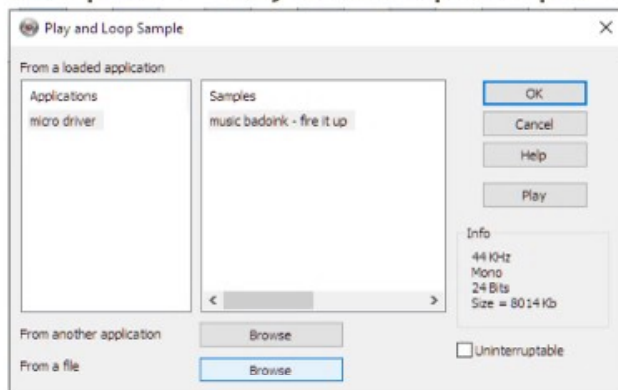In the EVENT EDITOR

Find the condition 'Timer equals 03"-00' (When the race starts)

Add an action by right-clicking under the 'Sound' (Speaker) colomn on the line of that condition.
'Samples' > 'Play and loop sample' > From a file 'BROWSE' > "music badoink - fire it up.mp3"

Find the condition 'Laps of "Group.Vehicles" = 3'

Add an action by right-clicking under the 'Sound' (Speaker) colomn on the line of that condition.
'Samples' > 'Stop any sample playing'

[Test]
[Save]

Making a good track takes time, change the course, CPU normal speeds,
obstacles and checkpoint positions and keep testing and saving your work.

Retro Remakes

Micro Driver

impact GAMERS .net

impact gamers : inspiring makers

This document is part of a series of Clickteam Fusion 2.5 tutorials.
To access the additional video, play the game, download fusion files and assets visit

https://impactgamers.net/retro/micro

Mirco Driver

Click to start, arrow keys to drive

Based on Codemasters 1991/94 smash "Micro Machines" (1 & 2) in this remake we'll look at replicating some of the great aspets this console game had to offer.

MAIN GAME MECHANICS
Above view racing
Scrolling screen view
Obstacles, Checkpoints
Computer Opponents

ESSENTIAL FUSION FEATURES
Qualifier Groups, Alterable Values
Count, Insert Condition, Cloning

REUSABLE SKILL
When a skill is first described

REUSABLE SKILL
When a skill reused

DOWNLOADS
Use files from the website download

BUG
When there is an error in the game

01

Micro Driver Contents

SECTIONS

A) Driving & Obstacles [1:08]

A1) Setup
A2) Player's car
A3) Obstacles
A4) Scrolling and track

B) Opponents and Checkpoints [13:41]

B1) Opponents
B2) Add Checkpoints
B3) CPU driving (difficult section)
B4) Respawning

C) Layers [34:50]

C1) Laps and Timer
C2) Floor
C3) Game Information

D) Optional [45:17]

D1) Losing control
D2) Skidmarks
D3) Music

Storyboard Editor   Event Editor
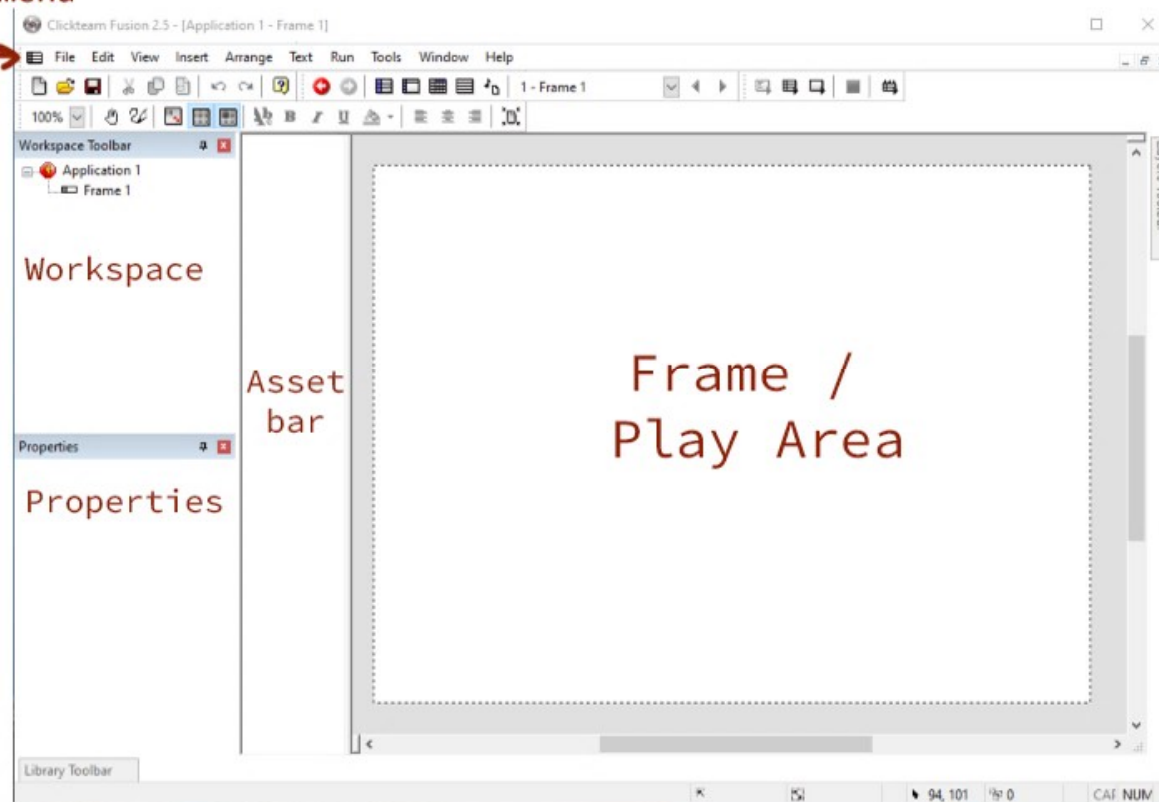
Frame Editor

Top menu

Workspace

Asset bar

Properties

Frame / Play Area

02

Retro Remakes

Load up Clickteam Fusion 2.5

From the top menu select 'File' > 'New Application'

Clickteam Fusion 2.5...

