Detritus 2 - Systems

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requirements\_syntax

# Namespace Index

# 2.1 Namespace List

Here is a list of all namespaces with brief descriptions:

systems	
systems.database	
systems.game	
systems.gameobject	
systems.inventory	
systems.item	
systems.person	
systems.player	
systems.quests	
systems recipe	

4 Namespace Index

# **Hierarchical Index**

# 3.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

systems.inventory.Inventory	2
systems.database.Database	1
systems.game.Game	1
systems.gameobject.GameObject	2
systems.item.ltem	3
systems.item.InventoryItem	2
systems.item.PlaceholderInventoryItem	3
systems.person.Person	3
systems.quests.Quest	4
systems.quests.QuestStage	5
systems.recipe.Recipe	5
systems.player.Player	4
systems.quests.QuestLog	4
systems recine RecineBook	5

6 Hierarchical Index

# **Class Index**

# 4.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

/stems.database.Database	13
rstems.game.Game	16
stems.gameobject.GameObject	21
stems.inventory.Inventory	23
stems.item.InventoryItem	27
vstems.item.ltem	31
stems.person.Person	34
stems.item.PlaceholderInventoryItem	38
stems.player.Player	41
stems.quests.Quest	44
stems.quests.QuestLog	48
stems.quests.QuestStage	51
stems.recipe.Recipe	54
vstems.recipe.RecipeBook	57

8 Class Index

# File Index

# 5.1 File List

Here is a list of all files with brief descriptions:

ems/ <u>initpy</u>	61
ems/database.py	61
ems/game.py	62
ems/gameobject.py	63
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ems/person.py	66
ems/player.py	
ems/quests.py	68
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10 File Index

# **Namespace Documentation**

# 6.1 systems Namespace Reference

# **Namespaces**

- namespace database
- namespace game
- · namespace gameobject
- namespace inventory
- namespace item
- namespace person
- namespace player
- namespace quests
- · namespace recipe

# 6.2 systems.database Namespace Reference

## **Classes**

• class Database

# 6.3 systems.game Namespace Reference

### Classes

class Game

# 6.4 systems.gameobject Namespace Reference

### **Classes**

class GameObject

# 6.5 systems.inventory Namespace Reference

# **Classes**

· class Inventory

# 6.6 systems.item Namespace Reference

# **Classes**

- · class InventoryItem
- class Item
- class PlaceholderInventoryItem

# 6.7 systems.person Namespace Reference

#### **Classes**

class Person

# 6.8 systems.player Namespace Reference

### **Classes**

• class Player

# 6.9 systems.quests Namespace Reference

### **Classes**

- class Quest
- class QuestLog
- class QuestStage

# 6.10 systems.recipe Namespace Reference

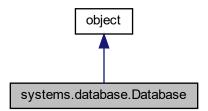
### **Classes**

- class Recipe
- · class RecipeBook

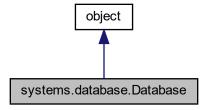
# **Class Documentation**

# 7.1 systems.database.Database Class Reference

Inheritance diagram for systems.database.Database:



Collaboration diagram for systems.database.Database:



### **Public Member Functions**

```
def __init__ (self, directory='data', item_fp='items.json', recipe_fp='recipes.json')
def load_items_from_file (self, file)
def load_recipes_from_file (self, file)
def get_item (self, item_id=")
def get_recipe (self, recipe_id=")
def get_quest (self, quest_id)
```

### **Public Attributes**

- recipes\_fp
- items
- · recipes

# 7.1.1 Detailed Description

Definition at line 5 of file database.py.

## 7.1.2 Constructor & Destructor Documentation

```
7.1.2.1 __init__()
```

Definition at line 6 of file database.py.

# 7.1.3 Member Function Documentation

# 7.1.3.1 get\_item()

Definition at line 32 of file database.py.

### 7.1.3.2 get\_quest()

```
def systems.database.Database.get_quest ( self, \\ quest\_id \ )
```

Definition at line 38 of file database.py.

### 7.1.3.3 get\_recipe()

Definition at line 35 of file database.py.

## 7.1.3.4 load\_items\_from\_file()

Definition at line 18 of file database.py.

### 7.1.3.5 load\_recipes\_from\_file()

Definition at line 25 of file database.py.

# 7.1.4 Member Data Documentation

# 7.1.4.1 items

```
systems.database.Database.items
```

Definition at line 14 of file database.py.

# 7.1.4.2 recipes

systems.database.Database.recipes

Definition at line 15 of file database.py.

# 7.1.4.3 recipes\_fp

systems.database.Database.recipes\_fp

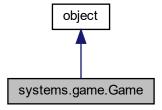
Definition at line 12 of file database.py.

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

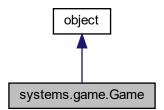
• systems/database.py

# 7.2 systems.game.Game Class Reference

Inheritance diagram for systems.game.Game:



Collaboration diagram for systems.game.Game:



# **Public Member Functions**

- def \_\_init\_\_ (self)
- def game event (func)
- def setup (self, people=None, locations=None, from\_db=None, fps=False)
- def start\_quest (self, quest\_id=None, quest\_object=None)
- def update (self)
- def update quests (self)

# **Public Attributes**

- · people
- db
- player
- location

# 7.2.1 Detailed Description

Definition at line 4 of file game.py.

### 7.2.2 Constructor & Destructor Documentation

```
7.2.2.1 __init__()
```

Definition at line 5 of file game.py.

# 7.2.3 Member Function Documentation

### 7.2.3.1 game\_event()

```
\begin{tabular}{ll} def & systems.game.Game.game\_event & (\\ & func & ) \end{tabular}
```

Definition at line 13 of file game.py.

Here is the call graph for this function:



# 7.2.3.2 setup()

Definition at line 20 of file game.py.

# 7.2.3.3 start\_quest()

Definition at line 36 of file game.py.

Here is the call graph for this function:



Here is the caller graph for this function:



# 7.2.3.4 update()

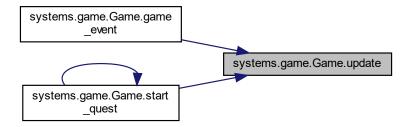
```
\operatorname{def} systems.game.Game.update ( \operatorname{\mathit{self}} )
```

Definition at line 51 of file game.py.

