

txtEngine  
v4.0

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## Chapter 1

# Documentation for the txtEngine Project

### 1.1 Date Updated:

14-08-2011

### 1.2 What is txtEngine?

txtEngine is an interpreter for text only adventure games. Games are written using the XML language making it easy for anyone to write and play their own games.

### 1.3 Links:

- txtEngine Project Site on Github: <https://github.com/smilefreak/txt-Engine>
- TinyXML Documentation: <http://www.grinninglizard.com/tinyxmldocs/index.-html>

### 1.4 Report Bugs:

Please report any bugs here: <https://github.com/smilefreak/txt-Engine/issues>

## 1.5 Authors:

Toby Herbert, Michael Abrams, James Boocock, Tatai Nikora

## Chapter 2

# Class Index

### 2.1 Class List

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

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## Chapter 3

# File Index

### 3.1 File List

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## Chapter 4

# Class Documentation

### 4.1 Area Class Reference

#### Public Member Functions

- bool [has\\_description](#) (std::string desc\_id)
- std::string [get\\_status](#) ()
- bool [has\\_current\\_desc](#) ()
- int [get\\_num\\_items](#) ()
- std::string [get\\_description](#) ()
- void [remove\\_item](#) (int index)
- void [remove\\_item](#) (std::string item\_id)
- void [add\\_item](#) (Item \*new\_item)
- Item \* [get\\_item](#) (int index)
- std::string [get\\_id](#) ()
- bool [has\\_item](#) (std::string item\_to\_find)
- Item \* [get\\_item](#) (std::string item\_id, unsigned int &item)
- void [add\\_description](#) (StateDescriptor \*desc)
- void [add\\_command](#) (AreaCommand \*command\_name)
- int [get\\_num\\_commands](#) ()
- AreaCommand \* [get\\_command](#) (int index)
- AreaCommand \* [has\\_command](#) (std::string command\_name)
- int [get\\_num\\_descriptions](#) ()
- StateDescriptor \* [get\\_descriptor](#) (int index)
- void [unlock](#) (std::string area\_command\_id)
- Area (const char \*id, const char \*desc\_id, const char \*status)
- ~Area ()

## Protected Attributes

- `std::vector< Item * > items`
- `int num_descriptions`
- `int num_commands`
- `int num_items`
- `std::string status`
- `std::string id`
- `std::string curr_desc_id`
- `std::vector< StateDescriptor * > description`
- `std::vector< AreaCommand * > commands`

## 4.1.1 Constructor & Destructor Documentation

### 4.1.1.1 `Area::Area ( const char * id, const char * desc_id, const char * status )`

The constructor for an [Area](#) object.

#### Parameters

<code>in</code>	<code>id</code>	The id of the area.
<code>in</code>	<code>desc_id</code>	The id of the area description.
<code>in</code>	<code>status</code>	The status of the area.

### 4.1.1.2 `Area::~Area ( )`

[Area](#) Deconstructor.

## 4.1.2 Member Function Documentation

### 4.1.2.1 `void Area::add_command ( AreaCommand * command_name )`

Adds an [AreaCommand](#) to an area.

#### Parameters

<code>in</code>	<code>A</code>	pointer to an <a href="#">AreaCommand</a> .
-----------------	----------------	---

### 4.1.2.2 `void Area::add_description ( StateDescriptor * desc )`

Adds a [StateDescriptor](#) to an area.

#### Parameters

<code>in</code>	<code>desc</code>	A pointer to a <a href="#">StateDescriptor</a> object.
-----------------	-------------------	--

#### 4.1.2.3 void Area::add\_item ( Item \* *new\_item* )

Adds an item to the area.

##### Parameters

<i>in</i>	<i>new_item</i>	A pointer to the item to add to the items vector.
-----------	-----------------	---

#### 4.1.2.4 AreaCommand \* Area::get\_command ( int *index* )

Get an [AreaCommand](#) for this area by index.

##### Parameters

<i>in</i>	<i>index</i>	The index of the <a href="#">AreaCommand</a> in the commands vector.
-----------	--------------	--

##### Returns

A pointer to the [AreaCommand](#) or null if it doesn't exist.

#### 4.1.2.5 std::string Area::get\_description ( )

Get the area description.

##### Returns

String description of the area.

#### 4.1.2.6 StateDescriptor \* Area::get\_descriptor ( int *index* )

Gets a [StateDescriptor](#) for the area by index.

##### Parameters

<i>in</i>	<i>index</i>	The index of the <a href="#">StateDescriptor</a> in the description vector.
-----------	--------------	---

##### Returns

A pointer to the [StateDescriptor](#) or null if it doesn't exist.

#### 4.1.2.7 std::string Area::get\_id ( )

Get the area id.

**Returns**

The id of the area.

**4.1.2.8 Item \* Area::get\_item ( int *index* )**

Get the item in the area from items vector by index.

**Parameters**

in	<i>index</i>	The index of the item in the vector.
----	--------------	--------------------------------------

**Returns**

A pointer to the item.

**4.1.2.9 Item \* Area::get\_item ( std::string *item\_id*, unsigned int & *item* )**

Gets a pointer to the item by item id and sets index to the index of the item in the vector.

**Parameters**

in	<i>item_id</i>	The id of the item.
out	<i>index</i>	The address of the item's index member variable.

**Returns**

A pointer to the item.

**4.1.2.10 int Area::get\_num\_commands ( )**

Get the number of commands for this area.

**Returns**

The number of AreaCommands for this area.

**4.1.2.11 int Area::get\_num\_descriptions ( )**

Get the number if descriptions for the area.

**Returns**

The number of descriptions for this area.

#### 4.1.2.12 `int Area::get_num_items ( )`

Accessor for the number of items in the [Area](#).

