ViconDataStream Framework: A user's guide

This Framework is intended for people who want to use the Vicon System to stream marker information to their Mac OS X applications, without having to wire up any C++ libraries from Vicon.

The framework lets you access the subject, segment and marker information with minimal effort.

Let's have a look at the minimal code you need to get started:

```objc
- (void) setUpVicon;
{
    // Initialize the Vicon Client
    VDSClient *myViconClient = [VDSClient sharedClient];
    // Set the clients delegate
    myViconClient.delegate = self;
    // Start streaming the data
    [myViconClient startStreaming];
}

- (void) viconDidReceiveFrameWithSubjects:(NSDictionary *) subjects;
{

}

- (void) viconReportedError:(NSError*)theError;
{

}

- (void) viconDidConnect:(VDSClient *)theClient;
{

}

- (void) viconDidDisconnect:(VDSClient *)theClient;
{

}
```

As you can see in the code above, all you need to do is initialise the vicon client, register yourself as the client's delegate in order to receive updates from the vicon, and implement the delegate methods. You will be passed a subject dictionary which contains all the available information on the position and orientation of subjects, segments and markers.

The names of all the markers and segments are copied from the names given to the Vicon Nexus Tracker Application.

Setting Coordinate System

You can set the coordinate system to suit your preference as follows:

```objc
// right hand rule
[self.viconClient setAxisMappingForX:Left Y:Backward andZ:Up];
```

Make sure you always stick to the right hand rule, or else you will get an error.

Logging

You can set the framework to log to the console while it's connecting. This can help you debug if it won't connect.

```
[self.viconClient logAllData:YES];
```

Enabling/Disabling Marker Data

Depending on what you need to track, you might want to enable/disable unlabelled marker data. You can enable/disable marker, segment and unlabelled marker data.

```
[self.viconClient setMarkerDataEnabled:YES];
[self.viconClient setUnlabeledMarkerDataEnabled:YES];
[self.viconClient setSegmentDataEnabled:YES];
```