Mario vs Luigi

This page documents how to play MvsL hacks and objects that work in MvsL.

> Modding MvsL is significantly more difficult than modding Singleplayer levels. If you're just getting started with modding the game, you might want to start here

FaQ

> *“How do I play Mario vs Luigi hacks?*

- The easiest way to play an MvsL hack on real hardware is by using “Multi-cart”
  - This requires that you own **two** flashcards (such as an R4 Card).
  - To set this method up, simply put **the same ROM** on both flashcards. Then, in the game, choose the option to “Compete with another New Super Mario Bros. Owner” and play MvsL as you normally would.

- If you do not have access to two flashcards, then you have two, more difficult, options remaining
  - Your first option is to try and use a hacked NDS firmware that bypasses Download Play's signature check
    1. Download firmware.nds and put it on your flashcard.
    2. Open this ROM on the DS you will launch Download Play from.
    3. Now, eject the flashcard from the DS you just ran the ROM on. (This will not cause your DS to freeze)
    4. Finally, put the flashcard back in the other DS.
    5. Once you have done this, you can run the ROM of the MvsL hack and select “Play with someone who doesn't own New Super Mario Bros”
       - If the firmware ROM does not work on your flashcard, try this one instead.
  - Your final option is to use normal DS Download Play with “DLP Mode” in NSMBe 5
    1. Open a **clean (unedited) ROM**
    2. Open it in NSMBe
    3. After you open the ROM, go to Tools and check “Enable DLP-friendly mode”
    4. Now, you can make whatever changes you want to the ROM
    5. When you're done, you can play with another DS through DS Download Play like you normally would using the “Play with someone who doesn't own New

Super Mario Bros” option

- If the game hangs at the Nintendo logo, you might have missed a step. Double check you did everything and try again with another **clean** ROM
- If the DS freezes with a black screen after you select a level it can mean one of two things:
  - Your flashcard is not compatible with this method.
    - Some flashcards don't like firmware.nds. Try using firmwarefix.nds instead.
  - There's something wrong with the level that is making the game freeze

> *“My level crashes, what do I do now?*

- If you are not using any Code Hacks, then here are some things to consider
  1. Have you changed any object banks? This causes MvsL to crash so you need to change the object banks back to whatever the level had originally.
  2. Double-check that you are not using an object that has been confirmed to crash MvsL. There is a table later on this page that shows what objects are compatible with MvsL.
  3. Have you changed the number of Battle Stars that are in the level? Changing the number of Battle Stars in a level can cause MvsL to crash, and you will need to restore the original amount of Battle Stars the level had.

> *“My level crashes, but I'm using Code Hacks!*

- Even with Code Hacks, not all objects work in MvsL. Take a look at the table at the end of the page to see if all of the objects you're using are compatible with MvsL.

> *“My level makes us de-sync, what's going on?*

- Because of the nature of how multiplayer works in this game, the Random Number Generator seed is only synchronized once when the connection is established. Only inputs are sent from one console to another, so the code must account for both player actors. If code does not account for each player, the games will become de-synced. For example, if an enemy was coded to imply get the values of a player on the local console, it will read different data on each console. This causes the enemy to act differently on each DS, thus causing a de-sync.

Implementation example:

```
// Enemy reads only the position of its own console player
playerPositionX = Game::getPlayer(Game::localPlayerID)->position.x;
// Now the position that was read is different between both consoles
// for this enemy and he will behave differently for each console!
// This is very bad!

// A solution would be to get the position of the closest player
playerPositionX = enemy->getClosestPlayer(nullptr, nullptr)->position.x;
// This way, it gets the closest player instead of its console player
```

Object Compatibility (Vanilla)

- These objects will work in MvsL regardless of if you are using code hacks
- Most of the objects in this list are objects that are already used in MvsL

Object ID	Actor Name
23	Pipe Piranha Plant (Facing up)
24	Pipe Piranha Plant (Facing down)
25	Pipe Piranha Plant (Facing right)
26	Pipe Piranha Plant (Facing left)
27	Bill Blaster (Bullet Bill launcher)
28	Bob-omb
71	Stonewall moving up & down
72	Stonewall moving left & right
95	Spin Block
148	Goomba
149	Koopa Troopa
210	MvsL Big Star

Object Compatibility with Code Hacks

- This spreadsheet is based on the nospritesetlimitation.s code patch
  - To fix liquids in MvsL, use mvslLiquidFix.cpp
- There are 4 kinds of compatibility
  - **Works**: This object completely works in MvsL
  - **Partial**: Some parts of this object do not work in MvsL. The notes column will mention what doesn't work
  - **N/A**: The object does not load but it also does not crash the game
  - **Crash:** The object crashes the game when loaded. See the notes for possible workarounds.

