Figure 1: RandomGesture is a parameterized subtree that takes in a single actor and instructs that actor to play a random gesture. Trees like these can use different categories of gestures, such as greeting gestures or gestures with different emotions.

Figure 2: After sending a navigation command, this tree will wait for an actor to arrive at its destination by blocking the tree until arrival occurs.

Figure 3: This tree instructs two actors to approach a single point and exchange an item (that a1 begins by carrying). Note that the actual tree used in our demo included time offsets for more natural motion, and instructed the agents to look at one another and at each other’s hands as the item was exchanged. The WaitArrive tree is invoked as a subtree node, passing the appropriate parameters from the parent tree to the child.
PhoneCall(a1 : Actor, p1 : Point, p2 : Point, p3 : Point)

ReachFor(a1.leftEar)

GoTo(p1) a1

RandomGesture(a1) WaitArrive(a1)

GoTo(p2) a1

GoTo(p3) a1

Figure 4: Once the protagonist is given the phone, this event tree executes instructing him to move through three waypoints and play random gestures. The actual implemented tree includes a short sequence at the end for gazing at the runner in the distance.

FocusOn(s: Actor, a1 : Actor, a2 : Actor)

GazeAt(s.head) a1

GazeAt(a1.head) a2

RandomGesture(a1) RandomGesture(s)

Figure 5: This tree, designed for three characters, designates one character as the speaker. The two other characters gaze at the speaker, while the speaker chooses one to gaze at in return. The speaker gestures, and then the character the speaker is addressing gestures.

DoConversation(a1: Actor, a2 : Actor, a3 : Actor)

Random

FocusOn(a1, a2, a3) FocusOn(a2, a3, a1) FocusOn(a2, a1, a3)

FocusOn(a1, a3, a2) FocusOn(a3, a2, a1)

Figure 6: A conversation is simply divided into a series of FocusOn subtrees with different rearrangements of the parameters.
**Figure 7:** This tree occurs at the beginning of a conversation, and handles the characters approaching a central point before conversing.

**Figure 8:** The chase scene is accomplished with this simple tree. The characters increase their movement speed, then the runner departs for a given destination, and the chasing characters set their navigation target to the runner's position.