mkRPG

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Namespace Documentation

7.1 src::parsing::map_parser Namespace Reference

Functions

- def parse_cell
- def map_parser
- def get_size
- def gen_map

7.1.1 Detailed Description

This module handles xml parsing for maps description files.

7.1.2 Function Documentation

7.1.2.1 def src.parsing.map_parser.get_size (tree)

Gets the size of the map.

7.1.2.2 def src.parsing.map_parser.map_parser (map_xml)

The main parser for the map xml file.

7.1.2.3 def src.parsing.map_parser.parse_cell (cell_object)

Parses a CellType attribute.

Class Documentation

8.1 src.path.Archi Class Reference

Public Member Functions

- def __init__
- def get_src_file
- · def get_static_file
- def get_xml_file
- def list_files
- def get_src_dir
- def get_static_dir
- def get_xml_dir

Public Attributes

main_directory

8.1.1 Detailed Description

```
This class manages the arhitecture of the project. It allows the user to travel in the file system of the game, to get the XML files and others (PNG, configuration files...)
Moreover, it should be cross-platform compliant
```

8.1.2 Member Function Documentation

8.1.2.1 def src.path.Archi.get_src_dir(self, dir_path)

Gets the given dir_path with respect to the src folder.

8.1.2.2 def src.path.Archi.get_src_file (self, file_path, mode = ' r')

Gets the path of the src directory. At least used by the src scripts.

8.1.2.3 def src.path.Archi.get_static_dir(self, dir_path)

Gets the given dir_path with respect to the static folder.

8.1.2.4 def src.path.Archi.get static file (self, file_path, mode = ' r')

Gets the path of the static files directory. Static files are basically all graphical files, and a description of the common world

8.1.2.5 def src.path.Archi.get_xml_dir (self, dir_path)

Gets the given dir_path with respect to the xml folder.

8.1.2.6 def src.path.Archi.get_xml_file (self, file_path, mode = ' r')

Gets the path of a xml file describing a world, a scenario, or a campaign.

8.1.2.7 def src.path.Archi.list_files (self, dir_path)

List all the files present in the dir_path, if it is a dir. Else raise a FileNotFoundError.

The documentation for this class was generated from the following file:

· src/path.py

8.2 src.backgroundLayer.BackgroundLayer Class Reference

Inherits Layer.

Public Member Functions

- def __init__
- · def init layer
- def render

- def collision_test
- def click_update
- def get_grid_info
- def zoom

Public Attributes

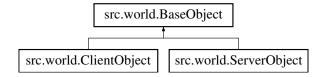
- cell_ids
- grid_cell_ids
- g_width
- g_height
- image
- rect
- · mouse_iso
- · selected_cell

The documentation for this class was generated from the following file:

• src/backgroundLayer.py

8.3 src.world.BaseObject Class Reference

Inheritance diagram for src.world.BaseObject:



Public Member Functions

- def __init__
- def __getattr__
- def load
- def contextEval

Public Attributes

- · ident
- params

Static Public Attributes

- int **ident** = 0
- dictionary ids = {}

The documentation for this class was generated from the following file:

• src/world.py

8.4 BColor Class Reference

The BColor class is a simple frame that offers color selection.

```
#include <bcolor.h>
```

Public Slots

- void setColor (const QColor &c)
- void setColorQuiet (const QColor &c)
- void setName (const QString &s)
- void setNameQuiet (const QString &s)

Signals

- void colorChanged (const QColor &)
- void nameChanged (const QString &)

Public Member Functions

- BColor (QWidget *parent=0)
- BColor (QColor c, QWidget *parent=0)
- const QString & name () const
- const QColor & color () const

Properties

- QColor color
- QString name

8.4.1 Detailed Description

The BColor class is a simple frame that offers color selection.

```
8.4.2 Constructor & Destructor Documentation
8.4.2.1 BColor::BColor(QWidget* parent = 0) [explicit]
Constructs a new BColor object, with white as current color.
8.4.2.2 BColor::BColor ( QColor c, QWidget * parent = 0 ) [explicit]
Constructs a new BColor object and sets the color to c.
8.4.3 Member Function Documentation
8.4.3.1 const QColor& BColor::color ( ) const
Returns the current color of the selector.
See also
    setColor, setColorQuiet, colorChanged
8.4.3.2 void BColor::colorChanged (const QColor & ) [signal]
This signal is emitted when the color change, both when the user edit it or when setColor
is called.
See also
    color, setColorQuiet
8.4.3.3 const QString& BColor::name ( ) const
Returns the name of the selector.
See also
```

setName, setNameQuiet, nameChanged

8.4.3.4 void BColor::nameChanged (const QString &) [signal]

This signal is emitted when the name change, when setColor is called.

See also

name, setNameQuiet

```
8.4.3.5 void BColor::setColor (const QColor & c) [slot]
Sets the current color.
The signal colorChanged is emitted.
See also
    setColorQuiet, color
8.4.3.6 void BColor::setColorQuiet (const QColor & c) [slot]
Sets the current color.
The signal colorChanged is not emitted.
See also
    setColor, color
8.4.3.7 void BColor::setName ( const QString & s ) [slot]
Sets the name of the selector.
The signal nameChanged is emitted.
See also
    setNameQuiet, name
8.4.3.8 void BColor::setNameQuiet (const QString & s) [slot]
Sets the name of the selector.
The signal nameChanged is not emitted.
See also
    setName, name
8.4.4 Property Documentation
8.4.4.1 const QColor & BColor::color [read, write]
The current color that is displayed by the widget
See also
    setColor, setColorQuiet, colorChanged.
```

```
8.4.4.2 const QString & BColor::name [read, write]
```

The name that is shown as title for the color chooser dialog used for user color definition purpose.

see also setName, setNameQuiet, and nameChanged.

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/bcolor.h
- src/editor/GUI/Tabs/bcolor.cpp

8.5 BDock Class Reference

The BDock class is the container for widget to display in a BDocksZone.

```
#include <bdock.h>
```

Public Slots

- void setTitle (QString s)
- void setUnfold (bool v)

Signals

- void mouseClick (int i, const QPoint &p)
- void **mouseMove** (int i, const QPoint &p)
- void mouseRelease (int i, const QPoint &p)
- void movementFinished (int i)

Public Member Functions

- BDock (QString title, BDockWidget *dock, QWidget *parent=0)
- · bool unfold () const
- int currentSize () const
- void setCurrentSize (int t)
- void setIndex (int i)
- int index () const
- void moveTo (int i, bool inert=true)
- void setLength (int I)

Properties

- bool unfold
- int currentSize

8.5.1 Detailed Description

The BDock class is the container for widget to display in a BDocksZone.

A BDock is composed of a title and a QScrollArea in which a BDockWidget is displayed.

This container is movable within the BDocksZone it belongs to, and it can be hide.

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/Docks/bdock.h
- src/editor/GUI/Tabs/Docks/bdock.cpp

8.6 BDocksZone Class Reference

Public Types

enum ScrollBarMode { AlwaysVisible, Adjustable, Fixed }

The ScrollBarMode enum describe the way the BDocksZone reacts when a scroll bar is needed.

Public Slots

• void **swap** (bool anim=true)

Public Member Functions

- **BDocksZone** (QWidget *parent=0)
- void **setUnfold** (bool u, bool anim=true)
- const BinaryStateMachine * states () const
- int length () const
- void setLength (int t)
- ScrollBarMode scrollBarMode () const
- void setScrollBarMode (ScrollBarMode m)
- int currentLength () const
- void addDock (QString title, BDockWidget *dock)

Protected Slots

• void setCurrentLenght (int t)

Properties

- int length
- int currentLength

8.6.1 Member Enumeration Documentation

8.6.1.1 enum BDocksZone::ScrollBarMode

The ScrollBarMode enum describe the way the BDocksZone reacts when a scroll bar is needed.

Enumerator:

Always Visible Always show the scroll bar, even if it is uslessAdjustable Show the scroll bar when needed, adaptating the docks lengthFixed Show the scroll bar when needed, keeping the docks length fixed

The documentation for this class was generated from the following files:

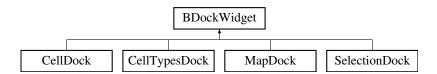
- src/editor/GUI/Tabs/Docks/bdockszone.h
- src/editor/GUI/Tabs/Docks/bdockszone.cpp

8.7 BDockWidget Class Reference

The BDockWidget class is the base class for game-related docks.

```
#include <bdockwidget.h>
```

Inheritance diagram for BDockWidget:



Public Slots

• virtual void updateGame ()

Signals

- void gameModified ()
- · void changeDockName (QString)

- BDockWidget (QWidget *parent=0)
- void setGame (Game *g)

Protected Attributes

• Game * game

8.7.1 Detailed Description

The BDockWidget class is the base class for game-related docks.

It provides common functions for set game, update, ...