##### Returns

The number of items in the area.

#### 4.1.2.13 `std::string Area::get_status ( )`

This accessor method returns the status of the area.

##### Returns

The status of the [Area](#).

#### 4.1.2.14 `AreaCommand * Area::has_command ( std::string command_name )`

Gets an [AreaCommand](#) for this area by name.

##### Parameters

<code>in</code>	<code>command_ - name</code>	The name of the command to get.
-----------------	----------------------------------	---------------------------------

##### Returns

A pointer to the [AreaCommand](#) or null if it doesn't exist.

#### 4.1.2.15 `bool Area::has_current_desc ( )`

Calls the `has_description` method.

The function arguments listed with "param" will be compared to the declaration and verified.

##### See also

[has\\_description\(\)](#);

##### Returns

True if the area has the current description otherwise false.

#### 4.1.2.16 `bool Area::has_description ( std::string desc_id )`

Checks if an area has this description.

**Parameters**

in	<i>desc_id</i>	A description ID.
----	----------------	-------------------

**Returns**

Returns true if 'description' holds desc\_id, otherwise returns false.

**4.1.2.17 bool Area::has\_item ( std::string *item\_to\_find* )**

Checks whether the area has an item.

**Parameters**

in	<i>item_to_find</i>	
----	---------------------	--

**Returns**

True if the area (items vector) contains the item.

**4.1.2.18 void Area::remove\_item ( int *index* )**

Remove an item from the area by index.

**Parameters**

in	<i>index</i>	The index of the item to remove.
----	--------------	----------------------------------

**Returns**

Description of returned value.

**4.1.2.19 void Area::remove\_item ( std::string *item\_id* )**

Removes an item from the area by the item id.

**Parameters**

in	<i>item_id</i>	The id of the item to be removed.
----	----------------	-----------------------------------

**4.1.2.20 void Area::unlock ( std::string *area\_command\_id* )**

Unlocks an [AreaCommand](#) of this area.

## Parameters

in	<i>area_ - command_id</i>	The id of an <a href="#">AreaCommand</a> to unlock.
----	-------------------------------	---

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

- /home/cshome/m/mabrams/345/txtEngine/[Area.h](#)
- /home/cshome/m/mabrams/345/txtEngine/[Area.cpp](#)

## 4.2 AreaCommand Class Reference

### Public Member Functions

- [AreaCommand](#) (const char \*callmeby, const char \*areatomoveto, const char \*status\_command, const char \*depends\_command, std::vector< std::string > \*synonyms, bool locked)
- [~AreaCommand](#) ()
- std::string [get\\_depends](#) ()
- std::string [get\\_status](#) ()
- std::string [get\\_name](#) ()
- std::string [get\\_area](#) ()
- std::string [get\\_message](#) ()
- void [set\\_message](#) (const char \*to\_message)
- bool [find](#) (std::string to\_find)
- void [unlock](#) ()
- bool [is\\_locked](#) ()
- bool [has\\_synonym](#) (std::string item)

### Protected Attributes

- bool **locked**
- std::string **name**
- std::string **status**
- std::string **message**
- std::string **depends**
- std::string **move\_to\_area**
- std::vector< std::string > \* **synonyms**

### 4.2.1 Constructor & Destructor Documentation

- 4.2.1.1 [AreaCommand::AreaCommand](#) ( const char \* *callmeby*, const char \* *areatomoveto*, const char \* *status\_command*, const char \* *depends\_command*, std::vector< std::string > \* *synonyms*, bool *locked* )

The constructor for an [AreaCommand](#).

## Parameters

in	<i>callmeby</i>	The name of this command.
in	<i>areamoveto</i>	The area to move to when this command is called.
in	<i>status_ command</i>	The status id to change to.
in	<i>depends_ command</i>	
in	<i>synonyms</i>	A vector containing synonyms of 'callmeby'.
in	<i>locked</i>	If true command cannot be called.

4.2.1.2 `AreaCommand::~~AreaCommand ( )`

The [AreaCommand](#) Destructor

## 4.2.2 Member Function Documentation

4.2.2.1 `bool AreaCommand::find ( std::string to_find )`

Compares the name of the command with a string.

## Parameters

in	<i>to_find</i>	A string to compare with the command name.
----	----------------	--

## Returns

True if the strings match otherwise false.

4.2.2.2 `std::string AreaCommand::get_area ( )`

Get the name of the area to move to when this command is used.

## Returns

The name of the area to move to.

4.2.2.3 `std::string AreaCommand::get_depends ( )`

Returns what the [AreaCommand](#) depends on.

## Returns

An id of an item the command depends on.



#### 4.2.2.4 `std::string AreaCommand::get_message ( )`

Get the message to print when this command is used.

##### Returns

A message to print for this command.

#### 4.2.2.5 `std::string AreaCommand::get_name ( )`

Get the name of the [AreaCommand](#).

##### Returns

The name of the [AreaCommand](#).

#### 4.2.2.6 `std::string AreaCommand::get_status ( )`

Get the status of the [AreaCommand](#)

##### Returns

The status of the [AreaCommand](#).

#### 4.2.2.7 `bool AreaCommand::has_synonym ( std::string item )`

Checks if the area command has a synonym matching a string.

##### Parameters

<i>in</i>	<i>item</i>	The name to check
-----------	-------------	-------------------

##### Returns

True if the synonym list has the string or false if not.

#### 4.2.2.8 `bool AreaCommand::is_locked ( )`

Checks whether this area command is locked.

##### Returns

True if the command is locked or false if it is unlocked.

#### 4.2.2.9 void AreaCommand::set\_message ( const char \* *to\_message* )

Change the message for this command.