Here is the call graph for this function:



Here is the caller graph for this function:



# 7.2.3.5 update\_quests()

```
\label{eq:continuous} \mbox{def systems.game.Game.update\_quests (} \\ self \mbox{)}
```

Definition at line 55 of file game.py.

Here is the caller graph for this function:



# 7.2.4 Member Data Documentation

#### 7.2.4.1 db

systems.game.Game.db

Definition at line 7 of file game.py.

### 7.2.4.2 location

systems.game.Game.location

Definition at line 34 of file game.py.

### 7.2.4.3 people

systems.game.Game.people

Definition at line 6 of file game.py.

# 7.2.4.4 player

systems.game.Game.player

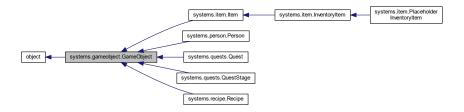
Definition at line 8 of file game.py.

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

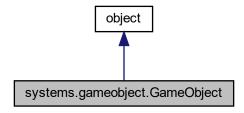
• systems/game.py

# 7.3 systems.gameobject.GameObject Class Reference

Inheritance diagram for systems.gameobject.GameObject:



Collaboration diagram for systems.gameobject.GameObject:



# **Public Member Functions**

- def \_\_init\_\_ (self, id, name=", description=")
- def \_\_repr\_\_ (self)
- def \_\_hash\_\_ (self)
- def \_\_eq\_ (self, other)
- def \_\_ne\_\_ (self, other)

# **Public Attributes**

- id
- name
- · description

# 7.3.1 Detailed Description

Definition at line 1 of file gameobject.py.

# 7.3.2 Constructor & Destructor Documentation

Reimplemented in systems.item.PlaceholderInventoryItem, systems.person.Person, systems.quests.Quest, systems.item.InventoryItem, systems.quests.QuestStage, and systems.recipe.Recipe.

Definition at line 2 of file gameobject.py.

# 7.3.3 Member Function Documentation

Reimplemented in systems.recipe.Recipe.

Definition at line 17 of file gameobject.py.

Reimplemented in systems.recipe.Recipe.

Definition at line 14 of file gameobject.py.

Definition at line 20 of file gameobject.py.

### 7.3.3.4 \_\_repr\_\_()

```
def systems.gameobject.GameObject.\_repr\_ ( self )
```

Definition at line 6 of file gameobject.py.

#### 7.3.4 Member Data Documentation

### 7.3.4.1 description

```
systems.gameobject.GameObject.description
```

Definition at line 5 of file gameobject.py.

#### 7.3.4.2 id

```
systems.gameobject.GameObject.id
```

Definition at line 3 of file gameobject.py.

#### 7.3.4.3 name

```
systems.gameobject.GameObject.name
```

Definition at line 4 of file gameobject.py.

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

• systems/gameobject.py

# 7.4 systems.inventory.Inventory Class Reference

# **Public Member Functions**

```
def __init__ (self)
```

- def add\_item (self, item\_id, count=1)
- def remove\_item (self, item, count=1)
- def <u>getitem</u> (self, item\_id)
- def \_\_contains\_\_ (self, key)
- def get\_items (self)

To be rewritten.

- def get\_item\_count (self, item)
- def set\_current\_item (self, item)
- def get\_current\_item (self)

# **Public Attributes**

- items
- current\_item

# 7.4.1 Detailed Description

Definition at line 4 of file inventory.py.

# 7.4.2 Constructor & Destructor Documentation

Definition at line 5 of file inventory.py.

## 7.4.3 Member Function Documentation

```
7.4.3.1 __contains__()
```

Definition at line 29 of file inventory.py.

# 7.4.3.2 \_\_getitem\_\_()

Definition at line 26 of file inventory.py.

# 7.4.3.3 add\_item()

Definition at line 9 of file inventory.py.

Here is the caller graph for this function:

```
systems.recipe.RecipeBook.craft _____ systems.inventory.Inventory.add_item
```

# 7.4.3.4 get\_current\_item()

```
def systems.inventory.Inventory.get_current_item ( self\ )
```

Definition at line 67 of file inventory.py.

### 7.4.3.5 get\_item\_count()

Definition at line 59 of file inventory.py.

# 7.4.3.6 get\_items()

```
\label{eq:continuous} \mbox{def systems.inventory.Inventory.get\_items (} \\ self \mbox{)}
```

To be rewritten.

No tests written for these

Definition at line 56 of file inventory.py.

### 7.4.3.7 remove\_item()

Definition at line 22 of file inventory.py.

Here is the caller graph for this function:

```
systems.recipe.RecipeBook.craft systems.inventory.Inventory.remove_item
```

#### 7.4.3.8 set\_current\_item()

Definition at line 64 of file inventory.py.

### 7.4.4 Member Data Documentation

### 7.4.4.1 current\_item

```
systems.inventory.Inventory.current_item
```

Definition at line 7 of file inventory.py.

# 7.4.4.2 items

```
systems.inventory.Inventory.items
```

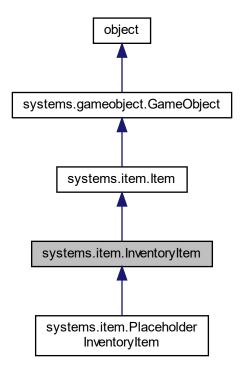
Definition at line 6 of file inventory.py.

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

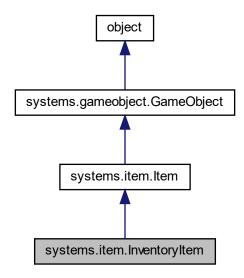
systems/inventory.py

# 7.5 systems.item.InventoryItem Class Reference

Inheritance diagram for systems.item.InventoryItem:



Collaboration diagram for systems.item.InventoryItem:



# **Public Member Functions**

- def \_\_init\_\_ (self, id, name, description=", image\_path=", count=0)
- def set\_count (self, count)
- def \_\_iadd\_\_ (self, other)
- def \_\_isub\_\_ (self, other)

#### **Static Public Member Functions**

- def from\_item (item, count=0)
- def from\_dict (d)

# **Public Attributes**

• count

# 7.5.1 Detailed Description

Definition at line 22 of file item.py.

# 7.5.2 Constructor & Destructor Documentation

## 7.5.2.1 \_\_init\_\_()

Reimplemented from systems.item.ltem.

