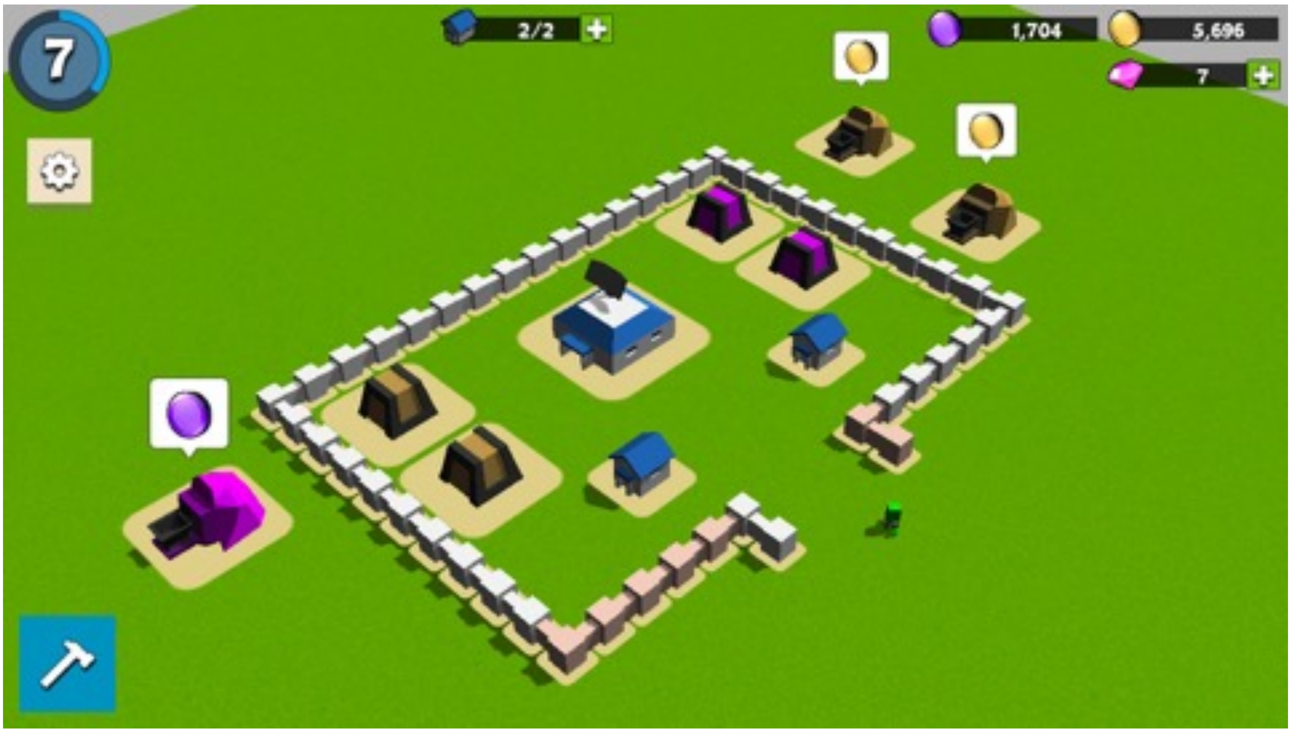
City Building Perfect Kit

game documentation and How to guide.



THIS IS THE HEART OF YOUR VILLAGE. UPGRADING YOUR TOWN HALL UNLOCKS NEW DEFENSES, BUILDINGS, TRAPS AND MUCH MORE.

GOLD MINE
ELIXIR COLLECTOR
GOLD STORAGE
ELIXIR STORAGE
150
150
UPGRADE TOWN HALL TO LEVEL 4 TO BUILD MORE
UPGRADE TOWN HALL TO LEVEL 4 TO BUILD MORE
ECONOMY
DEFENSE
SUPPORT

Table of Contents

Package Info

About

This is 'City Building Perfect Kit' (CBPK).
Use CBPK to create city building games like 'clash of clan' or 'boom beach', and any kind of city or town build game.
- all source code included (c#)
- unity 4.6x, 5.0x support
- uGui only (no other asset required)
- a star path finding included
- mobile friendly (android demo apk will be supported)

Features

- 3d city building framework
- tile grid (with grid to snap functionality)
- 9 type of building with specialized functions
(Town Hall, Hut, Wall, Gold Mine, Gold Storage, Elixir Extractor, Elixir Storage, Barrack, Army Camp)
- produce resources by realtime
- collect resources by clicking resource building
- build various buildings with collected resources
- each building creation has limitation by user level & town hall level
- building upgrade in realtime
- uGui base game UI
(building info dialog, upgrade dialog, command dialog, shop, option, messagebox, training dialog..)
- buy gems
- use gem to finish the work instantly
- get exp and levelup
- a star path finding included
(worker unit use a star path finding to move along the map, and to find working buildings)
- wall building (same way to coc)
- battle functionality not included.