You are now in the 'Storyboard Editor'

[Reusable Skill - Save your game]
From the top menu select 'File' > 'Save' (name your file if it's unnamed)
[End Skill]

Select the application from the top of the Workspace Toolbar to load its Properties

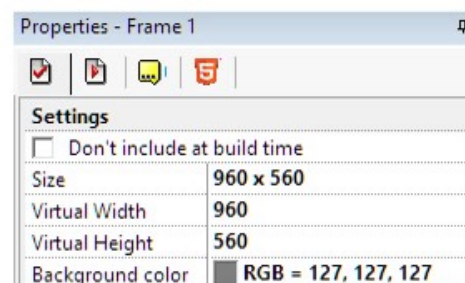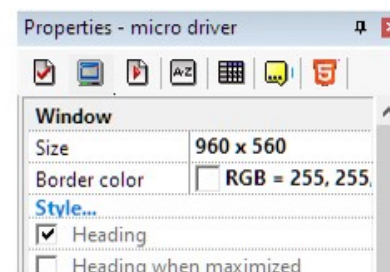From the Properties window select the 'Window' category

Click and type in the 'Size' "960" x "560" and press Enter

Properties - micro driver	
Window	
Size	960 x 560
Border color	RGB = 255, 255,
Style...	
☑ Heading	
☐ Heading when maximized	

When prompted about changing the frame sizes also, click 'Yes'

Click on the blank white preview of Frame 1 to select it

In the Frame 1 Properties Windows 'Settings' category change the 'Background Color' to grey or similar

Click on the number '1' on the first frame preview or the Frame Editor logo to enter the "FRAME EDITOR"

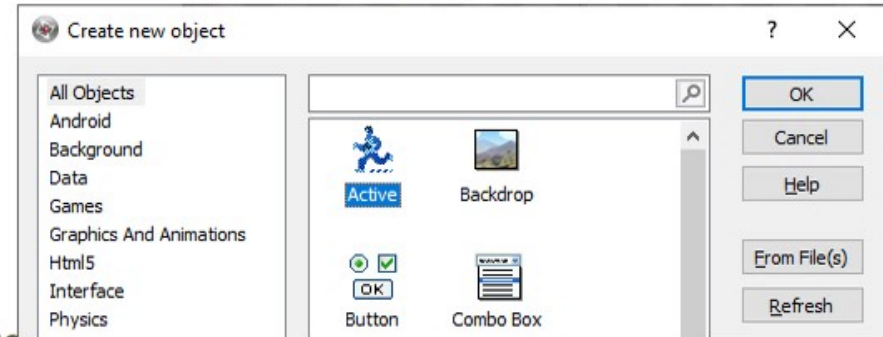| Properties - Frame 1	
Settings	
☐ Don't include at build time	
Size	960 x 560
Virtual Width	960
Virtual Height	560
Background color	RGB = 127, 127, 127

03

[Reusable Skill - Inserting an Object]
From the top bar click 'Insert' > 'New Object'

Click on Active (Available from 'All Objects' or 'Graphics and Animation' category)

Click 'OK'

Click on the frame to drop your object
[End Skill]

[Reusable Skill - Importing Artwork]
Right-Click on the Object and click 'Edit' for Image Editor

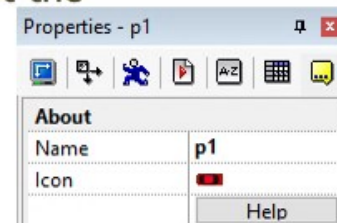Find and select the image 'car p1.png' and click 'OK'

Click 'OK'
[END]

[Reusable Skill - Rename]
With the object selected from the Properties window select the
'About' category

Click on the current name and type in "p1"

Press Enter to accept your new name
[End Skill]

Create new object

All Objects
Android
Background
Data
Games
Graphics And Animations
Html5
Interface
Physics

Active   Backdrop

Button   Combo Box

OK
Cancel
Help
From File(s)
Refresh

Properties - p1

About

| Name	p1
Icon	

Help

04

⭐ [Reusable Skill - Select a Movement]
With the object selected from the Properties window select the 'Movement' category

Click on "Static" next to 'Type' and select "Physics - Race Car Movement"
[End Skill]

If alerts about Physics Engines or Hotspots appear just press 'OK'

In the 'Properties window' under the 'Movement' category > Set 'Speed' to "80" (This is your maximum speed) and Set Elasticity > "33" (% amount you bounce).
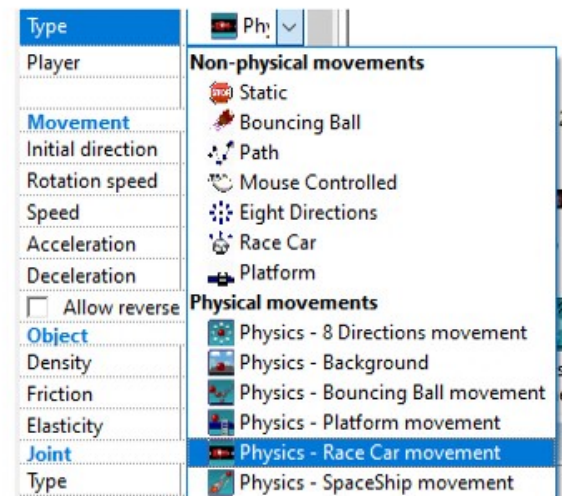
⭐ [Insert an Object] Insert a Physics Engine object and place it outside the left side of the frame

⭐ [Reusable skill - Test]
From the top menu click 'Run' > 'Frame' (Or 'Application', as there is only one frame)

If the window is still open after you have tested your code, close it, otherwise it will restrict your work in the 'Frame Editor'
[End]

Use the arrow/cursor keys to control the cars movement, UP-accelerate, DOWN-break, LEFT/RIGHT steering

Type	▦ Phy ∨
Player	**Non-physical movements**
	🚫 Static
Movement	🪰 Bouncing Ball
Initial direction	⋰ Path
Rotation speed	🖱 Mouse Controlled
Speed	⋮⋮ Eight Directions
Acceleration	🏎 Race Car
Deceleration	⊨ Platform
☐ Allow reverse	**Physical movements**
Object	Physics - 8 Directions movement
Density	Physics - Background
Friction	Physics - Bouncing Ball movement
Elasticity	Physics - Platform movement
Joint	Physics - Race Car movement
Type	Physics - SpaceShip movement

Movement	
Initial direction	— 0°
Rotation speed	20
Speed	80
Acceleration	20
Deceleration	20
☐ Allow reverse	
Object	
Density	30
Friction	100
Elasticity	33

05

[Insert an Object] Insert an "Active" object into the frame
[Import Artwork] 'obstacle post.png'
[Rename] "Post"

[Insert an Object] Insert an "Active" object into the frame
[Import Artwork] 'obstacle fork.png'
[Rename] "Fork"

[Insert an Object] Insert an "Active" object into the frame
[Import Artwork] 'obstacle knife.png'
[Rename] "Knife"

[Insert an Object] Insert an "Active" object into the frame
[Import Artwork] 'obstacle pot.png'
[Rename] "Pot"