The documentation for this class was generated from the following files:

- · src/editor/GUI/Tabs/Docks/bdockwidget.h
- src/editor/GUI/Tabs/Docks/bdockwidget.cpp

8.8 BinaryStateMachine Class Reference

The BinaryStateMachine class is a simple QStateMachine with two states.

```
#include <intertie.h>
```

Public Slots

- void swap ()
- void setPositive (bool p)
- void setNegative (bool n)

Signals

- · void swapped (bool)
- void __swap ()

- BinaryStateMachine (QObject *parent=0)
- void defineProperty (QObject *obj, const char *prop)
- void **defineProperty** (QObject *obj, const char *prop, QVariant yesValue, Q-Variant noValue)
- bool isPositive () const
- bool isNegative () const

8.8.1 Detailed Description

The BinaryStateMachine class is a simple QStateMachine with two states.

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/Docks/intertie.h
- src/editor/GUI/Tabs/Docks/intertie.cpp

8.9 BLayout Class Reference

Signals

- void sizeChanged (int)
- void showPoint (int, int)

Public Member Functions

- **BLayout** (QWidget *parent=0)
- void **setOrientation** (Qt::Orientation o)
- void insert (BDock *d, int ind=-1)
- void setSpacing (int e)
- void **setLength** (int t)
- int spacing () const

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/Docks/bdockszone.h
- src/editor/GUI/Tabs/Docks/bdockszone.cpp

8.10 src.world.Cell Class Reference

Public Member Functions

• def __init__

Public Attributes

- · entities
- · objects

The documentation for this class was generated from the following file:

src/world.py

8.11 Cell Class Reference

The Cell class.

#include <map.h>

Inheritance diagram for Cell:



Public Member Functions

- Cell (Game *g=nullptr, GameObject *parent=nullptr)
- bool isSelected () const
- void setSelected (bool s=true)
- void invertSelected ()
- void addSelection ()
- bool isPreSelected () const
- void confirmPreSelection (bool add=true)
- void clearPreSelection ()

Public Attributes

- ObjectListD(o, O, bject, s, Object) private int nbSel
- bool selectMod

8.11.1 Detailed Description

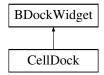
The Cell class.

The documentation for this class was generated from the following files:

- src/editor/Game/map.h
- src/editor/Game/map.cpp

8.12 CellDock Class Reference

Inheritance diagram for CellDock:



Public Slots

- void updateGame ()
- void selectionChanged ()

Public Member Functions

• CellDock (QWidget *parent=0)

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/celldock.h
- src/editor/GUI/Tabs/celldock.cpp

8.13 CellType Class Reference

The CellType class.

```
#include <map.h>
```

Inheritance diagram for CellType:



Public Member Functions

• CellType (Game *g, GameObject *parent)

8.13.1 Detailed Description

The CellType class.

The documentation for this class was generated from the following files:

- src/editor/Game/map.h
- · src/editor/Game/map.cpp

8.14 CellTypeListModel Class Reference

The CellTypeListModel class.

#include <mapslistmodel.h>

Public Member Functions

- CellTypeListModel (World *w, QObject *parent=0)
- int rowCount (const QModelIndex &parent) const Q_DECL_OVERRIDE
- QVariant data (const QModelIndex &index, int role) const Q_DECL_OVERRIDE
- bool insertRows (int row, int count, const QModelIndex &parent) Q_DECL_OV-ERRIDE
- bool removeRows (int row, int count, const QModelIndex &parent) Q_DECL_O-VERRIDE

8.14.1 Detailed Description

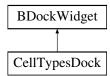
The CellTypeListModel class.

The documentation for this class was generated from the following files:

- src/editor/Game/mapslistmodel.h
- · src/editor/Game/mapslistmodel.cpp

8.15 CellTypesDock Class Reference

Inheritance diagram for CellTypesDock:



- CellTypesDock (QWidget *parent=0)
- void updateGame ()

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/celltypesdock.h
- src/editor/GUI/Tabs/celltypesdock.cpp

8.16 src.character.Character Class Reference

Public Member Functions

- def __init__
- def render
- def update
- def update_skin
- def zoom
- def set_path
- def make_skin
- def get_cell_pos_by_index
- def move

Public Attributes

- skin
- name
- action
- scale
- orientation
- image
- current_image
- game_frame_count
- · anim_frame_count
- · current_cell
- · path
- pos_offset

The documentation for this class was generated from the following file:

• src/character.py

8.17 src.chunk.Chunk Class Reference

Public Member Functions

def init

- · def init chunk
- def render
- def scale_chunk
- def update
- · def click_trigger
- def set_state
- def get_state

Public Attributes

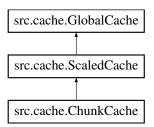
- index
- · cells
- g_width
- g_height
- · scale
- · width
- · height
- pos
- rect
- · layers
- image

The documentation for this class was generated from the following file:

• src/chunk.py

8.18 src.cache.ChunkCache Class Reference

Inheritance diagram for src.cache.ChunkCache:



- def init_chunk
- def init_elts
- def init_chunks
- def get_chunk
- def add_scaled

Static Public Attributes

dictionary cache = {}

The documentation for this class was generated from the following file:

· src/cache.py

8.19 ClCoords Class Reference

The ClCoords class describe positions with cell coordinates.

```
#include <mappainter.h>
```

Public Member Functions

- ClCoords (greal x, greal y)
- CICoords (const QPointF &p)

8.19.1 Detailed Description

The ClCoords class describe positions with cell coordinates.

Theses coordinates describe each point relatively to the cell grid. They correspond to the isometric 3D world.

See also

RICoords, PtCoords, PxCoords

The documentation for this class was generated from the following file:

• src/editor/Game/mappainter.h

8.20 src.client.Client Class Reference

- def init
- def del
- def run
- · def frame_counter
- · def update_view
- def get_conf_file
- def get_conf
- def init_cache
- · def handleOrder

Public Attributes

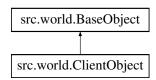
- net
- · screen_size
- screen
- world
- interface
- · interactions
- · perso
- orderDispatcher
- background
- · conf

The documentation for this class was generated from the following file:

· src/client.py

8.21 src.world.ClientObject Class Reference

Inheritance diagram for src.world.ClientObject:



The documentation for this class was generated from the following file:

• src/world.py

8.22 Editor Class Reference

The Editor class is the main window of the Editor.

```
#include <editor.h>
```

Public Member Functions

• Editor (QStringList args, QWidget *parent=0)

8.22.1 Detailed Description

The Editor class is the main window of the Editor.

It is composed of tabs that offer editing facilities.

The documentation for this class was generated from the following files:

- · src/editor/GUI/editor.h
- src/editor/GUI/editor.cpp

8.23 src.world.Entity Class Reference

Public Member Functions

def __init__

Public Attributes

- · quests
- inventory

The documentation for this class was generated from the following file:

· src/world.py

8.24 Game Class Reference

The Game class gather the differents parts needed to describe a game.

```
#include <game.h>
```

Inheritance diagram for Game:



- int newldent ()
- World * world ()
- Map * currentMap ()
- void setCurrentMap (Map *m)
- void addImage (Image *im)

8.24.1 Detailed Description

The Game class gather the differents parts needed to describe a game.

It contains mainly the World, and the ressources used by it (images and strings)

For editing purposes, it contains also the active map (the one being editing)

8.24.2 Member Function Documentation

```
8.24.2.1 int Game::newIdent() [inline]
```

Returns a new unused identifiers

Note

It should only be used by GameObject methods GameObject::init and GameObject::GameObject.

The documentation for this class was generated from the following files:

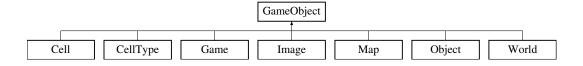
- · src/editor/Game/game.h
- src/editor/Game/game.cpp

8.25 GameObject Class Reference

The GameObject class is the base class for every part of games.

```
#include <object.h>
```

Inheritance diagram for GameObject:



- GameObject (Game *g=nullptr, GameObject *parent=nullptr)
- void init (Game *g, GameObject *p)
- · virtual bool isValid () const
- · int ident () const
- const QDateTime & lastInternalEdition () const
- · const QDateTime & lastChildrenEdition () const
- · const QDateTime & lastEdition () const

- int getParam (const QString &p) const
- void setParam (const QString &p, int v)
- bool hasParam (const QString &p) const
- QList< QString > params () const
- bool getFlag (const QString &f) const
- void setFlag (const QString &f, bool v)
- bool hasFlag (const QString &f) const
- QList< QString > flags () const
- void touch ()
- void addReference ()
- void removeReference ()
- void setParent (GameObject *p)

Protected Member Functions

- void addChild (GameObject *c)
- void removeChild (GameObject *c)
- void childrenTouched (const QDateTime &d)

Protected Attributes

- GameObject * parent
- QMap< int, GameObject * > children
- Game * game
- int id
- · int nbRef
- QMap< QString, int > aParams
- QMap< QString, bool > aFlags
- · QString fileName
- · QDateTime lastEdit
- QDateTime lastChildEdit

8.25.1 Detailed Description

The GameObject class is the base class for every part of games.

Each instance is identified by a game-wide unique identifier.

Object edition notification mechanism

To make the edition easier, each GameObject contains two QDateTime values :

- The most recent edition time, which is updated by the touch method
- · The most recent chidl edition time, also updated by the touch method

Note

If the changes that are made in the object have to be detected by display/edition widgets, the touch function should be called.