With this kit, create city building type game easily!

About Battle related features

Battle functionality will be added to form of another asset package ('city building & battle perfect kit') later.
I will support upgrading functionality from this asset to 'city building & battle perfect kit'.
battle functionality will include features below
- training attack units
- build defense towers
- invasion to other(npc) city
- plunder resources
- produce and use war items while in battle (recover our unit's hp, bombing ground,...)

Demo & Resources

- Watch game play video in Youtube
- Read Documents

- Use Forum to discuss with users
- Download & Test Android APK

Credits

- The sounds are from unity technologies samples and courtesy of Sound Jay (http://www.soundjay.com/)
- Intro music is clip of ‘Cautious Path’ by Sound Jay (http://www.soundjay.com/)
- The font is ‘BD Cartoon Shout’ by dafont.com (http://www.dafont.com/bd-cartoon-shout.font)

Version History

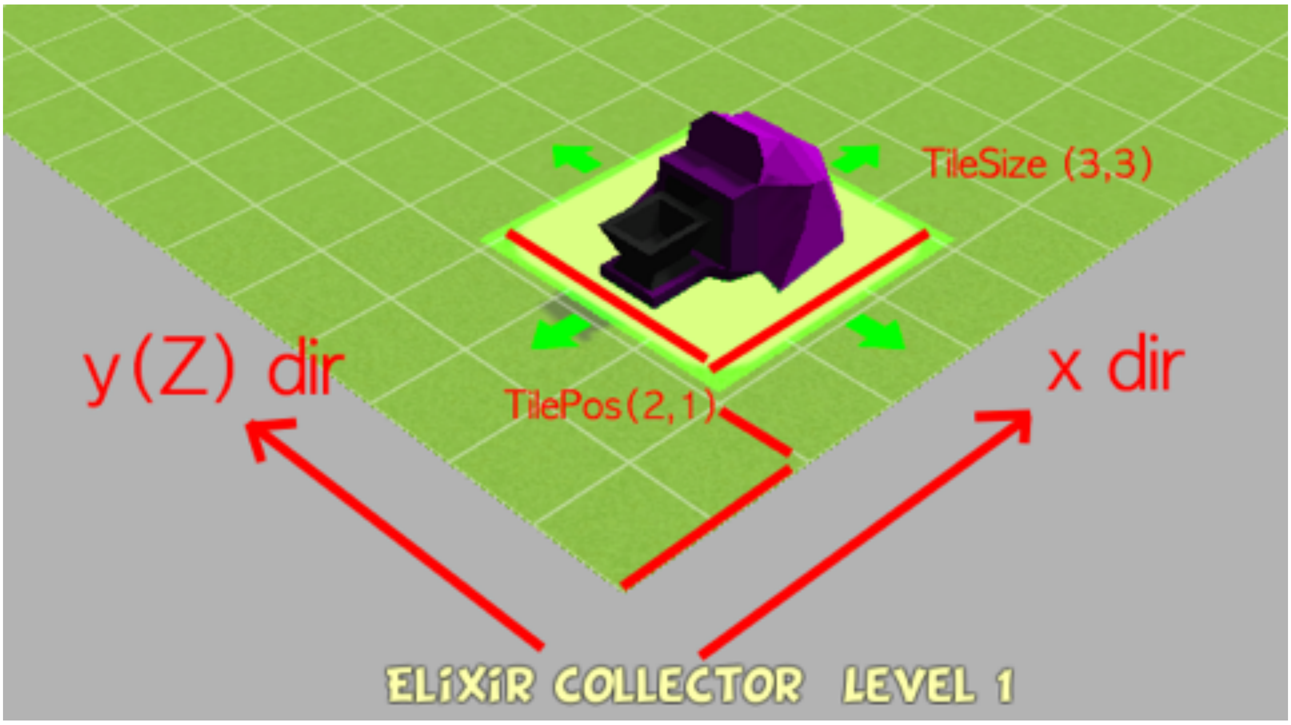
v1.0 - 11.15.2015

- First Release.