Reimplemented in systems.item.PlaceholderInventoryItem.

Definition at line 23 of file item.py.

Here is the call graph for this function:



Here is the caller graph for this function:



#### 7.5.3 Member Function Documentation

Definition at line 36 of file item.py.

## 7.5.3.2 \_\_isub\_\_()

Definition at line 46 of file item.py.

## 7.5.3.3 from\_dict()

```
\begin{tabular}{ll} $\tt def systems.item.InventoryItem.from\_dict ( \\ $d$ ) [static] \end{tabular}
```

Reimplemented from systems.item.Item.

Definition at line 66 of file item.py.

Here is the call graph for this function:



Here is the caller graph for this function:



## 7.5.3.4 from\_item()

Definition at line 59 of file item.py.

#### 7.5.3.5 set\_count()

Definition at line 29 of file item.py.

## 7.5.4 Member Data Documentation

## 7.5.4.1 count

```
\verb|systems.item.InventoryItem.count|\\
```

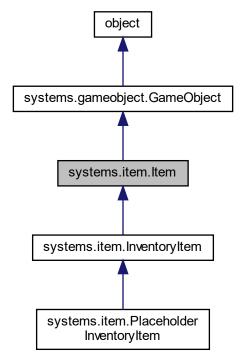
Definition at line 27 of file item.py.

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

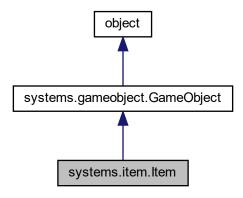
• systems/item.py

## 7.6 systems.item.Item Class Reference

Inheritance diagram for systems.item.ltem:



Collaboration diagram for systems.item.Item:



## **Public Member Functions**

- def \_\_init\_\_ (self, id, name, description=", image\_path=")
- def <u>\_\_str\_\_</u> (self)

## **Static Public Member Functions**

• def from\_dict (d)

## **Public Attributes**

image\_path

## 7.6.1 Detailed Description

Definition at line 3 of file item.py.

#### 7.6.2 Constructor & Destructor Documentation

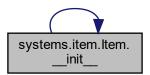
## 7.6.2.1 \_\_init\_\_()

Reimplemented from systems.gameobject.GameObject.

Reimplemented in systems.item.PlaceholderInventoryItem, and systems.item.InventoryItem.

Definition at line 4 of file item.py.

Here is the call graph for this function:



Here is the caller graph for this function:



## 7.6.3 Member Function Documentation

Definition at line 7 of file item.py.

## 7.6.3.2 from\_dict()

```
\begin{tabular}{ll} $\tt def systems.item.Item.from\_dict ( \\ $d$ ) & [static] \end{tabular}
```

Reimplemented in systems.item.InventoryItem.

Definition at line 10 of file item.py.

## 7.6.4 Member Data Documentation

#### 7.6.4.1 image\_path

```
systems.item.Item.image_path
```

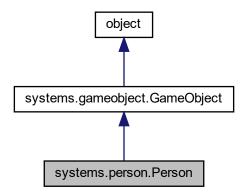
Definition at line 6 of file item.py.

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

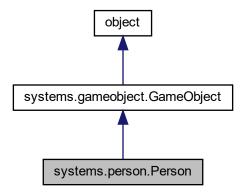
systems/item.py

## 7.7 systems.person.Person Class Reference

Inheritance diagram for systems.person.Person:



Collaboration diagram for systems.person.Person:



## **Public Member Functions**

- def \_\_init\_\_ (self, id, name, description, base\_affinity)
- def set\_affinity (self, value)
- def increase\_affinity (self, value=1)
- def decrease\_affinity (self, value=1)
- def get\_affinity (self)
- def str (self)

## **Public Attributes**

- base\_affinity
- affinity
- location

## 7.7.1 Detailed Description

Definition at line 3 of file person.py.

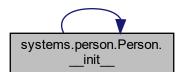
## 7.7.2 Constructor & Destructor Documentation

## 7.7.2.1 \_\_init\_\_()

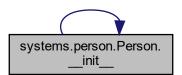
Reimplemented from systems.gameobject.GameObject.

Definition at line 4 of file person.py.

Here is the call graph for this function:



Here is the caller graph for this function:



## 7.7.3 Member Function Documentation

Definition at line 17 of file person.py.

## 7.7.3.2 decrease\_affinity()

```
def systems.person.Person.decrease_affinity ( self, \\ value = 1 \ )
```

Definition at line 13 of file person.py.

## 7.7.3.3 get\_affinity()

```
\label{eq:condition} \mbox{def systems.person.Person.get\_affinity (} \\ self \mbox{)}
```

Definition at line 15 of file person.py.

#### 7.7.3.4 increase\_affinity()

```
def systems.person.Person.increase_affinity ( self, \\ value = 1 \ )
```

Definition at line 11 of file person.py.

#### 7.7.3.5 set\_affinity()

```
def systems.person.Person.set_affinity ( self, \\ value \ )
```

Definition at line 9 of file person.py.

## 7.7.4 Member Data Documentation

#### 7.7.4.1 affinity

```
systems.person.Person.affinity
```

Definition at line 7 of file person.py.

#### 7.7.4.2 base\_affinity

systems.person.Person.base\_affinity

Definition at line 6 of file person.py.

#### 7.7.4.3 location

systems.person.Person.location

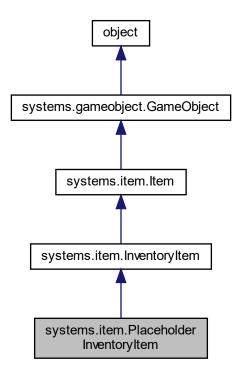
Definition at line 8 of file person.py.

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

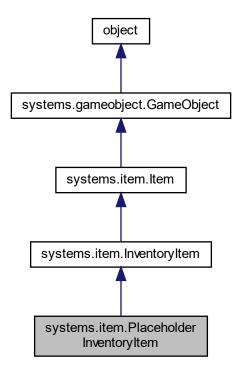
· systems/person.py

## 7.8 systems.item.PlaceholderInventoryItem Class Reference

Inheritance diagram for systems.item.PlaceholderInventoryItem:



Collaboration diagram for systems.item.PlaceholderInventoryItem:



## **Public Member Functions**

• def \_\_init\_\_ (self, id, count=0)

## **Additional Inherited Members**

## 7.8.1 Detailed Description

Definition at line 71 of file item.py.

