Clones™

Level Editor Guide

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TIP

Hover your mouse over buttons and labels for a brief description.

LEVEL CREATION OVERVIEW

Overview

Welcome to the Clones Level Editor! This guide will show you how to create and share your very own levels. You have access to all the components, objects and tools that the developers used to make all the levels you see in Clones. Customize the colour, shape and size of just about anything: from the trees and rocks to the Water Hazards and Shock Traps. The Editor allows you to translate your imagination into a playable landscape!

The Editor Workspace will be the stage where all your design ideas take shape. A white rectangle shows where the edges of your level will be during gameplay. You will work with two common building blocks within the Editor Workspace: Terrain and Traps. Terrain are static images that can be used as land, walls or obstacles. Traps add eye candy and dynamic elements to your level. There are two types of Traps you will become familar with: interactive and non-interactive.

LEVEL CREATOR USAGE

?	⚙	🌳	🪣	💥	🔧	✦	▶	💾	🔁	🚪
F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F12

Menu Bar

The Level Editor Menu Bar located at the bottom of the screen gives you easy access to the functionality available in the Editor. The Menu Bar contains the following buttons:

F1 • Help Window - Find all your hotkeys here.
F2 • Level Settings Dialog - Set up your level dimensions, objective and more.
F3 • Add Terrain Button - Browse the Terrain library to build your landscape.
F4 • Add Contraption Button - Hazards, Machines and triggers add challenges, fun and functionality.
F5 • Group Settings Button- Add clones and adjust their available morphs.
F6 • Options Button- Change various level editor settings.
F7 • Editor Tools Button - Access the editor tools window.
F8 • Play Level Button - Test your level out.
F9 • Save Button - Save your latest changes.
F10 • Open Backup - Load previously saved levels.
F12 • Exit Editor - Close the Editor and return to the Main Menu.

Object Selection + Placement

Select a single object in your level by left-clicking on the object. You may cycle the selection to nearby objects by pressing the Tab key. A selected object will have a yellow bounding box. To select multiple objects hold right-click and drag or hold Ctrl while left or right clicking on additional objects. To deselect everything, press Esc or Ctrl+D.

Freely move a selection by holding left-click and dragging or by using the arrow keys for finer adjustments. Hold Ctrl or Shift to increase the offset when using the arrow keys.

> **TIP**
> You may select objects during preview zoom. This is a fast way to navigate around large levels.

Zoom

Zoom in or out using the mouse-wheel or use Page Up/Page Down. Normalize your view again by hitting the Home key. To preview your entire level hold the Spacebar.

Customizing Objects: Colour, Alpha, Brightness and Scale

To edit object properties, right-click on a selected object to display its properties window. Many common properties such as the colour, alpha, scale and rotation may be adjusted by using the slider bars. These common properties can be quickly adjusted without opening the properties window by holding these keyboard keys while left-clicking and dragging with the mouse:
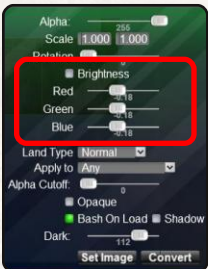
R for colour: A for alpha: O for brightness:
F for rotation: W for scale

Use +/- to scale up and down quickly, and < > to rotate 90 degrees.

Deleting

To delete an object, select it and press Delete on your keyboard.

Undo/Redo

Undo your last action with Ctrl+Z.
Redo actions with Ctrl+Y.

Copying

Make a single copy of a selected object using Ctrl+C. The location of your cursor relative to the object being copied will determine where your new copy goes.

> **TIP**
> Create a quick landscape by making many copies of an object and changing the cursor position after each copy.

For more shortcuts see Level Editor Hotkeys

INITIAL SETUP

Level Settings

Level Settings (F2) can be changed at anytime within the design process. Some designers find it helpful to start the design process by setting up the level dimensions, writing a brief description, stating the objective and choosing a game mode. Don't worry if you're not sure about this stuff yet: Let the level take shape first then come back to it.

Group Settings

Here in Group Settings (F5) you can set up which Clone Group will be your default and how many of each Morph will be available. For testing purposes you may find it helpful to give the Clones several of each Morph. You can also insert a Clone of any Group into your level. Remember, only the default Clone Group can be controlled at game time.

Try inserting a Clone from a group other than the default and scattering forced Action Traps to target that new Group. These sabotage Clones could create some dynamic holes and obstacles!