##### Parameters

in	<i>to_message</i>	The new message for this command.
----	-------------------	-----------------------------------

#### 4.2.2.10 void AreaCommand::unlock ( )

Unlocks the command so it can be called.

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

- /home/cshome/m/mabrams/345/txtEngine/[AreaCommand.h](#)
- /home/cshome/m/mabrams/345/txtEngine/[AreaCommand.cpp](#)

## 4.3 combine Class Reference

### Public Member Functions

- [combine](#) (std::string id, std::string first\_id, std::string second\_id)
- [~combine](#) ()
- [Item](#) \* [get\\_combination](#) ()
- std::string [get\\_id](#) ()
- std::string [get\\_first\\_id](#) ()
- std::string [get\\_second\\_id](#) ()
- void [set\\_combination](#) ([Item](#) \*item)
- void [set\\_description](#) ([StateDescriptor](#) \*d)
- std::string [get\\_description](#) ()

#### 4.3.1 Constructor & Destructor Documentation

##### 4.3.1.1 combine::combine ( std::string *id*, std::string *first\_id*, std::string *second\_id* )

Constructor for a combine object.

##### Parameters

in	<i>id</i>	The id for the object.
in	<i>first_id</i>	The id of the first item to combine.
in	<i>second_id</i>	The id of the second object to combine.

#### 4.3.1.2 combine::~~combine ( )

Destructor for combine object.

### 4.3.2 Member Function Documentation

#### 4.3.2.1 Item \* combine::get\_combination ( )

Get

##### Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

##### Returns

Description of returned value.

#### 4.3.2.2 std::string combine::get\_description ( )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

##### Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

##### Returns

Description of returned value.

#### 4.3.2.3 std::string combine::get\_first\_id ( )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

**Returns**

Description of returned value.

**4.3.2.4 `std::string combine::get_id ( )`**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

**Returns**

Description of returned value.

**4.3.2.5 `std::string combine::get_second_id ( )`**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

**Returns**

Description of returned value.

#### 4.3.2.6 void combine::set\_combination ( Item \* item )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

##### Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

##### Returns

Description of returned value.

#### 4.3.2.7 void combine::set\_description ( StateDescriptor \* d )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

##### Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

##### Returns

Description of returned value.

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

- [/home/cshome/m/mabrams/345/txtEngine/combine.h](#)
- [/home/cshome/m/mabrams/345/txtEngine/combine.cpp](#)

## 4.4 Item Class Reference

### Public Member Functions

- void [remove\\_item](#) (std::string item\_id)
- void [flip\\_locked](#) ()

- bool [is\\_locked](#) ()
- bool [has\\_container](#) ()
- std::string [print\\_contained\\_items](#) ()
- [Item](#) \* [get\\_item](#) (std::string item\_id)
- void [add\\_item](#) ([Item](#) \*)
- bool [has\\_combine](#) ()
- [combine](#) \* [get\\_combine](#) ()
- void [set\\_combine](#) ([combine](#) \*c)
- bool [has\\_description](#) (std::string desc\_id)
- bool [has\\_current\\_desc](#) ()
- bool [has\\_synonym](#) (std::string item)
- std::string [get\\_description](#) ()
- void [add\\_description](#) ([StateDescriptor](#) \*desc)
- void [change\\_collectable](#) (bool flip)
- bool [is\\_collectable](#) ()
- std::string [get\\_id](#) ()
- int [get\\_num\\_commands](#) ()
- void [add\\_command](#) ([ItemCommand](#) \*command\_name)
- [ItemCommand](#) \* [get\\_command](#) (int index)
- [ItemCommand](#) \* [get\\_command](#) (std::string command\_name)
- int [get\\_num\\_descriptions](#) ()
- [StateDescriptor](#) \* [get\\_descriptor](#) (int index)
- std::string [get\\_depends](#) ()
- void [state\\_change](#) (std::string to\_change)
- [Item](#) (bool collect, const char \*identifier, const char \*initial\_state, std::vector< std::string > \*synonyms, const char \*depends, bool container, bool locked)
- [~Item](#) ()

### Protected Attributes

- bool **collectable**
- int **num\_descriptions**
- int **num\_commands**
- int **num\_items**
- std::string **id**
- bool **container**
- bool **locked**
- [combine](#) \* **combine\_var**
- std::vector< [Item](#) \* > **contains**
- std::string **curr\_desc\_id**
- std::vector< [StateDescriptor](#) \* > **description**
- std::vector< [ItemCommand](#) \* > **commands**
- std::vector< std::string > \* **synonyms**
- std::string **depends**

### 4.4.1 Constructor & Destructor Documentation

4.4.1.1 `Item::Item ( bool collect, const char * identifier, const char * initial_state, std::vector< std::string > * synonyms, const char * depends, bool container, bool locked )`

The constructor for an [Item](#).

#### Parameters

in	<i>collect</i>	Whether this item is collectable or not.
in	<i>identifier</i>	An identifier for this item.
in	<i>initial_state</i>	The initial state of the item.
in	<i>synonyms</i>	A vector of synonyms for the name of this item.
in	<i>depends</i>	An item this item depends on.
in	<i>container</i>	Whether this item is a container.
in	<i>locked</i>	Whether this item is locked.

4.4.1.2 `Item::~~Item ( )`

The destructor for an [Item](#).

### 4.4.2 Member Function Documentation

4.4.2.1 `void Item::add_command ( ItemCommand * command_name )`

Add a command to this item.

#### Parameters

in	<i>command_name</i>	A pointer to an <a href="#">ItemCommand</a> object.
----	---------------------	---

4.4.2.2 `void Item::add_description ( StateDescriptor * desc )`

Add a [StateDescriptor](#) for this item.