## 7.8.2 Constructor & Destructor Documentation

## 7.8.2.1 \_\_init\_\_()

Reimplemented from systems.item.InventoryItem.

Definition at line 72 of file item.py.

Here is the call graph for this function:



Here is the caller graph for this function:

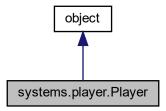


The documentation for this class was generated from the following file:

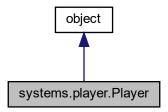
• systems/item.py

## 7.9 systems.player.Player Class Reference

Inheritance diagram for systems.player.Player:



Collaboration diagram for systems.player.Player:



## **Public Member Functions**

- def \_\_init\_\_ (self)
- def get\_craftable (self)
- def get\_uncraftable (self)
- def craft (self, recipe)
- def start\_quest (self, quest\_id, quest\_object)

## **Public Attributes**

- inventory
- questlog
- recipebook

## 7.9.1 Detailed Description

Definition at line 7 of file player.py.

## 7.9.2 Constructor & Destructor Documentation

Definition at line 8 of file player.py.

## 7.9.3 Member Function Documentation

## 7.9.3.1 craft()

```
def systems.player.Player.craft ( self, \\ recipe \ )
```

Definition at line 19 of file player.py.

## 7.9.3.2 get\_craftable()

```
\begin{tabular}{ll} $\operatorname{def}$ & systems.player.Player.get\_craftable & ( \\ & self & ) \end{tabular}
```

Definition at line 13 of file player.py.

## 7.9.3.3 get\_uncraftable()

```
\label{eq:continuous} \mbox{def systems.player.Player.get\_uncraftable (} \\ self \mbox{)}
```

Definition at line 16 of file player.py.

## 7.9.3.4 start\_quest()

Definition at line 22 of file player.py.

## 7.9.4 Member Data Documentation

## **7.9.4.1** inventory

```
systems.player.Player.inventory
```

Definition at line 9 of file player.py.

#### 7.9.4.2 questlog

```
systems.player.Player.questlog
```

Definition at line 10 of file player.py.

#### 7.9.4.3 recipebook

```
systems.player.Player.recipebook
```

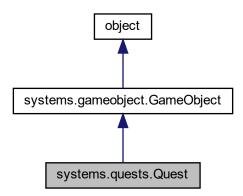
Definition at line 11 of file player.py.

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

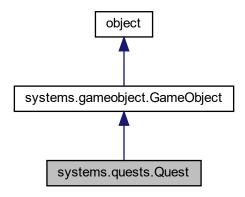
systems/player.py

## 7.10 systems.quests.Quest Class Reference

Inheritance diagram for systems.quests.Quest:



Collaboration diagram for systems.quests.Quest:



## **Public Member Functions**

- def \_\_init\_\_ (self, id, name, description, stages=[], first\_stage=None, final\_stage=None)
- def start (self, stage=None)
- def get\_stage (self, stage=None)
- def next\_stage (self)

## **Static Public Member Functions**

• def from\_dict (d)

## **Public Attributes**

- stages
- current\_stage
- started
- complete
- · first\_stage
- final\_stage

## 7.10.1 Detailed Description

Definition at line 3 of file quests.py.

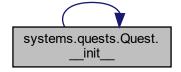
## 7.10.2 Constructor & Destructor Documentation

## 7.10.2.1 \_\_init\_\_()

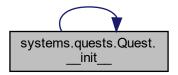
Reimplemented from systems.gameobject.GameObject.

Definition at line 4 of file quests.py.

Here is the call graph for this function:



Here is the caller graph for this function:



## 7.10.3 Member Function Documentation

## 7.10.3.1 from\_dict()

```
\begin{tabular}{ll} $\tt def systems.quests.Quest.from\_dict ( \\ $\tt d$ ) [static] \end{tabular}
```

Definition at line 44 of file quests.py.

## 7.10.3.2 get\_stage()

Definition at line 34 of file quests.py.

## 7.10.3.3 next\_stage()

```
\begin{tabular}{ll} def & systems.quests.Quest.next\_stage & ( \\ & self & ) \end{tabular}
```

Definition at line 40 of file quests.py.

#### 7.10.3.4 start()

```
def systems.quests.Quest.start ( self, \\ stage = None \; )
```

Definition at line 27 of file quests.py.

#### 7.10.4 Member Data Documentation

#### 7.10.4.1 complete

```
systems.quests.Quest.complete
```

Definition at line 19 of file quests.py.

## 7.10.4.2 current\_stage

```
systems.quests.Quest.current_stage
```

Definition at line 17 of file quests.py.

## 7.10.4.3 final\_stage

```
systems.quests.Quest.final_stage
```

Definition at line 21 of file quests.py.

## 7.10.4.4 first\_stage

```
\verb|systems.quests.Quest.first\_stage|\\
```

Definition at line 20 of file quests.py.

#### 7.10.4.5 stages

systems.quests.Quest.stages

Definition at line 14 of file quests.py.

#### 7.10.4.6 started

systems.quests.Quest.started

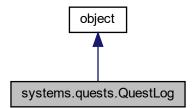
Definition at line 18 of file quests.py.

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

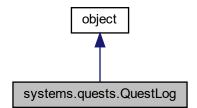
• systems/quests.py

## 7.11 systems.quests.QuestLog Class Reference

Inheritance diagram for systems.quests.QuestLog:



Collaboration diagram for systems.quests.QuestLog:



## **Public Member Functions**

```
def __init__ (self)
def get_quest (self, id)
def add_quest (self, id, quest)
def get_active (self)
def __getitem__ (self, key)
```

## **Public Attributes**

quests

## 7.11.1 Detailed Description

Definition at line 80 of file quests.py.

#### 7.11.2 Constructor & Destructor Documentation

Definition at line 81 of file quests.py.

## 7.11.3 Member Function Documentation

Definition at line 97 of file quests.py.

## 7.11.3.2 add\_quest()

```
\begin{tabular}{ll} $\operatorname{def}$ & {\operatorname{systems.quests.QuestLog.add\_quest}} & (\\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & &
```

Definition at line 87 of file quests.py.

