

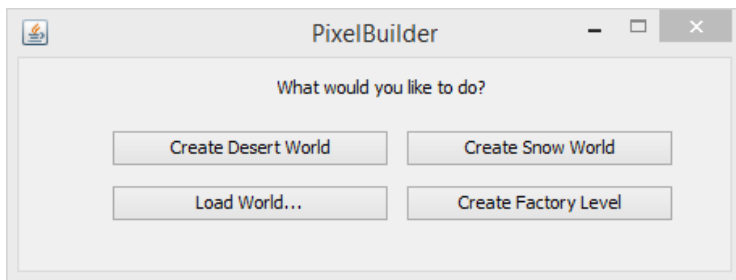
PixelBuilder Tutorial

Getting started

After you have downloaded the official PixelBuilder from our website you are ready to go

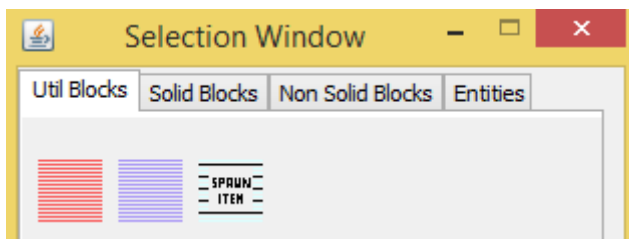
Creating a new level

To create a new level you just have to select a world type at the start screen. If you are already building a level pressing on **“Clear World”** will do the trick.

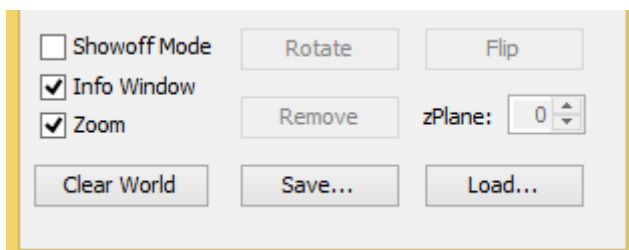


Creating your first level – The Selection Window

After you have selected your world type you are ready to build your first level. If you look at the **Selection Window** you can see that there are 4 tabs which hold different block types. You can also see various options beneath the tabs.



Here you can find all different types of tiles to build your level what these types do will be explained later

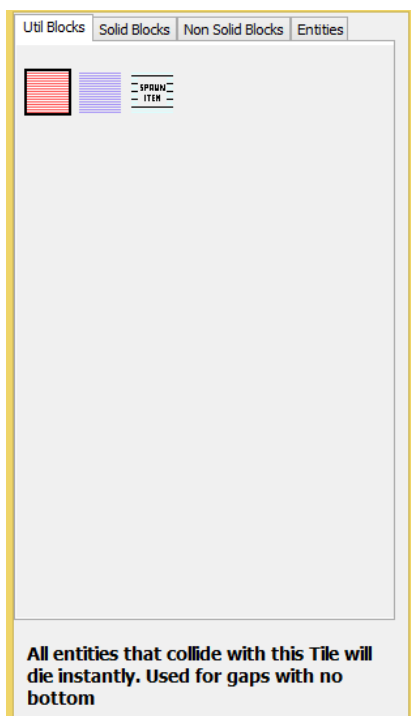


- **Showoff Mode:** Is used to disable all ledger lines and outlines of blocks to make it look like ingame
- **Info Window:** Toggles the small info window on the upper right of the world screen which holds useful information
- **Zoom:** Used to toggle between 1x Zoom or 2x Zoom (default 2x)
- **Rotate:** If you have a tile selected, which can be rotated you can rotate it with this button (shortcut: press button: “R”)

- **Flip:** Same as rotate except for tiles that can be flipped (shortcut: press button: “R”)
- **Remove:** Removes the current selected tile
- **zPlane:** advanced users only. To see what the zPlane does, please go to the advanced tutorials further down
- **Clear World:** Clears the current world so that you can create a new one
- **Save:** Saves the current world as a .lvl file
- **Load:** Loads a .lvl file

Creating your first level – Blocks

Before we start placing blocks into our level we have to know what every block type does. A small explanation of each block can be found in the PixelBuilder itself right beneath the tabs if you have selected it.

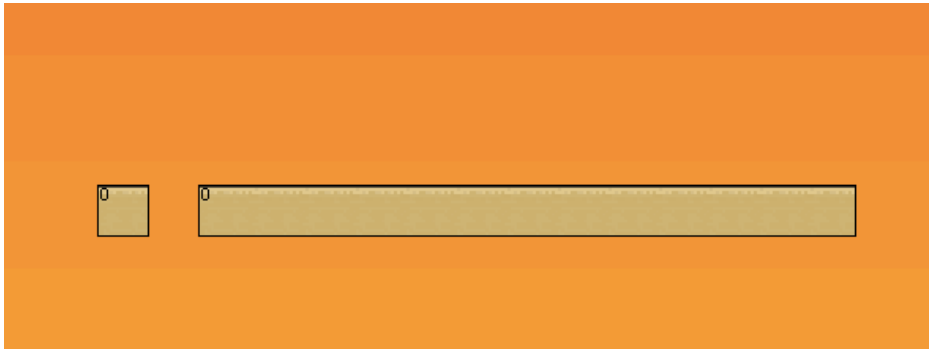


Explanation of the instakill Block

- **Util Blocks:** Blocks that have special uses like Instant-Kill Blocks, Path switches, or Items
- **Solid Blocks:** All blocks that can be found in the “solid blocks” tab are solid and entities can collide with them
- **Non-Solid Blocks:** Non-Solid blocks are blocks that the player or other entities can pass through, like background scenery or blocks that can never be reached by the player
- **Entities:** All Entities, like Enemies, Hearts, Cash, Mines, etc...

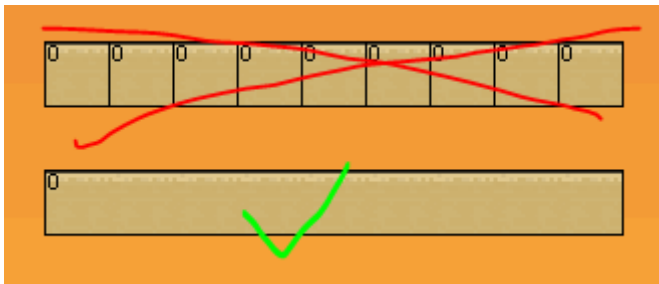
Creating your first level – Placing blocks

So now that we know what each block type does, we can start building our first level. To place blocks you have to select a block from the **Selection Window** and then click on an area in the world in order to place it. You can also click and drag certain blocks in order to create bigger blocks.