Select all the new obstacles you added

[Reusable skill - Select Multiple Objects]
Hold 'Shift' on the keyboard and click on all the objects you want to
select/deselect, clicking without holding 'Shift' will cancel your selection
[End]

[Reusable skill - Add to a Qualifier Group]
In the 'Properties Window' select the 'Events' category
Click in the blank space next to Qualifier(s) > click 'Edit' > click 'Add' > Choose
'Obstacle' > click 'OK' > click 'OK' [End]

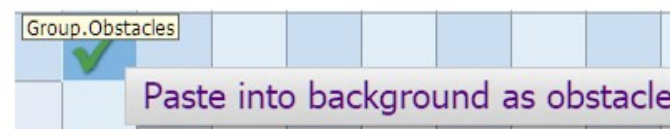Objects qualifiers

Obstacles

06

Click on the 'Event Editor' icon to go to the EVENT EDITOR

Click on 'New Condition' > 'Storyboard Controls' > 'Start of Frame'
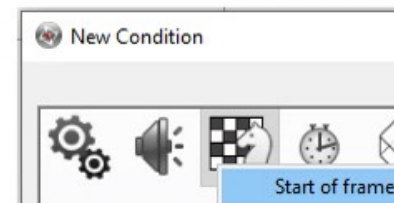
Add an action by right-clicking under the 'Group.Obstacle' colomn on the line of the condition you just made.
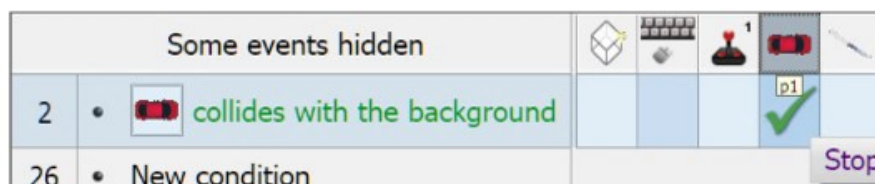
Choose 'Animation' > 'Paste image into background' >
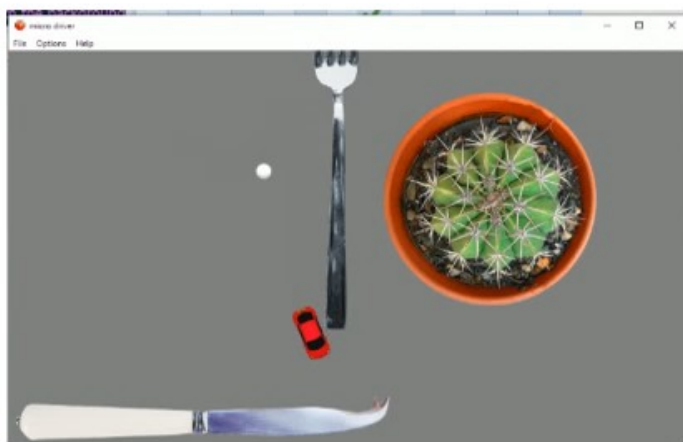Select 'Obstacle' > click 'OK'

Click on 'New Condition' > 'p1' (Player's car) > 'Collision' > 'With backdrop'

Add an action by right-clicking under the 'p1' colomn on the line of the condition you just made.

Choose 'Movement' > 'Stop'

[Test]

Click on the 'Frame Editor' icon to go to the FRAME EDITOR
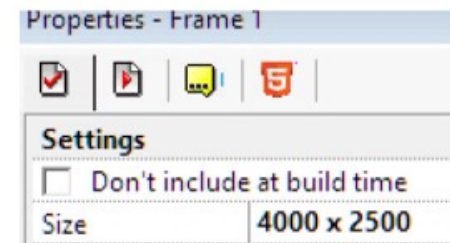
We are going to expand our frame area

Click on 'Frame 1' in the 'Workspace Toolbar'

In the 'Properties Window' under the 'Settings' change the Size to "4000" x "2500"

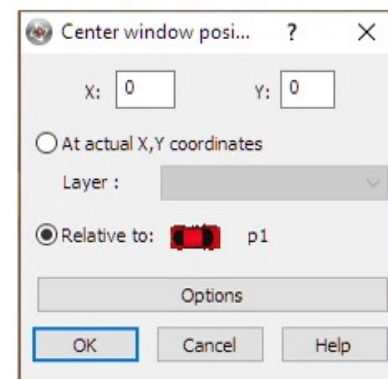Click on the 'Event Editor' icon to go to the EVENT EDITOR

Click on 'New Condition' > 'Special' (Cogs) > 'Always'

Add an action by right-clicking under the 'Storyboard Controls' (Chess board) colomn on the line of the condition you just made.

Click 'Scrollings' > 'Centre window position in frame' > 'Relative to' > 'p1' (Player's Car)

[Test]

Click on the 'Frame Editor' icon to go to the FRAME EDITOR

We are going to add the table for racing on
[Insert an Object] Insert an "Active" object into the frame
[Import Artwork] 'table.png'
[Rename] "Table"

[Insert an Object] Insert an "Active" object into the frame
[Import Artwork] 'bridge.png'
[Rename] "Bridge horz" (for horizontal, we'll be making a vertical version later)

[Mulitple Select Objetcs] Select the 'Table' and 'Bridge horz' objects
[Add to a Qualifier Group] Add to the 'Area' group

[Reusable Skill - Clone]
Right-click on 'Bridge Horz' and click 'Clone', leave the settings as 'rows:1, colomns:2' and click 'OK'
[End]
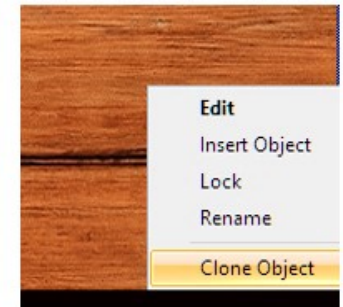
This new cloned object is identical but with different name i.e. 'Bridge Horz 2'

Right click on 'Bridge Horz 2' and click 'Edit', click on the Rotate 90 tool and click 'OK'
[Rename] to 'Bridge Vert'

From the 'Asset toolbar' add in objects to make a track.

