Verwendete Klassen und deren Parameter und Methoden

Figure

```
fig;
title;
gameParameter;
gameStates;
terrainhandler;
btnPlayerCount;
btnMode;
btnWind;
btnMountain;
btnPlanet;
txtRounds;
sldRounds;
btnStart;
player;
fire;
angleText;
angleSlider;
powerText;
powerSlider;
playerPoints;
gameRound;
```

```
function this = Figure(GameStates,GameParameter)
function [] = drawMenue(this)
function [] = drawGamescreen(this)
function [] = drawActualPlayer(this, GameState, color)
function [] = drawPlayerPoints(this, GameParameter, Player)
function [] = drawGameRound(this, GameParameter, GameState)
function [] = drawGameButtons(this)
function [] = drawPowerBar(this)
function [] = updatePowerBar(this,power)
function [p] = drawInScreen(this,terrain)
function [p] = updateInScreen(this, terrain)
function [p] = drawElement(this, shape)
function [p] = drawElementCol(this,shape,color)
function [] = deleteElement(this,p)
function [] = updateElement(this,p, shape)
function [] = updateElementCol(this,p,shape,color)
function [] = drawShockwave(this, impact)
function [newTerrain] = drawImpactCircle(this, terrain, impact)
function [intersections] = getOuterIntersections(this, x1arr, y1arr,
centerX, centerY,r)
function [] = updateState(this,GameStates)
function [] = updateParameters(this,GameParameter)       ^
function [GameParameter] = getParameters(this)
function [fig] = getFig(this)
function [power] = getPower(this)
function [angel] = getAngle(this)
function btnPlayerCountClick(this,source,eventdata)
function btnGameModeClick(this,source,eventdata)
function btnWindClick(this,source,eventdata);
function btnMountainClick(this,source,eventdata)
function btnPlanetClick(this,source,eventdata)nd
function sldRoundsChange(this,source,eventdata)
function btnStartClick(this,source,eventdata)
function [] = btnFireClick(this,source,eventdata)
function btnAngleClick(this,source,eventdata)
function btnPowerClick(this,source,eventdata)
function myMouseDownCallBack(this,hObject,~)
function myMouseUpCallBack(this,hObject,~)
```

Landscape

```
gameParameter;
terrainArray;
```

```
function this = Landscape(GameParameter)
function this = genLandscape(this)
function terrainArray = getLandscape(this)
```

Wether

```
gameParameter;
wind;
```

```
function [this] = Wether(GameParameter)
function [windVektor] = getWindShape(this)
function [windShapeColor] = getWindShapeColor(this)
```

Game Status

```
FONT = 'Courier';
FONT_SERIF = 'Times New Roman';
TITLE_SIZE = 19;
TEXT_SIZE = 15;
TEXT_SIZE_SMALL = 15;
TEXT_SIZE_TINY = 13;
TITLE_COLOR = [.0,.1,.8];
GREEN = [.01, .5, .01];
HOVER_GREEN = [.01, .7, .01]
BLACK = [.01, .01, .01];
BACK_BLACK = [.01, .01, .01];
RED = [0.8,0.1,0.15];
ORANGE = [0.9,0.4,0.1];
YELLOW = [0.9,0.9,0.1];
MAGENTA = [1,0,1];
SKY = [0.6 0.9 1];
varScreenSize = get(0,'ScreenSize');
SCREEN_WIDTH;
SCREEN_HIGH;
MENUE_HIGH;
MENUE_WIDTH;
MENUE_POSITION;
GAME_HIGH;
GAME_WIDTH;
GAME_POSITION;
menueProcessed = 0
actualPlayer = 1;
playerInGame;
gameRound = 1;
```

```
function this = GameStates()
function this = setMenueProccessed(this, state)
function state = getProcessState(this)
function [] = setPlayerInGame(this, number)
function [playerInGame] = decreasePlayerInGame(this)
function [playerInGame] = getPlayerInGame(this)
function [] = setActualPlayer(this,number)
function [actPlayer] = getActualPlayer(this)
function [] = nextPlayer(this, GameParameter, PlayerArray)
function [gameRound] = getGameRound(this)
function [gameRound] = nextGameRound(this, GameParameter)
```

GameParameter

```
standardLivepoints = 100;
playerQuantety = 2;
maxPlayerQuantety = 6;
planet = 'Planet>> earth';
numberPlanet = 1;
gForce = 9.81;
gameMode = 'Game Mode>> tactics';
numberMode = 1;
wind = 'Wind>> medium';
numberWind = 2;
windMultiplicator;
atmosphere;
mountain = 'Mountains>> medium';
numberMountain = 2;
numberRounds = 10;
RESOLUTION = 1;
JITTER = 40;
JITTERBALANCE = 0.75;
DAEMPFUNG= 1.4;
BERGOFFSET = 55;
YLIMITS = [20 200];
PLATFORMOFFSET=+5;
POSTSMOOTHING= 10;
FELSUEBERGANG=[50 70];
max_iterations=6;
detonationRadius = 20;
maxAngle = 180;
maxPower = 100000;
powerLimit = 100000;
PLOT_W = 1000;
PLOT_H = 750;
axisArray = [0 1000 0 750];
maxTankPos = 0.3
```

```
function [this] = GameParameter()
function this = setPlanet(this)
function this = nextPlanet(this)
function this = nextWind(this)
function this = nextMountain(this)
function this = nextMode(this)
function [this] = setPlayerQuantety(this, playerQuantety)
function [standardLivePoints] = getStandardLivePoints(this)
```

Player

```
number;
name;
livePoints;
score;
tankType;
positionXY;
tankArray;
tankHandler;
```

```
function this = Player(number, name, tankType, GameParameter)
function [] = genTank(this)
function [color] = getTankColor(this)
function [] = posTank(this, Landscape, GameParameter)
function  [tankArray]= getTank(this)
function [angle] = calcAngle(this, mouseX, mouseY)
```