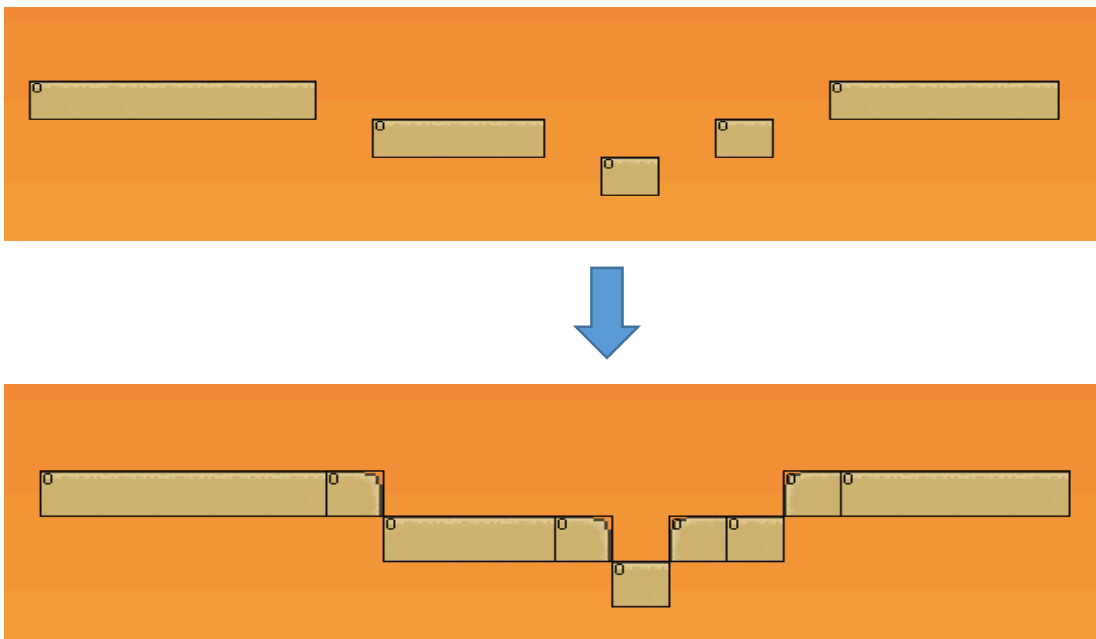
Two Blocks. One small block, one bigger block

Be sure to always use as few blocks as possible.



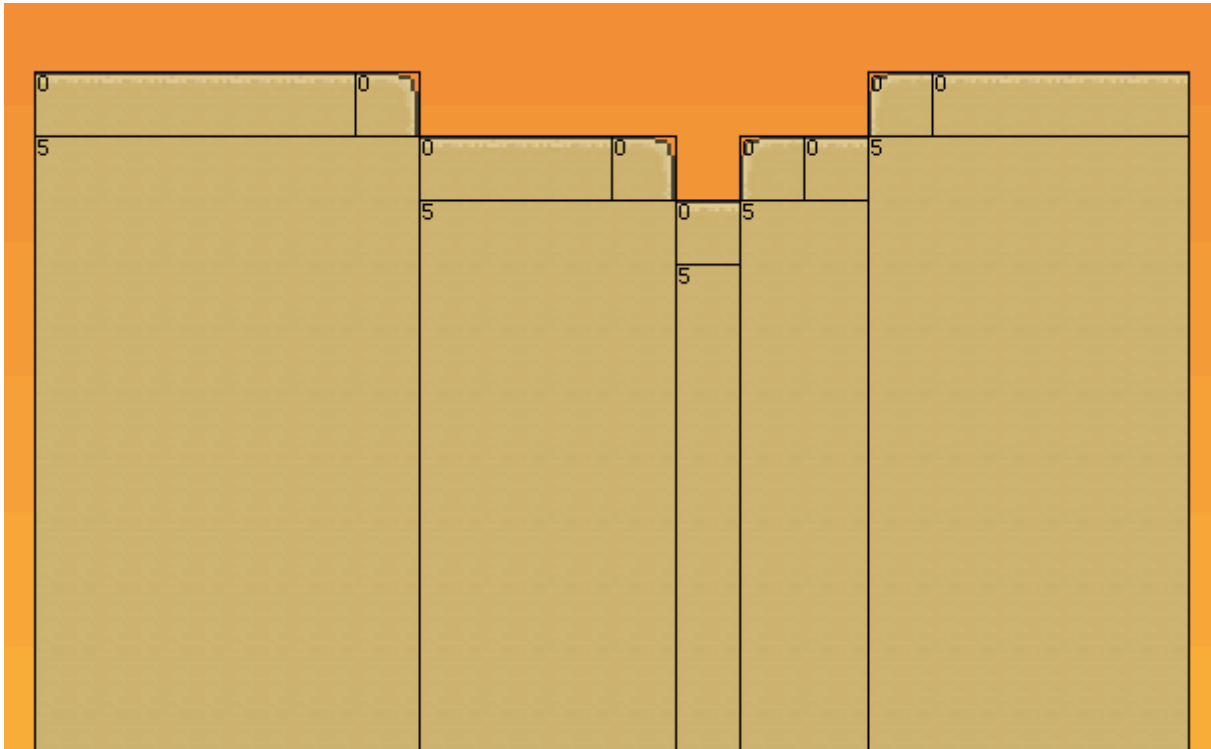
Always try to use as few blocks as possible

To bring in a bit of variation we can place corner tiles to create a smooth transition between different heights of tiles:

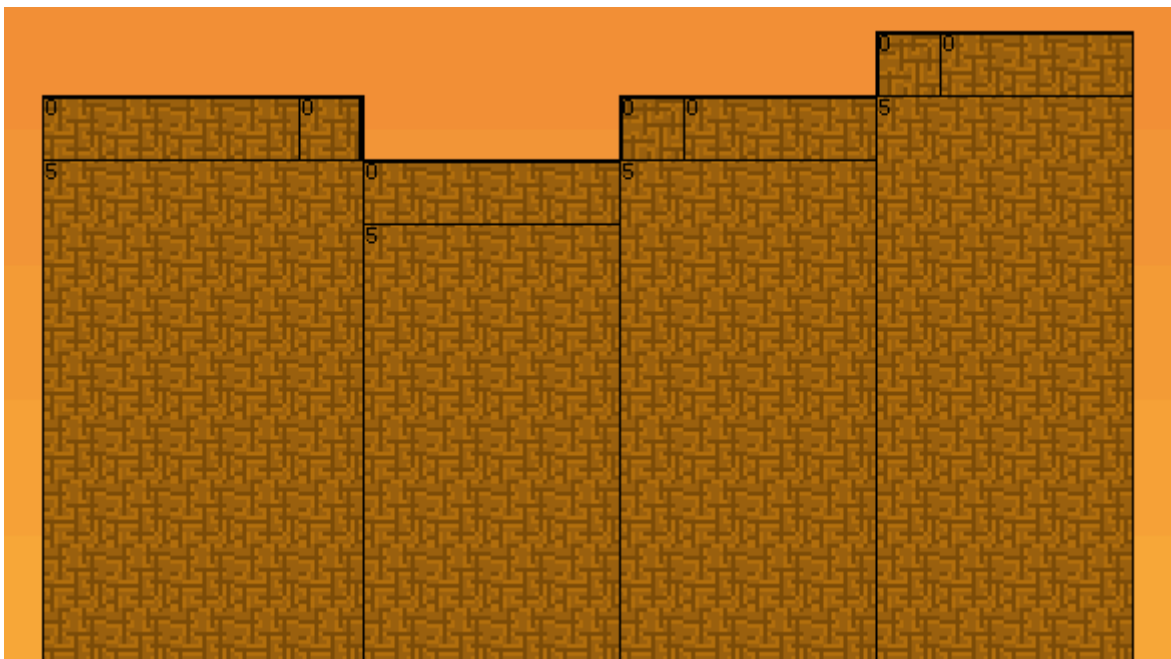


Now we have to place sand beneath it to make it look like a real PixelForce level. Because the player can never reach the sand beneath the normal sand, it does not have to be a solid tile. You can find the default sand in the “Non-Solid Blocks” tab. Try to place at least 8-9 Block lengths of sand so that you cannot see the end ingame:



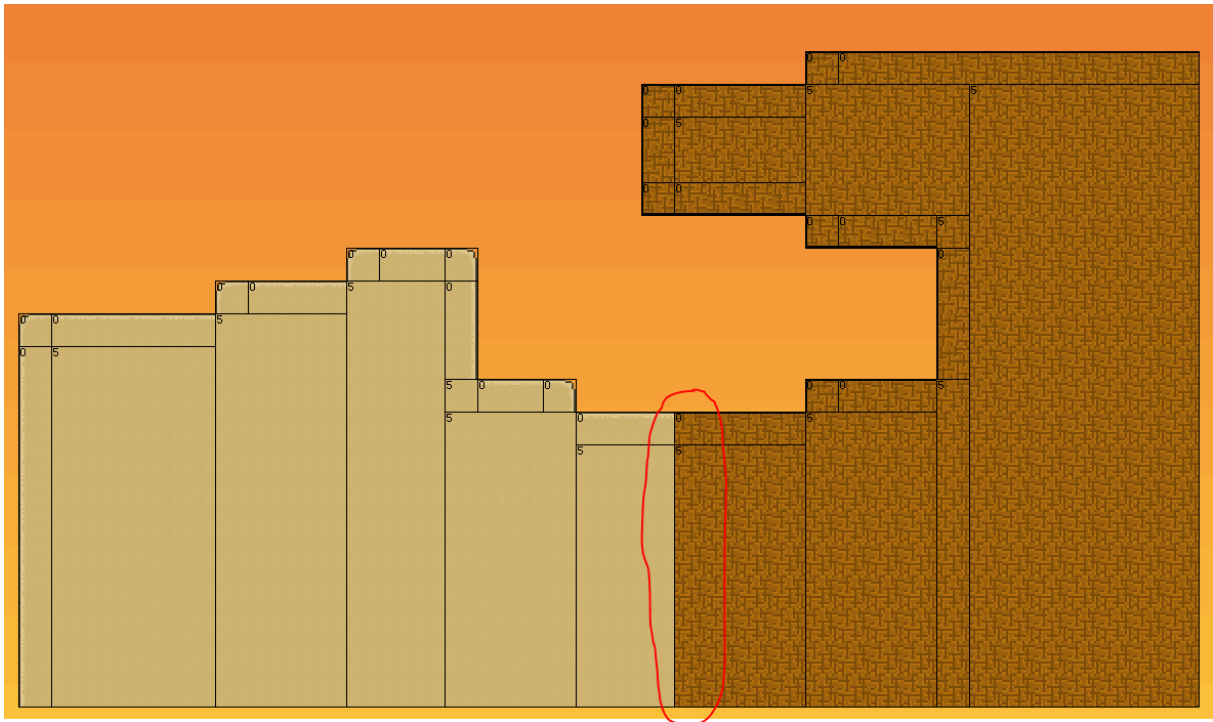


Not bad. The same rules apply to sandstone:



Note: The PixelBuilder tries to rotate corner tiles in the correct rotation when you place them. There are however, a few cases where it does not know how to rotate the tile so have to do it manually by pressing the “**Rotate**” button in the Selection Window or by pressing “**R**” on your Keyboard.

So now that we know how to create basic sand and sandstone formations we can try to create something bigger:



As you can see, there is a bad looking transition between the sand and sandstone (marked red). In order to fix this we need to place gradient tiles. There are many different gradient tiles that you can find for different purposes. In this case we use the sandstone gradient tiles.



Two different gradient tiles are available for sandstone



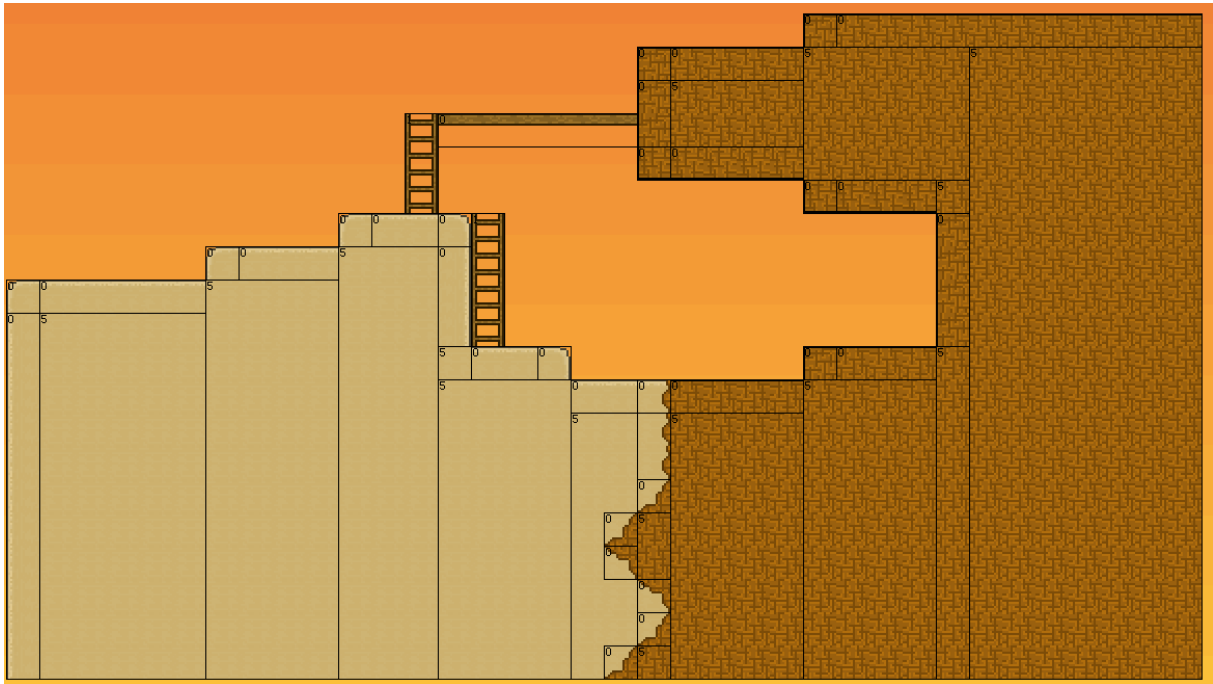
Now it looks a lot better. Next up is scenery and useful tiles.

