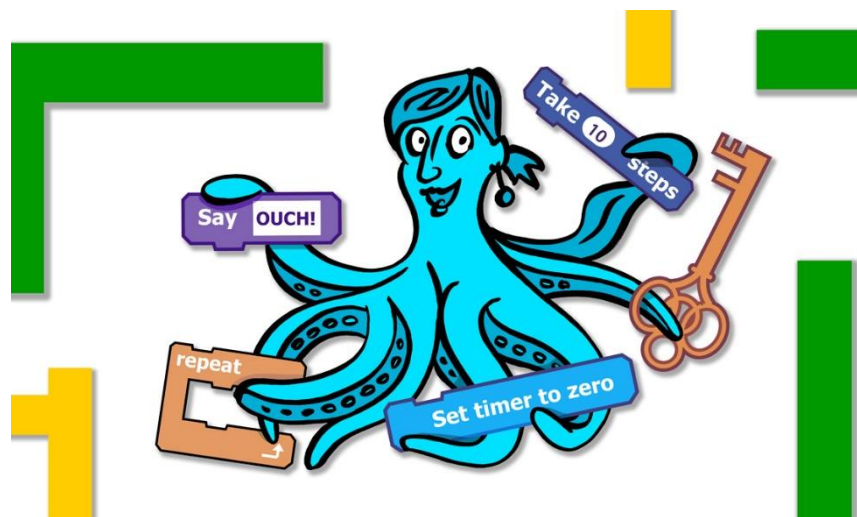TUDelft

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Course material – Class 1 – Donald Duck

Scratch: Programming for Teachers

MOOC – starts October 8th, 2018

This content has been created by:
Dr. Ir. Felienne Hermans

Class 1, Donald Duck, week 2

Programming a story

In code, you can built pretty much everything! Also a comic book story.

This lesson, we'll be creating a story from Donald Duck. Read the comic strip below carefully:

The first piece of text text

Magica is the first one to talk, but, of course, she is disguised as Donald Duck! Magica/Donald says: "Hi uncle Scrooge!". Let's built that in first.
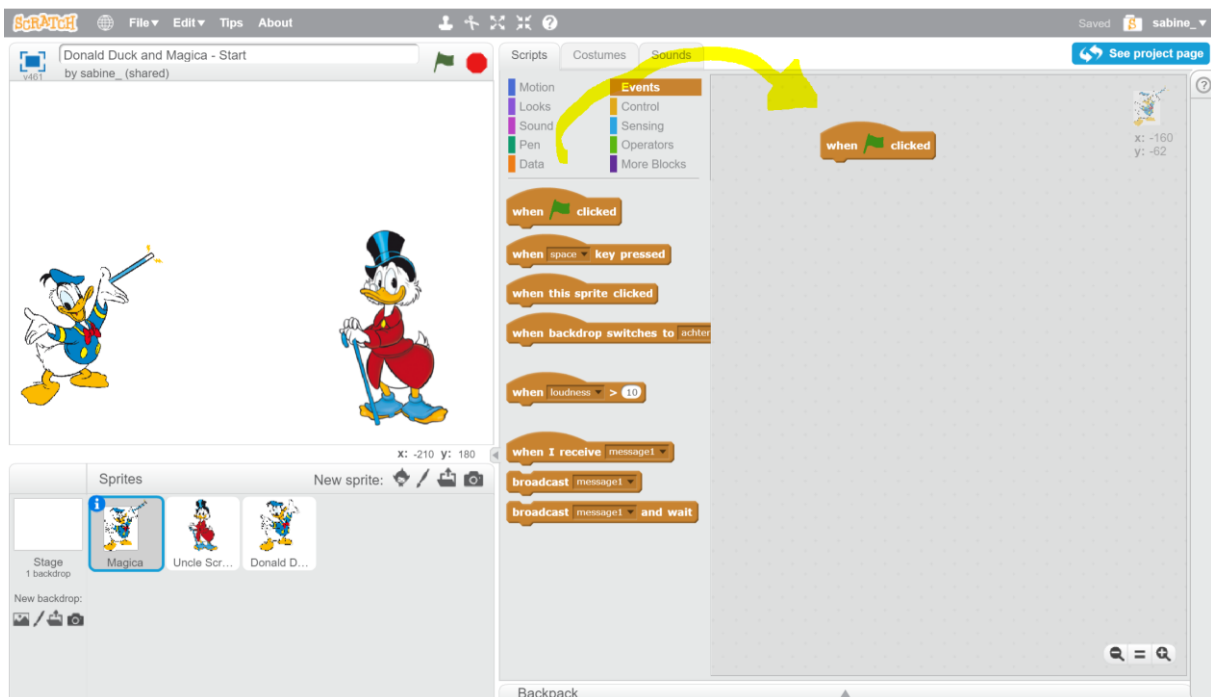
Select the first sprite in the program. In case you missed the link, click here to go to the start of this story.

