

Event Handling

What is Event Handling

Allows for separate scripts (blocks of instructions) to begin and end execution based on the broadcasting of message from other scripts.

Multiple Active Sprites

When there are multiple actively running scripts, then each script can control a different sprite on the screen.

There also be scripts that do not control a sprite, but cause a change of costume, or background. A script can also control any background music used.


Broadcasting Events

An event is generated when the green flag is clicked on in Scratch. Thus, the instruction



is an instruction that “catches” the generated event.

Simultaneously Executing Scripts

A program may contain a number of (independent) scripts that all should begin at the start of the program. In that case, each script would begin with the same  instruction.

Simultaneously Executing Scripts (cont.)



```
when clicked
say Welcome to My Program for 2 secs
ask What's your name? and wait
set name to answer
```

A Scratch script starting with a yellow 'when clicked' block. It contains three stacked blocks: a purple 'say' block with the text 'Welcome to My Program' and a duration of '2 secs', a blue 'ask' block with the text 'What's your name?' and 'and wait', and an orange 'set' block with 'name' as the variable and 'answer' as the value.

Starts program



```
when clicked
repeat until jumpyJazz = Stop
set volume to 50 %
play sound JumpyJazz until done
```

A Scratch script starting with a yellow 'when clicked' block. It contains three stacked blocks: a yellow 'repeat until' block with the condition 'jumpyJazz = Stop', a purple 'set volume to' block with the value '50 %', and a purple 'play sound' block with the sound name 'JumpyJazz' and the option 'until done'.

Starts background music

Simultaneously Executing Scripts (cont.)

However, in some cases, a script is not supposed to start until something specific happens in the program.

In that case, a currently active script broadcasts a message that causes an inactive script to become active.

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