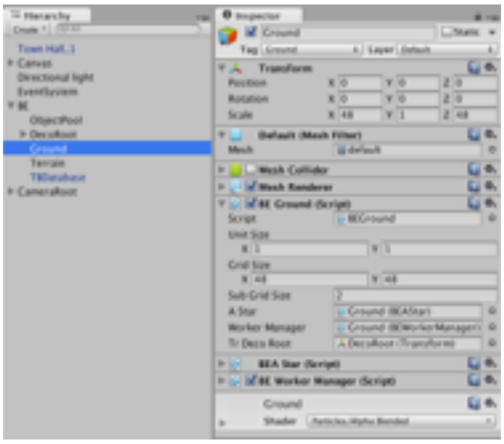
Customization Guide

City Building Perfect Kit (CBPK) is considered a complete project, and as such is supposed to work as the starting point of your planned game, rather than an addition to an existing project. That said, you may of course pick and choose some of the scripts/models to import into your existing project, but CBPK works best as a starter kit which you can customize any part of to your liking.

About Tile System

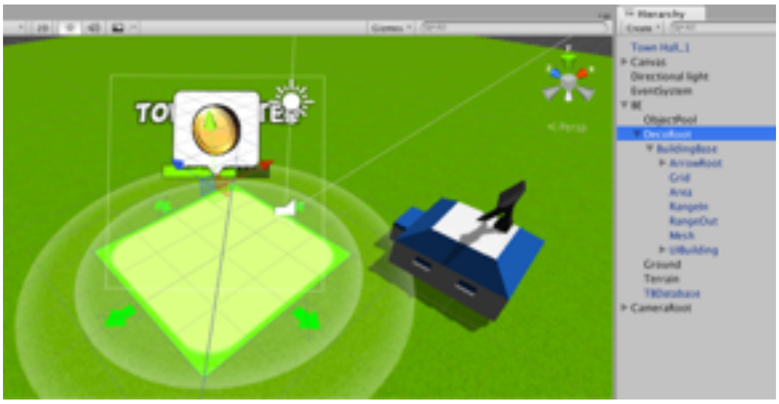


Buildings are created on tile grid. building has two variables related to tile grid position,
TilePos is z,y grid index of the grid, and TileSize is building's occupying tile size.
the screenshot above show one Elixir Extracter building pcacement.
this building's TilePos is (1,0) (index is zero based) and the TileSize is(3,3).



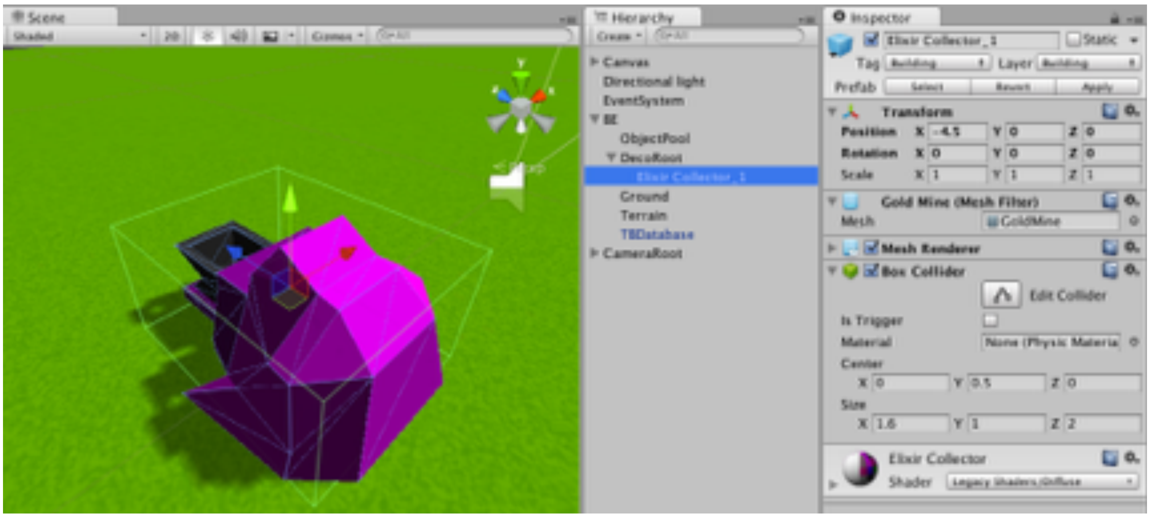
To Change Tile Grid Size, Choose Ground GameObject in the Hierachy Panel. Look at the BEGround script's inspector.
UnitSize id actual size of one tile. in here, one tile size is 1.0fx1.0f. GridSize is total map size (in here, 48x48).
groundmesh didnt change it's size automatically, you must change scale value of the ganeobject (48,1,48).
SubGrid size was used when a star path finding. grid(map) tile match to astar tile by this value. in this case, grid size is 48x48. and astar tile size is 96x96 because subtilesize is set to 2.

