Overview

The story continues: After the conversation, we want skaterGirl to get on the skateboard, make the jump, and then skate around one of the cones.

We will do:

- To move around an object
- Animating parts of objects
- Changing during animations
- Changing properties during setup
- Creating new methods
- Animating objects
- Using As Seen By
- Animating parts of objects

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Skater World: Part Two
Methods

• A method is a sequence of instructions that will be carried out when requested. Built-in methods are used to create new methods so that the characters can learn to do more.

• The two types of methods are class-level and world-level methods. A class-level method defines the behavior for a single object. A world-level method has objects that interact with each other. A world-level method has methods that the characters can learn to do more.

To Create your method

• Since our methods involve several objects, we will create world-level methods.

• Click on world in the object tree. Click on the methods tab in the details areas.

• Click create new method. Name it "makeJump".

• Click OK. A new tab appears in the method editor.
The Events Pane

This is where you control when certain methods are called and the user interactions within your animation.

Introducing Another Tool

When the world starts . . .

- As we write this new method, we don’t want to watch the entire conversation we wrote from part one every time we play the world.
- In the Events pane, click on the arrow and select `makeJump` from the drop down menu.
In our story, we want the girl to go to the skateboard.

- Click on the `makeJump` tab in the method editor. On top of the `Do Nothing` drag in the `skaterGirl` move to `skateboard`, the entire skateboard.
- In our story, we want the girl to go to the skateboard.

The `skaterGirl` needs to move to the center of each object.

We would have to manually measure how far the move to method uses the center of each object.

The girl moves into the skateboard because the `makeJump` method uses the center of each object.

Play your world.

Wrong

See the next slide for screenshot of what went  

Writing `makeJump` method
To realistically make the skaterGirl move to the skateboard, we will put an invisible object on top of the skateboard and have skaterGirl move to that object. First, we want the skaterboard and box oriented correctly.

Click on Add objects. Go to the Shapes folder. Drag a box into your world. Drag the box to the Shapes folder. Drag the box to that skateboard and have skaterGirl move to the skateboard and have skaterGirl move to that object. Right-click on the skateboard, select methods, turn to face, jump. Right-click on the box, select methods, turn to object tree. Select skateboard in the object tree. Select box, select methods orient to skateboard, the entire skateboard.

Positioning the Box
Using Quad View

Now, click on quad view. Use the move arrow to position the box on top of the skateboard. Remember to hold down shift as you drag in order to move up or down.

Step Three: Properties

• Now that we've positioned our box, we want it to always move together with another object. They attach to each other.

– The vehicle property attaches an object to the entire skateboard:

– In the properties tab, set the box's vehicle property to skateboard moves.

Attaching objects together
Change makeJump

• Click on the makeJump method in the move to instruction, click on the arrow beside the skateboard. Change it to box because we want skaterGirl to move to the box, not the skateboard. Play your world.

Understanding vehicle property

• Click Done to exit the gallery.

Wrong

See the next slide to see what went wrong.

Drag the following into the Do together method.

Drag do together into the makeJump method.

Click do together into the makeJump.

Drag Do together into the makeJump.

Understand vehicle property
• Right click on the box instruction and select disable.

• Play your world to see the box move with the skateboard since the skateboard is the box’s vehicle.

• Now that you see how vehicle property works, delete everything in this by dragging it up to the trashcan.

Properties continued: Making an object invisible

• Now that the box is positioned and attached, we need to make it invisible. We only need to move the object that is the vehicle, the skateboard. We only need to move the object that is the vehicle, the skateboard.

• Right click on the box instruction and select disable.

By dragging it up to the trashcan, delete everything in this do together.
• Finally, we can change the color of objects.
  • Click on the cone in the object tree. In the properties tab, change the color to orange. Do this to every cone.
  • You can even change the color of default Alice objects. For example, click on ground in the object tree and change its color to green.
  • While skaterGirl is on the board, we want her vehicle property to be changed during the animation, drag her vehicle property to skateboard in the object tree. Click on skaterGirl in the object tree and change her vehicle property to be skateboard.
  • While skaterGirl is on the board, we want her skaterGirl Vehicle to be skateboard.
Continue makeJump method

Now, when the skateboard turns to face the jump object, skaterGirl's head will turn right.

Since we want this to happen at the same time, first, drag in the control statement, Do together. Select skateboarding turn to face jump.

Drag head into the upperBody, neck.

Expand skaterGirl,

Drag by the + tree by the +

To animate part of an object, expand the object in the object tree. Expand the object in the object tree by the +.

Result:

duration to 0.5

revolution, set turn, right, ¼ revolution.

Select do together. Select skateboarding turn to face jump.

Set duration to 0.5.

• Drag in skateboarding turn to face, select jump.

• Drag together

• Since we want this to happen at the same time, first, drag in the control statement, Do together.

• Jump object, skaterGirl's head will turn right.

• Now, when the skateboard turns to face the jump object, skaterGirl's head will turn right.

Animatimg Parts Of Objects
• Next, (underneath the do together), drag in skateboard from the object tree.
• Select move toward 1 meter, jump.
• Change the 1 meter so that the girl will not be a pause between each instruction.

Finish writing makeJump
• We change the style to abruptly so that there

Finish each instruction. Play your world when you

Notice the change in style and duration of
the next two slides.
The complete method is on
Drag in the rest of the instructions underneath

Finish writing makeJump
The makeJump method:

• First drag in all of the instructions.
• Then change the duration and style appropriately.

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The makeJump method:

• First drag in all of the instructions.
• Then change the duration and style appropriately.

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The makeJump method:
Call MakeJump

• Now we need to call our new method. Click on world.myfirstMethod tab.

• Drag in the following code. *except turn to face whichever cone is closest to the „jump‟ object

Writing SkateCircle

• Drag in the following code. "When the world starts” change the event

• Play your world back to my first method

Call MakeJump
Step Five: As Seen By

• To make the skateboard turn around the cone, for the final instruction in skateCircle:

  Call skateCircle

• Drag skateCircle underneath the instructions in world.my first method

• Play your world

• You may have to change the move forward amount in the `move` function

Click on more, select `asSeenBy`, cone2.

27
Write skaterGuy.celebrate

• Click on skaterGuy. Create a new method, name it celebrate.

Write your own short method to have him celebrate the jump.

• Drag skaterGuy.celebrate into the method above the world.mylittleMethod tab.

• Click on the world.myfirstMethod tab.

• Drag skaterGuy.celebrate into the method above world.skateCircle

Call skaterGuy.celebrate
Congratulations, this is the end of Part Two

In Part Three, we will go over camera control and how to allow the user to interact with the animation.

This is the end of Part Two.