#### Parameters

in	<i>desc</i>	A pointer to a <a href="#">StateDescriptor</a> object to add.
----	-------------	---

4.4.2.3 `void Item::add_item ( Item * new_item )`

Adds an item to the contains vector.

## Parameters

<i>The</i>	pointer to an item.
------------	---------------------

4.4.2.4 void Item::change\_collectable ( bool *flip* )

Flip the value of collectable for this item.

## Parameters

<i>in</i>	<i>flip</i>	True flips the value, false leaves it unchanged.
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## 4.4.2.5 void Item::flip\_locked ( )

Flips the locked variable for this item..

## 4.4.2.6 combine \* Item::get\_combine ( )

Accessor for a combine object.

## Returns

A pointer to a combine object.

4.4.2.7 ItemCommand \* Item::get\_command ( int *index* )

Gets a command from the commands vector for this item by index.

## Parameters

<i>in</i>	<i>index</i>	The index of the item in the vector.
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## Returns

An [ItemCommand](#) object at the specified index.

4.4.2.8 ItemCommand \* Item::get\_command ( std::string *command\_name* )

Gets a command from the commands vector of this item by command\_name.

## Parameters

<i>in</i>	<i>command_name</i>	A string - the name of the command.
-----------	---------------------	-------------------------------------



**Returns**

An [ItemCommand](#) object with the specified name.

**4.4.2.9** `std::string Item::get_depends ( )`

Changes the state of the item.

**Returns**

Returns a string - what the item depends on.

**4.4.2.10** `std::string Item::get_description ( )`

Gets the item description.

**Returns**

The description of the item.

**4.4.2.11** `StateDescriptor * Item::get_descriptor ( int index )`

Get a [StateDescriptor](#) from the descriptions vector by index.

**Parameters**

<code>in</code>	<code>index</code>	The index of the <a href="#">StateDescriptor</a> in the vector.
-----------------	--------------------	---

**Returns**

A [StateDescriptor](#) at the specified index.

**4.4.2.12** `std::string Item::get_id ( )`

Gets the id of the item.

**Returns**

A string - the id of the item.

**4.4.2.13** `Item * Item::get_item ( std::string item_id )`

Returns a pointer to an item by id or null if it does not exist.

**Parameters**

<i>item_id</i>	The id of the item to get.
----------------	----------------------------

**Returns**

A pointer to an item.

**4.4.2.14 int Item::get\_num\_commands ( )**

Gets the number of commands for this item.

**Returns**

The number of commands this item has.

**4.4.2.15 int Item::get\_num\_descriptions ( )**

Get the number of descriptions for this item.

**Returns**

The number of descriptions for this item.

**4.4.2.16 bool Item::has\_combine ( )**

Checks whether this [Item](#) can combine with another.

**Returns**

True if this item can be combined with another otherwise false.

**4.4.2.17 bool Item::has\_container ( )**

Checks whether the the [Item](#) is a container for other items.

**Returns**

True if the item is a container or false if not.

**4.4.2.18 bool Item::has\_current\_desc ( )**

Check whether this item has the current description. Calls `has_description` method passing the `curr_desc_id`.

**Returns**

True if the item has the current description otherwise false.

**4.4.2.19** `bool Item::has_description ( std::string desc_id )`

Check whether this item has a certain description id.

**Parameters**

<code>in</code>	<code>desc_id</code>	A string of an item description id.
-----------------	----------------------	-------------------------------------

**Returns**

True if this item contains the discription otherwise false.

**4.4.2.20** `bool Item::has_synonym ( std::string item )`

Checks whether this item has a particular synonym.

**Parameters**

<code>in</code>	<code>item</code>	A string that may be a synonym.
-----------------	-------------------	---------------------------------

**Returns**

True if the item has the synonym otherwise false.

**4.4.2.21** `bool Item::is_collectable ( )`

Checks whether this item is collectable.

**Returns**

Description of returned value.

**4.4.2.22** `bool Item::is_locked ( )`

Checks whether the the [Item](#) is locked.

**Returns**

True if the item is locked otherwise false.

**4.4.2.23** `std::string Item::print_contained_items ( )`

Returns a string with all items the item contains.

**Returns**

A string of items this item contains.

#### 4.4.2.24 void Item::remove\_item ( std::string *item\_id* )

Removes an item from inside this item by id.

##### Parameters

<i>A</i>	string - the id of the item to remove.
----------	--

#### 4.4.2.25 void Item::set\_combine ( combine \* *c* )

A mutator for a combine object.

##### Parameters

<i>in</i>	<i>c</i>	A pointer to a combine object.
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#### 4.4.2.26 void Item::state\_change ( std::string *to\_change* )

Changes the state of the item.

##### Parameters

<i>in</i>	<i>to_change</i>	A string - to change the state of the item to.
-----------	------------------	--

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

- /home/cshome/m/mabrams/345/txtEngine/[Item.h](#)
- /home/cshome/m/mabrams/345/txtEngine/[Item.cpp](#)

## 4.5 ItemCommand Class Reference

### Public Member Functions

- bool **is\_combine** ()
- **ItemCommand** (const char \*callmeby, const char \*state\_mutator, bool chng\_collec, bool collec\_dep, const char \*area\_chng, const char \*status\_command, const char \*depends, std::vector< std::string > \*synonyms, std::string unlock, bool [combine](#))
- std::string [get\\_depends](#) ()
- bool [get\\_change\\_collect](#) ()
- bool [get\\_collect\\_dependent](#) ()
- std::string [get\\_area\\_change](#) ()
- std::string [get\\_status](#) ()
- std::string [get\\_message](#) ()
- std::string [get\\_name](#) ()