Building Structure



Building is consisted by 2 prefabs, BuildingBase and each Building Mesh. when building was created, CBPK create instance of BuildingBase- if contains building's tils grid, info UI, range circle and etc… and add instance of proper mesh (by building type and level)to building base. Building mesh prefabs are located in Resources/Prefabs/ Building folder. and the prefabs must be named with rules (buildingType name + _ + Level).

Add New Building Mesh



☑ Elixir Collector_1 □ Static

Tag Building Layer Building

Prefab

Transform

Position X -4.5 Y 0 Z 0

Rotation X 0 Y 0 Z 0

Scale X 1 Y 1 Z 1

Gold Mine (Mesh Filter)

Mesh GoldMine

☑ Mesh Renderer

☑ Box Collider

Is Trigger □

Material None (Physic Materia

Center X 0 Y 0.5 Z 0

Size X 1.6 Y 1 Z 2

Elixir Collector

Shader Legacy Shaders/Diffuse

Adding Building mesh id simple. just import proper mesh and add BoxCollider, and set tag & layer name to building. box collider has enough volume to cover entire mesh.

Worker

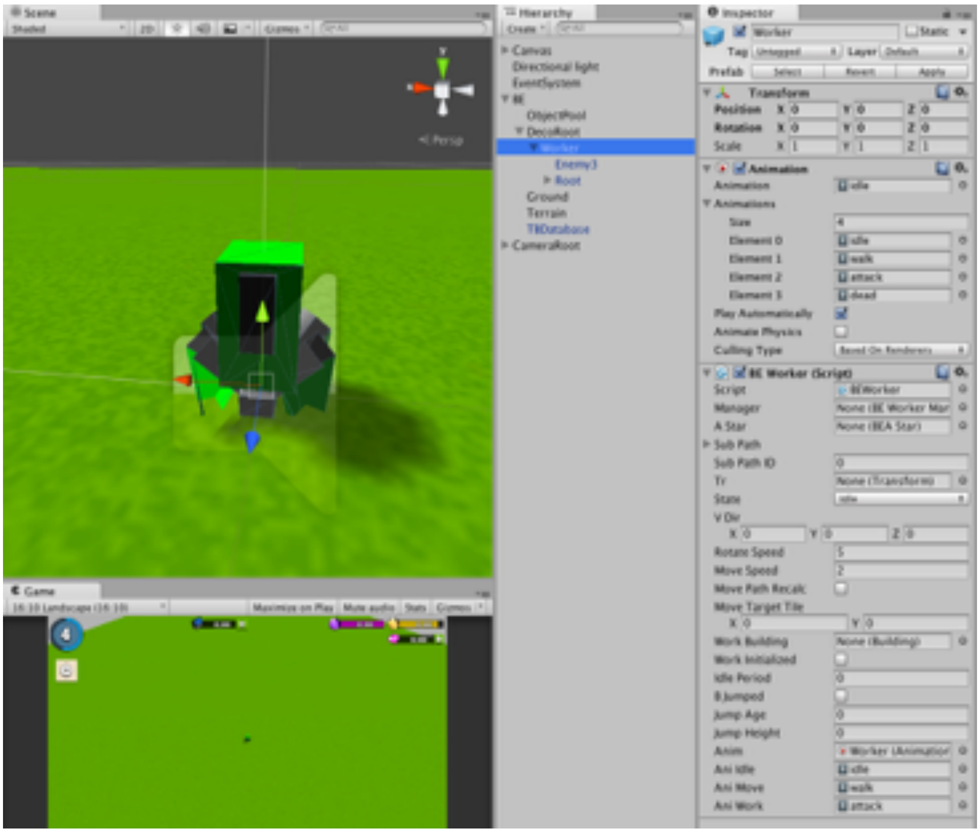
Worker is a npc to show how many works can progress simultaneously. worker was created from Hut and each Hut has only one worker. so if you want more worker, build more hut.

When building is in Working(upgrading), worker move to the working building and keep work animation while building is progressed. if there is no working building, then workers are wandering map rendomly.

To add new Worker, you need mesh with animation data. create instance of mesh , and add BEWorker script and set Animation & Animation Clip. if worker has no animation, then blank that fields. and create prefab with this instance.

