

Client Meeting Notes Summary – 19 Mar 20

Team Updates:

Bridget: Statement of work and DIS setup/understanding

Tran: Build on behaviour algorithm and DIS connection to Unity

Andrew: Build on understanding of DIS (research and platform documentation readings)

Tate: Alternate system options

General Notes:

Deliverable Confirmation:

- Simulation models (e.g. flock behaviour and a separate one for ground behaviour – Unity)
 - o Aimed at programming at least three behavioural algorithms
- Entity handling software (DIS) – position updates to handle the entity and broadcast on network
 - o Configure DIS with Unity platform
 - Delivered as one piece of software
 - Configure as point to point communication or broadcast to the network
 - anyone listening to the port will receive packets (usually use port 3000)
- PDU packets received and handled by simulated environment (VBS) network

Statement of Work

- all required changes and updates made – for all of us to sign and send to client for final approval

Topics:

DIS Clarification

- VBS already has DIS installed – just use as an arbitrary platform to integrate with other platforms
 - o Search for LVC and DIS in VBS Documentation
 - o Find the menu and right configuration
- Ensure parameters can change in Unity entities
 - o When mapped into VBS (have to test) to ensure looks realistic
- Focus only on single PDU component – Entity State PDU
 - o DIS Data Dictionary:
<http://faculty.nps.edu/brutzman/vrtp/mil/navy/nps/disEnumerations/JdbeHtmlFiles/pdu/29.htm>
- Dead reckoning
 - o Check requirements – only to incorporate if the data being transferred requires that variable
- Integration
 - o Send to a specified destination in the format you specify
- OpenDis Language
 - o When integrating things - often works better in same language (use C# - Unity)
 - Result in two different processes separately
 - Easier to interface together

Unity Algorithm (Flock)

- Check all three rules are correctly implemented
 - o Too much of a uniformed pattern (spacing looks fixed – unrealistic)
 - o Add an element of randomization

Alternate Systems

- Had looked at SteelBeast (commercial off the shelf) and accessing labs offsite
- Not a requirement: VBS simulation is just the visualiser (can be checked using packets – Wireshark)

Outcomes:

Possible change of Requirement if lockdown occurs:

- no connection to simulated environment (VBS) required – just monitor network for packets being sent
- note: the VBS integration can be done quite late if required – not essential at current time

Taskings: Andrew take lead on DIS

Meetings: All offline from now until further notice – utilise GoToMeeting with Sura as host