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| Title | **IMU sensor for the large space VR training system** |
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| Re: |  |
| Abstract | This contribution illustrates the JSON schema structure for describing Inertia Measurement Unit(IMU) sensor data for the large space VR training system in a standardized data format. The semantics and examples of the IMU sensor information are presented. |
| Purpose | To start discussion on purpose of the standard |
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# Introduction

This contribution illustrates the JSON schema structure for describing Inertia Measurement Unit(IMU) sensor data for the large space VR training system in a standardized data format. The semantics and examples of the IMU sensor information are presented.

# IMU sensor data

## General

This subclause specifies a sensor data type, which describes the Inertia Measurement Unit(IMU) sensor.

## Syntax

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| --- |
| "IMUSensorData": {  "type": "object",  "properties": {  "orientationInQuaternion": {  "type": "object",  "properties": {  "x": {"type": "number"},  "y": {"type": "number"},  "z": {"type": "number"},  "w": {"type": "number"}  }  }  }  "additionalProperties": false  }, |
|  |

## Semantics

Semantics of the IMUSensor:

|  |  |
| --- | --- |
| Name | Definition |
| IMUSensorData | Tool for describing sensor data from the IMU sensor orientation. |
| orientationInQuaternion | It describes the orientation of the IMU sensor in a large space. The quaternion is expressed as x, y, z and w. |

## Examples

In this example, the measured orientation toward the y-axis and rotated 60 degrees around the y-axis.

|  |
| --- |
| {  “sensedInfoBaseAttributes”: {},  “IMUSensorData”: {  "orientationInQuaternion": {  "x": 0,  "y": 1.0,  "z": 0  "w": 60  }  } |