!Tip! Use the Grid setup, Zoom 25% and the Tools>Arrange functions to help you build the course

Edit
Insert Object
Lock
Rename

Clone Object

09

[Insert an Object] Insert an Active Object (In cateogry 'All Objects' and 'Graphics and Animation')
[Import Artwork] "car cpu2.png" (make sure Hotspot & Action Point are set to center)

Still in the Image 'Edit' window select the 'Animation' 'Falling'
[Import Artwork] "respawning_01.png" and select 'Import as Animation'
Click 'OK' to return to the Frame Editor

[Rename] 'cpu 2' (CPU is how retro games named the computer opponents)

[Select a Movement] 'Type' > 'Physics - Bouncing Ball movement'
Initial Direction: Reset and inly tick direction 0 (right)
Set Elasticity: 35
Set Gravity Scale: 0
Set Initial Speed: 0
Set Collision Shape: 'First Image'

[Clone] Clone the 'cpu 2' car, with options "Rows 1, Colomns 3"

For objects 'cpu 3' and 'cpu 4' [Import Artwork] "car cpu3.png" and "car cpu4.png"

We are going to place multiple objects into Qualifier Groups

[Select mulitple objects] Select 'p1', 'cpu 2', 'cpu 3' and 'cpu 4'
[Add to a Qualifier Group] 'Vehicles'

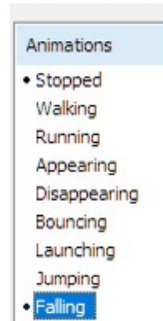[Select mulitple objects] Select just 'cpu 2', 'cpu 3' and 'cpu 4'
[Add to a Qualifier Group] 'NPC' (non-playerable characters)

Animations
- Stopped
- Walking
- Running
- Appearing
- Disappearing
- Bouncing
- Launching
- Jumping
- Falling

Properties - cpu 2

Movement

Movement	Movement #0
Type	Physics - Bou
	Try Mov

Movement

Initial direction	— 0°
Initial speed	0
Deceleration	0

Object

Density	30
Friction	100
Elasticity	35
Gravity scale	0

Vehicles   NPC

10

Click on the 'Event Editor' icon to go to the EVENT EDITOR

Right click on the 'p1' car icon on the top row and select 'Replace by another object'
Chose the 'Group.Vehicles' and click 'OK'
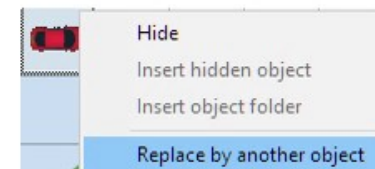
When the warning appears saying 'This action cannot be undone. Do you want to continue' click 'OK'

Click on 'New Condition' > 'Group.Vehicles' > 'Collision' > 'With another object' > 'Group.Vehicles' > 'OK'

Add an action by right-clicking under the 'Group.Vehicles' colomn on the line of the condition you just made.

Choose 'Movement' > 'Stop'

To check when the cars are not on the table we need to run a count (special looping through each instance of an object)

On the 'Always' row, under the 'Group.Vehicles' right-click to add an action
'Count' > 'For each object' and set the name to "falling" (include the double quotation marks) > 'OK'

Click on 'New Condition' > 'Group.Vehicles' > 'Loops' > 'On each object' > "falling" > 'OK'

Right-click on the words in the new conditon 'On each one of' and click 'Insert'
'Group.Vehicles' > 'Collisions' > 'Overlapping an object' > 'Group.Areas' (The table) > 'OK'
Right-click on the words "Is overlapping" and chose 'Negate' to make a X appear

Add an action by right-clicking under the 'Group.Vehicles' colomn on the line of the condition you just made. Choose 'Destroy' [Test] & [Save]

Hide
Insert hidden object
Insert object folder
Replace by another object

11

Click on the 'Frame Editor' icon to go back to the FRAME EDITOR

[Insert an Object] Insert an 'Active' object
[Rename] 'Checkpoint'

Right-click on the 'Checkpoint' object and click 'Edit' for the Image Edit screen.

Click on white piece of paper logo to 'Clear' the image

Pick a bright colour and using the 'Elipise Tool' (E) with 'Filled' option

Drag out a circle filling the available space

Click 'OK'

Click on the 'Checkpoint' object and wait before clicking again until the resize boxes appear.

Stretch the object to be large, just over half the height of the frame.

Drag and position the 'Checkpoint' object behind the cars.

In the 'Properties Window' under the 'Display Options' category
set the Blend Coefficient: 200

From the Asset bar, drag and drop checkpoints all around the track in reverse order,
try not to get them to overlap much.

12
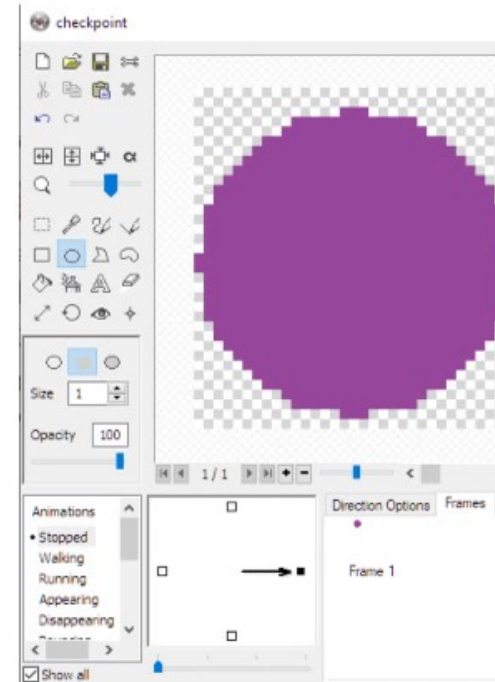
In the 'Properties Window' for the 'Checkpoint' in the 'Values' category
Click 'New' and double-click on the title 'Alterable Value A' and change it's name to 'Number'
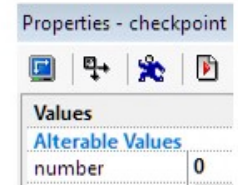
Click on the 'Event Editor' icon to go back to the EVENT EDITOR

On the row 'Start of Frame' right-click under the 'Checkpoint' colomn.