## 7.11.3.3 get\_active()

```
\label{log:get_active} $\operatorname{def \ systems.quests.QuestLog.get_active \ (} $\operatorname{\it self}$ )
```

Definition at line 91 of file quests.py.

## 7.11.3.4 get\_quest()

```
\begin{tabular}{ll} $\operatorname{def}$ & systems.quests.QuestLog.get_quest ( \\ & self, \\ & id \end{tabular}
```

Definition at line 84 of file quests.py.

## 7.11.4 Member Data Documentation

#### 7.11.4.1 quests

```
systems.quests.QuestLog.quests
```

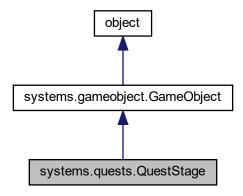
Definition at line 82 of file quests.py.

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

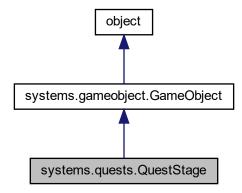
systems/quests.py

## 7.12 systems.quests.QuestStage Class Reference

Inheritance diagram for systems.quests.QuestStage:



Collaboration diagram for systems.quests.QuestStage:



## **Public Member Functions**

- def \_\_init\_\_ (self, id, parent\_quest\_id, name=", description=", next\_stage=0, substages=[], requirements={})
- def <u>\_\_str\_\_</u> (self)

## **Static Public Member Functions**

def from\_dict (d)

## **Public Attributes**

- · complete
- · substages
- · requirements

## 7.12.1 Detailed Description

Definition at line 54 of file quests.py.

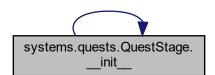
## 7.12.2 Constructor & Destructor Documentation

## 7.12.2.1 \_\_init\_\_()

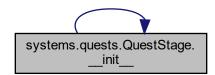
Reimplemented from systems.gameobject.GameObject.

Definition at line 55 of file quests.py.

Here is the call graph for this function:



Here is the caller graph for this function:



## 7.12.3 Member Function Documentation

## 

Definition at line 72 of file quests.py.

#### 7.12.3.2 from\_dict()

Definition at line 77 of file quests.py.

## 7.12.4 Member Data Documentation

#### 7.12.4.1 complete

```
systems.quests.QuestStage.complete
```

Definition at line 66 of file quests.py.

## 7.12.4.2 requirements

```
\verb|systems.quests.QuestStage.requirements|\\
```

Definition at line 70 of file quests.py.

#### 7.12.4.3 substages

```
systems.quests.QuestStage.substages
```

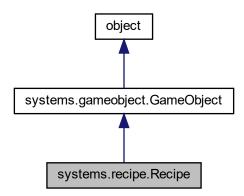
Definition at line 69 of file quests.py.

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

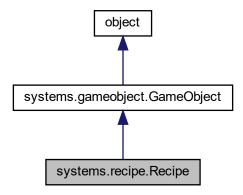
systems/quests.py

## 7.13 systems.recipe.Recipe Class Reference

Inheritance diagram for systems.recipe.Recipe:



Collaboration diagram for systems.recipe.Recipe:



## **Public Member Functions**

- def \_\_init\_\_ (self, name, requirements, item, description=")
- def is craftable (self, item list)
- def \_\_hash\_\_ (self)
- def <u>eq</u> (self, other)

## **Static Public Member Functions**

• def from\_dict (d)

## **Public Attributes**

- · requirements
- item

## 7.13.1 Detailed Description

Definition at line 3 of file recipe.py.

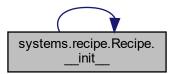
## 7.13.2 Constructor & Destructor Documentation

## 7.13.2.1 \_\_init\_\_()

Reimplemented from systems.gameobject.GameObject.

Definition at line 4 of file recipe.py.

Here is the call graph for this function:



Here is the caller graph for this function:



## 7.13.3 Member Function Documentation

```
7.13.3.1 __eq__()
```

Reimplemented from systems.gameobject.GameObject.

Definition at line 25 of file recipe.py.

```
7.13.3.2 __hash__()
```

```
def systems.recipe.Recipe._hash_ ( self \ )
```

Reimplemented from systems.gameobject.GameObject.

Definition at line 22 of file recipe.py.

## 7.13.3.3 from\_dict()

Definition at line 14 of file recipe.py.

#### 7.13.3.4 is\_craftable()

Definition at line 8 of file recipe.py.

## 7.13.4 Member Data Documentation

#### 7.13.4.1 item

systems.recipe.Recipe.item

Definition at line 7 of file recipe.py.

## 7.13.4.2 requirements

systems.recipe.Recipe.requirements

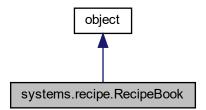
Definition at line 6 of file recipe.py.

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

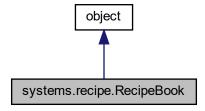
• systems/recipe.py

## 7.14 systems.recipe.RecipeBook Class Reference

Inheritance diagram for systems.recipe.RecipeBook:



Collaboration diagram for systems.recipe.RecipeBook:



#### **Public Member Functions**

```
def __init__ (self)
```

- def add\_recipe (self, recipe\_id)
- def add recipe (self, recipe)
- def remove\_recipe (self, recipe)
- def get\_craftable (self)
- def get\_uncraftable (self)
- def craft (self, recipe)

#### **Public Attributes**

- recipes
- current\_recipe

## 7.14.1 Detailed Description

Definition at line 28 of file recipe.py.

## 7.14.2 Constructor & Destructor Documentation

```
7.14.2.1 __init__()
```

```
def systems.recipe.RecipeBook.__init__ ( self \ )
```

Definition at line 29 of file recipe.py.

### 7.14.3 Member Function Documentation

## 7.14.3.1 add\_recipe() [1/2]

Definition at line 35 of file recipe.py.

## 7.14.3.2 add\_recipe() [2/2]

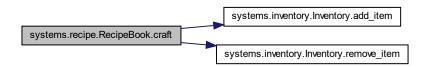
Definition at line 32 of file recipe.py.

## 7.14.3.3 craft()

```
def systems.recipe.RecipeBook.craft ( self, \\ recipe \; )
```

Definition at line 48 of file recipe.py.

Here is the call graph for this function:



### 7.14.3.4 get\_craftable()

```
def systems.recipe.RecipeBook.get_craftable ( self )
```

Definition at line 42 of file recipe.py.