To prevent the notification chain to be broken, the existing objects should always have a parent (except for the root object). This can be acheived using the init or setParent method, when the parent have not been given in the constructor. (see object.h for details)

References count

Todo

8.25.2 Constructor & Destructor Documentation

```
8.25.2.1 GameObject::GameObject( Game * g = nullptr, GameObject * parent = nullptr )
```

Constructs a new GameObject with parent parent and the reference to the game g.

Note

If these objects cannot be given to the constructor (case of an array of objects), the init method must be called after the creation to make the GameObject valid.

8.25.3 Member Function Documentation

```
8.25.3.1 QList<QString> GameObject::flags ( ) const [inline]
```

Returns the list of the registered flags

See also

getFlag, setFlag, params

8.25.3.2 bool GameObject::getFlag (const QString & f) const [inline]

Returns the value of the f flag.

Note

If the requested parameter does not exists, a ${\tt false}$ value is returned, and the flags map stay unchanged

See also

flags, hasFlag, setFlag, getParam

```
Returns the value of the p parameter.
Note
    If the requested parameter does not exists, a null value is returned, and the param-
    eters map stay unchanged
See also
    params, hasParam, setParam, getFlag
8.25.3.4 bool GameObject::hasFlag ( const QString & f ) const [inline]
Returns true if the falg f is register in the object's flags.
See also
    getFlag, setFlag, hasParam
8.25.3.5 bool GameObject::hasParam ( const QString & p ) const [inline]
Returns true if the parameter {\tt is} register in the object's parameters.
See also
    getParam, setParam, hasFlag
8.25.3.6 int GameObject::ident() const [inline]
Returns the name wide unique identifier of the object.
See also
    init, GameObject
8.25.3.7 void GameObject::init ( Game * g, GameObject * p )
Initialises the object in case it had been construct with a NULL pointer (array of objects)
See also
    isValid, GameObject
```

8.25.3.3 int GameObject::getParam (const QString & p) const [inline]

```
8.25.3.8 virtual bool GameObject::isValid() const [inline, virtual]
Returns true if the object has been initialised
See also
    init, GameObject
Reimplemented in Image.
8.25.3.9 const QDateTime& GameObject::lastChildrenEdition() const [inline]
Returns the last time one of the object's children has been modified.
See also
    lastEdition, lastInternalEdition
8.25.3.10 const QDateTime& GameObject::lastEdition() const [inline]
Returns the last time a modification was made on the object or one of its children.
See also
    lastInternalEdition, lastChildrenEdition
8.25.3.11 const QDateTime& GameObject::lastInternalEdition() const [inline]
Returns the last edition time.
See also
    lastEdition, lastChildrenEdition
8.25.3.12 QList<QString> GameObject::params() const [inline]
Returns the list of the registered paramters
See also
    getParam, setParam, flags
```

8.25.3.13 void GameObject::setFlag (const QString & f, bool v) [inline]

Set the value of the f flag.

Note

If the requested flag does not exists, it is created.

See also

flags, hasFlag, getFlag, setParam

8.25.3.14 void GameObject::setParam (const QString & p, int v) [inline]

Set the value of the p parameter.

Note

If the requested parameter does not exists, it is created.

See also

params, hasParam, getParam, setFlag

8.25.3.15 void GameObject::touch()

Notify the object and its parent that it has been modified.

See also

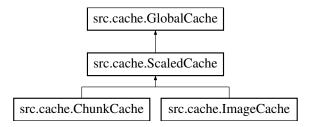
lastInternalEdition, lastChildrenEdition, lastEdition.

The documentation for this class was generated from the following files:

- src/editor/Game/object.h
- src/editor/Game/object.cpp

8.26 src.cache.GlobalCache Class Reference

Inheritance diagram for src.cache.GlobalCache:



Public Member Functions

- def init
- def set
- def get
- · def clear
- def keys
- · def show

The documentation for this class was generated from the following file:

· src/cache.py

8.27 Image Class Reference

The Image class stores an external file in a QImage, and gives each image ressources a unique identifier.

```
#include <object.h>
```

Inheritance diagram for Image:



Public Member Functions

- Image (Game *g, GameObject *parent, const QString &fileName)
- bool isValid () const
- const Qlmage & image () const
- · const QSize size () const
- void update ()

8.27.1 Detailed Description

The Image class stores an external file in a QImage, and gives each image ressources a unique identifier.

8.27.2 Member Function Documentation

8.27.2.1 boollmage::isValid()const [inline, virtual]

Returns true if the object has been initialised

See also

init, GameObject

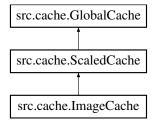
Reimplemented from GameObject.

The documentation for this class was generated from the following files:

- src/editor/Game/object.h
- · src/editor/Game/object.cpp

8.28 src.cache.lmageCache Class Reference

Inheritance diagram for src.cache.ImageCache:



Public Member Functions

- def init_image_from_file
- def init_image_from_surface
- def get_image
- · def init elts
- · def init_images
- · def add scaled

Static Public Attributes

• dictionary cache = {}

The documentation for this class was generated from the following file:

· src/cache.py

8.29 src.interactions.Interaction Class Reference

- def __init__
- def load

Public Attributes

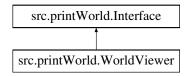
- · target
- type
- key
- · event

The documentation for this class was generated from the following file:

· src/interactions.py

8.30 src.printWorld.Interface Class Reference

Inheritance diagram for src.printWorld.Interface:



The documentation for this class was generated from the following file:

· src/printWorld.py

8.31 Intertie Class Reference

The Intertie class provide int that move smoothly from their value to an objective.

```
#include <intertie.h>
```

Public Slots

- void setValue (int v, bool inert=true)
- void setMaximumSpeed (int vM)
- void setAcceleration (int a)
- void setUpdateInterval (int d)

Signals

- void modificationFinished (int)
- void valueChanged (int)

Public Member Functions

- Intertie (QObject *parent=0)
- int value () const
- void link (QObject *obj, const char *prop)

8.31.1 Detailed Description

The Intertie class provide int that move smoothly from their value to an objective.

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/Docks/intertie.h
- src/editor/GUI/Tabs/Docks/intertie.cpp

8.32 src.layer.Layer Class Reference

Public Member Functions

- def init
- def render
- def update
- def get_cell_pos
- def make_grid
- def update_cell
- def update_grid
- def zoom

Public Attributes

- · cells
- scale
- g_width
- g_height
- size

The documentation for this class was generated from the following file:

· src/layer.py

8.33 src.world.Map Class Reference

- def __init__
- def fill

Public Attributes

- · cells
- · cellsGrid

8.33.1 Member Function Documentation

8.33.1.1 def src.world.Map.fill (self)

```
Complète les cases par défaut
```

The documentation for this class was generated from the following file:

· src/world.py

8.34 Map Class Reference

The Map class.

#include <map.h>

Inheritance diagram for Map:



- Map (Game *g, GameObject *parent)
- ParamGetter (width) ParamGetter(height) QSize size() const
- void setWidth (int w)
- void setHeight (int h)
- void resize (int w, int h)
- Cell & cell (int i, int j) const
- Cell & cell (const QPoint &p) const
- · void selectAll ()
- void unSelectAll ()
- void confirmPreSelection (bool add=true)
- void clearPreSelection ()

8.34.1 Detailed Description

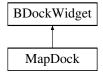
The Map class.

The documentation for this class was generated from the following files:

- src/editor/Game/map.h
- src/editor/Game/map.cpp

8.35 MapDock Class Reference

Inheritance diagram for MapDock:



Public Member Functions

- MapDock (QWidget *parent=0)
- void updateGame ()

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/mapdock.h
- src/editor/GUI/Tabs/mapdock.cpp

8.36 MapPainter Class Reference

The MapPainter class that can paint a Map using a QPainter.

```
#include <mappainter.h>
```

Public Types

 enum Element { Nothing = 0, CellBackground = 1, Grid = 2, CellSelection = 4, CellHighlighting = 8, Objects = 16, All = 31 }

The Element enum discribes the different elements that can be render.

Signals

- void mapSizeChanged (QSize)
- void viewCenterChanged (QPoint)

Public Member Functions

- MapPainter (QObject *parent=0)
- MapPainter (Map *m, QObject *parent=0)
- void setPaintedElement (Element e, bool painted=true)
- void setPaintedElements (Element e)
- void setMap (Map *m)
- void paint (QPainter &p)
- const QImage & render ()
- RICoords viewCenter () const
- void setViewCenter (RICoords relativeCenter)
- void setViewCenter (double relativeCenterX, double relativeCenterY)
- void setViewCenterQuiet (double x, double y)
- double scale () const
- void setScale (double scale)
- void setScaleDomain (double scaleMin, double scaleMax)
- bool setHighlightedCell (const ClCoords &p)
- bool setHighlightedCell (int i, int j)
- QPoint highlightedCell () const
- · bool hasHighlightedCell () const
- · bool isCell (const ClCoords &c) const
- void resize (QSize s)
- void resize (int wi, int he)
- · QSize size () const
- void zoom (double factor, QPointF fixedPoint)
- QPair< bool, bool > move (PxCoords delta, QPointF center)
- QSize virtualSize () const
- PxCoords ptToPxI (PtCoords p) const
- PtCoords pxlToPt (PxCoords p) const
- PtCoords cooToPt (ClCoords p) const
- ClCoords ptToCoo (PtCoords p) const
- PxCoords cooToPxI (ClCoords p) const
- ClCoords pxlToCoo (PxCoords p) const
- PtCoords indToPt (int i, int j) const
- · const QColor & selectedCellColor () const
- const QColor & preSelectedCellColor () const
- void setSelectedCellColor (const QColor &c)
- void setPreSelectedCellColor (const QColor &c)

8.36.1 Detailed Description

The MapPainter class that can paint a Map using a QPainter.