'Alterable Values' > 'Spread Value' > 1 > OK (This will count up from 1 setting the 'Number' value as it goes)

Click on the 'Frame Editor' icon to go back to the FRAME EDITOR

[Select Mulitple Objects] 'p1', 'cpu 2', 'cpu 3' & 'cpu 4'

In the 'Properties Window' in the 'Values' category we are going to add some new
alterable values, name them and set a value
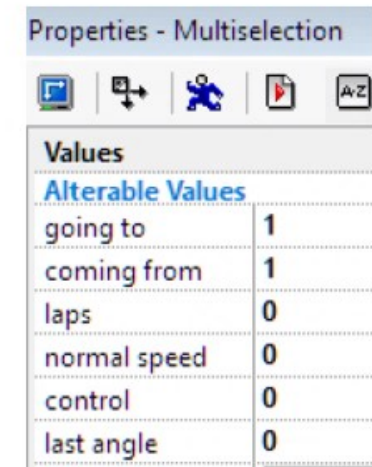
Under 'Alterable Values' click 'New', then double-click the name to rename,
and click on the 0 to set the value
Alterable Value A > going to: 1
Alterable Value B > coming from: 1
Alterable Value C > laps: 0
Alterable Value D > normal speed: 0
Alterable Value E > control: 0
Alterable Value F > last angle: 0

For each cpu car individually set the 'normal speed' alterable value between 50 and 80
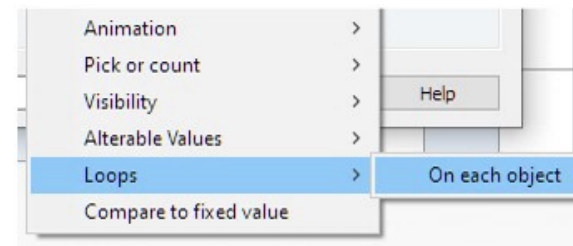
13

Retro Remakes

Click on the 'Event Editor' icon to go back to the EVENT EDITOR

Click on 'New Condition' > 'The Timer' > 'Every' > 0 :Hours, 0 :Minutes, 0 :Seconds, 1 :1/100th Sec > 'OK'

Add an action by right-clicking under the 'Group.NPC' colomn on the line of the condition you just made.

Choose 'Count' > 'For each object' > "aim" (include the double quotation marks) > 'OK'

Click on 'New Condition' > 'Group.NPC' > 'Loops' >
'On each object' > "aim" > 'OK'

Animation	>
Pick or count	>
Visibility	>
Alterable Values	>
Loops	> On each object
Compare to fixed value	

Right-click on the words in the new conditon 'On each one of' and click 'Insert'
'Checkpoint' > 'Alterable Values' > 'Compare to one of the alterable values' > 'Number' 'equal to' and change 0 to going to("Group.NPC")

Add an action by right-clicking under the 'Group.NPC' colomn on the line of the condition you just made.

Choose 'Direction' > 'Look in direction of' > 'Relative to' > 'Checkpoint' > 'OK'

Add another action by right-clicking under the 'Group.NPC' colomn on the
action tick you just added
Choose 'Movement' > 'Physics' > 'Set Linear Velocity' >
normal speed("Group.NPC") > 'OK' > angle("Group.NPC") > 'OK'

14

Retro Remakes

Click on 'New Condition' > 'Group.Vehicles' > 'Collision' > 'With another object' > 'Checkpoint' > 'OK'

Right-click on the words in the conditon 'Collision between' and chose 'Insert
'Checkpoint' > 'Alterable Values' > 'Compare to one of the alterable values' > 'Number' 'equal to' and change 0
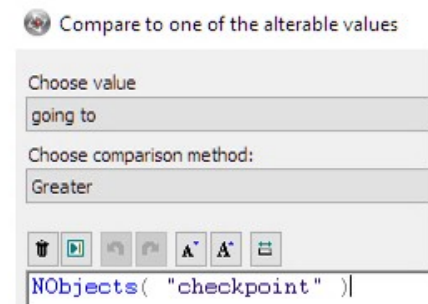to going to("Group.Vehicles")

Add an action by right-clicking under the 'Group.Vehicles' colomn on the line of the condition you just made.

Choose 'Alterable values' > 'Set' > Change value selected to 'Coming from' where the value 0 is change this to
going to("Group.Vehicles") > click 'OK'

Add another action by right-clicking under the 'Group.Vehicles' colomn on the action tick you just added

Choose 'Alterable values' > 'Add to' > 'Going to' and change the value to 1 > 'OK'

Click on 'New Condition' > 'Group.Vehicles' > 'Alterable Values' >
'Compare to one of the alterable values' >
'Going to' is 'Greater than' NObjects("checkpoint") >
'OK'

Add an action by right-clicking under the 'Group.Vehicles' colomn on the line of
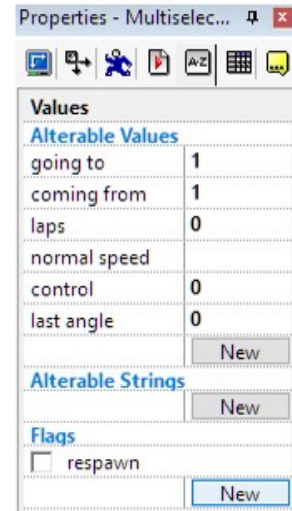the condition you just made.
Choose 'Alterable values' > 'Add to' > 'Laps' and change the value to 1 > 'OK'

Add another action to 'Group.Vehicles' ontop on the previous one
Choose 'Alterable values' > Set' > 'Going to' and change the value to 1 > 'OK'

[Test] Reposition obstables or checkpoints to mkae things work well [Test] again [Save]

15

Click on the 'Frame Editor' icon to go back to the FRAME EDITOR

[Select Mulitple Objects] 'p1', 'cpu 2', 'cpu 3' & 'cpu 4'

In the 'Properties Window' in the 'Values' category we are going to add a new flag

Under 'Flags', Click 'New', then double-click the name to rename and call it "respawn"

Click on the 'Event Editor' icon to go back to the EVENT EDITOR

Properties - Multiselec...

Values
Alterable Values

going to	1
coming from	1
laps	0
normal speed	
control	0
last angle	0
	New

Alterable Strings

	New

Flags
☐ respawn

	New

Find the line/row for condition 'X "Group.Vehicles" is overlapping "Group.Area"'
On that row right-click on the action tick under the Group.Vehciles colomn ('Destroy')
'Delete' that action tick

5	• On each one of 🚗 , loop name "falling" + ✗ 🚗 is overlapping ⬚					✓		
6	•					**Destroy**		

Right-click on the same square to add a new action
'Flag' > 'Set on' > 'respawn' > 'OK'

5	• On each one of 🚗 , loop name "falling" + ✗ 🚗 is overlapping ⬚				✓			
6	•					**Set respawn on**		

16

Retro Remakes

Click on 'New Condition' > 'Group.Vehicles' > 'Collision' > 'With another object' > 'Checkpoint' > 'OK'

Right-click on the words in the conditon 'Collision between' and chose 'Insert'
'Checkpoint' > 'Alterable Values' > 'Compare to one of the alterable values' >
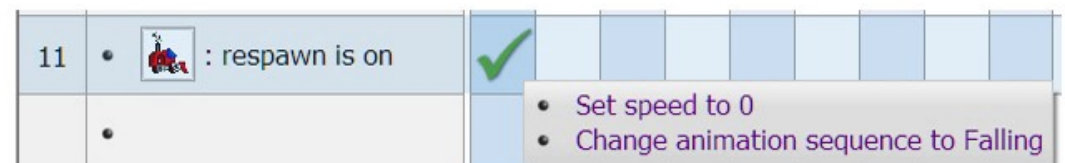'Number' 'Different' and change 0 to going to("Group.Vehicles")

Again right-click on the words in the conditon 'Collision between' and chose 'Insert'
'Checkpoint' > 'Alterable Values' > 'Compare to one of the alterable values' >
'Number' 'Different' and change 0 to coming from("Group.Vehicles")

Add an action by right-clicking under the 'Group.Vehicles'
colomn on the line of the condition you just made.