Object ID	Object Name	Compatibility	Notes
0	Crash Object (Player Actor)	Crash	Needs the clone code hack
1	Crash Object (Player Actor)	Crash	Needs the clone code hack
2	Crash Object (Player Actor)	Crash	Needs the clone code hack
3	Crash Object (Player Actor)	Crash	Needs the clone code hack
4	Crash Object (Player Actor)	Crash	Needs the clone code hack
5	Crash Object (Player Actor)	Crash	Needs the clone code hack
6	Crash Object (Player Actor)	Crash	Needs the clone code hack
7	Crash Object (Player Actor)	Crash	Needs the clone code hack
8	Crash Object (Player Actor)	Crash	Needs the clone code hack
9	Crash Object (Player Actor)	Crash	Needs the clone code hack
10	Nothing	N/A	Technically works due to it being nothing
11	Nothing	N/A	Technically works due to it being nothing
12	Nothing	N/A	Technically works due to it being nothing
13	Nothing	N/A	Technically works due to it being nothing

Object ID	Object Name	Compatibility	Notes
14	Nothing	N/A	Technically works due to it being nothing
15	Nothing	N/A	Technically works due to it being nothing
16	Nothing	N/A	Technically works due to it being nothing
17	Nothing	N/A	Technically works due to it being nothing
18	Nothing	N/A	Technically works due to it being nothing
19	Nothing	N/A	Technically works due to it being nothing
20	Defunct Actor 22	N/A	If using the Actor Spawner code hack it works
21	Mega Goomba	Works	If using Boss Particle code hack
22	Hammer Brother from map	N/A	MvsL is missing a world map so...
23	Pipe Piranha Plant (facing up)	Works	
24	Pipe Piranha Plant (facing down)	Works	
25	Pipe Piranha Plant (facing right)	Works	
26	Pipe Piranha Plant (facing left)	Works	
27	Bill Blaster (Bullet Bill launcher)	Works	
28	Bob-omb	Works	
29	Princess Peach	Works	
30	Monty Tank	Works	If using Boss Particle code hack
31	Cheep Cheep	Works	
32	Goal Pole's Flag	Works	
33	Trampoline (portable springboard)	Crash	
34	Red Ring	Crash	

Object ID	Object Name	Compatibility	Notes
35	Final Bowser Controller	Crash	
36	Thwomp	Works	
37	Spiny	Works	
38	Boo	Works	
39	Castle boss controller	Partial	Some of the options crash the game, you can use a switch instead.
40	Lakitu (unused object)	Works	
41	Bowser bridge switch	Works	Loads, but graphics are not loaded correctly
42	Chain Chomp/Log	Works	
43	Chain Chomp (unused object)	Works	
44	Fire Snake (unused Actor 46)	Works	
45	Respawnable Hidden Block	Works	
46	Event controller - activates Spiked Ball when touched by Snake Block	Works	
47	Lakithunder	Works	
48	Aquatic bubble current (up)	Works	
49	Aquatic bubble current (down)	Works	
50	Aquatic bubble current (right)	Works	
51	Aquatic bubble current (left)	Works	
52	Buzzy Beetle	Works	
53	Dry Bones	Works	
54	Lava Bubble (Podoboo)	Works	
55	Bullet Bill Spawner	Works	
56	Fire Bar	Works	
57	Coin	Works	
58	Bowser	Works	

Object ID	Object Name	Compatibility	Notes
59	Hammer Brother	Works	
60	Nothing	N/A	Technically works due to it being nothing
61	Nothing	N/A	Technically works due to it being nothing
62	Big Bowser (unused object)	Works	
63	Dry Bowser	Works	
64	Whomp	Works	
65	Cheepskipper	Works	
66	P Switch	Works	Graphics are not loaded correctly
67	Sushi (shark)	Works	
68	Lift moving up and down	Works	
69	Lift moving left and right	Works	
70	Rotating log lift (unused actor)	Works	
71	Stonewall moving up and down	Works	
72	Stonewall moving left and right	Works	
73	Wobbly metal lift	Works	
74	Wobble Rock	Works	
75	Seesaw lift	Works	
76	Scale lift	Works	
77	Flimsy Lift (falls once touched)	Works	
78	Lift moving one way once stood on	Works	
79	Three-platform rickshaw lift (rotates in place by self)	Works	
80	Lift spawner	Works	
81	Nothing	N/A	Technically works due to it being nothing
82	Rotating rectangle lift	Works	