Creating your first level – Ladders, Barbed Wire, Crates and Wooden Planks

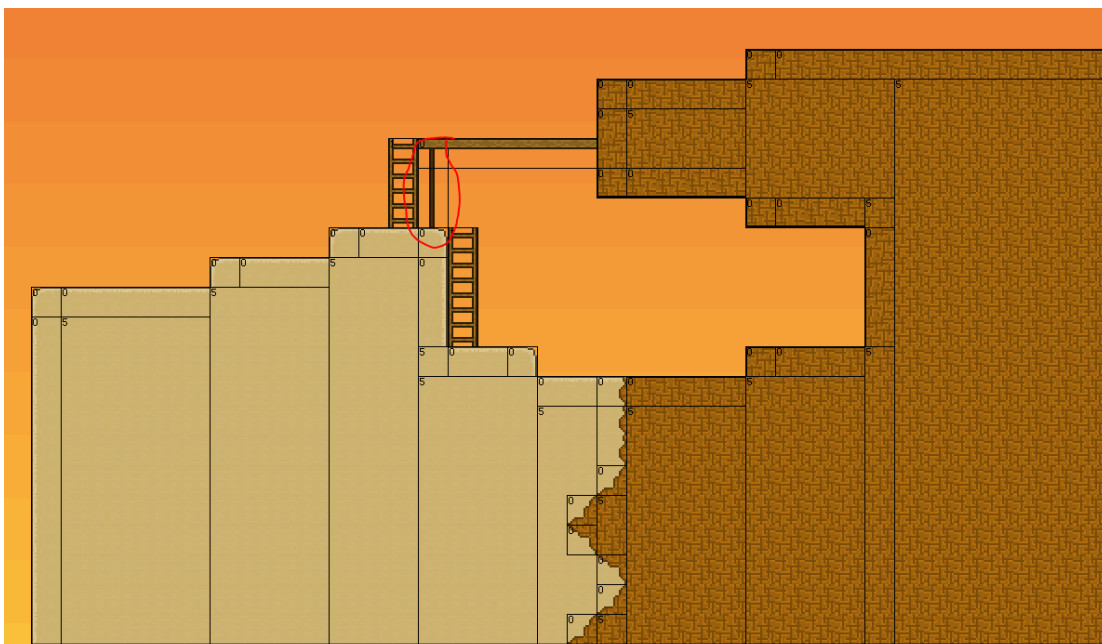
Our small level still looks a bit boring. To fix this we can add useful tiles like ladders, where the player can climb on. We can also add Wooden planks that act as thin solid tiles.



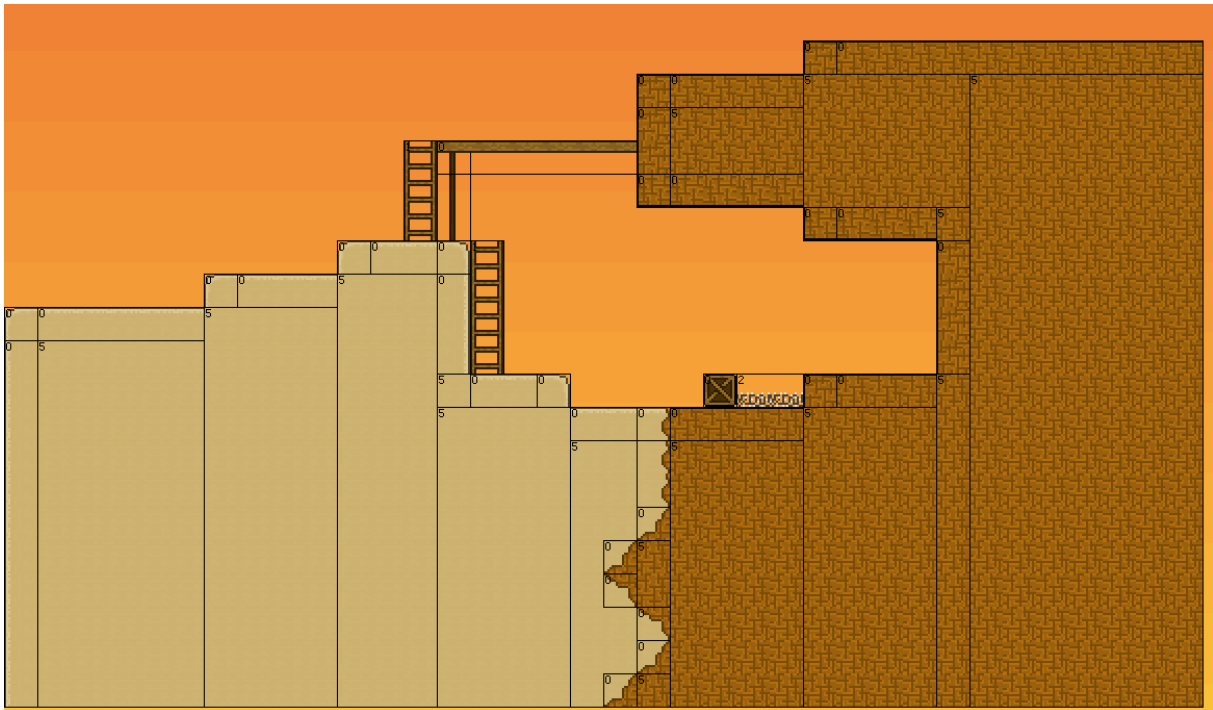
You can place or click and drag ladders and wooden planks just like every other tile.



Now our level looks like this. We can also add a small scenery tile to the wooden plank: The pillar. We use it to make the wooden plank look like its being supported by something.



Now we have ladders and wooden planks. There is another tile, which damages the player if he collides with it: Barbed Wire. It can be found in the Non-Solid Blocks. Let's place it in our level.



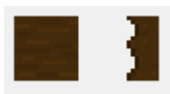
To create a border to the barbed wire we can use a small tile like a crate. Crates can be found in the solid blocks tab.

Creating your first level – Scenery

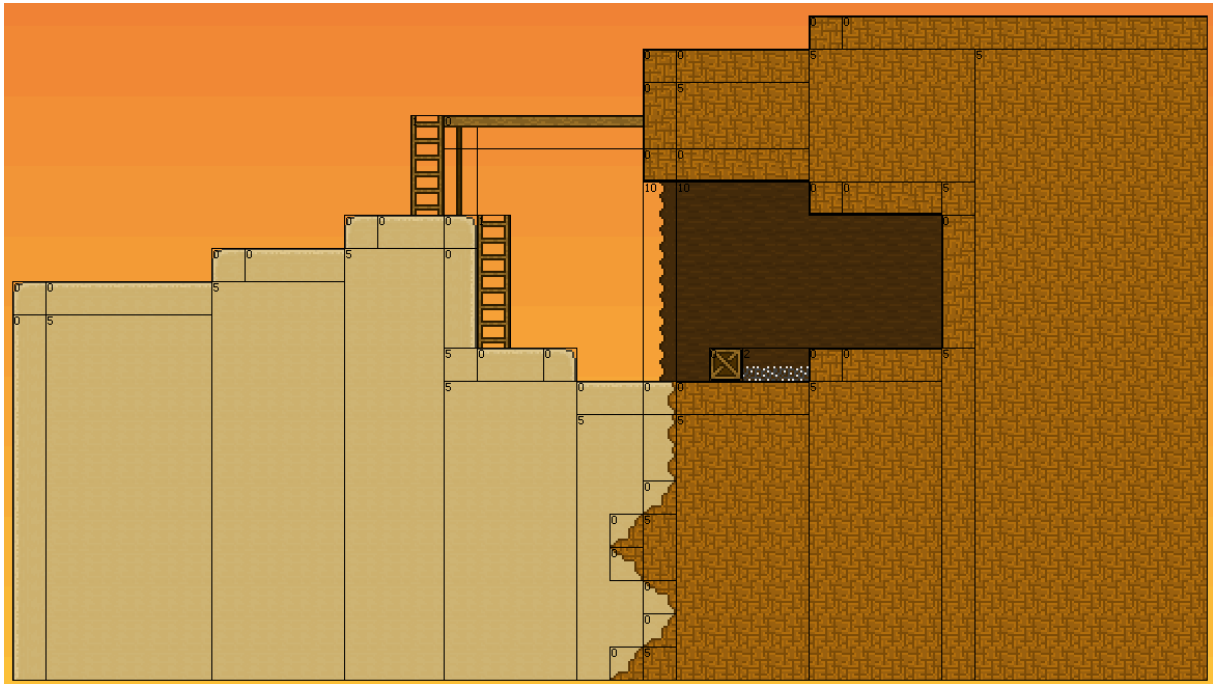
Now that we have a bit of variation in our game that the player can interact with, we can also add lots of scenery to our level to make it more visually appealing.