The class take charge of the different ratios of the map rendering and the area in which it will be rendered.

Note

The view is kept updated with the associated map at each paint or render call. It is thus just needed to call one of these functions to update the view after a modification

To ensure a type checking security about the different types of coordinates that are used, four different types that inherit from QPointF are used: RICoords, CICoords, PtCoords and PxCoords

8.36.2 Member Enumeration Documentation

8.36.2.1 enum MapPainter::Element

The Element enum discribes the different elements that can be render.

This includes both map's objects and user interaction and editing elements.

Element value can be used as flags using the operators operator | "|", operator | "|", operator | "|".

See also

Cell, CellType

Enumerator:

Nothing Represent no elements

CellBackground The bacground associated to the cell type

Grid A thin grid that separate cells

CellSelection Graphical information about the selection state

CellHighlighting Graphical visualisation of the cells the mouse is over

Objects The objects that lay on the cells

All Represent all elements

8.36.3 Constructor & Destructor Documentation

```
8.36.3.1 MapPainter::MapPainter ( QObject * parent = 0 )
```

Constructs a new MapPainter with a default size of (42,42).

```
8.36.3.2 MapPainter::MapPainter ( Map * m, QObject * parent = 0 )
```

Constructs a new MapPainter with a default size of (42,42), and loads the map m.

```
8.36.4 Member Function Documentation
```

8.36.4.1 PtCoords MapPainter::cooToPt (CICoords p) const

Converts cells indice to virtual point coordinates

8.36.4.2 PxCoords MapPainter::cooToPxI (ClCoords p) const

Convenient function equivalent to ptToPxI(cooToPt(p))

8.36.4.3 bool MapPainter::hasHighlightedCell() const

Returns true if a cell is highligthed.

See also

highlightedCell, setHighlightedCell

8.36.4.4 QPoint MapPainter::highlightedCell() const

Returns the integer index of the cell the is highlighted.

See also

setHighlightedCell, hasHighlightedCell

8.36.4.5 PtCoords MapPainter::indToPt (int i, int j) const

Converts to coordinates

8.36.4.6 bool MapPainter::isCell (const ClCoords & c) const

Returns true if the coordinate ${\tt C}$ correspond to a cell.

8.36.4.7 void MapPainter::mapSizeChanged (QSize) [signal]

This signal is emitted when the total size of the map's view change.

It appends mainly during scale change and modification on the $\frac{map}{map}$ (resize, angles setting, ...).

```
8.36.4.8 QPair < bool, bool > MapPainter::move ( PxCoords delta, QPointF center )
Change the center position from the given center and a pixel difference.
The return value indicate if the expected center was valid (regarding x or y coordinate).
See also
    setViewCenter
8.36.4.9 void MapPainter::paint ( QPainter & p )
Draws the map in the QPaintDevice.
See also
    render
8.36.4.10 const QColor & MapPainter::preSelectedCellColor ( ) const
Returns the color of the filter that is applied to pre-selected cells.
See also
    setPreSelectedCellColor, selectedCellColor
8.36.4.11 ClCoords MapPainter::ptToCoo ( PtCoords p ) const
Converts virtual point to cell indice
8.36.4.12 PxCoords MapPainter::ptToPxI ( PtCoords p ) const
Converts virtual point to real pixel coordinates
8.36.4.13 ClCoords MapPainter::pxlToCoo ( PxCoords p ) const
Convenient function equivalent to ptToCoo(pxIToPt(p))
8.36.4.14 PtCoords MapPainter::pxIToPt ( PxCoords p ) const
Converts real pixel to virtual point coordinates
```

```
8.36.4.15 const Qlmage & MapPainter::render ( )
Provides a QImage with a view of the map.
See also
    paint
8.36.4.16 void MapPainter::resize ( QSize s )
Change the size of the view, ie the rectangle in which the map will be render.
See also
    size
8.36.4.17 void MapPainter::resize (int wi, int he)
This is an overload function, see resize
8.36.4.18 double MapPainter::scale ( ) const
Returns the current scale of the view.
See also
    setScale
8.36.4.19 const QColor & MapPainter::selectedCellColor ( ) const
Returns the color of the filter that is applied to selected cells.
See also
    set Selected Cell Color, \ pre Selected Cell Color
8.36.4.20 bool MapPainter::setHighlightedCell (const ClCoords & p)
Sets the highligthed cell to the one at the ClCoords p
See also
    highlightedCell, hasHighlightedCell
```

```
8.36.4.21 bool MapPainter::setHighlightedCell (int i, int j)
This is an overload function, see setViewCenter.
8.36.4.22 void MapPainter::setMap ( Map * m )
Loads the map, computing the new size of the view area.
8.36.4.23 void MapPainter::setPaintedElement ( MapPainter::Element e, bool painted
         =true )
Enables or disables the render of an element.
See also
    setPaintedElements
8.36.4.24 void MapPainter::setPaintedElements ( Element e )
Sets the rendered elements.
See also
    setPaintedElement
8.36.4.25 void MapPainter::setPreSelectedCellColor (const QColor & c)
Sets the color of the filter that is applied to pre-selected cells.
See also
    preSelectedCellColor, setSelectedCellColor
8.36.4.26 void MapPainter::setScale ( double scale )
Sets the current view scale. This closest value in the scale domain will be used.
See also
    scale, setScaleDomain
```

8.36.4.27 void MapPainter::setScaleDomain (double scaleMin, double scaleMax)

Sets the valid values for the scale.

See also

scale, setScale

8.36.4.28 void MapPainter::setSelectedCellColor (const QColor & c)

Sets the color of the filter that is applied to selected cells.

See also

selectedCellColor, setPreSelectedCellColor

8.36.4.29 void MapPainter::setViewCenter (RICoords relativeCenter)

Change the view center, using relative coordinates.

If the new center is invalid (the view exceed the map area), the closest valid center is used.

See also

viewCenter

8.36.4.30 void MapPainter::setViewCenter (double relativeCenterX, double relativeCenterY)

This is an overload function, see setViewCenter.

8.36.4.31 void MapPainter::setViewCenterQuiet (double x, double y)

does the same as setViewCenter, without emitting the signal viewCenterChanged to avoid event loop.

8.36.4.32 QSize MapPainter::size () const

Return the size of the rectangle in which the map is render. This is also the size of the image returned by render.

See also

resize

8.36.4.33 RICoords MapPainter::viewCenter () const

Return the relative coordinates of the current view center.

See also

setViewCenter

```
8.36.4.34 void MapPainter::viewCenterChanged ( QPoint ) [signal]
```

This signal is emitted when the center of the map change.

It appends mainly during moving on the view and zooming.

```
8.36.4.35 QSize MapPainter::virtualSize ( ) const
```

Computes the total size of the image of the map

```
8.36.4.36 void MapPainter::zoom ( double factor, QPointF fixedPoint )
```

Multiplying the scale of the view by factor, trying to leave the point center at the same position.

Note

It is not always possible to keep this point fixed, in particulary when the view is resulting view would exceed the map region. In that case, the center is adapt to minimise the difference.

The documentation for this class was generated from the following files:

- src/editor/Game/mappainter.h
- src/editor/Game/mappainter.cpp

8.37 MapsEditor Class Reference

The MapsEditor class is the tab offering map editing facilities.

```
#include <mapseditor.h>
```

Public Slots

• void updateGame ()

Public Member Functions

- MapsEditor (QWidget *parent=0)
- void setGame (Game *g)

8.37.1 Detailed Description

The MapsEditor class is the tab offering map editing facilities.

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/mapseditor.h
- src/editor/GUI/Tabs/mapseditor.cpp

8.38 MapsListModel Class Reference

The MapsListModel class provides a presentation class for the Qt Model-View framework.

```
#include <mapslistmodel.h>
```

Public Slots

· void update ()

Public Member Functions

- MapsListModel (World *w, QObject *parent=0)
- int rowCount (const QModelIndex &parent) const Q_DECL_OVERRIDE
- QVariant data (const QModelIndex &index, int role) const Q_DECL_OVERRIDE
- bool insertRows (int row, int count, const QModelIndex &parent) Q_DECL_OV-ERRIDE
- bool removeRows (int row, int count, const QModelIndex &parent) Q_DECL_O-VERRIDE

8.38.1 Detailed Description

The MapsListModel class provides a presentation class for the Qt Model-View framework.

The documentation for this class was generated from the following files:

- src/editor/Game/mapslistmodel.h
- src/editor/Game/mapslistmodel.cpp

8.39 MapViewer Class Reference

The MapViewer class provides a widget to display and edit a Map using a MapPainter.

```
#include <mapviewer.h>
```

Public Types

• enum SelectionMode { PencilSelection, RectangleSelection, RegionSelection }

The SelectionMode enum describes the different behaviour the cell selection can have.

