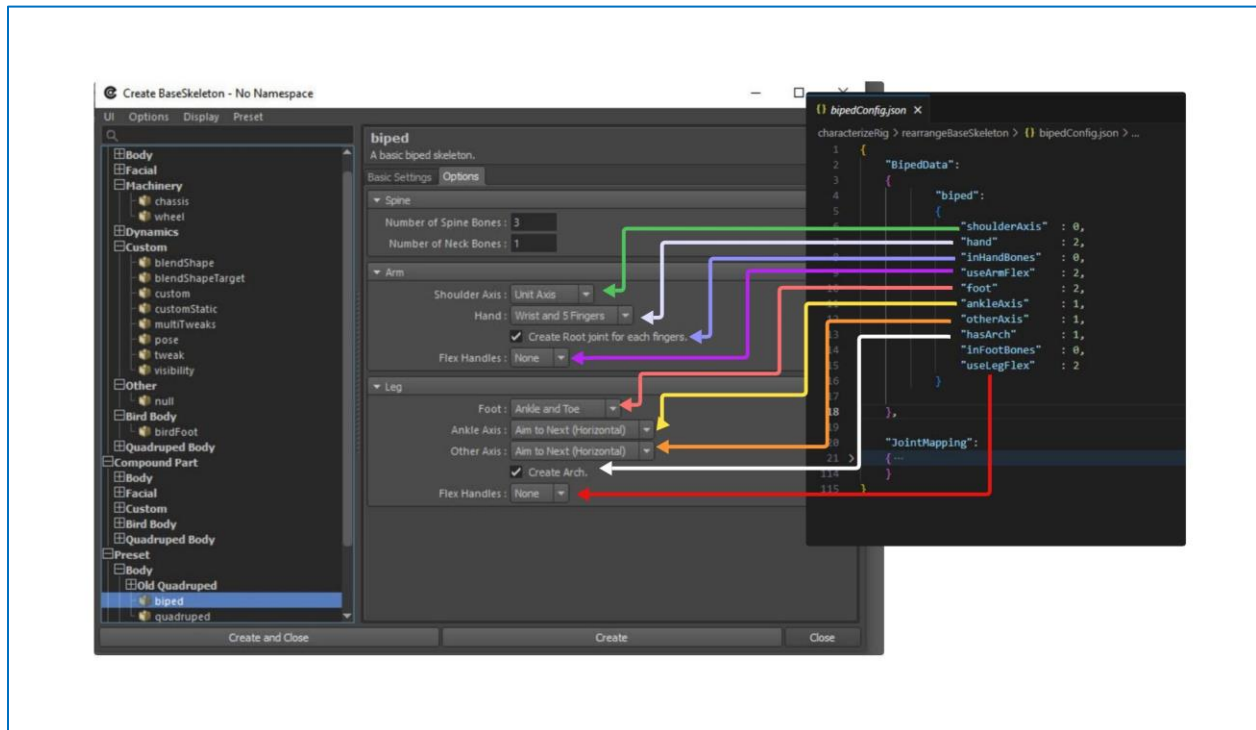
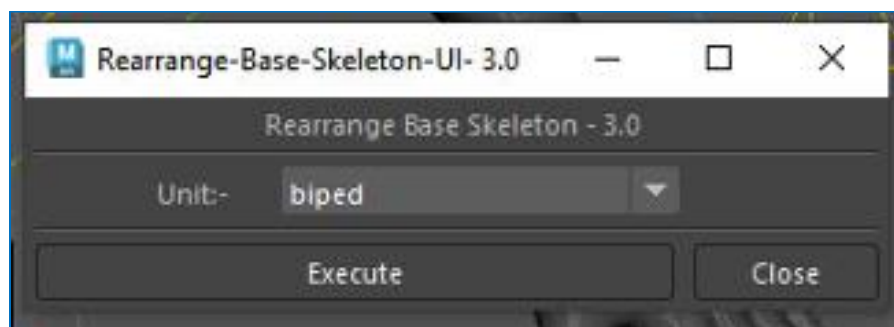


Re Arrange Base Skeleton Tool



Overview



This tool facilitates the automated creation of biped joint setups in Autodesk Maya by utilizing a configuration file (`bipedConfig.json`). It also aligns the generated joints to source joints based on user-defined settings in the JSON file. This document outlines the tool's functionality, configuration options, and usage guidelines.