All Scenery blocks can be found in the Non-Solid Blocks tab.

The first thing we can do is adding a background to our sandstone formation to make it look like a small cave. For this, we have to select the sandstone background tiles:

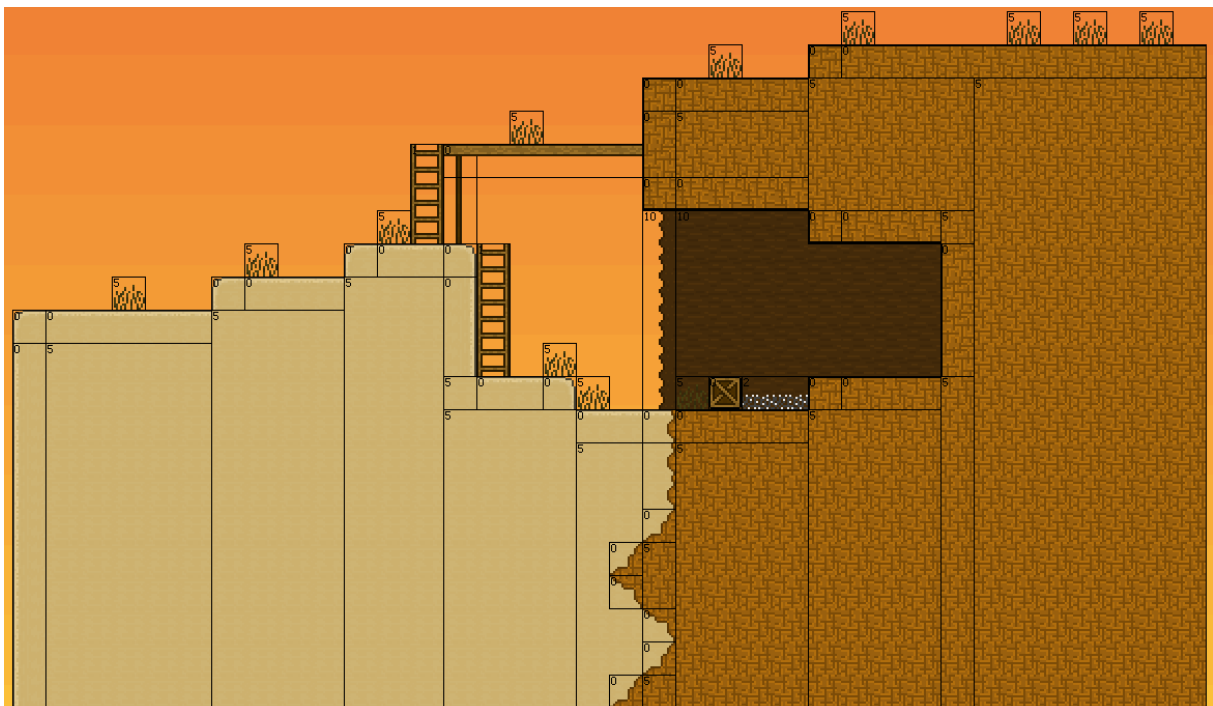


Just use them like a regular block.

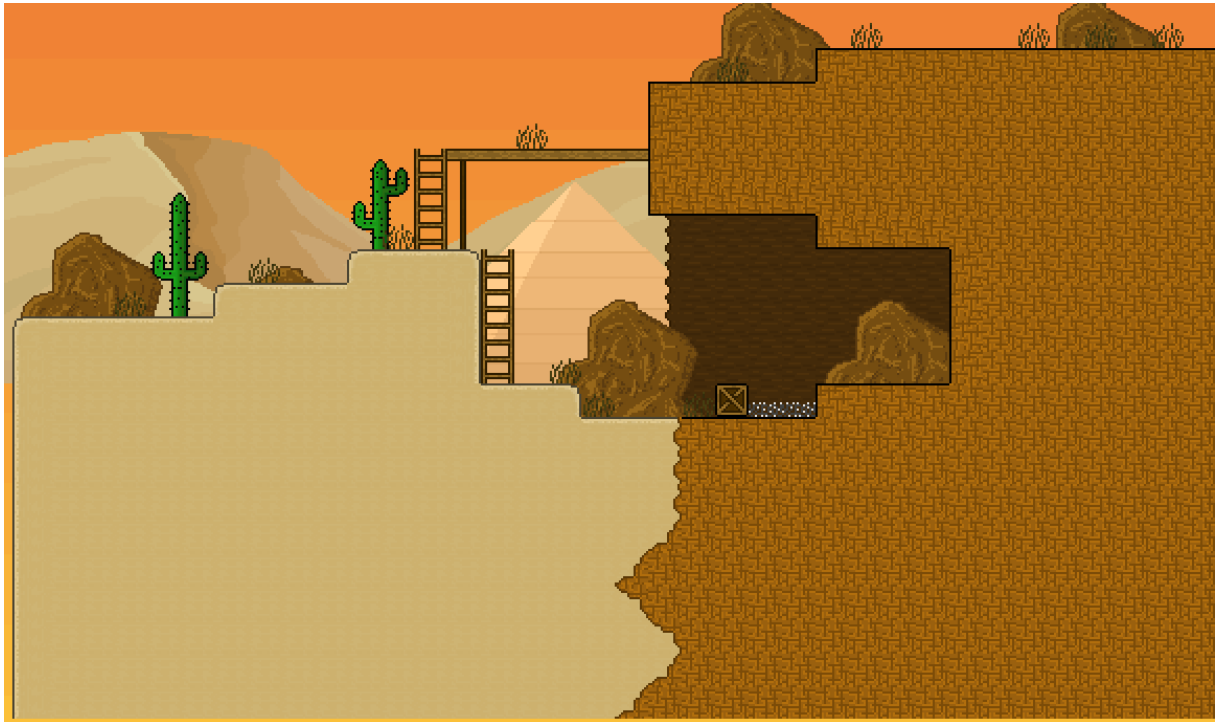


Our Sandstone background is made up of two different blocks: The normal background block and a gradient at the edge, just like the sandstone gradients we used earlier.

Now we can start placing a bit of dead grass:



We can also place other background tiles like different types of palms, cactus, sand dunes and pyramids. Just try out some scenery combinations and see if you like them.