For more details on using Traps see Trigger Tutorials

TERRAIN

Adding Terrain

When you play a level, the Terrain is the landscape that the Clones walk on and dig through. The default Terrain properties can be changed to suit the designer's purpose. The following Land Types are available:

- Normal - Walk over or destroy this default land type.
- Clonium - This indestructible metal can only be destroyed by Dark Clones.
- Air - Removes Terrain. Use this to carve complex shapes.
- Bridge - The Mold Morph type. Clones can walk through this or destroy it.
- Overlay - Takes on the properties of the Terrain behind it.
- Fake - This Terrain looks like land but acts like air.
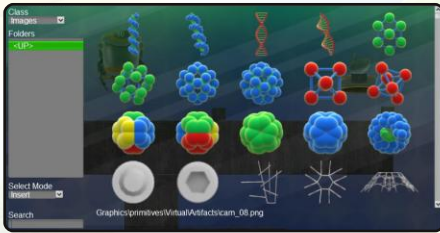
• AirBridge - Clones are able to walk through this Terrain but not destroy it.

Click the Add Terrain (F3) button in the Level Editor menu bar to view the Terrain library. Browse through the Terrain by selecting a theme in the Folders section. The library is organized first by theme and then by typical use. When you select the Terrain it is dropped into your Editor Workspace. To close the library and return to the Editor Workspace click the X in the corner or press Esc.

For information on adjusting Terrain See Customizing Objects

Terrain Sets
Sets are a collection of Terrain images which you can categorize. Sets are like "favorites" in your internet browser.

Assemblies
Assemblies are custom arrangements of Terrain images and Traps. For example, you can build a ladder out of several Terrain images and then select them all and save the group as an Assembly which you can insert on any other level. Create Assemblies by selecting multiple objects inside the Editor Workspace and then opening the Terrain properties and selecting Save.

Select Sets or Assemblies using the dropdown box in the top left corner of the library.

Use the search function to find items quickly and easily. The search bar is located at the bottom left of the Terrain library. For best results search single words such as "crystal", "tree" or "stone".

Terrain Tips + Tricks
Carving with Air
To carve one Terrain with another, select the Terrain you want to carve with and press Right Bracket] to move it to the top layer. Open the Terrain properties window and change Land Type to Air.

Clonium
Make terrain nearly indestructible by changing the Land Type to Clonium. Clonium is a metal that only mutated Dark Clones can destroy. While any Terrain can be made into Clonium, it's a good idea to keep the look of it consistent in your levels.

Overlays on Land
To stamp one Terrain onto another, select the Terrain you want to stamp with and press Right Bracket] to move it to the top layer. Open the Terrain properties window and change Land Type to Overlay and Apply To the Land Only.
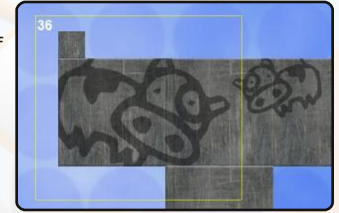
Terrain to Background
Make any Terrain a non-interactive Trap by pressing U or by opening the Terrain properties window and using the Convert button. You will see then see the word Background appear on the right side of the title bar. As a non-interactive Trap, Clones can no longer interact with the Terrain. Press U again to convert it back to Terrain.

TRAPS

Types of Traps
As we talked about earlier, there are two types of Traps: interactive and non-interactive. An interactive Trap is something like a   Squish Trap or Hoverboard while a non-interactive Trap is something like a Sky Trap, Annotation or a Background.
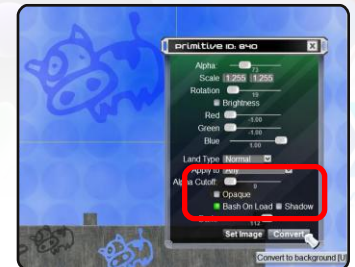
Adding Traps
Traps are added to a level using the Add Trap (F4) menu button. The Traps are organized into Hazards, Machines, Environment and Logic. The Environment tab is where to go to add special things like shiny Q-dots, cute FrozenClones and quick Speed Traps. The Logic tab contains more advanced controls used to add further functionality to a level. Two of the most interesting Logic Traps to get to know are the ModifyLand and ModifyTrap. Seriously, you can blow stuff up with those ones!

For more on Logic Traps see Advanced Tutorials

Adding Background Traps
To make a Background Trap from Terrain press U or open the Terrain properties window and press Convert. Use the Background Trap properties window to adjust distance, blur and brightness to differentiate from the Terrain landscape.
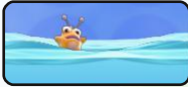
For information on adjusting Traps See Customizing Objects

Trap Descriptions

Hazards

Water
There is no escape from this dynamic and lethal liquid, falling in will do you in.

