

Documentation

INDIANA BONES

This short documentation of
the Indiana Bones game
contains:

1. Installation instructions
2. New level creation
3. Integration of new levels
4. Ideations phase designs
5. License Information



Game was made by:

Andreas Dymek Thomas Becker

Konstantin Kaulen

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Installation

Project Setup

1. Download and install python 3.8 or above
2. Create venv: ``python3 -m venv ./venv`` (Linux) or on Windows ``python -m venv ./venv``
3. activate venv with ``source ./venv/bin/activate`` (Linux) or ``./venv/Scripts/activate.bat`` on Windows
4. ``pip install -r requirements.txt``
5. Start Game with ``python3 main.py``

Video Playback under Linux

- For Ubuntu/Debian/Raspbian
 1. ``sudo apt-get update -y``
 2. ``sudo apt-get install -y libmediainfo-dev``
- Redhat/CentOS/Fedora
 1. ``yum install libmediainfo``
 2. Or if you want to use dnf: ``sudo dnf install libmediainfo``

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Videoplayback on macOS

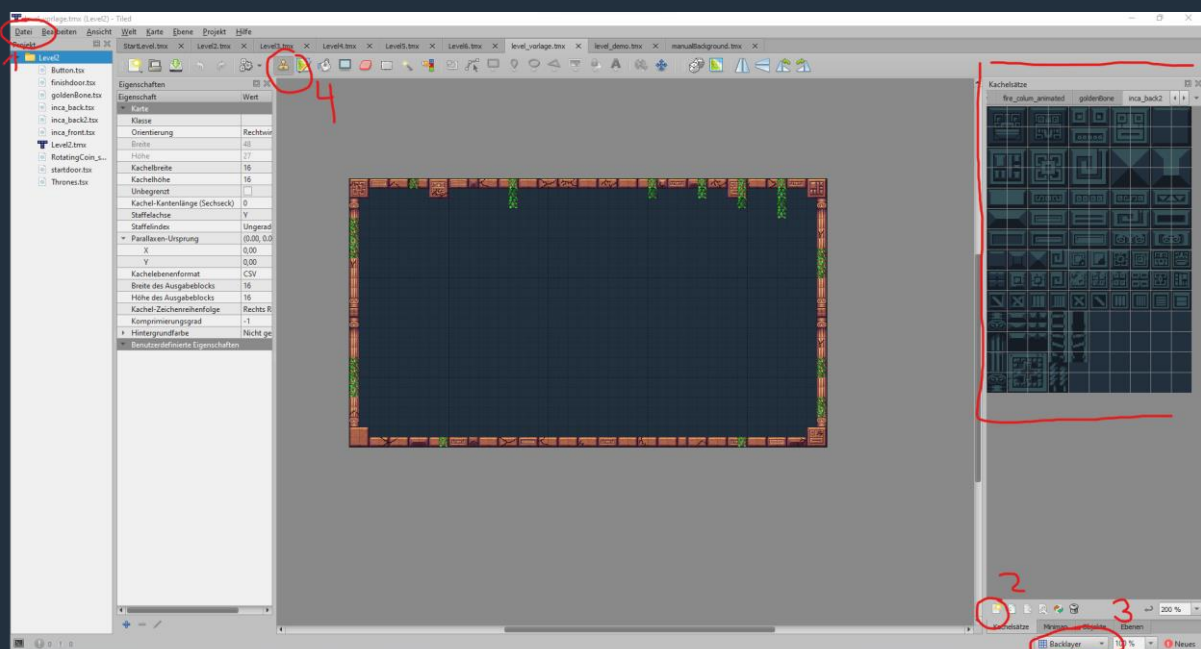
1. https://mediaarea.net/en/MediaInfo/Download/Mac_OS Download the DyLib version suited to your macOS and processor architecture
2. Extract the folder
3. Create directory 'sudo mkdir /usr/local/lib'
4. NOTE: Can't use "/usr/lib" is protected by SIP
5. Copy and paste extracted file 'libmediainfo.0.dylib' into /usr/local/lib
6. Copy and paste the same file 'libmediainfo.0.dylib' but renamed to 'libmediainfo.dylib' again
7. A little tricky: Go into your venv folder and navigate to python3.10/site-packages/pymediainfo/__init__.py (Python Version may differ). Navigate to the @classmethod def _get_library. In the case destination for library file: "if library_file is None". Comment out the line "#library_paths = cls._get_library_paths(os.is_nt)" and add the line "library_paths = ("/usr/local/lib/libmediainfo.0.dylib", "/usr/local/lib/libmediainfo.dylib")"

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Level Creation

Tiles are used for the creation of levels. The program is free to download. The program is not explained in detail here, but we will go into the main points of how to create your own level.