- std::string [get\\_state\\_change](#) ()
- bool [check\\_synonyms](#) (std::string *command*)
- void [set\\_message](#) (const char \*\_message)
- bool **unlocks** ()
- std::string **unlock\_areacommand\_string** ()
- std::string **unlock\_area\_string** ()
- std::string **get\_unlock\_string** ()

### Protected Attributes

- std::string **name**
- std::string **state\_change**
- std::string **message**
- std::string **area\_change**
- std::string **depends**
- std::string **status**
- std::string **unlock**
- bool **call\_combine**
- std::vector< std::string > \* **synonyms**
- bool **change\_collect**
- bool **collect\_dependent**

### 4.5.1 Member Function Documentation

#### 4.5.1.1 bool ItemCommand::check\_synonyms ( std::string *command* )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

#### Parameters

<i>in</i>	<i>_inArg1</i>	Description of first function argument.
<i>out</i>	<i>_outArg2</i>	Description of second function argument.
<i>in, out</i>	<i>_inoutArg3</i>	Description of third function argument.

#### Returns

Description of returned value.

#### 4.5.1.2 std::string ItemCommand::get\_area\_change ( )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

**4.5.1.3 bool ItemCommand::get\_change\_collect ( )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

**4.5.1.4 bool ItemCommand::get\_collect\_dependent ( )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

#### 4.5.1.5 `std::string ItemCommand::get_depends ( )`

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

##### Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

##### Returns

Description of returned value.

#### 4.5.1.6 `std::string ItemCommand::get_message ( )`

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

##### Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

##### Returns

Description of returned value.

#### 4.5.1.7 `std::string ItemCommand::get_name ( )`

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

##### Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

**Returns**

Description of returned value.

**4.5.1.8    `std::string ItemCommand::get_state_change (    )`**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

<code>in</code>	<code>_inArg1</code>	Description of first function argument.
<code>out</code>	<code>_outArg2</code>	Description of second function argument.
<code>in, out</code>	<code>_inoutArg3</code>	Description of third function argument.

**Returns**

Description of returned value.

**4.5.1.9    `std::string ItemCommand::get_status (    )`**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

<code>in</code>	<code>_inArg1</code>	Description of first function argument.
<code>out</code>	<code>_outArg2</code>	Description of second function argument.
<code>in, out</code>	<code>_inoutArg3</code>	Description of third function argument.

**Returns**

Description of returned value.

**4.5.1.10    `void ItemCommand::set_message ( const char * to_message )`**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.



## Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

## Returns

Description of returned value.

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

- [/home/cshome/m/mabrams/345/txtEngine/ItemCommand.h](#)
- [/home/cshome/m/mabrams/345/txtEngine/ItemCommand.cpp](#)

## 4.6 StateDescriptor Class Reference

### Public Member Functions

- [StateDescriptor](#) (const char \*identifier)
- void [set\\_description](#) (const char \*desc)
- [~StateDescriptor](#) ()
- std::string [get\\_id](#) ()
- std::string [get\\_description](#) ()

### Protected Attributes

- std::string **id**
- std::string **description**

### 4.6.1 Constructor & Destructor Documentation

#### 4.6.1.1 StateDescriptor::StateDescriptor ( const char \* *identifier* )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

## Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

**Returns**

Description of returned value.

**4.6.1.2 StateDescriptor::~StateDescriptor ( )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

**Returns**

Description of returned value.

**4.6.2 Member Function Documentation****4.6.2.1 std::string StateDescriptor::get\_description ( )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

**Returns**

Description of returned value.

**4.6.2.2 std::string StateDescriptor::get\_id ( )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

**Returns**

Description of returned value.

**4.6.2.3 void StateDescriptor::set\_description ( const char \* desc )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

**Returns**

Description of returned value.

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

- [/home/cshome/m/mabrams/345/txtEngine/StateDescriptor.h](#)
- [/home/cshome/m/mabrams/345/txtEngine/StateDescriptor.cpp](#)

## 4.7 World Class Reference

**Public Member Functions**

- `std::string` [get\\_author](#) ()
- `std::string` [get\\_language](#) ()
- `Area *` [get\\_active\\_area](#) ()
- `Area *` [get\\_area](#) (int index)
- void [add\\_area](#) (`Area *`new\_area)
- int [get\\_num\\_areas](#) ()
- `Area *` [get\\_area](#) (std::string area\_id)
- bool [init\\_active\\_area](#) ()
- void [change\\_area](#) (std::string name)
- **World** (const char \*lang, const char \*auth, const char \*init\_area)
- [~World](#) ()

## Protected Attributes

- std::string **language**
- std::string **author**
- std::vector< [Area](#) \* > **areas**
- std::string **initial\_area**
- int **num\_areas**
- [Area](#) \* **active\_area**

## 4.7.1 Constructor & Destructor Documentation

### 4.7.1.1 World::~~World ( )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

#### Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

#### Returns

Description of returned value.

## 4.7.2 Member Function Documentation

### 4.7.2.1 Area \* World::get\_active\_area ( )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

#### Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

#### Returns

Description of returned value.

#### 4.7.2.2 `std::string World::get_author ( )`

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

##### Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

##### Returns

Description of returned value.

#### 4.7.2.3 `std::string World::get_language ( )`

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

##### Parameters

in	<code>_inArg1</code>	Description of first function argument.
out	<code>_outArg2</code>	Description of second function argument.
in, out	<code>_inoutArg3</code>	Description of third function argument.

##### Returns

Description of returned value.