Object ID	Object Name	Compatibility	Notes
83	Self-activating block	Works	
84	Zoom	Works	
85	Flip fence (duplicate object)	Works	
86	Rotating triangle lift	Works	
87	Nothing	N/A	Technically works due to it being nothing
88	Brick Block containing P Switch	Works	P-Switch graphics are not loaded correctly
89	Snailicorn	Works	
90	Wiggler	Works	
91	Track-controlled lift	Works	
92	Unagi (eel)	Works	
93	Arrow signboard	Works	
94	Swooper	Works	
95	Spin Block	Works	
96	Seaweed	Works	
97	Nothing	N/A	Technically works due to it being nothing
98	Camera vertical scrolling	N/A	
99	Four-platform rickshaw lift	Works	
100	Vertical camera offset (unused actor)	N/A	
101	Event controller - view enter	Works	
102	Spiked Ball	Works	
103	Dorrie	Works	
104	Tweester (Tornado)	Works	
105	Whirlpool	Works	
106	Red Coin	Crashes	
107	? Switch	Works	Graphics are not loaded correctly

Object ID	Object Name	Compatibility	Notes
108	! Switch	Works	Graphics are not loaded correctly
109	Amp	Works	
110	Brick Block containing !-Switch	Works	!-Switch graphics are not loaded correctly
111	Floating log	Works	
112	Nothing	N/A	Technically works due to it being nothing
113	Cheep Chomp	Works	
114	Burner (Small)	Works	
115	Large Spiked Ball	Works	
116	Skeeter (Water Bug)	Works	Causes a desync however
117	Map Flying ? Block	N/A	
118	Burner	Works	
119	Swinging lift (pendulum-like)	Works	
120	Grounded Piranha Plant	Works	
121	Nothing	N/A	Technically works due to it being nothing
122	Big Grounded Piranha Plant	Works	
123	Grounded Fire Piranha Plant	Works	
124	Large grounded Fire Piranha Plant	Works	
125	Defunct Actor 229	N/A	
126	Drawbridge lift	Works	
127	Big four-platform rickshaw lift	Works	
128	Warp Cannon	Works	
129	Boss Key Location	Works	
130	Jumping Cheep Cheep	Works	
131	Checkpoint - vertical	Works	Does the animation but doesn't set anything

Object ID	Object Name	Compatibility	Notes
132	Checkpoint	Works	Does the animation but doesn't set anything
133	Nothing	N/A	Technically works due to it being nothing
134	Nothing	N/A	Technically works due to it being nothing
135	Nothing	N/A	Technically works due to it being nothing
136	Pokey	Works	
137	Nothing	N/A	Technically works due to it being nothing
138	Nothing	N/A	Technically works due to it being nothing
139	Nothing	N/A	Technically works due to it being nothing
140	Boss Key	Works	
141	Swelling ground	Works	
142	Tightrope	Works	
143	Spiked ? Block (unused actor 251)	Crashes	
144	Spiked ? Block	Crashes	
145	Spiked ? Block (unused actor 253)	Crashes	
146	Ground-pound panel	Works	
147	Bump from below platform	Works	
148	Goomba	Works	
149	Koopa Troopa	Works	
150	Koopa Paratroopa	Works	
151	Nothing	N/A	Technically works due to it being nothing
152	Event trigger block	Crash	
153	Nothing	N/A	Technically works due to it being nothing
154	Nothing	N/A	Technically works due to it being nothing

