



Environment
list<IPhenomen> _naturalPhenomena MapSize _size
list<StateMetadata> GetEffects(LifeFormMetadata metadata) EnvironmentMetadata GetMetadata() void Update()

<<Интерфейс>> IPhenomen
void Update(EnvironmentMetadata environmentMetadata) list<StateUpdate> GetEffects(Point point, LifeFormMetadata metadata) bool IsIn(Point point) Place GetItPlace() PhenomenMetadata GetMetadata()

EnvironmentMetadata: Dictionary<string, PhenomenMetadata>
MapSize Size list<PhenomenMetadata> PhenomenaMetadata Protobuff.Metadata.EnvironmentMetadata GetProtoMetadata()

PhenomenMetadata
string Name Place Place Protobuff.Metadata.PhenomenMetadata GetProtoMetadata()

Place
PlaceType _placeType list<Point> _points
Place Intersect(Place anotherPlace) override string ToString() static bool IsEverything() static Place FromString(string str) static Place Everything() Protobuff.Place GetProtoPlace()

MapSize
int CountOfPoint int Width int Height Protobuff.MapSize GetProtoMapSize()

<<Перечисление>> PlaceType
Array Rectangle

Point
int _x int _y
override string ToString() static Point FromString() Protobuff.Point GetProtoPoint()

LifeForm

```
Dictionary<string, LifeFormState> _states
int64 _id
-----
void Update(list StateUpdate)
LifeFormMetadata GetMetadata()
```

LifeFormState

```
string _name
Place _place
douple _value
-----
StateMetadata GetMetadata()
read string StateName
```

StateMetadata

```
double Value
string Name
Protopuff.Metadata.StateMetadata
GetProtoMetadata()
```

LifeFormMetadata: Dictionary<string, StateMetadata>

```
int64 Id
Place Place
Protopuff.Metadata.LifeFormMetadata
GetProtoMetadata()
```

StateReaction

```
string _stateName
func<StateMetadata,void > _reaction
-----
void React(stateMetadata)
```


Demiurg

list<World> Worlds

-имя участника

World

```
string _name
Visualizer _visualizer
Environment _environment
list<LifeForms> _lifeForms
int _age
List<StateReaction> _stateReactions
-----
void Update()
WorldMetadata GetMetadata()
static World LoadFromFile(string
fileName, PhenomenaFabrica fabrica)
void SaveToFile(string fileName)
```

WorldMetadata

```
string Name
int Age
EnvironmentMetadata
EnvironmentMetadata
Dictionary<Int64, LifeFormMetadata>
LifeFormsMetadata
-----
-имя участника
Protobuff.Metadata.WorldMetadata
GetProtoMetadata
```

<<Интерфейс>>

IVisualizer

```
World World{get;}  
void Update();  
void SetWorld();
```

Place\Point

Place: PlaceType+point point
... point

Point: x|y