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

- [/home/cshome/m/mabrams/345/txtEngine/World.h](#)
- [/home/cshome/m/mabrams/345/txtEngine/World.cpp](#)



## Chapter 5

# File Documentation

### 5.1 /home/cshome/m/mabrams/345/txtEngine/Area.cpp File Reference

Source file for [Area](#) functionality.

```
#include "Area.h"
```

#### 5.1.1 Detailed Description

Source file for [Area](#) functionality. Provides the functionality for an area in a game.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

### 5.2 /home/cshome/m/mabrams/345/txtEngine/Area.h File Reference

Defines the [Area](#) class.

```
#include <string> #include <vector> #include <iostream> ×  
#include "Item.h" #include "StateDescriptor.h" #include "-  
AreaCommand.h"
```

## Classes

- class [Area](#)

### 5.2.1 Detailed Description

Defines the [Area](#) class. [Area.h](#) defines the methods for the [Area.cpp](#) source file.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

## 5.3 /home/cshome/m/mabrams/345/txtEngine/AreaCommand.cpp - File Reference

Source file for area command functionality.

```
#include "AreaCommand.h"
```

### 5.3.1 Detailed Description

Source file for area command functionality. Provides the functionality for an [Area-Command](#) in the game.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

## 5.4 /home/cshome/m/mabrams/345/txtEngine/AreaCommand.h - File Reference

Defines the [AreaCommand](#) class.



```
#include <vector> #include <string>
```

## Classes

- class [AreaCommand](#)

### 5.4.1 Detailed Description

Defines the [AreaCommand](#) class. [AreaCommand.h](#) defines the methods for the [AreaCommand.cpp](#) source file.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

## 5.5 /home/cshome/m/mabrams/345/txtEngine/combine.cpp File - Reference

Source file for Combine functionality.

```
#include "combine.h" #include "Item.h"
```

### 5.5.1 Detailed Description

Source file for Combine functionality. Provides combine functionality in the game. An object consists of its id, the id of the first item that can be combined, and the id of the second object that can be combined.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

## 5.6 /home/cshome/m/mabrams/345/txtEngine/combine.h File - Reference

Defines the Combine class.

```
#include <iostream>  #include <string>  #include "State-Descriptor.h"
```

### Classes

- class [combine](#)

### 5.6.1 Detailed Description

Defines the Combine class. [Combine.h](#) defines the methods for the [Combine.cpp](#) source file.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

## 5.7 /home/cshome/m/mabrams/345/txtEngine/Constants.h File - Reference

Defines the constants for the game.

### Defines

- #define **DEFAULT\_VALUE** "default\_value"
- #define **MAX\_CHARACTERS\_PER\_LINE** 80
- #define **WIN** "win"
- #define **DIE** "die"
- #define **NONE** "none"
- #define **LOOK** "look"
- #define **BAG** "bag"
- #define **GO** "go"
- #define **INVENTORY** "inventory"

- `#define QUIT "quit"`
- `#define NORTH "north"`
- `#define N "n"`
- `#define SOUTH "south"`
- `#define S "s"`
- `#define EAST "east"`
- `#define E "e"`
- `#define WEST "west"`
- `#define W "w"`
- `#define HELP "help"`
- `#define HELP_COMMAND "Schrodinger says the cat is both dead and alive."`
- `#define SAVE "save"`
- `#define LOAD "load"`
- `#define IGNORELIST "input/ignorewords.txt"`
- `#define IGNORELISTERROR "\n\nERROR: Filter List not found!\n\n"`
- `#define TOOMANYWORDS "Please use fewer words for commands"`
- `#define COMBINE "combine"`
- `#define PUT "put"`
- `#define STORE "store"`
- `#define MIX "mix"`
- `#define GARBAGE "garbage"`

### 5.7.1 Detailed Description

Defines the constants for the game.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

## 5.8 /home/cshome/m/mabrams/345/txtEngine/Item.cpp File Reference

Source file for [Item](#) functionality.

```
#include "Item.h" #include <iostream>
```

### 5.8.1 Detailed Description

Source file for [Item](#) functionality. [Item.cpp](#) provides the functionality for an [Item](#) in the game.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

## 5.9 /home/cshome/m/mabrams/345/txtEngine/Item.h File Reference

Defines the [Item](#) class.

```
#include <string>    #include <vector>    #include "State-  
Descriptor.h" #include "ItemCommand.h" #include "combine.-  
h"
```

### Classes

- class [Item](#)

### 5.9.1 Detailed Description

Defines the [Item](#) class. [Item.h](#) defines the methods for the [Item.cpp](#) source file.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

## 5.10 /home/cshome/m/mabrams/345/txtEngine/ItemCommand.cpp File Reference

Source file for an [ItemCommand](#).

## 5.11 /home/cshome/m/mabrams/345/txtEngine/ItemCommand.h File Reference 43

```
#include "ItemCommand.h" #include <iostream>
```

### 5.10.1 Detailed Description

Source file for an [ItemCommand](#). Provides the functionality for an [ItemCommand](#).

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

## 5.11 /home/cshome/m/mabrams/345/txtEngine/ItemCommand.h - File Reference

Defines the [ItemCommand](#) class.

```
#include "Constants.h" #include <vector> #include <string> x
```

### Classes

- class [ItemCommand](#)

### 5.11.1 Detailed Description

Defines the [ItemCommand](#) class. [ItemCommand.h](#) defines the methods for the [ItemCommand.cpp](#) source file.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

## 5.12 /home/cshome/m/mabrams/345/txtEngine/main.cpp File - Reference

The main file for txtEngine.

```
#include <iostream> #include <sstream> #include <fstream> ×
#include <algorithm> #include <string> #include "parser.-
h" #include "Constants.h"
```

### Functions

- void [gameloop](#) ()  
*The main gameloop.*
- std::string [one\\_word\\_command](#) (std::string command)  
*A method to handle one word commands.*
- std::string [two\\_word\\_command](#) (std::string command1, std::string command2)  
*A method to handle two word commands.*
- std::string [three\\_word\\_command](#) (std::string command)
- void [print\\_inventory](#) ()
- std::string [word\\_wrap](#) (std::string input\_string)
- void [print\\_world\\_tree](#) ()
- void [load\\_game](#) ()
- void [save\\_game](#) ()
- std::string [input\\_filter](#) (std::string input\_string)
- void [read\\_filter\\_list](#) (std::string str)
- void [process\\_input](#) (std::string to\_process, bool load)
- void [load](#) (char \*const file)
- void [read\\_filter\\_list](#) (const char \*file)
- int [main](#) (int argc, char \*\*argv)

### Variables

- [World](#) \* [world](#)
- bool [game\\_over](#) = false
- std::vector< std::string > [commandList](#)
- std::vector< std::string > [filterList](#)
- std::string [save](#)

#### 5.12.1 Detailed Description

The main file for txtEngine. Main file for the game.