This is the result of a few scenery tiles in **Showoff Mode**. If you are happy with your scenery results you can go to the next step.

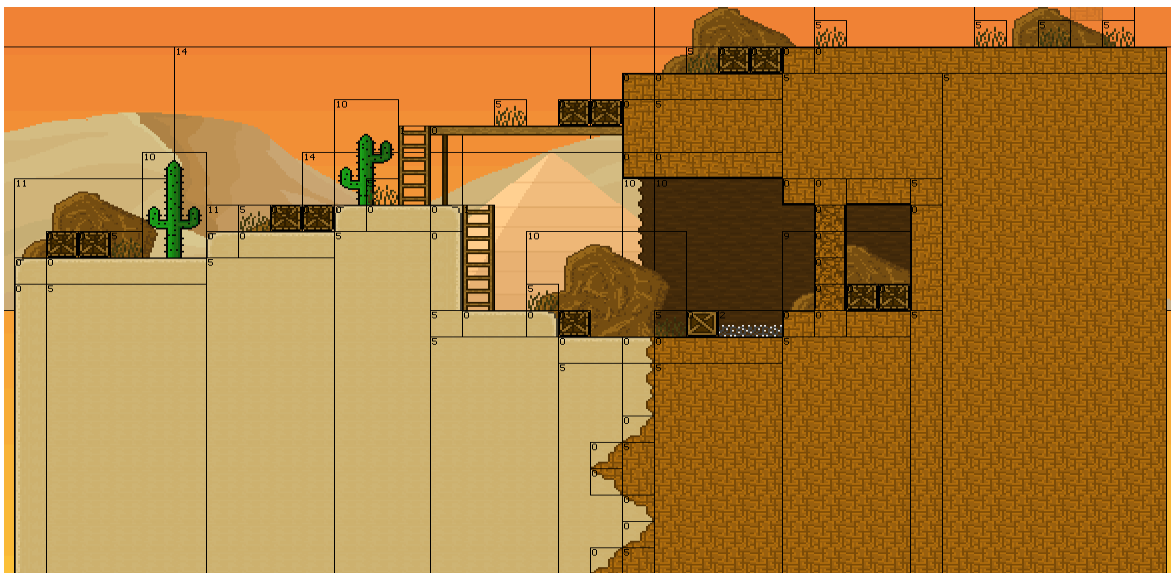
Creating your first level – Breakable tiles

There are 5 different breakable tiles in PixelForce: Crates, Walls, Sandstone Walls, Glass and Ice Walls. They can only be placed one at a time, because they need to be destroyed separately. You can find breakable tiles in the solid blocks tab.



All destroyable tiles available for desert levels

Let's add some breakable crates and a breakable sandstone wall in our level.



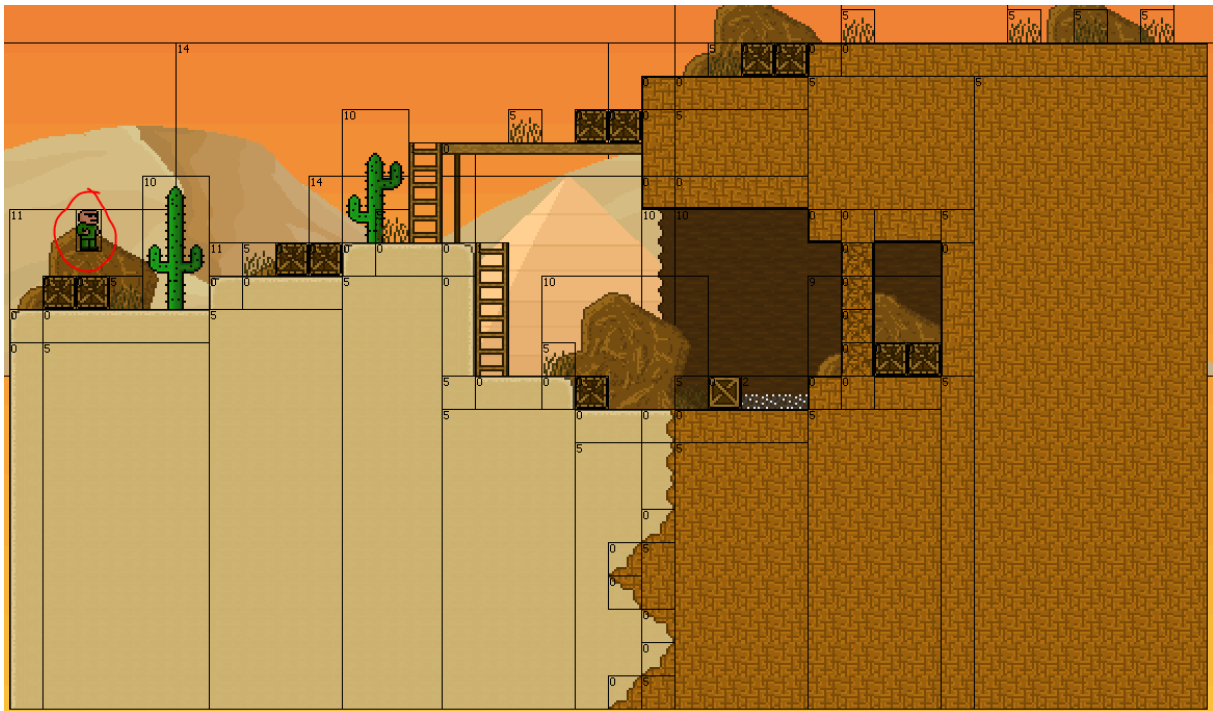
Breakable tiles also are a great way to give the level more scenery. Now we come to the important part of this tutorial: Entities.

Creating your first level – The Player Entity

Each level has Entities. Entities are all things that can move through the game world, like Bullets, Enemies, Rockets, etc... There are also stationary Entities like Mines, Trampolines or Money.

We start by adding the player into our level. **You need to have a player in your level before testing, otherwise your game will crash.**

Let's go to the Entities tab and select the player. You can place it in the world just like a normal block.