Object ID	Object Name	Compatibility	Notes
155	Special exit controller (warp entrance)	Crash	Sometimes just corrupts graphics and does nothing
156	Nothing	N/A	Technically works due to it being nothing
157	Fire Brother	Partial	Causes a desync
158	Boomerang Brother	Partial	Causes a desync
159	Nothing	N/A	Technically works due to it being nothing
160	Nothing	N/A	Technically works due to it being nothing
161	Nothing	N/A	Technically works due to it being nothing
162	Mushroom Platform lift	Works	
163	Nothing	N/A	Technically works due to it being nothing
164	Event controller - "AND"	Works	
165	Event controller - "OR" (If X OR Y, do Z)	Works	
166	Event controller - "RANDOM"	Works	
167	Event controller - chainer (If X, do Y)	Works	
168	Event controller - "IF" (uses zones)	Works	
169	Spin Block (unused Actor 255)	N/A	Doesn't spawn
170	Nothing	N/A	Technically works due to it being nothing
171	Spin Block (unused Actor 256)	N/A	Doesn't Spawn
172	Nothing	N/A	Technically works due to it being nothing
173	Swinging/able rope	Works	
174	Mushroom Platform lift	Works	
175	Bouncy bricks (Unused)	Works	
176	Nothing	N/A	Technically works due to it being nothing

Object ID	Object Name	Compatibility	Notes
177	Nothing	N/A	Technically works due to it being nothing
178	Nothing	N/A	Technically works due to it being nothing
179	Nothing	N/A	Technically works due to it being nothing
180	Climbing Koopa	Works	
181	Nothing	N/A	Technically works due to it being nothing
182	Nothing	N/A	Technically works due to it being nothing
183	Lakitu spawner	Works	
184	Nothing	N/A	Technically works due to it being nothing
185	Cheep Cheep random spawner	Works	
186	Paragoomba	Works	
187	Balance lift	Works	
188	Nothing	N/A	Technically works due to it being nothing
189	Pipe Cannon	Works	Desynchronizes the game
190	Nothing	N/A	Technically works due to it being nothing
191	Hanging Bouncing ? Block	Works	
192	Coin Spawner (unused actor)	Crash	
193	Big Dry Bones	Works	
194	Big Thwomp	Works	
195	0 Stick to bottom length activator left	Works	
196	0 Stick to bottom length activator right	Works	
197	Tile Creator/Destroyer (Tile God)	Crash	
198	In air vertical scroll stop left	N/A	

Object ID	Object Name	Compatibility	Notes
199	In air vertical scroll stop right	N/A	
200	Nothing	N/A	Technically works due to it being nothing
201	Nothing	N/A	Technically works due to it being nothing
202	Nothing	N/A	Technically works due to it being nothing
203	Unused Purple Mushroom Platform Lift	Works	
204	Fire Snake	Works	
205	Flame Chomp Spawner	Works	
206	Ghost house goo	Works	
207	Big Cheep Cheep	Works	
208	Nothing	N/A	Technically works due to it being nothing
209	Sledge Brother	Works	Causes a desync however
210	MvsL Battle Star	Works	Who would've thought
211	Blooper	Works	
212	Blooper Nanny (unused actor 144)	Works	
213	Blooper Nanny that w/ Baby Bloopers	Works	
214	Nothing	N/A	Technically works due to it being nothing
215	Nothing	N/A	Technically works due to it being nothing
216	Nothing	N/A	Technically works due to it being nothing
217	Nothing	N/A	Technically works due to it being nothing
218	Auto-scrolling controller	Works	If the players spawn in the same position after respawning it stops working
219	Spike Top	Works	
220	Bowser Jr.	Works	

Object ID	Object Name	Compatibility	Notes
221	Nothing	N/A	Technically works due to it being nothing
222	Mini Goomba	Works	
223	Flip fence	Works	
224	Big flip fence	Works	
225	Nothing	N/A	Technically works due to it being nothing
226	Scuttlebug	N/A	
227	Moneybag	Works	
228	Roulette Block	Crash	
229	Petey Piranha	Works	
230	Nothing	N/A	Technically works due to it being nothing
231	Water	Works	
232	Hanging ? Block	Works	
233	Swinging/able pole	Works	
234	Lava	Partial	Causes a desync is not using mvslLiquidFix.cpp
235	Star Coin	Crash	
236	Rotating square lift	Works	
237	Broozer	Works	
238	Purple Mushroom Platform lift	Works	
239	Yellow/Orange Mushroom Platform	Works	
240	Nothing	N/A	Technically works due to it being nothing
241	Bill Blaster Turret	Works	
242	Blue Mushroom Platform	Works	
243	Roof Spiny	Works	
244	Bouncy Mushroom Platform	Works	
245	Corked Pipe + foot pump	Crashes	