Workers are managed by BEWorkerManager, and this script can finded in the Ground gameobject in the hierachy panel. Set Pref Worker field with prefab you created.

Here is inspector of current worker.



Worker ☑ □ Static
Tag Untagged Layer Default
Prefab Select Revert Apply

Transform
Position X 0 Y 0 Z 0
Rotation X 0 Y 0 Z 0
Scale X 1 Y 1 Z 1

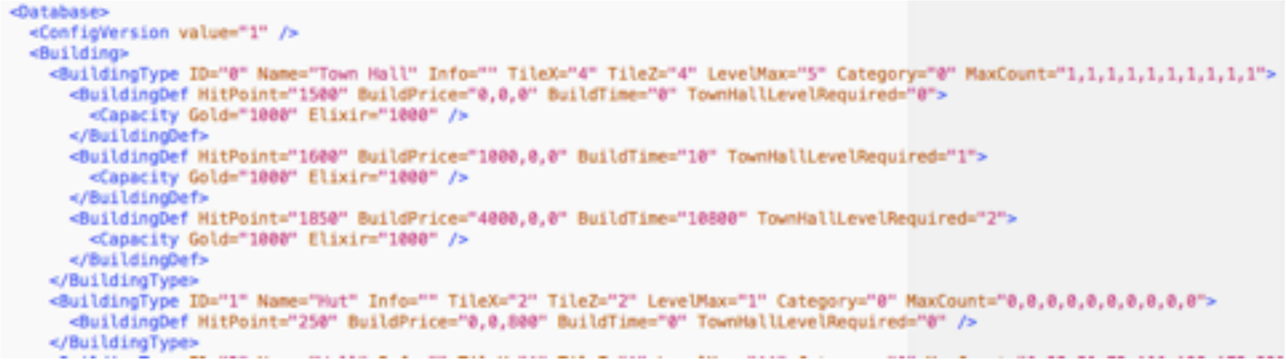
☑ Animation
Animation idle
Animations
Size 4
Element 0 idle
Element 1 walk
Element 2 attack
Element 3 dead
Play Automatically ☑
Animate Physics □
Culling Type Based On Renderers

☑ BE Worker (Script)
Script BEWorker
Manager None (BE Worker Mgr
A Star None (BEA Star)
Sub Path
Sub Path ID 0
Tr None (Transform)
State idle
V Dir
X 0 Y 0 Z 0
Rotate Speed 5
Move Speed 2
Move Path Recalc □
Move Target Tile
X 0 Y 0
Work Building None (Building)
Work Initialized □
Idle Period 0
B Jumped □
Jump Age 0
Jump Height 0
Anim Worker (Animation
Ani Idle idle
Ani Move walk
Ani Work attack

You can Set animation related field of this worker and change worker's moving speed, and rotation speed while in mov. other fields will be used when game is running. so do not set valus.

What is Database

The Database script has all definitions of Building, InAppPurchase Item, and Unit. While database values are stored by xml format file, you can change these value easily by editing this xml file.
The location of xml file is Resources/Database.xml



```
<Database>
  <ConfigVersion value="1" />
  <Building>
    <BuildingType ID="0" Name="Town Hall" Info="" TileX="4" TileZ="4" LevelMax="5" Category="0" MaxCount="1,1,1,1,1,1,1,1,1,1">
      <BuildingDef HitPoint="1500" BuildPrice="0,0,0" BuildTime="0" TownHallLevelRequired="0">
        <Capacity Gold="1000" Elixir="1000" />
      </BuildingDef>
      <BuildingDef HitPoint="1600" BuildPrice="1000,0,0" BuildTime="10" TownHallLevelRequired="1">
        <Capacity Gold="1000" Elixir="1000" />
      </BuildingDef>
      <BuildingDef HitPoint="1850" BuildPrice="4000,0,0" BuildTime="10800" TownHallLevelRequired="2">
        <Capacity Gold="1000" Elixir="1000" />
      </BuildingDef>
    </BuildingType>
    <BuildingType ID="1" Name="Hut" Info="" TileX="2" TileZ="2" LevelMax="1" Category="0" MaxCount="0,0,0,0,0,0,0,0,0,0">
      <BuildingDef HitPoint="250" BuildPrice="0,0,800" BuildTime="0" TownHallLevelRequired="0" />
    </BuildingType>
```

Here is a part of the Database file. each building's type info and definition of each level was described. check the TBDatabase script's Load function.