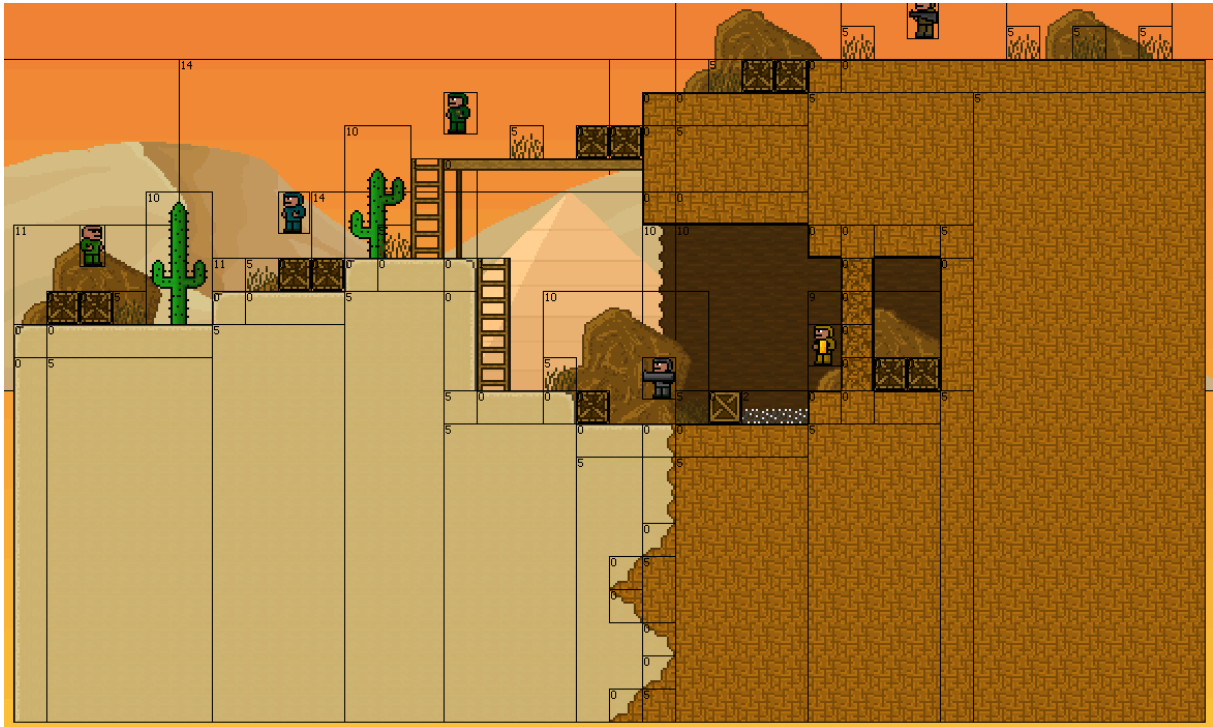
Player in the game world

Now that we have the player, we can start placing enemies.

Creating your first level – Enemies

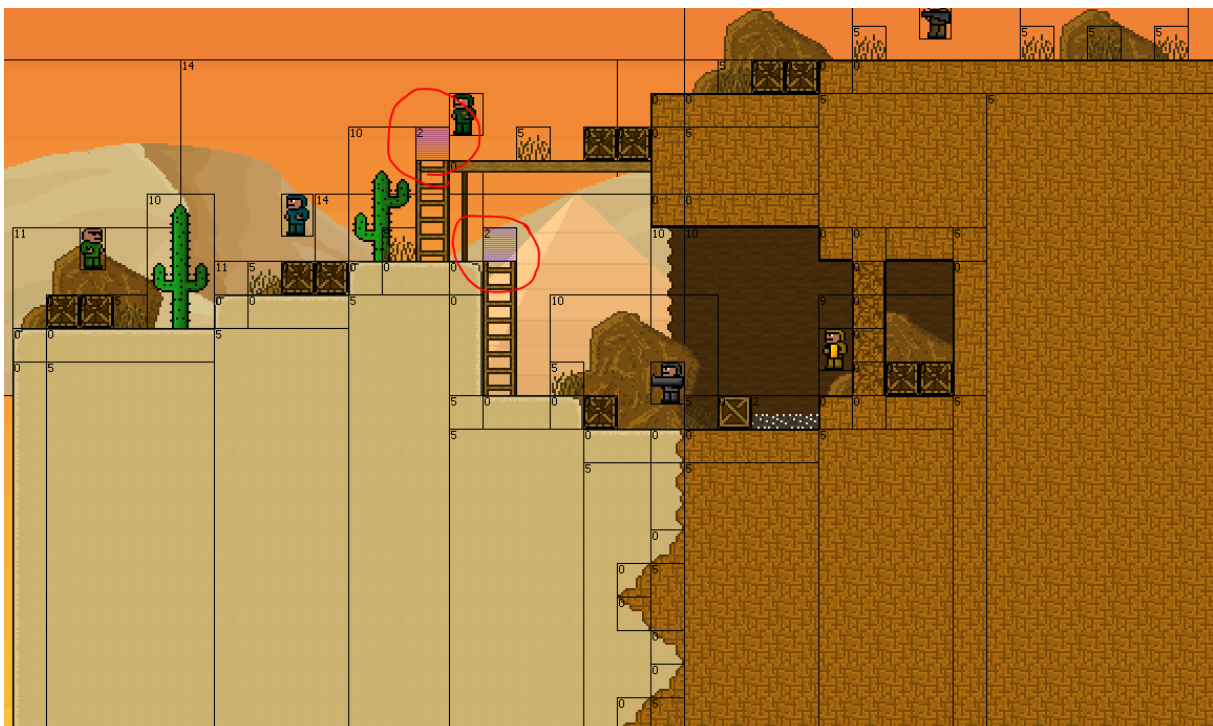
Enemies are the core mechanic of the game. Without enemies, you cannot complete the level. There are tons of different enemies in the game. What each enemy does is explained in the PixelBuilder.

Let's place some enemies in our level. What types of enemies you place in your level does not matter.



We now have some enemies in our level. Now comes the tricky part: Some enemies walk around. These enemies are: Gunmans, Flameman, Commanders, Shotgunmans, Knifemans, Lasermans, Hugemans.

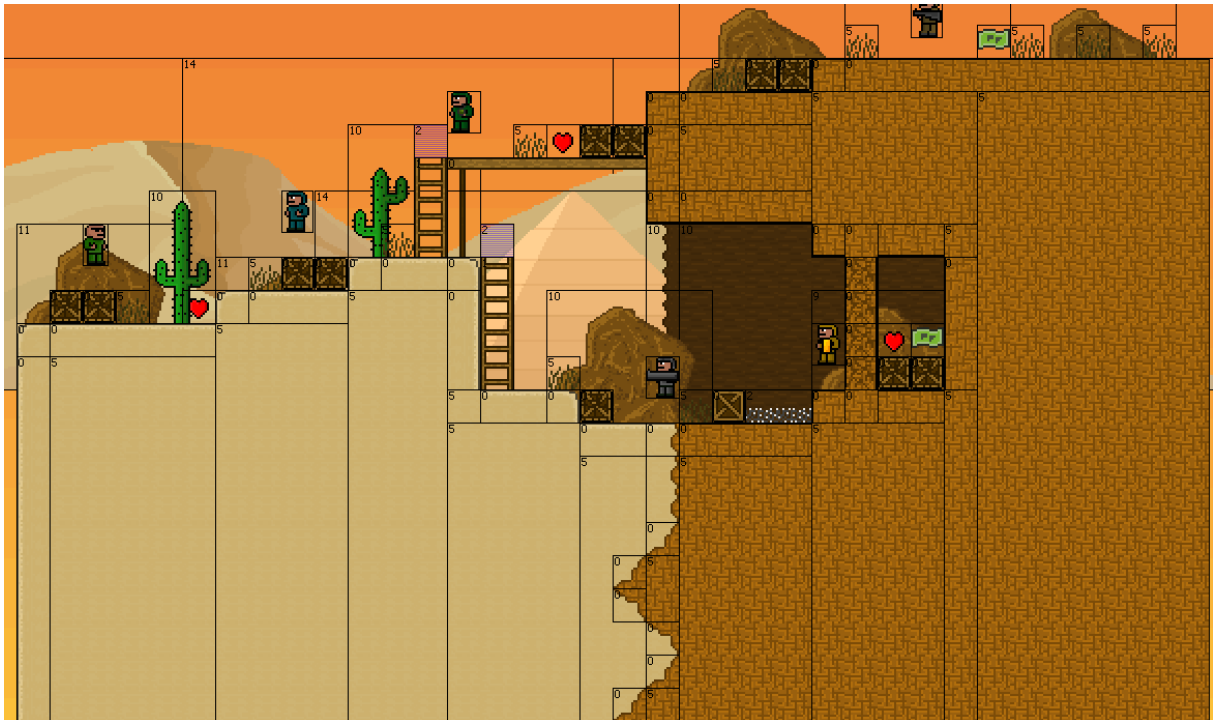
As you can see these are a lot. To prevent them from falling down ledges we have to place **Pathswitch** tiles on every place where enemies could fall down. You can find them in the Util Blocks Tab.