Open-source

**Date**

14/08/2011

**Author**

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

**Version**

0.3

**Remarks**

Parser code is freely distributed TinyXML library

**5.12.2 Function Documentation****5.12.2.1 `std::string input_filter ( std::string input_string )`**

Checks the input string for words that are in the filterList vector. If they are in the list they are removed from the string.

**Parameters**

<i>in</i>	<i>input_string</i>	A string to be filtered
-----------	---------------------	-------------------------

**Returns**

A string with words from filterList removed.

**5.12.2.2 `void load_game ( )`**

Loads a game from a .sav file.

**5.12.2.3 `std::string one_word_command ( std::string command )`**

A method to handle one word commands.

**Parameters**

<i>in</i>	<i>command</i>	A single word command in the form of a string.
-----------	----------------	--

**Returns**

Output of the command.

**5.12.2.4 void print\_inventory ( )**

Prints out the contents of the inventory vector.

**5.12.2.5 void print\_world\_tree ( )**

This method is used for debug purposes only: Prints out the parsed XML file in a tree structure.

**5.12.2.6 void read\_filter\_list ( std::string *str* )**

Reads words from a specified file into the filterList vector.

**Parameters**

<i>in</i>	<i>str</i>	A string of a file path to a list of words to ignore.
-----------	------------	---

**5.12.2.7 void read\_filter\_list ( const char \* *file* )**

Reads in words from file to filterList vector.

**5.12.2.8 void save\_game ( )**

Saves a game to a .sav file by dumping the command list vector to a file.

**5.12.2.9 std::string three\_word\_command ( std::string *command* )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

<i>in</i>	<i>_inArg1</i>	Description of first function argument.
<i>out</i>	<i>_outArg2</i>	Description of second function argument.
<i>in, out</i>	<i>_inoutArg3</i>	Description of third function argument.



**Returns**

Description of returned value.

5.12.2.10 `std::string two_word_command ( std::string command1, std::string command2 )`

A method to handle two word commands.

**Parameters**

<i>in</i>	<i>command</i>	A two word command in the form of a string.
-----------	----------------	---

**Returns**

Output of the command.

5.12.2.11 `std::string word_wrap ( std::string input_string )`

Wraps the output to a specified size.

**Parameters**

<i>in</i>	<i>input_string</i>	The output of the game to be wrapped
-----------	---------------------	--------------------------------------

**Returns**

A wrapped string, properly formatted.

## 5.13 /home/cshome/m/mabrams/345/txtEngine/parser.cpp File - Reference

The source file for parser functionality.

```
#include "parser.h" #include "tinyxml.h"
```

**Defines**

- `#define WORLD_ATTRIBUTES 3`
- `#define AREA_ATTRIBUTES 2`
- `#define STATE_DESCRIPTION_ATTRIBUTES 1`
- `#define ITEM_ATTRIBUTES 3`
- `#define COMBINE_ATTRIBUTES 3`
- `#define PARSING_ERROR 2`
- `#define AREA_COMMAND_ATTRIBUTES 2`
- `#define ITEM_COMMAND_ATTRIBUTES 5`

- #define **INVALID** "invalid"
- #define **NONE** "none"
- #define **MISSING\_TAGS** "missing tags"
- #define **UNDER\_PARENT** "under tag with id: "
- #define **SEPERATOR** ","
- #define **INSIDE\_INDEX** -1

## Functions

- **World** \* **read\_file** (const char \*pFilename, **World** \*world)
- void **string\_explode** (std::string str, std::string seperator, std::vector< std::string > \*&result)
- **combine** \* **make\_combine** (TiXmlNode \*pCommand, const char \*parent\_id, - **World** \*world)
- **ItemCommand** \* **make\_item\_command** (TiXmlNode \*pCommand, const char \*parent\_id, **World** \*world)
- **AreaCommand** \* **make\_area\_command** (TiXmlNode \*pCommand, const char \*parent\_id, **World** \*world)
- **StateDescriptor** \* **make\_state\_descriptor** (TiXmlNode \*pDescription, const char \*parent\_id, **World** \*world)
- **Item** \* **make\_item** (TiXmlNode \*pItem, const char \*parent\_id, **World** \*world)
- **Area** \* **make\_area** (TiXmlNode \*pArea, int area\_index, **World** \*world)
- **World** \* **make\_world** (TiXmlNode \*pParent, **World** \*world)
- void **error\_parsing** (std::string message, **World** \*world)
- **World** \* **make\_objects** (TiXmlNode \*pParent, **World** \*world)

### 5.13.1 Detailed Description

The source file for parser functionality. Turns XML game files into C++ objects.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3

### 5.13.2 Function Documentation

#### 5.13.2.1 void error\_parsing ( std::string *error\_string*, **World** \* *world* )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

#### Parameters

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

#### Returns

Description of returned value.