'Flag' > 'Set on' > 'respawn' > 'OK'

Click on 'New Condition' > 'Group.Vehicles' > 'Alterable Values' > 'Flags' > 'is flag on' > 'respawn' > 'OK'

Add an action by right-clicking under the
'Group.Vehicles' colomn on that line

'Movement' > 'Set speed' > 0 > 'OK'

Add another action to that square for 'Group.Vehicles'

'Animation' > 'Change Animation Sequence' > 'Falling' > 'OK'

17

Click on 'New Condition' > 'Group.Vehicles' > 'Animation' > 'Has an animation finished' > 'Falling' > 'OK'

Right-click on the words in the conditon 'animation Falling is over' and chose 'Insert' 'Checkpoint' > 'Alterable Values' > 'Compare to one of the alterable values' 'Number' 'equal to' and change 0 to coming from("Group.Vehicles")

Add an action by right-clicking under the 'Group.Vehicles' colomn on the line of the condition you just made.

'Position' > 'Select position' > 'Relative to' > 'Checkpoint' > 'OK'

- Set position at (0,0) from
- Set speed to 0

Click on 'New Condition' > 'Group.Vehicles' > 'Animation' > 'Has an animation finished' > 'Falling' > 'OK'

Right-click on the words in the conditon 'animation Falling is over' and chose 'Insert' 'Checkpoint' > 'Alterable Values' > 'Compare to one of the alterable values' 'Number' 'equal to' and change 0 to going to("Group.Vehicles")

'Direction' > 'Look in direction of' > 'Relative to' > 'Checkpoint' > 'OK'

On the same action, right-click to add another action 'Animation' > 'Change' > 'Animation sequence' > 'Stopped' > 'OK'

- Look at (0,0) from
- Set respawn off
- Change animation sequence to Stopped

Finally on the same action, right-click to add a third action 'Flags'> 'Set off' > 'Respawn' > 'OK' [Test] Move any checkpoints that are causing issues

In the 'Workspace Toolbar' or the 'Assets bar' click on the 'Checkpoint' icon In the 'Properties' 'Display Options' category uncheck 'Visible at start' [Save]

Retro Remakes
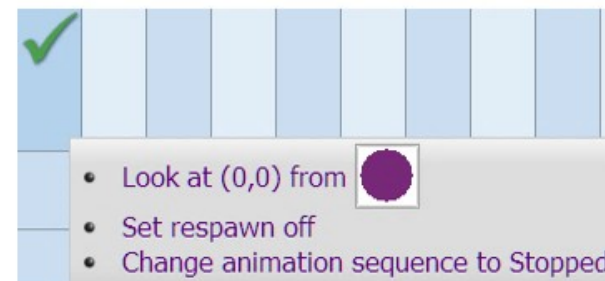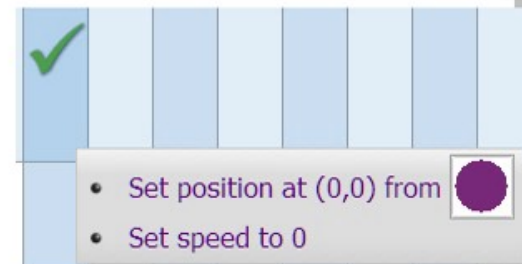
Click on the 'Frame Editor' icon to go to the FRAME EDITOR

We are going to add some counters to the game, one for laps another for time.

Open the 'Layers Toolbar' by clicking on the Layers Toolbar tab on the right hand side of the frame.

!Tip! If the Layer Toolbar is not available reactivate it from the top menu
'View' > 'Toobars' > 'Layer' (or press Control+K)

Click the white piece of paper to create a new layer.

Uncheck the eye logo on layer 1, so that layer is hidden.

With Layer 2 selected, In the 'Properties Window' change the X and Y coefficient to 0
(This means this layer will scroll at 0%, so not scroll at all)
You can also rename the Layer to "HUD" (heads up display) or "GUI" (graphichal user interface)
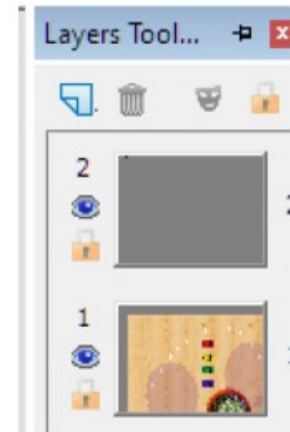
[Insert an object] Insert a 'String' object to the top left
In the 'Properties Window' in the 'Settings' category change the 'Paragraph' to have the value "Time"
In the 'Properties Window' in the 'Text Options' category change the 'Font' to the font and size you want
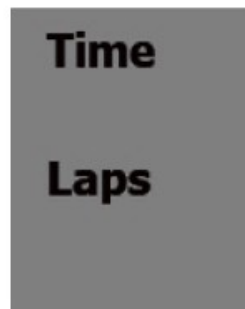[Rename] "Title Time"

[Clone] This string and move it below
In the 'Properties Window' in the 'Settings' category
change the 'Paragraph' to have the value "laps"
[Rename] "Title Laps"

Time

Laps

[Insert an object] Insert a 'Counter' object under 'Title Time'
In the 'Properties Window' in the 'Settings' category change the 'Type' to 'Numbers'
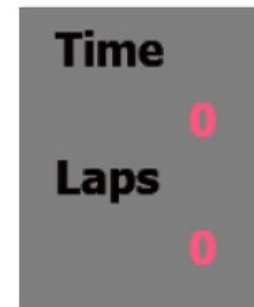In the 'Properties Window' in the 'Text Options' category change the 'Font'
to the font and size you want
[Rename] "Time"
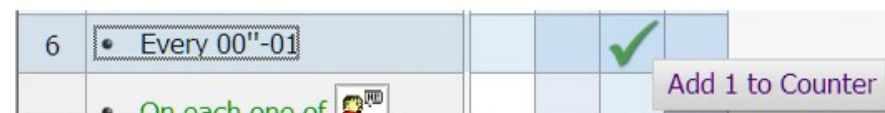
[Clone] This counter and move it below 'Title Laps'
[Rename] "Laps"