## 7.14.3.5 get\_uncraftable()

```
def systems.recipe.RecipeBook.get_uncraftable ( self )
```

Definition at line 45 of file recipe.py.

## 7.14.3.6 remove\_recipe()

Definition at line 39 of file recipe.py.

## 7.14.4 Member Data Documentation

## 7.14.4.1 current\_recipe

```
systems.recipe.RecipeBook.current_recipe
```

Definition at line 31 of file recipe.py.

## 7.14.4.2 recipes

```
\verb|systems.recipe.RecipeBook.recipes|\\
```

Definition at line 30 of file recipe.py.

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

• systems/recipe.py

# **Chapter 8**

# **File Documentation**

8.1 systems/\_\_init\_\_.py File Reference

8.2 \_\_init\_\_.py

Go to the documentation of this file.

## 8.3 systems/database.py File Reference

## **Classes**

· class systems.database.Database

#### **Namespaces**

- · namespace systems
- · namespace systems.database

## 8.4 database.py

62 File Documentation

```
def load_items_from_file(self, file):
            data = json.load(file)
items = {}
for i in data:
00019
00020
00021
              items[i['id'] if 'id' in i else i['name'].lower()] = Item.from_dict(i)
self.items = items
00022
00023
00025
          def load_recipes_from_file(self, file):
00026
             data = json.load(file)
00027
               recipes = {}
              for r in data:
00028
00029
                   recipes[r['id'] if 'id' in r else r['name'].lower()] = Recipe.from_dict(r)
              self.recipes = recipes
00030
00031
00032
          def get_item(self, item_id="):
00033
              return self.item_list[item_id]
00034
00035
          def get_recipe(self, recipe_id="):
              return self.recipes[recipe_id]
00038
          def get_quest(self, quest_id):
00039
```

## 8.5 systems/game.py File Reference

#### **Classes**

· class systems.game.Game

## **Namespaces**

- · namespace systems
- · namespace systems.game

## 8.6 game.py

```
00001 from .database import Database
00002 from .player import Player
00003 from .quests import Quest
00004 class Game(object):
          def __init__(self):
    self.people = {}
    self.db = Database()
00005
00006
00007
00008
               self.player = Player()
00009
          # # list of character and info
# }
          # characters = {
00010
00011
00012
          def game_event(func):
00014
               def wrapper(*args, **kwargs):
00015
                   print(args)
00016
                   func(*args[1:])
00017
              args[0].update()
return wrapper
00018
00019
00020
          def setup(self,
00021
             people = None,
00022
               locations = None,
               from_db = None,
fps = False
00023
00024
00025
          ):
00026
               if from_db:
00027
00028
                    self.db.load_items_from_file(fps['items'])
00029
                   self.db.load_recipes_from_file(fps['recipes'])
00030
               else:
00031
                   if people:
00032
                        self.people = people
```

```
00033
                    if locations:
                        self.location = locations
00035
          # @game_event
00036
          def start_quest(self, quest_id= None, quest_object = None):
           if not (isinstance(quest_id, str) or type(quest_id) != None):
    raise TypeError("quest_id is not a <str>>, is type {}".format(type(quest_id)))
if not (isinstance(quest_object, Quest) or type(quest_object) != None):
00037
00038
00040
                    raise TypeError("quest_object is not a <Quest>")
00041
               if quest_id and not quest_object:
00042
                    self.player.start_quest(quest_id, self.db.get_quest(quest_id))
               elif quest_id and quest_object:
00043
                   self.player.start_quest(quest_id, quest_object)
00044
00045
               elif quest_object:
00046
                    self.player.start_quest(quest_object.id, quest_object)
00047
               else:
00048
                    raise ValueError()
00049
               self.update()
00050
          def update(self):
00052
              self.update_quests()
00053
00054
          def update_quests(self):
00055
00056
               for q in self.player.questlog.get_active():
    complete = True
00057
00058
                    # substages
00059
                    reqs = q.requirements
                    if "substage" in reqs:
00060
                        if reqs['substage'] == 'all':
00061
00062
                            if not all([s.complete for s in q.substages]):
                        complete = False
if reqs['substage'] == 'any':
00063
00064
00065
                            if not any([s.complete for s in q.substages]):
00066
                                 complete = False
                    # items
if "item" in reqs:
00067
00068
00069
                        # print(reqs['item'])
                        items_present = [(i in self.player.inventory) for i in reqs['item']['ids']]
00071
00072
                        if reqs['item']['all']:
00073
                             if not all(items_present):
00074
                                 complete = False
00075
                          if not any(items_present):
00076
00077
                                 complete = False
00078
                    if complete:
00079
                        q.complete()
08000
00081
               pass
00082
00083
00084
```

## 8.7 systems/gameobject.py File Reference

#### Classes

· class systems.gameobject.GameObject

## **Namespaces**

- · namespace systems
- · namespace systems.gameobject

## 8.8 gameobject.py

```
Go to the documentation of this file.

00001 class GameObject(object):

00002 def __init__(self, id, name=", description="):
```

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```
self.id = id
00004
             self.name = name
             self.description = description
00005
         def __repr__(self):
    return "<{} id='{}' name='{}' desc='{}'>".format(
00006
00007
80000
                 self.__class__.__name__,
                  self.id,
00010
                  self.name,
00011
                  self.description
00012
00013
00014
         def __hash__(self):
00015
              return hash((self.name, self.description))
00016
00017
         def __eq__(self, other):
00018
              return (self.id,self.name, self.description, self.__class__._name__) == (other.id,other.name,
       other.description, other.__class__.__name_
00019
00020
          def __ne__(self, other):
00021
             return not(self == other)
00022
```

## 8.9 systems/inventory.py File Reference

#### **Classes**

· class systems.inventory.Inventory

## **Namespaces**

- · namespace systems
- · namespace systems.inventory

## 8.10 inventory.py