Select the **first sprite** that we called "Magica". Watch the yellow arrow carefully!
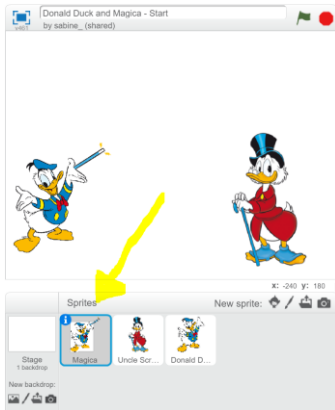
Then, go to [Events], pick [when ▶ clicked] and drag this to the grey coding area.
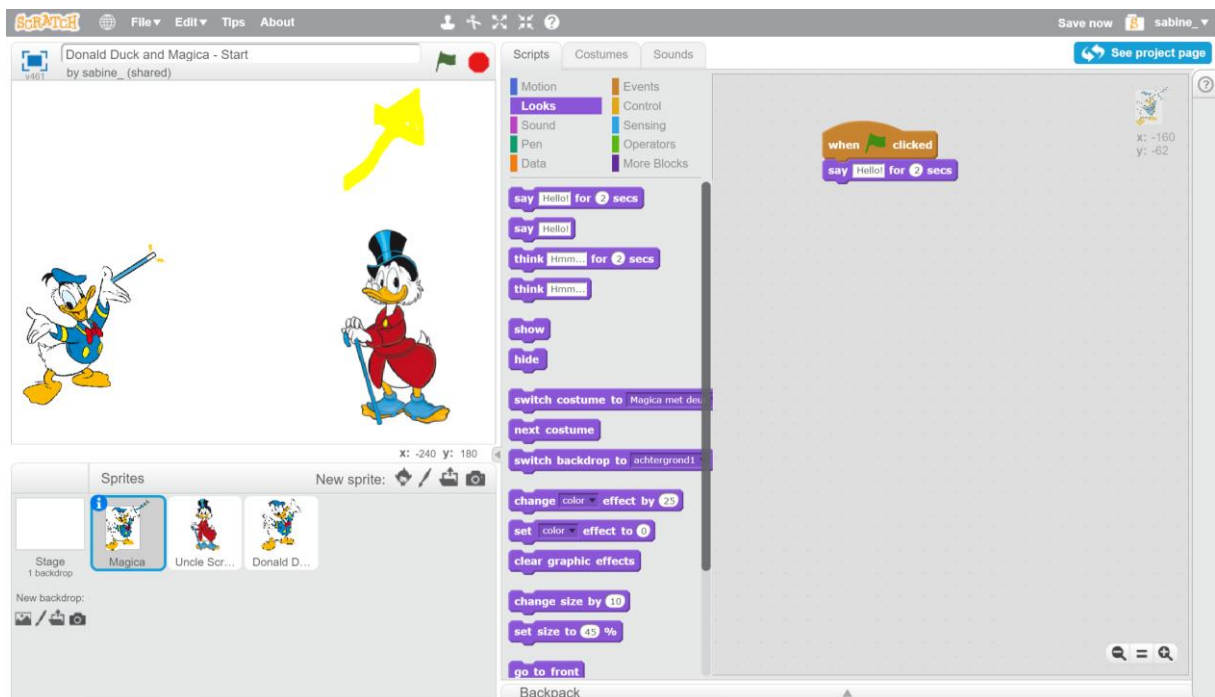
We will start the story by clicking the green flag.

