Body Data Structure

Tuesday, September 15, 2015 5:13 PM

FrameReader

- Delegate to read frames Acquire latest frame to read the frame: AcquireLatestFrame(&pBodyFrame)
- Read from CSV file
- Read from data stream

BodyFrame:

- Contains a list of Bodies (multiple suits per frame)
- GetAndRefreshBodyData(_countof(ppBodies), ppBodies);

Body:

- Contains body segments

Body Segment

- SegmentType:

```
{
    SegmentType_Torso       = 0,
    SegmentType_RightArm    = 1,
    SegmentType_LeftArm     = 2,
    SegmentType_RightLeg    = 3,
    SegmentType_LeftLeg     = 4,
    SegmentType_Count
};
```

- Contains body joints
- Gets body joints orientations
- Tracking State
- Apply Fusion
- Apply Mapping
- Apply metrics extraction

Body Subsegment

- SubsegmentType:

```
{
    SubsegmentType_UpperSpine       = 0,
    SubsegmentType_LowerSpine       = 1,
    SubsegmentType_RightUpperArm    = 2,
    SubsegmentType_RightForeArm     = 3,
    SubsegmentType_LeftUpperArm     = 4,
    SubsegmentType_LeftForeArm      = 5,
    SubsegmentType_RightThigh       = 6,
    SubsegmentType_RightCalf = 7,
    SubsegmentType_LeftThigh        = 8,
    SubsegmentType_LeftCalf  = 9,
    SubsegmentType_Count
};
```

- Pipeline stage result (Raw-Tracked-Fused-Mapped)
- Tracking State
- List of sensors

SubsegmentOrientation

- Subsegment Type
- Subsegment Orientation Type (raw-tracked-fused-mapped)
- Subsegment Orientation

Sensor

- Sensors Types
  { IMU Sensor, Stretch Sensor, Others for future }
- Sensor ID
- Sensor Data

Sensor Data

- Sensor raw data
  - IMU: Yaw, Pitch, Roll
  - Stretch: S Value