**Penguin Adventure Engine Guide**

This guide explains how a game that uses the *Penguin Adventure Engine* can be created.

**Files and locations**

All the files used should be put into a folder called *gamefiles*. The engine automatically checks for the files in that location. The most important file in that folder is the *adventure.xml*. This file contains the slides that are displayed during gameplay. How to create and format this file will be described later.

The *gamefiles* folder also contains two text files. The first file is called *credits.txt*. It contains the text displayed when clicking *About* in the file menu of the game. (Note that the first line of that window cannot be changed or edited)

The second file in that folder is called *score.txt*. It contains the point values of any items or stats that can be obtained or achieved during the game. It must be formatted like this:

money:5

karma:10

gameovers:-10

/items

Necklace:10

Jewel:10

/stats

Cursed:-50

Charmed:15

The values for *money*, *karma* and *gameovers* are multiplied with the respective numbers in the player’s inventory. The points for each item or stat are then added to that score.

Lastly, the folder *gamefiles* contains another folder called *images*. This is where the engine checks for the image files specified. (In short: put all the images you are going to use in here)

**adventure.xml**

This file is basically your game. It contains every slide that can pop up and it tells the engine which slide should show up next. This is a generic example:

<?xml version="1.0" encoding="utf-8"?>

<game>

<slide id="*NUMBER\_OF\_THIS\_SLIDE*">

<img>*FILENAME\_OF\_IMAGE*</img>

<txt>*TEXT\_OF\_THIS\_SLIDE*</txt>

<gameover></gameover>

<items>

<item>*+ITEM\_NAME*</item>

<item*>-ITEM\_NAME*</item>

<item*>-random*</item>

</items>

<stats>

<stat>*+STAT\_NAME*</stat>

<stat*>-STAT\_NAME*</stat>

</stats>

<options>

<option slide="*LINKED\_SLIDE* ">*BUTTON \_TEXT*</option>

<option slide="*LINKED\_SLIDE*" req="*+item*" name="*ITEM\_NAME*">*BUTTON \_TEXT*</option>

<option slide="*LINKED\_SLIDE*" req="*-item*" name="*ITEM\_NAME*">*BUTTON \_TEXT*</option>

<option slide="*LINKED\_SLIDE*" req="*+stat*" name="*STAT\_NAME*">*BUTTON \_TEXT*</option>

<option slide="*LINKED\_SLIDE*" req="*-stat*" name="*STAT\_NAME*">*BUTTON \_TEXT*</option>

</options>

</slide>

…

</game>

The file must start with *<?xml version="1.0" encoding="utf-8"?>* and all the slides have to be in between the *<game> … </game>* tags. Everything between *<slide>* and *</slide>* describes the slide itself. The slide ID is used so that other slides can link to this specific slide. (Note that slide *id=”0”* is the Welcome slide and *id=”-1”* is used for the win/score page)

Each slide has a few tags it **must** contain. These are *<img>* (contains the filename of the image from the images folder), *<txt>* (the text that will be displayed) and *<options>* (the buttons and requirements linking to other slides). Every slide should contain at least one option.

*<options>* can, but do not have to have requirements. When *req=”+item”* is used, the button will only show up, if the player has the named item in their inventory. *req=”-item”* makes the button appear, if the player does **not** have the item in their inventory. The same applies to *+stat*/*-stat* respectively.

There are also three optional tags for slides. Slides can contain *<items>* or *<stats>*, but they are not required to. These tags are used to show changes in the player’s inventory or status. *“+”* adds an item or stat, *“-“* removes it. There is also the special case *-random*, which removes a random stat or item from the player.

The *<gameover>* tag marks the slide as a Game Over screen. This will automatically increase the Game Over counter.

In summary: The *<game>* can contain multiple *<slide>*s. A *<slide>* must contain one *<img>* and one *<txt>*. It can also contain multiple *<items>* and *<stats>* and it should almost always contain at least one *<option>*.

**Advice**

- While every slide should contain at least one option, it is recommended that the win/score slide does not.

- Make sure that all the options lead to proper slides.

- Check for infinite loops without escape.

- Make sure to add a button to your Game Over screens so players do not have to start a new game.

- Do not use an ampersand (&) anywhere. This is currently not supported.

- *<txt>* has basic formatting commands. This text is *\*b\**bold*\*/b\**, *\*i\**italic*\*/i\** and *\*u\**underlined*\*/u\**. There is also *\*br\** for line breaks.

- The *\*.exe* file can be named any way you want, so feel free to name it after your game.

The Penguin Adventure Engine and this guide were created by fallenpenguin/bird-in-a-tux.