|  |  |
| --- | --- |
| Structure | |
| Responsibilities | Collaborations |
| Health | Grid |
|  |  |
| Build Time | Tile |
| Repair Speed | Particle Emitter |
| Whether it has been built |  |
| State of Structure |  |
| Cost to build |  |
| Type of Structure |  |
| Grid Position |  |
| Grid Squares occupied |  |
| Create Structure |  |
| Get and Set Structure Data |  |
| Destroy Structure |  |
| Take Damage |  |
| Repair |  |
| Determine collision |  |

|  |  |
| --- | --- |
| GameAgent | |
| Responsibilities | Collaborations |
| Health | Grid |
| Speed | Tile |
| Production Time | Particle Emitter |
| Cost |  |
| Damage |  |
| Particle System |  |
| State |  |
| Grid Position |  |
| Is moving |  |
| Construct |  |
| Attack |  |
| Take Damage |  |
| Move To |  |
| Heal |  |
| Destroy |  |
|  |  |

|  |  |
| --- | --- |
| ParticleEmitter | |
| Responsibilities | Collaborations |
| Number of Particles | Particle |
| Particles |  |
| Emitter Parent |  |
| Construct |  |
| Update System |  |
| Destroy |  |

|  |  |
| --- | --- |
| Sound | |
| Responsibilities | Collaborations |
| Buffer |  |
| Source |  |
| Source Position |  |
| Source Velocity |  |
| Listener Position |  |
| Listener Velocity |  |
| Listener Orientation |  |
| Whether sound is playing |  |
| Construct |  |
| Play Sound |  |
| Stop Sound |  |

|  |  |
| --- | --- |
| Player | |
| Responsibilities | Collaborations |
| Name | Structure |
| Number of Minerals | GameAgent |
| Owned Structures | SpaceUnit |
| Owned Units | Fleet |
| Owned space crafts | Grid |
| Population Limit | Tile |
| Whether Comm Centre is destroyed |  |
| Construct |  |
| Mineral Transaction |  |
| Purchase Structure |  |
| Queue Unit |  |
| Launch Attack |  |

|  |  |
| --- | --- |
| GameState | |
| Responsibilities | Collaborations |
| What State the game is in |  |
| Setup State |  |
| Update State |  |
| Clean up State |  |
| Save State |  |
| Load State |  |

|  |  |
| --- | --- |
| Resource | |
| Responsibilities | Collaborations |
| Amount |  |
| Construct |  |
| Destroy |  |
|  |  |
|  |  |
|  |  |

|  |  |
| --- | --- |
| StateControl |  |
| Responsibilities | Collaborations |
| Current game state | Play State |
| Initialise States and Players | Menu Sate |
| Set Game State | World State |
| Update State | Game State |
| Setup State upon State Change |  |

|  |  |
| --- | --- |
| Grid |  |
| Responsibilities | Collaborations |
| Start Position | Tile |
| End Position |  |
| Area |  |
| Setup Grid |  |
| Get Grid Data |  |
| Get Tiles |  |
| Reset Tile Data |  |
| Turn on Tiles |  |

|  |  |
| --- | --- |
| Tile |  |
| Responsibilities | Collaborations |
| Start Position | Game Agent |
| End Position |  |
| Whether Tile is used |  |
| Object on Tile |  |
| Parent Tile |  |
| Get Tile Data |  |
| Set Tile Data |  |
|  |  |