As you can see we just had to place 2 **Pathswitch** tiles. That's it. Now we have working enemies. Next up are other entities.

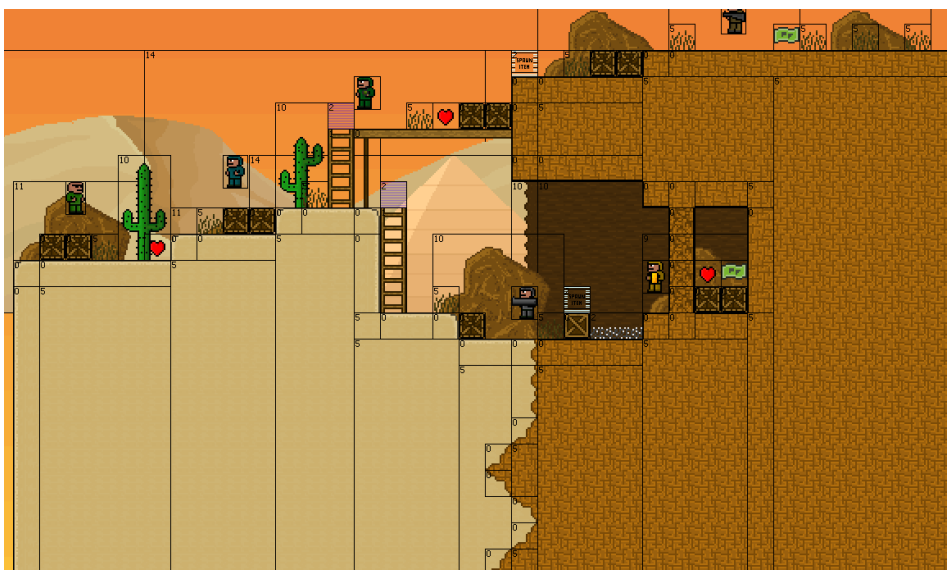
Creating your first level – Hearts, Money and Items

If you have played PixelForce before, you have probably noticed that you can pick up Cash and Hearts in each level. You can also pick up special items. The first two can be found in the Entities tab. Let's place some cash and some hearts in our level.



Hearts and Cash Entities in your first level

Now that we have hearts and cash in our level we can place one or two special Items in our level. We can find them in the “**Util Blocks**” tab.



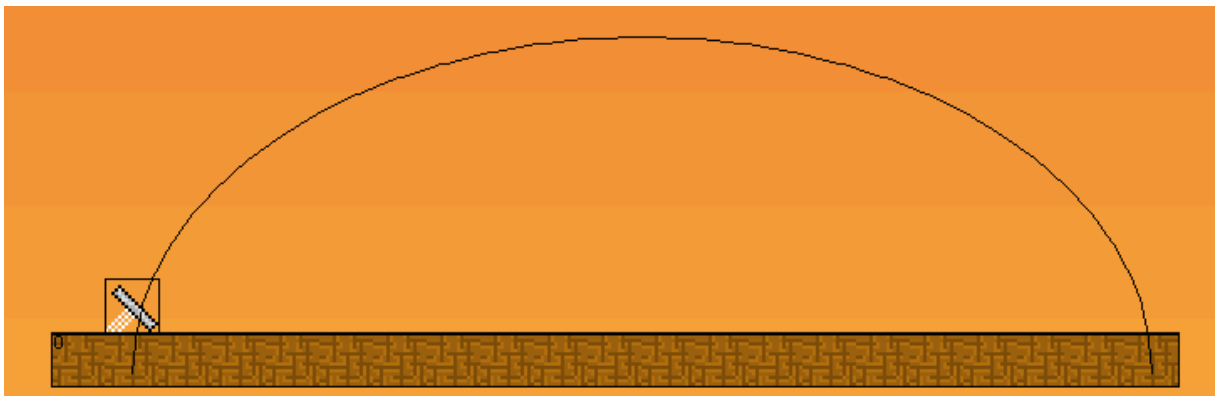
Now we have created our first basic level. In theory you can now play your level. If you want more stuff in your level like trampolines, boosters, oil drums, buzzsaws and mines, move on with this tutorial.

Tips and Tricks – More Entities

This Tutorial can't give you a complete walkthrough of our PixelBuilder, since it is pretty complex. Here are some more explanations of other entities.

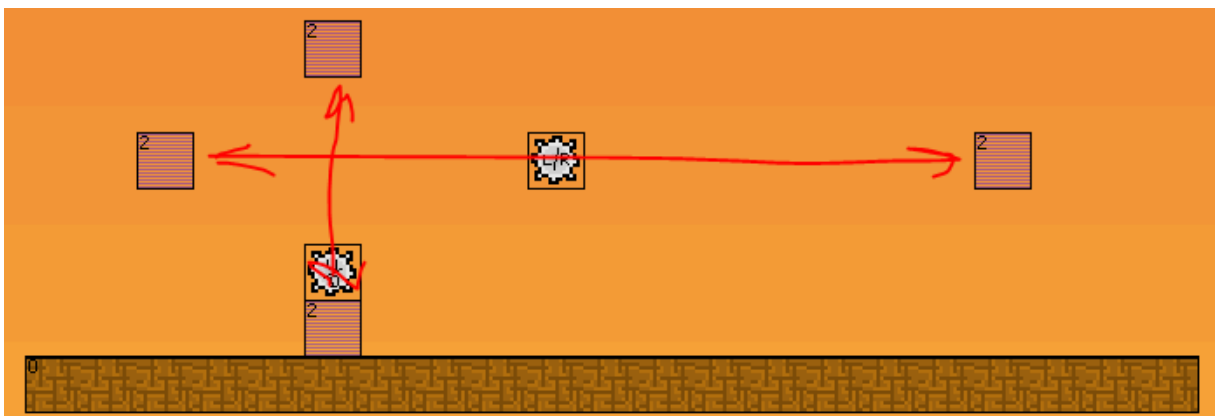
Boosters:

Boosters catapult the player in the specified direction. The arc shows a rough estimation of the fly curve.



Buzzsaws:

Buzzsaws move either left/right or up/down. Their path needs to be limited by pathswitch blocks:



Advanced Stuff – The Z-Plane

The z-Plane is something, you normally never have to change of a tile. The z-Plane is something like a layer. The bigger the z-Plane, the more the tile is in the background. Only tiles that are in z-Plane 0 have collision with entities. You can change the z-Plane after you have placed a tile if you want. Normally, the PixelBuilder takes care of z-Plane setting, but if you want to create something special you may need to change it.

