

## MECAC WEEKLY REPORT ( March 3 – March 10 )

This week we have worked on server network component. To increase number of players that can be supported concurrently, we have first implemented NxN matrix of event queues, where N is the number of players. We have developed the code for following two classes which are in server network component.

Event class {

    Int senderId, Enumeration eventType, String eventArguments

}

- This class represents the events that occur during the game play.

EventMatrix class {

    eventMatrix [N][N] stack of Event objects

    function pushEvent(Event)

    function getImmediateEvents(int bandwidth = 100)

}

- This class is responsible for storing event queues for all players. When a player with senderId SI sends an event to the server, pushEvent is called. This function pushes the event to all columns in eventMatrix[SI] .
- getImmediateEvents function is called in each server iteration. Bandwidth argument specifies the maximum number of events that can be sent in one iteration.

Our implementation of getImmediateEvents sorts the events according to area of interest calculation and urgency. Next week, we will work on assessing the improvement of this modification in server network component. We plan to increase NPCs to determine the limit for maximum players.