Squish
A motion activated pneumatic press that crushes from above.

Shock
This stationary electrical coil will fry any Clone that touches it.

Mushbomb
The shock wave emitted from this device will destroy, impair or transform all Clones within its radius.

Blackhole
This swirling spatial anomaly will consume any clone that touches it.

Machines

Teleport
Step into this gizmo and reappear in a different location.

Swap
Clones that walk through this will change to a different Group.

Size
A Clone that enters this machine will transform into a bigger or smaller version of itself.

Antigrav
This circular apparatus flips Clones into a different gravity.

Acid Rain
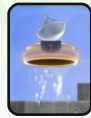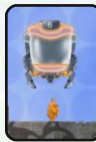This device expels either corrosive acid drops or terrain-building particles.

Slingshot
This harmless little invention will launch a Clone high into the air.

Start
Most levels begin with the numerous Clones that spawn from this device.

Exit
This important machine not only beams up Clones, it also counts them too.

Blaster
This Clone-controlled weapon shoots projectiles made of fire or ice.

Entanglement
A connection is forged between the two Clones that enter this contraption, resulting in simultaneous morphing.

Copier
The single Clone that is captured by this machine is used to create numerous identical replicas.

Hoverboard
An airborne form of personal Clone transportation.

Particle
Used in ProcureTheParticle mode, the Particle attaches itself to a Clone who must then transport it.

Receptacle
Also used in ProcureTheParticle mode, this is where the Particle must be successfully brought.

Environment

Actions
Place these collectible Morphs strategically for players to gather and use later.

Bridge
This object can be incorporated into your terrain to create a tricky spot that will open and close.

Speed
Increase or decrease your pace for a certain amount time.

Frozen Clone
Suspended in ice, these Clones need a bit of help thawing out.

Slug
These lethal little guys are always on the move; it's best to stay out of their way.

Camera
Link an event to this Trap to trigger a change in view (pan, zoom, or rotation).

Background
Add non-interactive graphics or fun premade animations to the surroundings of your level.

Sky
Set a tileable image to be your level's backdrop.

Sound
Link a Proximity or event to this to play a sound effect at just the right time.

Chat
Send an informative message to a player.

Qdot
Place these in the level for players to collect.

Logic

Proximity
A Proximity is activated either when a Clone moves by it, when a level starts or when it is triggered by another event. Once triggered, a Proximity can activate or modify basic properties of other Traps.

Win/Lose
Link a Proximity or event to this to trigger an immediate win or loss.

Path
Force the player to follow specific routes or meet certain conditions to win.

Gravitize
Change gravity in a localized area to collapse and move sections of Terrain. Use sparingly!

ModifyLand
Animate, move, scale or explode pieces of Terrain when you trigger this.

ModifyTrap
Animate, move, scale or explode Traps when you trigger this.

ModifyFrame
Stop, start or jump to a specific frame of a ready-made animation sequence.

Updater
A counter that triggers after a number of updates.

Annotation
Display voice bubbles or verbal hints to the player.

Bonus
Apply decorations to your Clones.

LandWatch
By sensing changes to the Terrain, LandWatch can trigger an event when Terrain is destroyed or added.

CameraWatch
By sensing changes in a camera's gravity, this Trap can trigger an event in a specific gravity.

ModifyClone
Link this to a Proximity to change the features and functions of a passing Clone: make dark, make light, make normal, select, deselect, spawn or explode.

Checkpoint
Insert a Checkpoint so that Singleplayers can restart from that point once they reach it.
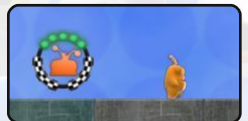
Trap Tips + Tricks

Sky

The Sky Trap will always stay at the very back of your level no matter what you stick in front of it, similar to a stage backdrop. The Sky Trap is found in the Environment tab. Switch the Sky Trap's image by opening the Sky Trap properties window and select Set Image. For the best results, choose a large square or rectangular Terrain that will tile well. Only one Sky Trap can be used at a time.

Start + Exit

Found in the Machines tab, the Start and Exit Traps will appear in nearly every level. Very important stuff, people. The Start Trap produces all the Clones specified by the level designer. In most cases reaching the Exit Trap is the main level objective. The Start Trap properties window allows the designer to change such things as the amount, rate and type of Clones to spawn. You brought them into this world, you can take them out...with Hazards!