The block , tells you *when* something is happening.

Something is happening, when the green flag is clicked. Now… something needs to happen still.

Donald / Magica will say something.

Go to and click on . Paste this underneath .

Try it out by clicking the green flag! You can find this green flag to press, where the highlighted yellow arrow is pointing at.

What is Magica/Donald saying?

Exactly! The sprite only says "Hello". Change the text in "Hi, uncle Scrooge!", just as in the cartoon on the first page. You can do this by clicking the "Hello" in the purple block, in your grey coding area.

The next sentence occurring in this story, is a sentence by Scrooge Duck. He says: "Donald, what's that in your hand? It looks like a…"

Go to the blocks of Scrooge. As you can see, these are all empty still, which is correct!
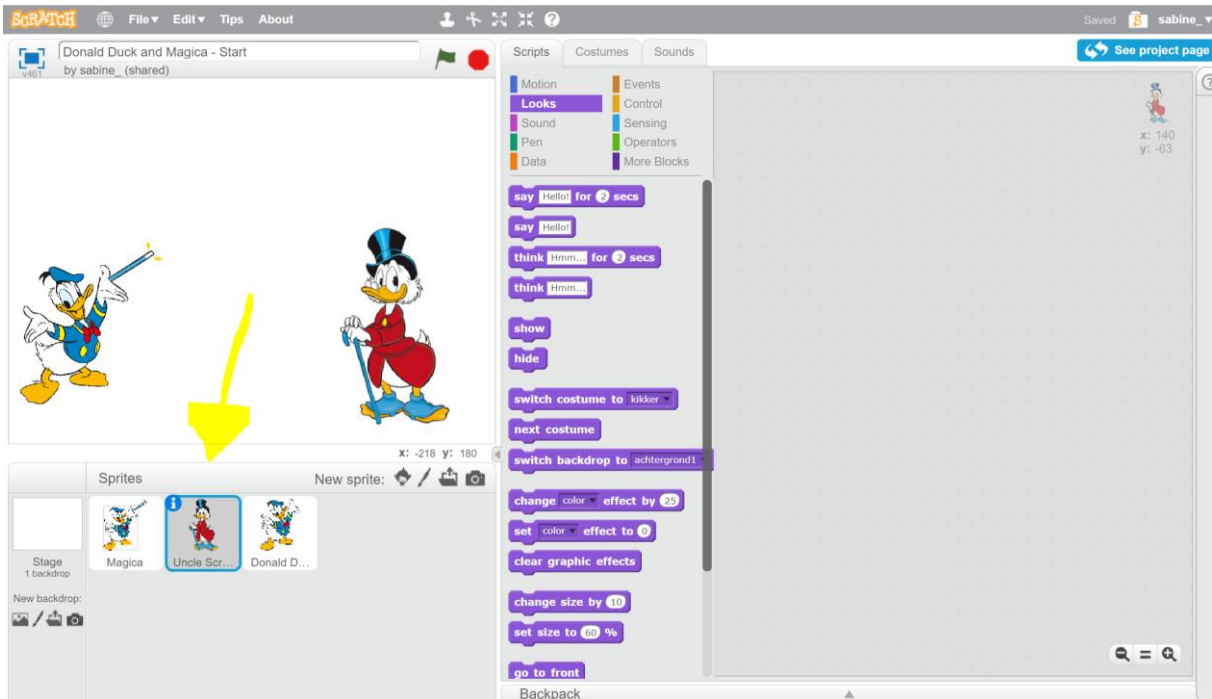

Let's program this together now.

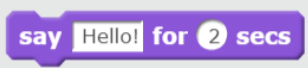Take a [when clicked] block again. Do you remember where to find this?

Scrooge first has to wait until Magica/Donald has finished talking. That will take 2 seconds, as you can see that Magica/Donald says something for 2 seconds.

Take a [wait 1 secs] at the [Control] section.

Change the wait-time into 2 seconds. This way, everything goes in a nice sequence.