Public Slots

• void updateRequest ()

Signals

- · void viewSizeChanged (QSize)
- void selectionChanged ()

Public Member Functions

- MapViewer (QWidget *parent=0)
- void setMap (Map *m)
- void updateMap ()
- MapPainter & mapPainter ()
- void setSelectionMode (SelectionMode m)
- SelectionMode selectionMode () const

8.39.1 Detailed Description

The MapViewer class provides a widget to display and edit a Map using a MapPainter.

Several selection modes are available. Combined with the "'Ctrl" and "'Shift" modifiers, a colossal amount of selection possibilities is offered. See SelectionMode for more information.

8.39.2 Member Enumeration Documentation

8.39.2.1 enum MapViewer::SelectionMode

The SelectionMode enum describes the different behaviour the cell selection can have.

The selection's behaviour in based on to parameters:

- The keyboard modifiers that are pressed during selection.
- · The current selection mode

If the "'Ctrl" modifier is pressed, the past selected cells stay selected otherwise, they are all unselected

If the "Shift" modifier is pressed, the selection is inverted.

Three modes of selection exists:

Enumerator:

PencilSelection The cells under the cursor are selected

RectangleSelection The cells inside the rectangle defined by the clicked cell and the cell under the cursor are selected

RegionSelection The cells inside the region drawn by cursor's moves are selected

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/mapviewer.h
- src/editor/GUI/Tabs/mapviewer.cpp

8.40 src.map.MapViewer Class Reference

Public Member Functions

- def init
- · def load chunks
- def make_walkables
- def zoom
- def move
- def render
- def neighbors_chunk
- def onscreen_chunks
- def update
- def propagate_trigger
- def compute_path
- def load_bg

Public Attributes

- map
- · world
- · scale
- · cm height

- width
- · height
- walkablesGraph
- current_chunk
- · pos offset
- · chunk_pos
- · chunks_state

8.40.1 Member Function Documentation

8.40.1.1 def src.map.MapViewer.neighbors_chunk (self, chunk)

Returns indexes of the neighbors of chunk and index of chunk

The documentation for this class was generated from the following file:

• src/map.py

8.41 src.network.NetworkClient Class Reference

Inherits Thread.

Public Member Functions

- def __init__
- def run
- def send
- def sendEvent
- def kill

Public Attributes

- handle
- · soc
- alive

The documentation for this class was generated from the following file:

• src/network.py

8.42 src.networkudp.NetworkClient Class Reference

Inherits Thread.

Public Member Functions

- def __init__
- def run
- def send
- def sendEvent
- def kill

Public Attributes

- handle
- soc
- alive

The documentation for this class was generated from the following file:

src/networkudp.py

8.43 src.network.NetworkServer Class Reference

Inherits Thread.

Public Member Functions

- def __init__
- def waitForClients
- def run
- def sendOrder
- def broadcast
- def kill

Public Attributes

- handle
- soc
- alive
- co

The documentation for this class was generated from the following file:

• src/network.py

8.44 src.networkudp.NetworkServer Class Reference

Inherits Thread.

Public Member Functions

- def __init__
- def waitForClients
- def run
- def sendOrder
- · def broadcast
- def kill

Public Attributes

- handle
- soc
- · alive
- addr

The documentation for this class was generated from the following file:

• src/networkudp.py

8.45 NewGame Class Reference

Public Member Functions

- NewGame (QWidget *parent=0)
- QString name () const
- QString folder () const
- bool createFolder () const

The documentation for this class was generated from the following files:

- src/editor/GUI/newgame.h
- src/editor/GUI/newgame.cpp

8.46 Object Class Reference

The Object class.

```
#include <object.h>
```

Inheritance diagram for Object:



Public Member Functions

• Object (Game *g, GameObject *parent)

8.46.1 Detailed Description

The Object class.

The documentation for this class was generated from the following files:

- · src/editor/Game/object.h
- src/editor/Game/object.cpp

8.47 ObjectEditor Class Reference

Public Member Functions

- ObjectEditor (QWidget *parent=0)
- void **setGame** (Game *g)

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/objecteditor.h
- src/editor/GUI/Tabs/objecteditor.cpp

8.48 ObjectFlagTableModel Class Reference

Public Member Functions

• ObjectFlagTableModel (GameObject *obj, QObject *parent=0)

- int rowCount (const QModelIndex &parent) const Q DECL OVERRIDE
- int columnCount (const QModelIndex &parent) const Q_DECL_OVERRIDE
- QVariant data (const QModelIndex &index, int role) const Q DECL OVERRIDE
- Qt::ItemFlags flags (const QModelIndex &index) const
- bool **setData** (const QModelIndex &index, const QVariant &value, int role)
- QVariant headerData (int section, Qt::Orientation orientation, int role) const

The documentation for this class was generated from the following files:

- src/editor/Game/mapslistmodel.h
- src/editor/Game/mapslistmodel.cpp

8.49 ObjectParamTableModel Class Reference

Public Member Functions

- ObjectParamTableModel (GameObject *obj, QObject *parent=0)
- int rowCount (const QModelIndex &parent) const Q_DECL_OVERRIDE
- int columnCount (const QModelIndex &parent) const Q_DECL_OVERRIDE
- QVariant data (const QModelIndex &index, int role) const Q_DECL_OVERRIDE
- Qt::ItemFlags flags (const QModelIndex &index) const
- bool setData (const QModelIndex &index, const QVariant &value, int role)
- QVariant headerData (int section, Qt::Orientation orientation, int role) const

The documentation for this class was generated from the following files:

- src/editor/Game/mapslistmodel.h
- src/editor/Game/mapslistmodel.cpp

8.50 src.world.ObjectType Class Reference

Public Member Functions

- def init
- def create
- def __str__

Public Attributes

type

The documentation for this class was generated from the following file:

src/world.py

8.51 Options Struct Reference

The Options class provides session-independant options and preferences.

```
#include <options.h>
```

Public Member Functions

- template < class T >
 T load (QString group, QString opt)
- template < class T > void save (QString group, QString opt, T val)
- template < class T > void setDefault (QString group, QString opt, T val)
- bool isAdjustable (QString group, QString opt, bool adjust=true)
- void setAdjustable (QString group, QString opt, bool adjust)
- void reinitialise (QString group="")

Static Public Member Functions

• static Options & options ()

8.51.1 Detailed Description

The Options class provides session-independant options and preferences.

Features

The Options class aims at storing global options, that are available at any place in the entire application. The preferences are permanantly stored and remain bewteen the separate sessions and windows.

Two sorts of options exist:

- The adjustable ones : the value of the option change when save is called.
- The non-adjustable ones: the value of the option doesn't change is save is called, the option must be modified with.

The sort of option can be set with the setAdjustable function.

Design

The Options class is designed following the __Singleton design pattern__. The constructor is thus private, and the only Options instance is created at the first call of options.

QSetting is used internaly, see Qt's documentation for details about the storing mechanisms.

Reading and writting existing options

To read or write options, the Options instance must be retreived, using the options function, then the load and save functions can be called.

Adding options

To add a new option, it is only needed to add a default hard coded value, uisng the Default and DefaultF macros in the Options constructor.

It is strongly advice to use macro to define new options group (see WIN, for an example).

Note

To use Options with custom types (other than "'C++" standard), the defining header of the type must be included at the top of the options.h file, in order to be used in the default value declaration.

Warning

Pointer objects are not supported, and the result of the use of the Options class with such values is undefined.

See also

options.h

8.51.2 Member Function Documentation

8.51.2.1 bool Options::isAdjustable (QString group, QString opt, bool adjust = true)

Returns "'true" if the option defined by its group and name is adjustable, "'false" elsewhere.

See also

setAdjustable

8.51.2.2 template < class T > T Options::load (QString group, QString opt) [inline]

Reads an option defined by its group and name.

Note

The template argument must be precised since it can't be deduced from arguments' types.

Warning

If the option type and the reading type mismatch, an default null value is returned.

See also

save

```
8.51.2.3 Options & Options::options ( ) [static]
```

Returns the unique Options instance.

```
8.51.2.4 void Options::reinitialise ( QString group = " " )
```

Clear all options from the group. If "group == """, all entries are deleted.

```
8.51.2.5 template < class T > void Options::save ( QString group, QString opt, T val ) [inline]
```

Writes the new value of the options defined by its group and name, if the option is adjustable. See Options for details about options types.

Note

The template argument can be omitted since it would be deduced from the value argument.

See also

setDefault, load

8.51.2.6 void Options::setAdjustable (QString group, QString opt, bool adjust)

Sets if the option defined by its group and name is adjustable.

See also

isAdjustable

```
8.51.2.7 template < class T > void Options::setDefault ( QString group, QString opt, T val ) [inline]
```

Writes the new value of the options defined by its group and name, whatever the option type is. See Options for details about options types.

Note

The template argument can be omitted since it would be deduced from the value argument.

