# NuiTracker API (July 1st, 2014)

#### nite2 apps

- NuiHeadless: Show tracked torso coordinates until Enter is pressed
  - main(String[] args)
- NuiViewer: Views both input methods (skeleton / hand) simultaneously
  - main(String[] args)

#### nite2.basic

- HandListener (Interface): Any class that wants hand data should implement this interface and add itself to NuiTracker's hand tracker listeners.
  - onNewHandFrame(HandTrackerFrameRef frame)
- **SkeletonListener (Interface)**: Any class that wants skeleton data should implement this interface and add itself to SkeletonTracker listeners.
  - onNewSkeletonFrame(UserTrackerFrameRef frame)
- NuiTracker: Tracker for NUI features (implements HandListener and SkeletonListener)
  - addHandListener(HandListener listener)
  - addSkeletonListener(SkeletonListener listener)
  - getBufferedImage(): BufferedImage
  - getHandFrame(): HandTrackerFrameRef
  - getUserFrame(): UserTrackerFrameRef
  - getHands(): List<HandData>
    - \* Get hand tracking data see HandRenderer for example of use
  - getHandTracker(): HandTracker
  - getSkeletons(): List<UserData>
    - \* Get skeleton data see SkeletonRenderer or NuiHeadless for example of use
  - getUserTracker(): UserTracker
  - onNewFrame(HandTracker ht)
  - onNewFrame(UserTracker ut)
- Utilities: Some general utility methods
  - distance3d(Point3D from, Point3D to): double

## nite2.distexamples (obsolete)

- HandViewer: NiTE example programs
  - onNewFrame(HandTracker tracker)
  - paint(Graphics g)
- HandViewerApplication: NiTE example programs
  - main(String[] args)
- UserViewer: NiTE example programs
  - onNewFrame(UserTracker tracker)
  - paint(Graphics g)
- UserViewerApplication: NiTE example programs
  - main(String[] args)

#### nite2 gestures

- JointMetrics: Static methods for getting skeleton measurements etc.
  - elbowHandXOffset(UserData user, JointMetrics.Side side): double
    - \* Returns the X axis distance in millimeters between elbow and hand
  - handsAboveNeck(UserData user): boolean
    - \* Returns true if a user's both hands are above the neck.
- JointMetrics.Side: Side.LEFT or Side.RIGHT

### nite2 gui

- **GenericWindow**: Generic frame for displaying graphics.
  - run()

#### nite2.gui.rendering

- HandRenderer: Draw something with the hand tracker data
  - onNewHandFrame(HandTrackerFrameRef frame)
  - paint(Graphics g)
    - \* Draw depth image and tracked hands.
- SkeletonRenderer: Draw stick characters from skeleton data on top of depth image
  - onNewSkeletonFrame(UserTrackerFrameRef frame)
  - paint(Graphics g)
    - \* Draw depth image and skeletons

## nite2.gui.visualization

- **Visualization (Interface)**: Interface for classes that provide some sort of graphical presentation of the sensor data. A visualization will take a NuiTracker in its constructor to start listening to events.
  - show()
- HandVisualization: Hand tracker visualization window
  - show()
- SkeletonVisualization: Skeleton tracker visualization window
  - show()