Key Features

- **Automated Biped Joint Creation:** Generate a biped joint structure using predefined configurations.
- **Configurable Settings:** Customize the joint creation process by editing the `bipedConfig.json` file.
- **Source-to-Target Snapping:** Automatically align the generated joints to existing source joints in the scene.
- **User-Friendly Interface:** Interact with the tool through an intuitive graphical user interface (GUI).

Configuration File: `bipedConfig.json`

The configuration file contains the parameters that control the joint generation process. Below is a breakdown of the configurable options:

General Parameters

Parameter	Range	Description
ShoulderAxis	0 to 1	Specifies the orientation of the shoulder axis.
Hand	0 to 2	Determines the number of hand configurations: <ul style="list-style-type: none">• 0: No Hand• 1: Wrist only• 2: Wrist and fingers• 2: Wrist, fingers, and root joints for each finger. InHandBones 0 to 1 Toggles the inclusion of intermediate hand bones. UseArmFlex 1 to 2 Specifies the flexibility type for arm joints. Foot 0 to 3 Determines the foot setup:

- 0: No Foot
- 1: Ankle Only
- 2: Ankle and toe
- 3: Ankle and 5 toes
- 4: Custom foot structure. || AnkleAxis | 0 to 1 | Defines the ankle joint alignment. | OtherAxis | 0 to 1 | Sets the axis for additional joint orientations. || HasArch | 0 to 1 | Enables or disables foot arch creation. || InFootBones | 0 to 1 | Toggles the inclusion of additional foot bones. || UseLegFlex | 1 to 2 | Specifies the flexibility type for leg joints. |

Joint Mapping

The JointMapping The configuration file's mapping section maps the generated joints to specific source joints in the scene. Users can customize the mapping based on their requirements.

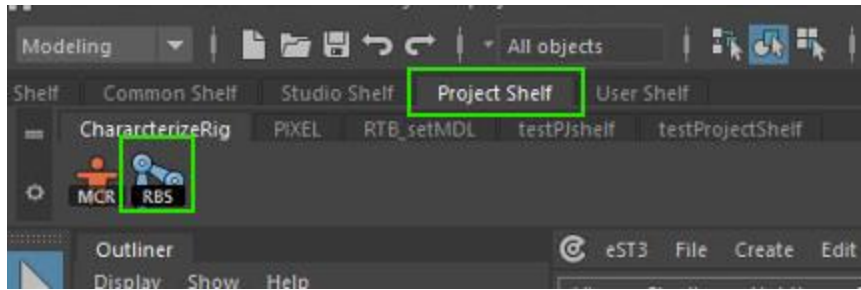
How to Use

Step 1: Configure the JSON File

1. Open the bipedConfig.json file in a text editor.
2. Modify the parameters according to the desired joint setup.
3. Save the file.

Step 2: Launch the Tool

1. Open Autodesk Maya.
2. Navigate to Project Shelf In that Shelf you will find to RBS Icon



3.

Step 3: Generate Joints

1. Select the desired biped preset (e.g., biped).
2. Click the **Create** button to generate the joints based on the configuration.
3. The tool will snap the generated joints to the corresponding source joints.

Step 4: Adjust as Needed

- If adjustments are required, modify the `bipedConfig.json` file and recreate the joints.
- Alternatively, manually tweak the joints in Maya after generation.

Tips and Best Practices

- **Backup the Configuration File:** Before making significant changes, save a copy of the original `bipedConfig.json` file.
- **Test Incrementally:** Apply changes in small increments to avoid errors.
- **Utilize the GUI:** Use the tool's interface to visualize and validate the settings before generating joints.

Future Enhancements

- Support for additional rig types (e.g., quadrupeds).
- Enhanced error handling and validation for the configuration file.
- Advanced snapping options for custom joint placements.

Troubleshooting

Common Issues

Issue	Solution
Joints are not snapping correctly	Ensure the source joints are named and positioned correctly.
Configuration changes are not applied	Verify that the <code>bipedConfig.json</code> file is saved and loaded properly.
Errors in joint generation	Check the Maya script editor for error messages and validate the JSON file syntax.

Contact

For support or inquiries, please get in touch with the tool development team at [sanjay@ppi-india.com].