See also

save, load

The documentation for this struct was generated from the following files:

- src/editor/GUI/options.h
- src/editor/GUI/options.cpp

8.52 src.orders.Order Class Reference

Public Member Functions

- def __init__
- def __getattr__
- def __setattr__
- def copy
- def load
- · def toBytes
- · def fromBytes

Public Attributes

- type
- args

Static Public Attributes

• list params = [None]

The documentation for this class was generated from the following file:

• src/orders.py

8.53 src.orders.OrderDispatcher Class Reference

Public Member Functions

- def __init__
- def treat

Public Attributes

- world
- handle

8.53.1 Detailed Description

pour diminuer la redondance de code client/serveur

8.53.2 Member Function Documentation

8.53.2.1 def src.orders.OrderDispatcher.treat (self, emitter, order)

```
-> ordre à retransmettre
```

The documentation for this class was generated from the following file:

· src/orders.py

8.54 Paramitem Delegate Class Reference

Public Member Functions

- ParamItemDelegate (QObject *parent=nullptr)
- QWidget * createEditor (QWidget *parent, const QStyleOptionViewItem &option, const QModeIIndex &index) const
- void setEditorData (QWidget *editor, const QModelIndex &index) const
- void updateEditorGeometry (QWidget *editor, const QStyleOptionViewItem &option, const QModeIIndex &index) const
- void setModelData (QWidget *editor, QAbstractItemModel *model, const Q-ModelIndex &index) const

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/objecteditor.h
- src/editor/GUI/Tabs/objecteditor.cpp

8.55 src.tools.Perf Class Reference

Public Member Functions

- def __init__
- · def tic
- def toc
- def show

Public Attributes

- num
- avg
- min
- max
- ٠t

8.55.1 Detailed Description

Calcule les performances d'un morceau de code

8.55.2 Member Function Documentation

8.55.2.1 def src.tools.Perf.show (self)

Affiche le rapport

8.55.2.2 def src.tools.Perf.tic (self)

À lancer avant la fonction

8.55.2.3 def src.tools.Perf.toc (self)

À lancer après la fonction

The documentation for this class was generated from the following file:

src/tools.py

8.56 PtCoords Class Reference

The PtCoords class describe positions with virtual point coordinates.

```
#include <mappainter.h>
```

Public Member Functions

- PtCoords (greal x, greal y)
- PtCoords (const QPointF &p)

8.56.1 Detailed Description

The PtCoords class describe positions with virtual point coordinates.

Theses coordinates describe each point relatively to the view. They correspond to a point in the image containing the entire map.

See also

```
RICoords, CICoords, PxCoords
```

The documentation for this class was generated from the following file:

• src/editor/Game/mappainter.h

8.57 PxCoords Class Reference

The PxCoords class describe positions with real pixel coordinates.

```
#include <mappainter.h>
```

Public Member Functions

- PxCoords (qreal x, qreal y)
- PxCoords (const QPointF &p)
- PxCoords (const QPoint &p)
- PxCoords (int x, int y)

8.57.1 Detailed Description

The PxCoords class describe positions with real pixel coordinates.

Theses coordinates describe the pixel position.

See also

```
RICoords, CICoords, PtCoords
```

The documentation for this class was generated from the following file:

· src/editor/Game/mappainter.h

8.58 RICoords Class Reference

The RICoords class describe positions with relative coordinates.

```
#include <mappainter.h>
```

Public Member Functions

- RICoords (greal x, greal y)
- RICoords (const QPointF &p)

8.58.1 Detailed Description

The RICoords class describe positions with relative coordinates.

Theses coordinates have values in [0,1], for every point in the view.

See also

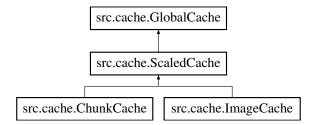
ClCoords PtCoords, PxCoords

The documentation for this class was generated from the following file:

• src/editor/Game/mappainter.h

8.59 src.cache.ScaledCache Class Reference

Inheritance diagram for src.cache.ScaledCache:



Public Member Functions

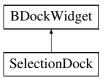
- · def add_scaled
- def remove
- · def get elt
- def free_cache

The documentation for this class was generated from the following file:

src/cache.py

8.60 SelectionDock Class Reference

Inheritance diagram for SelectionDock:



Public Member Functions

• SelectionDock (MapViewer *mv, QWidget *parent=0)

The documentation for this class was generated from the following files:

- src/editor/GUI/Tabs/selectiondock.h
- src/editor/GUI/Tabs/selectiondock.cpp

8.61 src.server.Server Class Reference

Public Member Functions

- def __init__
- def __del__
- def run
- def handle
- def handleEvent

Public Attributes

- net
- world
- · actions
- persos
- orderDispatcher
- events

The documentation for this class was generated from the following file:

• src/server.py

8.62 src.network.ServerConnection Class Reference

Inherits Thread.

Public Member Functions

- def __init__
- def run
- def send

Public Attributes

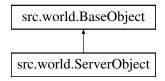
- soc
- handle

The documentation for this class was generated from the following file:

· src/network.py

8.63 src.world.ServerObject Class Reference

Inheritance diagram for src.world.ServerObject:



The documentation for this class was generated from the following file:

• src/world.py

8.64 TabAcces Class Reference

Signals

• void activated (int i)

Public Member Functions

- TabAcces (int i, const QString &n, const QPixmap &p, QWidget *parent=0)
- void setActive (bool a)

The documentation for this class was generated from the following files:

- · src/editor/GUI/tabacces.h
- src/editor/GUI/tabacces.cpp

8.65 TabBar Class Reference

Public Slots

• void setCurrentTab (int t)

Signals

void currentTabChanged (int)

Public Member Functions

- TabBar (QWidget *parent=0)
- void addTabAcces (const QString &n, const QPixmap &p)
- int currentTab () const
- void setTabsEnabled (bool e)

The documentation for this class was generated from the following files:

- src/editor/GUI/tabbar.h
- src/editor/GUI/tabbar.cpp

8.66 src.utils.WalkableGraph Class Reference

Public Member Functions

- def __init__
- · def get neighbors
- def dist
- def get_path

Public Attributes

walkables

The documentation for this class was generated from the following file:

src/utils.py

8.67 Welcome Class Reference

Public Member Functions

• Welcome (QWidget *parent=0)

The documentation for this class was generated from the following files:

- · src/editor/GUI/Tabs/welcome.h
- src/editor/GUI/Tabs/welcome.cpp

8.68 World Class Reference

The World class.

```
#include <game.h>
```

Inheritance diagram for World:



Public Member Functions

- World (Game *g, GameObject *parent)
- ObjectListD (m, M, ap,, s, Map) ObjectListD(o

Public Attributes

- . 0
- · bject
- s

8.68.1 Detailed Description

The World class.

The documentation for this class was generated from the following files:

- · src/editor/Game/game.h
- · src/editor/Game/game.cpp

8.69 src.world.World Class Reference

Public Member Functions

• def __init__

Public Attributes

- maps
- · entities
- · objects

The documentation for this class was generated from the following file:

• src/world.py

8.70 WorldEditor Class Reference

Public Member Functions

- WorldEditor (QWidget *parent=0)
- void setGame (Game *g)

The documentation for this class was generated from the following files:

- · src/editor/GUI/Tabs/worldeditor.h
- src/editor/GUI/Tabs/worldeditor.cpp

8.71 src.printWorld.WorldViewer Class Reference

Inheritance diagram for src.printWorld.WorldViewer:



Public Member Functions

- def __init__
- def get_event
- def end
- def update
- def render
- def move
- def zoom
- def move_char
- · def propagate_trigger

Public Attributes

- screen_size
- · current_map
- main_char
- · characters

The documentation for this class was generated from the following file:

· src/printWorld.py

8.72 XmlHandler Class Reference

Public Member Functions

- XmlHandler (Game *g)
- bool startElement (const QString &, const QString &localName, const QString &, const QXmlAttributes &atts)
- bool endElement (const QString &, const QString &localName, const QString &)

The documentation for this class was generated from the following files:

- src/editor/Game/xmlhandler.h
- src/editor/Game/xmlhandler.cpp

Chapter 9

File Documentation

9.1 src/editor/Game/game.h File Reference

Definition of the Game and World classes.

```
#include "object.h" #include "map.h"
```

Classes

• class World

The World class.

• class Game

The Game class gather the differents parts needed to describe a game.

9.1.1 Detailed Description

Definition of the Game and World classes.

9.2 src/editor/Game/map.h File Reference

Definition of the Map, Cell and CellType classes.

```
#include "object.h"
```

Classes

class CellType

The CellType class.

class Cell

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The Cell class.

class Map

The Map class.

Defines

#define forCells(i) int nbCell = width()*height(); for(int i(0); i<nbCell; ++i)

9.2.1 Detailed Description

Definition of the Map, Cell and CellType classes.

9.2.2 Define Documentation

```
9.2.2.1 #define forCells( i ) int nbCell = width()*height(); for(int i(0); i < nbCell; ++i)
```

Usefull macro to set up a for on the cells

9.3 src/editor/Game/mappainter.h File Reference

Definition of the MapPainter class and other related classes to render maps.

```
#include "map.h" #include "GUI/options.h"
```

Classes

• class RICoords

The RICoords class describe positions with relative coordinates.

· class ClCoords

The CICoords class describe positions with cell coordinates.

class PtCoords

The PtCoords class describe positions with virtual point coordinates.

class PxCoords

The PxCoords class describe positions with real pixel coordinates.

class MapPainter

The MapPainter class that can paint a Map using a QPainter.