Hazards

Hazards are fun, dangerous and customizable! Have fun playing with various colours, brightness and menu properties. For instance, the Water Hazard can also become Acid or Lava. The Shock Trap can be changed to any colour and any height. By selecting Behind Land at the top of the Trap properties window you can hide the Trap behind the landscape, how sneaky!

Machines

Who knows how Clones feel about being shot out of a cannon, either way it sure is fun for the ClonesMasters! Machines can add something fun and unexpected to your creation. Used correctly these machines can suddenly put a kink in a player's puzzle-solving plans. Take the time to play with each of the Machines to see what they can do. Keep in mind that the Particle and Receptacle can only be used for ProcureTheParticle game mode.

Distance and Stacking

Adjusting the distance of Background Traps adds a 3D effect. The distance slider is found in the Background Trap properties window. Think of the starting point at 0 as being in the same plane as the Clones. By making the distance a negative number the Background Trap is moved in front of the playable landscape, while a positive number moves it behind. When moving an object in front of the landscape you must also deselect Behind Shadow, Behind Land and Behind Clones. Use the Bracket [] keys to move
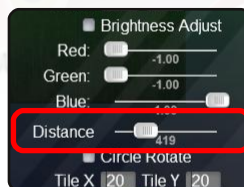
Make it Blurry

Similar to distance, adding blur to your Background Traps help to show the player what is not part of the playable landscape. Open the Background Trap property window and input a blur number. Keep the blur between 1 and 4 to avoid slowing down your level load time.

Tiling Backgrounds

Tiling will create exact copies beside and below the original. After inputting numbers for tile X and tile Y, close the Background Trap properties to see the results. Inputting blur and clip margin amounts will push the tiles apart. Try making a simple pattern by tiling a large area, decreasing the alpha and then adding blur. Backgrounds can be tiled to a maximum of 20x20.

MORE TIPS + TRICKS

Fun Clone Animations

Drop in these ready-made Clone animations to jazz up any level with cuteness! To find the animations open the Add Trap (F4) Environment tab and select Background. After opening the Trap properties window and choosing Set Image, press up twice to navigate to the root graphics folder. Browse the Actions folder and select a Clone. To add variations to copies of the same Clone, adjust the frame number. Test Level (F7) to see the animation results. Cute, right?

Bevel + Drop Shadow Effect

Use this simple trick to make a Terrain appear beveled or shadowed. Choose a fun shaped Terrain (may I suggest the Cow stamp) and place it over a landscape with a simple surface. Open the Terrain properties window, change the alpha to 100 and drag the brightness slider to black. Similarly, make a white copy of the Terrain and use the Bracket] key to place it on top. Overlap the copies with a slight offset to create the illusion of a bevel or shadow.

Blinking Light

To find the blinking light first open the Add Trap (F4) window's Environment tab and select Background. After opening the Trap properties window and choosing Set Image, navigate to the Virtual\Overlays folder and select the white blinking light. Open the Trap properties window again and change the fps to 1 or 2. Test Level (F7) to see the animation results.
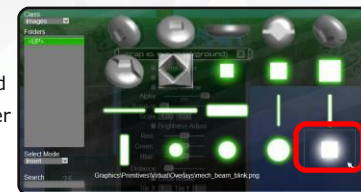
For more tips + tricks, visit http://clonesgame.com/clones-level-editor-guide

ADVANCED TUTORIALS

Simple Glow Animation

Find the gradient by opening Add Terrain (F3) and navigating to the Common\Overlays folder. Select the radial gradient then close the window. Holding O, left-click and drag upwards until the gradient is white. Press U to convert it to a Background.

Open Add Trap (F4) Logic and select ModifyTrap. Open ModifyTrap properties and press Add Trap. Add the gradient. Open ModifyTrap properties again and change the Final Alpha to -255 and Inc. to -5. Press Update and Anti then close the window. Open Add Trap (F4) Logic again and select Proximity. Open Proximity Trap properties to enable autostart. If autostart was disabled a Clone would have to trigger the Proximity by moving through it.

Now click Activate then Add Actions and select ModifyTrap.
 Test Level (F7) to see the results.

Animate a Switch Using ModifyFrame

To create a wall switch first open the Add Trap (F4) Environment tab and select Background. After opening the Trap properties window and choosing Set Image, press Up twice to navigate to the Animations folder. Browse the Animations folder and select the wall switch. Open the switches property window and deselect Play on Load.

