	Titre	User Manual for SIPInjector		
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# 1. Importing the plugin

## 1.1. General parameters

After creating a new .xis file you have to import the plugin SIPInjector by selecting the « import » tab and clicking the « Add » button.

Then you have to set the plugin's fields. These fields are :

**Protocol Used by transport layer** : you can choose between tcp and udp protocols.

**Host's SIP User id** : It's the id of a user. It's used to create the SIP URI : « sip : *USER\_ID@Domain* »

**Host's SIP Domain** : It's the Domain used to create the sip URI (see before)

**server (registrar) IP Address** : It's the IP Address of the server or the registrar you want to contact.

**Your IP Address**: Your current IP address. (You can take it by doing a ipconfig on windows or ifconfig on Unix.)

**Request timeout in millisec** : Define the maximal time you want the injector to wait for a response to each request it sends.

**Your listening port**: define the port you want the sip stack to listen on.

**Server's listening port**: define the port the server is listening on

## 1.2. SDP parameters:

these parameters are crucial to make the test run.

### 1.2.1. Session description.

**a=**. Session attribute. Optional.

**c=**. Connection information. Optional.  
Not required if included in all media.

**o=**. Owner/creator and session identifier.

**s=**. Session name.

**v=**. Protocol version.

### 1.2.2. Time description.

**t=**. Time the session is active.

Media description.

**a=**. Session attribute. Optional.

**m=**. Media name and transport address.

## 2. Defining a Behavior

(cf `clif` User Manual)

## 3. Using the SIP primitives.

When you write an ISAC scenario using the SIPInjector plugin, you can observe that it offers sample and controls primitives.

### 3.1. Sample primitives

**bye** : Sends a BYE request and waits for a response. Can be used atomically or in a scenario.

**cancel**: Sends a CANCEL request and waits for a response. Can be used atomically or in a scenario.

**waitResponse**: doesn't send anything but waits for a response code. Must be used in a logical scenario (after an invite or a register). (non sense when used atomically)

### 3.2. Control primitives

**invite**: Sends an INVITE request and DOES NOT wait for a response. (In order to handle the response, you must use a `waitResponse` alone or in a while loop).

**register**: Sends a REGISTER request and DOES NOT wait for a response. (In order to handle the response, you must use a `waitResponse` alone or in a while loop).

**ack**: Sends an ACK request and DOES NOT wait for a response. (Ack does not provoke a response so it's non sense to try to handle the response).

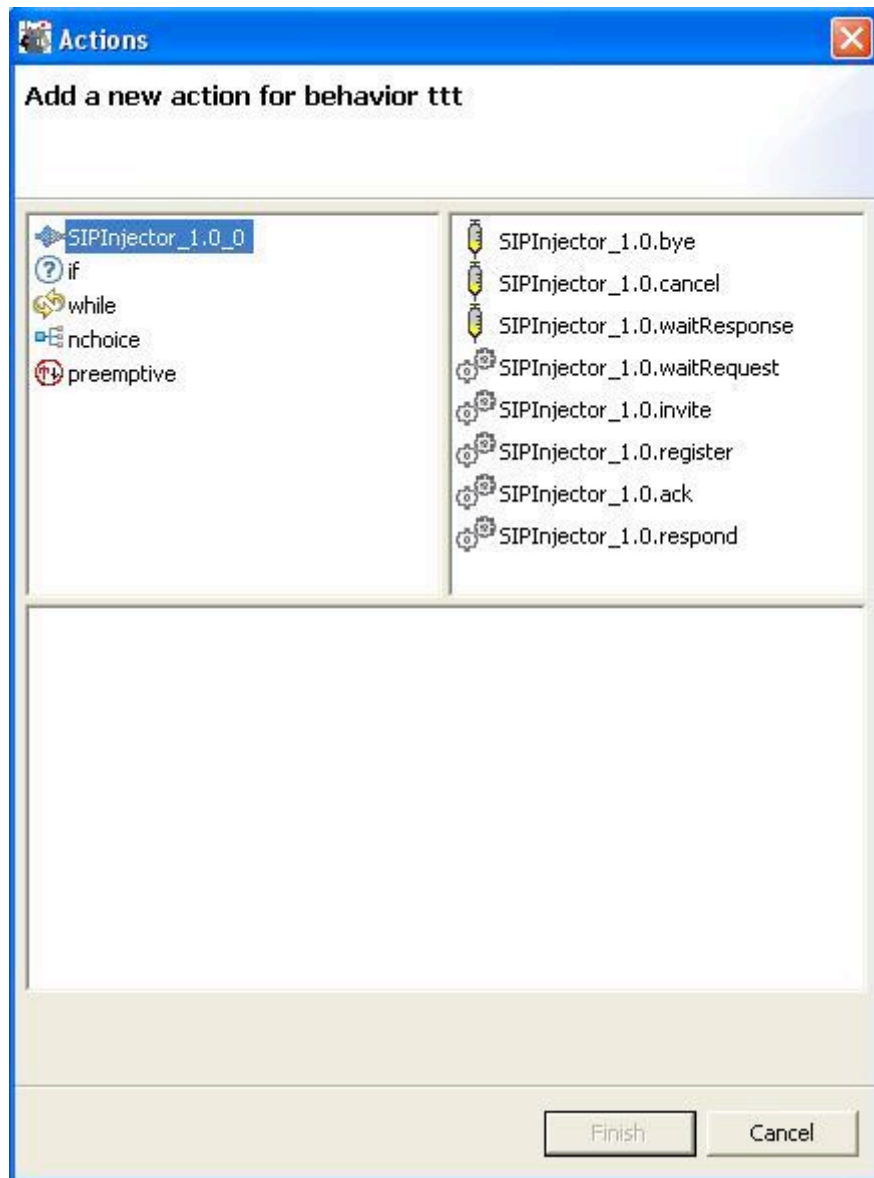
**waitRequest**: Similar to wait response, does not send anything but waits for a request.

