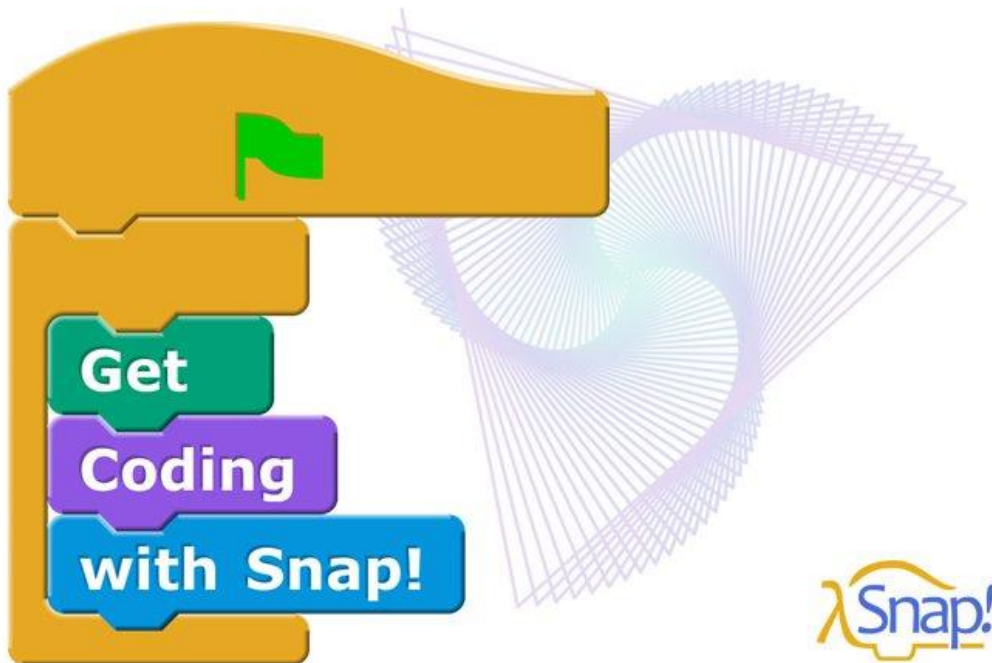


openSAP Get Coding with Snap!

Exercises Week 1 Unit 5

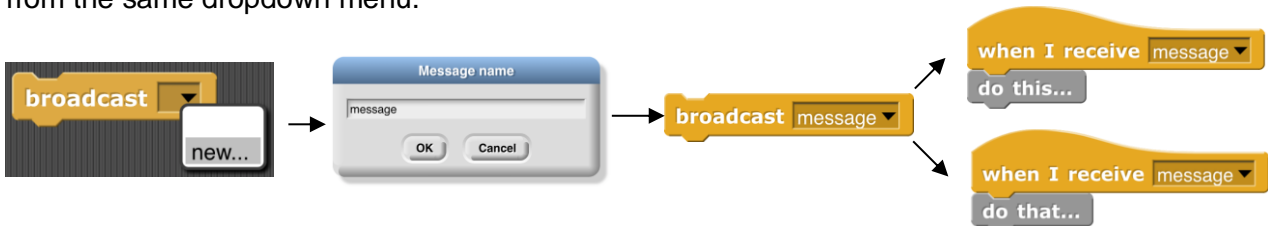


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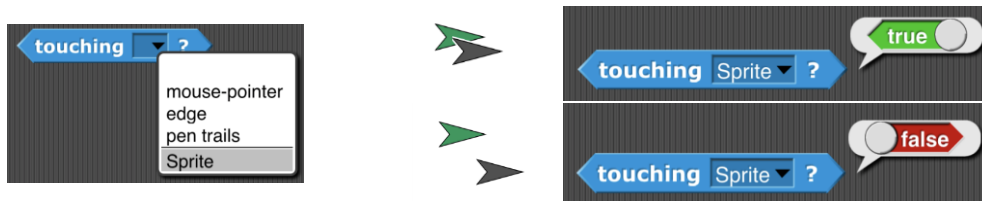


WHAT YOU HAVE LEARNED THIS WEEK

In this week, you learned how to let different sprites interact with each other. You can let sprites communicate via the “broadcast”-block. It broadcasts a message to all sprites and every sprite that has one or more “When I receive (message)” hat blocks with the corresponding message, reacts accordingly. You can create a new message by clicking on the input slot of the “broadcast” or “When I receive” block and select “new...” or pick one of the existing messages of your project from the same dropdown menu.



Additionally, you learned how to check for “physical” sprite interaction with the “touching”-predicate. You can select another sprite of your project from the block’s dropdown menu. The block then reports “true”, whenever the currently selected sprite is touching the sprite indicated in the input slot and “false” otherwise.



Especially when programming games pick the “touching (sprite)” block over the “touching (color)” block. “touching (color)” checks for pixel color in the neighboring pixels and is therefore much slower than “touching (sprite)”.

Moreover, you got to know another way to dress a sprite up with costumes – the media library. The costume library can be accessed in the file menu under “Costumes...”



Last but not least, you learned more about the current settings of your sprite. In the sprite settings, you can define the rotation style of your sprite (1) to let it rotate in all directions, make it only look left/right or don't rotate at all, see its current costume (2), give it a name (3), or decide, whether it's draggable or can only be moved programmatically (4).



Useful Blocks

Sends a message to all sprites in the project	broadcast message ▾
Triggers the script below whenever the message in the input slot is broadcast by the same or another sprite	when I receive message ▾
Reports "true" when the sprite that runs the block is touching the sprite indicated in the input slot and false otherwise. Also works for edge, pen trails and mouse pointer.	touching Sprite ▾ ?
This block interrupts the script until the time indicated in the input slot is passed.	wait 1 secs
This block interrupts the script until the condition in the input slot is met. Then the rest of the script continues.	wait until ▮
This block lets a sprite point towards the object indicated in the input slot, like mouse pointer, another object, or the stage's center	point towards ▾

YOUR TURN

- Add another level to your game.
- Change the difficulty in each level by making a variable for the speed of your sprite and using that as an input to the move block. Increase the speed in each level.
- Create a little “user interface”, which
 - explains the game at the beginning
 - asks the user for his or her name and saves the name in a “player” variable
 - congratulates the player, when you he or she made it through all the mazes (for that, you also need to define an end of the game)

These blocks might be useful:

ask what's your name? and wait

answer

say Hello! for 2 secs

- Include a timer to find out, how long it took the user to solve the mazes. Reset the timer at the beginning and use the “timer”-reporter to let your sprite say the time after the game is finished.

These blocks might be useful:

reset timer

timer

Coding Samples

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