On the 'Layers Toolbar' select Layer 1 (The Game) and click the Lock icon on Layer 2 (HUD/GUI) to stop it from being edited

Click on the 'Event Editor' icon to go back to the EVENT EDITOR

Find the condition 'Every 00"-01' (Every 1/100th second)

| 6 | • Every 00"-01 | | ✓ | |

Add 1 to Counter

• On each one of

On that row under the 'Timer' counter colomn, right-click and add the action
'Add to counter' > and change the value to 1 > 'OK'

Find the condition 'Always'
On that row under the 'Laps' counter colomn, right-click and add the action
'Set counter' > and change the value to laps("p1") > 'OK'

	All the events	abc	abc	123	123
					laps
3	• Always				✓
4	• Collision between				

Set Counter to laps(" 🚗 ")

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Click on the 'Frame Editor' icon to go to the FRAME EDITOR

Open the 'Layers Toolbar' by clicking on the Layers Toolbar tab on the right hand side of the frame.

Click the white piece of paper to create a new layer.

Click and drag this new layer (3) under all the other layers (1)

With the new layer (1) selected, In the 'Properties Window' change the X and Y coefficient to 0.7
(This means this layer will scroll at 70%, so not as quickly as the game layer)
You can also rename the Layer to "Floor"
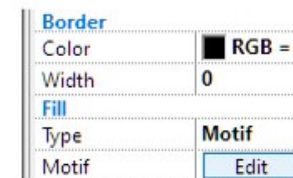
[Insert an object] Insert a 'Quick Backdrop' object (Not 'Backdrop') to the top left
In the 'Properties Window' in the 'Settings' category change the 'Type' to 'Motif'
In the 'Properties Window' in the 'Settings' category under 'Motif' click 'Edit'
[Importing Artwork] Import the image "bg floor.png"
[Rename] "Floor"

In the 'Properties Window' in the 'Size/Position' category change the values
X: 0
Y: 0
Width: 4000
Height 2500
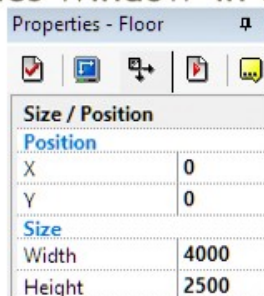
[Test]

It should now fill the layer and when in game move slower than the other layers
This different speed makes it seem to be at a different depth, this is called parallaxing
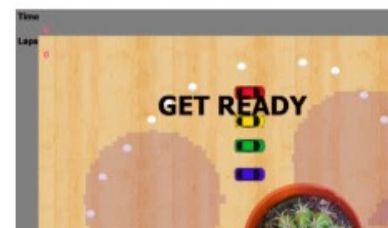
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Still in the FRAME EDITOR

Open the 'Layers Toolbar' by clicking on the Layers Toolbar tab on the right hand side of the frame.

Click the on the top layer (3) with the Timer and Laps

Uncheck the lock icon to unlock it

[Insert an object] Insert a 'String' object to the center of the screen boundary
In the 'Properties Window' in the 'Settings' category change the 'Paragraph' to have the value "GET READY"
In the 'Properties Window' in the 'Text Options' category change the 'Font' the font and size you want and align it to 'Center'
[Rename] "Info"

Click on the 'Event Editor' icon to go back to the EVENT EDITOR

Click on 'New Condition' > 'Info' (The String you just added) > 'Visibility' > 'If "Info" is visible'

Add an action by right-clicking under the 'Player 1' (Joystick icon) colomn on the line of the condition you just made.
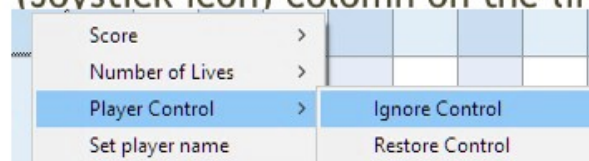
'Player Controls' > 'Ignore Controls'

On the same line add an action by right-clicking under the 'Group.Vehicles' colomn

'Movement' > 'Set Speed' > 0 > 'OK'

Now for when it's invisible

Click on 'New Condition' > 'Info' > 'Visibility' > 'If "Info" is invisible'

Add an action by right-clicking under the 'Player 1' (Joystick icon) colomn on the line of the condition you just made.

'Player Controls' > 'Restore Controls'

[Test]

!Bug! The timer starts before the race begins, and the other cars have changed their directions

Find the condition 'Every 00"-01' (Every 1/100th second)

Right-click on the words and chose 'Insert'
'Info' > 'Visibility' > 'If "Info" is invisible'

[Test] The events work well, now we need to countdown to the start of the race

Click on 'New Condition' > 'The Timer' > 'Is the timer equal to a certain value' > 1 second (0 for all others)
Add an action by right-clicking under the 'Info' (String) colomn on the line of the condition you just made.
'Change alterable string' > "SET" (Leave in double quotation marks) > 'OK'

Click on 'New Condition' > 'The Timer' > 'Is the timer equal to a certain value' > 2 seconds (0 for all others)
Add an action by right-clicking under the 'Info' (String) colomn on the line of the condition you just made.
'Change alterable string' > "GO!" (Leave in double quotation marks) > 'OK'

Click on 'New Condition' > 'The Timer' > 'Is the timer equal to a certain value' > 3 seconds (0 for all others)
Add an action by right-clicking under the 'Info' (String) colomn on the line of the condition you just made.
'Visibility' > 'Make Invisible' > 'OK'

Click on 'New Condition' > 'Group.Vehicles' > 'Alterable Values' > 'Compare to one of the alterable values'
> 'Laps' 'Equal' 3 > 'OK'

Add an action by right-clicking under the 'Info' (String) colomn on the line of the condition you just made.