#### 5.13.2.2 **Area\*** make\_area ( TiXmlNode \* *pArea*, int *area\_index*, World \* *world* )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

#### Parameters

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

#### Returns

Description of returned value.

#### 5.13.2.3 **AreaCommand\*** make\_area\_command ( TiXmlNode \* *pCommand*, const char \* *parent\_id*, World \* *world* )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

#### Parameters

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

**5.13.2.4 ItemCommand\* make\_item\_command ( TiXmlNode \* pCommand, const char \* parent\_id, World \* world )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

**5.13.2.5 World\* make\_objects ( TiXmlNode \* pParent, World \* world )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

**5.13.2.6 StateDescriptor\* make\_state\_descriptor ( TiXmlNode \* pDescription, const char \* parent\_id, World \* world )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

**5.13.2.7 World\* make\_world ( TiXmlNode \* pParent, World \* world )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

**5.13.2.8 World\* read\_file ( const char \* pFilename, World \* world )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

### Returns

Description of returned value.

## 5.14 /home/cshome/m/mabrams/345/txtEngine/parser.h File - Reference

Defines the [Area](#) class.

```
#include <iostream> #include <sstream> #include <string> ×  
#include "tinyxml.h" #include "World.h"
```

### Functions

- void [error\\_parsing](#) (std::string error\_string, [World](#) \*world)
- [ItemCommand](#) \* [make\\_item\\_command](#) (TiXmlNode \*pCommand, const char \*parent\_id, [World](#) \*world)
- [AreaCommand](#) \* [make\\_area\\_command](#) (TiXmlNode \*pCommand, const char \*parent\_id, [World](#) \*world)
- [StateDescriptor](#) \* [make\\_state\\_descriptor](#) (TiXmlNode \*pDescription, const char \*parent\_id, [World](#) \*world)
- [Area](#) \* [make\\_area](#) (TiXmlNode \*pArea, int area\_index, [World](#) \*world)
- [World](#) \* [make\\_world](#) (TiXmlNode \*pParent, [World](#) \*world)
- [World](#) \* [make\\_objects](#) (TiXmlNode \*pParent, [World](#) \*world)
- [World](#) \* [read\\_file](#) (const char \*pFilename, [World](#) \*world)
- [combine](#) \* [make\\_combine](#) (TiXmlNode \*pCommand, const char \*parent\_id, [World](#) \*world)
- [Item](#) \* [make\\_item](#) (TiXmlNode \*pItem, const char \*parent\_id, [World](#) \*world)

### 5.14.1 Detailed Description

Defines the [Area](#) class. [Area.h](#) defines the methods for the [Area.cpp](#) source file.

### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

### Version

0.3

### 5.14.2 Function Documentation

#### 5.14.2.1 void error\_parsing ( std::string *error\_string*, World \* *world* )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

##### Parameters

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

##### Returns

Description of returned value.

#### 5.14.2.2 Area\* make\_area ( TiXmlNode \* *pArea*, int *area\_index*, World \* *world* )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

##### Parameters

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

##### Returns

Description of returned value.

#### 5.14.2.3 AreaCommand\* make\_area\_command ( TiXmlNode \* *pCommand*, const char \* *parent\_id*, World \* *world* )

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

**5.14.2.4 ItemCommand\* make\_item\_command ( TiXmlNode \* *pCommand*, const char \* *parent\_id*, World \* *world* )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

**5.14.2.5 World\* make\_objects ( TiXmlNode \* *pParent*, World \* *world* )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.



**5.14.2.6 StateDescriptor\* make\_state\_descriptor ( TiXmlNode \* *pDescription*, const char \* *parent\_id*, World \* *world* )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

**5.14.2.7 World\* make\_world ( TiXmlNode \* *pParent*, World \* *world* )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

**5.14.2.8 World\* read\_file ( const char \* *pFilename*, World \* *world* )**

Write description of function here. The function should follow these comments. Use of "brief" tag is optional. (no point to it)

The function arguments listed with "param" will be compared to the declaration and verified.

**Parameters**

in	<i>_inArg1</i>	Description of first function argument.
out	<i>_outArg2</i>	Description of second function argument.
in, out	<i>_inoutArg3</i>	Description of third function argument.

**Returns**

Description of returned value.

## 5.15 `/home/cshome/m/mabrams/345/txtEngine/StateDescriptor.cpp` File Reference

Source file for a [StateDescriptor](#).

```
#include "StateDescriptor.h"
```

### 5.15.1 Detailed Description

Source file for a [StateDescriptor](#). Provides functionality for a [StateDescriptor](#) object.

**Author**

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

**Version**

0.3

## 5.16 `/home/cshome/m/mabrams/345/txtEngine/StateDescriptor.h` File Reference

Describes the [StateDescriptor](#) class.

```
#include <string>
```

**Classes**

- class [StateDescriptor](#)

### 5.16.1 Detailed Description

Describes the [StateDescriptor](#) class. [Area.h](#) defines the methods for [StateDescriptor.cpp](#)

**Author**

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

**Version**

0.3

## 5.17 /home/cshome/m/mabrams/345/txtEngine/World.cpp File - Reference

Source file for a [World](#).

```
#include "World.h"
```

### 5.17.1 Detailed Description

Source file for a [World](#). [World.cpp](#) provides the functionality for the game world.

**Author**

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

**Version**

0.3

## 5.18 /home/cshome/m/mabrams/345/txtEngine/World.h File - Reference

Defines the [World](#) class.

```
#include "Area.h" #include <string> #include <vector>
```

### Classes

- class [World](#)

### 5.18.1 Detailed Description

Defines the [World](#) class. [World.h](#) defines the methods for the [World.cpp](#) source file.

#### Author

Michael Abrams  
James Boocock  
Toby Herbert  
Tatai Nikora

#### Version

0.3