It would look like this:
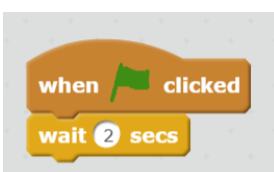
Now, we have to put a **say Hello! for 2 secs** block there.
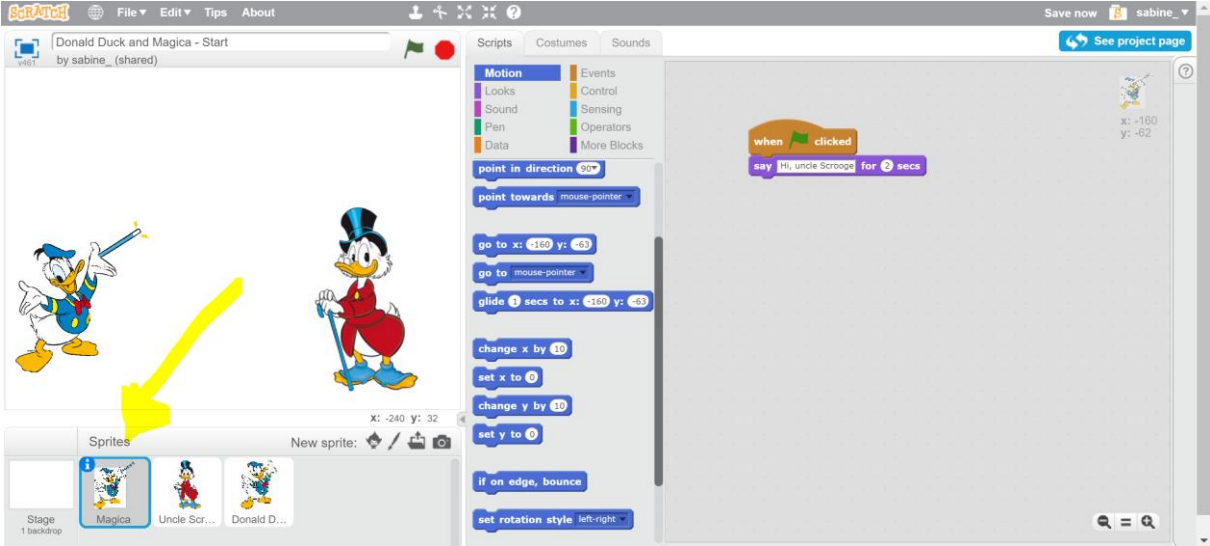
Will you enter the correct text in there?

Uncle Scrooge says: "Donald, what is that in your hand? That looks like a…."

Metamorphose!

What's happening in the story now? Have a look again at the comic strip on one of the first pages. Donald changes into Black Magica!

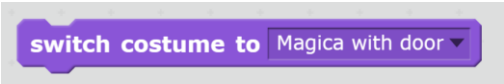We can also program this in Scratch.

Go back to the Donald/Magica sprite:

First, you have to wait for a but, as Scrooge was in the middle of his sentence..

Get a **wait 2 secs** block now at the bottom. Go back to **Looks**. And let's get a new block!

Look for this block:

(*Please be aware that this is in Dutch. "Zwarte Magica" is the Dutch name for Magica de Spell.*

Press this twice. What is happening now?

Look! Donald becomes Magica!

(It can be that it changes in a different form of Magica de Spell. To change it in the good version, pick "Magica de Spell" at where the yellow arrow is pointing at).

That's amazing! Only, in the beginning she has to be Donald… We can change her back by again clicking the tiny triangle, to where the yellow arrow in the picture above is pointing at.

With that, you can set it back to Donald. Try this out by double clicking on this block.

Everything set back to normal?

