

Zeni MetaCommand

The script below is an example of a [Meta-Command](#). The script below would be saved as a v3m file and placed in the Meta-Command folder.

This Meta-Command creates kinematic gait events using [the method described here](#).

This Meta-Command can be [downloaded here](#).

Calling the Meta-Command

Once the Meta-Command (v3m file) has been placed in the Meta-Command folder, it can be called from any other pipeline file:

```
Kinematic_Events_Foot_Position
! /HEELSTRIKE_LABEL=HS
! /TOEOFF_LABEL=T0
;
```

Meta-Command

```
! BEGIN_META
! META_CMD_NAME=Kinematic_Gait_Events
! META_PARAM= HEELSTRIKE_LABEL : string :HS:yes
! META_PARAM= TOEOFF_LABEL : string :T0:yes
! END_META

!
=====
! Kinematic Gait Events
!
=====

! This step is not necessary, but important to make sure that
! any events that were previously created are deleted

Event_Delete
/EVENT_NAME=R&::HEELSTRIKE_LABEL&+R&::TOEOFF_LABEL&+L&::HEELSTRIKE_LABEL&+L&
::TOEOFF_LABEL&
! /EVENT_SEQUENCE=
! /EXCLUDE_EVENTS=
! /EVENT_INSTANCE=
! /TIME=
;

! -----
```

```
--
! Transform the position of the foot into the Pelvis Coordinate System
! -----
--

! Right Foot

Compute_Model_Based_Data
/RESULT_NAME=RToe_Wrt_Pelvis
/FUNCTION=SEG_DISTAL_JOINT
/SEGMENT=RFT
/REFERENCE_SEGMENT=RPV
/RESOLUTION_COORDINATE_SYSTEM=RPV
! /USE_CARDAN_SEQUENCE=FALSE
! /NORMALIZATION=FALSE
! /NORMALIZATION_METHOD=
! /NORMALIZATION_METRIC=
! /NEGATEX=FALSE
! /NEGATEY=FALSE
! /NEGATEZ=FALSE
! /AXIS1=X
! /AXIS2=Y
! /AXIS3=Z
! /TREADMILL_DATA=FALSE
! /TREADMILL_DIRECTION=UNIT_VECTOR(0,1,0)
! /TREADMILL_SPEED=0.0
;

Compute_Model_Based_Data
/RESULT_NAME=RHeel_Wrt_Pelvis
/FUNCTION=SEG_PROXIMAL_JOINT
/SEGMENT=RFT
/REFERENCE_SEGMENT=RPV
/RESOLUTION_COORDINATE_SYSTEM=RPV
! /USE_CARDAN_SEQUENCE=FALSE
! /NORMALIZATION=FALSE
! /NORMALIZATION_METHOD=
! /NORMALIZATION_METRIC=
! /NEGATEX=FALSE
! /NEGATEY=FALSE
! /NEGATEZ=FALSE
! /AXIS1=X
! /AXIS2=Y
! /AXIS3=Z
! /TREADMILL_DATA=FALSE
! /TREADMILL_DIRECTION=UNIT_VECTOR(0,1,0)
! /TREADMILL_SPEED=0.0
;

! Left Foot
```

```
Compute_Model_Based_Data
/RESULT_NAME=LToe_Wrt_Pelvis
/FUNCTION=SEG_DISTAL_JOINT
/SEGMENT=LFT
/REFERENCE_SEGMENT=RPV
/RESOLUTION_COORDINATE_SYSTEM=RPV
! /USE_CARDAN_SEQUENCE=FALSE
! /NORMALIZATION=FALSE
! /NORMALIZATION_METHOD=
! /NORMALIZATION_METRIC=
! /NEGATEX=FALSE
! /NEGATEY=FALSE
! /NEGATEZ=FALSE
! /AXIS1=X
! /AXIS2=Y
! /AXIS3=Z
! /TREADMILL_DATA=FALSE
! /TREADMILL_DIRECTION=UNIT_VECTOR(0,1,0)
! /TREADMILL_SPEED=0.0
;
```

```
Compute_Model_Based_Data
/RESULT_NAME=LHeel_Wrt_Pelvis
/FUNCTION=SEG_PROXIMAL_JOINT
/SEGMENT=LFT
/REFERENCE_SEGMENT=RPV
/RESOLUTION_COORDINATE_SYSTEM=RPV
! /USE_CARDAN_SEQUENCE=FALSE
! /NORMALIZATION=FALSE
! /NORMALIZATION_METHOD=
! /NORMALIZATION_METRIC=
! /NEGATEX=FALSE
! /NEGATEY=FALSE
! /NEGATEZ=FALSE
! /AXIS1=X
! /AXIS2=Y
! /AXIS3=Z
! /TREADMILL_DATA=FALSE
! /TREADMILL_DIRECTION=UNIT_VECTOR(0,1,0)
! /TREADMILL_SPEED=0.0
;
```

```
! -----
--
! Create Events
! - Heel Strike: When the foot is furthest in front of the pelvis
! - Toe Off: When the foot is furthest behind the pelvis
! -----
--
```

Event_Maximum

```
/SIGNAL_TYPES=LINK_MODEL_BASED
/SIGNAL_NAMES=RHEEL_WRT_PELVIS
! /SIGNAL_FOLDER=ORIGINAL
/EVENT_NAME=R&: :HEELSTRIKE_LABEL&
! /SELECT_X=FALSE
/SELECT_Y=TRUE
! /SELECT_Z=FALSE
! /FRAME_WINDOW=8
! /START_AT_EVENT=
! /END_AT_EVENT=
! /EVENT_INSTANCE=
;
```

Event_Minimum

```
/SIGNAL_TYPES=LINK_MODEL_BASED
/SIGNAL_NAMES=RTOE_WRT_PELVIS
! /SIGNAL_FOLDER=ORIGINAL
/EVENT_NAME=R&: :TOEOFF_LABEL&
! /SELECT_X=FALSE
/SELECT_Y=TRUE
! /SELECT_Z=FALSE
! /FRAME_WINDOW=8
! /START_AT_EVENT=
! /END_AT_EVENT=
! /EVENT_INSTANCE=
;
```

Event_Maximum

```
/SIGNAL_TYPES=LINK_MODEL_BASED
/SIGNAL_NAMES=LHEEL_WRT_PELVIS
! /SIGNAL_FOLDER=ORIGINAL
/EVENT_NAME=L&: :HEELSTRIKE_LABEL&
! /SELECT_X=FALSE
/SELECT_Y=TRUE
! /SELECT_Z=FALSE
! /FRAME_WINDOW=8
! /START_AT_EVENT=
! /END_AT_EVENT=
! /EVENT_INSTANCE=
;
```

Event_Minimum

```
/SIGNAL_TYPES=LINK_MODEL_BASED
/SIGNAL_NAMES=LTOE_WRT_PELVIS
! /SIGNAL_FOLDER=ORIGINAL
/EVENT_NAME=L&: :TOEOFF_LABEL&
! /SELECT_X=FALSE
/SELECT_Y=TRUE
! /SELECT_Z=FALSE
! /FRAME_WINDOW=8
```

```
! /START_AT_EVENT=  
! /END_AT_EVENT=  
! /EVENT_INSTANCE=  
;
```

From:

<https://wiki.has-motion.com/> - **Wiki Documentation Site**

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