Object ID	Object Name	Compatibility	Notes
246	Floating barrel	Works	
247	Sushi spawner (shark spawner)	Works	
248	Balloon Boo	Works	
249	Track-controlled wall-jump lift	Works	
250	Crowber	Works	
251	Big Unagi	Crash	
252	Banzai Bill Blaster	Works	
253	Nothing	N/A	Technically works due to it being nothing
254	Kab-omb	Works	
255	Jungle FG Effect (Unused Actor)	Works	
256	Rotating carry-through-wall turntable-like lift	Works	
257	Coin trail Cheep Cheep	Works	
258	Spike Bass (unused object)	Works	
259	Poisoned Water	Partial	Causes desync if not using mvslLiquidFix.cpp
260	Fast Spike Pillar - Down	Works	
261	Fast Spike Pillar - Up	Works	
262	Fast Spike Pillar - Left	Works	
263	Fast Spike Pillar - Right	Works	
264	Mega Ground Pound's sky drops +	Crash	
265	Phantom Hand (Pointing hand)	Works	
266	Invisible Lava Bubble (unused actor)	Works	
267	Nothing	N/A	Technically works due to it being nothing
268	Underwater bounce bubble	Works	
269	Giant Wiggler	Works	

Object ID	Object Name	Compatibility	Notes
270	Smashed pipe object	Works	
271	Crowber spawner	Works	
272	Snowy branch	Works	
273	Snow Spike	Works	
274	Sinking-snow pile	Works	
275	Blockhopper	Partial	Desyncs
276	Scroll and Mario stop sideways	Works	
277	Arrow sign	Works	
278	Groundpound-able ghost house goo	Works	
279	Flipper (one-way gate)	Works	
280	Horizontal camera offset	N/A	Not sure how this object works
281	Squiggler	Works	
282	Swinging/able vine	Works	
283	Spike Bass spawner	Works	
284	Splunkin (pumpkin)	Works	
285	Scuttlebug spawner	N/A	
286	Event controller - multi-chainer	Works	
287	Enemy-in-Pipe Generator	Works	
288	Nothing	N/A	Technically works due to it being nothing
289	Platform Block (expandable block)	Works	Doesn't respawn if it turns into bricks and you collect a battle star.
290	Flying ? Block	Crash	Black screen
291	Brick Block containing ? Switch	Works	? Switch graphics are not loaded correctly
292	Event Activated Door	Works	
293	Touching ground vertical scroll stop left	Works	

Object ID	Object Name	Compatibility	Notes
294	Touching ground vertical scroll stop right	Works	
295	Mummipokey	Works	Use a P-Switch
296	Lift moving left and right	Works	
297	Stonewall moving left and right	Works	
298	Stonewall moving u, d, l, r	Works	
299	Snake Block	Works	
300	Haunted lift	Works	
301	Toadsworth	Works	Only freezes Mario for a few seconds, and Luigi can roam freely. Background chooser will break because of BMG differences.
302	Toad House block	Doesn't work	Garble graphics.
303	Ball 'n' Chain	Works	
304	Spike Pillar - down	Works	
305	Final Castle Create Loop	N/A	I have no idea how this works.
306	Final Castle Wrong Path	N/A	I have no idea how this works.
307	Spike Pillar - up	Works	
308	Spike Pillar - left	Works	
309	Spike Pillar - right	Works	
310	Fog FG effect	Partial	Graphics are not loaded correctly
311	Snow FG effect 1	Works	
312	Rise or lower while/once on Mushroom Platform lift - mechanical	Works	
313	Snow FG effect 2	Works	
314	Snow FG effect 3	Works	
315	Cloud FG effect	Partial	Graphics are not loaded correctly
316	Water FG effect 1	Works	

Object ID	Object Name	Compatibility	Notes
317	Water FG effect 2	Works	
318	Fire FG effect 1	Works	
319	Fire FG effect 2	Works	
320	Fire FG effect 3	Works	
321	Light FG Effect 1	N/A	
322	Light FG Effect 2	Works	
323	Squishy cloud platform	Works	Both players can interact with it at the same time
324	Grassland Clouds FG effect	Partial	Graphics are not loaded correctly
325	Small Grassland Clouds FG effect	Partial	Graphics are not loaded correctly

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