

IOR Gait Joint Angle

Overview

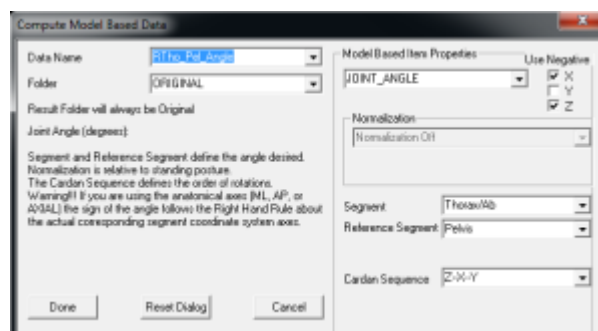
This tutorial is a continuation of the [IOR Gait Full Body Tutorial](#). This tutorial goes through computing different joint angles specific to the IOR Gait model.

Joint Angles

The Tho_Pel and Tho_Lab angles are described here, while the lower extremity joint angles were created based on the segment coordinate systems described here

Joint Angle Definitions

1. Define the RTho_Pel_Angle:



1. Open the **Compute Model Based** dialog
2. Select **JOINT_ANGLE** from drop down list
 - **Data Name:** RTho_Pel_Angle
 - **Segment:** Thorax/Ab
 - **Reference Segment:** Pelvis
 - **Cardan Sequence:** Z-X-Y
3. **Use Negative:**
 - **X:** TRUE **Y:** FALSE **Z:** TRUE

2. Define LTho_Pel_Angle:

- When defining the left signal, use same definitions **except** set:
 - **Use Negative**
 - **X:** FALSE **Y:** TRUE **Z:** TRUE

3. Define the RTho_Lab_Angle:

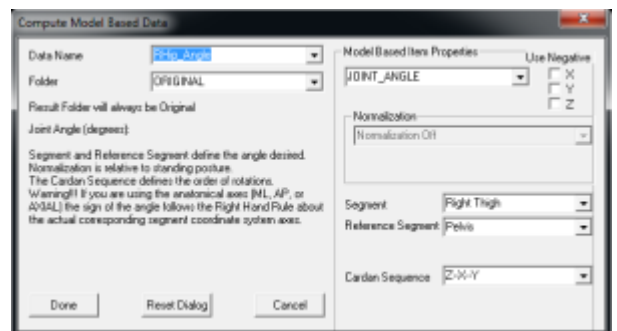


1. Open the **Compute Model Based** dialog
2. Select **JOINT_ANGLE** from the drop down list
 - **Data Name:** RTho_Lab_Angle
 - **Segment:** RThorax/Ab
 - **Reference Segment:** VLab
 - **Carden Sequence:** Z-X-Y
3. **Use Negative:**
 - **X:** TRUE **Y:** FALSE **Z:** TRUE

4. Define LTho_Lab_Angle:

- When defining the left signal, use same definitions **except** set:
 - **Use Negative:**
 - **X:** FALSE **Y:** TRUE **Z:** TRUE

5. Define the RHip_Angle:



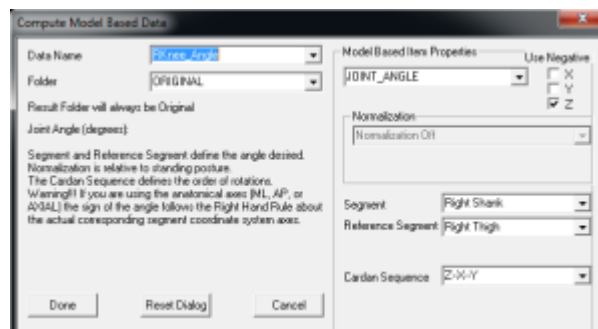
1. Open the **Compute Model Based** dialog
2. Select **JOINT_ANGLE** from drop down list
 - **Date Name:** RHip_Angle
 - **Segment:** Right Thigh
 - **Reference Segment:** Pelvis
 - **Carden Sequence:** Z-X-Y
3. **Use Negative:**
 1. **X:** FALSE **Y:** FALSE **Z:** FALSE

6. Define LHip_Angle:

- When defining the left signal, use same definitions **except** set:

- **Segment:** Left Thigh
- **Use Negative:**
 - **X:** TRUE **Y:** TRUE **Z:** FALSE

7. Define the RKnee_Angle:

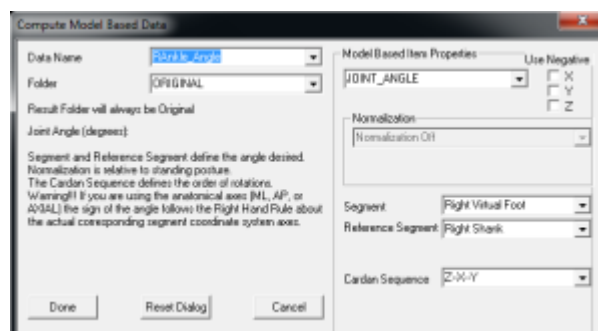


1. Open the **Compute Model Based** dialog
2. Select **JOINT_ANGLE** from drop down list
 - **Data Name:** RKnee_Angle
 - **Segment:** Right Shank
 - **Reference Segment:** Right Thigh
 - **Cardan Sequence:** Z-X-Y
3. **Use Negative:**
 - **X:** FALSE **Y:** FALSE **Z:** TRUE

8. Define LKnee_Angle:

- When defining the left signal, use same definitions **except** set:
 - **Segment:** Left Shank
 - **Reference Segment:** Left Thigh
 - **Use Negative:**
 - **X:** TRUE **Y:** TRUE **Z:** TRUE

9. Define the RKAnkle_Angle:



1. Open the **Compute Model Based** dialog
2. Select **JOINT_ANGLE** from drop down list
 - **Data Name:** RAnkle_Angle
 - **Segment:** Right Virtual Foot
 - **Reference Segment:** Right Shank
 - **Cardan Sequence:** Z-X-Y

3. Use Negative:

- **X:** FALSE **Y:** FALSE **Z:** FALSE
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10. Define LAnkle_Angle:

- When defining the left signal, use the same definitions **except** set:
 - **Segment:** Left Virtual Foot
 - **Reference Segment:** Left Shank
 - **Use Negative:**
 - **X:** TRUE **Y:** TRUE **Z:** FALSE

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