

# Gesture Commands

A **gesture** is a **sequence of touch events**, done with one or more fingers. To simulate a single or multi-touch gesture, a set of gesture commands are provided by SeeTest Extension.

A gesture consists of one or more event sequences (paths), where each path is executed with a different finger.

 Supported by iOS devices only

The general structure for gesture is as follows (in pseudo-code):

## General Structure of Commands

```
// tells the client we want to perform a gesture
gestureStartBuilding(...);

// path 1 - add commands for the first simulated finger
gestureTouchDown...;
gestureTouchMove...;
gestureWait...;
gestureTouchUp...;

// path 2 - add commands for the second simulated finger
gestureTouchDown...;
gestureTouchUp...;

// identify elements and perform the gesture on the device
gesturePerform...;
```

A few points to note:

1. To start a set of gesture commands, we need to execute `gestureStartBuilding()` first.
2. All gesture steps will be performed when executing `gesturePerform()`.
3. Each gesture command is given a finger index. Index is any integer.
4. Events can be performed on elements, given by any identification method, or by coordinates.
5. Paths start executing at the same time. i.e., path 1 and path 2 from the above example will start executing at the same time.

## StartMultiGesture

### Description

Indicate to SeeTest that the following commands sent from the client are grouped under the multi gesture step.

## PerformMultiGestureStep

### Description

Takes the steps added since the last `StartMultiGesture` command till this command and sends them to the device.

At this step, the elements used in different commands will be identified, for example an element identified with `xpath` in native zone.

## MultiTouchDown

### Description

Adds a touch down event on the given element, with the given finger index.

## Parameters

Name	Value	Description
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Zone	String <ul style="list-style-type: none"> <li>• NATIVE</li> <li>• WEB</li> <li>• TEXT</li> </ul>	Select Zone
Element	Integer	Select Element
Index	Integer	Element index
FingerIndex	Integer	finger index - distinguishes between paths.

## MultiTouchDownCoordinate

### Description

Adds a touch down event on the given coordinate, with the given finger index.

### Parameters

Name	Value	Description
X-Coordinate	Integer	the x coordinate for the touch point
Y-Coordinate	Integer	the y coordinate for the touch point
FingerIndex	Integer	finger index - distinguishes between paths.

## MultiTouchMove

### Description

Adds a move event to the given element, with the given finger index.

The move will start from the last point touched down or moved to.

### Parameters

Name	Value	Description
Zone	String <ul style="list-style-type: none"> <li>• NATIVE</li> <li>• WEB</li> <li>• TEXT</li> </ul>	Select Zone
Element	Integer	Select Element
Index	Integer	Element index
FingerIndex	Integer	finger index - distinguishes between paths.

## MultiTouchMoveCoordinate

### Description

Adds a move event to the given coordinate, with the given finger index.

The move will start from the last point touched down or moved to.

### Parameters

Name	Value	Description
X-Coordinate	Integer	the x coordinate for the touch point
Y-Coordinate	Integer	the y coordinate for the touch point
FingerIndex	Integer	finger index - distinguishes between paths.

## MultiTouchUp

### Description

Touch up from the last point touched down or moved to.

### Parameters

Name	Value	Description
FingerIndex	Integer	finger index - distinguishes between paths.

## MultiClick

### Description

Adds a click on the given element, with the given finger index.

### Parameters

Name	Value	Description
Zone	String <ul style="list-style-type: none"> <li>NATIVE</li> <li>WEB</li> <li>TEXT</li> </ul>	Select Zone
Element	Integer	Select Element
Index	Integer	Element index
FingerIndex	Integer	finger index - distinguishes between paths.

## MultiClickCoordinate

### Description

Adds a click one the given coordinate, with the given finger index

### Parameters

Name	Value	Description
X-Coordinate	Integer	the x coordinate for the touch point
Y-Coordinate	Integer	the y coordinate for the touch point
FingerIndex	Integer	finger index - distinguishes between paths.

## MultiSwipe

### Description

Performs a swipe across the screen in the given direction, with the given finger.

## Parameters

Name	Value	Description
Direction	String	Direction of the swipe motion.
Offset	Integer	Swipe offset (in pixels).
Time	Integer	Overall swipe time
FingerIndex	Integer	finger index - distinguishes between paths.

## MultiWait

### Description

Adds a wait, with the given finger.

## Parameters

Name	Value	Description
Direction	String	Direction of the swipe motion.
Offset	Integer	Swipe offset (in pixels).
Time	Integer	Overall swipe time
FingerIndex	Integer	finger index - distinguishes between paths.

## Examples

### Gesture Commands

```
DesiredCapabilities dc = new DesiredCapabilities();
driver = new IOSDriver(new URL("<EXPERITEST_URL>"), dc);
seetest = new SeeTestClient(driver);
dc.setCapability(MobileCapabilityType.UID, "<deviceid>");

...
seetest.launch("com.apple.Maps", false, false);
// finger 0
seetest.startMultiGesture("test");
seetest.multiTouchDownCoordinate(200,600, 0);
seetest.multiTouchMoveCoordinate(250, 600, 0);
seetest.multiTouchUp(0);

// finger 1
seetest.multiTouchDownCoordinate(170,600, 1);
seetest.multiTouchMoveCoordinate(140, 600, 1);
seetest.multiTouchUp(1);

seetest.performMultiGesture();
```