'Change alterable string' > OName("Group.Vehciles")+" wins, press R to restart" (Leave in double quotation
marks) > 'OK'
Add another action to the same action you just made
'Visibility' > 'Make Visible' > 'OK'

Enter expression to calculate :

OName$("Group.Vehicles") + " wins, press R to restart"
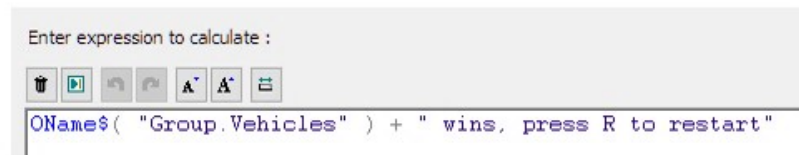
Click on 'New Condition' > 'The Mouse Pointer and Keyboard' > 'The Keyboard' > 'Upon pressing a key' > "r"

Add an action by right-clicking under the 'Storyboard Controls' (Chess board)
colomn on the line of the condition you just made.
'Restart the application'

[Test] [Save]

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Retro Remakes

Click on the 'Event Editor' icon to go back to the EVENT EDITOR

Find the line which has the condition 'Collision between "Group.Vehicles" and "Group.Vehicles"'

Right-click on the "Group.Vehicles" colomn on that line, ontop of the action tick that is already there "Alterable Values' > 'Add to' > 'Control' 13 (or any number between 10-20)

This is how long they will lose control for in 1/100ths of seconds after a collision

Find the line which has the condition 'Every 00"-01' (Every 1/100th second)
Right-click on the "Group.Vehicles" colomn on that line
"Alterable Values' > 'Subtract' > 'Control' 1

This is for them to regain control

Click on 'New Condition' > 'Group.Vehicles' > 'Alterable Values' > 'Compare to one of the alterable values' > 'Control' 'Lower' 0 > 'OK'

Add an action by right-clicking under the 'Group.Vehicles' colomn on the line of the condition you just made "Alterable Values' > 'Set' > 'Control' 0

Find the line which has the condition 'On each one of "Group.NPC", loop name "aim"'
Right-click on the words "On each one of" and chose 'Insert'

'Group.Vehicles' > 'Alterable Values' > 'Compare to one of the alterable values' > 'Control' 'Lower or equal' 0 > 'OK'

[Test]

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Retro Remakes

Click on the 'Frame Editor' icon to go to the FRAME EDITOR

[Inserting an Object] Insert an 'Active' object above your frame
[Importing artwork] Import 'skid.png'
[Rename] 'skid'

We are going to expand the use our falling count loop for the Group.Vehicles
Click on 'New Condition' > 'Group.Vehicles' > 'Loops' > 'On each object' > "falling" > 'OK'

Right-click on the words in the new conditon 'On each one of' and click 'Insert'
'Special' (Cogs) > 'Compare two general values' >
In the top 'Enter expressions and choose the comparison method...' box write

Abs(Angle("Group.Vehicles") - last angle("Group.Vehicles"))

Then select 'Greater' and in the bottom box put 20 > 'OK'

Again right-click on the words in the new conditon
'On each one of' and click 'Insert'
'Special' (Cogs) > 'Compare two general values' >
In the top 'Enter expressions and choose the comparison method...' box write

Abs(Angle("Group.Vehicles") - last angle("Group.Vehicles"))

Then select 'Lower' and in the bottom box put 90 > 'OK'

This abs function is giving us the positive value of the difference between the cars
angle and the last angle variable

	On each one of 🏎️ , loop name "falling"
22	Abs(Angle(" 🏎️ ") - last angle(" 🏎️ ")) > 20
	Abs(Angle(" 🏎️ ") - last angle(" 🏎️ ")) < 90

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Retro Remakes

On that line with the large condition you have made right-click under 'Create new objects' (Shiny box) colomn
'Create object' > 'skid' > 'OK' > 'Relative to' > 'Group.Vehicles'

On the same line under the 'skid' colomn
'Scale / Angle' > 'Set Angle' > Angle("Group.Vehicles") > 'OK'

This will set the angle of the skid to match the car, now we need to use the 'last angle' variable

Click on 'New Condition' > 'The Timer' > 'Every' >
0 :Hours, 0 :Minutes, 0 :Seconds, 20 :1/100th Sec > 'OK'
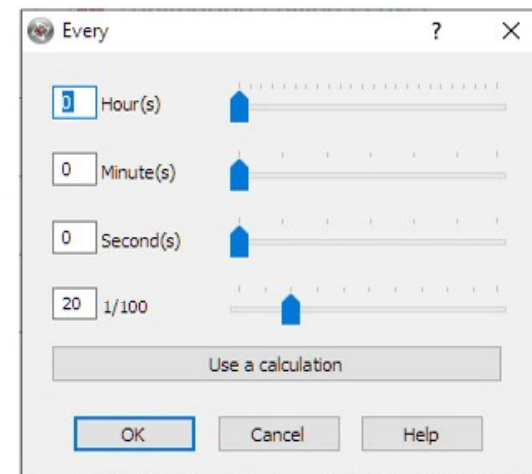
Add an action by right-clicking under the
'Group.Vehicles' colomn on the line of the
condition you just made.

'Alterable Values' > 'Set' > 'Last angle' Angle("Group.Vehicles")

[Test]
!Bug! The skid marks go over the car and when too many appear it glitches the game
To resolve this we will cause them to fade away and cars to appear above them

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In the EVENT EDITOR

Click on 'New Condition' > 'The Timer' > 'Every' >
0 :Hours, 0 :Minutes, 0 :Seconds, 1 :1/100th Sec > 'OK'

Add an action by right-clicking under the 'Skid' colomn on the line of the condition you just made.
'Alterable Values' > 'Add to' > 'Alterable value A' 1
(we can rename this value in the object properties to "fade" to help us remember what it is if we want)

- Add 1 to fade
- Set alpha-blending coefficient to fade("   ")
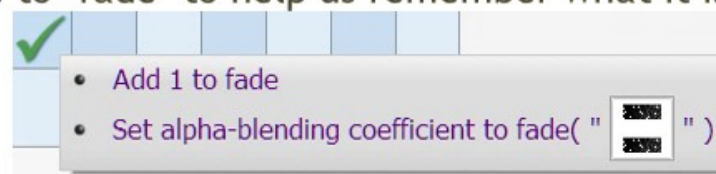
Add another action by right-clicking under the 'skid' colomn on the line on the same action.

'Effect' > 'Set alpha-belnding coefficient' > Alterable Value A("skid")

Click on 'New Condition' > 'skid' > 'Alterable Values' > 'Compare to one of the alterable values' >
'Alterable Value A' 'Greater' 255

An alpha-belnding coefficient of 255 is totally transparent, 0 is solid

Add an action by right-clicking under the 'skid' colomn
on the line of the condition you just made.
'Destroy'

| 25 | • Fade of ▨ > 255 | ✓ |
| 26 | • New condition | Destroy |
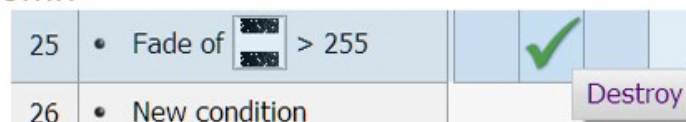
Find the 'Always' condition and add two action one under 'Group.Vehicles' the
other on 'Group.Obstacles' 'Order' > 'Bring to Front'
[Test] [Save]