World

Environment

Dual connect:
1
:
1

Life forms

Visualizer

Demiurg

Environment

list<IPhenomen> _naturalPhenomena
MapSize _size

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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

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override string ToString()
static Point FromString()
Protobuff.Point GetProtoPoint()

LifeForm

Dictionary<string, LifeFormState> _states
int64 _id

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void Update(list StateUpdate)
LifeFormMetadata GetMetadata()

LifeFormState

string _name
Place _place
dougle _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

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void React(stateMetadata)

Demiurg

list<World> Worlds

-имя участника

World

string _name
Visualizer _visualizer
Environment _environment
list<LifeForms> _lifeForms
int _age
List<StateReaction> _stateReactions

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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

world.Update()

In

GetMetadata()

environment.Update
(worldMetadata)

In: foreach phenomen in phenomens

True

Foreach lifeForm in _lifeForms

True

All item processed?

AI item have processed?

False

False

phenomen.Update(w
orldMetadata)

environmen.GetEffec
ts(lifeForm)

lifeForm.Update(worldMetadata
, phenomenEffects)

In: foreach effect in phenomenEffects

True

all item processed?

False

_states.ContainsKey(effect.Name)

False

throw new NotImplementedException()

True

_states[effect.Name]
.Update(worldMetad
ata, effect)