Under assets/level_vorlage you will find an "empty" level as a template.



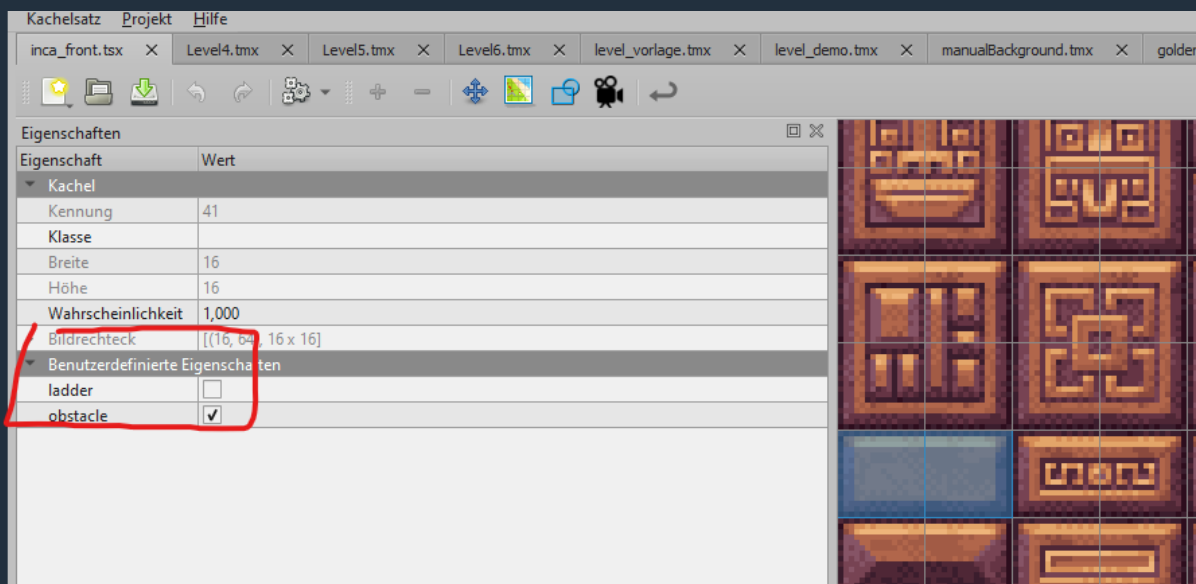
1. creation of a new map: File -> New -> New map Now you need to choose the size. We have taken 48 x 27 with a tile size of 16px.

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2. Now bind all tile sets. On the right you can see all tile sets. You can add new ones at the bottom. The corresponding sources for our tile sets can be found below.
3. Make sure you have three layers: Decorations, Foreground, Background. You can add these layers by right-clicking. The background is covered with inca back tiles. These have only an optical meaning. The decorations include the clay jars, spider webs, cracks and also the vines. The foreground is the most important and contains all the things the player can interact with (crates, lava, fire, platforms, etc.).
4. To build the level, simply place the tiles in the level. Of course you still have to set a start and finish. This is done using the portal as the start and the finishdoor as the finish.

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5. You still have to assign the right properties to the tiles. To do this, you can edit the tile set and select a tile and add a property using the plus at the bottom. For the platforms we use the obstacle property. There are many other properties (ladder, collectable, die, finish, ...). Animations for the tiles can also be made here via the black camera icon.



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7. Now you make a thumbnail and embed the level into the game.
8. Note sufficient testing of any errors and the intended solution path for the level.

