves from animations.
- Scale curves can impact performance, and removing them can streamline the animation data.

9. Terms of use

The full terms of the End User License Agreement (EULA) apply and can be found at https://syntystore.com/pages/end-user-licence-agreement.

This is a summary of the license for the Synty Animation Base Locomotion software provided by Synty Studios Limited. This summary is for convenience only and is not legally binding.

Key Points

1. **License Grant:** When you purchase an Asset, you are granted a license to use the Asset subject to the terms of the EULA. All intellectual property rights in the Asset remain with Synty Studios Limited.
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4. **Team Size and Seats:** Your license includes a limited number of seats for your team. If your team grows, you must purchase additional licenses.
5. **Unity Asset Store Purchases:** If you have purchased the Asset through the Unity Asset Store, the terms of the Unity Asset Store EULA also apply. You must consult the Unity Asset Store EULA for the full terms applicable to your purchase from the Unity Asset Store.
6. **Support and Source Files:** Support is provided at our discretion. You must not share source files of any Assets outside your team.
7. **Termination:** Your license can be terminated if you breach the EULA and fail to remedy the breach after notice from us.
8. **Warranties and Liability:** The Assets are provided "as is" without warranties of any kind, and our liability is limited.

By using this Asset, you agree to be bound by the terms of the EULA.

10. Glossary

Term	Definition & Context
Avatar Mask	*An AvatarMask is a Unity asset used to specify which parts of an animated character's body are affected by an animation. It allows you to isolate or blend animations by masking specific body parts—such as arms, legs, or the head—enabling layered animations and more precise control in Mecanim's Animator system. Commonly used with animation layers and blend trees.*
Character Avatar	*In Unity's Mecanim system, the Character Avatar refers to the digital representation of a character's skeletal structure, including bone hierarchy and rigging. It serves as the foundation for applying animations and controlling the character's movements within the game.*
FBX	*A common 3D file format used for importing and exporting models and animations between different software.*
Mecanim	*Mecanim is Unity's animation system, encompassing the Animation Controller, Animator component, and state machine. It provides a visual interface for designing complex character animations and facilitates the integration of character avatars, animation clips, and transitions.*
Playable Director	*A Playable Director is a Unity component that plays Timeline Assets and other Playable content. It binds Timelines to scene objects, controls playback, and sequences animations, audio, and events.*
Rigged Asset	*A 3D model that has a skeleton (rig) for animation.*
Root Motion	*An animation technique where movement is driven by the animation data itself, rather than by code.*
Timeline	*A Timeline Asset is a Unity asset that stores a sequence of tracks, clips, and keyframes used in the Timeline system to create cinematic content, cutscenes, scripted events, or complex animations. It acts as a reusable container for Timeline data, which can be played and controlled by a Playable Director component in the scene.*