Open Add Trap (F4) Logic and add both ModifyFrame and Proximity. Move the Proximity to where a Clone can trigger it. Open the ModifyFrame properties window and choose Set Target as the wall switch. Choose Animate from the dropdown list and type in 16 for the end frame. Open the Proximity and add the ModifyFrame.

Make Anything Dangerous

Open Add Trap (F4) Hazards and select Water. Open Trap properties and change the type to Acid. Now open Add Trap (F4) Logic and select Proximity. Open the Proximity Trap properties and click Activate and Add Actions to choose the Acid Hazard. Move the Proximity to where a Clone will trigger it then move the Acid Hazard outside of the level's white boundary. Test Level (F7) to see the results.

6

Hit the Target + Explode a Wall

LandWatch will sense when air fills a region that used to be Terrain. In this example the LandWatch senses that the target is damaged and the Proximity Trap will trigger the brick wall to explode.

To start, open Add Terrain (F3) and place an object in a location that can easily be used by Clones for target practice. Open the Add Trap (F4) Logic tab and select LandWatch. Place the LandWatch over your target then scale it to fit within the Terrain's edges. Use the Add Terrain (F3) search bar to find a brick wall. Now add a Proximity and ModifyLand Trap. Right-click on LandWatch and set the Change Target to the Proximity. Open up the Proximity and deselect Can Trigger. Choose Activate then Add Actions and choose ModifyLand. If Can Trigger was still selected a Clone could trigger the Proximity by just walking through it. Now open the ModifyLand Trap properties and select both the explode and air checkboxes. Click Add Prims button and choose the brick wall.

As soon as the LandWatch senses air it will tell the Proximity to activate the explosion of the brick wall. When you test the level be sure to damage the target using any land-destroying Morph such as Lop, Nova, Gulp, Drill or Clob.
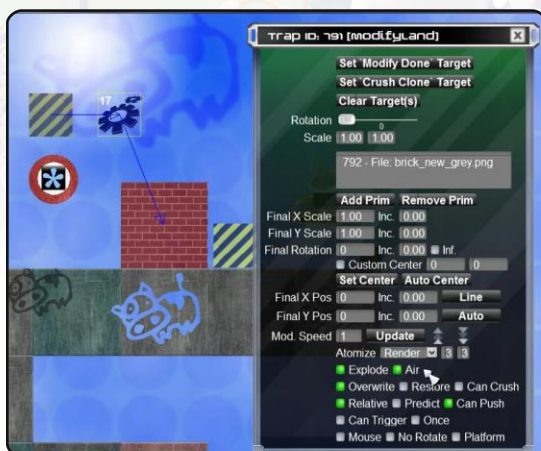
Trigger ModifyTrap Fireworks

These fireworks are made from tiny hidden non-interactive Traps. Place a Proximity that can easily be triggered by passing Clones.

Open Add Trap (F4) Logic and select ModifyTrap. Now open Add Terrain (F3) and find three circles (may I suggest Common\Shapes folder). Highlight the Terrain circles and press U to convert them to Background Traps. Adjust the colour and scale of each to add variety. Open the properties menu of each circle and deselect the Visible checkbox. While you can still see the circles in the Level Editor, they will be hidden when the level is played. Open the ModifyTrap and add the three circles.

After opening the Proximity and setting up the activation of the ModifyTrap, select Test Level (F7) to see the results.
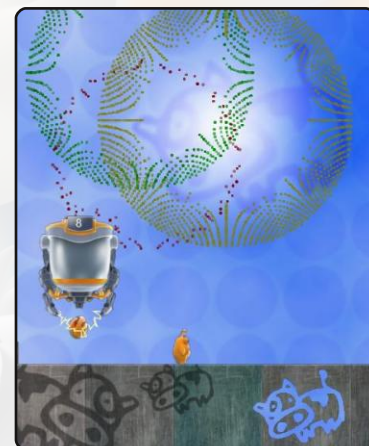
EDITOR HOTKEYS

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Edit
Ctrl + Z...Undo
Ctrl + Y...Redo
Delete...Keyboard Delete
Right-Click......................Open Object Properties Window
Escape..Close Window

Scroll + View
Mouse-wheel...Zoom In/Out
Page Up...Zoom In
Page Down..Zoom Out
Spacebar..View Entire Level
Ctrl + B..............................Constrain to Level Bounds
T...Hide/Show Traps
P...Hide/Show Primitives