```
00001 from .item import InventoryItem, Item, PlaceholderInventoryItem
00002 from .recipe import Recipe
00003
00004 class Inventory():
00005
        def __init__(self):
    self.items = {}
00006
              self.current_item = InventoryItem("Nothing", "I should look at something first...", 0)
80000
00009
         def add_item(self, item_id, count=1):
00010
          if type(count) != int:
                   raise TypeError("{} is of type {}, not {}".format(item_id, type(item_id), int))
00011
              if type(item_id) == str:
    if item_id in self.items:
00012
00013
                      self.items[item_id] += count
00015
00016
                      self.items[item_id] = PlaceholderInventoryItem(item_id, count)
00017
              elif type(item_id) == (Item):
                  self.items[item_id.id] = InventoryItem.from_item(item_id, count)
00018
00019
              else:
                  raise TypeError("{} is of type {}, not {} or {}".format(item_id, type(item_id), str,
00020
       Item))
00021
00022
          def remove_item(self, item, count=1):
00023
             if item in self.items:
    self.items[item] -= count
00024
00025
00026
         def __getitem__(self, item_id):
00027
              return self.items[item_id]
00028
00029
                _contains__(self, key):
00030
              if type(key) == str:
00031
                  return key in self.items
00032
              elif type(key) == dict:
```

```
if key['id'] in self.items:
00034
                       return self.items[key['id']].count >= key['count']
00035
                  else:
00036
                      return False
              elif type(key) == tuple:
    if key[0] in self.items:
00037
00038
                      return self.items[key[0]].count >= key[1]
00040
00041
                      return False
00042
              elif type(key) == list:
                 if all([type(i) == tuple for i in key]):
    if all([len(i) == 2 for i in key]):
00043
00044
00045
                           return all([self.items[i[0]].count >= i[1] for i in key])
00046
00047
                           raise ValueError("All tuples must be of types (<str>, <int>")
00048
                  elif len(key) == 2:
                      return self.items[key[0]].count >= key[1]
00049
00050
                  else:
                      raise ValueError("Must be a list of tuples of types (<str>, <int>)")
00052
                  raise ValueError("Input must be of types <str>, <dict>, <tuple>, list[<str>, <int>] or
      list[(<str>,<int>)]")
00054
00055
00056
        def get_items(self):
              return [["{} x{}".format(i[0], i[1]), i[0]] for i in list(filter(lambda i: i[1] > 0,
      self.items.items()))]
00058
00059
          def get_item_count(self, item):
00060
            if self.items.has_key(item):
00061
                  return self.items[item]
00062
             return 0
00063
00064
         def set_current_item(self, item):
00065
             self.current_item = item
00066
00067
         def get current item(self):
00068
              return self.current_item
```

## 8.11 systems/item.py File Reference

#### **Classes**

- · class systems.item.Item
- class systems.item.InventoryItem
- · class systems.item.PlaceholderInventoryItem

#### **Namespaces**

- namespace systems
- namespace systems.item

## 8.12 item.py

```
00001 from .gameobject import GameObject
00002
00003 class Item(GameObject):
       def __init__(self, id, name, description= ", image_path="):
    super(Item, self).__init__(id, name, description)
00004
00005
00006
               self.image_path = image_path
00007
        def __str__(self):
80000
               return self.name
          @staticmethod
00009
00010
          def from_dict(d):
            if 'id' in d:
00011
00012
                   id = d['id']
00013
               else:
```

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```
id = d['name']
00015
               if 'image_path' in d:
00016
00017
                   ip = d['image_path']
00018
               else:
00019
                   ip = "items/{}".format(id)
               return Item(id, d['name'], d['description'], image_path=ip)
00021
00022 class InventoryItem(Item):
00023 def __init__(self,id, name, description=", image_path=", count = 0):
00024 super(InventoryItem, self).__init__(id, name, description, image_path)
00025
               if count < 0:</pre>
00026
                   raise ValueError("Count cannot be less than 0")
00027
              self.count = count
00028
00029
          def set_count(self, count):
               if type(count) != int:
00030
00031
                   raise TypeError("{} is of type {}, not {}".format(count, type(count), int))
               if count < 0:
00032
00033
                   raise ValueError("Count cannot be less than 0")
00034
00035
              self.count = count
          def __iadd__(self, other):
    if type(other) != int:
00036
00037
00038
                   raise TypeError("{} is of type {}, not {}".format(other, type(other), int))
00039
00040
00041
                   raise ValueError("Can't add negative number of items".format(other, self.count))
00042
00043
              self.count += other
00044
              return self
00045
00046
          def __isub__(self, other):
00047
               if type(other) != int:
00048
                   raise TypeError("{} is of type {}, not {}".format(other, type(other), int))
00049
00050
               if other < 0:</pre>
                   raise ValueError("Can't remove a negative number of items".format(other, self.count))
00052
               if self.count - other < 0:</pre>
                   raise ValueError("Removing {} to current count ({}) will result in a count less than
00053
       0".format(other, self.count))
00054
00055
               self.count -= other
00056
              return self
00058
          @staticmethod
          def from_item(item, count = 0):
    if type(item) != Item:
00059
00060
00061
                   raise TypeError("{} is of type {}, not {}".format(item, type(item), Item))
00062
00063
              return InventoryItem(item.id, item.name, item.description, item.image_path, count)
00064
00065
          @staticmethod
00066
          def from_dict(d):
00067
              if type(d) != dict:
00068
                   raise TypeError("{} is of type {}, not {}".format(d, type(d), dict))
               return InventoryItem.from_item(super(InventoryItem, InventoryItem).from_dict(d))
00070
00071 class PlaceholderInventoryItem(InventoryItem):
                       _(self,id, count=0):
00072
                init
               super(PlaceholderInventoryItem, self).__init__(id, "placeholder", "placeholder",
00073
       "placeholder", count=count)
```

## 8.13 systems/person.py File Reference

#### Classes

• class systems.person.Person

#### **Namespaces**

- namespace systems
- · namespace systems.person

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## 8.14 person.py

#### Go to the documentation of this file.

```
00001 from .gameobject import GameObject
00002
00003 class Person(GameObject):
            def __init__(self, id, name, description, base_affinity):
               super(Person, self).__init__(id, name, description)
self.base_affinity = base_affinity
00005
00006
        self.affinity = base_affinity
self.location = ""
def set_affinity(self, value):
    self.affinity = value
00007
80000
00009
00010
         def increase_affinity(self, value=1):
00012
               self.affinity += value
          def decrease_affinity(self, value=1):
00013
00014
               self.affinity -= value
          def get_affinity(self):
00015
           return self.affinity
def __str__(self):
00016
00018
            return self.name
00019
```