Let's paste everything together in the right order.
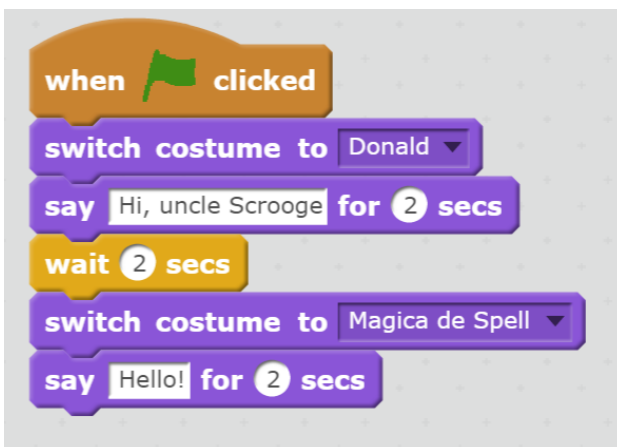
Only the last "Hello" is incorrect of course. Will you add the correct text in that last block? Go back to the comic strip in the beginning of this document to see what sentence this needs to be.

Magica says three sentences in a row, see the story below. They've been highlighted.

Will you program these into the Scratch program?

If you don't know how to do this, then you can sneak peak the answer on the next page.

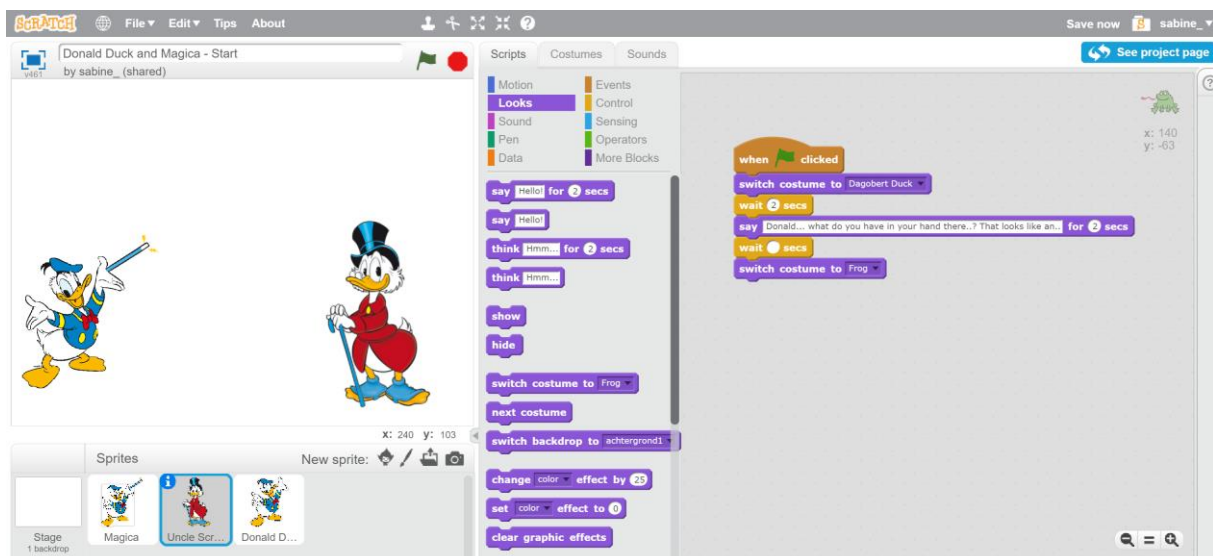Did you manage? It should be something like this:
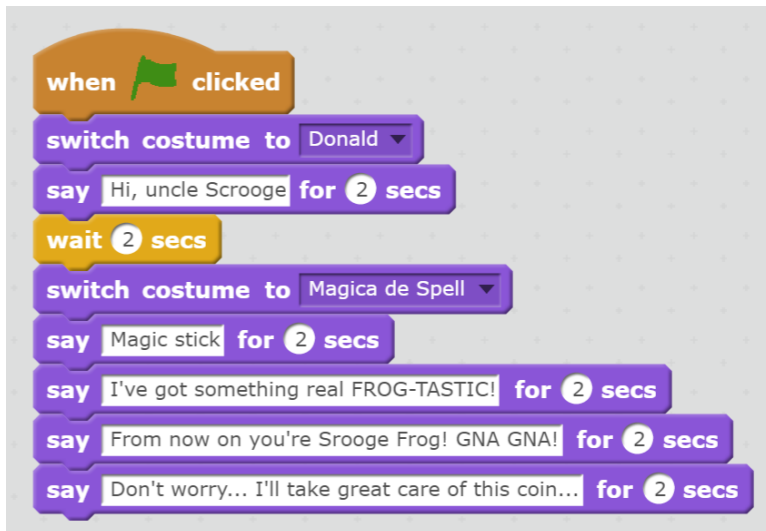
A frog

In this story, Scrooge is also changed into a frog. Let's code that now!