Level Integration

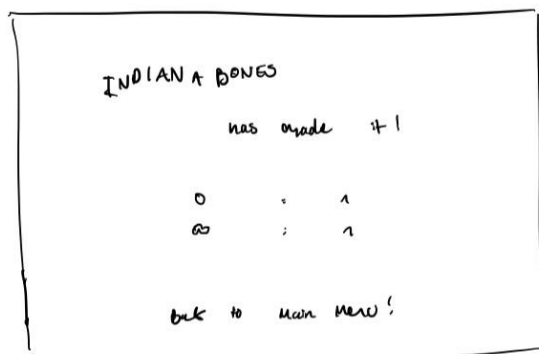
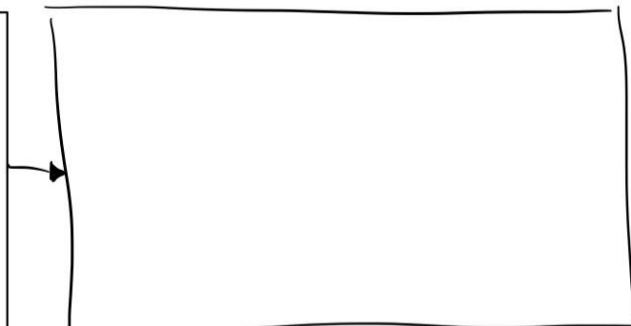
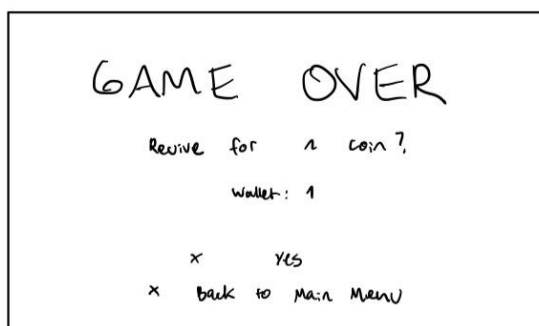
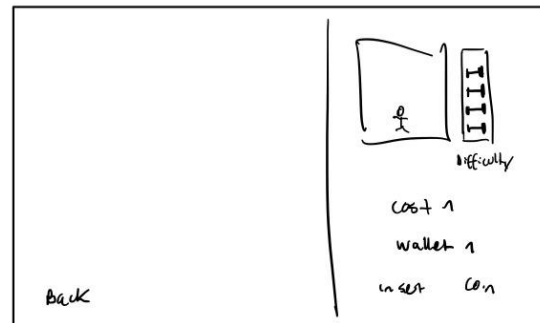
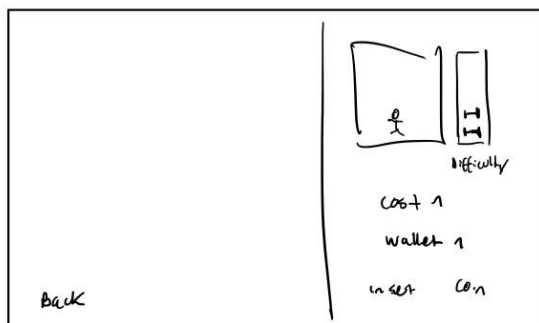
You need to integrate the level in the menu.py. The code is well commented and you can easily follow what is given. Nevertheless, here again in short the necessary steps:

1. Init level data by giving the path to your level and door_data.
2. Add thumbnail also via path.
3. Create text for the levels names.
4. Add your level to level data array for high scores and difficulties etc.
5. Create a state for your level and add this correct to the state machine and the keyboard inputs.