## 8.15 systems/player.py File Reference

#### Classes

· class systems.player.Player

## **Namespaces**

- · namespace systems
- · namespace systems.player

## 8.16 player.py

```
00001~{\rm from} .gameobject import GameObject 00002 from .item import Item, InventoryItem
00003 from .inventory import Inventory
00004 from .quests import QuestLog
00005 from .recipe import RecipeBook
00006
00007 class Player(object):
         def __init__(self):
    self.inventory = Inventory()
    self.questlog = QuestLog()
80000
00009
00010
00011
                  self.recipebook = RecipeBook()
00012
00013
           def get_craftable(self):
00014
               pass
00015
00016
            def get_uncraftable(self):
00017
               pass
00018
00019
            def craft(self, recipe):
00020
                pass
00021
            def start_quest(self, quest_id, quest_object):
    self.questlog.add_quest(quest_id, quest_object)
00022
00023
00024
                   # self.questlog
```

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## 8.17 systems/quests.py File Reference

#### **Classes**

- · class systems.quests.Quest
- · class systems.quests.QuestStage
- · class systems.quests.QuestLog

#### **Namespaces**

- · namespace systems
- · namespace systems.quests

## 8.18 quests.py

```
00001 from .gameobject import GameObject
00002
00003 class Quest(GameObject):
00004
          def __init__(
00005
                   self,
00006
                   id,
00007
                   name,
80000
                   description,
00009
                   stages=[],
                   first_stage=None,
00010
00011
                   final_stage=None,
00012
00013
              super(Quest, self).__init__(id, name, description)
00014
              self.stages = {}
00015
              for qs in stages:
                   self.stages[qs.id] = qs
00016
00017
              self.current_stage = 0
00018
              self.started = False
              self.complete = False
00019
              self.first_stage = first_stage
self.final_stage = final_stage
# if final_stage == None:
00020
00021
00022
00023
                   self.final_stage = len(stages)
00024
              # else:
00025
                   self.final_stage = final_stage
00026
00027
          def start(self, stage=None):
00028
             self.started = True
if stage == None:
00029
00030
                   self.current_stage = self.first_stage
00031
00032
                   self.current_stage = stage
00033
00034
          def get_stage(self, stage= None):
00035
               if stage == None:
00036
                   return self.stages[".".join([self.id, str(self.current_stage)])]
               else:
00038
                   return self.stages[".".join([self.id, str(stage)])]
00039
          def next_stage(self):
    self.stage += 1
00040
00041
00042
00043
          @staticmethod
00044
          def from_dict(d):
           return Quest(
d['id'],
00045
00046
                   d['name'],
00047
                   d['description'],
00048
00049
                   stages=[QuestStage.from_dict(s) for s in d['stages']],
00050
                   first_stage=d['first_stage'],
00051
00052
00053
00054 class QuestStage(GameObject):
00055
        def __init__(
00056
               self,
```

```
00057
               id,
00058
               parent_quest_id,
00059
                name="
               description=",
00060
00061
               next_stage=0,
00062
               substages = [],
00063
               requirements= {}
00064
00065
               super(QuestStage, self).__init__(".".join([parent_quest_id, str(id)]),name, description)
00066
               self.complete = False
00067
               for ss in substages:
00068
00069
               self.substages = substages
00070
               self.requirements = requirements
00071
00072
00073
          def __str__(self):
               return self.name
00074
00076
           @staticmethod
00077
           def from_dict(d):
00078
                return QuestStage(name=d['name'], description=d['description'])
00079
00080 class QuestLog(object):
          def __init__(self):
    self.quests = {}
00081
00082
00083
00084
           def get_quest(self, id):
00085
               return self.quests[id]
00086
          def add_quest(self, id, quest):
    self.quests[id] = quest
00087
00088
00089
               self.quests[id].start()
00090
00091
           def get_active(self):
00092
               qs = [q.get_stage() for q in self.quests.values() if (q.started and not q.complete)]
               sq = [q.substages for q in qs]
# python is objectively a stupid language. This is just to flatten a list. Fuck's sake.
00093
00095
               return qs + [s for sublist in sq for s in sublist]
00096
           def __getitem__(self, key):
    return self.quests[key]
00097
00098
```

## 8.19 systems/recipe.py File Reference

## Classes

- · class systems.recipe.Recipe
- · class systems.recipe.RecipeBook

#### **Namespaces**

- namespace systems
- namespace systems.recipe

## 8.20 recipe.py

```
00001 from .gameobject import GameObject
00002
00003 class Recipe(GameObject):
00004
         def __init__(self, name, requirements, item, description="):
00005
              super(Recipe, self).__init__(name, description)
00006
              self.requirements = requirements
              self.item = item
00007
00008
         def is_craftable(self, item_list):
00009
00010
              # return all([item_list[i] >= c for i, c in self.requirements.items()])
```

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```
00013
          @staticmethod
00014
          def from_dict(d):
           return Recipe(
d['name'],
00015
00016
                  item=d['item'],
00017
                  requirements=d['requirements'],
00019
                  description=d['description'],
00020
             )
00021
         def __hash__(self):
    return hash((self.name, self.item))
00022
00023
00024
          def __eq__(self, other):
00026
              return (self.name, self.requirements, self.item) == (other.name, other.requirements,
       other.item)
00027
00028 class RecipeBook(object):
        def __init__(self):
           self.recipes = {}
00030
00031
              self.current_recipe = Recipe("Nothing here", {"not sure": 0}, None)
00032
         def add_recipe(self, recipe_id):
00033
             pass
00034
00035
         def add_recipe(self, recipe):
00036
             self.recipes.add(recipe)
00037
              for r in recipe.requirements.keys():
00038
                 self.add_item(r, 0)
00039
          def remove_recipe(self, recipe):
00040
             self.recipes.remove(recipe)
00041
         def get_craftable(self):
00043
             return [i for i in self.recipes if i.is_craftable(self.items)]
00044
00045
         def get_uncraftable(self):
00046
              return [i for i in self.recipes if not i.is_craftable(self.items)]
00047
         def craft(self, recipe):
00049
             if recipe in self.recipes:
00050
                 if recipe.is_craftable(self.items):
00051
                      self.add_item(recipe.item)
                      for i, c in recipe.requirements.items():
00052
00053
                          self.remove_item(i, c)
```

## 8.21 systems/requirements\_syntax.md File Reference

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