Defines

• #define MINMAX(a, x, b) std::min(std::max(a,x),b)

Functions

- MapPainter::Element operator (MapPainter::Element a, MapPainter::Element b)

 The operator | is the flag OR operation.
- MapPainter::Element operator& (MapPainter::Element a, MapPainter::Element b)

 The operator & is the flag AND operation.
- MapPainter::Element operator[^] (MapPainter::Element a, MapPainter::Element b)

The operator $^{\wedge}$ is the flag substraction operation.

9.3.1 Detailed Description

Definition of the MapPainter class and other related classes to render maps. This file defines four types of coordinates: RICoords, CICoords, PtCoords and PxCoords. - They all inherit from QPointF, and give a static type checking for the consistency of the coordinates which are used.

Author

Baptiste Pauget

9.3.2 Function Documentation

```
9.3.2.1 MapPainter::Element operator ( MapPainter::Element a, MapPainter::Element b) [inline]
```

The operator $^{\wedge}$ is the flag substraction operation.

Warning

This is not a XOR operation, it corresponds to a&!b

9.4 src/editor/Game/mapslistmodel.h File Reference

Definition of Model/View presentation classes.

```
#include <QAbstractListModel> #include <QAbstractTable-
Model> #include "game.h" #include "mappainter.h"
```

Classes

· class MapsListModel

The MapsListModel class provides a presentation class for the Qt Model-View framework

class CellTypeListModel

The CellTypeListModel class.

- · class ObjectParamTableModel
- · class ObjectFlagTableModel

9.4.1 Detailed Description

Definition of Model/View presentation classes.

9.5 src/editor/Game/object.h File Reference

Definition of the base class GameObject, and some inherited classes.

```
#include <QtCore> #include <QtGui> #include <assert.h>
```

Classes

· class GameObject

The GameObject class is the base class for every part of games.

class Image

The Image class stores an external file in a QImage, and gives each image ressources a unique identifier.

class Object

The Object class.

Defines

- #define ObjectsMapC(name, names, Type, Types, pref, arg)
- #define ObjectsMap(pref, ini, Ini, body, sg, pl) ObjectsMapC(ini##body##sg, ini##body##pl, Ini##body##sg, Ini##body##pl, pref,ini)
- #define ObjectListDef(Objects, Type) private: QMap<int, Type*> a##Objects; public:
- #define ObjectListAdd(Object, Objects, Type) void add##Object(Type* new##-Object){a##Objects[new##Object->ident()] = new##Object; touch();}
- #define ObjectListTake(Object, Objects, Type) Type* take##Object(int id){touch(); return a##Objects.take(id);}
- #define ObjectListGetter(object, Objects, Type) inline Type* object(int id) const{return a##Objects.value(id, nullptr);}
- #define ObjectListValues(objects, Objects, Type) inline QList<Type*> objects()
 const{return a##Objects.values();}
- #define ObjectListGetters(object, Object, objects, Objects, Type) ObjectList-Getter(object, Objects, Type) ObjectListValues(objects, Objects, Type)
- #define ObjectListModifiers(Object, Objects, Type) ObjectListAdd(Object, Objects, Type) ObjectListTake(Object, Objects, Type)

- #define ObjectList(object, Object, objects, Objects, Type) ObjectListDef(-Objects,Type) ObjectListGetters(object,Objects,Objects,Objects,Type) ObjectList-Modifiers(Object, Objects, Type)
- #define ObjectListD(init, Init, body, sg, pl, Type) ObjectList(init##body##sg,-Init##body##sg,init##body##pl,Init##body##pl,Type)
- #define C(Macro, init, Init, body,...) Macro(init##body, Init##body, ##__VA_ARG-S_)
- #define C0(Macro, init, Init, body) Macro(init##body, Init##body)
- #define C1(Macro, init, Init, body, arg) Macro(init##body, Init##body, arg)
- #define SetFlag(flag, value) aFlags[#flag] = value
- #define FlagGetter(flag, Flag) inline bool is##Flag() const{return aFlags[#flag];}
- #define FlagSetter(flag, Flag) inline void set##Flag(bool flag){SetFlag(flag,flag); touch();}
- #define Flag(flag, Flag) FlagGetter(flag, Flag) FlagSetter(flag, Flag)
- #define SetParam(param, value) aParams[#param] = value
- #define ParamGetter(param) inline int param() const{return aParams[#param];}
- #define ParamSetter(param, Param) inline void set##Param(int param##Value){-SetParam(param,param##Value); touch();}
- #define Param(param, Param) ParamGetter(param) ParamSetter(param, Param)
- #define AttrGetter(attr, Attr, Type) inline Type* attr() const{return a##Attr;}
- #define **AttrFree**(Attr) if(a##Attr) a##Attr->removeReference();
- #define AttrLink(Attr) if(a##Attr) a##Attr->addReference();
- #define AttrSetter(attr, Attr, Type) inline void set##Attr(Type* new##Attr){Attr-Free(Attr); a##Attr = new##Attr; AttrLink(Attr); touch();}
- #define AttrDef(Attr, Type) private: Type* a##Attr = nullptr; public:
- #define Attr(attr, Attr, Type) AttrDef(Attr, Type) AttrGetter(attr,Attr,Type) AttrSetter(attr, Attr, Type)
- #define AttrT(type, Type) Attr(type, Type, Type)

9.5.1 Detailed Description

Definition of the base class GameObject, and some inherited classes. ## The objects structure

Objects destructors

The Macro System

To add conveniently attributes and flags to GameObject subclassed objects, a set of macro is provided.

Name conventions

For a attribute named attr, the following conventions are observed:

- attr() is the getter method
- setAttr() is the setter method
- aAttr is the name of the attribut (if any)

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A specific convention is applied for flags (boolean attributes):

· isAttr() is the getter method

Macros

To define a new attribute, a global macro can be used in the class declaration. The provided basic implementations keep the object edition synchronization.

If a cleverer process is needed, custom getter or setter can be implemented, and the getter and setter macros can be used separately to define the obvious methods

```
**Provided macros**
```

The case of attributes

An additionnal AttrT macro is provided, that deduce a default name from the type.

Name tools

To make the definition easier and avoid the name repetition that is introduced by the name convention, a C macro is provided to construct the names with lower and upper initial letter from theses letter and the end of the name.

Author

Baptiste Pauget

9.5.2 Define Documentation

```
9.5.2.1 #define Attr( attr, Attr, Type ) AttrDef(Attr, Type) AttrGetter(attr,Attr,Type)
AttrSetter(attr, Attr, Type)
```

The Attr macro defines a new <aAttr> named attribute of type Type, with its generic getter and setter methods.

With respect to the name convention, this macro needs the parameter's name with lower and upper initial letter case.

Example

```
{.cpp}
Attr(parent, Parent, GameObject)
    -->
    private:
        GameObject *aParent;
public:
        inline GameObject* parent() const{return aParent;}
        inline void setParent(GameObject* parentObject) {aParent = parentObject; touch();}
```

See also

```
AttrT, AttrDef, AttrSetter, AttrGetter, C
```

9.5.2.2 #define AttrDef(Attr, Type) private: Type* a##Attr = nullptr; public:

The AttrDef macro defines a private attribute name <aAttr>.

Note

To avoid redefinition error, no attribute or method name <aAttr> must exist.

Warning

This macro is designed to be used in a public part of the class. Please note that inserting this macro in a private or protected part will change the visibility of the next declaration to public.

Example

```
{.cpp}
Attr(Parent, GameObject)
    -->
    private:
        GameObject *aParent;
    public:
```

See also

Attr

9.5.2.3 #define AttrGetter(attr, Attr, Type) inline Type* attr() const{return a##Attr;}

The AttrGetter macro defines a generic getter method for the attribute named ${\tt attr}$ of type Type.

With respect to the name convention, this macro needs the attribute's name with lower and upper initial letter case.