Have a close look again at the story. What does Magica say when Scrooge is being transformed into a frog?

Then, Scrooge has to say something as well! Go to Scrooge's code, and put these blocks over there:
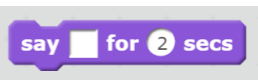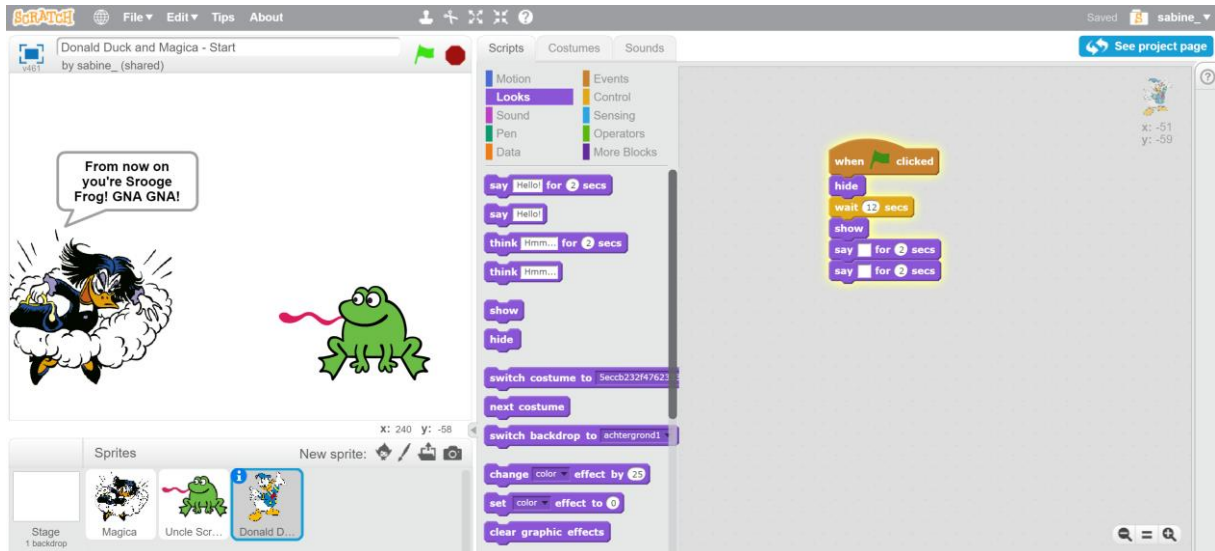

There's only no number in the block. You have to fill this in! Think about this thoroughly, or try a few numbers to see which one is correct..
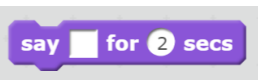
Did it work? Also, make Scrooge say "N-no!" the moment he's about to be transformed into a frog.

And there's Donald!

Now, the real Donald Duck enters the story. We will also code that into Scratch.

Go to Donald Duck, and create these blocks for him:

Only the blocks are still empty. What does Donald say when he walks in? And after that?

Fill this in, in Scratch!

Now, three other sentences occur in this story:

- Scrooge says: "Thanks, cousin! But how do I get back into my old looks?!"
- Donald: "This princess asks 1000 dollars for a kiss, uncle Scrooge!"
- Scrooge says: "Way too expensive… NEXT!!"

Will you correctly code everything into Scratch?

Count thoroughly how long the sprites have to wait for each other in order for them to not speak before their turn.

Below, you can find the correct blocks and some extra assignments.

If done correctly, you have coded the following blocks:

Well! That was the story. But… I bet you can come up with a lot more.

- Will Scrooge change back to normal again? How?
- Will Magica go back to her witch house?
- Will Donald receive a reward?

Think of someone! You can do it.

Nicely coded!