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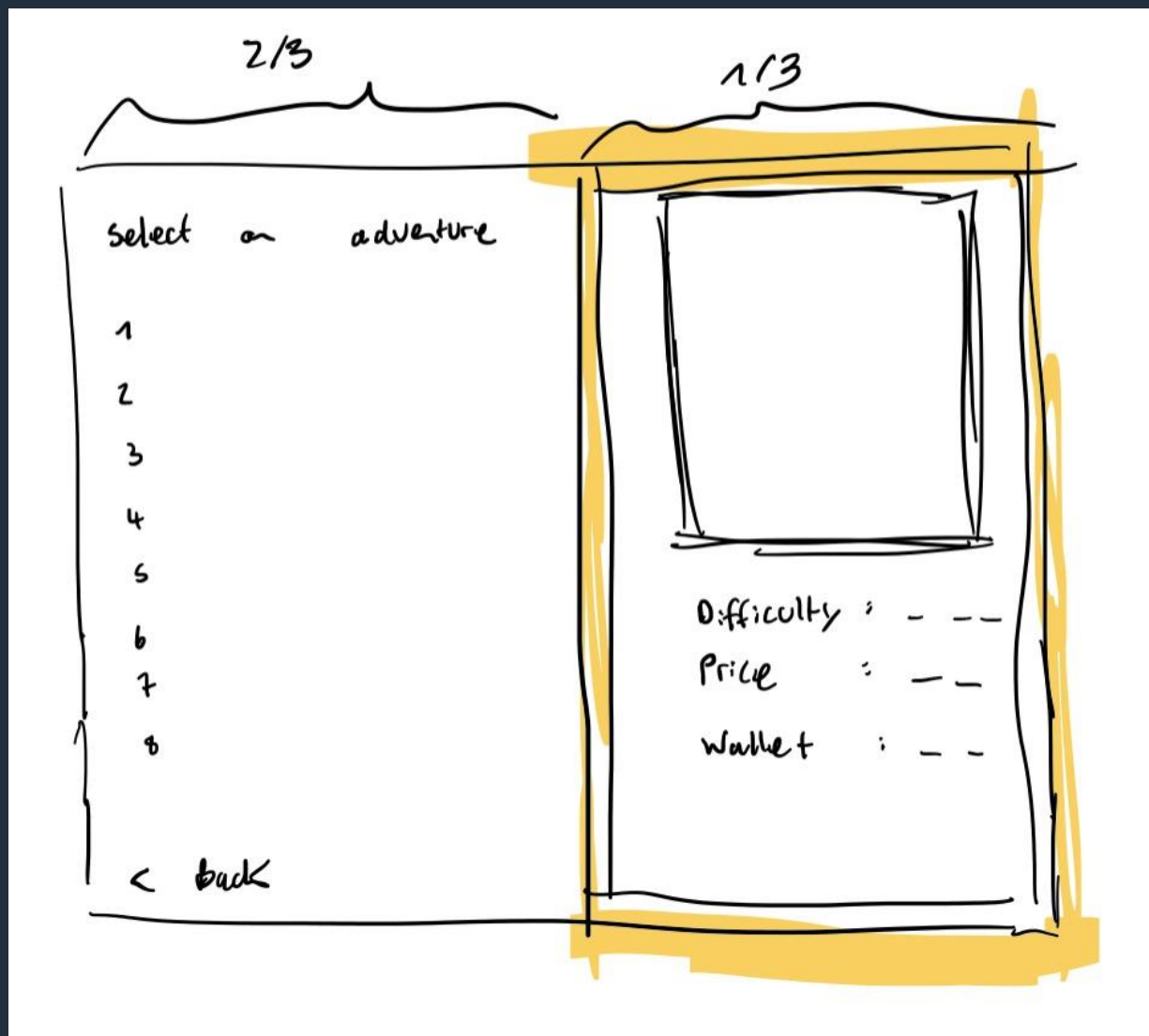
Ideations phase designs

Here are some of our sketches from the planning phase:



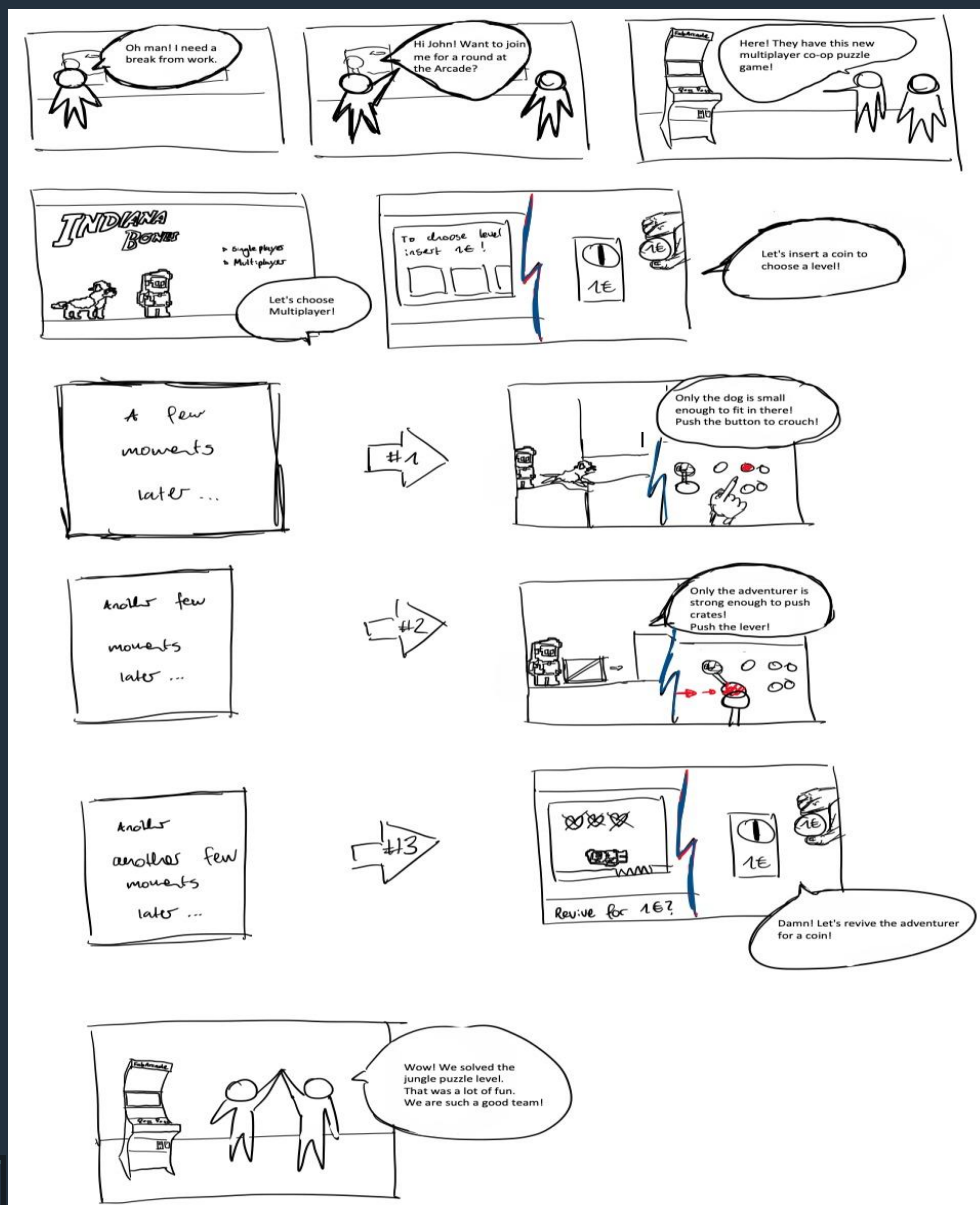
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Here you can see the level selection menu mock up. And it was ultimately built exactly that way.



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Here you can see the storyboard. This shows planned interactions and also some key features, like pushing boxes or crawling through narrow shafts.



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You can also get the credits in our
Readme file.

Adventurer - Hiker: <https://the-baldur.itch.io/pixelart-hiker>
author: The Baldur

Inca Tileset: <https://kronbits.itch.io/inca-game-assets>
author: Davit Masia

dog 3: <https://benvictus.itch.io/pixel-dogs>
author: Benvictus

Portal based on:
<https://opengameart.org/content/portals>
author: LetargicDev

dog bone based on:
https://www.seekpng.com/down/u2e6y3ilw7e6e6o0_png-dog-bone-vector-transparent-stock-bone-pixel/

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fire column:

<https://sanctumpixel.itch.io/fire-column-pixel-art-effect/download/eyJleHBpcmVzIjoxNjY5MDQ1MTc0LCJpZCI6NjY2NzY2fQ%3d%3d.2WF9KgIGMhr%2ffl3ThD%2bvkgoXdKE%3d>

author: sanctumpixel

lava floor based on:

<https://dribbble.com/shots/2303888-Lava-Animation/attachments/9234752?mode=media>

author: Luis Zuno

wooden box:

<https://www.pixilart.com/art/crate-ea3ffffb5d0feff3>

author: Voltron25

cobweb: <https://lil-cthulhu.itch.io/pixel-art-spider-web>

author: lil-cthulhu

vines based on:

https://www.reddit.com/r/Minecraft/comment/dp73to/i_tried_to_make_ivy_texture_replaces_vine/

author: disturbed_lama

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pot based on:

<https://dribbble.com/shots/2542906-2D-Pixel-Art-Pots>

author: Dere Bess

maya temple outside based on:

https://www.freepik.com/free-vector/maya-civilization-culture-architecture-cartoon-illustration_13963355.htm#query=mayan%20temple&position=4&from_view=keyword

author: macrovector

bark sound in video:

<https://freesound.org/people/Jace/sounds/155309/>

author: jace

windsound in video:

<https://freesound.org/people/Fission9/sounds/521736/>

author: Fission9

wallet art: <https://kyrise.itch.io/kyrises-free-16x16-rpg-icon-pack>

author: Kyrise

pyvidplayer:

<https://github.com/reel261/pyvidplayer>

author: reel261

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jungle walking sound:

<https://freesound.org/people/bevangoldswain/sounds/54780/>

author: bevangoldswain

sound of jungle:

<https://freesound.org/people/kajoo/sounds/628939/>

author: kajoo

call to adventure music:

<https://incompetech.com/music/royalty-free/music.html>

author: "Call to Adventure" Kevin MacLeod (incompetech.com) Licensed under Creative Commons: By Attribution 4.0 License

<http://creativecommons.org/licenses/by/4.0/>

error sound

<https://freesound.org/people/philRacoIndie/sounds/551543/>

author: philRacoIndie

character switch sound

<https://freesound.org/people/User391915396/sounds/571185/>

author: User391915396

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HUD elements based on

<https://opengameart.org/content/golden-ui-bigger-than-ever-edition>

author:

<https://opengameart.org/content/ui-pieces>
by Buch

karl damage sound

<https://freesound.org/people/micahlg/sounds/413176/>

author: micahlg

barking sound death based on

<https://freesound.org/people/ken788/sounds/386766/>

author: ken788

running sounds based on

https://freesound.org/people/Nox_Sound/sounds/490951/

author: Nox_Sound

jump sound

<https://freesound.org/people/FullStackSound/sounds/662463/>

author: FullStackSound

crouch sound based on

<https://freesound.org/people/duckduckpony/sounds/204016/>

author: duckyduckypony

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door close sound

<https://freesound.org/people/patchytherat/sounds/530987/>

author: patchytherat

door open sound

<https://freesound.org/people/Debsound/sounds/168821/>

author: Debsound

coin sound

<https://freesound.org/people/plasterbrain/sounds/608431/>

author: plasterbrain

menu move sound

<https://freesound.org/people/broumbroum/sounds/50561/>

author: broumbroum

level leave sound

<https://freesound.org/people/plasterbrain/sounds/351809/>

author: plasterbrain

level start sound

<https://freesound.org/people/plasterbrain/sounds/243020/>

author: plasterbrain

logo inspired by Indiana Jones and the Fate
of Atlantis LUCASARTS GAMES

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indiana bones sprite based on
<https://benvictus.itch.io/pixel-dogs>
author: Benvictus

junglepack by <https://jesse-m.itch.io/jungle-pack>
author: jesse-m

success sound from
<https://freesound.org/people/Sheyvan/sounds/470083/>
author: Sheyvan

game over sound from
<https://freesound.org/people/Porphyrr/sounds/209651/>
author: Porphyrr

credits music from
<https://pixabay.com/de/music/welt-africa-125735/>
author: AlexiAction

bone sound:
<https://freesound.org/people/FunWithSound/sounds/456966/>
author: FunWithSound

Thanks to professional Dog Trainer:
Lisa Kunze and Dog actor: Aktio

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Frameworks

We used some frameworks for coding:

- Pygame
- Pydash
- PyTMX
- Ffpypyplayer
- Pymediainfo
- Pygame-vkeyboard