Example

```
{.cpp}
AttrGetter(parent,Parent,GameObject)
    --> inline GameObject* parent() const{return aParent;}
```

See also

Attr, AttrSetter, C

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```
9.5.2.4 #define AttrSetter( attr, Attr, Type ) inline void set##Attr(Type* new##Attr){AttrFree(Attr); a##Attr = new##Attr; AttrLink(Attr); touch();}
```

The AttrSetter macro defines a generic setter method for the attribute named attr of type Type.

With respect to the name convention, this macro needs the attribute's name with lower and upper initial letter case.

Example

```
{.cpp}
AttrSetter(parent,Parent,GameObject)
    --> inline void setParent(GameObject* &parentObject) {aParent = parentObject; touch();}
```

See also

```
Attr. AttrGetter, C
```

```
9.5.2.5 #define AttrT( type, Type ) Attr(type, Type, Type)
```

The AttrT macro defines a new attribute of type Type, named after the type name, with its generic getter and setter methods.

With respect to the name convention, this macro needs the parameter's type with lower and upper initial letter case.

Example

```
{.cpp}
AttrT(cellType,CellType)
   -->
   private:
        CellType *aCellType;
   public:
        inline CellType* cellType() const{return aCellType;}
        inline void setCellType(CellType* cellTypeObject) {aCellType = cellTypeObject; touch();}
```

See also

```
Attr, AttrDef, AttrSetter, AttrGetter, C
```

```
9.5.2.6 #define C( Macro, init, Init, body, ... ) Macro(init##body, Init##body, ##__VA_ARGS__)
```

The C macro calls the Macro argument with argument tokens formed by the concatenation of init and body, and Init and body.

This enables to call a macro with the same argument, with the initial letter in lower and upper case.

A custom number of arguments can be added after the body one.

Note

This use of variadic arguments follow the gcc specification, but can be not supported by some compilers.

As some IDE does not fully support variadic macro expansion, the C0 and C1 macros can be used to avoid some inconvenience due to uncomplete code undersanding.

Example

```
{.cpp}
C(Param,w,W,idth)
    --> Param(width, Width)

C(Attr, p,P,arent, GameObject)
    --> Attr(parent, Parent, GameObject)
```

See also

object.h

9.5.2.7 #define C0(Macro, init, Init, body) Macro(init##body, Init##body)

The C0 macro is equivalent to the C macro, with no additional argument.

This macro is provided to avoid the use of variadic arguments that are currently not totally supported by some IDE. **Example**

```
{.cpp}
C(Flag, v,V,isible)
    --> Flag(visible, Visible)
```

See also

C1

9.5.2.8 #define C1(Macro, init, Init, body, arg) Macro(init##body, Init##body, arg)

The C1 macro is equivalent to the C macro, with one additional argument.

This macro is provided to avoid the use of variadic arguments that are currently not totally supported by some IDE. **Example**

```
{.cpp}
C(Attr, p,P,arent, GameObject)
    --> Attr(parent, Parent, GameObject)
```

See also

C0

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```
9.5.2.9 #define Flag( flag, Flag ) FlagGetter(flag, Flag) FlagSetter(flag, Flag)
```

The Flag macro defines generic getter and setter methods for the flag named flag.

With respect to the name convention, this macro needs the flag's name with lower and upper initial letter case.

Example

```
{.cpp}
Flag(visible, Visible)
   --> inline bool isVisible() const{return aFlags["visible"];}
     inline void setVisible(bool visible){aFlags["visible"] = visible;
     touch()}
```

See also

```
FlagGetter, FlagSetter, C
```

```
9.5.2.10 #define FlagGetter( flag, Flag ) inline bool is##Flag() const{return aFlags[#flag];}
```

The FlagGetter macro defines a generic getter method for the flag named flag.

With respect to the name convention, this macro needs the flag's name with lower and upper initial letter case.

Warning

The default getter method does not check wether the flag named flag really exist. To avoid runtime access error, it is strongly advice to initialize the flag in the object's contructor, using the setter method or the SetFlag macro.

Example

```
{.cpp}
FlagGetter(visible, Visible)
    --> inline bool isVisible() const{return aFlags["visible"];}
```

See also

```
Flag, FlagSetter, C
```

```
9.5.2.11 #define FlagSetter( flag, Flag ) inline void set##Flag(bool flag){SetFlag(flag,flag); touch();}
```

The FlagSetter macro defines a generic setter method for the flag named flag.

With respect to the name convention, this macro needs the flag's name with lower and upper initial letter case.

Example

```
{.cpp}
FlagSetter(visible, Visible)
    --> inline void setVisible(bool visible) {aFlags["visible"] = visible;
    touch()}
```

See also

Flag, FlagGetter, C

9.5.2.12 #define ObjectsMap(pref, ini, Ini, body, sg, pl) ObjectsMapC(ini##body##sg, ini##body##pl, Ini##body##sg, Ini##body##pl, pref,ini)

Deprecated

9.5.2.13 #define ObjectsMapC(name, names, Type, Types, pref, arg)

Value:

```
private: \
    QMap<int, Type*> pref##Types; \
public: \
    void add##Type(Type* arg) {pref##Types[arg->ident()] = arg; touch();} \
    void remove##Type(Type* arg) {if(pref##Types.contains(arg->ident()))pref##
        Types.remove(arg->ident()); touch();} \
    inline Type* name(int id) const{return pref##Types.value(id, nullptr);} \
    inline QList<Type*> names() const{return pref##Types.values();}
```

Deprecated

9.5.2.14 #define Param(param, Param) ParamGetter(param) ParamSetter(param, Param)

The Param macro defines generic getter and setter methods for the parameter named param.

With respect to the name convention, this macro needs the parameter's name with lower and upper initial letter case.

Example

```
{.cpp}
Param(width,Width)
    --> inline int width() const{return aParams["width"];}
    inline void setWidth(int widthValue){aParams["width"] = widthValue;
    touch();}
```

See also

ParamGetter, ParamSetter, C

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9.5.2.15 #define ParamGetter(param) inline int param() const{return aParams[#param];}

The ParamGetter macro defines a generic getter method for the parameter named param.

Warning

The default getter method does not check wether the param named parameter really exist. To avoid runtime access error, it is strongly advice to initialize the parameter in the object's contructor, using the setter method or the SetParam macro.

Example

```
{.cpp}
ParamGetter(width)
    --> inline int width() const{return aParams["width"];}
```

See also

Param, ParamSetter

9.5.2.16 #define ParamSetter(param, Param) inline void set##Param(int param##Value) { SetParam(param,param##Value); touch(); }

The ParamSetter macro defines a generic setter method for the parameter named param.

With respect to the name convention, this macro needs the parameter's name with lower and upper initial letter case.

Example

```
{.cpp}
ParamSetter(width, Width)
    --> inline void setWidth(bool widthValue) {aParams["width"] = widthValue;
    touch();}
```

See also

Param, ParamGetter, C

9.5.2.17 #define SetFlag(flag, value) aFlags[#flag] = value

Conveniant macro to set a flag directly.

This is usefull in custom setters, to avoid call loops.

Warning

The touch function isn't called. After this macro use, the object is no longer synchronised.

Example

```
{.cpp}
SetFlag(visible, false)
    --> aFlags["visible"] = false
```

See also

Flag, FlagSetter, object.h

9.5.2.18 #define SetParam(param, value) aParams[#param] = value

Conveniant macro to set a param directly.

This is usefull in custom setters, to avoid call loops.

Warning

The touch function isn't called. After this macro use, the object is no longer synchronised.

Example

```
{.cpp}
SetParam(width, 42)
    --> aParams["width"] = 42
```

See also

Param, ParamSetter, object.h

9.6 src/editor/Game/xmlhandler.h File Reference

Definition og the XmlHandler class and other related classes to read XML game's files.

```
#include <QtXml> #include "game.h"
```

Classes

class XmlHandler

Typedefs

• typedef std::pair< QString, FileContent > Asso

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Enumerations

enum FileContent { FCUnknown, FCGame, FCRessources, FCWorld, FC-Map, FCEntity, FCObject }

Functions

const QMap< QString, FileContent > overHead ({Asso("Game", FCGame), - Asso("Ressources", FCRessources), Asso("World", FCWorld), Asso("Map", FCMap), Asso("Entity", FCEntity), Asso("Object", FCObject)})

9.6.1 Detailed Description

Definition og the XmlHandler class and other related classes to read XML game's files.

9.7 src/editor/GUI/options.h File Reference

Definition of the Options class, and the constants that are used in this class.

```
#include <QSettings> #include <QDir> #include <QSize> x
#include <QPoint> #include <QColor>
```

Classes

struct Options

The Options class provides session-independant options and preferences.

Defines

- #define WIN "Window"
- #define DIR "Directories"
- #define MAP "MapsEditor"
- #define DefaultF(group, opt, val) defaultValues[group][opt] = QPair<QVariant, bool>(val, false)
- #define Default(group, opt, val) defaultValues[group][opt] = QPair<QVariant, bool>(val, true)

Variables

- const QString ADAPT = "Adjustable"
- const QString VAL = "Value"

9.7.1 Detailed Description

Definition of the Options class, and the constants that are used in this class. The headers of types which are used in the application must be include here. See Options for details.

Author

Baptiste Pauget

9.7.2 Define Documentation

9.7.2.1 #define Default(*group*, *opt*, *val*) defaultValues[group][opt] = QPair<QVariant, bool>(val, true)

This macro defines a new adaptati option identified by its group and name.

9.7.2.2 #define DefaultF(group, opt, val) defaultValues[group][opt] = QPair<QVariant, bool>(val, false)

This macro defines a new unadaptati option identified by its group and name.

9.7.2.3 #define DIR "Directories"

Group of paths options.

9.7.2.4 #define MAP "MapsEditor"

Group of MapsEditor related options.

9.7.2.5 #define WIN "Window"

Group of window related options.

9.8 src/editor/GUI/Tabs/bcolor.h File Reference

Definition of the BColor class.

```
#include <QtWidgets>
```

Classes

· class BColor

The BColor class is a simple frame that offers color selection.

9.8.1 Detailed Description

Definition of the BColor class.

Author

Baptiste Pauget

9.9 src/editor/GUI/Tabs/Docks/bdock.h File Reference

Definition of the BDock class.

```
#include <QtWidgets>#include "intertie.h" #include "bdockwidget.-
h"
```

Classes

class BDock

The BDock class is the container for widget to display in a BDocksZone.

9.9.1 Detailed Description

Definition of the BDock class.