Path planning responsibilities

Moving forwards, this is my understanding of the anticipated path planning:

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| GAME TYPE | PATH PLANNING RESPONSIBLE PARTY |
| Point-to-point, static straight line | Controller |
| Point-to-point with obstacles and attractors | Controller |
| Circle, arbitrary shape | Game |
| Valley | Controller |

Point-to-point static straight line: The game generates an end point. The controller generates a minimum jerk trajectory and is responsible for all intermediate points.

Communication, Game to Controller: Target x,y.

Communication, Controller to Game: Current x,y, Intermediate x,y[]

Point-to-point with obstacles and attractors: The game generates an end point and arrays of obstacles and attractors. The controller generates a trajectory and is responsible for all intermediate points.

Communication, Game to Controller: Target x,y, Obstacle x,y[], Attractor x,y[].

Communication, Controller to Game: Current x,y, Intermediate x,y[].

Circle, arbitrary shapes: The game generates an end point (target x,y) and all intermediate points (Intermediate x,y[]). The controller is sent each intermediate point in turn, treating each one as its target x,y. The controller does not generate a minimum jerk (or any other) trajectory between its current point and the next point, it simply powers the motors according to position PID/Admittance control.

Communication, Game to Controller: Each intermediate x,y in turn.

Communication, Controller to Game: Current x,y.

Valley: Path planning mechanism to be decided, but it is likely that the controller will be in charge of this.