



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.EnvironmentMetada
ta 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  
Place _place  
-----  
void Update(list StateUpdate)  
LifeFormMetadata GetMetadata()
```

LifeFormState

```
string _name  
double _value  
-----  
StateMetadata GetMetadata()  
read string StateName
```

StateMetadata

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

LifeFormMetadata: Dictionary<string, StateMetadata>

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

StateReaction

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


Demiurg

list<World> Worlds

-имя участника

WorldMetadata

string Name

int Age

EnvironmentMetadata

EnvironmentMetadata

Dictionary<Int64, LifeFormMetadata>

LifeFormsMetadata

-имя участника

Protobuff.Metadata.WorldMetadata

GetProtoMetadata

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)

<<Интерфейс>>

IVisualizer

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

Place\Point

Place: PlaceType+point point
... point

Point: x|y