**respond**: Sends a given response code (could be used after the handling of a request by `waitRequest`)

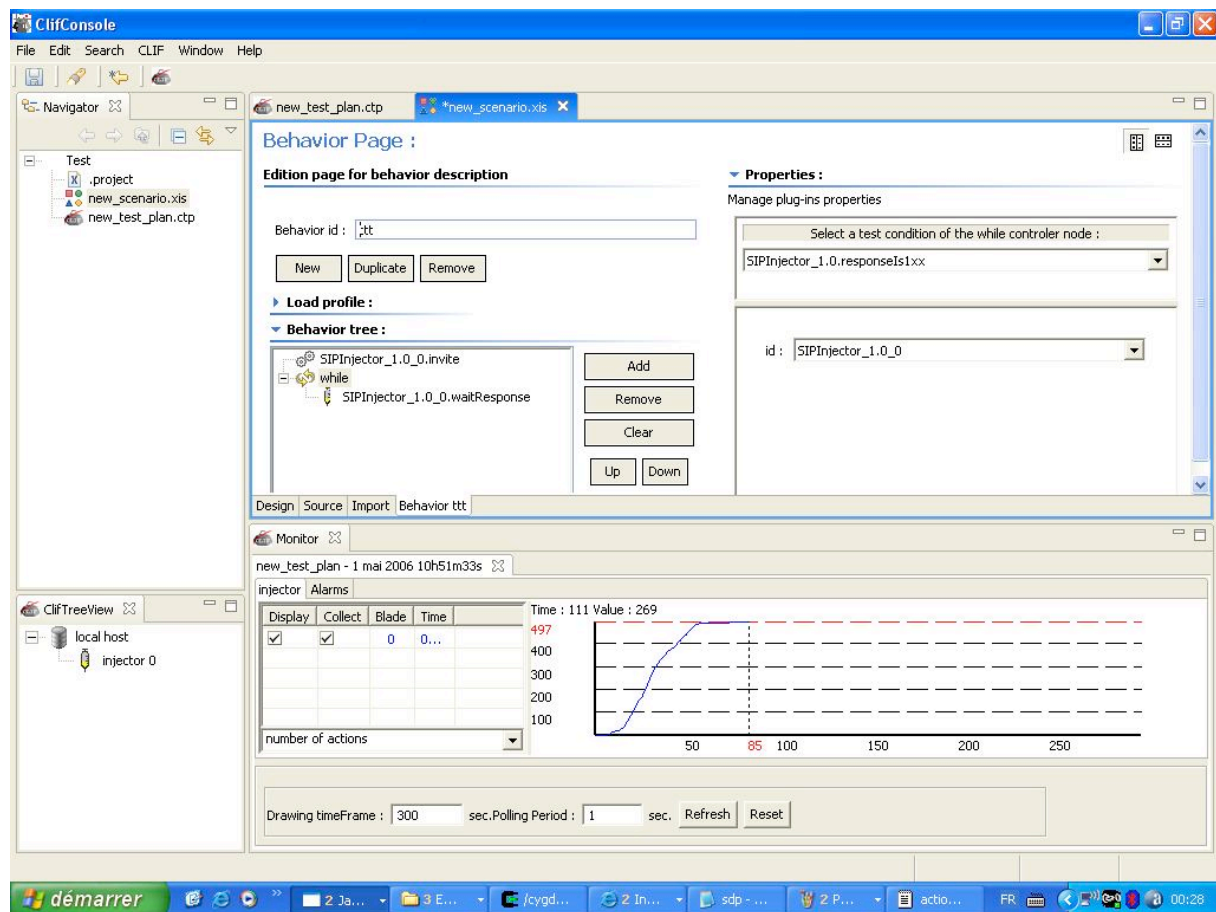
### 3.3. Test

SIPInjector also provides some test conditions. 7 testing the received responses and 5 testing the received requests: `responseIsXXX`. These conditions test if the last request WHICH WERE WAITING for a response received the response xxx. (The responses received when not waited are not written and can not be tested).

`requestIsXXXX`: these conditions test if the last request received (when waited) corresponds to XXXX. (Request, which arrived outside a `waitRequest` primitive, are not written and can not be tested).



**Figure 1: primitives offered by the plugin**



**Figure 2: a classical INVITE 1XX responses handling scenario**