Measure
/ (backslash)..Clone Height
E...Clone Fall Distance

Selection
Left Click..Select Single
Esc or Ctrl + D...Deselect All
Ctrl + A..Select All
Ctrl + Right Click...................Add/Remove from Selection
Right Click + drag left.................Multi Select (contained)
Right Click + drag right.......Multi Select (partly contained)
Tab.................................Cycle Selection Under Cursor

Position + Stacking
Left-Click+Drag.......................................Move Selection
Left-Click+Shift + Drag........................Move Orthogonally
Arrow Keys..Move 1 unit
Ctrl+Arrow Keys.....................................Move 10 units
Shift+Arrow Keys...................................Move 100 units
X...Align to horizontal center
Y..Align to vertical center
S+Left-Click..Stack to right
Shift+S+Left-Click....................................Stack to left
D+Left-Click...Stack to bottom
Shift+D+Left-Click....................................Stack to top
L...Send down
Shift+L...Send up
Ctrl+L..Send right
Shift+Ctrl+L..Send Right
] (Right Bracket)......................................Front z order
[(Left Bracket) ....Back z order
" (Quote)...Raise z order
: (Colon)..Lower z order
I...Align selected objects top
Shift+I............................Align selected objects bottom
Ctrl+I...................................Align selected objects right
Ctrl+Shift+I.............................Align selected objects left
Z+Left-Click.........................Set target z order to selected

Mirror + Flip
H..Flip horizontally
V..Flip vertically
Shift+H..Mirror vertically
Shift+V..Mirror horizontally
M+Left-Click.............................Mirror at vertical center
N+Left-Click...........................Mirror at horizontal center
I+Left-Click................................Align target to selected
K and J..Flip diagonally

Copy
Ctrl+C...Copy
Ctrl+Shift+C..Copy and flip
Ctrl+V...................................Vertical mirrored copy
Ctrl+H.................................Horizontal mirrored copy
Ctrl+J...Top mirrored copy
Ctrl+B...Bottom mirrored copy

Rotation
F+Mouse Up/Down...Rotate
F+Shift+Mouse Up/Down............................Rotate 1 unit
. (Period)..Rotate 90° clockwise
, (Comma)...........................Rotate 90° counter-clockwise

Scale
W+Mouse Up/Down...Scale
Ctrl+W+Mouse Up/Down............................Precise Scale
Shift+W..Distort Scale
+/- (Plus/Minus)............................Scale up/down by half
= (Equal)..Scale up two times

Colour + Brightness + Alpha
R+Mouse Up/Down...Colour
O+Mouse Up/Down.......................................Brightness
A+Mouse Up/Down..Alpha

PUBLISHING

How to Share Levels

Once you have created your masterpiece you will no doubt want to share it with your friends, and the world! Levels are saved to the Clones\Level folder with the filename that is autogenerated when you first created your level. The filename is displayed in the Level Settings (F2) window. You can share multiplayer levels manually but you must create a level package to share singleplayer puzzles.

NOTE: If you want to save to a different filename you must click the Generate button to automatically generate a new filename based on your level title. Do this when you wish to create a level based on an existing level but not overwrite the old level.

Creating a Level Package

It's easy to package up multiple levels and share them with your friends. From the main menu click Extras and then Package Creator.

Step 1 - Select the levels you want to include in the package. A package can either contain multiplayer or singleplayer levels but not a combination of both types. A singleplayer puzzle package can hold up to 15 levels. A multiplayer package has no limit.

Step 2 - Enter a filename for your package. The package title and description will be displayed on the ClonesGame.com package gallery if you upload your package for the world to see.

Step 3 - Click the button to create your package! It will be saved to the Clones\Level\Packages folder. Send it to your friends directly, or better yet click the button to publish your package to the ClonesGame.com website to allow the world to play, rate, and comment on your creations!

Installing a Level Package

Visit http://ClonesGame.com/package/gallery to view all of the packages created by countless brilliant Clones players. You can filter levels by singleplayer/multiplayer, game mode, theme, and date created. Once you download a package you can install the new levels by double-clicking the package file. Alternatively, you can run the ClonesPackageInstaller.exe program in your Clones\Bin folder and then select the package you downloaded.

WARNING: If the package contains a level with the same filename as an existing level then that level will be overwritten by the package.

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ClonesGame.com/blog

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youtube.com/user/ClonesGame

Become a fan on Facebook:
facebook.com/pages/Clones-Game/62460349786

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