# Plug-in Gait labeling skeleton templates (VSTs) in Vicon Nexus

The Plug-in Gait biomechanical model calculates joint kinematics and kinetics from the XYZ marker positions and specific subject anthropometric measurements. As with all motion capture and analysis in Vicon Nexus, the information about the marker set as well as the generic relationship between the physical markers attached to a subject is contained in a labeling skeleton template (.*vst*) file. This template defines a generic model of the chosen marker set.

You create a subject in Nexus based on a specific template file and then you calibrate the generic marker set model defined in the template to your particular subject. The calibration process creates a labeling skeleton (.*vsk*) file which is strictly specific to your subject. Nexus then uses this subject-specific .*vsk* file to automatically label dynamic motion capture trials for that patient both in real time and in post-processing.

> ⚠️ **Important**
> The labeling skeleton templates included in the supplied .*vst* files are used only to define the marker set and to enable Nexus to perform automatic labeling. They are not biomechanical models that will output valid joint angles or other kinematic/kinetic variables. To derive valid kinematics or kinetics, use Plug-in Gait or create your own biomechanical model using Vicon BodyBuilder, Python or MATLAB.

The following table lists the predefined Plug-in Gait labeling skeleton templates (.*vst* files) supplied with Nexus, identifying the portion of the body it applies to for gait analysis.

| Plug-in Gait template file | Description | Lower body modeling | Upper body modeling |
| --- | --- | --- | --- |
| PlugInGait FullBody Ai.vst | Full body model defining two markers on the posterior superior iliac spine (PSIS) | y | y |
| PlugInGait LowerBody Ai.vst | Lower body model defining two markers on the posterior superior iliac spine (PSIS) | y | n |

An extended version of Plug-in Gait that defines additional markers for foot modeling is available. For information about the Oxford Foot Model plug-in, contact Vicon Support.

These Plug-in Gait template files are installed under the Nexus **ModelTemplates** folder (by default, **C:\Program Files (x86)\Vicon\Nexus2. #\ModelTemplates**). If you create a template of your own, store it in this location, so that it will be immediately available for selection from the drop-down list when you create a subject node based on a predefined template file. (If you choose not to store it in this location, you can instead browse to the relevant location.)